The Information Society
In Portugal 2006

PREFACE

The Internet, computers, mobile phones, and other developments of information and communication technologies as optic fiber and digital TV, have deeply transformed the way people live – how the learn, work, use their free time and interact, both in personal relationships and with organizations.

The Information Society flowing from this transformation, where the organization in networks, the mobile communication and the globalization of interactions assume special roles simultaneously made possible by the information and communication technologies and enhancing their generalized usage, is among us already for several decades. It is no more a futuristic vision, but a reality with a substantial past and world expansion whose analysis and understanding should be sustained on concrete empirical data and rigorous sociological methodologies.

It is also clear the central importance of this transformation for current and future economic opportunities and for the quality of life of people – the future of societies is played on this table board – hence its practical relevance strengthens the need for its systematic characterization and monitoring.

The data for our country reveal major contrasts in the usage of information and communication technologies that bring us particular specificities within Europe. For example, regarding the adult population usage of computers and the Internet within EU25, Portugal has simultaneously one of the highest values for the population with secondary or higher education (only after the Nordic countries, Netherlands, Luxembourg and United Kingdom) and one of the lowest values for the population with less than secondary education, which is in Portugal a very high fraction of all the adults. This example shows that we have a special situation whose rapid evolution requires our own solutions.

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PREFACE

The electronic publication "Information Society in Portugal 2006" is a compilation of data resulting from the continued collaboration of the several institutions involved in its preparation, themselves organized in a network, but of also others that were pioneers in the observation of this area, among which the former Observatory of the Sciences and Technologies deserves a special reference. Practically all these data where already available in the Internet, but assembling them facilitates the access to an integrated set of interest for understanding the Information Society situation and evolution in Portugal. We are aware that the work to be performed in this area must be further pursued, with the flexibility necessary in a period of quick changes, and must mobilize institutions and researchers for the analysis and understanding of the varied and complex transformations that are being felt in society, and to open new windows over the future.

Luis Magalhães
President
Knowledge Society Agency

PREFACE

The publication "Information Society in Portugal 2006" aims primarily to provide a structured set of information on the establishment and usage of the information and communication technologies and to allow a reflection on their contribution for the development of the Portuguese society under the framework of the Lisbon Strategy.

This publication is the result of a solid effort developed by a group of entities that, under the High Statistical Council, gathered their knowledge in order to create a data set that described, as accurate as possible, for each moment of observation, the Information Society conditions of development.

This institutional partnership created after the approval of the "Green Book on Information Society" and enhanced by the goals established on the Lisbon agenda decided by the European Council, was also improved by ongoing reflections from international institutions working in the area and by the statistical programmes defined by Eurostat.

In this context, INE Portugal was obviously an active partner on the supply of indicators, introducing the first surveys for the regular observation of the information and communication technologies usage by households and enterprises, in line with the comparability criteria defined under the framework of the European Union.

The result of the work developed by the different entities is presented in this publication, which includes information on the available infrastructures and their usage by households, enterprises and public administration.

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PREFACE

The current national statistical production for the Information Society area is still focused on the description of the information and communication technologies usage, and less oriented to the evaluation of the related social, economical, technological and cultural changes. The evaluation of these ongoing transformations requires inevitably a broader time span and a new effort concerning the definition of measuring instruments.

This publication, in spite of not being yet an exhaustive and detailed characterization of the Information Society in Portugal, represents a remarkable example of inter-institutional articulation under the framework of the National Statistical System.

It is believed that with this joint effort it will be possible to meet the challenges the National Statistical System is facing in the Information Society field and to deepen this important statistical system for the present and forthcoming societies.

Alda de Caetano Carvalho
President of the Administration Board
National Statistical Institute

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INTRODUCTION

The elaboration of a document objectively portraying the state of Information Society in Portugal, in both statistical appraisal and reference indicators, has been a long thought project in the Information and Knowledge Society Observatory (OSIC) of UMIC - Knowledge Society Agency.

We pursued a triple ambition. First, to "seize" a complex phenomenon of widely inaccurate contours, which penetrates several interstices of personal and social life, in its fundamental dimensions. Then, to "normalize" the corpus of data and information available in the different organizations that, in their own sphere of responsibility, observe the Information Society, thus avoiding statistical inconsistency entailing negative consequences namely in the external plan. Finally, to ascertain an effective follow up of the main changes occurring in what is, undoubtedly, one of the most dynamic and unstable segments of our collective life, through a regular publication, not excessively spaced in time.

After long months of reflection and discussion it was considered appropriate to entrust the task to the Information Society Statistics Monitoring Working Group (GTAESI), bearing in mind its fourth mandate endorsed by the High Council of Statistics in the context of the correspondent deliberation for its creation (nº 174), on 8th July 1999:

a)   The coordination, integration and methodological harmonization of statistical information collected by the different organizations, in the scope of Information Society, and eventually the presentation of proposals for new surveys;

b)   The conceptual and methodological reflection on the production of indicators for the Information Society;

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c)   The presentation of proposals for statistical indicators production which allow to express the levels of economic-social impact and of the Information Society penetration development in the Portuguese society; being, in order to achieve this purpose, necessary to revise and/or incorporate methodologies that stress the country specificities;

d)   The articulation with several representations of Portugal in international organizations, namely, OECD and EUROSTAT.

