Information Society Statistics - Ireland 2004

Published by the Stationery Office, Dublin, Ireland.

To be purchased from the:

Central Statistics Office, Information Section, Skehard Road, Cork,

Government Publications Sales Office, Sun Alliance House, Molesworth Street, Dublin 2,

or through any bookseller.

Prn 3966 Price €10.00 December 2004

© Government of Ireland 2004

Material compiled and presented by the Central Statistics Office.

Reproduction is authorised, except for commercial purposes, provided the source is acknowledged.

ISSN 1649-6272 ISBN 0-7557-1862-3

Contents

		Page
Chapter One	Introduction	5
Chapter Two	The ICT Sector in Ireland	7
Chapter Three	Use of ICT by Households	15
Chapter Four	Use of ICT by Enterprises	27
Chapter Five	International Comparisons	37
Appendix One	Data Sources	39
Appendix Two	Sectors in CSO Enterprise Surveys	41
Appendix Three	Key to NACE Rev. 1.1	43

Chapter One

Introduction

This is the CSO's second report on information society statistics. It contains results on how information and communications technologies (ICT) are being used in Ireland today, in the home and in business. The report draws on a number of data sources, including two surveys which provide information to monitor progress on the e-Europe 2005 Action Plan.

The household survey was incorporated into the Quarterly National Household Survey again this year, in June 2004. It included questions about home computing at household level and individual questions in respect of persons aged 16 to 74. The enterprise survey of e-commerce and ICT was conducted in March 2004. This survey covered enterprises with ten or more persons engaged, in industry and in a wide range of services sectors. The results of these surveys appear in Chapters 3 and 4 respectively.

Chapter 2 gives information on employment, turnover and value added in the ICT sector in Ireland while Chapter 5 presents some international comparisons.

Some of the key findings of this report on information society statistics are as follows:

- In 2002, the ICT sector employed 82,100 people and accounted for over 17% of total value added in Industry and Services.
- The ICT sector accounted for 22% (€49 billion) of total turnover in industry and services.
- An estimated 649,400 households (or 46.2%) had a home computer in June 2004. This compares to a figure of 582,800 (or 42.2%) in 2003.
- The number of homes with internet connections increased from 463,200 in 2003 to 537,000 in 2004.
- An estimated 1,489,200 people aged 16 to 74 have used a computer at some time while 1,198,800 have used the internet.
- An estimated 727,300 people use a computer every day or almost every day.
- An estimated 373,300 people in Ireland use the internet at least once a day.
- The most common internet purchases are travel and holiday accommodation.

- Virtually all businesses in Ireland use computers and have access to e-mail and the internet.
- The main purposes for which businesses use the internet are to search for information, to avail of banking and financial services, and to monitor markets.
- Businesses which have a website mainly use it to market their products and to make catalogues and price lists available.
- Sales using e-commerce accounted for just over a quarter of industrial turnover.
- Just over half of all businesses have made some purchases using e-commerce, though the percentage of total purchases made in this way is small.
- Virus checking or protection software was used by 83% of enterprises in 2004. The uptake of other computer security measures increased between 2003 and 2004.
- The number of businesses using broadband increased between 2003 and 2004, while the number of ISDN connections fell during the same period.

Chapter Two

The ICT Sector in Ireland

Tables 2.1 to 2.5 combine information from the Census of Industrial Production and the Annual Services Inquiry, to put the contribution of the ICT sectors in an overall context.

The ICT sectors employed 82,100 people in 2002, with 33,500 in ICT manufacturing and 48,600 in ICT services. The number employed in ICT manufacturing was 8,500 lower in 2002 than in 2001. ICT accounted for just over 13% of employment in manufacturing and 7% of employment in the service sectors. *See Table 2.1 and Appendix 2.*

Turnover in the ICT sector was €49 billion in 2002, 60% of this in manufacturing and 40% in services. ICT represented 22% of total turnover in the manufacturing and service sectors. Value added in the ICT sector, at €12 billion, accounted for about 17% of total value added in manufacturing and services.

Almost 90% of ICT enterprises and employment are located in the Southern and Eastern region. There were 73,600 persons engaged in the ICT sectors in the Southern and Eastern region in 2002, and 8,400 in the Border, Midland and Western region. *See Table 2.2 and 2.3.*

Some 58% of ICT manufacturing enterprises are Irish-owned and 42% foreign-owned. This compares with 87% Irish-ownership for industry as a whole. Irish-owned ICT manufacturing enterprises employed 5,200 people while foreign-owned enterprises employed 28,300 in 2002. Foreign-owned ICT manufacturing enterprises were on a larger scale with, on average, 292 persons engaged compared with an average of 38 employees for Irish-owned ICT manufacturers. See Table 2.4.

For ICT service enterprises, the balance between Irish and foreign ownership was different, with about 92% Irish-owned. These Irish owned enterprises had 27,400 persons in employment while foreign-owned enterprises employed 21,200 people. ICT service enterprises were generally smaller than those involved in manufacturing. Irish owned enterprises had an average of 8 employees compared with 69 persons employed in foreign-owned enterprises in this sector.

The activities making up the ICT sector are shown in Table 2.5. They include manufacture of office machinery and computers, manufacture of communications equipment, computer-related service

activities and the distribution and renting of office machinery and equipment. Other manufacturing activities covered include measurement and process-control equipment, reproduction of computer media and manufacture of insulated wire and cable. In many international publications and in the comparisons in Chapter 5, the reproduction of computer media is not included as ICT; this sector is included in this chapter as it makes a significant contribution to industry in Ireland.

Table 2.1 Contribution of ICT sector to Industry and Services

	Unit	2000	2001	2002
Ireland				
			ICT Total	
Number of enterprises	Number	2,947	4,171	4,133
Persons engaged	Number	93,722	90,713	82,060
Turnover	€ million	50,779	51,317	49,058
Gross value added	€ million	14,259	11,183	12,183
		ICT	Manufacturing	
Number of enterprises	Number	244	246	233
Persons engaged	Number	46,519	41,993	33,488
Turnover	€ million	35,315	34,098	29,449
Gross value added	€ million	8,126	6,814	5,700
		10	CT Services	
Number of enterprises	Number	2,703	3,925	3,900
Persons engaged	Number	47,203	48,720	48,572
Turnover	€ million	15,464	17,219	19,609
Gross value added	€ million	6,133	4,369	6,483
		To	otal Industry	
Number of enterprises	Number	4,873	4,870	4,996
Persons engaged	Number	268,634	264,198	253,842
Turnover	€ million	100,296	105,720	107,683
Gross value added	€ million	33,883	35,815	39,507
		To	otal Services	
Number of enterprises	Number	64,832	72,305	76,312
Persons engaged	Number	560,680	616,217	668,877
Turnover	€ million	90,726	102,489	114,544
Gross value added	€ million	24,204	25,082	30,163

Table 2.2 Contribution of ICT sector to Industry and Services
- Border, Midland and Western region

	Unit	2000	2001	2002
Border, Midland and Western region				
			ICT Total	
Number of enterprises	Number	311	436	481
Persons engaged	Number	12,611	12,105	8,437
Turnover	€ million	2,924	2,706	2,959
Gross value added	€ million	1,162	1,124	876
		ICT	Manufacturing	
Number of enterprises	Number	49	54	48
Persons engaged	Number	7,233	6,468	4,665
Turnover	€ million	2,113	1,908	1,314
Gross value added	€ million	665	649	227
		10	CT Services	
Number of enterprises	Number	262	382	433
Persons engaged	Number	5,378	5,637	3,772
Turnover	€ million	811	798	1,645
Gross value added	€ million	497	475	649
		To	otal Industry	
Number of enterprises	Number	1,397	1,382	1,405
Persons engaged	Number	75,462	66,371	63,473
Turnover	€ million	17,160	16,153	16,078
Gross value added	€ million	5,859	5,584	5,664
		To	otal Services	
Number of enterprises	Number	15,977	17,610	18,712
Persons engaged	Number	103,316	114,604	124,399
Turnover	€ million	12,278	13,359	16,461
Gross value added	€ million	2,820	3,371	3,972

