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Chapter 1

Introduction

This is the CSO's sixth report on information society statistics. The report provides details from the CSO's Information and Communications Technology (ICT) surveys, complementary administrative data on ICT and summary information on the telecommunications sector in Ireland. Appreciation is again extended to ComReg for their assistance in providing the CSO with administrative data on telecommunications.

The report contains statistics on how ICT is being used in Ireland today, both in the home and in business. The data sources used in this report also provide information to monitor progress on the i2010 Initiative to create a European Information Society for Growth and Employment.

Chapter 2 gives the latest available information on employment, turnover and value added in the ICT sector in Ireland from the Census of Industrial Production and the Annual Services Inquiry. Chapter 3 presents results from the e-Commerce and ICT survey of enterprises conducted in March 2008, while the fourth chapter includes results from the household survey of ICT usage in the first quarter of 2008. It should be noted that the household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Chapter 5 focuses on the topic of "Connecting to the Internet" while the sixth chapter presents information on the Telecommunications sector. The final chapter presents some international comparisons.

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

The ICT Sector in Ireland

- Employment in the ICT sector increased from 82,700 in 2005 to 87,200 people in 2006 while turnover increased from €62.1 billion to €75.4 billion in the same period. *See Figure 2.1 and Table 2.1.*

- The ICT sector accounted for 24% of total turnover and 19% of gross value added in the industrial and services sectors. *See Table 2.2.*

- Foreign owned ICT Services enterprises (20+ persons engaged) represented 45% of all ICT Services enterprises (20+ persons engaged) in Ireland in 2006 but accounted for 88% of turnover and 89% of gross value added in the sector. In the ICT Manufacturing sector, foreign owned enterprises (3+ persons engaged) accounted for 39% of all ICT Manufacturing enterprises, 99% of turnover in this sector, and 98% of gross value added. *See Table 2.3.*

Use of ICT by Enterprises

- In 2008, virtually all enterprises in the manufacturing, construction and services used a computer and had access to the internet. *See Table 3.1 and Table 3.2.*

- While 85% of enterprises used the internet to obtain forms from public authorities, 68% of enterprises used the internet to return a completed form to a public authority. *See Table 3.1 and Table 3.2.*

- In 2008, 55% of enterprises made some purchases using e-Commerce (internet or EDI purchases), while 25% of enterprises had e-Commerce sales. *See Table 3.3.*

Use of ICT by Households

- Over 1 million households had a home computer in the first quarter of 2008. This compares to 745,000 in the third quarter of 2005. Seventy three percent of households in the Southern and Eastern region owned a computer compared to 63% in the Border, Midlands and Western region. *See Table 4A and Table 4.1.*

- In excess of 92% of persons aged 16-24 have used a computer, while 31% of those aged 65-74 indicated that they had used a computer. *See Table 4.3.*

- More than 1.5 million people indicated that they used a computer every day or almost every day while almost 513,000 indicated that they used a computer at least once a week. *See Table 4.4.*

- The most common purchases on the internet in 2008 were *Travel and holiday accommodation* and *Tickets for events*. *See Table 4.7.*

Connecting to the Internet

- In the first quarter of 2008, over 62% of all households had a computer connected to the internet while almost 69% of all households with a computer connected to the internet had a broadband connection to the internet. *See Table 5A.*

- Twenty seven percent of households in the Border, Midlands and Western region had a broadband connection in the first quarter of 2008 compared to 49% of households in the Southern and Eastern region. *See Table 5B.*

- Broadband usage for enterprises was 83% in 2008 compared to 68% in 2007. *See Table 5.3.*

Telecommunications

- Total revenue in the Telecommunications and Broadcasting sectors decreased from €4.54 billion in 2007 to €4.52 billion in 2008, a decrease of 0.5%. *See Figure 6.1 and Table 6.1.*

- The mobile penetration rate* (including HSDPA) continued to increase and was 121% in 2008 compared to 118% in 2007. *See Table 6.2.*

**Based on active SIMS as a percentage of the total population*

- There were almost 870,000 digital television (satellite and digital cable) subscribers in the second quarter of 2008 compared to 233,000 analogue cable subscribers in the same period. *See Table 6.3.*

International Comparisons

- In 2008, 63% of Irish households had access to the internet at home. This was greater than the EU27 average of 60% in the same period. *See Table 7.2.*
- Eighty three percent of enterprises in Ireland had broadband access in 2008, compared to the EU27 average of 81% in the same period. *See Table 7.3.*
- Of those Irish households with internet access at home, 68% indicated that they had a broadband connection. This compares to an EU27 average of 80%. *See Table 7.4.*
- More than 1,365 SMS messages were sent per head of population in Ireland in 2006. This is amongst the highest rates in the EU. *See Table 7.5 and Figure 7.1.*

Chapter 2

The ICT Sector in Ireland

Introduction

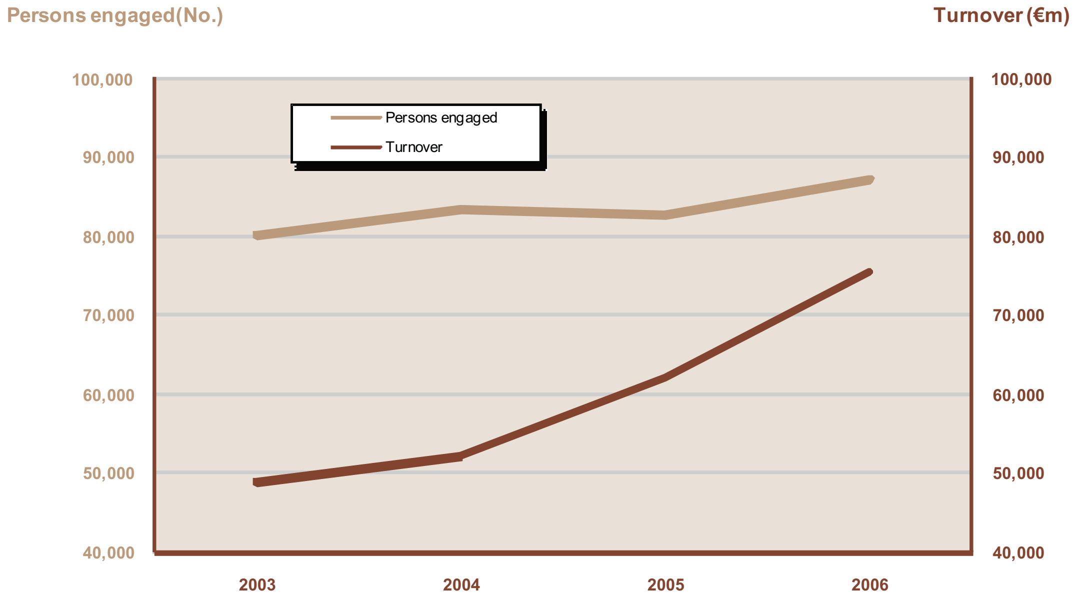
The ICT sector employed almost 87,200 people in 2006, an increase of over 4,400 compared to 2005. The sector represented 8% of total persons engaged in industry and services. The ICT manufacturing sector had 28,600 persons engaged and accounted for over 12% of persons engaged in industry, while 58,500 were engaged in ICT services, accounting for 7% of persons engaged in services. *See Tables 2.1 and 2.2.*

While the ICT sector accounted for 6% of the total number of enterprises and 8% of total persons engaged in industry and services, it contributed 24% of total turnover in the sectors. In the ICT sector overall, total turnover was €75.4 billion in 2006. Almost 51% of this turnover was generated in manufacturing while 49% was generated in services. Value added in the ICT sector, at €15.5 billion, accounted for 19% of total value added in industry and services. *See Tables 2.1 and 2.2.*

The average ICT manufacturing enterprise had 173 persons engaged and had an average turnover of €230m. By contrast, ICT services sector enterprises tended to be smaller with an average persons engaged of 11 and an average turnover of €7m. *See Table 2.1.*

Figure 2.1 shows the trends in ICT sector persons engaged and turnover over the period 2003-2006. Between 2003 and 2006 the number of persons engaged in the sector rose from 80,100 to 87,200, an increase of almost 9%. Turnover in the sector increased from €48.9m to €75.4m over the same period. *See Figure 2.1.*

Figure 2.1 ICT sector: Persons engaged and turnover, 2003 - 2006



Source: CSO - Census of Industrial Production and Annual Services Inquiry

Nationality of Ownership

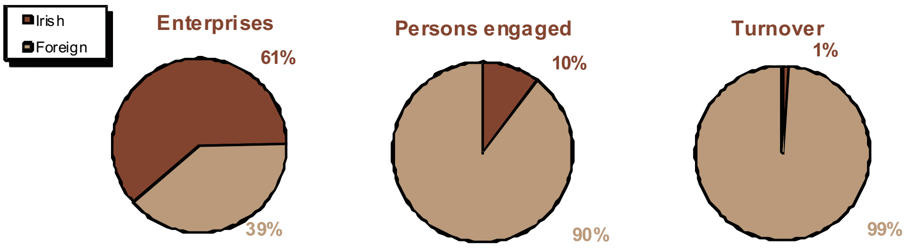
Some 61% of ICT manufacturing enterprises are Irish-owned while 39% are foreign-owned. This compares with 89% Irish ownership for industry as a whole. Irish-owned ICT manufacturing enterprises had 2,900 persons engaged in 2006 while foreign-owned enterprises had 25,700 persons engaged during the same period. Foreign-owned ICT manufacturing enterprises tended to be larger scale with, on average, 395 persons engaged, compared to an average of 29 persons engaged for Irish-owned ICT manufacturers. *See Tables 2.3 and 2.4.*

In the ICT services sector (20+ persons engaged), the balance between Irish and foreign ownership is less obvious, with 55% of enterprises Irish-owned. These Irish-owned enterprises had almost 10,750 persons engaged while foreign-owned enterprises had 32,800 persons engaged. Foreign-owned enterprises had an average of 195 persons engaged while Irish-owned ICT service enterprises had an average of 53 persons engaged. *See Tables 2.3 and 2.4.*

Output per person engaged, measured in terms of gross value added, was more than 5 times higher in foreign-owned ICT manufacturing enterprises compared with indigenous ICT manufacturing companies. The average GVA per person engaged in the foreign-owned enterprises was €290,100 compared with €53,000 in the indigenous enterprises. In the ICT services sector, the average GVA per person engaged of €190,800 in foreign owned enterprises was more than 2.6 times that of Irish owned enterprises.*See Table 2.3.*

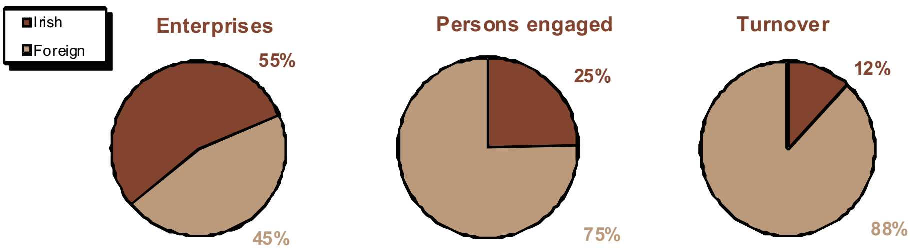
In 2006 foreign-owned enterprises accounted for 90% of the total employment and 99% of turnover in the ICT manufacturing sector. Similarly, in the ICT services sector, foreign-owned enterprises accounted for 75% of total employment and 88% of turnover. *See Figure 2.2 and Figure 2.3.*

Figure 2.2 Principal aggregates for the ICT Manufacturing sector by Nationality of Ownership 2006



Source: CSO - Census of Industrial Production

Figure 2.3 Principal aggregates for the ICT Services sector (20+ persons engaged) by Nationality of Ownership, 2006



Source: CSO - Annual Services Inquiry

Composition of the ICT sector

The ICT sector includes 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, the reproduction of computer media is not included as ICT. In this report this sector is included as it makes a significant contribution to industry in Ireland. This fact can therefore affect international comparisons. *See Table 2.5 and Chapter 7.*

Regional analysis

It should be noted that regional data for manufacturing is based on local units while regional data for services is based on enterprises. In 2006, over 15% of persons engaged in manufacturing local units in the Southern and Eastern (SE) region were working in ICT manufacturing local units, compared to just over 7% in the Border, Midland and Western (BMW) region. Similarly, while 8% of persons working in services enterprises in the SE region were engaged in ICT services enterprises, the corresponding figure for the BMW region was 3%. *See Tables 2.6 and 2.7.*

Table 2.1 Principal aggregates for ICT manufacturing and services sectors, 2003 - 2006

	Unit	2003	2004	2005	2006
ICT Manufacturing					
Number of enterprises	No.	216	183	166	166
Persons engaged	No.	30,791	30,004	27,883	28,646
Turnover	€m	30,051	32,299	33,950	38,195
Gross value added	€m	6,144	7,302	7,120	7,611
Average persons engaged per enterprise	No.	143	164	168	173
Average turnover per enterprise	€m	139.1	176.5	204.5	230.1
Average gross value added per enterprise	€m	28.4	39.9	42.9	45.9
Average gross value added per person engaged	€	199,539	243,368	255,353	265,705
ICT Services					
Number of enterprises	No.	4,226	5,100	4,924	5,236
Persons engaged	No.	49,307	53,415	54,858	58,514
Turnover	€m	18,851	19,821	28,171	37,175
Gross value added	€m	6,913	5,698	7,532	7,882
Average persons engaged per enterprise	No.	12	10	11	11
Average turnover per enterprise	€m	4.5	3.9	5.7	7.1
Average gross value added per enterprise	€m	1.6	1.1	1.5	1.5
Average gross value added per person engaged	€	140,203	106,678	137,296	134,703
Total ICT					
Number of enterprises	No.	4,442	5,283	5,090	5,402
Persons engaged	No.	80,098	83,419	82,741	87,160
Turnover	€m	48,902	52,120	62,121	75,370
Gross value added	€m	13,057	13,000	14,652	15,493
Average persons engaged per enterprise	No.	18	16	16	16
Average turnover per enterprise	€m	11.0	9.9	12.2	14.0
Average gross value added per enterprise	€m	2.9	2.5	2.9	2.9
Average gross value added per person engaged	€	163,013	155,842	177,080	177,758

Source: Census of Industrial Production and Annual Services Inquiry

Note: Data contains some revisions to previous years

Table 2.2 Total industry and services, 2003 - 2006

	Unit	2003	2004	2005	2006
Total Industry					
Number of enterprises	No.	4,995	4,684	4,418	4,620
Persons engaged	No.	244,237	235,489	230,984	233,298
Turnover	€m	109,308	112,373	119,428	125,270
Gross value added	€m	38,518	39,063	38,835	39,658
Total Services					
Number of enterprises	No.	83,277	85,284	83,988	91,292
Persons engaged	No.	713,116	736,969	740,419	823,898
Turnover	€m	125,622	142,263	164,624	183,266
Gross value added	€m	33,927	39,643	40,856	43,851
Total Industry and Services					
Number of enterprises	No.	88,272	89,968	88,406	95,912
Persons engaged	No.	957,353	972,458	971,403	1,057,196
Turnover	€m	234,930	254,636	284,052	308,536
Gross value added	€m	72,445	78,706	79,691	83,509
Total ICT as a % of Total Industry and Services[1]					
Number of enterprises	%	5.0	5.9	5.8	5.6
Persons engaged	%	8.4	8.6	8.5	8.2
Turnover	%	20.8	20.5	21.9	24.4
Gross value added	%	18.0	16.5	18.4	18.6