GTAESI is currently formed by representatives of the following organizations:

- UMIC - Knowledge Society Agency (through OSIC) - which chairs the Working Group;

- National Statistical Institute (INE);

- DGEEP -General Directorate of Study and Prevision;

- Institute of Informatics (II), of the Ministry of Finance and Public Administration;

- Observatory for Science and Higher Education (OCES), of the Ministry of Science, Technology and Higher Education;

- National Communications Authority (ANACOM);

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- Bureau for Information and Evaluation of the Education System (GIASE), of the Ministry of Education;

- Regional Statistical Office of Azores (SREA);

- Regional Directorate of Statistics of Madeira (DREM).

The Cabinet of the National Coordinator for the Lisbon Strategy and the Technological Plan (GCNELPT) and the Communication Observatory (OberCom) recently accepted the invitation to participate under an observer status.

After an intense and participative discussion between its members, GTAESI decided to accept the challenge, involving the organizations represented in it and aiming for the accomplishment of a dually innovative task (as expressed in the recommendations submitted to the High Council of Statistics): production of a "statistical yearbook" (to be started in 2006) which will allow to present the portrait of Information Society in Portugal; and the organisation of an annual seminar focused on communicating "what we know" and promoting the discussion about "what we do not know" in what concerns Information Society monitoring.

The publication, that is now made public, represents the product of that intense work.

Most of all, it is the result of an exemplary collaboration between public bodies, which managed to go beyond the fragmentation that usually reigns in the sphere of public information. The initiative also demonstrates a high level of maturity in a transversal cooperation within the public sphere of responsibility, with clear benefits for the wide - and ever increasing - community of Information Society statistics users.

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The "coherence" and "intelligence" added value of this publication, plus the "transparency" of submitting it to public scrutiny in the context of a seminar held exclusively for that purpose, marks a turning in the modus faciendi and in the communicational strategy of Information Society statistics and indicators in Portugal.

I am deeply thankful to all of those who contributed, within GTAESI and in the scope of the respective public bodies, for the creation of the climate of mutual trust and active collaboration that made possible this huge step forward. For the special coordination responsibilities undertaken in this well succeeded process I should like to single out, as a fair expression of recognition, the representatives of OSIC/UMIC and of INE, who were untiring in the execution of the complex responsibilities that have been trusted to them.

Many thanks to all!

Roberto Carneiro
President
Information Society Statistics Monitoring Working Group

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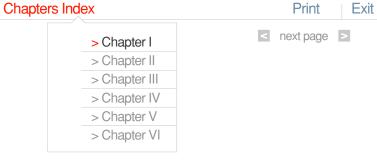**The Information Society In Portugal 2006**

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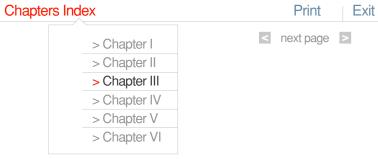> Chapter II
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INTRODUCTION | TELECOMMUNICATIONS

In the last decades, the telecommunications sector has been playing a determinant role in the economic development, productivity growth and technological diffusion. In this chapter, of the responsibility of ANACOM, you will find statistical information on specific indicators that allow knowing the present state of the country's infrastructure, namely on the subject of Fixed Telephone Service, Cellular Mobile Service, Cable Networks and Internet Access Service.

The main findings are:

- The total number of main telephone accesses installed at customer request stands at 4,07 million, representing a penetration rate of approximately 39 accesses per 100 inhabitants;

- The number of direct access fixed telephone service customers is approximately 3 077 million;

- At the end of the 2nd trimester of 2006, there are approximately 483 thousand carrier pre-selection costumers and 77 thousand active customers using access via call-by-call selection;

- Regarding the Cellular Mobile Service, there are 11,74 million subscribers;

- The Cellular Mobile Service penetration rate is 111%;

- The cable television distribution service has over 1,4 million subscribers at the end of June 2006.

- Regarding the Cable TV distribution by Direct To Home (DTH) technology, there are about 383 thousand subscribers;

- About 28% of all Portuguese households have subscriptions to a cable television distribution service;

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- Some 36% of cabled households have a subscription to a cable television distribution service;

- The total number of Internet Access Service subscribers with fixed access is about 1,55 millions, of which 1,28 millions are residential customers;

- The broadband penetration rate with fixed access in Portugal is about 12,7% at the end of June 2006.

I – TELECOMMUNICATIONS

1.   FIXED TELEPHONE SERVICE

1.1   Providers

Table I.1   Number of active providers

2001-1st Semester 2006, Number of providers

	2001	2002	2003	2004	2005	1st/06
Number of licensed providers	x	27	26	21	22	21
Number of active providers	x	13	13	13	14	12
With direct accesss traffic only	x	3	2	2	1	1
With indirect accesss traffic only	x	3	3	3	3	2
With direct and indirect accesss traffic	x	7	8	8	10	9

Source: ICP-ANACOM.

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1.2	Access Lines

Table I.2 | **Number of main lines**

2001-1st Semester 2006, Thousands of equivalent accesses

	2001	2002	2003	2004	2005	1st/06
Total main lines	**4 385**	**4 351**	**4 281**	**4 238**	**4 234**	**4 176**
Accesses installed on customer request	**4 292**	**4 266**	**4 197**	**4 147**	**4 128**	**4 069**
Analogue accesses	3 482	3 404	3 334	3 291	3 220	3 126
Digital accesses	810	863	863	856	909	943
ISDN basic rate	480	535	542	536	528	521
ISDN primary rate	321	324	317	316	303	303
ISDN partitioned primary rate	3	2	1	3	5	5
Others	5	2	1	1	73	115

Note: Total main lines include access installed on costumer request, own complement and public payphones.