Table 2.3 Contribution of ICT sector to Industry and Services

- Southern and Eastern region

	Unit	2000	2001	2002
Southern and Eastern region				
·			ICT Total	
Number of enterprises	Number	2,636	3,735	3,652
Persons engaged	Number	81,111	78,608	73,623
Turnover	€ million	47,855	48,612	46,099
Gross value added	€ million	13,096	10,060	11,308
		ICT	Manufacturing	
Number of enterprises	Number	195	192	185
Persons engaged	Number	39,286	35,525	28,823
Turnover	€ million	33,202	32,191	28,135
Gross value added	€ million	7,460	6,166	5,473
		10	CT Services	
Number of enterprises	Number	2,441	3,543	3,467
Persons engaged	Number	41,825	43,083	44,800
Turnover	€ million	14,653	16,421	17,964
Gross value added	€ million	5,636	3,894	5,835
		To	otal Industry	
Number of enterprises	Number	3,477	3,488	3,591
Persons engaged	Number	193,172	197,827	190,369
Turnover	€ million	83,135	89,568	91,605
Gross value added	€ million	28,024	30,231	33,844
		To	otal Services	
Number of enterprises	Number	48,855	54,695	57,601
Persons engaged	Number	457,364	501,613	544,477
Turnover	€ million	78,448	89,130	98,083
Gross value added	€ million	21,384	21,711	26,191

Table 2.4 ICT sector, total Industry and total Services by Nationality of Ownership, 2002

	Unit	Irish	Foreign	Total
			ICT Total	
Number of enterprises	Number	3,729	404	4,133
Persons engaged	Number	32,605	49,455	82,060
Turnover	€ million	5,289	43,769	49,058
Gross value added	€ million	2,315	9,867	12,183
		ICT	Manufacturing	
Number of enterprises	Number	136	97	233
Persons engaged	Number	5,202	28,286	33,488
Turnover	€ million	800	28,649	29,449
Gross value added	€ million	229	5,470	5,700
		I	CT Services	
Number of enterprises	Number	3,593	307	3,900
Persons engaged	Number	27,403	21,169	48,572
Turnover	€ million	4,489	15,120	19,609
Gross value added	€ million	2,086	4,397	6,483
		Т	otal Industry	
Number of enterprises	Number	4,346	650	4,996
Persons engaged	Number	137,626	116,216	253,842
Turnover	€ million	25,361	82,323	107,683
Gross value added	€ million	7,560	31,948	39,507
		Te	otal Services	
Number of enterprises	Number	74,695	1,617	76,312
Persons engaged	Number	574,691	94,186	668,877
Turnover	€ million	78,963	35,581	114,544
Gross value added	€ million	21,279	8,884	30,163

Table 2.5 Composition of the ICT sectors, 2002

NACE Division	Sector	Enterprises	Persons engaged	Turnover	Gross value added
		Number	Number	€million	€million
	ICT Total - Manufacturing and Services	4,133	82,060	49,058	12,183
	ICT Manufacturing	233	33,488	29,449	5,700
30	Manufacture of office machinery and computers.	68	14,230	16,065	1,442
32	Manufacture of radio, television and communication equipment and apparatus.	59	9,965	4,222	1,608
3320	Manufacture of instruments and appliances for measuring, checking, testing navigating and other purposes, except industrial process control equipment.	38	1,874	407	131
3330	Manufacture of industrial process control equipment.	16	328	48	8
2233, 3130	Reproduction of computer media, manufacture of insulated wire and cable.	52	7,091	8,707	2,511
	ICT Services	3,900	48,572	19,609	6,483
72	Computer and related activites.	3,189	22,211	6,611	2,618
5143, 5164, 5165, 6420, 7133	Wholesale of electrical household appliances, radio and television goods, office machinery and equipment, other machinery for use in industry, trade and navigation. Post and telecommunications. Renting of office machinery and equipment (including computers).	711	26,361	12,998	3,865

Chapter Three

Use of ICT by Households

In June 2004, an estimated 649,400 households in Ireland had a home computer, an increase of about 67,000 households since June 2003. This means that 46.2% of households had a home computer in 2004, compared with 42.2% in 2003. Internet access also increased over the same period, with 537,000 households (or 38.2% of the total) having access to the internet in June 2004. See tables 3.1 and 3.2.

These figures are based on the ICT module of the Quarterly National Household Survey, which examined household and individual use of computers.

Table 3.1 Main trends in household ICT use - 1998-2004

	1998	2000	2003	2004
All households ('000)	1,230.4	1,299.4	1,381.9	1,405.9
Households with home computers ('000) % of all households	229.3	422.0	582.8	649.4
	18.6	32.5	42.2	46.2
Households with computers connected to internet ('000) % of all households with home computers	61.2	266.0	463.2	537.0
	5.0	20.5	33.5	38.2
	26.7	63.0	79.5	82.7

At a regional level, 141,300 households (or 37.5% of the total) in the Border, Midland and Western region had a home computer in June 2004, compared to 125,400 households (or 34%) in June 2003. Computer ownership in the Southern and Eastern region increased from 457,500 households (45.2%) to 508,000 households (49.4%). *See table 3.2.*

Households with internet access increased from 96,700 to 114,000 in the Border, Midland and Western region. In the Southern and Eastern region the number of households with internet access increased from 366,600 to 423,100. The percentage with internet access is higher in the Southern and Eastern region, at 41.1%, than in the Border, Midland and Western region, at 30.3%. See table 3.3.

Households where two or more people were in employment continued to have significantly higher rates of computer ownership and internet access than those with one person or nobody in employment. See tables 3.2 & 3.3.

Just under half the population aged 16 to 74 have used a computer, while almost 1.2 million (or 40%) have used the internet. Age continued to be a significant factor in the numbers of people who have used a computer and in the numbers who have used the internet. Figures were very similar to last year's survey as 62.3% of persons aged between 16 and 34 have used a computer and 52.2% have used the internet. This compares to 12% of people aged 65 to 74 who have used a computer and 7.1% in that age group who have used the internet. See table 3.7.

Levels of both computer and internet usage remained highest among those in employment and among students. See table 3.7.

The most common place that people use a computer and the internet is at home, followed by the workplace. See table 3.8.

Looking at the frequency of computer usage over the previous three months, 727,300 people had used a computer every day or almost every day. During the same period, 373,300 people had used the internet at least once a day. See tables 3.8 and 3.9.

The most popular activities on the internet remained *Communication* (e-mail etc.) and *Information Search and Online Services* with 832,300 and 841,000 people using the internet for each of these activities respectively. *See table 3.12.*

Almost 352,000 people had received 'spam' or unsolicited e-mail in the previous 12 months. See table 3.11.

Of those people who have used the internet, 490,700 or almost 41% have ordered goods or services over the internet for private use. In the previous 12 months, the most popular types of goods and services ordered were *Travel and Holiday Accommodation* (210,000), *Books, Magazines and e-Learning Material* (96,000), *Films or Music* (89,800) and *Tickets for Events* (64,900). *See table 3.13*.