Source: Census of Industrial Production and Annual Services Inquiry

[1] Total ICT (Table 2.1) as a % of Total Industry and Services (Table 2.2)

Note: Data contains some revisions to previous years

Table 2.3 Principal aggregates for ICT manufacturing and services sectors by nationality of ownership, 2006

	Unit	Irish	Foreign	Total
ICT Manufacturing (3+ persons engaged)				
Number of enterprises	No.	101	65	166
Persons engaged	No.	2,948	25,698	28,646
Turnover	€m	443	37,753	38,195
Gross value added	€m	156	7,455	7,611
Average persons engaged per enterprise	No.	29	395	173
Average turnover per enterprise	€m	4.4	580.8	230.1
Average gross value added per enterprise	€m	1.5	114.7	45.9
Average gross value added per person engaged	€	53,002	290,105	265,705
ICT Services (20+ persons engaged)				
Number of enterprises	No.	204	168	372
Persons engaged	No.	10,741	32,799	43,540
Turnover	€m	3,919	28,882	32,801
Gross value added	€m	777	6,259	7,036
Average persons engaged per enterprise	No.	53	195	117
Average turnover per enterprise	€m	19.2	171.9	88.2
Average gross value added per enterprise	€m	3.8	37.3	18.9
Average gross value added per person engaged	€	72,340	190,829	161,599

Source: Census of Industrial Production and Annual Services Inquiry

Table 2.4 Total industry and services by nationality of ownership, 2006

	Unit	Irish	Foreign	Total
Total Industry (3+ persons engaged)				
Number of enterprises	No.	4,114	506	4,620
Persons engaged	No.	126,319	106,979	233,298
Turnover	€m	30,525	94,745	125,270
Gross value added	€m	9,731	29,927	39,658
Average persons engaged per enterprise	No.	31	211	50
Average turnover per enterprise	€m	7.4	187.2	27.1
Average gross value added per enterprise	€m	2.4	59.1	8.6
Average gross value added per person engaged	€	77,034	279,746	169,989
Total Services (20+ persons engaged)				
Number of enterprises	No.	4,993	685	5,678
Persons engaged	No.	364,928	131,438	496,366
Turnover	€m	69,833	59,875	129,708
Gross value added	€m	17,079	12,392	29,471
Average persons engaged per enterprise	No.	73	192	87
Average turnover per enterprise	€m	14.0	87.4	22.8
Average gross value added per enterprise	€m	3.4	18.1	5.2
Average gross value added per person engaged	€	46,801	94,280	59,374

Source: Census of Industrial Production and Annual Services Inquiry

Table 2.5 Composition of the ICT sectors by NACE, 2006

NACE Division[1]	Sector	Number of enterprises	Persons engaged	Turnover	Gross value added
	Unit	No.	No.	€m	€m
	ICT Manufacturing	**166**	**28,646**	**38,195**	**7,611**
30	Manufacture of office machinery and computers	39	12,864	19,198	1,427
32	Manufacture of radio, television and communication equipment and apparatus	39	8,513	4,336	2,670
3320	Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment	40	2,470	642	215
3330, 2233, 3130	Manufacture of industrial process control equipment. Reproduction of computer media. Manufacture of insulated wire and cable	48	4,799	14,019	3,300
	ICT Services	**5,236**	**58,514**	**37,175**	**7,882**
72	Computer and related activities	4,435	34,816	15,398	3,875
5143, 5184, 5185, 6420, 7133	Wholesale of electrical household appliances and radio and television goods. Wholesale of computers, computer peripheral equipment and software. Wholesale of other office machinery and equipment. Telecommunications. Renting of office machinery and equipment (including computers)	801	23,698	21,777	4,007
	Total ICT	**5,402**	**87,160**	**75,370**	**15,493**

[1] See Appendix Three for key to NACE Rev 1.1 Classification

Source: Census of Industrial Production and Annual Services Inquiry

Table 2.6 Principal aggregates for manufacturing local units by region, 2006

	Unit	Border, Midland and Western	Southern and Eastern
ICT Manufacturing			
Number of local units	No.	46	124
Persons engaged	No.	4,432	24,125
Average persons engaged per local unit	No.	96	195
Total Manufacturing			
Number of local units	No.	1,374	3,315
Persons engaged	No.	61,254	158,568
Average persons engaged per local unit	No.	45	48
ICT Manufacturing as a % of Total Manufacturing			
Number of local units	%	3.3	3.7
Persons engaged	%	7.2	15.2

Source: Census of Industrial Production

Table 2.7 Principal aggregates for services enterprises by region, 2006

	Unit	Border, Midland and Western	Southern and Eastern
ICT Services			
Number of enterprises	No.	707	4,529
Persons engaged	No.	5,569	52,945
Average persons engaged per enterprise	No.	8	12
Total Services			
Number of enterprises	No.	22,522	68,770
Persons engaged	No.	167,710	656,188
Average persons engaged per enterprise	No.	7	10
ICT Services as a % of Total Services			
Number of enterprises	%	3.1	6.6
Persons engaged	%	3.3	8.1

Source: Annual Services Inquiry

Chapter 3

Use of ICT by Enterprises

Introduction

Virtually all enterprises use computers in one way or another today: 98% of enterprises in manufacturing, 99% in construction and 98% in services. The majority use the internet while 65% of all enterprises reported that they have a website or homepage. *See Table 3.1.*

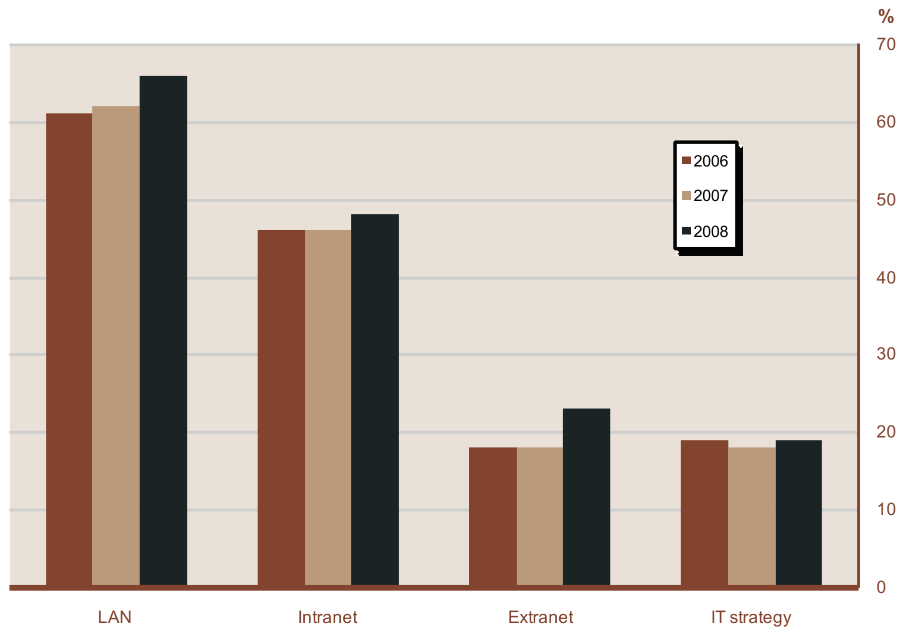
The results were obtained from the March 2008 e-Commerce and ICT survey and are based on a sample of approximately 8,000 enterprises. Enterprises sampled include those with ten or more persons engaged in the manufacturing and selected services sectors, and those with twenty or more persons engaged in the construction sector. The main results of the survey are presented in Tables 3.1 to 3.4, while Tables 3.6 and 3.7 contain information on the number of respondents to the e-Commerce and ICT survey and other background information.

General use of ICT systems

In 2008, two thirds of enterprises indicated that they used a Local Area Network (LAN) while nearly half of enterprises stated that they had an intranet. Nearly a quarter (23%) of enterprises had an extranet (i.e. access by external users to some part of their intranet) in 2008. *See Figure 3.1.*

In 2008, 54% of all enterprises received assistance or advice from suppliers of IT products while 43% of enterprises received similar services from IT consultancy firms. *See Table 3.1 & 3.2.*

Figure 3.1 Percentage of enterprises using ICT systems, 2006 - 2008



Source: CSO - e-Commerce and ICT Survey

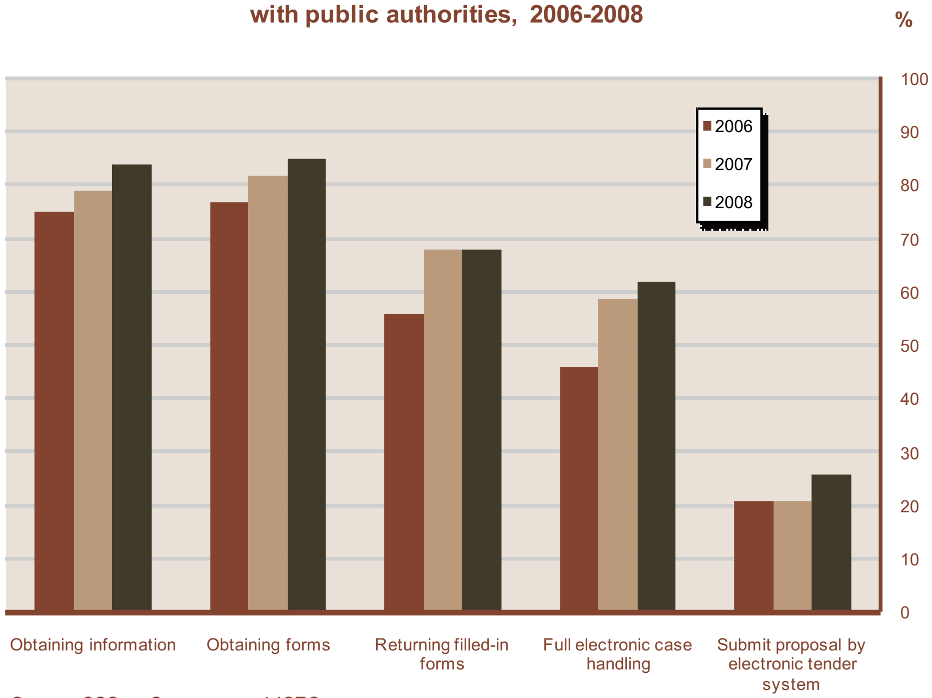
Table 3.1 and 3.2 give an indication of the degree of interaction enterprises had with public authorities via the internet. The internet was used to obtain information in relation to public authorities by 86% of enterprises in the manufacturing sector, by 95% of enterprises in the construction sector and by 82% of firms in services. Forty percent of enterprises in construction had submitted proposals by electronic tender systems to public authorities compared to 24% of enterprises in both the manufacturing and services sectors. *See Table 3.1.*

Use of the Internet

Seventy two percent of enterprises in manufacturing had a website in 2008 while 65% of enterprises in services had a website. In the construction sector, 51% of firms had a website in the same period. *Facilitating access to catalogues and price lists* was the reason 36% of all enterprises provided a website in 2008 while 37% of all enterprises used websites (as consumers) in 2008 for *training and education*. The use of the internet for banking and financial services by all enterprises increased from 82% in 2007 to 85% in 2008. *See Table 3.1.*

In addition, 85% of enterprises said they had obtained a form from a public authority website in 2008, while 68% had returned completed forms online. *See Figure 3.2 and Table 3.1.*

Figure 3.2 Percentage of enterprises using the internet for interaction with public authorities, 2006-2008



Source: CSO - e-Commerce and ICT Survey

Automated Data Exchange

In 2008 enterprises were surveyed on the use of Automated Data Exchange between the enterprise and other ICT systems outside the enterprise. Twenty three percent of all enterprises used Automated Data Exchange to *send or receive data to/from public authorities*. Twenty percent of all enterprises sent *payment instructions to financial institutions* via this method, with 21% of services sectors enterprises, 20% of those in the construction sector, and 17% of manufacturing enterprises employing this method. *See Table 3.1.*

Perceived benefits of the use of ICT

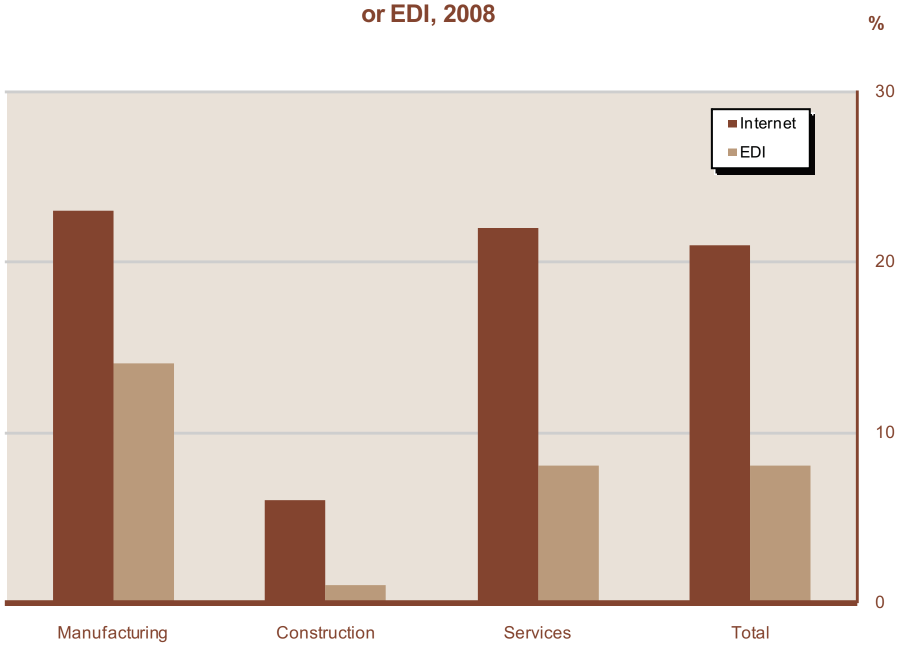
Enterprises were asked to indicate the degree of improvement experienced in various areas, resulting from ICT projects implemented within the previous two years. Almost a quarter (23%) of all enterprises reported a significant improvement in *the reorganisation and simplification of work routines,* while 28% reported a moderate improvement. *See Table 3.1.*

e-Commerce

The 2008 survey found that the percentage of enterprises conducting sales via e-Commerce (internet or EDI (Electronic Data Interchange)) was broadly similar to 2007 levels. In manufacturing, the percentage with e-Commerce sales remained unchanged at 32%, in construction e-Commerce sales decreased slightly from 8% to 7%, with services also showing a slight decrease from 27% to 26% over the same period.