Source: ICP-ANACOM.

Table I.3 | **Public payphones**

2001-1st Semester 2006, Number of payphones

	2001	2002	2003	2004	2005	1st/06
Total public payphones	**45 486**	**43 805**	**41 525**	**47 444**	**45 355**	**44 385**
coin	22 057	20 899	18 854	18 534	17 776	x
card	7 542	3 342	2 054	648	551	x
both coins and card	3 403	7 560	8 784	10 259	10 317	x
other	12 484	12 004	11 833	18 003	16 711	x

Source: ICP-ANACOM.

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Table I.4   **Access lines penetration rate**

2001-1st Semester 2006, Main telephone lines per 100 inhabitants

	2001	2002	2003	2004	2005	1st/06
Main telephone lines per 100 inhabitants	42	42	41	40	40	40

Sources: ICP-ANACOM, INE.

Table I.5 | **Access lines penetration rate in the European Union**

2001-2005, Main telephone lines per 100 inhabitants- EU

	2001	2002	2003	2004	2005
EU25	**52**	**49**	**50**	**50**	**50**
Austria	50	49	48	46	45
Belgium	50	50	48	46	46
Cyprus	62	61	59	57	56
Czech Republic	38	36	35	34	31
Germany	64	65	66	66	67
Denmark	72	70	67	64	62
Estonia	37	35	34	33	33
Greece	51	x	23	47	57
Spain	43	46	44	42	43
Finland	55	55	50	45	40
France	58	57	57	56	57
Hungary	37	36	36	35	33
Ireland	49	51	50	50	49
Italy	48	48	47	45	43
Lithuania	33	27	25	24	23
Luxembourg	79	x	x	80	79
Latvia	31	30	29	27	28
Malta	53	53	52	52	50
Netherlands	63	62	55	48	47
Poland	30	x	x	32	33
Portugal	**42**	**42**	**41**	**40**	**40**
Sweden	76	74	75	77	72
Slovenia	40	41	41	41	41
Slovakia	29	26	25	23	22
United Kingdom	60	59	58	56	56

Sources: ICP-ANACOM, ITU, Eurostat.

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1.3	Subscribers

Table I.6   **Number of subscribers**

2001-1st Semester 2006, Thousands of subscribers

	2001	2002	2003	2004	2005	1st/06
Direct access subscribers	**3 251**	**3 217**	**3 143**	**3 133**	**3 134**	**3 077**
Indirect access subscribers						
Carrier pre-selection	390	374	356	395	470	483
Call-to-call selection	57	37	52	102	102	77

Source: ICP-ANACOM.

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1.4   Telephone Traffic

Table I.7   **National telephone traffic**

2001-2005, Thousands of minutes/Thousands of calls

	2001	2002	2003	2004	2005
Minutes	**16 592 774**	**15 737 064**	**13 560 723**	**11 413 374**	**9 678 335**
Fixed to fixed	**8 250 964**	**7 672 215**	**7 208 172**	**6 989 899**	**6 574 502**
direct access	7 418 319	6 670 519	6 200 693	5 702 758	5 214 446
indirect access	832 645	1 001 697	1 007 478	1 287 141	1 360 056
Fixed to mobile	**1 400 021**	**1 455 428**	**1 301 530**	**1 253 890**	**1 219 520**
direct access	1 253 609	1 266 711	1 133 272	1 037 296	992 070
indirect access	146 412	188 717	168 259	216 594	227 450
Internet access traffic	6 941 789	6 609 421	5 051 021	3 169 586	1 884 313
Calls	**4 174 457**	**3 878 136**	**3 581 613**	**3 323 178**	**3 093 732**
Fixed to fixed	**2 953 506**	**2 718 659**	**2 565 137**	**2 468 281**	**2 339 764**
direct access	2 645 638	2 338 528	2 178 144	1 983 702	1 842 103
indirect access	307 868	380 131	386 994	484 580	497 661
Fixed to mobile	**818 236**	**779 782**	**724 750**	**699 827**	**660 127**
direct access	742 390	687 770	634 639	583 209	539 797
indirect access	75 846	92 011	90 111	116 618	120 330
Internet access traffic	402 715	379 695	291 726	155 069	93 841

Source: ICP-ANACOM.

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Table I.8 | **International telephone traffic**

2001-2005, Thousands of minutes/Thousands of calls

	2001	2002	2003	2004	2005
Minutes	**526 950**	**510 965**	**485 496**	**507 937**	**591 320**
direct access	421 210	427 800	414 600	408 404	489 328
indirect access	105 740	83 165	70 896	99 533	101 992
Calls	**144 449**	**138 159**	**121 131**	**120 660**	**133 890**
direct access	111 472	109 663	100 007	93 743	106 556
indirect access	32 977	28 496	21 125	26 918	27 335

Source: ICP-ANACOM.

2. | **CELLULAR MOBILE SERVICE**

2.1 | **Providers**

Table I.9 | **Number of service providers**
2001-1st Semester 2006, Number of providers

	2001	2002	2003	2004	2005	1st/06
Number of service providers	3	3	3	3	3	3

Source: ICP-ANACOM.

