

**ICT USAGE BY ENTERPRISES  
AND  
HOUSEHOLDS  
2010**

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## Foreword

Information and Communication Technology (ICT) is a rapidly evolving sector, for which statistical standards and definitions need to be revised and adapted continuously. As the official data collector on ICT, the National Statistics Office prides itself in keeping abreast of the latest developments in ICT, and presenting these to the user in a meaningful way.

For the first time ever, therefore, the NSO is publishing a set of key ICT indicators following separate surveys conducted in 2010 on the usage of such technology in households, by individuals, and by enterprises. The collection of data on the information society corresponds to the framework Regulation (EC) 808/2004, which ensures that the data are harmonised across all EU Member States.

Variables found in this publication include the number of households with access to a home computer and to internet, internet penetration, internet selling and purchasing by industry, and business use of broadband technology, to name but a few. The data aspects collated correspond with the main aims of i2010, a European Information Society strategy for growth and employment, a key element of the so-called renewed Lisbon Strategy.

I take this opportunity to thank Ms SueAnn Scott and Mr Matthew Zerafa for compiling this interesting and useful publication.

Michael Pace Ross  
Director General

May 2011



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**1. Information and Communication  
Technology usage by Enterprises  
2010**



## **Introduction**

The survey on information and communication technology (ICT) usage by enterprises, conducted during the first quarter of 2010, targeted enterprises employing a minimum of 10 persons, based on full-time equivalents (FTE). A list of the NACE categories targeted in this study is available in the methodological notes. The aim of this research was to analyse the extent to which enterprises rely on the use of ICT in the running of their day-to-day business activities.

Results for January 2010 showed that 96 per cent of enterprises had access to a computer while 94 per cent also had access to the Internet.



## Computer use

During the reference period, 96 per cent of enterprises had access to a computer, at par with the estimate for 2009. From a size class point of view, all medium and large enterprises (those with at least 50 employees) made use of computers, as in the previous year. On the other hand, a minor drop was recorded in the case of small enterprises (Table 2). At the same time, 48 per cent of employees (based on FTE) made use of a computer at work, an increase of 3 percentage points when compared to January 2009 (Table 3).

Enterprises having a third party free or open source operating system were estimated at 12 per cent, a slight increase when compared to the corresponding period in 2009 (Table 4). Furthermore, enterprises using a local area network (LAN) stood at 84 per cent, while enterprises using a wireless LAN reached 46 per cent during January 2010 (Tables 5 and 6). Increases were recorded in the use of both computer network technologies. The survey showed that 29 per cent of enterprises had an internal home page facility, known as an Intranet, while a further 29 per cent were able to offer Extranet facilities, that is, a website or Intranet extension allowing exclusive access to business partners (Table 8).

**Table 1.1. Computer use by enterprises**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>1,249</b>	<b>95.8</b>	<b>95.7</b>	<b>-0.1</b>
Size class:				
10-49	995	94.8	94.6	-0.2
50-249	210	100.0	100.0	0.0
250+	44	100.0	100.0	0.0
Main economic activity:				
Manufacturing	245	92.9	96.1	3.2
Construction	116	92.8	87.6	-5.2
Wholesale and retail trade	412	98.6	99.0	0.4
Transportation and storage	77	98.0	98.3	0.3
Accommodation and food service activities	133	92.9	87.4	-5.5
Information and communication	60	97.3	100.0	2.7
Professional, scientific and technical activities	114	100.0	98.6	-1.4
Administrative and support service activities	71	95.2	95.1	-0.1
Other <sup>u</sup>	21	95.7	100.0	4.3

**Table 1.2. Computer use for enterprises employing 10-49 persons**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>10-49</b>	<b>995</b>	<b>94.8</b>	<b>94.6</b>	<b>-0.2</b>
Main economic activity:				
Manufacturing	186	90.4	94.9	4.5
Construction	92	91.5	84.8	-6.7
Wholesale and retail trade	363	98.4	98.9	0.5
Transportation and storage	61	97.7	97.8	0.1
Accommodation and food service activities	87	89.5	81.9	-7.6
Information and communication	41	96.0	100.0	4.0
Professional, scientific and technical activities	100	100.0	98.4	-1.6
Administrative and support service activities	47	92.9	92.9	0.0
Other <sup>u</sup>	18	94.6	100.0	5.4

**Table 1.3. Employees using the computer at work**

	Absolute		% total		Percentage change
	Employees	Computer users	2009	2010	
<b>Total</b>	<b>66,244</b>	<b>31,750</b>	<b>44.8</b>	<b>47.9</b>	<b>3.2</b>
Size class:					
10-49	22,393	11,070	47.7	49.4	1.7
50-249	20,768	9,467	38.6	45.6	7.0
250+	23,083	11,213	48.2	48.6	0.4
Main economic activity:					
Manufacturing	16,668	7,561	42.1	45.4	3.3
Construction	6,407	1,016	18.9	15.9	-3.1
Wholesale and retail trade	11,819	7,000	52.1	59.2	7.1
Transportation and storage	5,771	3,108 <sup>u</sup>	48.7 <sup>u</sup>	53.9 <sup>u</sup>	5.1
Accommodation and food service activities	8,197	2,471	24.9	30.1	5.3
Information and communication	4,635	4,116	88.5	88.8	0.3
Professional, scientific and technical activities	4,710	3,191 <sup>u</sup>	77.2 <sup>u</sup>	67.8 <sup>u</sup>	-9.5
Administrative and support service activities	4,592	1,988 <sup>u</sup>	43.7 <sup>u</sup>	43.3 <sup>u</sup>	-0.4
Other <sup>u</sup>	:	:	:	:	:



**Table 1.4. Employees using the computer at work (enterprises employing 10-49 persons)**

	Absolute		% total		Percentage change
	Employees	Computer users	2009	2010	
<b>Total</b>	<b>22,393</b>	<b>11,070</b>	<b>47.7</b>	<b>49.4</b>	<b>1.7</b>
Main economic activity:					
Manufacturing	4,433	1,324	29.3	29.9	0.6
Construction	2,218	418	19.9	18.8	-1.1
Wholesale and retail trade	7,410	4,253	56.5	57.4	0.9
Transportation and storage	1,320	740	53.5	56.1	2.6
Accommodation and food service activities	2,258	652	28.5	28.9	0.4
Information and communication	1,056	877	83.4	83.0	-0.4
Professional, scientific and technical activities	2,269	1,881	89.8	82.9	-6.9
Administrative and support service activities	1,048	652	62.6	62.2	-0.4
Other <sup>u</sup>	:	:	:	:	:

**Table 1.5. Availability of Local Area Network (LAN)**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>1,097</b>	<b>81.7</b>	<b>84.1</b>	<b>2.4</b>
Size class:				
10-49	857	78.6	81.6	3.0
50-249	199	93.7	94.8	1.1
250+	41	96.7	92.0	-4.7
Main economic activity:				
Manufacturing	213	73.5	83.5	10.0
Construction	82	63.8	61.7	-2.1
Wholesale and retail trade	375	91.3	90.3	-1.0
Transportation and storage	69	82.2	88.0	5.8
Accommodation and food service activities	114	71.2	75.3	4.1
Information and communication	57	92.9	95.1	2.2
Professional, scientific and technical activities	103	94.8	88.8	-6.0
Administrative and support service activities	63	88.7	84.6	-4.1
Other <sup>u</sup>	21	83.3	100.0	16.7

**Table 1.6. Availability of wireless LAN**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>599</b>	<b>40.7</b>	<b>45.9</b>	<b>5.2</b>
Size class:				
10-49	445	37.6	42.3	4.7
50-249	126	49.9	60.2	10.3
250+	28	72.3	64.2	-8.1
Main economic activity:				
Manufacturing	107	27.8	41.8	14.0
Construction	36	22.8	27.1	4.3
Wholesale and retail trade	196	48.0	47.5	-0.5
Transportation and storage	37	40.9	47.2	6.3
Accommodation and food service activities	59	36.7	38.7	2.0
Information and communication	42	76.0	69.8	-6.2
Professional, scientific and technical activities	69	53.1	59.5	6.4
Administrative and support service activities	38	42.1	50.1	8.0
Other <sup>u</sup>	15	49.6	72.4	22.8

**Table 1.7. Availability of an Intranet**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>379</b>	<b>28.9</b>	<b>29.1</b>	<b>0.2</b>
Size class:				
10-49	257	23.7	24.6	0.9
50-249	89	44.7	42.3	-2.4
250+	33	78.2	73.9	-4.3
Main economic activity:				
Manufacturing	72	24.9	28.2	3.3
Construction	16	10.9	12.3	1.4
Wholesale and retail trade	110	26.4	26.5	0.1
Transportation and storage	30	24.3	38.1	13.8
Accommodation and food service activities	34	33.8	22.3	-11.5
Information and communication	42	70.0	70.3	0.3
Professional, scientific and technical activities	33	34.2	28.4	-5.8
Administrative and support service activities	33	43.5	44.3	0.8
Other <sup>u</sup>	:	:	:	:

**Table 1.8. Availability of an Extranet**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>378</b>	<b>29.4</b>	<b>29.0</b>	<b>-0.4</b>
Size class:				
10-49	274	27.1	26.0	-1.1
50-249	79	35.4	37.8	2.4
250+	25	55.4	56.8	1.4
Main economic activity:				
Manufacturing	73	20.9	28.6	7.7
Construction	19	13.3	14.1	0.8
Wholesale and retail trade	92	27.6	22.3	-5.3
Transportation and storage	30	34.2	38.0	3.8
Accommodation and food service activities	33	34.6	21.6	-13.0
Information and communication	40	59.0	67.0	8.0
Professional, scientific and technical activities	52	47.1	44.6	-2.5
Administrative and support service activities	30	43.8	40.4	-3.4
Other <sup>u</sup>	:	:	:	:

**Table 1.9. Use of third party free or open source operating systems**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>151</b>	<b>10.8</b>	<b>11.5</b>	<b>0.7</b>
Size class:				
10-49	95	9.2	9.0	-0.2
50-249	43	13.3	20.6	7.3
250+	13	40.5	28.4	-12.1
Main economic activity:				
Manufacturing	21	5.9	8.1	2.2
Construction	3 <sup>u</sup>	2.3 <sup>u</sup>	2.1 <sup>u</sup>	-0.2
Wholesale and retail trade	47	11.2	11.2	0.0
Transportation and storage	11	8.7	14.7	6.0
Accommodation and food service activities	9 <sup>u</sup>	10.1 <sup>u</sup>	5.8 <sup>u</sup>	-4.3
Information and communication	31	57.4	51.9	-5.5
Professional, scientific and technical activities	14 <sup>u</sup>	10.9 <sup>u</sup>	12.1 <sup>u</sup>	1.2
Administrative and support service activities	11 <sup>u</sup>	9.6 <sup>u</sup>	14.5 <sup>u</sup>	4.9
Other <sup>u</sup>	:	:	:	:

## Internet use

Results show that during the reference period, 94 per cent of enterprises had access to the Internet – an estimate at par with that for 2009 (Table 10). Findings concerning the type of Internet connection show that the use of dial-up connections declined from 11 per cent in 2009 to 3 per cent of enterprises in 2010. On the other hand, DSL technology emerges as the most popular choice among local enterprises, with an estimated 85 per cent of users (Chart 1). Table 12 shows that 35 per cent of employees used Internet at work during January 2010, a 2 percentage point increase when compared to the corresponding period a year before.

The use of e-Government service has proven to be very popular among Maltese enterprises, as results showed that 86 per cent of companies with at least 10 employees (FTE) made use of e-Government services during 2010 (Table 15). E-Government is most commonly used for obtaining information – 98 per cent of enterprises – and for downloading forms such as tax forms – 93 per cent of enterprises (Table 16).

Concurrently, Table 17 shows that during the reference period, 70 per cent of enterprises making use of the Internet also had a website or home page at their disposal. The most common facilities provided on the website were product catalogues or price lists, and a privacy policy statement or certification related to website safety. These were present in 59 and 53 per cent of cases respectively (Table 18).