Sales by e-Commerce accounted for 25% of turnover in the manufacturing sector in 2008. These e-Commerce sales in manufacturing were split between 15% EDI sales and 10% internet sales. In the services sector, sales via e-Commerce accounted for 15% of turnover. Again, e-Commerce sales were split between 8% EDI sales and 7% internet sales. *See Figure 3.3 and Table 3.3.*

Figure 3.3 Percentage of enterprises with e-Commerce sales via the internet or EDI, 2008

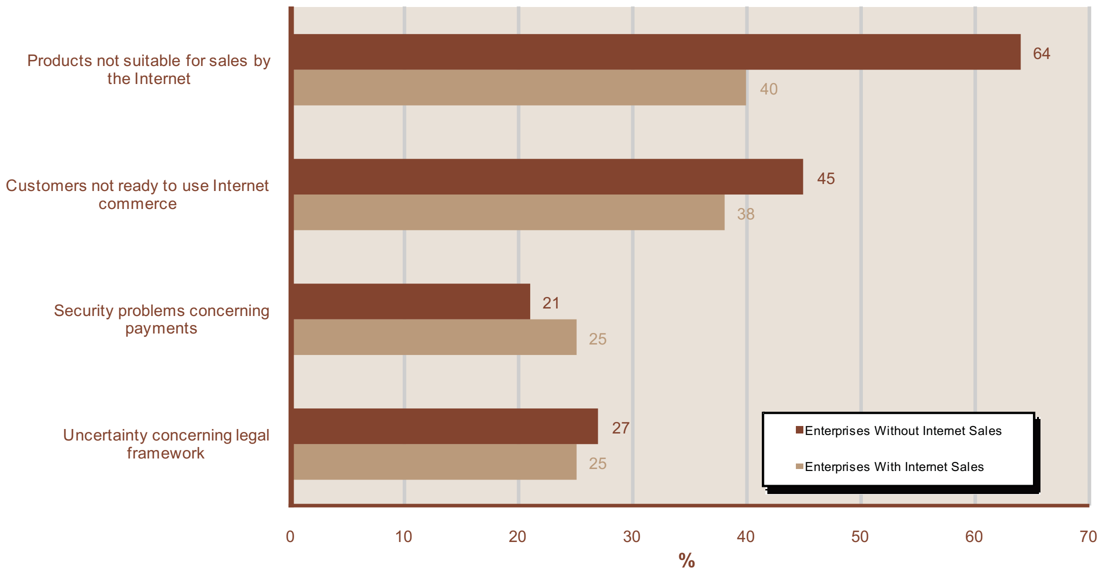


Source: CSO - e-Commerce and ICT Survey

Barriers to e-Commerce

In 2008, 40% of enterprises already selling online indicated that their products were not suitable for sale online. Sixty four percent of enterprises not already selling online also indicated this to be the case. Enterprises were also concerned whether customers were ready to shop online, with 38% of enterprises already selling online indicating that this was a barrier to e-Commerce. This concern was shared by 45% of enterprises not already selling online. *See Figure 3.4.*

Figure 3.4 Barriers to E-Commerce 2008



Source: CSO - e-Commerce and ICT Survey

Note: Due to a change in the question in 2008, data are not comparable with previous years.

ICT statistics from CSO's structural business inquiries

Some statistics on computer use have also been collected in the CSO's main annual surveys of industry and services. It is important to note the difference in coverage between the Structural Business Surveys and the ICT enterprise survey. Table 3.5 relates to total industry and services while the ICT enterprise survey (Tables 3.1–3.4) excludes the non-manufacturing element of industry, some services sectors, and very small enterprises.

Appendix 3 contains a description of the NACE Rev. 1.1 sectors used in Tables 3.2 and 3.4.

Table 3.1 Main results of enterprise ICT survey, as percentage of all enterprises (10+ persons engaged)[1], March 2007 and March 2008

	Unit	Manufacturing sectors		Construction sector		Selected services sectors		Total	
		2007	2008	2007	2008	2007	2008	2007	2008
General information about ICT systems									
Using a computer	%	98	98	98	99	96	98	96	98
Using intranet	%	47	51	41	30	46	49	46	48
Using LAN	%	65	67	52	62	62	66	62	66
Using extranet	%	18	25	10	14	19	24	18	23
Have a written ICT strategy	%	20	20	8	10	18	20	18	19
Use of the Internet									
Using the Internet	%	97	98	97	99	94	95	95	96
Having a website or homepage	%	70	72	53	51	63	65	64	65
Purposes of using the Internet (as consumer)									
Banking and financial services	%	85	85	85	92	81	83	82	85
Training and education	%	36	38	29	30	38	37	37	37
Interaction with public authorities via Internet									
For obtaining information	%	83	86	86	95	77	82	79	84
For obtaining forms	%	84	86	88	93	81	83	82	85
For returning filled-in forms	%	70	73	66	65	68	67	68	68
For full electronic case handling	%	58	64	58	66	60	62	59	62
Submit proposal by electronic tender system	%	21	24	29	40	21	24	21	26
Purposes of using the Internet (as provider)									
Facilitating access to catalogues and price lists	%	36	40	22	20	34	37	34	36
Electronic sharing									
Uses an ERP software package	%	22	17	7	22	16	17	17	17
Capture, store and make available the information about clients	%	18	18	6	16	26	28	23	25
Analyse information about clients for marketing purposes	%	18	18	6	10	27	27	24	24

See footnotes at the end of the table

Table 3.1 Main results of enterprise ICT survey, as percentage of all enterprises (10+ persons engaged)[1], March 2007 and March 2008 (cont'd)

		Manufacturing sectors		Construction sector		Selected services sectors		Total	
	Unit	2007	2008	2007	2008	2007	2008	2007	2008
Assistance/advice received in relation to the use of ICT									
Government Organisations	%	16	14	16	18	18	13	18	14
Industry Representative	%	15	14	15	12	17	18	17	16
Suppliers of IT products	%	47	52	39	47	49	55	48	54
IT consultancy firms	%	36	41	31	45	34	43	34	43
Automated data exchange used to:									
Send orders to suppliers	%	:	14	:	13	:	20	:	18
Receive E-invoices	%	:	15	:	19	:	19	:	18
Receive orders from customers	%	:	17	:	12	:	12	:	13
Send E-invoices	%	:	13	:	11	:	11	:	12
Send or receive product information	%	:	16	:	20	:	19	:	18
Send or receive transport documents	%	:	12	:	8	:	11	:	11
Send payment instructions to financial institutions	%	:	17	:	20	:	21	:	20
Send or receive data to/from public authorities	%	:	20	:	21	:	24	:	23
Benefits of the use of ICT for Enterprises using computers:									
Reorganisation and simplification of work routines									
Minor	%	:	19	:	14	:	18	:	18
Moderate	%	:	29	:	26	:	28	:	28
Significant	%	:	23	:	22	:	23	:	23
Release of resources									
Minor	%	:	27	:	23	:	25	:	25
Moderate	%	:	27	:	22	:	27	:	27
Significant	%	:	11	:	7	:	11	:	11
Higher earnings for the enterprise									
Minor	%	:	33	:	33	:	31	:	31
Moderate	%	:	23	:	12	:	23	:	22
Significant	%	:	7	:	3	:	9	:	8
Development of new products and services									
Minor	%	:	36	:	34	:	33	:	34
Moderate	%	:	19	:	11	:	17	:	17
Significant	%	:	9	:	6	:	11	:	11

Source: CSO - e-Commerce and ICT Survey

[1] The construction sector covers only private firms with 20 or more persons engaged. Due to a revision in the Building and Construction Register in 2008, caution should be used in comparing data to previous years data.

: Data not available

Table 3.2 Main results of enterprise ICT survey as percentage of all enterprises (10+ persons engaged)[1] by sector, March 2008

NACE Division[2]	Unit	Manufacturing sectors					Construction sector	Selected services sectors								Total
		15-22	23-25	26-28	29-37	Total	45	50-52	55.1-55.2	60-63	64	70-71 73-74	72	92	Total	
General information about ICT systems																
Using a computer	%	98	99	98	98	98	99	98	96	98	100	98	100	95	98	98
Using intranet	%	52	59	36	57	51	30	44	43	60	72	57	88	28	49	48
Using LAN	%	66	78	55	71	67	62	60	57	64	91	78	96	47	66	66
Using extranet	%	24	35	15	28	25	14	21	19	22	48	26	66	6	24	23
Have a written ICT strategy	%	18	35	9	22	20	10	15	16	26	30	28	52	7	20	19
Use of the internet																
Using the Internet	%	97	99	97	98	98	99	93	96	98	100	98	100	91	95	96
Having a website or homepage	%	70	76	63	79	72	51	52	91	65	100	75	98	76	65	65
Purposes of using the internet (as consumer)																
Banking and financial services	%	86	85	83	86	85	92	82	78	85	88	88	90	69	83	85
Training and education	%	36	48	27	43	38	30	33	34	35	57	43	71	24	37	37
Interaction with public authorities via internet																
For obtaining information	%	85	92	81	87	86	95	78	81	85	90	90	97	68	82	84
For obtaining forms	%	85	90	85	86	86	93	80	79	84	97	91	97	68	83	85
For returning filled-in forms	%	74	82	62	74	73	65	63	64	64	93	76	85	56	67	68
For full electronic case handling	%	65	71	55	67	64	66	60	55	54	90	67	75	50	62	62
Submit proposal by electronic tender system	%	24	25	21	25	24	40	18	15	30	41	40	41	6	24	26
Purposes of using the internet (as provider)																
Facilitating access to catalogues and price lists	%	37	47	32	47	40	20	35	75	33	51	25	50	52	37	36
Electronic sharing																
Uses an ERP software package	%	18	19	16	15	17	22	17	19	16	31	17	15	11	17	17
Capture, store and make available the information about clients	%	19	25	10	20	18	16	23	35	24	50	31	65	23	28	25
Analyse information about clients for marketing purposes	%	21	22	9	17	18	10	23	43	23	33	25	62	21	27	24

See footnotes at the end of the table

Table 3.2 Main results of enterprise ICT survey as percentage of all enterprises (10+ persons engaged)[1] by sector, March 2008 - continued

		Manufacturing sectors					Construction sector	Selected services sectors								Total
NACE Division[2]	Unit	15-22	23-25	26-28	29-37	Total	45	50-52	55.1-55.2	60-63	64	70-71 73-74	72	92	Total	
Assistance/advice received in relation to the use of ICT																
Government Organisations	%	13	14	12	15	14	18	14	12	13	12	14	14	9	13	14
Industry Representative	%	12	15	12	17	14	12	16	18	20	12	20	29	13	18	16
Suppliers of IT products	%	54	62	43	50	52	47	53	42	60	42	61	70	50	55	54
IT consultancy firms	%	40	49	34	44	41	45	39	29	46	46	53	52	40	43	43
Automated data exchange used to:																
Send orders to suppliers	%	11	18	11	17	**14**	**13**	28	10	19	33	9	20	1	**20**	**18**
Receive E-invoices	%	16	13	13	16	**15**	**19**	23	16	17	31	12	25	7	**19**	**18**
Receive orders from customers	%	20	17	11	16	**17**	**12**	11	16	22	34	8	26	6	**12**	**13**
Send E-invoices	%	16	14	10	11	**13**	**11**	10	8	21	38	11	26	2	**11**	**12**
Send or receive product information	%	17	16	14	16	**16**	**20**	24	20	18	26	9	21	4	**19**	**18**
Send or receive transport documents	%	11	14	11	12	**12**	**8**	14	5	19	29	5	12	1	**11**	**11**
Send payment instructions to financial institutions	%	16	18	15	20	**17**	**20**	24	16	21	34	16	31	15	**21**	**20**
Send or receive data to/from public authorities	%	22	23	17	19	**20**	**21**	28	23	25	33	17	26	14	**24**	**23**
Benefits of the use of ICT for Enterprises using computers:																
Reorganisation and simplification of work routines																
Minor	%	18	19	21	19	**19**	**14**	20	18	16	7	14	16	20	**18**	**18**
Moderate	%	31	34	24	27	**29**	**26**	26	31	26	33	32	37	22	**28**	**28**
Significant	%	23	29	15	26	**23**	**22**	20	18	25	48	26	31	24	**23**	**23**
Release of resources																
Minor	%	27	27	29	26	**27**	**23**	28	26	22	7	19	22	27	**25**	**25**
Moderate	%	27	37	19	29	**27**	**22**	24	29	29	45	33	34	23	**27**	**27**
Significant	%	14	13	7	11	**11**	**7**	10	8	12	15	12	24	9	**11**	**11**
Higher earnings for the enterprise																
Minor	%	32	38	33	32	**33**	**33**	35	21	31	20	26	27	29	**31**	**31**
Moderate	%	27	26	15	23	**23**	**12**	20	30	23	29	27	27	18	**23**	**22**
Significant	%	8	7	4	9	**7**	**3**	7	16	8	14	9	23	8	**9**	**8**
Development of new products and services																
Minor	%	37	46	35	32	**36**	**34**	36	32	30	17	30	25	31	**33**	**34**
Moderate	%	21	21	13	19	**19**	**11**	15	19	19	19	21	20	15	**17**	**17**
Significant	%	10	7	6	13	**9**	**6**	9	11	11	28	10	40	13	**11**	**11**

Source: CSO - e-Commerce and ICT Survey

[1] The construction sector covers only private firms with 20 or more persons engaged. Due to a revision in the Building and Construction Register in 2008, caution should be used in comparing data to previous years data.

[2] See Appendix Three for key to NACE Rev 1.1 Classification

Table 3.3 Purchases and sales via e-Commerce for all enterprises (10+ persons engaged)[1], March 2007 and March 2008

		Manufacturing sectors		Construction sector		Selected services sectors		Total	
	Unit	2007	2008	2007	2008	2007	2008	2007	2008
Use of e-Commerce for purchases (as % of total enterprises)									
by Internet or EDI	%	61	65	43	44	54	54	55	55
by Internet	%	60	64	42	43	51	48	52	50
by EDI	%	6	9	1	2	9	14	8	12
Use of e-Commerce for sales (as % of total enterprises)									
by Internet or EDI	%	32	32	8	7	27	26	27	25
by Internet	%	24	23	6	6	23	22	23	21
by EDI	%	13	14	1	1	7	8	8	8
Percentage of purchases by e-Commerce (as % of total purchases)									
by Internet or EDI	%	24	24	2	3	21	21	21	22
by Internet	%	15	13	2	3	6	6	9	8
by EDI	%	9	11	0	0	14	16	11	13
Percentage of sales by e-Commerce (as % of total turnover)									
by Internet or EDI	%	19	25	1	0	21	15	19	18
by Internet	%	9	10	1	0	10	7	9	8
by EDI	%	10	15	0	0	10	8	10	10

Source: CSO - e-Commerce and ICT Survey

[1] The construction sector covers only private firms with 20 or more persons engaged. Due to a revision in the Building and Construction Register in 2008, caution should be used in comparing data to previous years data.