2.2 | **Subscribers**

Table I.10 | **Number of subscribers**
2001-1st Semester 2006, Thousands of subscribers

	2001	2002	2003	2004	2005	1st/06
Number of subscribers	7 978	8 670	10 030	10 362	11 447	11 738

Source: ICP-ANACOM.

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Table I.11 | **Mobile service penetration rate**

2001-1st Semester 2006, Number of subscribers per 100 inhabitants

	2001	2002	2003	2004	2005	1st/06
Number of subscribers per 100 inhabitants	77	83	96	98	108	111

Sources: ICP-ANACOM, INE.

2.3 | **Mobile Traffic**

Table I.12 | **Outgoing mobile traffic**

2001-2005, Millions of minutes/Millions of calls

	2001	2002	2003	2004	2005
Minutes	**11 240**	**12 916**	**13 674**	**14 488**	**15 614**
National Mobile-fixed	856	886	864	823	829
Mobile-International	339	468	479	510	537
Mobile-Mobile on-net	5 240	6 213	6 674	7 172	7 929
Mobile-Mobile off-net	1 528	1 792	1 998	2 147	2 313
Calls	**7 210**	**7 647**	**7 888**	**8 191**	**8 658**
National Mobile-fixed	599	588	542	517	512
Mobile-International	113	165	173	196	208
Mobile-Mobile on-net	3 532	3 711	3 860	4 011	4 345
Mobile-Mobile off-net	1 020	1 143	1 238	1 316	1 388

Source: ICP-ANACOM.

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Table I.13 | **Incoming mobile traffic**
2001-2005, Millions of minutes/Millions of calls

	2001	2002	2003	2004	2005
Minutes					
Mobile-Mobile off-net	1 007	1 139	1 240	1 318	1 390
Fixed-Mobile	815	762	691	659	626
International-Mobile	124	138	145	175	189
Calls					
Mobile-Mobile off-net	1 522	1 792	2 000	2 148	2 314
Fixed-Mobile	1 389	1 348	1 235	1 176	1 146
International-Mobile	366	418	425	512	546

Source: ICP-ANACOM.

Table I.14 | **SMS traffic**
2001-2005, Millions of messages

	2001	2002	2003	2004	2005
Written messages (SMS) sent	**1 537**	**2 101**	**2 303**	**2 529**	**4 689**
on-net	x	1 373	1 470	1 674	3 785
off-net	x	728	833	855	904

Source: ICP-ANACOM.

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3. | **CABLE NETWORKS**

Table I.15 | **Number of cabled households**
2001-1st Semester 2006, Thousands of households

	2001	2002	2003	2004	2005	1st/06
Total cabled households	**3 024**	**3 361**	**3 488**	**3 624**	**3 770**	**3 914**
North	769	861	909	970	1 017	1 113
Center	438	464	479	501	528	553
Lisbon	1 454	1 612	1 661	1 701	1 757	1 761
Alentejo	83	119	122	124	128	131
Algarve	149	172	177	185	197	214
A.R. Azores	53	53	54	55	56	56
A.R. Madeira	77	81	85	87	87	87

Source: ICP-ANACOM.

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Table I.16 | **Number of cable TV subscribers**

2001-1st Semester 2006, Thousands of subscribers

	2001	2002	2003	2004	2005	1st/06
Cable TV	**1 119**	**1 262**	**1 334**	**1 341**	**1 399**	**1 407**
North	247	291	315	318	328	328
Center	137	156	162	161	168	168
Lisbon	593	644	678	676	707	712
Alentejo	23	35	35	36	38	38
Algarve	38	48	49	49	51	51
A.R. Azores	35	37	38	39	40	42
A.R. Madeira	46	51	56	62	66	67
Direct to home (DTH)	**224**	**289**	**341**	**375**	**394**	**383**
North	70	93	111	123	123	119
Center	69	92	113	125	126	119
Lisbon	25	29	31	33	37	35
Alentejo	30	39	45	48	49	45
Algarve	16	18	19	20	20	19
A.R. Azores	12	16	18	20	23	29
A.R. Madeira	2	3	4	5	17	17

Source: ICP-ANACOM.

Table I.17 | **Cable networks penetration rate**
2001-1st Semester 2006, (%)

	2001	2002	2003	2004	2005	1S06
Cabled houselds/Households	60	67	69	72	75	79
Subscribers/Households	22	25	27	27	28	28

Note: Does not include DTH subscribers.

Sources: ICP-ANACOM, INE.

4.   INTERNET ACCESS SERVICE

4.1   Providers

Table I.18   **Number of active Internet service providers**
2001-1st Semester 2006, Number of providers

	2001	2002	2003	2004	2005	1st/06
Number of licensed ISPs	51	57	52	38	39	38
Number of active ISPs	30	32	26	30	30	28

Source: ICP-ANACOM.

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4.2 | **Subscribers**

Table I.19 | **Number of Internet access subscribers**

2001-1st Semester 2006, Thousands of subscribers

	2001	2002	2003	2004	2005	1st/06
Total subscribers	**467**	**667**	**905**	**1 243**	**1 482**	**1 553**
Residential	x	x	x	1 077	1 245	1 284
Non-Residential	x	x	x	167	237	269
ADSL subscribers	3	52	184	421	697	826
Residential	x	x	x	299	503	601
Non-Residential	x	x	x	121	194	225
Cable modem subscribers	94	207	316	425	512	517
Residential	90	199	304	405	488	493
Non-Residential	4	9	12	20	23	24
Dedicated access subscribers	3	3	3	3	3	3
Residential	-	-	-	-	-	-
Non-Residential	3	3	3	3	3	3
Dial-up subscribers	367	404	402	394	271	208
Residential	x	x	x	372	253	190
Non-Residential	x	x	x	23	17	18

Source: ICP-ANACOM.