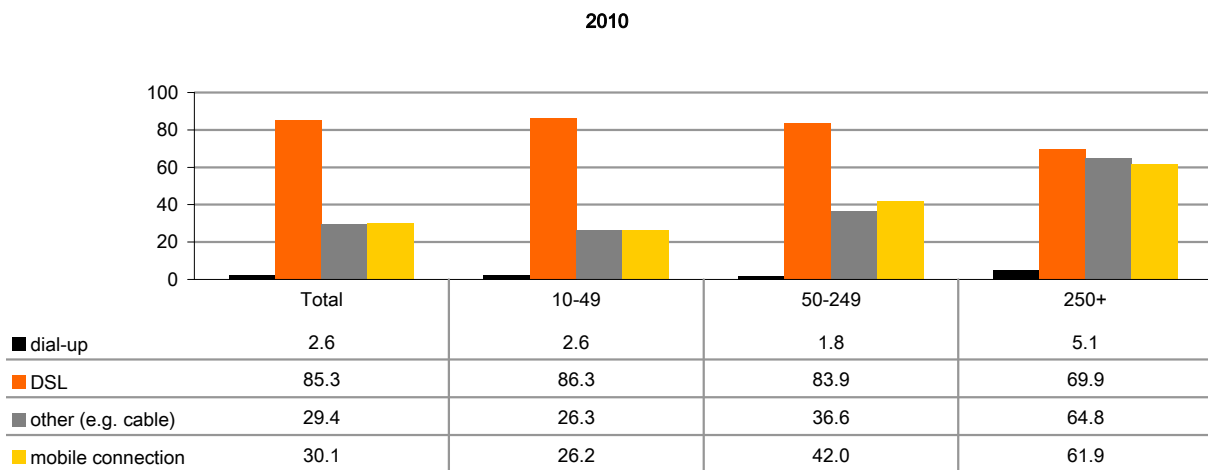
**Table 1.10. Internet use by enterprises**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>1,224</b>	<b>94.3</b>	<b>93.8</b>	<b>-0.5</b>
Size class:				
10-49	975	92.9	92.7	-0.2
50-249	205	100.0	97.8	-2.2
250+	44	100.0	100.0	0.0
Main economic activity:				
Manufacturing	239	89.5	93.7	4.2
Construction	115	90.3	86.5	-3.8
Wholesale and retail trade	406	97.6	97.7	0.1
Transportation and storage	75	94.1	96.5	2.4
Accommodation and food service activities	125	92.9	82.3	-10.6
Information and communication	60	97.3	100.0	2.7
Professional, scientific and technical activities	113	100.0	97.3	-2.7
Administrative and support service activities	70	95.2	93.6	-1.6
Other <sup>u</sup>	21	95.7	100.0	4.3

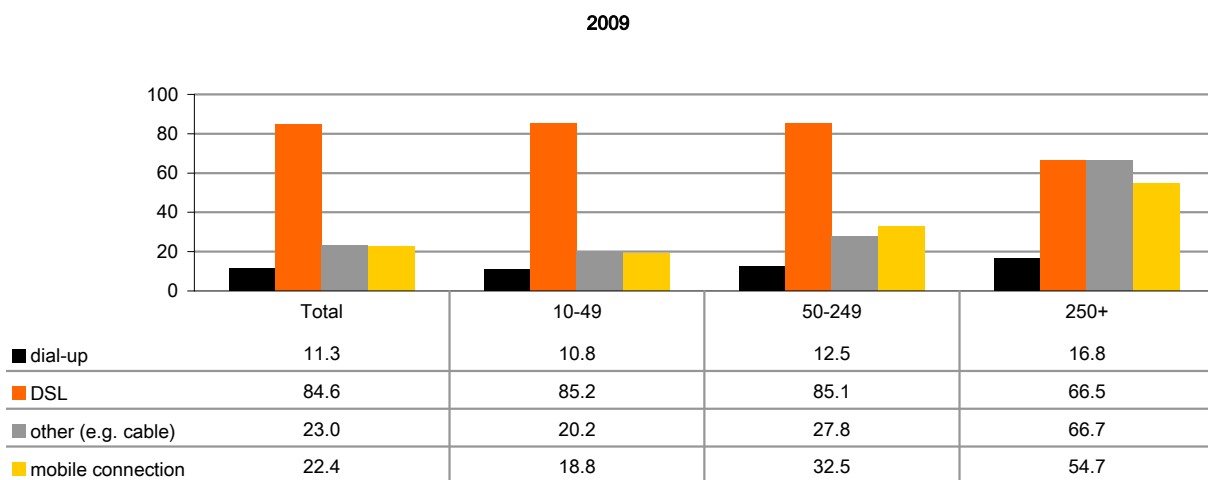
**Table 1.11. Internet use for enterprises employing 10-49 persons: FTE**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>10-49</b>	<b>975</b>	<b>92.9</b>	<b>92.7</b>	<b>-0.2</b>
Main economic activity:				
Manufacturing	180	85.9	91.8	5.9
Construction	91	88.7	83.5	-5.2
Wholesale and retail trade	358	97.2	97.4	0.2
Transportation and storage	59	93.0	95.7	2.7
Accommodation and food service activities	82	89.5	77.8	-11.7
Information and communication	41	96.0	100.0	4.0
Professional, scientific and technical activities	99	100.0	96.9	-3.1
Administrative and support service activities	47	92.9	92.9	0.0
Other <sup>u</sup>	18	94.6	100.0	5.4

**Chart 1.1. Types of Internet connection: January 2010**



**Chart 1.2. Types of Internet connection: January 2009**



**Table 1.12. Employees using Internet at work**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>66,244</b>	<b>32.8</b>	<b>34.9</b>	<b>2.1</b>
Size class:				
10-49	22,393	39.3	42.1	2.8
50-249	20,768	29.6	34.4	4.8
250+	23,083	29.2	28.5	-0.7
Main economic activity:				
Manufacturing	16,668	20.8	23.5	2.7
Construction	6,407	14.4	11.4	-3.0
Wholesale and retail trade	11,819	38.7	42.8	4.1
Transportation and storage	5,771 <sup>u</sup>	41.6 <sup>u</sup>	49.7 <sup>u</sup>	8.1
Accommodation and food service activities	8,197	18.0	21.8	3.8
Information and communication	4,635 <sup>u</sup>	81.8 <sup>u</sup>	87.1 <sup>u</sup>	5.3
Professional, scientific and technical activities	4,710 <sup>u</sup>	69.7 <sup>u</sup>	60.6 <sup>u</sup>	-9.1
Administrative and support service activities	4,592 <sup>u</sup>	42.2 <sup>u</sup>	29.5 <sup>u</sup>	-12.7
Other <sup>u</sup>	:	:	:	:

**Table 1.13. Use of the Internet by enterprises for banking and financial services purposes**

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>1,050</b>	<b>86.4</b>	<b>85.9</b>	<b>-0.5</b>
Size class:				
10-49	826	84.5	84.8	0.3
50-249	184	93.0	89.8	-3.2
250+	40	95.6	90.9	-4.7
Main economic activity:				
Manufacturing	200	83.3	83.9	0.6
Construction	90	80.0	79.0	-1.0
Wholesale and retail trade	356	91.8	87.8	-4.0
Transportation and storage	73	92.7	96.4	3.7
Accommodation and food service activities	105	79.7	84.1	4.4
Information and communication	54	89.9	90.2	0.3
Professional, scientific and technical activities	96	84.9	85.0	0.1
Administrative and support service activities	63	91.7	89.7	-2.0
Other	13 <sup>u</sup>	72.3 <sup>u</sup>	60.0 <sup>u</sup>	-12.3

<sup>u</sup>Enterprises availing of Internet

**Table 1.14. Use of the Internet by enterprises for training and education purposes**

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>463</b>	<b>31.6</b>	<b>37.9</b>	<b>6.3</b>
Size class:				
10-49	330	29.4	33.9	4.5
50-249	105	37.4	50.9	13.5
250+	28	52.5	64.2	11.7
Main economic activity:				
Manufacturing	50	25.8	20.8	-5.0
Construction	24	19.9	20.7	0.8
Wholesale and retail trade	158	34.1	38.9	4.8
Transportation and storage	35	31.3	46.6	15.3
Accommodation and food service activities	57	34.0	45.7	11.7
Information and communication	34	46.0	57.2	11.2
Professional, scientific and technical activities	58	42.6	51.1	8.5
Administrative and support service activities	33	24.1	47.5	23.4
Other	14	35.6	67.6	32.0

**Table 1.15. Percentage use of e-Government services by enterprises**

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>1,009</b>	<b>81.2</b>	<b>82.4</b>	<b>1.2</b>
Size class:				
10-49	777	79.7	79.8	0.1
50-249	191	85.4	93.0	7.6
250+	41	93.1	92.0	-1.1
Main economic activity:				
Manufacturing	187	78.9	78.3	-0.6
Construction	95	69.4	83.2	13.8
Wholesale and retail trade	331	83.0	81.4	-1.6
Transportation and storage	61	86.4	80.6	-5.8
Accommodation and food service activities	104	73.1	83.1	10.0
Information and communication	51	82.6	85.4	2.8
Professional, scientific and technical activities	98	98.3	87.3	-11.0
Administrative and support service activities	61	84.2	86.2	2.0
Other	21	89.4	100.0	10.6

\*Enterprises availing of Internet

**Table 1.16. E-Government usage by type of service**

	Absolute 2010	% using e-Government		Percentage change
		2009	2010	
For obtaining information	985	98.0	97.7	-0.3
For obtaining forms e.g. tax forms	938	91.8	93.0	1.2
For returning filled-in forms <sup>1</sup>	691	65.8	68.5	2.7
For treating an administrative procedure completely electronically <sup>2</sup>	650	56.1	64.4	8.3
e-Procurement	174	14.3	17.3	3.0

<sup>1</sup> for example: provision of statistical information to public authorities

<sup>2</sup> examples of administrative procedures include declaration, registration, authorisation request, etc.

**Table 1.17. Enterprises with a website or home page**

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>856</b>	<b>64.9</b>	<b>69.9</b>	<b>5.0</b>
Size class:				
10-49	643	64.9	65.9	1.0
50-249	171	82.3	83.3	1.0
250+	42	93.1	94.9	1.8
Main economic activity:				
Manufacturing	163	64.2	68.4	4.2
Construction	56	45.2	48.6	3.4
Wholesale and retail trade	262	65.2	64.5	-0.7
Transportation and storage	58	69.5	76.7	7.2
Accommodation and food service activities	102	76.2	81.5	5.3
Information and communication	54	91.6	90.2	-1.4
Professional, scientific and technical activities	84	80.8	74.1	-6.7
Administrative and support service activities	61	87.4	87.0	-0.4
Other	16	83.3	76.7	-6.6

\*Enterprises availing of Internet



**Table 1.18. Facilities present on enterprises' Website or Home Page**

	Absolute 2010	% enterprises with a website or home page		Percentage change
		2009	2010	
A privacy statement or certification related to website safety	450	49.6	52.6	3.0
Product catalogues or price lists	501	69.6	58.5	-11.1
Possibility for visitors to customise or design the products	92	9.6	10.7	1.1
Online ordering, reservation or booking e.g. shopping cart	268	28.5	31.3	2.8
Online order tracking	82	11.1	9.6	-1.5
Personalised content in the website for regular/ repeated visitors	98	9.3	11.5	2.2
Advertisement of open job positions or online job application	245	26.5	28.6	2.1

**Table 1.19. Enterprises using digital signatures in outgoing messages**

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>220</b>	<b>15.6</b>	<b>17.9</b>	<b>2.3</b>
Size class:				
10-49	155	14.3	15.9	1.6
50-249	56	19.4	27.4	8.0
250+	9	25.7	19.3	-6.4
Main economic activity:				
Manufacturing	33	12.1	13.9	1.8
Construction	7 <sup>u</sup>	7.9 <sup>u</sup>	6.1 <sup>u</sup>	-1.8
Wholesale and retail trade	66	15.1	16.1	1.0
Transportation and storage	22	21.8	29.0	7.2
Accommodation and food service activities	31	16.7	24.4	7.7
Information and communication	16	23.1	26.2	3.1
Professional, scientific and technical activities	26	25.0	23.4	-1.6
Administrative and support service activities	17 <sup>u</sup>	15.1 <sup>u</sup>	24.1 <sup>u</sup>	9.0
Other	:	:	:	:

\*Enterprises availing of Internet

## Electronic share of information

Tables 20 and 21 assess the electronic transmission of information between enterprises. Such systems allow users to send and/or receive messages (e.g. orders, invoices, payment transactions) via computer networks without the individual messages having to be typed manually. During January 2010, electronic transmission of information between enterprises was used by 50 per cent of enterprises, a 12 percentage point increase when compared to January 2009. On the other hand, the practice of sharing information over a “supply chain management” system was utilised by 23 per cent of enterprises (Table 22). This was most often carried out via a website – 67 per cent of enterprises adopted this method (Table 24).

Automatic share of information within the enterprise was very popular, with 51 per cent sharing information concerning sales orders automatically. Furthermore, 44 per cent of enterprises have shared purchase orders at an internal level. When asked about the availability of Enterprise Resource Planning (ERP) and Customers Relationship Management (CRM) software, 18 and 24 per cent of enterprises answered positively to the availability and use of this kind of technology.