Table 3.4 Purchases and sales via e-Commerce by sector (10+ persons engaged)[1], March 2008

		Manufacturing sectors					Construction sector	Selected services sectors								Total
NACE Division[2]	Unit	15-22	23-25	26-28	29-37	Total	45	50-52	55.1-55.2	60-63	64	70-71 73-74	72	92	Total	
Use of e-Commerce for purchases (as % of total enterprises)																
by Internet or EDI	%	65	72	55	69	65	44	52	37	52	86	56	83	46	54	55
by Internet	%	64	70	54	68	64	43	42	36	50	72	56	83	45	48	50
by EDI	%	10	8	5	11	9	2	20	7	10	33	4	8	4	14	12
Use of e-Commerce for sales (as % of total enterprises)																
by Internet or EDI	%	45	28	18	27	32	7	25	70	35	36	14	26	27	26	25
by Internet	%	30	19	17	22	23	6	19	67	28	33	12	25	27	22	21
by EDI	%	21	15	4	11	14	1	10	8	12	30	3	5	7	8	8
Percentage of purchases by e-Commerce (as % of total purchases)																
by Internet or EDI	%	5	11	4	56	24	3	27	13	14	4	10	8	6	21	22
by Internet	%	3	5	3	31	13	3	6	2	7	2	4	3	4	6	8
by EDI	%	2	6	1	25	11	0	20	11	7	2	5	5	1	16	13
Percentage of sales by e-Commerce (as % of total turnover)																
by Internet or EDI	%	38	8	3	27	25	0	13	19	39	14	13	10	11	15	18
by Internet	%	13	0	2	15	10	0	4	18	35	8	1	9	10	7	8
by EDI	%	25	8	1	12	15	0	9	2	4	6	12	0	1	8	10

Source: CSO - e-Commerce and ICT Survey

[1] The construction sector covers only private firms with 20 or more persons engaged. Due to a revision in the Building and Construction Register in 2008, caution should be used in comparing data to previous years data.

[2] See Appendix Three for key to NACE Rev 1.1 Classification

Table 3.5 Use of ICT by enterprises, 2005 - 2006

	Persons engaged	Total enterprises	With e-mail	With website	With orders via e-Commerce[1]	Total turnover	% of turnover by e-Commerce[1]
		Number	%	%	%	€m	%
Industry							
2005	3-9	1,737	77.7	49.4	31.5	1,384	7.6
	10+	2,681	94.6	75.1	41.1	118,044	32.1
	Total	**4,418**	**88.0**	**65.0**	**37.4**	**119,428**	**31.9**
2006	3-9	1,886	79.1	49.9	37.0	1,663	8.4
	10+	2,734	95.6	77.1	45.4	123,607	32.9
	Total	**4,620**	**88.8**	**66.0**	**41.9**	**125,270**	**32.6**
Services							
2005	1-9	73,565	38.5	15.3	10.9	37,014	5.0
	10+	10,423	69.6	44.5	24.0	127,611	15.3
	Total	**83,988**	**42.3**	**18.9**	**12.5**	**164,624**	**13.0**
2006	1-9	77,448	39.9	17.9	11.8	32,296	4.1
	10+	13,844	68.8	44.6	22.9	150,969	16.7
	Total	**91,292**	**44.2**	**21.7**	**13.5**	**183,266**	**14.5**
Total Industry and Services							
2005	1-9*	75,302	39.4	16.1	11.4	38,398	5.1
	10+	13,104	74.7	50.8	27.5	245,655	23.4
	Total	**88,406**	**44.6**	**21.2**	**13.7**	**284,052**	**20.9**
2006	1-9*	79,334	40.8	18.7	12.4	33,959	4.3
	10+	16,578	73.2	50.0	26.6	274,576	24.0
	Total	**95,912**	**46.3**	**23.8**	**14.9**	**308,536**	**21.8**

Source: Census of Industrial Production and Annual Services Inquiry

[1] e-Commerce includes by e-mail, EDI or internet

*** Note:** Industrial enterprises with less than 3 persons engaged not included

Note: Data contains some revisions to previous years

Chapter 4

Use of ICT by Households

Introduction

In the first quarter of 2008, more than 1 million households in Ireland had a home computer. This was an increase of almost 102,000 households since the first quarter of 2007. These figures indicate that 7 in 10 households in Ireland have a home computer. Internet access also continued to increase over the period, with 915,000 households having a computer connected to the internet in the first quarter of 2008. The percentage of households with a computer connected to the internet has increased from 45% in 2005 to almost 63% in 2008. *See Table 4A and Figure 4.1.*

Table 4A Main trends in household ICT use, 2005 - 2008

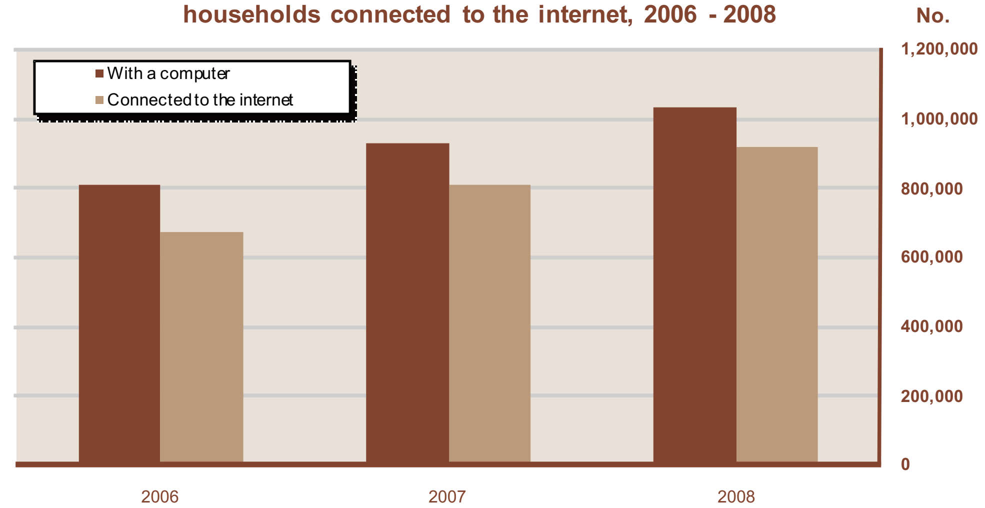
	Unit	2005	2006	2007	2008
All households	**'000**	**1,355.3**	**1,381.9**	**1,419.8**	**1,466.2**
Households with home computers	'000	744.5	808.4	929.8	1,031.5
% of all households	%	54.9	58.5	65.5	70.4
Households with computers connected to internet	'000	611.7	673.2	806.7	914.2
% of all households	%	45.1	48.7	56.8	62.4
% of all households with home computers	%	82.2	83.3	86.8	88.6

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

It should be noted that the household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Figure 4.1 Number of households with computers and number of households connected to the internet, 2006 - 2008



Source: CSO - Quarterly National Household Survey

Regional analysis

In the first quarter of 2008, the percentage of households with a home computer was higher in the Southern and Eastern (SE) region than in the Border, Midland and Western (BMW) region. Almost 73% of households in the SE region owned a computer compared to 63% in the BMW region. Computer ownership in the SE region increased from 708,000 in the first quarter of 2007 to 782,500 in the same period of 2008. In the BMW region, the number of households with a home computer increased from 222,000 to 249,000 over the same period. *See Table 4.1*.

The percentage of households with an internet connection also continues to be higher in the SE region than in the BMW region. Some 66% of households in the SE region now have internet access. The corresponding figure for the BMW region is 53%. *See Table 4.2*.

Internet use

In excess of 2.4 million persons aged 16-74 indicated that they have ever used a computer while more than 2.2 million indicated that they have used the internet. Since the first quarter of 2007, in percentage terms, computer and internet use has increased across every measured age group. While 92% of persons aged 16-24 have ever used a computer, just under 31% of those aged 65-74 indicated that they had used a computer. Similarly, over 87% of those aged 16-24 have used the internet compared to over 22% of those aged 65-74. Persons in the 16-24 age group again display the highest levels of computer and internet use. *See Table 4.3.*

Computer and internet usage were more prevalent in the SE region (76% and 71% respectively) than in the BMW (69% and 61% respectively). Females again continue to have higher rates of computer and internet usage than their male counterparts. Consistent with previous years, levels of both computer and internet usage were highest amongst students followed by those at work. *See Table 4.3.*

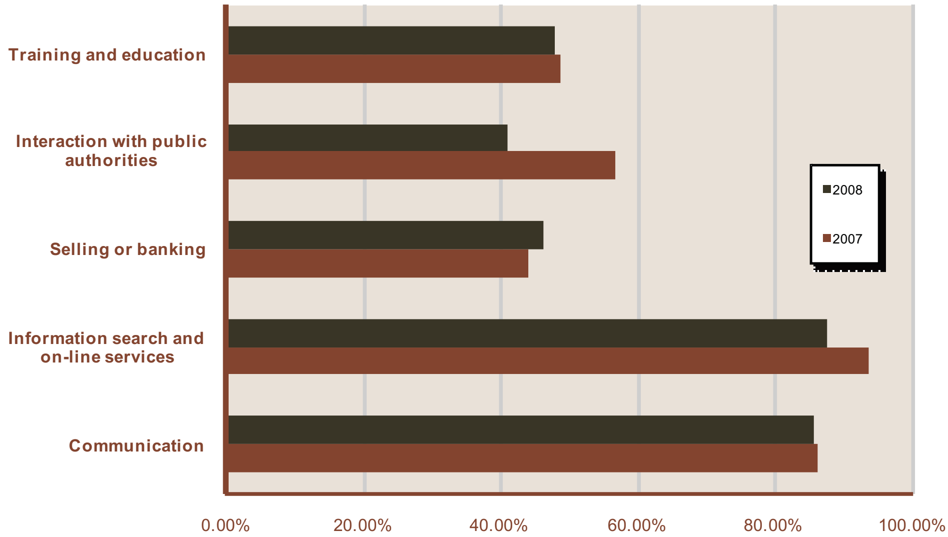
Almost 2.2 million people had used a computer in the previous 3 months. Over 1.5 million people used a computer every day or almost every day while more than 500,000 had used a computer at least once a week. During the same period over 2 million persons had used the internet. Almost 1.3

million used the internet on a daily basis and a further 600,000 persons used it at least once a week. The most common places to use a computer and the internet were at home and at work. *See Tables 4.4 and 4.5.*

Internet activity

The most popular activity on the internet related to *Information search and on-line services* with almost 1.8 million respondents indicating that they had used the internet for this activity in the 3 months previous to the survey. The next most popular activity was *Communication* with more than 1.7 million respondents engaging in this activity. *See Figure 4.2 and Table 4.6.*

Figure 4.2 Use of the internet by persons with access to an internet connection in the previous 3 months, 2007 - 2008

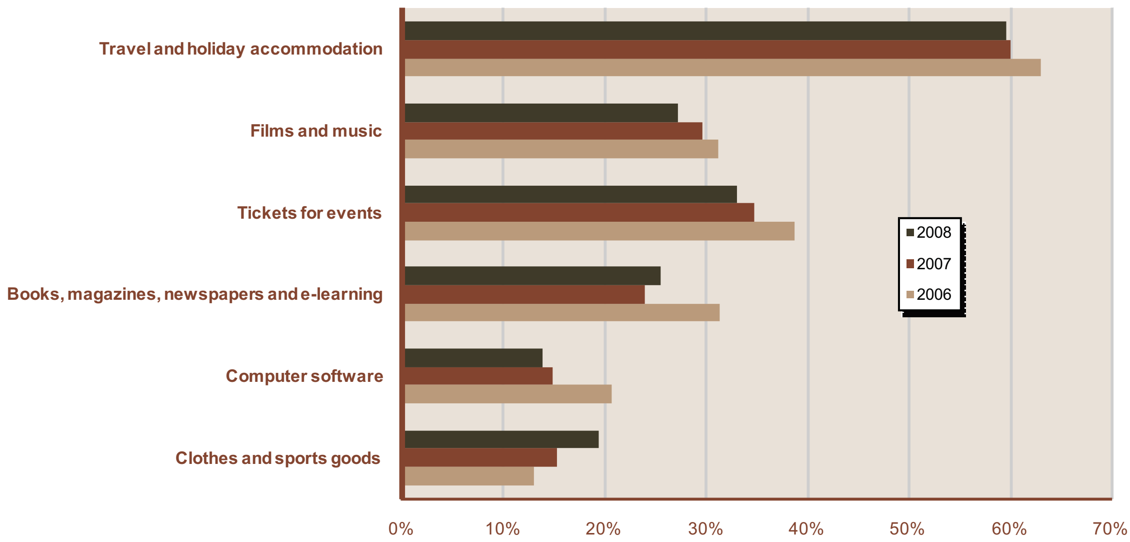


Source: CSO - Quarterly National Household Survey

Online Purchases

In the 12 months prior to the first quarter of 2008, almost 1.2 million persons had ordered goods or services from the internet for private use. The most popular type of goods and services ordered on the internet continued to be *Travel and holiday accommodation* (693,700), *Tickets for events* (385,600) and purchasing *Films/Music* (316,400). *See Figure 4.3 and Table 4.7.*

Figure 4.3 Persons ordering goods and services via the internet, 2006 - 2008



Source: CSO - Quarterly National Household Survey

Table 4.1 Households with a home computer, 2005 - 2008

	All households				Number of households with a computer permanently in the dwelling				Percentage of households with a computer permanently in the dwelling			
	2005	2006	2007	2008	2005	2006	2007	2008	2005	2006	2007	2008
Unit	'000	'000	'000	'000	'000	'000	'000	'000	%	%	%	%
Regional Authority												
Border, Midland and Western	360.6	366.1	379.8	392.8	174.8	184.8	221.7	249.0	48.5	50.5	58.4	63.4
Southern and Eastern	994.7	1,015.8	1,040.1	1,073.5	569.7	623.6	708.1	782.5	57.3	61.4	68.1	72.9
Sex of reference person												
Male	577.1	606.6	614.1	637.2	313.5	343.2	397.6	434.2	54.3	56.6	64.7	68.1
Female	778.2	775.2	805.8	829.0	431.0	465.2	532.2	597.3	55.4	60.0	66.0	72.1
Age group of reference person												
16-24 years	55.0	55.2	66.0	58.9	26.2	28.2	37.6	42.2	47.6	51.1	57.0	71.6
25-34 years	212.8	220.8	227.8	220.5	113.6	137.9	160.3	165.6	53.4	62.5	70.4	75.1
35-44 years	311.4	340.7	337.9	350.0	206.7	243.9	266.6	292.3	66.4	71.6	78.9	83.5
45-54 years	311.5	317.3	320.6	331.7	208.9	215.9	242.8	266.0	67.1	68.0	75.7	80.2
55-64 years	268.7	268.1	268.7	284.7	137.0	133.3	154.4	181.6	51.0	49.7	57.5	63.8
65-74 years	195.9	179.7	198.8	220.4	52.2	49.3	68.0	83.9	26.6	27.4	34.2	38.1
ILO Economic Status of reference person												
In employment	796.0	828.4	870.6	885.5	513.4	565.3	650.3	702.0	64.5	68.2	74.7	79.3
Unemployed	31.8	34.9	35.4	38.2	13.8	15.7	19.1	24.4	43.4	45.0	54.0	63.9
Not economically active	527.5	518.7	513.8	542.5	217.3	227.4	260.4	305.0	41.2	43.8	50.7	56.2
No. of persons employed in household												
None	305.6	293.2	286.1	310.4	74.4	70.0	96.0	121.5	24.3	23.9	33.6	39.1
1	426.9	455.9	472.8	475.5	217.9	258.0	296.6	326.2	51.0	56.6	62.7	68.6
2	438.5	481.2	481.5	521.1	305.8	361.7	389.3	445.2	69.7	75.2	80.9	85.4
3 or more	184.2	151.6	179.4	159.3	146.5	118.7	148.0	138.6	79.5	78.3	82.5	87.0
All households	**1,355.3**	**1,381.9**	**1,419.8**	**1,466.2**	**744.5**	**808.4**	**929.8**	**1,031.5**	54.9	58.5	65.5	70.4