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Table I.20   **Broadband penetration rate**

2001-1st Semester 2006, Number of subscribers (residential and non-residential) per 100 inhabitants

	2001	2002	2003	2004	2005	1st/06
Number of broadband subscribers per 100 inhabitants	1	2	5	8	11	13

Sources: ICP-ANACOM, INE.

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Table I.21 | **Broadband penetration rate in the European Union and OECD**

2001-1st Semester 2006, Number of subscribers (residential and non-residential) per 100 inhabitants

	2001	2002	2003	2004	2005	1st/06
Austria	4	6	8	10	14	18
Belgium	4	9	12	16	18	19
Czech Republic	o	o	1	3	6	9
Germany	2	4	6	8	13	15
Denmark	4	8	13	19	25	29
Greece	-	-	o	o	1	3
Spain	1	3	5	8	12	14
Finland	1	6	10	15	23	25
France	1	3	6	11	15	18
Hungary	o	1	2	4	6	8
Ireland	-	o	1	3	7	9
Italy	1	2	4	8	12	13
Luxembourg	o	2	4	10	15	18
Netherlands	4	7	12	19	25	29
Poland	o	o	1	2	2	5
Portugal	**1**	**3**	**5**	**8**	**12**	**13**
Sweden	5	8	11	15	20	23
Slovakia	-	-	o	1	3	3
United Kingdom	1	2	5	11	16	19
Switzerland	2	6	10	18	23	26
Japan	2	6	11	15	18	19
United States	5	7	10	13	17	19
Korea (Republic of South)	17	22	24	25	25	26
OECD	**3**	**5**	**7**	**10**	**14**	**16**
EU15	**2**	**3**	**6**	**10**	**14**	**17**

Sources: OECD, ICP-ANACOM.

METHODOLOGICAL NOTES | TELECOMMUNICATIONS

Universe
The Fixed Telephone Service, Cellular Mobile Service, Cable Networks and Internet Access Service data was collected from authorized operators or service providers, on the terms of Law no 5/2004, of February 10th.

Periodicity of the information compilation
Quarterly. Data for the 4 services was compiled during the month after the end of the reference period.

Inquiry method
Questionnaires submitted by the active services providers through paper or e-mail.

Note
All legally lenders qualified to fulfill the related services - allowed or permitted entities, in terms of legal framing of the sector - are compelled to send to ICP-ANACOM the respective statistical information.

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INTRODUCTION | PEOPLE AND ICT

One of the most important dimensions when analysing the Information Society is the individual. If, on one hand, infrastructures are crucial, as they constitute the pillars of that society, on the other, its evaluation couldn't be possible without taking into account the way agents acknowledge and make use of the available tools and technologies.

The main source of the information provided in this chapter is the Survey on ICT Usage in Households and by Individuals. It is carried out since 2002 by the Portuguese National Statistical Institute (INE) in cooperation with the UMIC - Knowledge Society Agency.

The main conclusions are:

- The availability of ICT in Portuguese households has generally increased. The computer access, in particular, has grown 18% between 2002 and 2006;

- In 2006, the international comparison of computer access shows that Portugal is in the middle range of European countries (45%) - EU25 average of 62%;

- From 2003 to 2006, Internet connection through analogue modem or ISDN has decreased among the Portuguese households (70% in 2003; 29% in 2006);

- Internet access through broadband has largely increased: in 2003, 8% of the households had this type of connection; in 2006, it reaches nearly a quarter of the households;

- The regions of Lisboa and Centro have the highest level of ICT usage: respectively, 51% and 44% of the individuals use computer and 45% and 37% access the Internet;

- In 2006, Portugal is the European country with the lowest percentage of computer usage (42%) - EU25 average of 61%;

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- Internet usage has increased from 19% in 2002 to 36% in 2006;

- The most common way of obtaining e-skills is through self-study in the sense of learning by doing, stated by 39% of individuals in 2005 and 42% in 2006;

- The practice of e-commerce in Portugal is scarce compared with the European average: in 2006, 5% of the Portuguese citizens have ordered over the Internet against 21% of EU25.

II – PEOPLE AND ICT

1   **ICT AVAILABILITY**

Table II.1   **Households with ICT**

2002-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Television	87	99	99	99	100
Mobile phone	69	80	79	83	86
Fixed telephone line	x	x	75	74	71
Computer	27	38	41	42	45
Desktop	26	x	x	39	40
Games console	x	x	14	19	18
Portable computer	3	x	x	12	15
Palmtop	o	2	2	1	2

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.2   **Households with computer, by regions NUTS II**

2002-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Norte	24	35	37	40	42
Centro	24	36	39	41	45
Lisboa	35	47	50	49	53
Alentejo	21	32	37	35	35
Algarve	22	37	42	44	42
R.A. Açores	24	32	36	41	45
R.A. Madeira	17	33	38	42	47

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.3

Households with computer (international benchmark)