**Table 1.20. Electronic transmission of data between enterprises**

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>646</b>	<b>37.2</b>	<b>49.5</b>	<b>12.3</b>
Size class:				
10-49	487	36.6	46.4	9.8
50-249	128	38.1	60.8	22.7
250+	31	50.2	69.3	19.1
Main economic activity:				
Manufacturing	115	32.9	44.9	12
Construction	43	25.3	32.7	7.4
Wholesale and retail trade	226	47.2	54.6	7.4
Transportation and storage	46	44.9	59.6	14.7
Accommodation and food service activities	73	29.3	48.1	18.8
Information and communication	35	41.6	57.5	15.9
Professional, scientific and technical activities	59	29.2	50.5	21.3
Administrative and support service activities	38	30.4	50.8	20.4
Other <sup>u</sup>	:	:	:	:

**Table 1.21. Type of information received electronically**

	Absolute 2010	% enterprises transmitting data electronically		Percentage change
		2009	2010	
Sending payment instructions to financial institutions	490	76.0	75.7	-0.3
Sending orders to suppliers	471	68.2	73.0	4.8
Receiving e-invoices	453	66.7	70.1	3.4
Receiving orders from customers	391	56.9	60.4	3.5
Sending e-invoices	332	42.9	51.3	8.4
Sending or receiving product information	491	77.0	76.0	-1.0
Sending or receiving transport documents	383	55.7	59.3	3.6
Sending or receiving data to/from public authorities	469	67.8	72.6	4.8

**Table 1.22. Electronic share of information with enterprise suppliers and customers: January 2010**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>296</b>	<b>17.5</b>	<b>22.7</b>	<b>5.2</b>
Size class:				
10-49	217	16.6	20.8	4.2
50-249	66	20.6	31.3	10.7
250+	13	25.2	28.4	3.2
Main economic activity:				
Manufacturing	48	19.0	18.9	-0.1
Construction	18	10.9	13.5	2.6
Wholesale and retail trade	121	25.5	29.0	3.5
Transportation and storage	25	15.6	31.8	16.2
Accommodation and food service activities	20 <sup>u</sup>	15.8 <sup>u</sup>	13.3 <sup>u</sup>	-2.5 <sup>u</sup>
Information and communication	16	12.0	27.0	15.0
Professional, scientific and technical activities	29	8.1	25.0	16.9
Administrative and support service activities	12 <sup>u</sup>	4.8 <sup>u</sup>	16.1 <sup>u</sup>	11.3 <sup>u</sup>
Other <sup>u</sup>	:	:	:	:

**Table 1.23. Electronic information share**

	Absolute 2010	% enterprises sharing information electronically		Percentage change
		2009	2010	
Customers	222	79.0	74.8	-4.2
Suppliers	177	46.8	59.7	12.9

**Table 1.24. Method used to share information electronically: January 2010**

	Absolute 2010	% enterprises sharing information electronically		Percentage change
		2009	2010	
Websites	198	64.9	66.7	1.8
Electronic transmissions allowing automatic processing methods	107	28.4	36.2	7.8

**Table 1.25. Automatic share of information within the enterprise by reason for use**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Sales orders received:</b>	<b>660</b>	<b>52.7</b>	<b>50.6</b>	<b>-2.1</b>
Management of inventory levels	466	35.4	35.7	0.3
Accounting	582	47.1	44.6	-2.5
Production or services management	397	30.0	30.5	0.5
Distribution management	375	27.0	28.7	1.7
<b>Purchase order sent:</b>	<b>570</b>	<b>42.2</b>	<b>43.7</b>	<b>1.5</b>
Management of inventory levels	439	31.1	33.6	2.5
Accounting	518	38.5	39.7	1.2

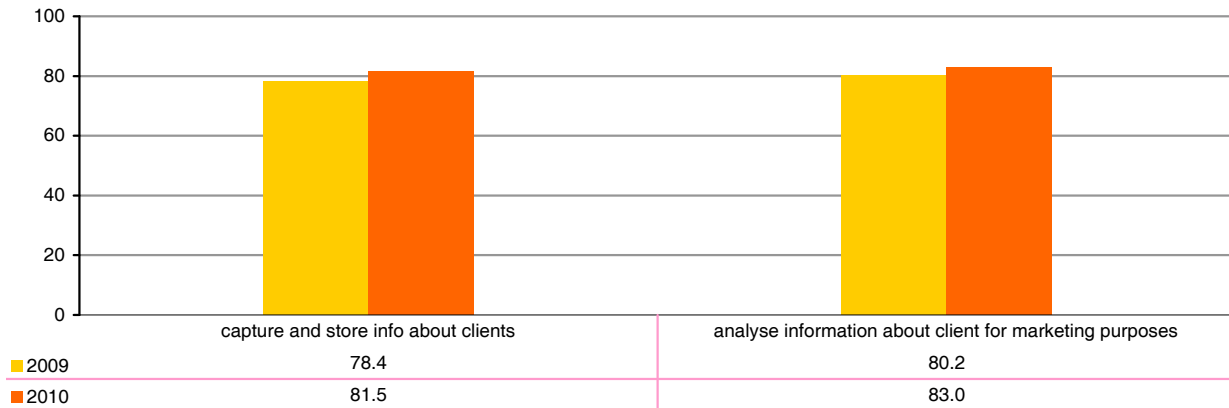
**Table 1.26. Availability of Enterprise Resource Planning (ERP) software**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>234</b>	<b>18.7</b>	<b>17.9</b>	<b>-0.8</b>
Size class:				
10-49	146	14.9	14.0	-0.9
50-249	64	29.1	30.3	1.2
250+	24	61.4	53.4	-8.0
Main economic activity:				
Manufacturing	68	23.4	26.8	3.4
Construction	5 <sup>u</sup>	2.4 <sup>u</sup>	3.9 <sup>u</sup>	1.5 <sup>u</sup>
Wholesale and retail trade	86	25.6	20.3	-5.3
Transportation and storage	16 <sup>u</sup>	12.6 <sup>u</sup>	20.0 <sup>u</sup>	7.4 <sup>u</sup>
Accommodation and food service activities	19 <sup>u</sup>	9.5 <sup>u</sup>	12.7 <sup>u</sup>	3.2 <sup>u</sup>
Information and communication	16	31.7	27.3	-4.4
Professional, scientific and technical activities	11	14.4	9.6	-4.8
Administrative and support service activities	11 <sup>u</sup>	16.1 <sup>u</sup>	15.3 <sup>u</sup>	-0.8 <sup>u</sup>
Other <sup>u</sup>	:	:	:	:

**Table 1.27. Availability of Customer Relationship Management (CRM) software**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>315</b>	<b>24.1</b>	<b>24.2</b>	<b>0.1</b>
Size class:				
10-49	226	20.2	21.5	1.3
50-249	71	38.3	34	-4.3
250+	18	50.7	40.3	-10.4
Main economic activity:				
Manufacturing	48	19.1	19	-0.1
Construction	8	9.7	6.3	-3.4
Wholesale and retail trade	131	30.1	31.4	1.3
Transportation and storage	26	19.4	32.7	13.3
Accommodation and food service activities	29	20.4	19.1	-1.3
Information and communication	31	49.7	52.1	2.4
Professional, scientific and technical activities	22	23.3	19.1	-4.2
Administrative and support service activities	11	28.4	14.5	-13.9
Other <sup>u</sup>	:	:	:	:

Chart 1.3. CRM features



### e-Commerce

During 2010, 18 per cent of enterprises with at least 10 employees (FTE) received orders via computer networks, an increase of 5 percentage points when compared to the previous year. This amounted to over €1.3 billion in e-Commerce sales, accounting for 21 per cent of total turnover (total turnover of enterprises availing themselves of Internet). In addition, Table 30 shows that 85 percent of orders were received via electronic transmission, thereby allowing automatic processing methods, with the remaining 15 per cent received via website.

In addition, 25 per cent of surveyed enterprises had placed orders via computer networks during 2010. In monetary terms, this accounted for more than €1.1 billion, or 24 per cent of total purchases (of enterprises availing of Internet).

Table 1.28. Enterprises conducting sales via e-Commerce

	Absolute 2010	% total *		Percentage change
		2009	2010	
<b>Total</b>	<b>225</b>	<b>13.0</b>	<b>18.4</b>	<b>5.4</b>
Size class:				
10-49	158	11.5	16.3	4.8
50-249	55	15.2	26.6	11.4
250+	12	38.5	27.8	-10.7
Main economic activity:				
Manufacturing	32	12.7	13.2	0.5
Construction	3 <sup>u</sup>	5.3 <sup>u</sup>	2.4 <sup>u</sup>	-2.9 <sup>u</sup>
Wholesale and retail trade	68	8.4	16.9	8.5
Transportation and storage	:	:	:	:
Accommodation and food service activities	55	25.3	43.9	18.6
Information and communication	18	23.1	30.0	6.9
Professional, scientific and technical activities	9 <sup>u</sup>	11.0 <sup>u</sup>	8.4 <sup>u</sup>	-2.6 <sup>u</sup>
Administrative and support service activities	:	:	:	:
Other <sup>u</sup>	:	:	:	:

<sup>u</sup>Enterprises availing of Internet

**Table 1.29. Turnover from e-Commerce sales**

€ million

	e-Commerce turnover 2010	% total turnover* 2010
<b>Total</b>	<b>1,374</b>	<b>20.9</b>
Size class:		
10-49	189	7.3
50-249	58	3.5
250+	1,127	47.6
Main economic activity:		
Manufacturing	875	44.3
Construction	0	0.1
Wholesale and retail trade	88	4.2
Transportation and storage	286	42.2
Accommodation and food service activities	36	11.2
Information and communication	45	10.9
Professional, scientific and technical activities	9	3.2
Administrative and support service activities	33 <sup>u</sup>	18.9 <sup>u</sup>
Other <sup>u</sup>	:	:

\*E-commerce as a percentage of total turnover (from enterprises availing of Internet)

**Table 1.30. Percentage of e-Commerce sales**

	2009 (Row %)		2010 (Row %)	
	Websites	Electronic data interchange*	Websites	Electronic data interchange*
<b>Total</b>	<b>23.4</b>	<b>76.6</b>	<b>14.8</b>	<b>85.2</b>
Size class:				
10-49	90.1	9.9	31.5	68.5
50-249	74.6	25.4	54.4	45.6
250+	3.4	96.6	10.0	90.0
Main economic activity:				
Manufacturing	:	99.3	:	96.6
Construction	:	:	:	:
Wholesale and retail trade	43.5 <sup>u</sup>	56.5	11.7 <sup>u</sup>	88.3
Transportation and storage	:	77.6	:	75.2
Accommodation and food service activities	97.6	2.4 <sup>u</sup>	84.9	15.1 <sup>u</sup>
Information and communication	80.5	:	86.3	:
Professional, scientific and technical activities	:	84.5	:	88.2
Administrative and support service activities	83.4	:	64.0	:
Other <sup>u</sup>	:	:	:	:

\*Electronic transmission allowing automatic information processing

**Table 1.31. Enterprises conducting purchases via e-Commerce**

	Absolute 2010	% total		Percentage change
		2009	2010	
<b>Total</b>	<b>300</b>	<b>20.1</b>	<b>24.5</b>	<b>4.4</b>
Size class:				
10-49	208	17.9	21.3	3.4
50-249	78	28.0	38.1	10.1
250+	14	27.9	30.7	2.8
Main economic activity:				
Manufacturing	40 <sup>u</sup>	9.4 <sup>u</sup>	16.5 <sup>u</sup>	7.1 <sup>u</sup>
Construction	15	20.0	13.4	-6.6
Wholesale and retail trade	127	28.2	31.0	2.8
Transportation and storage	:	:	:	:
Accommodation and food service activities	25 <sup>u</sup>	14.0 <sup>u</sup>	19.9 <sup>u</sup>	5.9 <sup>u</sup>
Information and communication	30	30.9	49.7	18.8
Professional, scientific and technical activities	33	25.7	29.3	3.6
Administrative and support service activities	16 <sup>u</sup>	24.1 <sup>u</sup>	23.2 <sup>u</sup>	-0.9 <sup>u</sup>
Other <sup>u</sup>	:	:	:	:

\*Enterprises availing of Internet

**Table 1.32. e-Commerce purchases**

	€ million	
	e-Commerce purchases 2010	% total purchases* 2010
<b>Total</b>	<b>1,106</b>	<b>24.2</b>
Size class:		
10-49	194	10.0
50-249	168	16.0
250+	744	47.2
Main economic activity:		
Manufacturing	547	40.8
Construction	7	2.9
Wholesale and retail trade	250	15.0
Transportation and storage	236	42.9
Accommodation and food service activities	10	5.6
Information and communication	25	9.6
Professional, scientific and technical activities	:	:
Administrative and support service activities	11 <sup>u</sup>	10.1 <sup>u</sup>
Other <sup>u</sup>	:	:

\*E-commerce as a percentage of total purchases (from enterprises availing of Internet)



## Internet security

When asked about the availability of a formally defined ICT policy, 31 per cent of enterprises admitted to having this kind of policy in place. This figure increases substantially in the case of the largest enterprises (employing 250 persons or more FTE), with positive responses standing at 81 per cent.

Table 35 measures the extent to which staff were made aware of their obligations vis-à-vis ICT-related matters. Results show that 32 per cent of enterprises resorted to voluntary training or generally available information (e.g. on the Intranet, newsletters or paper documents) to deliver their vision on the subject.

When analysing the types of ICT security incidents that affected enterprises during 2010, the likeliest results were the unavailability of ICT services, followed by the destruction or corruption of data due to hardware or software failures – 15 per cent of enterprises. This was followed by destruction or corruption of information due to infection of malicious software or unauthorised access – 8 per cent of enterprises (Table 36). The most common methods used to counteract ICT-related incidents were: strong password authentication, offsite data backup and logging activities for analysis of security incidents with 52, 48 and 40 per cent of enterprises respectively.