Table 3.2 Households with a home computer, June 2004

		All ho	All households		Number of households with a computer permanently in the dwelling	er of households with a con permanently in the dwelling	with a con le dwelling	puter	Percentage of households with a computer permanently in the dwelling	age of households with a co permanently in the dwelling	's with a co e dwelling	mputer
	1998	2000	2003	2004	1998	2000	2003	2004	1998	2000	2003	2004
	000,	,000	,000	,000	000,	,000	,000	,000	%	%	%	%
Regional Authority Border, Midland and Western	323.2	344.8	368.8	376.8	41.1	92.4	125.4	141.3	12.7	26.8	34.0	37.5
Southern and Eastern	907.2	954.6	1,013.2	1,029.1	188.2	329.6	457.5	508.0	20.7	34.5	45.2	49.4
Sex of reference person												
Male	608.0	586.3	581.3	610.3	121.2	197.5	250.4	285.0	19.9	33.7	43.1	46.7
Female	622.4	713.1	800.7	795.6	108.0	224.6	332.4	364.3	17.4	31.5	41.5	45.8
Age group of reference person												
16-24 years	53.2	64.5	60.3	74.5	7.4	17.3	23.7	26.1	14.0	26.8	39.3	35.0
25-34 years	218.6	234.2	236.5	233.7	42.2	77.6	110.7	105.7	19.3	33.1	46.8	45.2
35-44 years	266.3	284.8	301.5	338.4	75.4	134.0	180.7	205.8	28.3	47.1	6.69	8.09
45-54 years	238.1	245.6	262.3	307.4	0.89	113.8	143.6	178.9	28.6	46.3	54.7	58.2
55-64 years	172.4	186.3	220.0	257.7	26.3	55.3	84.1	92.8	15.2	29.7	38.2	37.2
65-74 years	281.7	283.9	301.3	194.2	10.0	24.0	40.0	37.1	3.5	8.5	13.3	19.1
ILO Economic Status of reference person												
In employment	627.7	691.5	721.1	789.5	160.9	295.7	394.7	443.9	25.6	42.8	54.7	299
Unemployed	49.4	26.3	33.2	54.7	9.9	6.2	10.6	19.8	13.3	23.4	31.9	36.2
Not economically active	553.2	581.6	627.6	561.7	61.8	120.1	177.5	185.7	11.2	20.7	28.3	33.1
No. of persons employed in household												
None	358.6	352.0	388.8	339.6	14.1	27.5	50.5	62.2	3.9	7.8	13.0	18.3
-	400.8	419.8	419.1	447.0	75.8	137.9	179.0	195.2	18.9	32.8	42.7	43.7
23	340.6	386.8	419.0	461.3	6.86	185.1	260.0	293.4	29.0	47.9	62.1	63.6
3 or more	130.3	140.8	155.0	157.9	40.5	71.5	93.3	98.5	31.1	50.8	60.2	62.4
All households	1,230.4	1,299.4	1,381.9	1,405.9	229.3	422.0	582.8	649.4	18.6	32.5	42.2	46.2

Table 3.3 Households with an internet connection via personal computer, June 2004

		All households	splode		Number of	Number of households with an internet connection via PC	ls with an i via PC	nternet	Percenta inten	Percentage of households with an internet connection via PC	seholds with tion via PC	ı an
	1998	2000	2003	2004	1998	2000	2003	2004	1998	2000	2003	2004
:	,000	,000	,000	000,	000,	000,	,000	,000	%	%	%	%
Regional Authority Border, Midland and Western Southern and Eastern	323.2 907.2	344.8 954.6	368.8 1,013.2	376.8 1,029.1	9.2 52.0	54.4 211.6	96.7 366.6	114.0 423.1	2.8	15.8 22.2	26.2 36.2	30.3 41.1
Sex of reference person Male Female	608.0 622.4	586.3 713.1	581.3 800.7	610.3 795.6	34.1	128.0 137.9	202.3 260.9	239.6 297.5	5.6 4.4	21.8 19.3	34.8 32.6	39.3 37.4
Age group of reference person												
16-24 years	53.2	64.5	60.3	74.5	2.1	9.5	17.6	19.0	3.9	14.3	29.2	25.5
25-34 years	218.6	234.2	236.5	233.7	14.0	51.2	9.98	86.3	6.4	21.9	36.6	36.9
35-44 years	266.3	284.8	301.5	338.4	19.4	84.7	141.3	167.1	7.3	29.7	46.9	49.4
45-54 years	238.1	245.6	262.3	307.4	16.6	72.9	117.9	150.5	7.0	29.7	44.9	49.0
55-64 years	172.4	186.3	220.0	257.7	8.9	34.0	69.5	83.2	3.9	18.3	31.6	32.3
65-74 years	281.7	283.9	301.3	194.2	2.3	14.1	30.2	30.9	0.8	2.0	10.0	15.9
ILO Economic Status of reference person												
In employment	627.7	691.5	721.1	789.5	44.8	191.8	323.0	371.6	7.1	27.7	44.8	47.1
Unemployed	49.4	26.3	33.2	54.7	1.3	3.3	9.1	16.4	2.6	12.5	27.4	30.0
Not economically active	553.2	581.6	627.6	561.7	15.1	70.8	131.1	149.0	2.7	12.2	20.9	26.5
No. of persons employed in household												
None	358.6	352.0	388.8	339.6	3.4	14.5	37.8	46.1	0.0	4.1	9.7	13.6
-	400.8	419.8	419.1	447.0	20.2	85.3	137.8	158.1	2.0	20.3	32.9	35.4
2	340.6	386.8	419.0	461.3	28.1	120.0	211.6	249.6	8.3	31.0	50.5	54.1
3 or more	130.3	140.8	155.0	157.9	9.6	46.1	75.9	83.2	7.4	32.7	49.0	52.7
All households	1,230.4	1,299.4	1,381.9	1,405.9	61.2	266.0	463.2	537.0	5.0	20.5	33.5	38.2

Table 3.4 Households classified by means of access to the internet, June 2004

	2003		2004	
	'000	%	'000	%
All households	1,381.9	100.0	1,405.9	100.0
with a computer connected				
to the internet	463.2	33.5	537.0	38.2
Other types of internet access				
- Handheld computer	17.7	1.3	13.5	1.0
- Television	14.4	1.0	4.5	0.3
- Mobile phone	31.1	2.3	33.7	2.4
- Games console	7.9	0.6	4.1	0.3
- Other means	3.9	0.3	2.9	0.2
All households with any internet access	490.8	35.5	557.4	39.7

Households could have multiple types of internet access. Hence the sum of the categories does not equal the total.

Table 3.5 Households classified by reasons for not having access to the internet at home, June 2004

	2003		2004	
	'000	%	'000	%
Reason				
Have access to internet elsewhere	96.3	10.8	121.7	14.3
Don't want internet (content harmful, not useful etc.)	335.8	37.7	326.0	38.4
Equipment costs too high	133.2	14.9	116.3	13.7
Access costs too high	75.6	8.5	73.8	8.7
Lack of skills	150.2	16.9	161.6	19.0
Language barriers	3.7	0.4	4.7	0.6
Physical disability	2.5	0.3	4.0	0.5
Privacy or security concerns	7.0	0.8	15.0	1.8
Other	261.8	29.4	173.2	20.4
All households without internet access	891.1	100.0	848.4	100.0

Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

Table 3.6 Number of households with ICT related appliances, June 2004

	2003		2004	
	'000	%	'000	%
Appliance				
TV	1,338.1	96.8	1,339.6	95.3
of which has:				
Satellite dish	215.8	15.6	320.3	22.8
Cable TV	577.5	41.8	586.2	41.7
Mobile phone	1,028.1	74.4	1,109.3	78.9
of which internet enabled mobile phone	156.6	11.3	172.5	12.3
Games console ¹	*	*	388.6	27.6
DVD player	461.4	33.4	734.0	52.2
Personal computer	582.8	42.2	649.4	46.2
Handheld computer	51.7	3.7	33.9	2.4
Car with a traffic navigation system	15.1	1.1	7.8	0.6
None of the above	16.4	1.2	6.2	0.4
All households	1,381.9	100.0	1,405.9	100.0

Households could have more than one appliance. Hence the sum of the categories does not equal the total.

This category was not included in the 2003 survey.