2002-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Austria	49	51	59	63	67
Belgium	x	x	x	x	57
Cyprus	x	x	47	46	52
Czech Republic	x	24	30	30	x
Germany	61	65	69	70	77
Denmark	72	79	79	84	85
Estonia	x	x	36	43	52
Greece	25	29	29	33	37
Spain	x	47	52	55	57
Finland	55	57	57	64	71
France	37	46	50	x	56
Hungary	x	x	32	42	50
Ireland	x	42	46	55	59
Italy	40	48	47	46	48
Lithuania	12	20	27	32	40
Luxembourg (Grand-Duché)	53	58	67	75	77
Latvia	x	x	26	32	41
Netherlands	69	71	x	78	80
Poland	x	x	36	40	45
Portugal	**27**	**38**	**41**	**42**	**45**
Sweden	x	x	x	80	82
Slovenia	x	x	58	61	65
Slovakia	x	x	39	47	50
United Kingdom	58	63	65	70	71
Canada	64	67	x	x	x
Korea (Republic of) (South)	79	78	78	x	x
United States	x	62	x	x	x
Japan	72	78	78	x	x
EU25	**x**	**x**	**54**	**58**	**62**
EU15	**50**	**56**	**58**	**63**	**64**

Source: EUROSTAT - Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.4

| **Households with Internet access at home** |
| 2002-2006, (%) Households with at least one individual aged between 16 and 74 years old |

	2002	2003	2004	2005	2006
Households with Internet access	15	22	26	31	35

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.5

Households with Internet access at home, by regions NUTS II

2002-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Norte	12	19	22	28	31
Centro	12	19	26	30	36
Lisboa	22	29	33	37	41
Alentejo	12	16	21	26	27
Algarve	16	20	23	33	34
R.A. Açores	17	22	31	37	38
R.A. Madeira	9	18	22	28	37

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.6 | **Households with Internet access at home (international benchmark)**

2002-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Austria	33	37	45	47	52
Belgium	x	x	x	50	54
Cyprus	x	x	53	32	37
Czech Republic	x	15	19	19	x
Germany	46	54	60	62	67
Denmark	56	64	69	75	79
Estonia	x	x	31	39	46
Greece	12	16	17	22	23
Spain	x	28	34	36	39
Finland	44	47	51	54	65
France	23	31	34	x	41
Hungary	x	x	14	22	32
Ireland	x	36	40	47	50
Italy	34	32	34	39	40
Lithuania	4	6	12	16	35
Luxembourg (Grand-Duché)	40	45	59	65	70
Latvia	x	x	15	31	42
Netherlands	58	61	x	78	80
Poland	x	x	26	30	36
Portugal	**15**	**22**	**26**	**31**	**35**
Sweden	x	x	x	73	77
Slovenia	x	x	47	48	54
Slovakia	x	x	23	23	27
United Kingdom	50	55	56	60	63
Canada	51	55	x	x	x
Korea (Republic of) (South)	70	69	86	x	x
United States	x	55	x	x	x
Japan	49	54	56	x	x
EU25	**x**	**x**	**42**	**48**	**52**
EU15	**39**	**43**	**45**	**53**	**54**

Source: EUROSTAT - Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.7

Type of connection to the Internet				
2003-2006, (%) Households with Internet connection				
	2003	**2004**	**2005**	**2006**
xDSL	9	15	29	35
Mobile phone over narrowband	x	x	27	33
Cable	28	x	33	31
Analogue modem or ISDN	70	55	39	29
Other wireless broadband connection	x	x	4	7
Mobile phone or PDA over broadband	x	x	5	5

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2003 - 2006.

Table II.8

Households using a broadband connection to the Internet				
2003-2006, (%) Households with at least one individual aged between 16 and 74 years old				
	2003	**2004**	**2005**	**2006**
Broadband	8	12	20	24

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2003 - 2006.

Table II.9 | **Households using a broadband connection to the Internet, by regions NUTS II**

2003-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2003	2004	2005	2006
Norte	6	8	14	19
Centro	4	8	17	21
Lisboa	14	22	29	34
Alentejo	3	6	14	16
Algarve	5	10	24	22
R.A. Açores	3	9	18	27
R.A. Madeira	9	15	25	33

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2003 - 2006.

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Table II.10 **Households using a broadband connection to the Internet (international benchmark)**

2003-2006, (%) Households with at least one individual aged between 16 and 74 years old

	2003	2004	2005	2006
Austria	10	16	23	33
Belgium	x	x	41	48
Cyprus	x	2	4	12
Czech Republic	1	4	5	x
Germany	9	18	23	34
Denmark	25	36	51	63
Estonia	x	20	30	37
Greece	1	-	1	4
Spain	x	15	21	29
Finland	12	21	36	53
France	x	x	x	30
Hungary	x	6	11	22
Ireland	1	3	7	13
Italy	x	x	13	16
Lithuania	2	4	12	19
Luxembourg (Grand-Duché)	7	16	33	44
Latvia	x	5	14	23
Netherlands	20	x	54	66
Poland	x	8	16	22
Portugal	**8**	**12**	**20**	**24**
Sweden	x	x	40	51
Slovenia	x	10	19	34
Slovakia	x	4	7	11
United Kingdom	11	16	32	44
Canada	36	x	x	x
Korea (Republic of) (South)	67	86	x	x
United States	20	x	x	x
EU25	**x**	**14**	**23**	**32**
EU15	**x**	**x**	**25**	**34**

Source: EUROSTAT - Survey on ICT Usage in Households and by Individuals 2003 - 2006.