**Table 1.33. Enterprises with an ICT policy: 2010**

	Absolute	% enterprises with computers
<b>Total</b>	<b>391</b>	<b>31.3</b>
Size class:		
10-49	266	26.8
50-249	89	42.5
250+	36	80.7
Main economic activity:		
Manufacturing	71	29.0
Construction	19	16.1
Wholesale and retail trade	119	29.2
Transportation and storage	26	33.4
Accommodation and food service activities	34	25.4
Information and communication	38	62.7
Professional, scientific and technical activities	46	39.8
Administrative and support service activities	28 <sup>u</sup>	39.8 <sup>u</sup>
Other <sup>u</sup>	:	:

**Table 1.34. Risks addressed in ICT policy: 2010**

	<b>Absolute</b>	<b>% enterprises with ICT policy</b>
Destruction or corruption of data due to attack or by unexpected incident	354	90.6
Disclosure of confidential data due to intrusion, pharming, phishing attacks or by accident	329	84.1
Unavailability of ICT services due to attack from outside (e.g. Denial of service attack)	272	69.5

**Table 1.35. Enterprises' efforts to instil ICT security among staff members: 2010**

	<b>Absolute</b>	<b>% enterprises with computers</b>
Compulsory training or presentations	203	16.2
By contract, e.g. contract of employment	258	20.7
Voluntary training or generally available information	398	31.9

**Table 1.36. ICT security-related incidents in enterprises: 2010**

	<b>Absolute</b>	<b>% enterprises with computers</b>
Unavailability of ICT services, destruction or corruption of data due to hardware or software failures	182	14.6
Unavailability of ICT services due to attack from outside	39	3.2
Destruction or corruption of data due to infection of malicious software or unauthorised access	95	7.6
Disclosure of confidential data due to intrusion, phraming, phishing attacks	25	2.0
Disclosure of confidential data in electronic form by employees whether intentionally or unintentionally	32	2.5

**Table 1.37. Use of internal ICT security facilities or procedures: 2010**

	<b>Absolute</b>	<b>% enterprises with computers</b>
Strong password authentication	648	51.9
User identification and authentication via hardware tokens, e.g. smart cards	136	10.9
User identification and authentication via barometric methods	104	8.3
Offsite data backup	597	47.8
Logging activities for analysis of security incidents	494	39.6

## **2. Information and Communication Technology usage in households and by individuals**

**2010**



## **Introduction**

The survey on information and communication technology (ICT) usage in households and by individuals, carried out in the second quarter of 2010, analysed the extent to which individuals aged between 16 and 74 made use of computers and the Internet.

The survey revealed that 73 per cent of households had access to a computer, while 70 per cent were able to access the Internet. Furthermore, when considering individuals in the 16-74 age category, 81 per cent had a computer at home while 78 per cent benefitted from access to the Internet.



## Households

### Computer and Internet access in households

Results revealed that during 2010, 73 per cent of households had access to a computer from home. This was 6 percentage points higher than the 2009 estimate, indicating the ever increasing popularity of computer systems for personal use. This estimate falls to 42 per cent in the case of single person households, where an increase of 12 percentage points was noted when compared to the previous year. This disparity may be attributed to the fact that many households in this category are composed of elderly people, who, in general, may tend to be less conversant with ICT. At the other end of the spectrum, 96 per cent of households with two adults and children had computer access from home. This rate increased by 8 percentage points when compared to 2009.

Findings concerning Internet access in households followed the same trends as those outlined above for computer access. In 2010, 70 per cent of households had Internet access, compared to 64 per cent in 2009. Furthermore 96 per cent of households comprising two adults and children benefitted from Internet facilities within the home. In this regard an increase of 12 percentage points was registered when compared to 2009.

Broadband technology emerged as the main means by which households accessed the Internet, with an estimated 98 per cent of the total number of households having Internet access at home. This result reflects the current national situation, in which traditional dial-up systems have become increasingly unpopular.

In concluding this household profile, the main reason given by households without Internet access at home was lack of skill (Chart 3). This reason was common in 58 per cent of cases, and was followed by an estimated 32 per cent of households stating that they do not need the Internet.

**Table 2.1. Households with access to a computer at home**

	% household population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>67.4</b>	<b>73.1</b>	<b>90,415</b>	<b>95,734</b>	<b>5,319</b>	<b>5.9</b>
Household composition:						
One adult without children	30.3	41.5	6,345	7,529	1,184	18.7
One adult with children	:	:	:	:	:	:
Two adults without children	48.3	47.8	16,497	16,081	-416	-2.5
Two adults with children	87.7	96.4	16,145	18,649	2,504	15.5
Three or more adults without children	81.6	87.7	37,998	40,770	2,772	7.3
Three or more adults with children	95.0	96.5	12,862	12,208	-654	-5.1
Household income: (€)						
Less than 10,000	39.5	39.6	17,851	16,150	-1,701	-9.5
10,001 - 15,000	69.1	75.5	17,895	17,872	-23	-0.1
15,001 - 25,000	80.9	91.5	30,600	43,496	12,896	42.1
25,001 or more	95.5	96.2	24,069	18,216	-5,853	-24.3

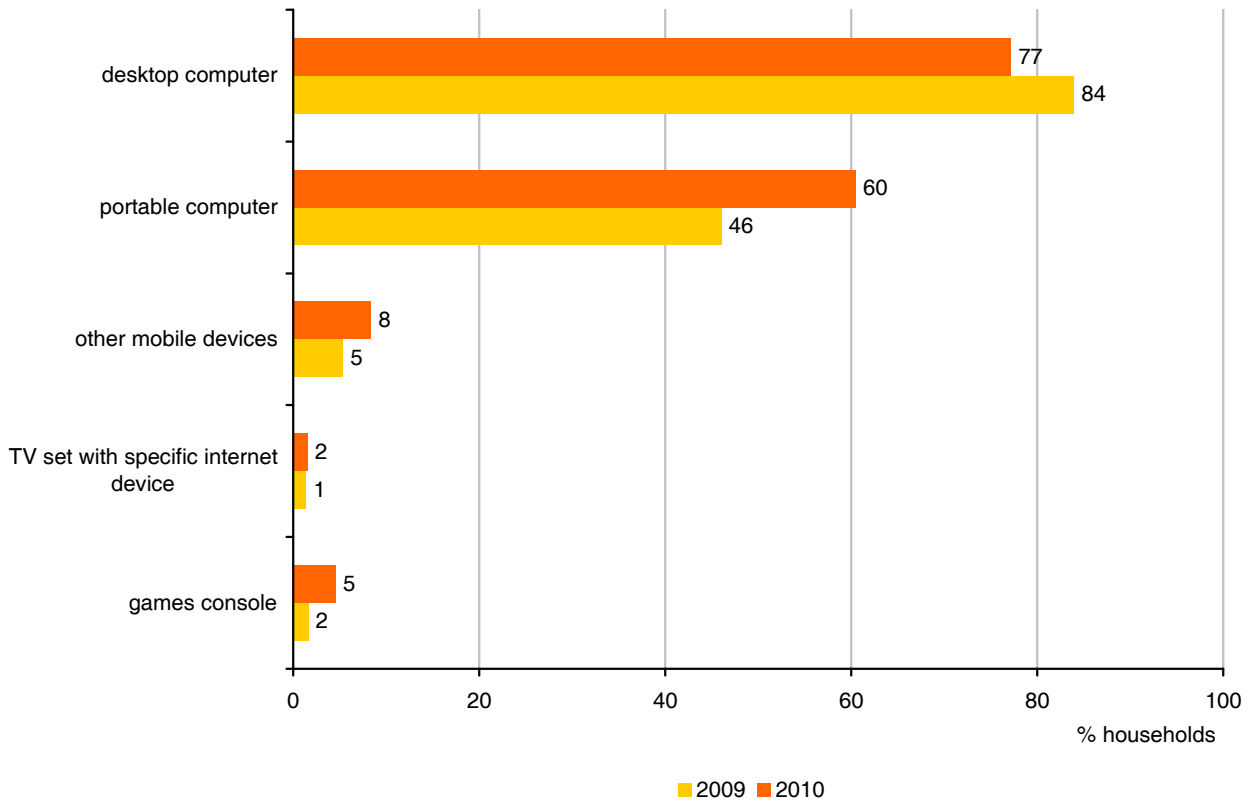
: Data not reliable due to small sample representation

**Table 2.2. Households with access to the Internet at home**

	% household population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>64.4</b>	<b>70.4</b>	<b>86,455</b>	<b>92,218</b>	<b>5,763</b>	<b>6.7</b>
Household composition:						
One adult without children	30.3	39.3	6,345	7,123	778	12.3
One adult with children	:	:	:	:	:	:
Two adults without children	43.6	43.7	14,884	14,673	-211	-1.4
Two adults with children	84.4	96.0	15,534	18,560	3,026	19.5
Three or more adults without children	78.3	85.1	36,467	39,541	3,074	8.4
Three or more adults with children	94.2	94.8	12,745	11,993	-752	-5.9
Household income: (€)						
Less than 10,000	36.4	32.9	16,438	13,407	-3,031	-18.4
10,001 - 15,000	66.4	74.5	17,194	17,632	438	2.5
15,001 - 25,000	77.9	90.5	29,473	43,039	13,566	46.0
25,001 or more	92.6	95.8	23,350	18,140	-5,210	-22.3

: Data not reliable due to small sample representation

**Chart 2.1. Devices used to access the Internet from home: 2010**



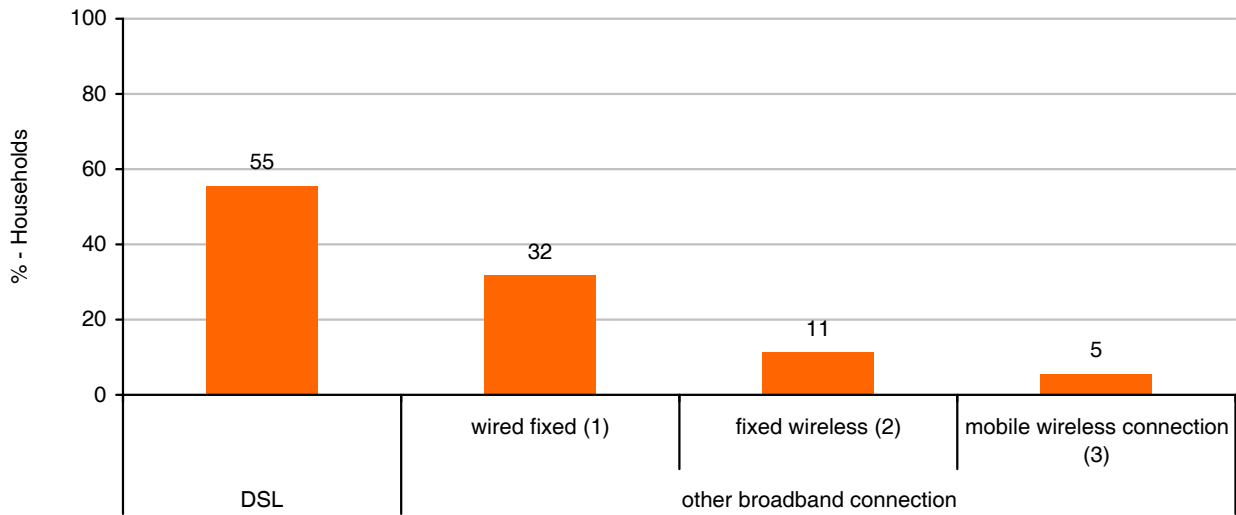


**Table 2.3. Type of Internet connection in the household**

	% total		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total households with Internet access</b>	<b>100.0</b>	<b>100.0</b>	<b>84,428</b>	<b>90,710</b>	<b>6,282</b>	<b>7.4</b>
Narrowband	2.3	1.6	2,027 <sup>u</sup>	1,508 <sup>u</sup>	-519	-25.6
Broadband*	97.7	98.4	84,428	90,710	6,282	7.4

\*Includes DSL, wired fixed, fixed wireless and mobile wireless connection (Methodological notes)

**Chart 2.2. Type of broadband connection: 2010**



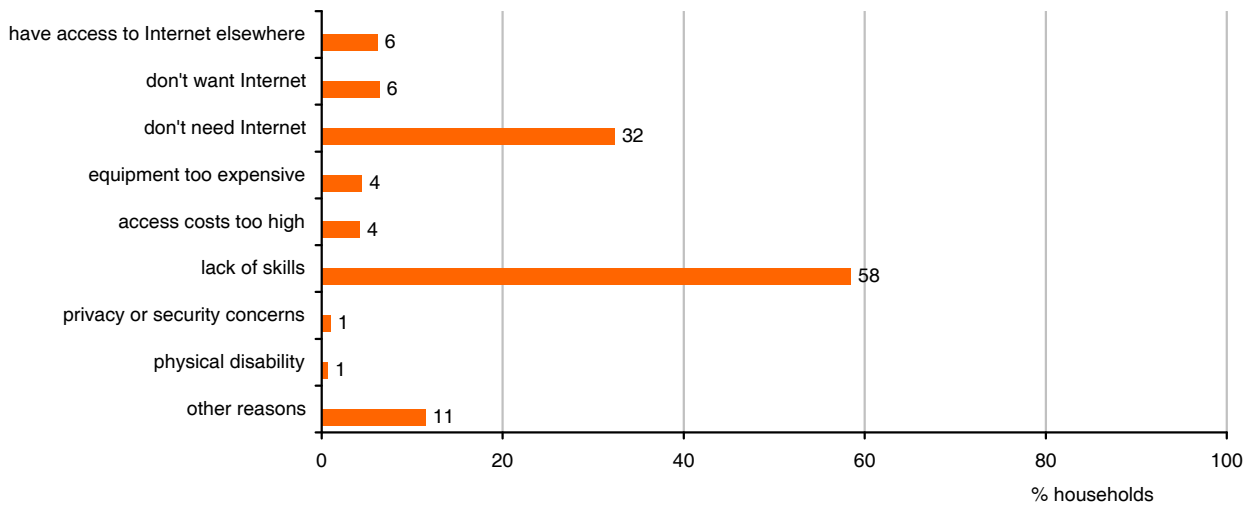
(1) wired fixed includes cable, fiber, Ethernet, PLS, etc...