Table 3.7 Computer and internet usage for persons aged 16-74, June 2004

8 Southern and Eastern 759.2 784.9 Southern and Eastern 2,173.6 2,218.0 Southern and Eastern 2,173.6 2,218.0 Southern and Eastern 1,465.3 1,503.4 Female 16-24 years 632.3 650.2 35-44 years 55-64 years 55-64 years 55-64 years 65-74 years 1n employment 1,775.1 1,771.9 Unemployed 91.7 106.6	2003 '000 342.6 1,023.4 1,023.4 647.8 718.3 376.3	% 45.1 47.1 44.2 49.0		%	2003		2004		2003		7000	
onal Authority Border, Midland and Western 759.2 Southern and Eastern 2,173.6 Male 1,465.3 Female 1,467.4 16-24 years 624.4 25-34 years 632.3 35-44 years 632.3 35-64 years 632.3 55-64 years 632.0 65-74 years 787.0 66-74 years 967.0 66-74 years 967.0	÷"	% 45.1 47.1 44.2 49.0		%							4004	
onal Authority Ordal Authority Border, Midland and Western 759.2 Southern and Eastern 2,173.6 Male 1,465.3 Female 1,467.4 25-34 years 624.4 25-34 years 632.3 35-44 years 672.1 45-54 years 367.0 65-74 years 248.9 Economic Status 1,775.1 Unemployed 91.7 Unemployed 91.7	∓ ̃	45.1 47.1 44.2 49.0			,000	%	,000	%	000,	%	,000	%
Southern and Eastern 2,173.6 Male 1,465.3 Female 1,467.4 16-24 years 624.4 25-34 years 632.3 35-44 years 632.3 55-64 years 632.3 55-64 years 632.3 56-74 years 632.0 65-74 years 1,775.1 Unemployed 91.7	÷	47.1 44.2 49.0		47.9	238.5	31.4	288.4	36.7	116.0	15.3	90.6	11.5
Male 1,465.3 1, Female 1,465.3 1, Female 1,467.4 1, 16-24 years 624.4 25-34 years 632.3 35-44 years 572.1 488.0 55-64 years 65-74 years 1,775.1 In employment 91.7		44.2	1,113.3	50.2	862.4	39.7	910.3	41.0	497.9	22.9	422.2	19.0
Male 1,465.3 1, Female 1,467.4 1, 16-24 years 624.4 1, 25-34 years 632.3 35.2 35-44 years 572.1 488.0 55-64 years 367.0 367.0 65-74 years 248.9 248.9 Economic Status 1,775.1 1, In employment 91.7 1, Unemployed 91.7 1,		44.2										
Female 1,467.4 1, 16-24 years 624.4 25-34 years 25-34 years 632.3 372.1 45-54 years 572.1 488.0 55-64 years 367.0 66-74 years 65-74 years 248.9 Economic Status 1,775.1 1, In employment 91.7 Unemployed 91.7		49.0		48.3	543.5	37.1	596.2	39.7	326.9	22.3	274.4	18.3
16-24 years 624.4 25-34 years 632.3 35-44 years 572.1 45-54 years 367.0 65-74 years 367.0 Economic Status 1,775.1 1, Unemployed 91.7			763.7	6.09	527.5	38.0	602.5	40.2	287.0	19.6	238.4	15.9
16-24 years 624.4 25-34 years 632.3 35-44 years 572.1 45-54 years 367.0 65-74 years 248.0 65-74 years 248.9 Economic Status 1,775.1 1, Unemployed Unemployed 91.7												
632.3 572.1 488.0 367.0 248.9 1,775.1 1,		60.3	404.3	63.2	311.8	49.9	337.4	52.8	163.0	26.1	163.8	25.6
572.1 488.0 367.0 248.9 1,775.1 1,		59.3		9.19	325.9	51.5	336.4	51.7	135.2	21.4	105.1	16.2
488.0 367.0 248.9 1,775.1 1,		54.2	328.0	56.2	241.6	42.2	268.7	46.0	104.7	18.3	94.5	16.2
367.0 248.9 1,775.1 1,		38.5	221.0	44.6	140.3	28.8	166.9	33.7	94.7	19.4	68.7	13.9
248.9 1,775.1 1, 91.7		24.1	105.2	27.6	61.8	16.8	71.4	18.8	65.7	17.9	52.5	14.6
1,775.1 1		11.5	30.5	12.0	19.5	7.8	17.9	7.1	50.5	20.3	25.2	10.0
1,775.1 1												
91.7		53.4	1,013.2	57.2	774.8	43.6	838.0	47.3	396.6	22.3	325.4	18.4
	35.5	38.7	40.7	38.2	26.3	28.7	30.6	28.7	21.4	23.3	21.9	20.5
Not economically active 1,065.9 1,124.5		36.0	435.4	38.7	299.9	28.1	330.2	29.4	195.8	18.4	165.5	14.7
Principal Economic Status												
At work 1,703.8 1,708.2		52.9	979.0	57.3	732.0	43.0	806.3	47.2	381.8	22.4	302.8	17.7
Unemployed 117.2 125.6	44.5	38.0	33.4	56.6	36.2	30.9	26.6	21.2	24.2	20.6	22.0	17.5
Student 302.6 338.0		72.5	244.0	72.2	189.3	62.6	216.8	64.1	73.8	24.4	86.0	25.4
Home duties 533.9		28.8	164.6	30.8	101.8	20.0	102.8	19.3	78.0	15.3	63.4	11.9
Retired 190.9 194.3	36.3	19.0	43.8	22.5	25.6	13.4	28.3	14.6	35.6	18.6	18.9	9.7
Other 102.9		16.9	24.4	23.7	16.2	15.0	18.1	17.6	20.5	19.0	19.8	19.2
All nersons aged 16-74 2 932 8 3 002 9	1.366.0	46.6	1 489 2	49.6	1 101 0	37.5	1 198 8	39.9	613.9	909	512.8	17.1
2,305.0		2		2		;		2.20	?:>:>	2.24)	

This table is generated from a sub-sample of the QNHS and hence the results differ from the main QNHS results.

Table 3.8 Use of computers classified by training activities, frequency and location of use, June 2004¹

		'000
	2003	2004
Computer-related training course		
In the last 12 months	278.7	263.3
More that one year ago	503.6	563.7
Never	583.7	662.2
All persons who have ever used a computer	1,366.0	1,489.2
Frequency of use in the previous 3 months		
Every day or almost every day	667.5	727.3
At least once a week (but not every day)	324.5	367.0
At least once a month (but not every week)	107.0	102.5
Less than once a month	60.2	40.8
Location of use in the previous 3 months ²		
Home	759.0	835.3
Place of work (other than home)	591.3	625.6
Place of education	166.8	202.7
Other places	58.5	59.8
All persons who used a computer in the previous 3 months	1,159.4	1,237.6

¹ There were some changes to the questionaire in the 2004 survey. Details are available from the CSO.

Table 3.9 Use of internet in the previous three months, classified by frequency, location and duration of use, June 2004¹

		'000
	2003	2004
Frequency of use		
At least once a day	342.3	373.3
At least once a week (but not every day)	384.3	446.8
At least once a month (but not every week)	115.8	137.7
Less than once a month	53.4	48.6
Location of use ²		
Home	610.5	674.5
Place of work (other than home)	381.0	437.8
Place of education	110.1	144.4
Public library	24.2	27.8
Community/voluntary organisation	4.1	1.5
Internet café	39.4	32.5
Neighbour, friend or relative's house	39.5	35.4
Other	12.6	10.0
Average hours per week		
1-4	503.9	614.5
5-9	123.3	141.1
10-29	144.9	146.3
30-49	40.5	22.7
50+	39.2	18.2
Hours not stated	44.4	63.7
All persons who used the internet in previous 3 months	896.2	1,006.4

There were some changes to the questionaire in the 2004 survey. Details are available from the CSO.

² Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

² Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

Table 3.10 Security precautions taken on the internet in the previous 3 months, June 2004

		'000
	2003	2004
Installing a virus checking program	168.2	275.9
Updating a virus checking program	179.5	293.4
Using online authentication	167.2	211.2
Installed or upgraded hardware or software firewall ¹	*	134.9
No security precautions taken	554.4	487.8
All persons who used the internet in previous 3 months	896.2	1,006.4

Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

Table 3.11 Security problems encountered on the internet in the previous 12 months, June 2004

persons who used the internet in previous 12 months	1,003.8	1,110.8
No security problems encountered	870.3	635.9
Spam - unsolicited emails sent to you ¹	*	351.7
Abuse of personal information sent on the internet	24.6	19.6
Fraudulent payment (credit or debit) card use	6.7	11.8
Computer virus resulting in loss of information or time	117.3	275.0
	2003	20
		- 00

Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

¹ This category was not included in the 2003 survey.