Table II.11 | **Devices for accessing the Internet at home**

2002-2006, (%) Households with Internet connection

	2002	2003	2004	2005	2006
Computer	95	97	90	83	82
Mobile phone	8	19	21	34	42
Games console	§	x	6	6	5
Other means	§	5	6	4	2

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.12 | **Reasons for not having access to the Internet at home**

2005-2006, (%) Households with no Internet connection

	2005	2006
Don't need Internet; not useful/not interesting	58	56
Lack of skills	52	54
Equipment costs too high	53	54
Access costs too high	49	51
Foreign languages are inadequate	33	33
Have access to Internet elsewhere	20	20
Don't want Internet; dangerous/harmful content	23	16
Privacy or security concerns	12	9
Physical disability	2	2

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

2.   ICT USAGE

2.1   Computer Usage

Table II.13   **Individuals using computer**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Computer users	27	36	37	40	42

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.14 | **Individuals using computer in the European Union**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
EU25	x	x	55	58	61
EU15	51	56	58	62	63
Austria	48	56	60	63	68
Belgium	x	x	x	x	67
Cyprus	x	x	42	41	44
Czech Republic	x	38	42	42	x
Germany	63	66	70	73	76
Denmark	72	78	81	83	86
Estonia	x	x	53	60	62
Greece	24	26	26	29	38
Spain	20	46	49	52	54
Finland	74	73	75	76	80
France	x	x	x	x	55
Hungary	x	x	41	42	54
Ireland	x	40	41	44	58
Italy	37	40	39	41	43
Lithuania	28	36	37	42	47
Luxembourg (Grand-Duché)	50	61	74	77	76
Latvia	x	x	41	47	53
Netherlands	73	x	x	83	84
Poland	x	x	40	45	48
Portugal	**27**	**36**	**37**	**40**	**42**
Sweden	76	81	86	84	87
Slovenia	x	x	48	52	57
Slovakia	x	x	58	63	61
United Kingdom	67	68	69	72	73

Source: EUROSTAT - Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.15 |**Individuals using computer, by gender**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Male	33	39	40	43	46
Female	22	33	34	36	39

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.16 |**Individuals using computer, by age group**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
16 to 24 years old	55	71	73	78	83
25 to 34 years old	40	51	54	57	63
35 to 44 years old	28	36	38	42	44
45 to 54 years old	19	28	29	30	32
55 to 64 years old	8	13	13	15	17
65 to 74 years old	3	4	4	3	4

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.17   **Individuals using computer, by education level**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Low	15	22	22	24	27
Medium	72	81	83	86	87
High	82	90	92	90	91

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.18   **Individuals using computer, by employment situation**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Student	88	97	96	98	99
Employed	31	42	44	47	51
Unemployed	24	24	23	29	34
Retired and other inactives	5	5	5	7	9

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.19

Individuals using computer, by regions NUTS II

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Norte	22	33	32	35	37
Centro	27	35	35	39	44
Lisboa	36	45	48	48	51
Alentejo	23	30	35	37	40
Algarve	24	36	39	40	37
R.A. Açores	26	29	31	33	35
R.A. Madeira	23	30	34	36	39

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.20

Frequency of computer usage

2002-2006, (%) Individuals using computer

	2002	2003	2004	2005	2006
Every day or almost every day	65	68	69	73	72
At least once a week	12	23	21	18	18
At least once a month	2	5	7	7	7
Less than once a month	§	4	3	3	3

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.21 | **Places of computer usage**

2002-2006, (%) Individuals using computer

	2002	2003	2004	2005	2006
Home	70	71	70	73	76
Place of work	56	54	54	54	51
Another person's home	x	21	21	25	28
Place of education	23	23	21	21	20
Other	14	28	13	12	15

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

2.2 | **Internet Usage**

Table II.22 | **Individuals using Internet**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Internet users	19	26	29	32	36

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.23   **Individuals using Internet in the European Union**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
EU25	x	x	46	51	54
EU15	41	47	50	55	56
Austria	37	41	52	55	61
Belgium	x	x	x	58	62
Cyprus	x	x	32	31	34
Czech Republic	x	28	32	32	x
Germany	49	54	61	65	69
Denmark	64	71	76	77	83
Estonia	x	x	50	59	61
Greece	15	16	20	22	29
Spain	20	37	40	44	48
Finland	62	66	70	73	77
France	x	x	x	x	47
Hungary	x	x	28	37	45
Ireland	x	31	34	37	51
Italy	28	29	31	34	36
Lithuania	18	24	29	34	42
Luxembourg (Grand-Duché)	40	53	65	69	71
Latvia	x	x	33	42	50
Netherlands	61	64	x	79	81
Poland	x	x	29	35	40
Portugal	**19**	**26**	**29**	**32**	**36**
Sweden	71	77	82	81	86
Slovenia	x	x	37	47	51
Slovakia	x	x	46	50	50
United Kingdom	56	61	63	66	66

Source: EUROSTAT - Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.24

Individuals using the Internet, by gender

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Male	24	29	32	35	39
Female	15	23	27	29	32

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.25

Individuals using the Internet, by age

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
16 to 24 years old	43	56	64	70	75
25 to 34 years old	30	37	43	46	54
35 to 44 years old	18	22	30	34	36
45 to 54 years old	12	18	20	21	24
55 to 64 years old	4	7	8	10	12
65 to 74 years old	1	1	2	2	3