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 4.2 Households with an internet connection via personal computer, 2005 - 2008

	All households				Number of households with an internet connection via PC				Percentage of households with an internet connection via PC			
	2005	2006	2007	2008	2005	2006	2007	2008	2005	2006	2007	2008
Unit	'000	'000	'000	'000	'000	'000	'000	'000	%	%	%	%
Regional Authority												
Border, Midland and Western	360.6	366.1	379.8	392.8	140.0	148.2	181.8	208.1	38.8	40.5	47.9	53.0
Southern and Eastern	994.7	1,015.8	1,040.1	1,073.5	471.7	525.0	624.9	706.1	47.4	51.7	60.1	65.8
Sex of reference person												
Male	577.1	606.6	614.1	637.2	264.0	285.7	343.0	387.5	45.7	47.1	55.9	60.8
Female	778.2	775.2	805.8	829.0	347.7	387.5	463.7	526.7	44.7	50.0	57.5	63.5
Age group of reference person												
16-24 years	55.0	55.2	66.0	58.9	20.1	20.0	30.8	35.7	36.5	36.2	46.7	60.6
25-34 years	212.8	220.8	227.8	220.5	94.0	111.7	132.5	143.5	44.2	50.6	58.2	65.1
35-44 years	311.4	340.7	337.9	350.0	168.4	208.5	233.7	266.9	54.1	61.2	69.2	76.3
45-54 years	311.5	317.3	320.6	331.7	173.2	183.7	218.7	241.9	55.6	57.9	68.2	72.9
55-64 years	268.7	268.1	268.7	284.7	114.8	108.2	134.8	159.0	42.7	40.4	50.2	55.8
65-74 years	195.9	179.7	198.8	220.4	41.2	41.1	56.1	67.3	21.0	22.9	28.2	30.5
ILO Economic Status of reference person												
In employment	796.0	828.4	870.6	885.5	426.7	477.3	573.9	634.4	53.6	57.6	65.9	71.6
Unemployed	31.8	34.9	35.4	38.2	9.6	10.7	15.8	20.4	30.2	30.7	44.6	53.4
Not economically active	527.5	518.7	513.8	542.5	175.3	185.2	217.0	259.3	33.2	35.7	42.2	47.8
No. of persons employed in household												
None	305.6	293.2	286.1	310.4	52.4	50.9	75.0	95.8	17.1	17.4	26.2	30.9
1	426.9	455.9	472.8	475.5	175.2	208.7	252.8	284.6	41.0	45.8	53.5	59.9
2	438.5	481.2	481.5	521.1	263.2	315.3	352.1	404.7	60.0	65.5	73.1	77.7
3 or more	184.2	151.6	179.4	159.3	120.8	98.3	126.7	129.1	65.6	64.8	70.6	81.0
All households	**1,355.3**	**1,381.9**	**1,419.8**	**1,466.2**	**611.7**	**673.2**	**806.7**	**914.2**	**45.1**	**48.7**	**56.8**	**62.4**

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 4.3 Computer and internet usage for persons aged 16-74[1], 2007 - 2008

	All persons		People who have used a computer				People who have used the internet			
	2007	2008	2007		2008		2007		2008	
Unit	'000	'000	'000	%	'000	%	'000	%	'000	%
Regional Authority										
Border, Midland and Western	831.7	857.2	530.5	63.8	592.2	69.1	469.1	56.4	525.5	61.3
Southern and Eastern	2,340.5	2,396.3	1,727.7	73.8	1,831.4	76.4	1,582.4	67.6	1,691.2	70.6
Sex										
Male	1,599.8	1,639.0	1,117.8	69.9	1,194.7	72.9	1,034.4	64.7	1,103.4	67.3
Female	1,572.4	1,614.6	1,140.4	72.5	1,229.0	76.1	1,017.1	64.7	1,113.2	68.9
Age										
16-24 years	576.5	573.1	516.3	89.6	528.8	92.3	485.8	84.3	501.1	87.4
25-34 years	754.9	791.1	655.9	86.9	695.2	87.9	622.5	82.5	658.4	83.2
35-44 years	634.0	651.2	495.5	78.2	538.9	82.7	456.2	72.0	495.3	76.1
45-54 years	529.9	541.8	342.2	64.6	365.1	67.4	296.0	55.8	325.9	60.1
55-64 years	415.0	428.5	174.9	42.2	213.5	49.8	140.5	33.9	178.5	41.7
65-74 years	261.9	267.8	73.3	28.0	82.3	30.7	50.6	19.3	57.6	21.5
ILO Economic Status										
In employment	2,007.0	2,013.0	1,585.3	79.0	1,652.2	82.1	1,478.3	73.7	1,542.3	76.6
Unemployed	141.3	129.0	104.6	74.0	99.2	76.9	96.2	68.1	84.8	65.7
Not economically active	1,024.0	1,111.6	568.3	55.5	672.3	60.5	477.0	46.6	589.6	53.0
Principal Economic Status										
At work	1,931.7	1,948.8	1,513.6	78.4	1,592.9	81.7	1,406.2	72.8	1,485.1	76.2
Unemployed	135.5	148.5	91.9	67.8	104.6	70.5	81.3	60.0	86.7	58.4
Student	262.0	293.1	260.2	99.3	287.6	98.1	250.4	95.6	283.6	96.8
Home duties	507.4	515.7	241.2	47.5	285.9	55.4	196.0	38.6	239.2	46.4
Retired	215.0	216.4	95.4	44.4	92.2	42.6	73.8	34.3	72.1	33.3
Other	120.6	131.0	55.8	46.3	60.4	46.1	43.8	36.3	50.0	38.1
All persons aged 16-74	**3,172.2**	**3,253.6**	**2,258.2**	**71.2**	**2,423.6**	**74.5**	**2,051.5**	**64.7**	**2,216.7**	**68.1**

Source: CSO - Quarterly National Household Survey : Q1 2007 and Q1 2008.

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

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 4.4 Use of computers classified by training activities, frequency and location of use, 2005 - 2008

'000

	2005	2006	2007	2008
Took a computer-related training course				
In the last 12 months	378.7	467.7	369.6	395.0
More that one year ago	1,001.1	990.6	1,161.4	1,200.2
Never	643.7	621.6	727.2	828.4
All persons who have ever used a computer	**2,023.5**	**2,079.9**	**2,258.2**	**2,423.6**
Frequency of use in the previous 3 months				
Every day or almost every day	1,016.2	1,138.9	1,354.7	1,523.1
At least once a week (but not every day)	449.9	475.5	465.8	512.7
At least once a month (but not every week)	137.0	123.2	113.6	104.6
Less than once a month	49.4	63.0	48.1	40.7
Location of use in the previous 3 months[1]				
Home	1,155.6	1,296.9	1,571.5	1,839.4
Place of work (other than home)	877.3	924.6	899.3	952.9
Place of education	162.8	260.8	240.0	257.4
Another person's home	71.2	76.7	74.6	72.2
Other places	107.8	95.9	149.5	98.6
All persons who used a computer in the previous 3 months	**1,652.5**	**1,800.7**	**1,982.1**	**2,181.0**

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

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

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 4.5 Use of internet in the previous three months, classified by frequency and location of use, 2005 - 2008

'000

	2005	2006	2007	2008
Frequency of use				
At least once a day	667.0	787.0	1,022.1	1,262.5
At least once a week (but not every day)	505.2	562.9	588.6	599.8
At least once a month (but not every week)	170.0	167.9	165.0	137.2
Less than once a month	65.0	58.6	38.9	35.3
Location of use[1]				
Home	970.0	1,110.7	1,399.7	1,679.9
Place of work (other than home)	654.0	709.1	716.9	786.2
Place of education	140.6	223.4	202.4	224.6
Neighbour, friend or relative's house	71.4	71.7	92.4	78.8
Other	111.2	110.9	164.6	103.7
All persons who used the internet in previous 3 months	**1,407.1**	**1,576.4**	**1,814.6**	**2,034.8**

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

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

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 4.6 Activities[1] on the internet in the previous 3 months, 2005 - 2008

'000

	2005	2006	2007	2008
Communication[2]	**1,191.5**	**1,394.2**	**1,564.5**	**1,733.1**
Sending and receiving e-mails	1,176.7	1,382.3	1,514.8	1,702.2
Telephone over the internet/Videoconferencing	112.9	178.6	236.8	299.7
Other commication-related activities	109.9	198.7	318.0	535.5
Information search and on-line services[2]	**1,274.5**	**1,467.3**	**1,701.4**	**1,771.3**
Finding information about goods and services	1,105.7	1,303.4	1,408.9	1,472.4
Travel and accommodation	924.2	1,137.1	1,239.5	1,318.3
Downloading software	181.6	287.4	327.8	434.2
Reading/downloading newspapers or magazines	159.5	237.1	319.9	535.8
Looking for a job/sending job applications	95.8	185.3	210.8	303.7
Seeking health related information	:	242.5	388.6	609.5
Selling or banking	**651.1**	**675.4**	**800.4**	**933.2**
Internet banking	491.5	638.5	770.2	907.9
Selling goods or services	29.3	127.1	108.9	94.8
Interaction with public authorities	**674.5**	**795.2**	**1,031.9**	**830.9**
Obtaining information from web sites	553.8	660.5	823.3	685.4
Downloading official forms	450.4	587.5	704.8	630.7
Sending completed forms	353.7	441.1	616.0	592.4
Training and education	**:**	**:**	**887.1**	**967.5**
Looking for information about educational, training or course offers	:	:	735.1	740.0
Doing an online course (of any subject)	:	:	88.5	99.2
Consulting the internet with the purpose of learning	:	:	511.4	671.9
All persons who used the internet in previous 3 months[1]	**1,407.1**	**1,576.4**	**1,814.6**	**2,022.1**

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

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

[2] Due to a change in question, data is not directly comparable with previous years data.

: Data not available

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 4.7 Purchases[1] on the internet, 2005 - 2008

'000

	2005	2006	2007	2008
Types of goods and services ordered in last 12 months[2]				
Food/groceries	44.9	60.6	53.7	55.7
Household goods	49.8	68.3	82.0	112.6
Films/music	208.2	271.4	311.4	316.4
Books/magazines/newspapers/e-learning material	169.8	272.1	251.7	297.3
Clothes/sports goods	67.7	112.5	160.9	226.8
Computer software	77.6	180.0	156.1	161.7
Computer hardware	35.2	81.7	60.8	84.8
Electronic equipment	53.0	97.7	114.9	158.3
Share purchases/financial services/insurance	18.9	42.6	48.8	53.2
Travel and holiday accommodation	409.0	546.9	629.0	693.7
Tickets for events	203.2	335.1	364.7	385.6
Lotteries/betting	12.8	18.6	21.5	22.3
Other	35.4	43.3	51.0	62.3
All persons who have ever purchased on the internet in the last 12 months	**739.2**	**866.4**	**1,048.5**	**1,163.2**

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

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

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

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Chapter 5

Connecting to the Internet

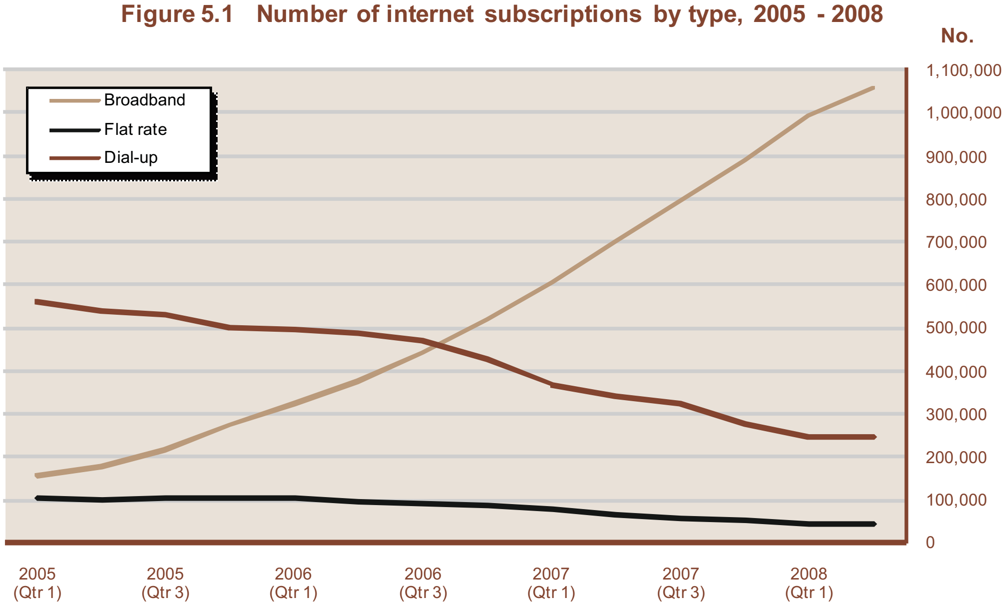
Introduction

This chapter presents information on the methods used to connect to the Internet. The aggregate data on narrowband and broadband connections at State level has been provided by the Commission for Communications Regulation (ComReg). The CSO ICT surveys are also used to provide additional data on both enterprises and households.