(2) fixed wireless includes satellite, WiFi, WiMax

(3) mobile wireless connection includes 3G/UMTS, USB key, laptop card etc...

Note: Households may have more than one connection.

**Chart 2.3. Reasons for not having access to the Internet at home: 2010**



## Computer use by individuals

The ICT survey showed that 81 per cent of individuals had access to a computer at home in 2010 (Table 4). Computer usage is most common among the younger generation. In fact 97 per cent of individuals in the 16-24 age bracket had computer access from home. In addition, nearly all these persons also enjoyed Internet access within the household. On the other hand, individuals in the 65-74 age bracket are the least likely to own a computer, with computer availability estimated at 38 per cent.

Figures in Table 5 and Table 6 demonstrate that 64 per cent of the target population made use of a computer during the three-month reference period, an increase of 7 per cent when compared to 2009. The majority of individuals using a computer were males, while increases in computer usage by individuals were noted in all age groups, except in the 65-74 category. The percentage of students using a computer went up from 96.6 per cent in 2009 to 100 per cent in 2010, making this group the most avid computer users.

Among the respondents who made use of a computer during the three-month reference period, 79 per cent did so every day or almost every day, while a further 16 per cent used a computer at least once a week. The location from which individuals made use of a computer was most often found to be the home; this was true for 94 per cent of computer users. The work place comes in second with a share of 42 per cent of computer users (Chart 4).

**Table 2.4. Profile of individuals having computer access at home: 2010**

	% population			Absolute		
	Total	Males	Females	Total	Males	Females
<b>Total</b>	<b>80.8</b>	<b>81.9</b>	<b>79.7</b>	<b>252,940</b>	<b>128,544</b>	<b>124,396</b>
<b>Age group:</b>						
16-24	97.1	95.5	98.7	51,646	26,213	25,433
25-34	88.3	91.8	84.5	52,164	27,988	24,176
35-44	92.7	90.7	94.7	46,323	22,935	23,388
45-54	81.2	81.9	80.6	49,347	25,080	24,267
55-64	72.2	73.5	71.0	40,341	19,876	20,465
65-74	38.4	40.0	37.0	13,119	6,452	6,667
<b>District:</b>						
Southern Harbour	78.5	79.5	77.5	46,654	23,880	22,774
Northern Harbour	78.1	78.5	77.6	72,593	36,911	35,682
South Eastern	79.9	80.4	79.4	36,922	18,643	18,279
Western	86.6	90.6	82.4	37,451	19,897	17,554
Northern	88.8	87.5	89.9	42,877	20,596	22,281
Gozo and Comino	72.0	76.3	67.8	16,443	8,617	7,826
<b>Education Level:</b>						
No Schooling / Primary	50.1	47.2	52.3	28,507	11,843	16,664
Secondary	80.9	80.5	81.3	109,978	53,478	56,500
Post-Secondary	93.3	95.2	91.0	73,191	41,247	31,944
Tertiary	99.0	99.2	98.8	41,264	21,976	19,288
<b>Employment Situation:</b>						
Employed / Self-employed	89.7	90.1	89.0	151,813	98,321	53,492
Unemployed	69.6	71.0	67.0	7,629	5,038 <sup>u</sup>	2,591 <sup>u</sup>
Student	100.0	100.0	100.0	22,967	10,411	12,556
Retired	47.1	48.9	39.6	16,110	13,423	2,687
Inactive	71.9	45.7	73.0	54,421	1,351 <sup>u</sup>	53,070

**Table 2.5. Length of time since last use of a computer**

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>313,670</b>	<b>313,053</b>	<b>-617</b>	<b>-0.2</b>
Three months prior to survey*	59.6	63.9	186,987	200,081	13,094	7.0
3 - 12 months before survey	1.4	0.7	4,243	2,134 <sup>u</sup>	-2,109	-49.7
More than one year before survey	2.1	2.0	6,566	6,242	-324	-4.9
Never used a computer	36.9	33.4	115,874	104,596	-11,278	-9.7

\*This is equal to quarter one of the reference year

**Table 2.6. Profile of computer users\***

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>59.6</b>	<b>63.9</b>	<b>186,987</b>	<b>200,081</b>	<b>13,094</b>	<b>7.0</b>
<b>Sex:</b>						
Male	61.3	68.2	96,627	107,119	10,492	10.9
Female	57.9	59.6	90,360	92,962	2,602	2.9
<b>Age group:</b>						
16-24	94.2	99.2	49,433	52,795	3,362	6.8
25-34	76.8	87.1	46,914	51,486	4,572	9.7
35-44	69.9	78.6	35,612	39,277	3,665	10.3
45-54	51.9	54.1	30,693	32,872	2,179	7.1
55-64	27.4	33.7	15,936	18,823	2,887	18.1
65-74	26.4	14.1	8,399	4,828 <sup>u</sup>	-3,571	-42.5
<b>District:</b>						
Southern Harbour	59.1	62.2	36,173	36,954	781	2.2
Northern Harbour	63.4	61.5	59,131	57,171	-1,960	-3.3
South Eastern	49.9	57.7	23,155	26,646	3,491	15.1
Western	68.9	69.8	29,855	30,214	359	1.2
Northern	64.5	76.2	29,290	36,829	7,539	25.7
Gozo and Comino	39.1	53.7	9,383	12,267	2,884	30.7
<b>Education level:</b>						
No Schooling / Primary	6.6	10.5	3,339 <sup>u</sup>	5,962	2,623	78.6
Secondary	53.1	58.6	78,730	79,710	980	1.2
Post-Secondary	88.5	94.1	63,662	73,816	10,154	15.9
Tertiary	95.8	97.4	41,256	40,593	-663	-1.6
<b>Employment situation:</b>						
Employed / Self-employed	73.6	82.7	123,367	140,044	16,677	13.5
Unemployed	65.2	59.5	9,755	6,526	-3,229	-33.1
Student	96.6	100.0	18,555	22,967	4,412	23.8
Inactive	31.6	27.8	35,310	30,544	-4,766	-13.5

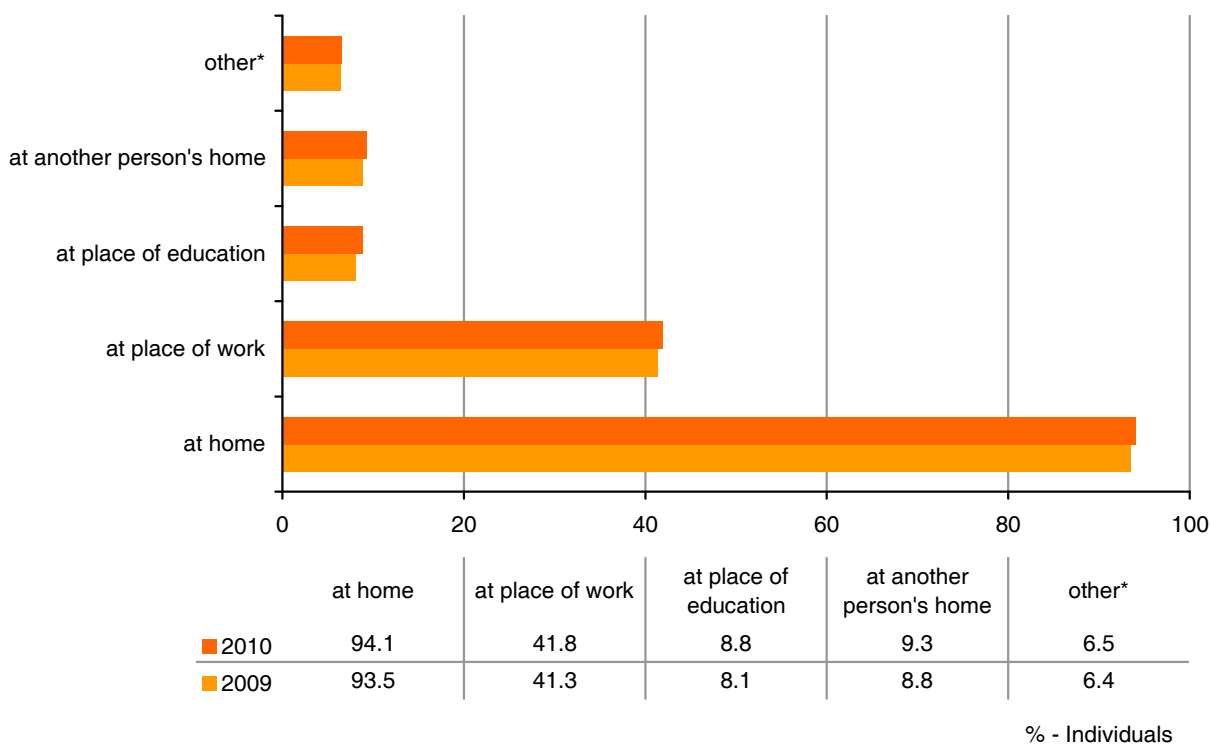
\* includes only persons who used a computer during Q1 of the reference year

**Table 2.7. Computer users by user frequency\***

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>59.6</b>	<b>63.9</b>	<b>186,987</b>	<b>200,081</b>	<b>13,094</b>	<b>7.0</b>
Every day or almost every day	78.3	79.2	146,350	158,522	12,172	8.3
At least once a week (but not every day)	17.5	16.5	32,689	32,988	299	0.9
At least once a month (but not every week)	3.4	3.5	6,287	6,983	696	11.1
Less than once a month	0.9	0.8	1,661 <sup>u</sup>	1,588 <sup>u</sup>	-73	-4.4

\* includes only persons who used a computer during Q1 of the reference year

**Chart 2.4. Places where individuals used computers during the first quarter**



\*Includes other places such as public libraries, hotels, airport, internet cafe, etc.  
Multiple response was permitted in this question

## **Internet use by individuals**

Results showed that 78 per cent of individuals aged between 16 and 74 had access to the Internet from home during the survey reference period. Internet access was most common among individuals aged between 16 and 24, followed by those falling in the 35-44 age bracket. Internet was least common among older persons, with only 30 per cent of individuals aged between 65 and 74 having access to the Internet at home (Table 8).

Table 9 and Table 10 show that 62 per cent of individuals used the Internet during the first quarter of 2010, with frequent Internet users increasing by 5 percentage points when compared to the corresponding period in 2009. As shown in Table 10, Internet popularity decreases with age and increases with the level of education.

When analysing the frequency of Internet use (Table 11), among individuals stating that they used the Internet during the first quarter of the reference year, 79 per cent used Internet every day or almost every day, while 17 per cent used the Internet at least once a week (but not every day). A majority of 95 per cent of Internet users said that they used the Internet at home. Just over a third of these Internet users also accessed the Internet at the place of work (Chart 5).

During the first quarter of 2010, the most common activities for which the Internet was used were sending and receiving emails and searching for information about goods and services, with 88 per cent and 83 per cent respectively (Table 12).

## **e-Government**

The use of e-Government services has maintained its steady upward trend with an estimated 60 per cent of the target population stating that they made use of these services (Table 14). The use of the Internet to search for information concerning public authorities was estimated at 56 per cent, while the practice of downloading official forms stood at 45 per cent. The use of the Internet to submit filled-in forms (not via email) fell slightly behind other uses, with an estimated 24 per cent of Internet users saying that they did so during the three-month survey reference period (Table 13).

The distribution of e-Government users by age group was found to be very well equilibrated; the largest proportion of users (65 per cent) was recorded in the 45-54 age bracket, closely followed by the 34-44 age group (64 per cent). In both cases increases were recorded when compared to 2009. On the other hand Internet users aged between 65 and 74 were the least likely to make use of e-Government services (49 per cent). This study also revealed that out of the total number of persons who used the Internet during the first quarter of 2010, 63 per cent of employed persons and 54 per cent of students made use of e-Government services.