¹ This category was not included in the 2003 survey.

Table 3.12 Activities on the internet in the previous 3 months, June 2004

Table 3.12 Activities on the internet in the previous 5 mo		'000
	2003	2004
Communication	749.5	832.3
Sending and receiving e-mails	736.1	820.2
Telephoning/video conferencing	59.3	58.6
Other (use of chat sites etc.)	116.2	75.6
Information search and on-line services	760.2	841.0
Finding information about goods and services	620.5	659.3
Travel and accommodation	483.3	536.9
Web radio/web television	72.2	77.0
Playing/downloading games, images and or music ¹	127.3	144.1
Reading /downloading newspapers or magazines	144.5	160.1
Looking for a job/sending job applications	140.4	98.4
Purchasing, selling or banking	367.5	450.5
Internet banking	237.9	314.7
Other financial services	48.7	49.4
Purchasing/ordering goods/services	191.3	239.6
Selling goods or services	33.6	20.3
Interaction with public authorities	346.2	423.8
Obtaining information from web sites	283.2	340.9
Downloading official forms	193.7	260.0
Sending completed forms	144.1	190.4
Training and education	235.9	294.0
Formalised educational activities	179.6	208.6
Post educational courses	59.2	66.5
Other employment-related educational courses	100.2	108.6
Health-related activities	198.5	175.4
Seeking health information	190.8	167.9
Seeking medical advice from a practitioner	12.9	4.8
Making an appointment with a practitioner	11.9	4.5
Requesting a prescription	9.3	2.6
All persons who used the internet in previous 3 months	896.2	1,006.4

Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

The results are subject to sampling error, which has a relatively larger effect on small estimates and annual trends.

1 In 2003 this category was ' Playing/downloading games and or music'

Table 3.13 Purchases¹ on the internet, June 2004

	'000
Value of goods purchased in last 3 months	
€1-€49	58.1
€50-€99	38.8
€100-€199	54.7
€200-€499	67.1
€500-€999	35.3
€1000-€1499	18.4
€1500-€1999	4.1
€2000+	16.6
Value not stated	20.7
Payment by debit/credit card	
Yes	437.2
No	51.6
Types of goods and services ordered in last 12 months ²	
Food/groceries	17.1
Films/music	89.8
Books/magazines/e-learning material	96.0
Clothes/sports goods	21.6
Computer software	18.1
Computer hardware	18.7
Electronic equipment	18.6
Share purchases/financial services/insurance	5.9
Travel and holiday accommodation	210.0
Tickets for events	64.9
Lotteries/betting	2.9
Other	40.0
Problems encountered ²	
Uncertainty concerning guarantees	13.2
Delivery slower than indicated	17.4
Delivery costs higher than indicated	6.1
Final price higher than indicated	8.6
Wrong goods delivered	7.7
Damaged goods delivered	1.5
Lack of security of payments	5.3
Complaints and redress difficult	6.4
No satisfactory response after complaint	11.3
Other	38.6
None	386.5
All persons who have ever purchased on the internet	490.7

¹ Purchases includes both purchasing and ordering of goods and services. There were some changes to the questionaire in the 2004 survey and the results are not comparable with the corresponding table in the 2003 report.

² Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

Table 3.14 Reasons for not purchasing via the internet, June 2004

Tubic 6.14 Treasons for not puronasing the the internet, our		'000
	2003	2004
Reason		
Have no need	301.1	401.1
Prefer to shop in person	153.8	201.5
Security concerns	44.8	46.2
Force of habit	24.2	22.8
Privacy concerns	12.7	11.6
Too expensive	11.6	15.2
Trust concerns	10.4	6.1
Problematic to receive ordered goods at home	7.2	3.2
Other	54.1	79.4
All persons who have never purchased via the internet	544.0	708.1

Respondents could give more than one response to this question hence the sum of the categories does not equal the total.

¹ Purchases includes both purchasing and ordering of goods and services.

Chapter Four

Use of ICT by Enterprises

Virtually all enterprises use computers in one way or another today: 98% in industry and 95% in services, according to the March 2004 e-commerce / ICT survey. The majority also use e-mail and the internet while 60% of enterprises reported that they have a website or homepage, a very slight increase from 2003. These figures refer to enterprises with ten or more persons employed. *See Tables 4.4. and 4.5.*

The survey reports an increased usage of broadband for connecting to the internet in the past year. The percentage of enterprises using xDSL connections doubled from 9% in 2003 to 18% in 2004, while 14% of enterprises reported using broadband connections other than xDSL. As a consequence of the increased uptake of broadband, the percentage of enterprises using ISDN fell from 45% in 2003 to 39% in 2004. See Tables 4.4 and 4.5.

The use of IT security measures by enterprises increased significantly in 2004 with higher reported usage of secure servers, firewalls, offsite data backup and authentication mechanisms. Virus checking or protection software was used by 83% of enterprises in 2004. See *Tables 4.4 and 4.5*.

The main reasons given by businesses for using the internet (as a consumer) were Searching for information, Banking and financial services and Market monitoring. The same top three reasons were given in industry and services. The top two reasons for providing a website were Marketing the enterprise's products and Facilitating access to product catalogues and price lists – again with a similar pattern in industry and services. See Tables 4.4 and 4.5.

The survey found that more enterprises are conducting transactions via e-commerce than in 2003, with 37% of enterprises in industry selling goods using e-commerce, and such sales accounting for over a quarter of turnover. EDI (Electronic Data Interchange) accounted for 40% of e-commerce sales. In the services sector, 37% of businesses also had sales via e-commerce, representing about 14% of turnover. EDI had a smaller share of e-commerce in the services sector. *See Table 4.6 and 4.7*.

Over half of all businesses purchase some goods using e-commerce. However, the percentage of total purchases completed in this way is still small, increasing from 5% in 2003 to 6% in 2004. See Table 4.6 and 4.7.

Businesses were also asked to rate the importance of possible barriers to e-commerce. The top concerns for those already selling on-line were whether customers were ready to shop on-line and security problems concerning payments. For those not selling on-line, the main barrier they perceived was that their products were unsuitable for on-line sales. *See Figures 4.1 and 4.2*.

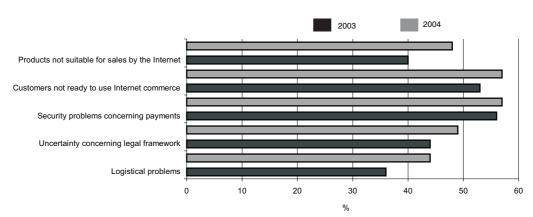
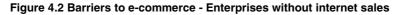
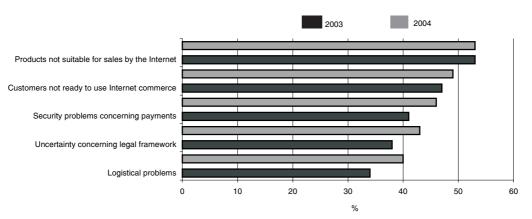


Figure 4.1 Barriers to e-commerce - Enterprises with internet sales





Some statistics on computer use have also been collected in the CSO's main annual surveys of industry and services. The results for 2002 show that industrial enterprises had adopted the internet earlier than service enterprises, with 70% of all industrial enterprises having e-mail, compared with 34% in the services sector. Similarly, while 41% of industrial businesses had a website, less than 14% of services enterprises had one. Enterprises with 10 or more employees reported higher usage of e-mail and website technologies. See Table 4.1.