Aggregate narrowband and broadband connections

There has been rapid growth in the uptake of broadband since 2005. There were just over 176,000 broadband subscribers in the second quarter of 2005, but this increased to 1,055,000 subscribers by the same period of 2008. In the second quarter of 2008, 78% of all subscribers connecting to the internet used a broadband connection. The number of narrowband connections continued to decrease, down to 289,000 connections by the second quarter of 2008. *See Figure 5.1 and Tables 5.1 and 5.2.*

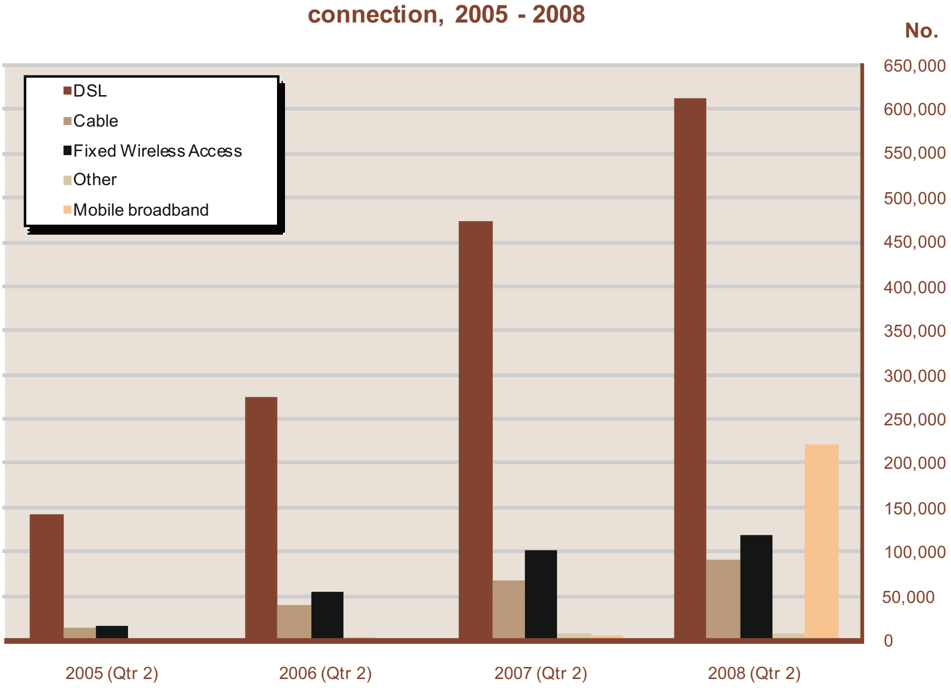
Figure 5.1 Number of internet subscriptions by type, 2005 - 2008



Source: ComReg

Fifty eight percent of broadband subscribers used Digital Subscriber Lines (DSL) for their connection in the second quarter of 2008 compared to 68% in the same period of 2007. The share of broadband subscribers using fixed wireless access decreased from almost 15% to 11% over the same period while the share of broadband subscribers connecting via a cable connection fell from 10% to 9%. ComReg also estimated that there were 45,000 subscribers connecting to the internet using mobile broadband in the second quarter of 2007, accounting for over 6% of broadband connections in the period. This grew by almost 400% to 222,300 subscribers in the second quarter of 2008. This accounted for 21% of broadband connections in this period. *See Figure 5.2 and Tables 5.1 and 5.2.*

Figure 5.2 Number of subscribers to each type of broadband connection, 2005 - 2008

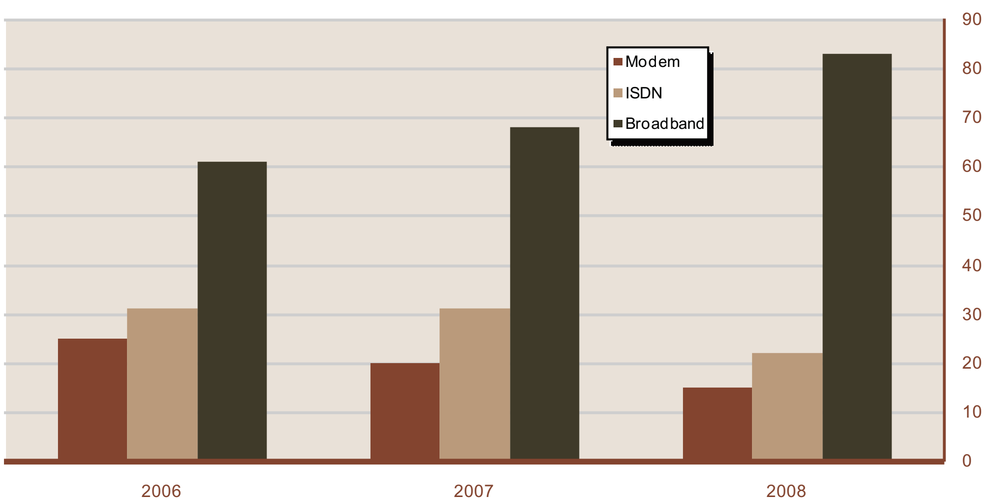


Source: ComReg
Note: Mobile figures only available for 2007 and 2008; Other figures only available for 2005, 2006, 2007 and 2008

Enterprises

In 2008, 83% of enterprises had a broadband connection, compared to 68% in 2007. Modem connections decreased across the same period from 20% in 2007 to 15% in 2008 while ISDN connections decreased from 31% in 2007 to 22% in 2008. Broadband usage is now broadly similar across the various sectors in 2008. *See Figure 5.3, Table 5.3 and Table 5.4.*

Figure 5.3 Type of internet connection as percentage of all enterprises, 2006 - 2008



Source: CSO - e-Commerce and ICT Survey

Households

The number of households with access to the internet on home computers continued to increase, with over 62% of all households connected to the internet in the first quarter of 2008. Of those 914,200 households connected to the internet, almost 69% were connected via a Broadband connection in 2008. For the second consecutive year figures have indicated that the number of households connected to the internet via a broadband connection exceeds the number connected by Modem/ISDN or other means. *See Table 5A.*

Table 5A Main trends in household ICT usage, 2005 - 2008

	Unit	2005	2006	2007	2008
All households	'000	**1,355.3**	**1,381.9**	**1,419.8**	**1,466.2**
Households with home computers	'000	744.5	808.4	929.8	1,031.5
% of all households	%	54.9	58.5	65.5	70.3
Households with computers connected to internet	'000	611.7	673.2	806.7	914.2
% of all households	%	45.1	48.7	56.8	62.3
% of households with home computers	%	82.2	83.3	86.8	88.6
Type of internet connection[1]					
Broadband	'000	100.0	180.4	443.2	629.6
Modem/ISDN	'000	527.4	498.0	352.4	273.4
Other/don't know	'000	12.6	11.8	17.6	21.4

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

[1] Some households may have more than one internet connection and use devices other than computers to connect to the internet

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

On a regional level, results continue to show a significantly higher uptake of broadband in the Southern and Eastern (SE) region when compared to the Border, Midlands and Western (BMW) region. Twenty seven percent of households in the BMW region had a broadband connection to the internet compared to 49% of households in the SE region. *See Table 5B.*

Table 5B Type of household connections to the internet[1], 2005 - 2008

'000

	2005	2006	2007	2008
Number of households				
Border, Midlands, Western	360.6	366.1	379.8	392.8
Southern and Eastern	994.7	1,015.8	1,040.1	1,073.5
Total number of households	**1,355.3**	**1,381.9**	**1,419.8**	**1,466.2**
Modem/ISDN				
Border, Midlands, Western	135.5	132.6	122.8	100.4
Southern and Eastern	391.9	365.4	229.5	173.0
Total Modem/ISDN	**527.4**	**498.0**	**352.4**	**273.4**
Broadband				
Border, Midlands, Western	10.7	16.9	57.0	104.9
Southern and Eastern	89.3	163.5	386.2	524.8
Total Broadband	**100.0**	**180.4**	**443.2**	**629.6**
Other/Don't know				
Border, Midlands, Western	2.1	1.3	4.1	6.5
Southern and Eastern	10.5	10.5	13.5	14.9
Total Other/Don't Know	**12.6**	**11.8**	**17.6**	**21.4**

Source: CSO - Quarterly National Household Survey : Q3 2005, Q1 2006, Q1 2007 and Q1 2008.

[1] Some households may have more than one internet connection and use devices other than computers to connect to the internet

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

In 2008, almost 50% of households with an internet connection that did not have a broadband connection indicated they did not have a broadband connection because it was not available in their area. On a regional level, over 67% of these internet connected, but not broadband connected, households in the BMW region indicated that broadband was not available in their area, compared to 40% in the SE region. *See Table 5C.*

Table 5C Reasons for households not having broadband but having internet connection at home, 2008

	Border, Midland and Western		Southern and Eastern		Total	
Unit	'000	%	'000	%	'000	%
Reason						
Too expensive	12.8	10.1	37.2	15.3	50.0	13.5
No need	21.6	17.0	64.5	26.5	86.1	23.3
Not available in my area	85.6	67.5	98.1	40.4	183.7	49.6
Can access broadband elsewhere	3.1	2.4	15.2	6.3	18.4	5.0
Other	9.7	7.6	38.3	15.8	48.0	13.0
Total[1]	**126.9**	**100.0**	**243.1**	**100.0**	**370.0**	**100.0**

Source: CSO - Quarterly National Household Survey : Q1 2008.

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

Note: Data are subject to sampling and other survey errors, which are relatively greater in respect of smaller values.

Note: Household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures.

Table 5.1 Numbers of subscribers to the internet by type of connection, 2005 - 2008 (Qtr 2)

	Unit	2005	2006	2007	2008
Narrowband	No.	**643,000**	**583,500**	**403,000**	**289,000**
Dial-up	No.	542,000	487,000	341,000	248,000
Flat Rate	No.	101,000	96,500	62,000	41,000
Broadband	No.	**176,300**	**372,200**	**698,000**	**1,054,900**
DSL	No.	143,400	275,200	472,700	611,600
Cable	No.	14,900	39,900	68,800	91,500
Fixed Wireless Access	No.	18,000	52,600	102,500	120,300
Mobile Broadband	No.	:	:	45,000[e]	222,300
Other	No.	:	4,500	9,000	9,200
All Subscribers	No.	**819,300**	**955,700**	**1,101,000**	**1,343,900**

Source: ComReg.

[e] estimate

: Data not available

Table 5.2 Market shares of connection types for internet subscribers, 2005 - 2008 (Qtr 2)

	Unit	2005	2006	2007	2008
Narrowband	%	**78.5**	**61.1**	**36.6**	**22.0**
of which:					
Dial-up	%	*84.3*	*83.5*	*84.6*	*81.8*
Flat Rate	%	*15.7*	*16.5*	*15.4*	*18.2*
Broadband	%	**21.5**	**38.9**	**63.4**	**78.0**
of which:					
DSL	%	*81.3*	*73.9*	*67.7*	*58.0*
Cable	%	*8.5*	*10.7*	*9.9*	*8.7*
Fixed Wireless Access	%	*10.2*	*14.1*	*14.7*	*11.4*
Mobile Broadband	%	:	:	*6.4*	*21.1*
Other	%	:	*1.2*	*1.3*	*0.9*
All Subscribers	%	**100.0**	**100.0**	**100.0**	**100.0**

Source: ComReg.

: Data not available

Table 5.3 External connection to the internet, as a percentage of all enterprises (10+ persons engaged)[1], March 2007 and March 2008

	Unit	Manufacturing sectors		Construction sector		Selected services sectors		Total	
		2007	2008	2007	2008	2007	2008	2007	2008
Type of external connection to the Internet[2]									
Modem	%	21	14	23	17	20	15	20	15
ISDN	%	31	21	37	20	31	22	31	22
Broadband	%	71	82	64	86	67	82	68	83
Broadband connection as % of all enterpises[2]									
DSL	%	41	63	39	69	44	68	43	67
DSL < 2Mb/sec	%	18	28	21	36	17	31	18	31
DSL > 2Mb/sec	%	26	38	21	37	30	41	28	40
Other fixed wire based connection	%	16	18	8	15	15	18	15	18
Other fixed wireless connection	%	25	19	24	17	22	17	23	17
Enterprises with broadband									
Using extranet	%	23	28	13	14	25	27	23	26
Having employees who e-work[3]	%	37	36	38	29	40	37	39	36
Purchases by Internet or EDI	%	69	70	56	45	65	59	65	59
Sales by Internet or EDI	%	34	35	9	7	33	29	32	28

Source: CSO - e-Commerce and ICT Survey

[1] Results for the construction industry covers only private firms with 20 or more persons engaged. Due to a revision in the Building and Construction Register in 2008, caution should be used in comparing data to previous years data.

[2] Enterprises may have more than one Internet connection. Similarly, those with broadband may use more than one type of connection.

[3] Enterprises who have employees who regularly work part of their time (at least 1/2 day per week) away from the premises and use electronic networks to communicate with the enterprise's ICT system.

Table 5.4 External connection to the internet, as a percentage of all enterprises (10+ persons engaged)[1], by sector, March 2008

		Manufacturing sectors					Construction sector	Selected services sectors								Total
NACE Division[2]	Unit	15-22	23-25	26-28	29-37	Total	45	50-52	55.1-55.2	60-63	64	70-71 73-74	72	92	Total	
Type of external connection to the Internet[3]																
Modem	%	16	12	14	11	14	17	17	25	12	13	11	10	12	15	15
ISDN	%	22	25	22	18	21	20	25	30	19	13	18	23	13	22	22
Broadband	%	81	87	80	83	82	86	77	83	87	93	89	96	83	82	83
Broadband connection as % of all enterprises[3]																
DSL	%	64	65	59	62	63	69	65	67	66	72	75	65	71	68	67
DSL < 2Mb/sec	%	29	28	30	26	28	36	34	34	32	12	27	25	34	31	31
DSL > 2Mb/sec	%	40	41	32	38	38	37	36	39	39	65	53	47	41	41	40
Other fixed wire based connection	%	18	26	11	21	18	15	14	17	25	39	19	59	8	18	18
Other fixed wireless connection	%	19	16	20	18	19	17	15	24	23	15	16	24	12	17	17
Enterprises with broadband																
Using extranet	%	28	37	18	31	28	14	25	21	25	52	28	66	8	27	26
Having employees who e-work[4]	%	38	45	20	40	36	29	29	18	45	53	47	94	15	37	36
Purchases by Internet or EDI	%	70	74	61	75	70	45	58	40	59	85	60	83	53	59	59
Sales by Internet or EDI	%	48	30	22	30	35	7	29	74	37	31	14	27	32	29	28

Source: CSO - e-Commerce and ICT Survey

[1] Results for the construction industry covers only private firms with 20 or more persons engaged. Due to a revision in the Building and Construction Register in 2008, caution should be used in comparing data to previous years

[2] See Appendix Three for key to NACE Rev 1.1 Classification

[3] Enterprises may have more than one Internet connection. Similarly, those with broadband may use more than one type of connection.

[4] Enterprises who have employees who regularly work part of their time (at least 1/2 day per week) away from the premises and use electronic networks to communicate with the enterprise's ICT system.