**Table 2.8. Profile of individuals with access to the Internet at home: 2010**

	% population			Absolute		
	Total	Males	Females	Total	Males	Females
<b>Total</b>	<b>78.4</b>	<b>79.9</b>	<b>76.9</b>	<b>245,480</b>	<b>125,504</b>	<b>119,976</b>
<b>Age Group:</b>						
16-24	96.6	95.5	97.8	51,411	26,213	25,198
25-34	86.7	88.7	84.5	51,247	27,071	24,176
35-44	92.2	89.7	94.7	46,072	22,684	23,388
45-54	79.4	82.1	76.7	48,263	25,165	23,098
55-64	68.0	69.7	66.3	37,959	18,857	19,102
65-74	30.8	34.2	27.8	10,528	5,514 <sup>u</sup>	5,014 <sup>u</sup>
<b>District:</b>						
Southern Harbour	74.3	76.9	71.6	44,158	23,095	21,063
Northern Harbour	76.5	77.5	75.5	71,173	36,456	34,717
South Eastern	76.8	76.1	77.5	35,492	17,641	17,851
Western	86.3	91.1	81.3	37,338	20,017	17,321
Northern	86.0	85.4	86.5	41,528	20,101	21,427
Gozo and Comino	69.1	72.5	65.8	15,791	8,194	7,597
<b>Education Level:</b>						
No Schooling / Primary	43.4	40.3	45.8	24,690	10,095	14,595
Secondary	78.4	78.9	77.9	106,585	52,436	54,149
Post-Secondary	93.0	94.6	91.0	72,941	40,997	31,944
Tertiary	99.0	99.2	98.8	41,264	21,976	19,288
<b>Employment Situation:</b>						
Employed / Self-employed	88.8	89.0	88.5	150,312	97,103	53,209
Unemployed	66.9	66.8	67.0	7,331	4,740 <sup>u</sup>	2,591 <sup>u</sup>
Student	99.0	100.0	98.1	22,732	10,411	12,321
Retired	42.6	43.4	39.6	14,587	11,900	2,687 <sup>u</sup>
Inactive	66.8	45.7	67.6	50,518	1,350 <sup>u</sup>	49,168

**Table 2.9. Length of time since last use of the Internet**

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>313,670</b>	<b>313,053</b>	<b>-617</b>	<b>-0.2</b>
Three months prior to survey*	57.6	62.1	180,986	194,218	13,232	7.3
3 - 12 months before survey	1.2	1.0	3,636 <sup>u</sup>	3,247 <sup>u</sup>	-389	-10.7
More than one year before survey	1.5	1.0	4,594 <sup>u</sup>	3,163 <sup>u</sup>	-1,431	-31.1
Never used a computer	39.7	35.9	124,454	112,425	-12,029	-9.7

\*This is equal to quarter one of the reference year

**Table 2.10. Profile of Internet users\***

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>57.7</b>	<b>62.0</b>	<b>180,985</b>	<b>194,218</b>	<b>13,233</b>	<b>7.3</b>
<b>Sex:</b>						
Males	59.7	66.2	94,200	103,938	9,738	10.3
Females	55.6	57.9	86,785	90,280	3,495	4.0
<b>Age Group:</b>						
16-24	93.6	98.8	49,120	52,560	3,440	7.0
25-34	73.5	85.2	44,928	50,341	5,413	12.0
35-44	68.1	76.3	34,719	38,158	3,439	9.9
45-54	50.4	51.2	29,755	31,116	1,361	4.6
55-64	24.5	31.7	14,266	17,725	3,459	24.2
65-74	25.7	12.6	8,197	4,318 <sup>u</sup>	-3,879	-47.3
<b>District:</b>						
Southern Harbour	57.0	57.9	34,929	34,405	-524	-1.5
Northern Harbour	61.4	60.9	57,321	56,638	-683	-1.2
South Eastern	47.6	57.2	22,098	26,416	4,318	19.5
Western	65.5	67.1	28,373	29,021	648	2.3
Northern	63.6	75.2	28,881	36,320	7,439	25.8
Gozo and Comino	39.1	50.0	9,383	11,418	2,035	21.7
<b>Education Level:</b>						
No Schooling / Primary	5.9	8.3	2,985	4,709 <sup>u</sup>	1,724	57.7
Secondary	50.4	56.8	74,737	77,207	2,470	3.3
Post-Secondary	86.2	91.7	62,007	71,953	9,946	16.0
Tertiary	95.8	96.8	41,256	40,349	-907	-2.2
<b>Employment Situation:</b>						
Employed / Self-employed	71.6	80.6	120,068	136,360	16,292	13.6
Unemployed	61.7	54.5	9,240	5,980	-3,260	-35.3
Student	96.6	99.0	18,555	22,732	4,177	22.5
Inactive **	29.6	26.5	33,121	29,146	-3,975	-12.0

\* includes only persons who used a computer during Q1 of the reference year

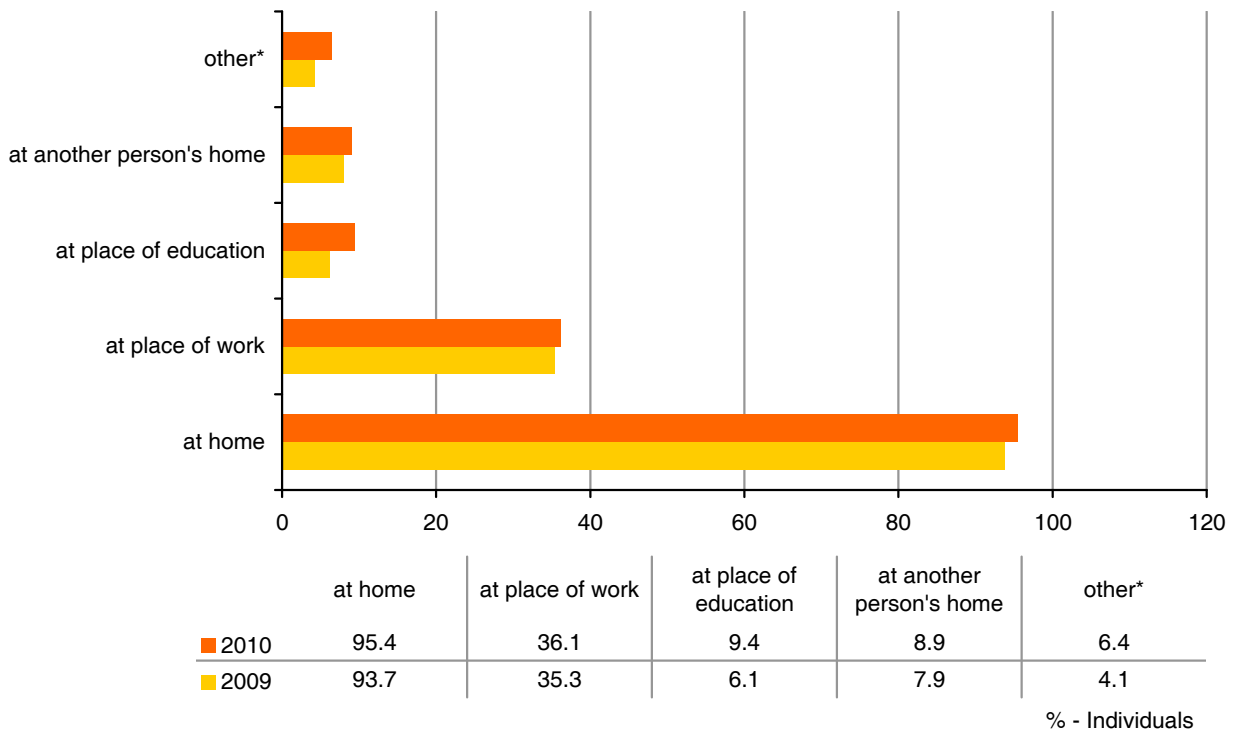
\*\* includes persons which are retired

**Table 2.11. Frequency of Internet use\***

	% population		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>57.7</b>	<b>62.0</b>	<b>180,985</b>	<b>194,218</b>	<b>13,233</b>	<b>7.3</b>
Every day or almost every day	78.6	79.5	142,247	154,379	12,132	7.9
At least once a week (but not every day)	17.2	16.9	31,155	32,897	1,742	5.3
At least once a month (but not every week)	3.2	3.0	5,882	5,796 <sup>u</sup>	-86	-1.5
Less than once a month	0.9	0.6	1,701 <sup>u</sup>	1,146 <sup>u</sup>	-555	-48.4

\* includes only persons who used a computer during Q1 of reference year

**Chart 2.5. Places where individuals used the Internet during quarter 1**



\*Includes other places such as public libraries, hotels, airport, internet cafe, etc.  
Multiple response was permitted in this question



**Table 2.12. Activities for which the Internet was used: 2010\***

	% Internet users			Absolute		
	Total	Males	Females	Total	Males	Females
<b>Communication:</b>	<b>90.2</b>	<b>88.6</b>	<b>92.1</b>	<b>175,223</b>	<b>92,107</b>	<b>83,116</b>
Sending and receiving emails	87.6	86.4	89.1	170,230	89,783	80,447
Telephoning over the Internet	26.3	28.4	23.8	51,078	29,553	21,525
Posting messages to chat sites, social networks, etc...	49.2	41.9	57.5	95,542	43,590	51,952
<b>Information search and online services:</b>	<b>95.3</b>	<b>95.3</b>	<b>95.4</b>	<b>185,179</b>	<b>99,024</b>	<b>86,155</b>
Finding information about goods and services	83.2	82.1	84.5	161,650	85,351	76,299
Using services related to travel and accommodation	55.8	56.9	54.4	108,306	59,179	49,127
Web radios/ web televisions	40.9	40.1	41.9	79,492	41,689	37,803
Uploading self-created content to websites	18.7	18.0	19.6	36,399	18,729	17,670
Downloading software (excluding games)	31.9	33.9	29.5	61,877	35,209	26,668
Playing or downloading games, films, music	43.8	44.5	42.9	85,066	46,293	38,773
Reading or downloading online newspapers/magazines	64.2	65.8	62.4	124,701	68,349	56,352
Looking for a job/ sending a job application	23.5	20.4	27.2	45,707	21,178	24,529
Seeking health-related information	54.4	48.0	61.6	105,582	49,942	55,640
<b>Banking and selling of goods and services:</b>	<b>65.6</b>	<b>70.1</b>	<b>60.4</b>	<b>127,343</b>	<b>72,812</b>	<b>54,531</b>
Internet banking	60.7	65.9	54.8	117,949	68,472	49,477
Selling goods or services e.g. via auction	21.4	25.4	16.7	41,470	26,367	15,103
<b>Training and education:</b>	<b>69.8</b>	<b>66.9</b>	<b>73.1</b>	<b>135,531</b>	<b>69,493</b>	<b>66,038</b>
Looking for info about education, training or course offers	51.3	47.8	55.2	99,591	49,731	49,860
Doing an online course	8.7	9.6	7.6	16,851	9,946	6,905
Consulting the Internet for learning purposes	60.8	57.3	64.8	118,124	59,584	58,540

**Table 2.13. Use of e-Government services\***

	% Internet users			Absolute		
	Total	Males	Females	Total	Males	Females
Obtaining information from public authorities' website	55.7	54.4	57.2	108,175	56,535	51,640
Downloading official forms	45.2	42.6	48.1	87,702	44,291	43,411
Sending filled-in forms	24.3	23.5	25.2	47,136	24,399	22,737

\* Includes only persons who used the internet during Q1 of the reference year

\*Multiple response was permitted in these questions

**Table 2.14. Profile of e-Government users\***

	% Internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>58.6</b>	<b>60.0</b>	<b>105,967</b>	<b>116,608</b>	<b>10,641</b>	<b>10.0</b>
<b>Sex:</b>						
Males	61.4	57.7	57,796	59,921	2,125	3.7
Females	55.5	62.8	48,171	56,687	8,516	17.7
<b>Age Group:</b>						
16-24	50.9	55.4	25,023	29,120	4,098	16.4
25-34	64.5	61.2	28,977	30,821	1,844	6.4
35-44	63.3	64.2	21,986	24,487	2,501	11.4
45-54	55.5	64.5	16,503	20,080	3,577	21.7
55-64	57.4	56.5	8,186	10,007	1,821	22.2
65-74	64.6	48.5	5,293 <sup>u</sup>	2,094 <sup>u</sup>	-3,199	-60.4
<b>District:</b>						
Southern Harbour	41.9	62.3	14,642	21,448	6,806	46.5
Northern Harbour	65.9	57.0	37,773	32,294	-5,479	-14.5
South Eastern	61.7	60.4	13,634	15,967	2,333	17.1
Western	65.7	63.4	18,632	18,410	-222	-1.2
Northern	61.7	69.5	17,830	25,224	7,395	41.5
Gozo and Comino	36.8	28.6	3,456 <sup>u</sup>	3,265 <sup>u</sup>	-191	-5.5
<b>Education Level:</b>						
No Schooling / Primary	17.4	32.8	520 <sup>u</sup>	1,546 <sup>u</sup>	1,026	197.4
Secondary	46.6	44.4	34,795	34,303	-492	-1.4
Post-Secondary	60.6	67.4	37,601	48,531	10,930	29.1
Tertiary	80.1	79.9	33,051	32,228	-823	-2.5
<b>Employment Situation:</b>						
Employed / Self-employed	61.6	63.1	73,991	85,998	12,007	16.2
Unemployed	44.1	32.3	4,075 <sup>u</sup>	1,934 <sup>u</sup>	-2,141	-52.5
Student	66.6	54.2	12,350	12,327	-23	-0.2
Inactive **	47.0	56.1	15,550	16,349	798	5.1

\* Includes only persons who used the internet during Q1 of the reference year

\*\* Includes persons who are retired

## E-Commerce

The trade of goods and services over the Internet went up from 59 per cent in 2009 to 61 per cent in 2010. Results showed that 50 per cent of respondents who conducted e-Commerce did so to purchase items of clothing – as in 2009, these continue to be the most common items sought. Books, magazines and newspapers recorded a demand of 37 per cent and represented the second largest group of commodities purchased via e-Commerce. Hotel accommodation ranked third and recorded an increase of 4 percentage points over 2009. These statistics also revealed that the majority of goods purchased via e-Commerce, 92 per cent, originated from other EU Member States.