Tables 4.2 and 4.3 contain information on the number of respondents in the e-commerce / ICT survey and other background information. The background figures are based on the latest

estimates available and are subject to revision on the basis of more detailed figures collected in the Census of Industrial Production and the Annual Services Inquiry.

Appendices 2 and 3 contain details of the industrial and services sectors used in this chapter.

Table 4.1 Use of ICT by enterprises, 2000-2002

	Persons engaged	Total enterprises	With E-mail	With Website	With orders via e-commerce ¹	Total turnover	Of which: % of turnover by e-commerce ¹
		Number	%	%	%	€million	%
Industry							
2000	3-9	1,779	47.2	20.2	11.9	1,030	0.7
	10+	3,094	80.3	47.3	19.1	99,265	20.1
	Total	4,873	68.2	37.4	16.5	100,296	19.9
2001	3-9	1,832	53.6	23.8	14.8	1,088	1.6
	10+	3,038	83.1	50.6	25.4	104,632	20.6
	Total	4,870	72.0	40.5	21.4	105,720	20.4
2002	3-9	1,940	51.0	22.0	12.7	1,160	0.7
	10+	3,056	81.4	52.8	21.7	106,523	20.0
	Total	4,996	69.6	40.9	18.2	107,683	19.8
Services							
2000	1-9	58,729	32.5	11.5	6.1	20,465	0.9
	10+	6,103	63.0	36.8	14.0	70,261	4.5
	Total	64,832	35.4	13.9	6.8	90,726	3.7
2001	1-9	65,180	36.6	12.9	7.1	25,384	1.4
	10+	7,126	67.0	39.0	16.8	77,105	7.1
	Total	72,305	39.6	15.5	8.1	102,489	5.7
2002	1-9	67,025	29.3	10.1	4.0	23,467	0.4
	10+	9,287	65.1	39.5	15.4	91,076	7.1
	Total	76,312	33.7	13.7	5.4	114,544	5.7
Industry a	and Services						
2000	1-9*	60,508	32.9	11.8	6.3	21,495	0.9
	10+	9,197	68.8	40.3	15.7	169,526	13.6
	Total	69,705	37.7	15.5	7.5	191,022	12.2
2001	1-9*	67,012	37.1	13.2	7.3	26,472	1.4
	10+	10,164	71.8	42.5	19.4	181,737	14.9
	Total	77,176	41.6	17.0	8.9	208,209	13.2
2002	1-9*	68,965	29.9	10.4	4.2	24,627	0.4
	10+	12,343	69.1	42.8	17.0	197,599	14.1
	Total	81,309	35.9	15.4	6.2	222,227	12.5

^{*} Industrial enterprises with less than three persons engaged not included.

¹ E-commerce includes e-mail, EDI and internet.

Table 4.2 Background statistics on the enterprise ICT survey by sector - March 2004

		Manufacturir	turing sectors	ors				Selected s	Selected services sectors	ctors			
	15-22	23-25	26-28	29-37	Total	50-52	50-52 55.1-55.2	60-63	64	70-71 73-74	72	Total	Total
Enterprises with 10 or more persons employed													
Number of respondents	461	194	224	436	1,315	553	121	110	34	398	61	1,277	2,592
Number of enterprises in population	1,185	352	518	828	2,913	3,134	582	484	64	1,417	231	5,912	8,825
Number of employees in population	83,291	32,675	22,751	83,078	221,795	172,947	30,888	44,547	16,007	77,772	14,851	357,013	578,808
Total purchases (EUR m)	24,231	15,998	2,098	25,818	68,145	45,619	574	4,818	1,940	3,309	3,679	59,938	128,083
Total turnover (EUR m)	36,927	31,305	3,466	31,548	103,245	55,789	1,555	7,028	3,920	7,614	5,589	81,495	184,740

Table 4.3 Background statistics on the enterprise ICT survey by size class - March 2004

	Size	Size class (persons engaged)		
	10-49	50-249	250+	Total
Enterprises with 10 or more persons employed				
Number of respondents	1,700	739	153	2,592
Number of enterprises in population	6,750	1,679	396	8,825
Number of employees in population	149,370	165,465	263,973	578,808
Total purchases (EUR m)	27,654	29,344	71,085	128,083
Total turnover (EUR m)	33,227	49,401	102,112	184,740

Table 4.4 Main results of enterprise ICT survey, as percentage of all enterprises - March 2003 and 2004

	_	Manufacturing sectors	s	Selected services sectors	ectors	Total	
		2003	2004	2003	2004	2003	2004
Enterprises with 10 or more persons engaged	No. %	2,982 100	2,913 100	5,899 100	5,912 100	8,881 100	8,825
Using a computer (%) Using e-mail (%) Using internet (%) With website or homepage (%)		97 8 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	625 625 625 636 636 636 636 636 636 636 636 636 63	94 83 84 85	95 87 90 59	98 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	96 89 92 60
Type of external connection to the internet							
Enterprises using modem Enterprises using ISDN Enterprises using xDSL(adsl,sdsl,etc.) Enterprises using other broadband connection ¹ Enterprises using wireless connection		8 8 0 * 4	36 24 35 36 36 37	35 43 11 5	34 20 13 7	& 4 & & & * 4	35 39 4 + 6 30 30 30 40 30 30 30 30 30 30 30 30 30 30 30 30 30
Purposes of using the internet (as consumer)							
Market monitoring Receiving digital products Obtaining after sales services Banking and financial services Information search Training and education		38 4 8 8 8 7 1 1 8 8 7	35 26 37 17 27 27 27	36 20 17 59 73	33 20 15 65 73	37 22 17 17 60 60 75	33 15 67 76 22
Purposes of using the internet (as provider)							
Marketing the enterprise's products Facilitating access to catalogues and price lists Customised page for repeat clients Delivering digital products Providing after sales support Other		200000000000000000000000000000000000000	50 27 6 6 10 8	47 23 7 5 10	47 27 7 6 10	24 24 6 6 10 6	48 27 6 6 0 10
Security facilities used							
Secure servers		33	37	33	98	88	37
Firewalls		31	26	3.5	23	31	54
Encryption for confidentiality		12	Ξ	12	12	12	12
Offsite data backup		25	42	24	36	24	38
Authentication		6	22	6	20	о	20
Virus checking or protection software		*	88	*	81	*	83
1 Comment of the state of the s							

¹ Question not asked in this format in the 2003 survey.

Table 4.5 Main results of enterprise ICT survey, as percentage of all enterprises, by sector - March 2004