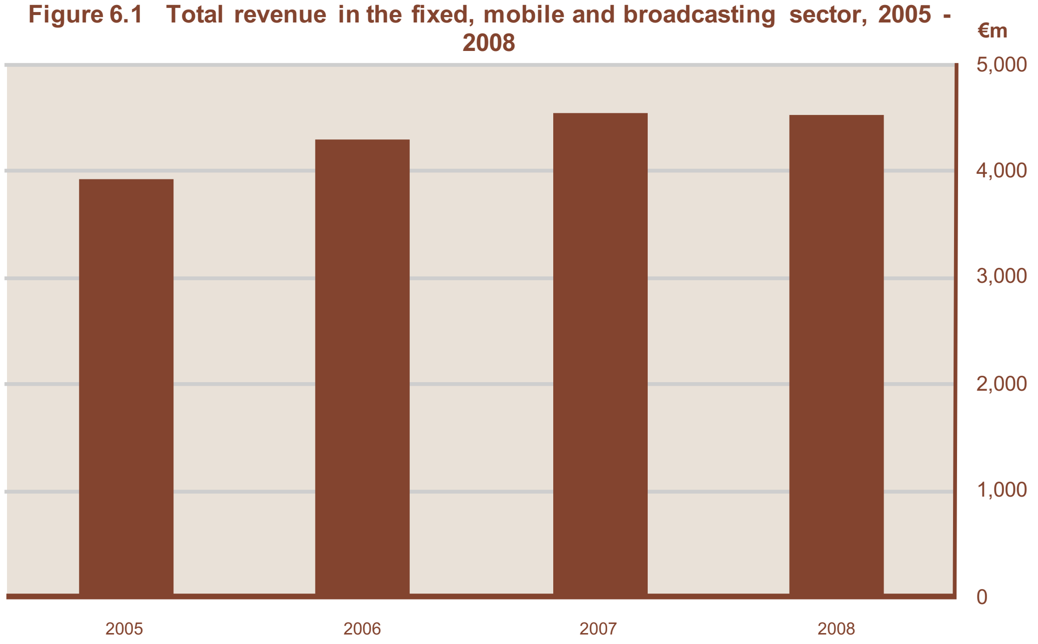
Chapter 6

Telecommunications

Introduction

This chapter presents information, supplied by the Commission for Communications Regulation (ComReg), on the telecommunications sector in Ireland. The fixed, mobile and broadcasting sectors generated revenues of €4.52 billion in 2008. This represented a decrease of 0.5% in revenue when compared with €4.54 billion in 2007. *See Figures 6.1 and 6.2 and Table 6.1.*

Figure 6.1 Total revenue in the fixed, mobile and broadcasting sector, 2005 - 2008

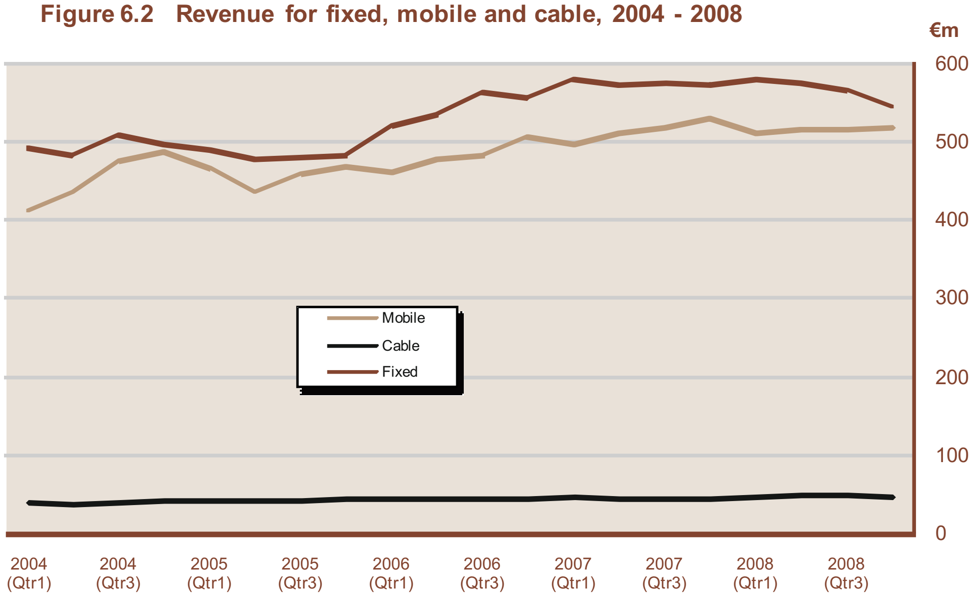


Source: ComReg

Revenues from fixed lines decreased again in 2008 despite a slight increase in 2007 over 2006. Total revenue from fixed lines was €2.3 billion in 2008 while total revenue from the mobile sector was almost €2.1 billion. *See Figure 6.1 and Table 6.1.*

The total volume of voice calls (fixed and mobile) increased from 18.2 billion minutes in 2007 to 20.3 billion minutes in 2008, an increase of over 11%. The total volume of fixed telephone voice time was over 9.1 billion minutes in 2008 which represents a decrease of 3.5% on the corresponding figure for 2007. These call volume minutes are made up of national and international calls, calls to mobile phones and other calls (including calls made from payphones). The volume of mobile voice calls increased by almost 28% from 2007 to 2008, increasing from 8.8 billion minutes to 11.2 billion minutes. While mobile calls represented 33% of all voice calls in 2004, this share had increased to over 55% of all voice calls in 2008. *See Table 6.1.*

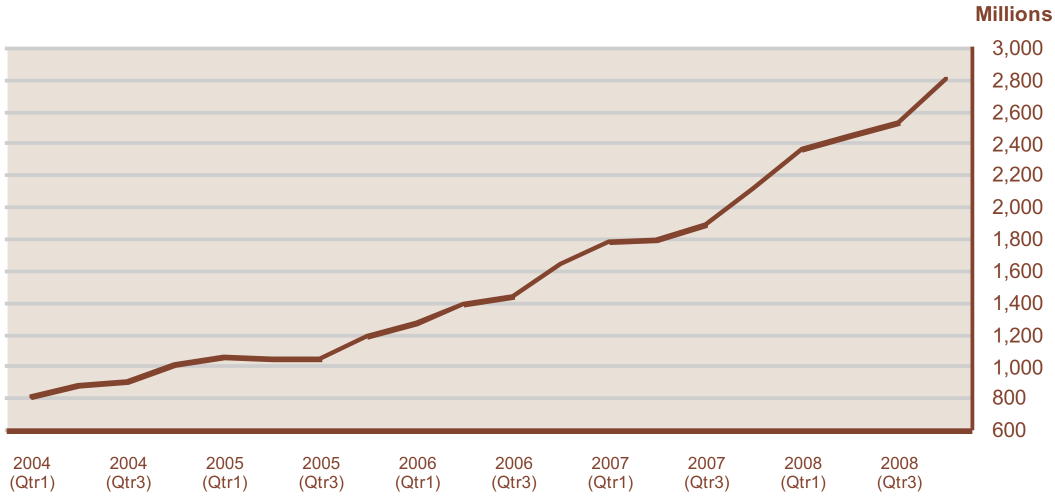
Figure 6.2 Revenue for fixed, mobile and cable, 2004 - 2008



Source: ComReg

According to ComReg, there were over 10.1 billion SMS messages sent in Ireland in 2008, an increase of 180% compared to the 3.6 billion SMS messages sent in 2004. *See Figure 6.3 and Table 6.1.*

Figure 6.3 Number of SMS messages sent, 2004 - 2008



Source: ComReg

Fixed Market

There were just over 2 million fixed telephone access paths in 2008 compared to 2.1 million in 2007. *See Table 6.2.*

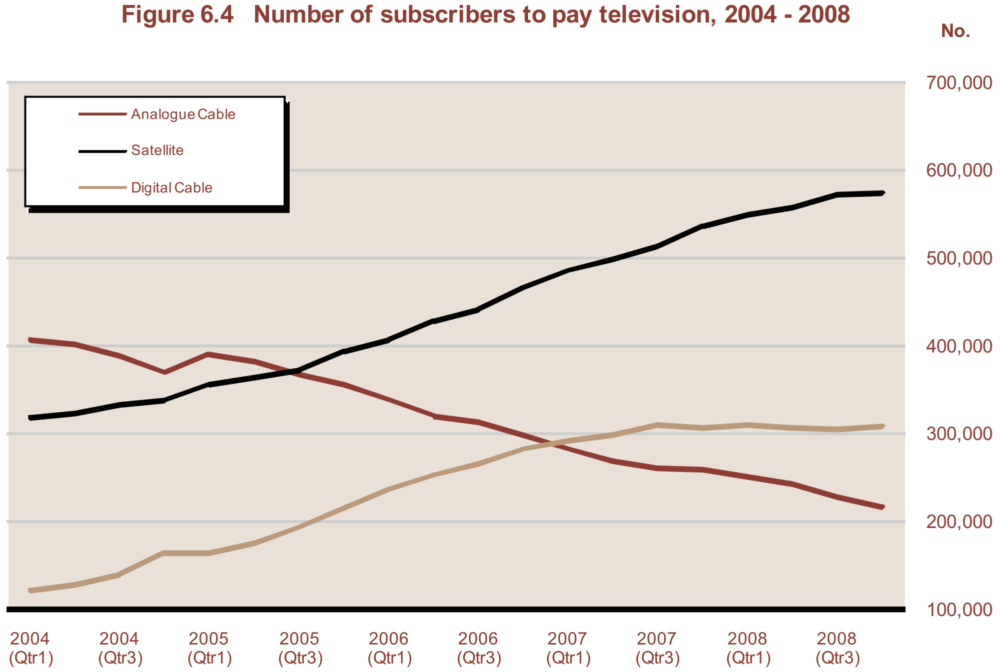
Mobile Market

The total number of mobile subscribers including HSDPA (High Speed Downlink Packet Access) in 2008 was almost 5.4 million. Pre-paid subscribers made up 70% of this market. The mobile penetration rate including HSDPA (based on active SIM cards as a percentage of total population) for Ireland has increased from almost 118% in 2007 to over 121% in 2008. *See Table 6.2.*

Broadcasting

In the second quarter of 2008, 869,000 pay television subscribers had a digital subscription via satellite or digital cable, representing almost 79% of all pay television subscribers in the period. By comparison, in the second quarter of 2005, 59% of pay television subscribers had a digital subscription. *See Figure 6.4 and Table 6.3.*

Figure 6.4 Number of subscribers to pay television, 2004 - 2008



Source: ComReg

Table 6.1 Selected telecommunications data, 2004 - 2008

	Unit	2004	2005	2006	2007	2008
Revenues						
Fixed	€m	1,979	1,925	2,179	2,302	2,262
Mobile	€m	1,806	1,826	1,925	2,051	2,057
Cable	€m	156	168	181	183	196
Total revenue	€m	**3,941**	**3,919**	**4,285**	**4,536**	**4,515**
Volumes						
Fixed telephone voice	'000 mins	9,659,809	9,779,349	10,102,159	9,460,365	9,126,075
Mobile voice	'000 mins	4,783,741	5,698,581	7,086,000	8,769,800	11,191,309
Total (fixed and mobile) voice	'000 mins	**14,443,550**	**15,477,930**	**17,188,159**	**18,230,165**	**20,317,384**
Mobile SMS	Millions	**3,624**	**4,351**	**5,747**	**7,578**	**10,140**

Source: ComReg

Note: Includes revised data for 2005 and 2006.

Table 6.2 Selected telecommunications data, 2005 - 2008

	Unit	2005	2006	2007	2008
Fixed					
Total fixed access paths[1]	'000	2,032	2,074	2,095	2,057
Mobile Subscriptions					
Post Paid Subscriptions (including HSDPA*)	'000	:	:	1,310	1,592
Pre Paid Subscriptions (including HSDPA*)	'000	:	:	3,788	3,765
Total mobile subscriptions (including HSDPA*)	**'000**	**:**	**:**	**5,098**	**5,357**
Average Revenue per User (ARPU)	€	**47.70**	**45.02**	**44.33**	**41.16**
Mobile Volumes					
Voice minutes	'000	5,698,581	7,086,000	8,769,800	11,191,309
SMS	'000	4,351,350	5,746,839	7,577,624	10,140,424
MMS	'000	12,899	31,345	33,434	45,891
Mobile penetration rates[2]					
incl. HSDPA	%	:	:	117.6	121.1
excl. HSDPA	%	102.0	110.8	114.6	114.2

Source: ComReg

[1] Total number of direct and indirect fixed PSTN and ISDN access paths. Individual ISDN lines may have multiple access paths.

[2] Based on active SIMs as a percentage of the total population.

* HSDPA = High Speed Downlink Packet Access (See Appendix 4)

: Data not available

Table 6.3 Selected broadcasting data, 2005 - 2008 (Qtr 2)

	Unit	2005	2006	2007	2008
Television					
Number of subscribers by platform	'000	**917**	**997**	**1,062**	**1,102**
of which					
Analogue cable	'000	380	319	268	233
Satellite	'000	363	427	497	557
Digital cable	'000	174	251	297	312

Source: ComReg

Chapter 7

International Comparisons

Introduction

This chapter presents some international comparisons in respect of various aspects of the Information Society. These international comparisons show how Ireland compares with other countries in respect of selected aspects of the Information Society. The latest European Union (EU) results from the enterprise and household surveys are presented.

Use of ICT by Enterprises

In 2008, almost one third (32%) of enterprises in the United Kingdom indicated that they received orders on-line in the previous year. Results for the Netherlands showed that 27% of enterprises received orders on-line, while Ireland was ranked third having 25% of enterprises reporting that they received orders on-line in the previous year. Lithuania had the fourth highest on-line order value at 22%, while Denmark indicated 20% of enterprises received on-line orders in the same period.The EU27 average was 16%. *See Table 7.1.*

Table 7.1 Percentage of enterprises who received orders on-line during the previous year, 2005 - 2008

	Unit	2005	2006	2007	2008
European Union (EU27)	**%**	**12**	**14**	**15**	**16**
Belgium	%	16	15	18	16
Bulgaria	%	:	2	1	2
Czech Republic	%	13	8	9	15
Denmark	%	32	34	33	20
Germany	%	16	18	24	:
Estonia	%	8	14	7	11
Ireland	**%**	**21**	**23**	**27**	**25**
Greece	%	7	7	6	6
Spain	%	3	8	8	10
France	%	:	:	:	13
Italy	%	3	3	2	3
Cyprus	%	4	6	7	7
Latvia	%	1	2	2	6
Lithuania	%	6	13	14	22
Luxembourg	%	10	11	13	10
Hungary	%	4	9	4	4
Malta	%	16	14	16	13
Netherlands	%	14	23	26	27
Austria	%	10	15	18	15
Poland	%	5	9	9	8
Portugal	%	9	7	9	19
Romania	%	:	2	3	3
Slovenia	%	12	11	10	8
Slovakia	%	7	:	5	5
Finland	%	17	14	15	:
Sweden	%	23	24	27	19
United Kingdom	%	25	30	29	32

Source: Eurostat.

: Data not available.

Use of ICT by Households

The Netherlands had the highest rate of internet access in households in the EU in 2008 with 86% of all households in the Netherlands having access to the internet. In Sweden, 84% of all households had internet access, while the corresponding figures in Denmark and Luxembourg were 82% and 80% respectively. In Ireland, 63% of all households had internet access, compared to the EU27 average for 2008 of 60%. This is the third successive year in which Ireland has been ahead of this EU27 average. *See Table 7.2.*

Table 7.2 Percentage of households having access to the Internet at home[1], 2005 - 2008

	Unit	2005	2006	2007	2008
European Union (EU27)	**%**	**48**	**49**	**54**	**60**
Belgium	%	50	54	60	64
Bulgaria	%	:	17	19	25
Czech Republic	%	19	29	35	46
Denmark	%	75	79	78	82
Germany	%	62	67	71	75
Estonia	%	39	46	53	58
Ireland	**%**	**47**	**50**	**57**	**63**
Greece	%	22	23	25	31
Spain	%	36	39	45	51
France	%	:	41	49	62
Italy	%	39	40	43	47
Cyprus	%	32	37	39	43
Latvia	%	31	42	51	53
Lithuania	%	16	35	44	51
Luxembourg	%	65	70	75	80
Hungary	%	22	32	38	48
Malta	%	41	:	54	59
Netherlands	%	78	80	83	86
Austria	%	47	52	60	69
Poland	%	30	36	41	48
Portugal	%	31	35	40	46
Romania	%	:	14	22	30
Slovenia	%	48	54	58	59
Slovakia	%	23	27	46	58
Finland	%	54	65	69	72
Sweden	%	73	77	79	84
United Kingdom	%	60	63	67	71

Source: Eurostat.