**Table 2.15. Profile of e-Commerce users\***

	% Internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>58.6</b>	<b>60.5</b>	<b>105,977</b>	<b>117,597</b>	<b>11,620</b>	<b>11.0</b>
<b>Sex:</b>						
Males	64.4	63.0	60,671	65,476	4,805	7.9
Females	52.2	57.7	45,306	52,121	6,815	15.0
<b>Age Group:</b>						
16-24	65.2	67.8	32,046	35,640	3,594	11.2
25-34	72.4	69.0	32,522	34,722	2,200	6.8
35-44	61.4	58.8	21,324	22,445	1,121	5.3
45-54	44.9	51.9	13,368	16,158	2,790	20.9
55-64	32.0	40.1	4,566 <sup>u</sup>	7,115	2,549	55.8
65-74	26.2	35.1	2,151 <sup>u</sup>	1,517 <sup>u</sup>	-634	-29.5
<b>District:</b>						
Southern Harbour	56.0	63.7	19,573	21,912	2,339	12.0
Northern Harbour	54.7	56.1	31,378	31,792	414	1.3
South Eastern	64.6	57.1	14,277	15,096	819	5.7
Western	64.6	53.3	18,329	15,459	-2,870	-15.7
Northern	59.9	69.5	17,301	25,232	7,931	45.8
Gozo and Comino	54.6	71.0	5,119 <sup>u</sup>	8,106	2,987	58.4
<b>Education Level:</b>						
No Schooling / Primary	31.0	43.3	925 <sup>u</sup>	2,039 <sup>u</sup>	1,114	120.4
Secondary	48.0	46.9	35,902	36,242	340	0.9
Post-Secondary	67.5	66.3	41,854	47,707	5,853	14.0
Tertiary	66.2	78.3	27,296	31,609	4,313	15.8
<b>Employment Situation:</b>						
Employed / Self-employed	63.4	65.8	76,113	89,700	13,587	17.9
Unemployed	58.7	47.2	5,426 <sup>u</sup>	2,820 <sup>u</sup>	-2,606	-48.0
Student	62.8	64.2	11,651	14,598	2,947	25.3
Inactive **	38.6	36.0	12,787	10,479	-2,308	-18.0

\* Includes only persons who used the internet during Q1 of the reference year

\*\* Includes persons who are retired

**Table 2.16. Type of goods or services bought or ordered over the Internet\***

	% Internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Food or groceries	1.0	2.4	1,082 <sup>u</sup>	2,765 <sup>u</sup>	1,683	155.4
Household goods	16.5	13.7	17,476	16,122	-1,354	-7.7
Medicine	2.9	2.6	3,060 <sup>u</sup>	3,026 <sup>u</sup>	-34	-1.1
Films, music	28.0	22.5	29,652	26,501	-3,151	-10.6
Books, magazines, newspapers	35.6	36.9	37,678	43,393	5,715	15.2
Clothes, sports goods	38.7	50.1	40,974	58,863	17,889	43.7
Video games software and upgrades	17.4	16.0	18,459	18,818	359	1.9
Other computer software and upgrades	12.9	11.9	13,676	14,048	372	2.7
Computer hardware	13.4	11.2	14,222	13,174	-1,048	-7.4
Electronic equipment	27.8	12.7	29,507	14,970	-14,537	-49.3
Telecommunication services	24.2	26.2	25,677	30,843	5,166	20.1
Financial services	5.2	2.4	5,486 <sup>u</sup>	2,879 <sup>u</sup>	-2,607	-47.5
Holiday accommodation	25.2	29.4	26,744	34,575	7,831	29.3
Other transport arrangements	25.7	27.1	27,272	31,847	4,575	16.8
Tickets for events	18.2	20.1	19,312	23,609	4,297	22.2
Other	17.8	25.7	18,875	30,261	11,386	60.3

**Table 2.17. Type of goods downloaded over the Internet\***

	% internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Films, music	7.5	10.2	7,942	11,964	4,022	50.6
E-books, magazines, newspapers	8.2	11.4	8,644	13,438	4,794	55.5
Computer software	7.8	9.8	8,255	11,521	3,266	39.6

\* Includes only persons who used the internet during Q1 of the reference year

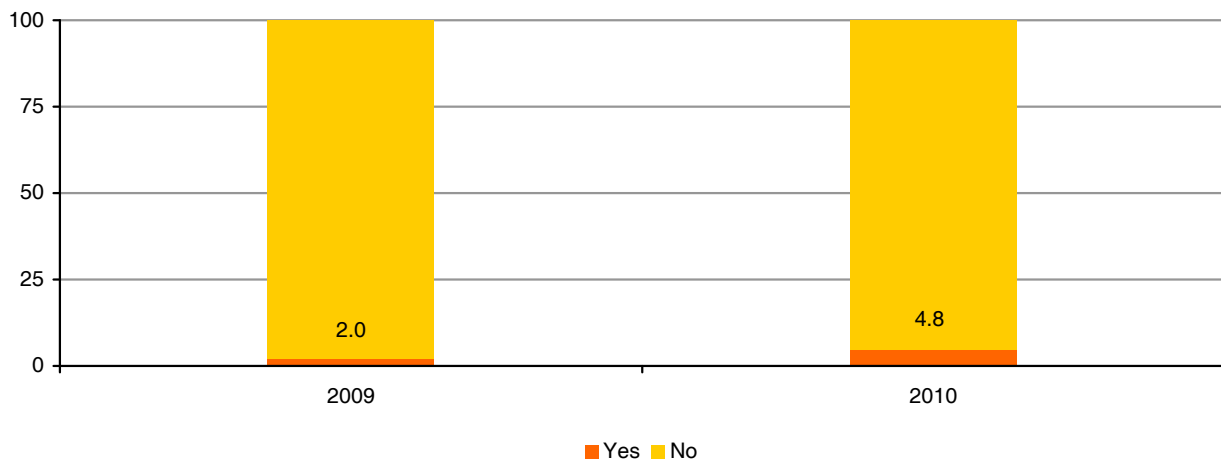
\*Multiple response was permitted in these questions

**Table 2.18. Origin of goods or services purchased over the Internet**

	% internet users		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
Seller from Malta	18.6	9.8	19,726	11,475	-8,251	-41.8
Seller from other EU countries	84.0	91.6	89,063	107,672	18,609	20.9
Sellers from the rest of the world	44.5	45.7	47,146	53,726	6,580	14.0
Seller's country of origin is unknown	2.4	1.6	2,548 <sup>u</sup>	1,922 <sup>u</sup>	-625	-24.5

<sup>u</sup>Includes only persons who used the internet during Q1 of the reference year

**Chart 2.6. Percentage of online gaming\***



\*Includes sports betting, gambling or lotto over the Internet

## E-Skills and Internet security

The concept of Internet security goes hand in hand with the idea of e-Commerce, as the World Wide Web is plagued with potential threats. In particular this study showed that 53 per cent of respondents were worried about the possible loss of information resulting from a computer virus. A further 51 per cent were concerned about the abuse of personal information sent over the Internet, while 46 per cent were worried about potential financial losses. It is unfortunate to note that half the Internet users stated that they suffered the consequences of a virus or computer infection at least once in their life.

This survey further set out to gauge the skills individuals possess in the field of information society and what amount of training they received in this regard. Results showed that 97 per cent of individuals who used the Internet during the first quarter of 2010 were able to use a search engine, while 86 per cent were capable of sending emails with attachments. On the other hand, the ability to use peer-to-peer file sharing software was known to just 20 per cent of persons.

With regard to computer training it appeared that 34 per cent of the respondents received training over three years ago, while another third said they never received any kind of formal training. The ones that were most likely to receive this training were full-time students, with an estimated 63 per cent. On the other hand, only 33 per cent of persons in full-time employment received some kind of training in the last three years.

**Table 2.19. Assessment of individual e-Skills: 2010\***

	% Internet users			Absolute		
	Total	Males	Females	Total	Males	Females
Using a search engine to find information	97.4	97.1	97.8	189,264	100,972	88,291
Sending emails with attached files	86.1	85.4	86.9	167,162	88,716	78,446
Posting messages to chatrooms, newsgroups or online discussion forums	52.1	47.5	57.5	101,260	49,386	51,874
Using the Internet to make telephone calls	29.0	30.6	27.1	56,233	31,762	24,471
Using peer-to-peer file sharing for exchanging movies, music, etc.	20.3	23.3	16.8	39,374	24,216	15,158
Creating a web page	8.8	10.5	6.9	17,084	10,885	6,199
None of the above	1.6	1.9	1.2	3,083 <sup>u</sup>	1,984 <sup>u</sup>	1,099

\* Includes only persons who used the internet during Q1 of the reference year

<sup>u</sup>Multiple response was permitted in this question

**Table 2.20. Participation in formal computer training lasting at least three hours: 2010\***

	% total			Absolute		
	Total	Males	Females	Total	Males	Females
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>194,218</b>	<b>103,938</b>	<b>90,280</b>
Within the past three months	10.7	10.0	11.5	20,792	10,440	10,352
Between three months and a year ago	6.4	3.9	9.3	12,481	4,096 <sup>u</sup>	8,385
Between one and three years ago	16.3	14.8	17.9	31,583	15,422	16,161
More than three years ago	34.6	34.0	35.3	67,200	35,324	31,876
Never	32.0	37.2	26.0	62,162	38,656	23,506

\*Includes only persons who have used a computer during Q1 of the reference year

**Table 2.21. Recipients of computer training in the last three years\***

	% Total		Absolute		Absolute change	Percentage change
	2009	2010	2009	2010		
<b>Total</b>	<b>36.4</b>	<b>33.4</b>	<b>65,894</b>	<b>64,856</b>	<b>-1,038</b>	<b>-1.6</b>
<b>Sex:</b>						
Males	32.0	28.8	30,121	29,958	-163	-0.5
Females	41.2	38.7	35,773	34,898	-875	-2.4
<b>Age Group:</b>						
16-24	51.5	48.6	25,298	25,569	271	1.1
25-34	32.1	31.3	14,414	15,765	1,351	9.4
35-44	37.1	34.2	12,880	13,052	172	1.3
45-54	30.1	24.5	8,958	7,626	-1,332	-14.9
55-64	15.7	13.2	2,246 <sup>u</sup>	2,332 <sup>u</sup>	86	3.8
65-74	25.6	11.9	2,098 <sup>u</sup>	512 <sup>u</sup>	-1,586	-75.6
<b>District:</b>						
Southern Harbour	34.8	34.3	12,165	11,801	-364	-3.0
Northern Harbour	32.7	29.8	18,760	16,862	-1,898	-10.1
South Eastern	37.6	31.2	8,306	8,254	-52	-0.6
Western	30.0	35.7	8,500	10,347	1,847	21.7
Northern	42.2	36.5	12,178	13,274	1,096	9.0
Gozo and Comino	63.8	37.8	5,985	4,318 <sup>u</sup>	-1,667	-27.9
<b>Education Level:</b>						
No Schooling / Primary	0.0	20.7	0 <sup>u</sup>	972 <sup>u</sup>	-	-
Secondary	31.3	21.7	23,388	16,755	-6,633	-28.4
Post-Secondary	45.5	42.9	28,224	30,888	2,664	9.4
Tertiary	34.6	40.3	14,282	16,241	1,959	13.7
<b>Employment Situation:</b>						
Employed / Self-employed	33.1	31.4	39,715	42,786	3,071	7.7
Unemployed	34.3	28.7	3,166 <sup>u</sup>	1,717 <sup>u</sup>	-1,449	-45.8
Student	71.4	62.5	13,244	14,211	967	7.3
Inactive **	29.5	21.1	9,769	6,142	-3,627	-37.1

\*Percentage of persons who have used a computer during Q1 of the reference year

\*\* Includes persons who are retired

**Table 2.22. Individuals' concern with Internet related problems\*: 2010**

	Absolute**	% level of concern		
		Strongly	Mildly	Not at all
Virus or other computer infection resulting in loss of information and time	162,565	52.3	31.4	16.3
Unsolicited emails ('spam')	136,936	37.8	32.7	29.5
Abuse of personal information and/or other privacy violations	144,629	51.3	23.1	25.6
Financial loss as a result of fraudulent messages or the unauthorised disclosure of personal information	129,778	46.0	20.8	33.2
Financial loss due to fraudulent payment (credit or debit) card use	130,654	46.8	20.5	32.7
Children accessing inappropriate web-sites or connecting with potentially dangerous persons	108,548	41.2	14.7	44.1

\* Includes only persons who used the internet during Q1 of the reference year

\*\* Unconcerned individuals were omitted

**Table 2.23. Security related problems experienced by individuals through Internet use: 2010\***

	Absolute	% Total
Virus or other computer infection resulting in loss of information and time	96,645	49.8
Unsolicited emails ('spam')	113,017	58.2
Abuse of personal information sent on the Internet and/or other privacy violations	8,827	4.5
Financial loss as a result of fraudulent messages or getting redirected to fake websites asking for personal information	3,896 <sup>u</sup>	2.0
Financial loss due to fraudulent payment (credit or debit) card use	7,822	4.0
Children accessing inappropriate web-sites or connecting with potentially dangerous person from a computer from within the household	3,068 <sup>u</sup>	1.6

\* Includes only persons who used the internet during Q1 of the reference year

**Table 2.24. Security concerns hindering the performance of particular online activities: 2010\***

	Absolute	% Total
Ordering or buying goods or services for private use	22,108	11.4
Carrying out banking activities such as account management	8,745	4.5
Providing personal information to online communities for social and professional networking	15,211	7.8
Communicating with public services or administrations	4,279 <sup>u</sup>	2.2
Downloading software, music, video files, games or other data files	16,370	8.4
Using the Internet with mobile device (e.g. laptop) via website connection from places other than home	6,807	3.5

\*Persons using the internet in 2010



## ICT ENTERPRISE SURVEY: METHODOLOGICAL NOTES

### 1.0 SCOPE AND RELEVANCE OF THE ICT SURVEY

The Information and Communications Technology survey in enterprises (ICT-ENT) is an enterprise survey carried out under Eurostat Regulation (EC) No.808/2004. The main subjects covered in this survey include:

- ICT systems and their usage in enterprises;
- Use of the internet and other electronic networks by enterprises;
- e-commerce and e-business processes;
- ICT security.