		Manufactur	turing sectors	ors				Selected services sectors	ervices sec	tors			
	15-22	23-25	26-28	29-37	Total	50-52	55.1-55.2	60-63	64	70-71 73-74	72	Total	Total
Enterprises with 10 or more persons engaged $^{\circ}_{\!$	1,185	352	518	858	2,913	3,134	582	484	64	1,417	231	5,912	8,825
	2	2	2) -	2	2	2) -	2) -	2)	2
Using a computer (%)	86	100	86	66	86	92	06	92	26	26	100	92	96
Using e-mail (%)	92	86	91	94	93	85	82	85	94	91	86	87	83
Using internet (%)	93	66	92	26	92	88	98	87	26	92	100	06	92
With website or homepage (%)	99	65	22	72	62	49	78	61	78	29	96	29	09
Type of external connection to the internet													
Enterprises using modem	39	30	37	33	36	39	41	26	22	26	10	34	35
Enterprises using ISDN	44	47	45	46	45	33	37	43	28	36	45	32	39
Enterprises using xDSL(adsl,sdsl,etc.)	17	16	12	13	15	16	13	18	28	31	32	20	18
Enterprises using other broadband connection	15	21	7	17	15	10	80	4	20	18	30	13	14
Enterprises using wireless connection	4	2	9	2	2	2	10	13	∞	6	12	7	9
Purposes of using the internet (as consumer)													
Market monitoring	33	36	30	40	35	28	47	33	33	33	228	33	33
Receiving digital products	8 6	200	5) T	800	90	17	: 7	. .	300	200	60	000	22
Obtaining offer colon consists	6 6	† ⁷	2 0	0 0	7 4	- 4	t c	<u> </u>	9 6	, 4 1	0 V	7 4	7 4
Obtaining arter sales services	1 -	1 -	0 6	70	2 1	<u>.</u> .		9 0	- 20	<u>.</u> 6	0 2		3 5
Banking and financial services	2	8 7	89	73		40	53	9/	S 63	9 0	8 4 6	00	9
Information search	``	 O	<u>.</u>	88	83	60	40	6/	80	84	93	5/	9/
Training and education	20	78	12	59	22	17	21	20	24	27	22	21	22
Purposes of using the internet (as provider)													
Marketing the enterprise's products	44	20	45	09	20	37	69	54	64	51	83	47	48
Facilitating access to catalogues and price lists	22	25	22	39	27	26	39	26	45	23	39	27	27
Customised page for repeat clients	9	က	က	80	9	4	10	80	16	80	19	7	9
Delivering digital products	7	2	7	9	2	4	က	7	တ	80	27	9	9
Providing after sales support	7	1	2	18	10	6	7	13	33	80	38	10	10
Other	7	6	9	10	80	2	4	7	∞	10	24	7	7
Security facilities used													
Secure servers	39	49	25	38	37	30	32	38	22	45	71	36	37
Firewalls	54	29	4	62	99	46	45	28	64	62	83	53	24
Encryption for confidentiality	7	15	4	13	7	10	12	80	21	13	34	12	12
Offsite data backup	44	20	35	42	42	31	21	31	63	20	71	36	38
Authentication	24	22	13	24	22	17	15	19	49	22	51	20	20
Virus checking or protection software	87	93	86	88	88	77	77	79	86	88	93	81	83

Table 4.6 Purchases and sales via e-commerce - March 2003 and 2004

	Manufacturing sectors	ectors	Selected services sectors	sectors	Total	
	2003	2004	2003	2004	2003	2004
Use of e-commerce for purchases						
by internet (as % of total enterprises)	41	53	38	48	39	20
by EDI (%)	9	16	တ	17	80	17
by internet or EDI (%)	43	22	43	54	43	22
Total value of purchases (EUR m)	67,302	68,145	61,871	59,938	129,173	128,083
Percentage of purchases by e-commerce	*	c	•	c	•	c
Internet (as % of total purchases)	- (N (– 1	n (_ •	. n
EDI (%)	Ø	7	_	9	4	4
Internet or EDI (%)	က	4	∞	თ	S	9
Use of e-commerce for sales						
by internet (as % of total enterprises)	21	27	21	29	21	29
by EDI (%)	13	19	7	16	တ	17
by internet or EDI (%)	30	37	25	37	27	37
Total value of turnover (EUR m)	108,625	103,245	82,121	81,495	190,746	184,740
Percentage of sales by e-commerce	;	,	9	Ć	,	,
Internet (as % of total turnover)	-	16	01	ກ	10	13
EDI (%)	12	Ξ	က	2	∞	80
Internet or EDI (%)	23	27	13	14	18	21

Table 4.7 Purchases and sales via e-commerce - March 2004

		Manufacturir	turing sectors	tors				Selected s	Selected services sectors	ctors			
	15-22	23-25	26-28	29-37	Total	50-52 5	55.1-55.2	60-63	64	70-71 73-74	72	Total	Total
Use of e-commerce for purchases	r T	r r	97	7,7	r S	-	7	7	e R	r r	ά	ζ	C Y
by EDI (%)	16	17	5 =	18	91	19	20	21	24	12	13	17	17
by Internet or EDI (%)	28	29	48	62	22	49	51	09	89	28	82	54	22
Total value of purchases (EUR m)	24,231	15,998	2,098	25,818	68,145	45,619	574	4,818	1,940	3,309	3,679	59,938	128,083
Percentage of purchases by e-commerce Internet (as % of total purchases)	-	Ŋ	~	2	2	ო	~	7	~	7	~	ю	ო
EDI (%) Internet or EDI (%)	4 73	0 20	0 -	7 0	0 4	8 1	0 -	0 4	0 -	0 /	0 -	ဖ ဂ	4 0
Use of e-commerce for sales	33	ر ح	06	90	7.0	ሪ ፕሪ	83	4	42	2	33	8	06
by EDI (%)	23	19	10	20	19	16	21	55	59	1 5	3 5	16	17
by Internet or EDI (%)	43	32	26	37	37	34	65	49	53	26	39	37	37
Total value of turnover (EUR m)	36,927	31,305	3,466	31,548	103,245	55,789	1,555	7,028	3,920	7,614	5,589	81,495	184,740
Percentage of sales by e-commerce	4	C	~	ć	4	7	C	ć	~	~	~	c	ć
Internet (as % of total turnover)	91 90) t	– u	32 4	2 ₹	0.	٥ ٥	۸ ۲	- c	- c		יו מ	<u>.</u> 0
EDI (%) Internet or EDI (%)	42		0 ~	37	27	9 9	о 0	27	→	→	- 2	o 4	21

Chapter Five

International Comparisons

Table 5.1 below compares the level of household access to computers and the internet in selected European States.

In 2003, Denmark had the highest level of access to home computing; almost 80% of households had a home computer and almost two thirds had internet access. The next highest rates of home computer ownership were in Norway (71%), the Netherlands (69%), and Germany (65%). In these countries and in the UK, more than half of households had access to the internet. In Austria, Finland, Luxembourg and the UK, more than half of all households had a computer. The percentage with internet access in Austria was 37%, in Finland 47% and in Luxembourg 45%.

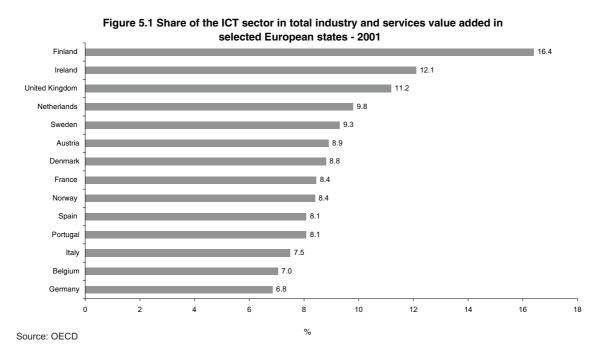
In Ireland, 42% of households had a home computer and 34% had access to the internet in 2003.

Table 5.1 Home computers and internet access in selected European states - 2003

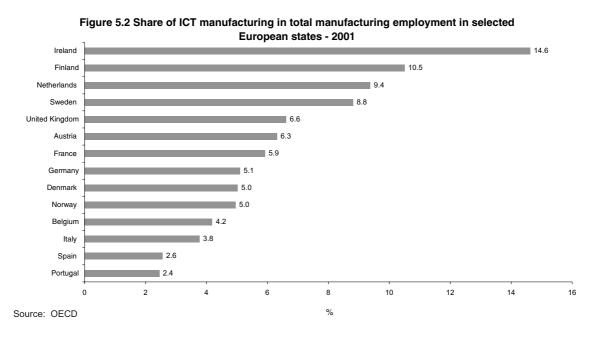
Country	Households with home computer	Households with internet access
	%	%
EU15	56	46
Eurozone	54	43
Selected European states:		
Denmark	79	64
Norway	71	60
Netherlands	69	59
Germany	65	54
United Kingdom	63	55
Luxembourg	58	45
Finland	57	47
Austria	51	37
Italy	48	42
Spain	47	
France	46	31
Ireland	42	34
Portugal	38	22
Greece	29	16
Lithuania	20	6

Source: Eurostat

Figures 5.1 and 5.2 illustrate the importance of the ICT sector in Ireland, in terms of value added and employment. In 2001, the ICT sector in Ireland contributed 12% of the total value added of the combined manufacturing and services sectors. Only Finland recorded a higher contribution (16%).



The ICT sector is also a major contributor to employment in industry and in services. In 2001, ICT industries accounted for 15% of all employment in manufacturing industry. This level for Ireland is higher than in any of the European states included in figure 5.2 below.