[1] Measures all means a household may have of accessing the internet

: Data not available.

Connecting to the Internet

The percentage of Irish enterprises with a broadband connection has steadily increased from 48% in 2005 to 83% in 2008. The EU27 average for 2008 was 81%. Spain, France and Finland all reported the highest percentage of enterprises using broadband, with a penetration rate of 92% for all three countries. In addition, Belgium, Sweden, Malta, Estonia, Luxembourg, the United Kingdom and the Netherlands all had rates in excess of 85%. *See Table 7.3.*

Table 7.3 Percentage of enterprises with a broadband connection, 2005 - 2008

	Unit	2005	2006	2007	2008
European Union (EU27)	**%**	**62**	**73**	**77**	**81**
Belgium	%	78	84	86	91
Bulgaria		32	57	61	62
Czech Republic	%	52	69	77	79
Denmark	%	82	83	80	80
Germany	%	62	73	80	84
Estonia	%	67	76	78	88
Ireland	**%**	**48**	**61**	**68**	**83**
Greece	%	44	58	72	71
Spain	%	76	87	90	92
France	%	:	86	89	92
Italy	%	57	70	76	81
Cyprus	%	40	55	69	79
Latvia	%	48	59	57	62
Lithuania	%	57	57	53	56
Luxembourg	%	64	76	81	87
Hungary	%	48	61	70	72
Malta	%	78	83	89	89
Netherlands	%	71	82	87	86
Austria	%	61	69	72	76
Poland	%	43	46	53	59
Portugal	%	63	66	76	81
Romania	%	:	31	37	44
Slovenia	%	74	75	79	84
Slovakia	%	48	61	76	79
Finland	%	81	89	91	92
Sweden	%	83	89	87	89
United Kingdom	%	65	77	78	87

Source: Eurostat.

: Data not available.

The number of households in Ireland with a broadband connection as a percentage of households with internet access was more than four times higher in 2008 than 2005, up from 16% to 68%. The EU27 average for 2008 was 80%. Only Italy, Slovakia and Romania reported a lower percentage when compared to Ireland. The highest levels of households with a broadband connection as a percentage of households with internet access at home were recorded in Belgium (95%) and Malta and Estonia (both at 94%). *See Table 7.4.*

Table 7.4 Households with a broadband connection as a percentage of households with Internet access at home, 2005 - 2008

	Unit	2005	2006	2007	2008
European Union (EU27)	**%**	**48**	**62**	**77**	**80**
Belgium	%	81	89	94	95
Bulgaria	%	:	59	81	82
Czech Republic	%	27	57	80	79
Denmark	%	68	80	89	90
Germany	%	38	50	70	73
Estonia	%	77	80	90	94
Ireland	**%**	**16**	**26**	**54**	**68**
Greece	%	3	17	29	73
Spain	%	58	75	88	87
France	%	:	74	87	92
Italy	%	34	41	58	66
Cyprus	%	14	34	52	77
Latvia	%	46	53	63	75
Lithuania	%	73	56	77	84
Luxembourg	%	52	63	77	76
Hungary	%	49	68	86	87
Malta	%	56	:	82	94
Netherlands	%	69	82	89	86
Austria	%	50	63	77	79
Poland	%	51	60	72	80
Portugal	%	63	68	77	85
Romania	%	:	37	36	45
Slovenia	%	40	62	76	84
Slovakia	%	31	43	57	61
Finland	%	67	82	91	91
Sweden	%	55	66	85	84
United Kingdom	%	52	70	85	86

Source: Eurostat.

: Data not available.

Telecommunications

Irish mobile users continue to be amongst the highest users of Short Message Service (SMS) messages in the EU in 2006. On a per capita basis, almost 1,365 SMS messages (5,745 million SMS messages with an estimated population of 4.21 million) were sent per head of population in Ireland in 2006. Of the other EU countries for which data relating to 2006 are available, only Lithuania, Denmark and Cyprus recorded higher rates of SMS messages sent per capita. *See Table 7.5 and Figure 7.1.*

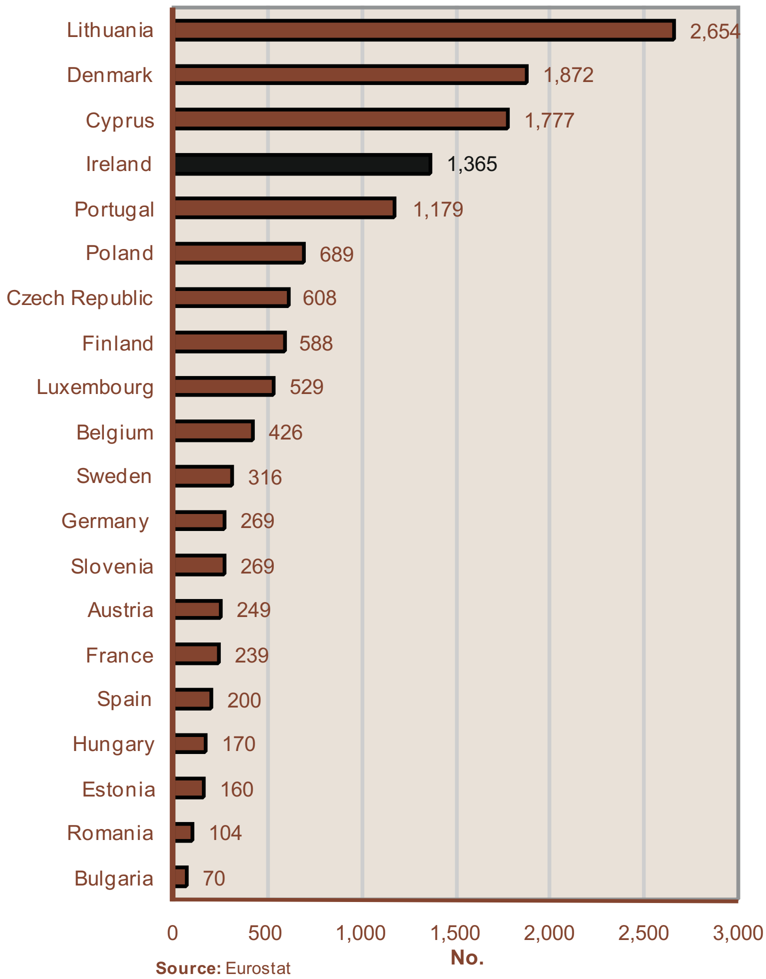
Table 7.5 Total number of SMS messages sent, 2003 - 2006

	Unit	2003	2004	2005	2006
European Union (EU27)	**Millions**	**:**	**:**	**:**	**:**
Belgium	Millions	2,722	2,898	3,459	4,474
Bulgaria	Millions	332	445	495	538
Czech Republic	Millions	5,130	5,711	5,846	6,230
Denmark	Millions	3,989	6,554	8,423	10,158
Germany (including ex-GDR from 1991)	Millions	19,500	19,700	22,300	22,200
Estonia	Millions	94	112	144	215
Ireland	**Millions**	**3,035**	**3,624**	**4,351**	**5,745**
Greece	Millions	3,958	3,880	3,827	:
Spain	Millions	11,736	8,636	8,636	8,761
France	Millions	8,188	10,335	12,712	15,050
Italy	Millions	:	:	:	:
Cyprus	Millions	755	961	1,226	1,362
Latvia	Millions	:	:	:	:
Lithuania	Millions	897	1,388	4,939	9,034
Luxembourg (Grand-Duché)	Millions	17	195	215	248
Hungary	Millions	1,177	1,205	1,561	1,709
Malta	Millions	365	392	410	:
Netherlands	Millions	2,523	:	:	:
Austria	Millions	1,297	1,587	1,634	2,059
Poland	Millions	5,294	7,988	14,070	26,297
Portugal	Millions	2,203	2,564	5,978	12,458
Romania	Millions	414	931	1,647	2,253
Slovenia	Millions	392	413	469	538
Slovakia	Millions	1,340	1,224	1,324	:
Finland	Millions	1,650	2,194	2,728	3,088
Sweden	Millions	1,816	2,044	2,089	2,857
United Kingdom	Millions	:	:	:	:

Source: Eurostat.

: Data not available.

Figure 7.1 Number of SMS messages sent per capita, 2006



Source: Eurostat

Appendix 1

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 the use of information technology have also been included. The results for the industrial sector contained in Chapter 2 and Table 3.5 have been updated to take account of revisions to data. *Results from the Census of Industrial Production appear in Chapter 2 and Table 3.5.*

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 and I. 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 for the services sector contained in Chapter 2 and Table 3.5 have been updated to take account of revisions to data. *Results from the Annual Services Inquiry appear in Chapter 2 and Table 3.5.*

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 ICT and e-Commerce usage was first included in the third quarter of 2003 and repeated in the third quarter of 2004 and 2005. In the first quarter of 2008, a sample of just under 6,000 households was included for the purposes of the ICT and e-Commerce module. It included questions relating to the household and questions asked of each person aged 16 to 74. The grossing procedure aligns the distribution of persons covered in the sample with independently determined population estimates at the level of sex, 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-on-year trends. The reference quarters for survey results are: Q1 -

December to February, Q2- March to May, Q3 - June to August and Q4 - September to November. When comparing the 2008, 2007 and 2006 results with results from earlier years, the change in the reference period should be taken into account. It should also be noted that the household figures have been revised in line with updated population estimates arising from the Census of Population 2006 figures. 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. *Results from the QNHS module on Home Computing appear in Chapter 4.*

Enterprise Survey of e-Commerce and ICT

This survey was first conducted by the CSO in October 2002 and since then has been conducted in March of each year. The results presented in this report are for the March 2008 survey. The survey generally covers manufacturing enterprises and enterprises in a range of service sectors with ten or more persons engaged, and enterprises in the construction sector with twenty or more persons engaged. Bars and restaurants were not surveyed. *The results for enterprises with ten or more persons engaged are included in Chapter 3 and Tables 5.3 and 5.4.*

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. Note that a major revision of NACE codes took place between 2000 and 2007 and as a result, NACE Rev. 2 has been established. NACE Rev. 2 has incorporated significant changes from NACE Rev. 1.1 and results for the 2009 Enterprise Survey of e-Commerce and ICT will be coded under this new NACE Rev. 2 coding.

International Comparisons

The international comparisons in Chapter 7 are based on information from Eurostat. Further data are available at http://epp.eurostat.ec.europa.eu.

i2010: European Information Society 2010

This is a European initiative to foster growth and jobs in the information society and media industries. i2010 is a comprehensive strategy for modernising and deploying all EU policy instruments to encourage the development of the digital economy: regulatory instruments, research and partnerships with industry. 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 the production of statistical indicators required under this initiative.

Appendix 2

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	X		-
D (15-37)	Manufacturing	X		X
E (40-41)	Electricity, gas and water	X		-
F (45)	Construction			X
G (50-52)	Wholesale; retail; repairs		X	X
H (55)	Hotels, bars and restaurants		X	X[1]
I (60-64)	Transport, storage and communications		X	X
J (65-67)	Financial intermediation		X[2]	X[2]
K (70-74)	Real estate, renting and business activities		X	X
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		X[3]	X[3]
Size classes (persons engaged)				
1-2		-	X	-
3-9		X	X	-
10 or more		X	X	X*

[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.

[3] The sectors covered under this heading relate to recreation (cinemas, sport events, etc) and to personal services (hairdressing etc.). Only Recreational, Cultural and Sporting activity sectors are included in Tables 3.1 to 3.4.

* The e-Commerce and ICT survey generally covers manufacturing enterprises and enterprises in a range of service sectors with ten or more persons engaged, and enterprises in the construction sector with twenty or more persons engaged. Bars and restaurants were not surveyed. The results for enterprises with ten or more persons engaged are included in Chapter 3 and Tables 5.3 and 5.4.

Appendix 3

Key to NACE Rev 1.1 Classification

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

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

19 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.

32 Manufacture of radio, television and communication equipment and apparatus

33 Manufacture of medical, precision and optical instruments, watches and clocks

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

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

Construction - Division 45

45 Construction

Services – Divisions 50 to 93

50 Sale, maintainance 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
65.11* Central banking
65.12 Other monetary intermediation
65.21* Financial leasing
65.22 Other credit granting
65.23* Other financial intermediation n.e.c.

66 Insurance and pension funding, except compulsory social security
66.01 Life insurance
66.02* Pension funding
66.03 Non-life insurance

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 organizations n.e.c

92 Recreational, cultural and sporting activities

93* Other service activities

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

Appendix 4

Technical Explanations

Automated Data Exchanges

Automated Data Exchanges between the enterprise and other ICT systems outside the enterprise means the exchange of messages: (eg. Orders, invoices, payment transactions or description of goods)

- Via the internet or other computer networks
- In an agreed format which allows it automatic processing (eg. XML, EDIFACT, etc.)
- Without the individual message being manually typed.

Broadband

High-speed, always-on internet access running with a speed of greater than 128Kbps. It is able to carry very large amounts of information.

Digital products or services

Goods/services that can be ordered and delivered directly to a computer over the internet, eg music, videos, games, computer software, online newspapers, consulting services etc.

DSL Digital Subscriber Line

DSL technologies are designed to increase bandwidth available over standard copper telephone wires. Includes IDSL, HDSL, SDSL, ADSL, RADSL, VDSL, DSL-Lite and xDSL.

Electronic commerce (e-commerce)

Transactions conducted over IP-based networks and over other computer mediated networks. The goods and services are ordered over those networks, but the payment and ultimate delivery of the goods or service may be conducted on or off-line. Orders received via telephone, facsimile and non-interactive e-mails are not counted as electronic commerce.

Electronic Data Interchange (EDI)

Electronic exchange of forms, such as for orders, between geographically dispersed locations.

E-mail
Electronic transmission of messages.

Extranet
A secure extension of an Intranet that allows external users to access some parts of an organisation's Intranet.

High Speed Downlink Packet Access (HSDPA)
High Speed Downlink Packet Access (HSDPA) is a 3G (third generation) mobile telephony communications protocol in High Speed Packet Access (HSPA) family, which allows networks based on Universal Mobile Telecommunications System (UMTS) to have higher data transfer speeds and capacity.

Information Technology (IT)
All aspects of managing and processing information with computers within companies.

Internet
Relates to IP-based networks: www, Extranet over the Internet, EDI over the Internet and Internet-enabled mobile phones.

Intranet
An internal company communications network using IP-based communications within an organisation.

ISDN
Integrated Services Digital Network.

LAN Local Area Network.
This relates to your company's computer network, usually within an office, building or closed geographical area.

Mbps
Megabyte per second.

Modem
Device that converts outgoing digital signals from a computer to analogue signals which can be transmitted via conventional copper telephone line, and which converts incoming analogue signals to digital.

Online payment
An online payment is an integrated order-payment transaction.

Website
Location on the World Wide Web identified by a Web address. A collection of Web files on a particular subject that includes a beginning file call a homepage. Information is encoded with specific languages (HTM., XML, Java) readable with a Web browser, like Netscape's Navigator or Microsoft's Internet Explorer.