This survey is mandatory in all the European Union (EU), thereby ensuring a harmonised approach at a European level which paves the way for effective benchmarking and data comparison among Member States.

At a local level this survey was conducted in conformity with the Malta Statistics Authority Act (XXIV of 2000).

### 1.1 SAMPLE SIZE AND RESPONSE

#### 1.1.1 Population coverage

For the purpose of this study, a census of companies employing a minimum of 10 employees (Full Time Equivalent) was undertaken, and the Business Register was used as the original sampling frame. Throughout this survey, an Enterprise is defined as an organisational unit which benefits from a certain degree of autonomy from its owner/s, particularly in the allocation of resources.

Enterprises are subdivided into strata depending on their size class (FTE) and their economic activity (Table M1).

The concept of Full Time Equivalence (FTE) used states that two part-time employees are equivalent to one full timer. For calibration purposes, enterprises were divided into three size classes, namely small (10-49 employees), medium (50-249 employees) and large enterprises (250 and more persons employed).

Economic activities correspond to the NACE Revision 2 classification. The sectors covered in this publication include:

- Section C: Manufacturing;
- Section F: Construction;
- Section G: Wholesale and retail trades;
- Section H: Transportation and storage;
- Section I: Accommodation and food service activities;
- Section J: Information and communication;
- Section M, Division 69-74: Professional, scientific and technical activities;
- Section N: Administrative and support activities;
- The sector 'Other' includes enterprises from:
  - Electricity, gas and steam, water supply, sewerage and waste management (Sections D, E);
  - Real estate activities (Section L);
  - Repair of computers (Section S, Group 95.1).

**Table M1. Distribution of enterprises for ICT-ENT 2010**

Economic Activity	Enterprise size class			
	10-49	50-249	250+	Total
Manufacturing	196	45	14	255
Construction	108	19	5	132
Wholesale and retail trade	367	49	0	416
Transportation and storage	62	11	5	78
Accommodation and food service activities	106	41	5	152
Information and communication	41	15	4	60
Professional, scientific and technical activities	102	11	3	116
Administrative and support service activities	51	19	5	75
Other	18	0	3	21
<b>Total</b>	<b>1,051</b>	<b>210</b>	<b>44</b>	<b>1,305</b>

**1.1.2 Data collection**

Questionnaires were first sent to enterprises by post and after a three-week deadline interviewers were asked to chase those enterprises which had not yet answered the questionnaire. Approximately 30 part-time interviewers were employed to conduct face-to-face interviews, with each interviewer approaching an average 35 enterprises. The content of the survey was explained to interviewers via a briefing presentation. Furthermore a centralised system was used to monitor the progress of every interviewer.

Throughout the data collection process, the response for each stratum was monitored to ensure that adequate representation at all levels. Strata made up of less than 20 enterprises were closely monitored to try to achieve 100 per cent response rate. This was also the case for those enterprises employing more than 250 employees (FTE).

**1.1.3 Response**

The response rate achieved in this survey was adequate to produce an array of reliable statistical information. The global response rate for this survey stood at 71 per cent, counting both questionnaires received by post and face-to-face interviews. Table M2 below shows the percentage response rate obtained in the ICT Enterprises survey for each stratum.

**Table M2. Percentage response rate**

Economic Activity	Enterprise size class			
	10-49	50-249	250+	Total
Manufacturing	69	89	100	75
Construction	73	68	100	73
Wholesale and retail trade	74	78	-	74
Transportation and storage	74	91	80	77
Accommodation and food service activities	59	76	100	65
Information and communication	68	87	100	75
Professional, scientific and technical activities	63	55	100	63
Administrative and support service activities	55	84	80	64
Other	44	-	100	52
<b>Total</b>	<b>69</b>	<b>80</b>	<b>96</b>	<b>71</b>

#### **1.1.4 Quality control**

Measures undertaken to ensure the high quality of results include:

- Regular data audits;
- Automated data validation by the data entry program;
- Data was re-checked manually during analysis for errors or outliers (also making use of box plots);
- Data checks and validation by means of software that was provided by Eurostat;
- Ongoing cooperation with Eurostat to ensure that harmonised and reliable data was produced.

In the event of item non-response, the enterprises were contacted once again, and asked to supply the missing information. In cases where this could not be achieved auxiliary information was used – either from other enterprise surveys or from past ICT Enterprises questionnaires. In the absence of auxiliary information imputation techniques, the appropriate mathematical algorithms were utilised.

Extreme outliers were verified telephonically with respondents – and if these could not be reached, the data was erased and imputed together with the item non-response using appropriate mathematical methods.

#### **1.1.5 Weighting**

Data was weighted to adjust for unit non-response. This was based on a post stratification method according to NACE Rev 2.0 and employment group (FTE), with the gross population as the numerator and net sample as the denominator. This method assumed that unit non-response was random within strata.

#### **1.1.6 Errors**

This survey was aimed at 100 per cent coverage of the population (i.e. a full census). However, in practice, an overall response rate of 71 per cent was achieved. Added to this, returned questionnaires were at times incomplete, thus resulting in item non-response. Furthermore as a result of the weighting and imputation methods which had to be adopted, results suffer to some extent from unknown errors which are very difficult to quantify.

On the other hand, other non-sampling errors may occur for reasons such as respondent error, non-response, the quality of the sampling frame, and data entry errors. While every effort was made to minimise these errors, these may still occur.

## 1.2 CONCEPTS AND DEFINITIONS

<b>Customer Relationship Management (CRM)</b>	A management methodology which places the customer at the centre of all business activities
<b>Digital Signature</b>	A mathematical scheme demonstrating the authenticity of a digital message or document
<b>Digital Subscriber Line (DSL)</b>	A family of technologies that provides digital data transmission over the wires of a local telephone network. DSL services are delivered simultaneously with regular telephone on the same telephone line as it uses a higher frequency band that is separated by filtering.
<b>Enterprise Resource Planning (ERP)</b>	A software application that integrate information and processes across several business functions. Typically ERP integrates planning, procurement, sales, marketing, customer relationship, finance and human resources operations.
<b>Extranet</b>	A closed network that uses Internet protocols to securely share enterprise's information with suppliers, vendors, customers or other businesses partners.
<b>Intranet</b>	An internal company communications network using Internet protocol allowing communications within an organisation.
<b>Local Area Network (LAN)</b>	A network for communication between computers in close proximity to one another, permitting users to exchange data or hardware such as a printer or scanner.
<b>Open Source Software</b>	An open-source licence is a copyright license that makes the source code available under terms which allow for modification and redistribution without owing anything to the original author.
<b>Supply Chain Management</b>	Exchanging information with suppliers and/or customers in order to coordinate the availability and delivery of products or services to the final customer. This includes information on demand forecasts, inventories, production, distribution or product development which may be exchanged via websites or other means of electronic data transfer excluding manually typed emails.

## ICT HOUSEHOLD SURVEY: METHODOLOGICAL NOTES

### 2.0 SCOPE AND RELEVANCE OF THE ICT SURVEY

The Information and Communications Technology usage in households and by individuals survey (ICT-HH) is an individual survey carried out under Eurostat Regulation (EC) No.808/2004. The main subjects covered in this survey include:

- Access to and use of ICT systems by individuals and/or in households;
- Use of the internet for different purposes by individuals and/or in households;
- ICT security;
- ICT competence;
- Barriers to the use of ICT and the internet.

This survey is mandatory in all the European Union (EU), and locally it was conducted in conformity with the Malta Statistics Authority Act (XXIV of 2000).

### 2.1 SAMPLE SIZE AND RESPONSE

#### 2.1.1 Population coverage

The target population for this survey included all households in which at least one member was between 16 and 74 years of age. Persons living in institutional households were not considered as eligible for this survey and thus were excluded from the target population. A sample of 1,500 individuals aged 16 to 74 was selected by simple random sampling from a register of persons and households maintained by NSO.

Table M3 shows the household distribution used for the ICT-HH survey, as estimated from this survey, while Table M4 illustrates the distribution of individuals by age-groups.

**Table M3. Household distribution for ICT-HH 2010**

District	Household size					Total
	1	2	3	4	5+	
1	4,516	6,981	5,987	4,915	3,226	25,625
2	5,926	12,787	9,183	8,068	4,021	39,985
3	2,456	3,815	4,976	4,950	2,815	19,012
4	1,878	3,538	4,192	4,759	2,598	16,965
5	1,961	4,605	5,331	5,615	1,980	19,492
6	1,405	2,448	1,905	2,973	1,092	9,823
<b>Total</b>	<b>18,142</b>	<b>34,174</b>	<b>31,574</b>	<b>31,280</b>	<b>15,732</b>	<b>130,902</b>

**Table M4. Individuals distribution for ICT-HH 2010**

Age group	District						Total
	1	2	3	4	5	6	
16-24	9,843	14,927	8,049	7,329	8,889	4,173	<b>53,210</b>
25-34	12,827	15,779	9,605	8,302	8,939	3,654	<b>59,106</b>
35-44	7,542	13,476	8,456	7,655	8,799	4,058	<b>49,986</b>
45-54	10,027	19,054	8,652	8,697	9,595	4,727	<b>60,752</b>
55-64	12,298	17,811	7,236	7,083	7,988	3,437	<b>55,853</b>
65-74	6,887	11,952	4,208	4,203	4,096	2,800	<b>34,146</b>
<b>Total</b>	<b>59,424</b>	<b>92,999</b>	<b>46,206</b>	<b>43,269</b>	<b>48,306</b>	<b>22,849</b>	<b>313,053</b>

### 2.1.2 Data collection

Data collection was carried out by face-to-face interviewing during the second quarter of 2010; however prior to this all, respondents were contacted by post thereby requesting their participation in this survey. A team of approximately 30 part-time, experienced, interviewers were entrusted with the data collection. This meant that, on average, each interviewer was assigned 50 questionnaires. All interviewers were adequately briefed on this survey before its commencement. Telephone interviews were permitted only in exceptional cases where face-to-face interviews were not possible.

Respondents were contacted by phone to arrange time and place for the interview at their best convenience. A maximum of three visits were carried out before a household was considered as 'no contact'.

### 2.1.3 Response rate

A total of 1,128 questionnaires were received; accounting for a response rate of 75 per cent – counting both face-to-face and telephone interviews.

### 2.1.4 Quality control

Various measures were undertaken to ensure high quality results. These included regular data audits and checks for data entry errors and outliers. In some cases, respondents were re-contacted in order to confirm some information which seemed inconsistent with the other data. Furthermore, ongoing cooperation with Eurostat ensured the production of harmonised and reliable results.

In the case of item non-response, the first preference was to contact the respondents and ask for the missing information. In case where this could not be carried out, missing information was imputed using appropriate mathematical algorithms.

### 2.1.5 Grossing-up procedure

Separate weights for households and individuals were computed to enable estimation of indicators at both household and individual level. Post-stratification weighting was used in order to construct these weights basing on district, household size, respondents' sex and age.

### 2.1.6 Errors

Since results from this study are being extracted from a representative random sample of the whole population, then figures produced from this survey are subject to certain degrees of sampling errors, which cause discrepancies between these estimates and the actual population values. The effect of this error is usually expressed in the form of margin of error which quantifies the uncertainty of an estimate at 95 per cent confidence levels.

The following table illustrates the margins of errors for different estimates of proportions for different total population counts:

Margins of error at 95% confidence intervals	eligible population ('000)									
	10	20	40	80	120	160	200	250	300	
Estimated proportion (%)	10	9.8	6.9	4.9	3.5	2.8	2.4	2.2	2.0	1.8
	20	13.0	9.2	6.5	4.6	3.8	3.3	2.9	2.6	2.4
	30	14.9	10.6	7.5	5.3	4.3	3.7	3.3	3.0	2.7
	40	16.0	11.3	8.0	5.6	4.6	4.0	3.6	3.2	2.9
	50	16.3	11.5	8.1	5.8	4.7	4.1	3.6	3.3	3.0
	60	16.0	11.3	8.0	5.6	4.6	4.0	3.6	3.2	2.9
	70	14.9	10.6	7.5	5.3	4.3	3.7	3.3	3.0	2.7
	80	13.0	9.2	6.5	4.6	3.8	3.3	2.9	2.6	2.4
	90	9.8	6.9	4.9	3.5	2.8	2.4	2.2	2.0	1.8

For example, an estimated proportion of 20.0 per cent calculated for a population category of 40,000 persons has an estimated margin of error of 6.5 per cent, implying that the true population value may lie between 13.5 per cent and 26.5 per cent. In the publication tables, figures are flagged with a 'u' in cases where margin of error lies between 30 and 40 per cent. In cases where the margin of error is greater than 40 per cent, estimates are not shown. Readers are strongly advised to interpret flagged estimates with caution.

On the other hand, other non sampling errors may occur for reasons such as respondent error, non-response, the quality of the sampling frame, and data entry errors. While every effort was made to minimise these errors, these may still occur.

## 2.2 CONCEPTS AND DEFINITIONS

Districts were divided according to NUTS 4 classification as follows:

1. Southern Harbour;
2. Northern Harbour;
3. South Eastern;
4. Western;
5. Northern;
6. Gozo and Comino.