The surveys reported in Chapters 3 and 4 are being conducted throughout the EU and will provide more detailed international comparisons of ICT statistics.

Appendix One

Data Sources

Census of Industrial Production This Census is conducted annually by the CSO and covers all enterprises which are wholly or primarily engaged in industrial production and which have three or more persons engaged. The results cover mining, quarrying, manufacturing, electricity, gas and water supply. The information collected includes details of turnover, inputs, stocks, capital assets and employment. Since 1999, some questions on use of information technology have also been included. *Results from the Census of Industrial Production appear in Chapter 2 and Table 4.1.*

Annual Services Inquiry This is an annual inquiry to enterprises in the retail, wholesale, real estate, renting, business services and other selected sectors, i.e. covering NACE Rev. 1.1 sections G, K, H, O, I and J. It covers all size classes and the results are estimated from a sample of about a quarter of all enterprises in the relevant sectors. In most sectors, the information collected relates to turnover, inputs, stocks, capital assets and employment. This survey has also included some information technology questions since 1999. The results in this report include data for some sectors (guesthouse accommodation, taxi companies) which are not shown in the CSO Annual Services Inquiry reports. Results from the Annual Services Inquiry appear in Chapter 2 and Table 4.1.

Quarterly National Household Survey (QNHS) This is a continuous survey in which 3,000 households are interviewed each week to give a total sample of 39,000 households each quarter. The survey asks demographic and labour force questions, which are the basis for the CSO's quarterly labour force figures. The survey also includes modules on social and other topics from time to time. The module on home computing was included for the first time in June 2003 and repeated in June 2004. It included questions relating to the household and questions asked of each person aged 16 to 74. Full details of the questionnaire are available from the CSO. Similar, but less detailed, modules on home computing were included in the survey in Q3/1998 and Q4/2000. A module on teleworking was included in Q3/2002.

The June 2004 results are based on a sample of approximately 6,000 households. The grossing procedure aligns the distribution of persons covered in the sample with independently determined population estimates at the level of sex, five-year age group and region. The results are subject to sampling and other survey errors. Sampling errors have a relatively larger effect on smaller estimates and on the interpretation of some year-to-year trends.

There were some differences between the questionnaires used in the 2003 and 2004 ICT modules and these may affect comparability of the results. These are indicated in the tables. *Results from the QNHS module on Home Computing appear in Chapter 3.*

Enterprise Survey of e-commerce and ICT This survey was first conducted by the CSO in October 2002 and was repeated in March 2003. The results presented in this report are for the March 2004 survey. The survey covered manufacturing enterprises (with three or more employees) and enterprises with ten or more employees in a range of service sectors. Bars and restaurants were not surveyed. *The results for enterprises with 10 or more employees are included in Chapter 4.*

NACE Rev. 1.1 Classification This is the EU classification of economic activity. Information on the sections of NACE covered in the Census of Industrial Production, the Annual Services Inquiry and in the Enterprise Survey of e-commerce and ICT is shown in Appendix 2; while a detailed list of NACE divisions is given in Appendix 3.

International Comparisons The international comparisons in Chapter 5 are based on information from Eurostat and the OECD. More detailed information appears in some Eurostat releases and publications, and in the OECD report 'OECD Science, Technology and Industry Scoreboard 2003'.

e-Europe 2005 Action Plan The household (QNHS) and enterprise surveys on ICT will be repeated annually under EU Regulation (EC) No. 808/2004. These two surveys will be the source for harmonised statistics at EU level and for most of the statistical indicators concerning Ireland needed under the e-Europe 2005 Action Plan.

Appendix Two

Sectors in CSO Enterprise Surveys

NACE Rev. 1.1 Section and Divisions	Description	Census of Industrial Production	Annual Services Inquiry	E-commerce and ICT survey
C (10-14)	Mining and quarrying	✓		_
D (15-37)	Manufacturing	~		✓
E (40-41)	Electricity, gas and water	~		_
F (45)	Construction			_
G (50-52)	Wholesale; retail; repairs		V	✓
H (55)	Hotels, bars and restaurants		V	✓ ¹
I (60-64)	Transport, storage and communications		~	~
J (65-67)	Financial intermediation		\checkmark^2	✓ ²
K (70-74)	Real estate, renting and business activities		✓	✓
L (75)	Public administration and defence; social security		_	_
M (80)	Education		_	_
N (85)	Health and social work		_	_
O (90-93)	Other community, social and personal services		✓ ³	✓ ³
Size classes (persons engaged)				
1-2		_	✓	_
3-9		~	✓	~ ⁴
10 or more		~	~	V

 $^{^{\}rm 1}$ Hotels were included in the e-commerce/ICT survey; bars and restaurants were not included.

² The information collected on Financial Intermediation is in a different format from other sectors and is not included in this report.

The sectors covered under this heading relate to recreation (cinemas, sport events etc.) and to personal services (hairdressing etc.). These sectors have not been included in Tables 4.2 to 4.7.

⁴ Manufacturing enterprises with 3 or more employees were included in the e-commerce/ICT survey. The results for this survey in Chapter Four are for enterprises with 10 or more persons employed.

Appendix Three

Key to NACE Rev. 1.1

Industry - Divisions 10 to 41

- 10* Mining of coal and lignite; extraction of peat
- 11* Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying
- 12* Mining of uranium and thorium ores
- 13* Mining of metal ores
- 14* Other mining and quarrying

Manufacturing - Divisions 15 to 37

- 15 Manufacture of food products and beverages
- 16 Manufacture of tobacco products
- 17 Manufacture of textiles
- 18 Manufacture of wearing apparel; dressing and dyeing of fur
- Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
- 20 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
- 21 Manufacture of pulp, paper and paper products
- 22 Publishing, printing and reproduction of recorded media
- 23 Manufacture of coke, refined petroleum products and nuclear fuel
- 24 Manufacture of chemicals and chemical products
- 25 Manufacture of rubber and plastic products
- 26 Manufacture of other non-metallic mineral products
- 27 Manufacture of basic metals
- 28 Manufacture of fabricated metal products, except machinery and equipment
- 29 Manufacture of machinery and equipment n.e.c.
- 30 Manufacture of office machinery and computers
- 31 Manufacture of electrical machinery and apparatus n.e.c.

^{*}Not included in results of e-commerce/ICT survey.

- 32 Manufacture of radio, television and communication equipment and apparatus
- 33 Manufacture of medical, precision and optical instruments, watches and clocks
- 34 Manufacture of motor vehicles, trailers and semi-trailers
- 35 Manufacture of other transport equipment
- 36 Manufacture of furniture; manufacturing n.e.c.
- 37 Recycling
- 40* Electricity, gas, steam and hot water supply
- 41* Collection, purification and distribution of water
- 45* Construction

Services - Divisions 50 to 93

- 50 Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
- 51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
- 52 Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
- 55 Hotels and restaurants
 - 55.1 Hotels
 - 55.2 Camping sites and other provision of short-stay accommodation
 - 55.3* Restaurants
 - 55.4* Bars
 - 55.5* Canteens and catering
- 60 Land transport; transport via pipelines
- 61 Water transport
- 62 Air transport
- 63 Supporting and auxiliary transport activities; activities of travel agencies
- 64 Post and telecommunications
- 65 Financial intermediation, except insurance and pension funding
- 66 Insurance and pension funding, except compulsory social security
- 67 Activities auxiliary to financial intermediation
- 70 Real estate activities
- 71 Renting of machinery and equipment without operator and of personal and household goods
- 72 Computer and related activities
- 73 Research and development
- 74 Other business activities
- 75* Public administration and defence; compulsory social security
- 80* Education
- 85* Health and social work
- 90* Sewage and refuse disposal, sanitation and similar activities
- 91* Activities of membership organisations n.e.c.
- 92* Recreational, cultural and sporting activities
- 93* Other service activities

^{*}Not included in results of e-commerce/ICT survey.