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.26   **Individuals using the Internet, by education level**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Low	9	13	14	16	19
Medium	57	67	73	77	80
High	69	78	84	85	87

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.27   **Individuals using the Internet, by employment situation**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Student	75	83	91	95	96
Employed	21	28	34	36	42
Unemployed	18	13	15	19	25
Retired and other inactives	3	3	3	4	6

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.28 | **Individuals using Internet, by regions NUTS II**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Norte	16	23	24	27	30
Centro	18	23	28	31	37
Lisboa	26	35	39	41	45
Alentejo	17	20	26	27	34
Algarve	17	23	28	31	29
R.A. Açores	21	20	23	26	28
R.A. Madeira	13	21	26	29	33

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.29 | **Frequency of Internet usage**

2002-2006, (%) Individuals using the Internet

	2002	2003	2004	2005	2006
Every day or almost every day	41	50	53	59	62
At least once a week	19	35	32	28	26
At least once a month	5	8	11	10	8
Less than once a month	§	6	3	3	3

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.30 | **Places of Internet usage**

2002-2006, (%) Individuals using the Internet

	2002	2003	2004	2005	2006
Home	60	57	58	61	65
Place of work	47	49	50	48	46
Another person's home	9	22	20	24	28
Place of education	25	26	25	24	22
Public library	3	4	9	9	8
Internet café	2	3	3	4	5
Other public offices, town hall	x	2	4	4	5

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.31 | **Purposes of Internet usage**

2003-2006, (%) Individuals using the Internet

	2003	2004	2005	2006
Communication				
Sending/receiving e-mails	78	81	81	81
Telephoning over the Internet/videoconferencing	10	11	10	16
Creating and developing a blog	x	x	7	10
Other communication activities	40	37	37	39
Information search and online services				
Finding information about goods and services	82	79	81	84
Playing or downloading games, images or music	43	45	44	46
Reading or downloading online newspapers/magazines	49	50	51	45
Finding information about health	25	19	31	39
Using services related to travel and accommodation	27	31	33	35
Listening to web radios/watching web television	23	27	28	30
Finding information having an offline purchase intention	x	x	25	29
Downloading software	27	28	28	26
Looking for a job or sending a job application	x	11	12	14
Purchasing and selling of goods or services, banking				
Internet banking	24	26	26	27
Purchasing/ordering goods or services	12	10	12	12
Selling goods and services	2	2	2	2
Interaction with public authorities				
Obtaining information from public authorities' websites	38	35	37	39
Public authorities' web portal with integrated administrative services	x	19	30	35
Downloading official forms	21	26	26	30
Sending filled in forms	20	26	28	32
Sending suggestions/claims/requests to public authorities	x	6	8	9
Participation in public consultation online	x	4	5	5
Participation in online forum about public matters	x	5	5	4
Education/trainning				
Formalised education activities	23	20	19	18
Post-formalised education activities	4	4	4	3
Courses related with employment opportunities	4	4	2	2

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2003 - 2006.

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Table II.32

Time spent in the Internet

2004-2006, (%) Individuals using the Internet

	2004	2005	2006
1 hour or less	32	22	22
More than 1 up to 5 hours	34	40	36
More than 5 up to 10 hours	14	16	17
More than 10 up to 20 hours	8	10	10
More than 20 hours	12	12	14

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2004 - 2006.

Table II.33

Security devices

2004-2006, (%) Individuals using the Internet

	2004	2005	2006
Instalation/update of virus checking program/firewall	50	49	46
Online authentication	30	28	37

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2004 - 2006.

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3. | **INTERNET COMMERCE USAGE**

Table II.34 | **Individuals using Internet commerce**
2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
Internet commerce users	2	2	3	4	5

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2002 - 2006.

Table II.35 | **Individuals using Internet commerce in the European Union**

2002-2006, (%) Individuals aged between 16 and 74 years old

	2002	2003	2004	2005	2006
EU25	x	x	16	18	21
EU15	13	15	21	21	23
Austria	8	8	13	19	23
Belgium	x	x	x	11	14
Cyprus	x	x	3	4	5
Czech Republic	x	3	3	3	x
Germany	17	24	29	32	38
Denmark	24	16	22	26	31
Estonia	x	x	4	4	4
Greece	1	1	1	2	3
Spain	2	5	5	8	10
Finland	11	14	24	25	29
Hungary	x	x	2	5	5
Ireland	x	5	10	14	21
Italy	3	4	x	4	5
Lithuania	x	1	1	1	2
Luxembourg (Grand-Duché)	13	18	32	31	35
Latvia	x	x	2	3	5
Netherlands	15	18	x	31	36
Poland	x	x	3	5	9
Portugal	**2**	**2**	**3**	**4**	**5**
Sweden	24	21	30	36	39
Slovenia	x	x	4	8	8
Slovakia	x	x	6	6	7
United Kingdom	25	24	28	36	38

Source: EUROSTAT - Survey on ICT Usage in Households and by Individuals 2002 - 2006.

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Table II.36   **Number of purchases over the Internet**

2005-2006, (%) Individuals using Internet commerce

	2005	2006
1 purchase	39	39
2 purchases	22	21
3 and more purchases	39	39

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

Table II.37   **Value of purchases over the Internet**

2005-2006, (%) Individuals using Internet commerce

	2005	2006
Up to 30€	14	14
From 30€ up to 100€	38	39
From 100€ up to 200€	19	17
From 200€ up to 300€	§	9
More than 300 €	24	21

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

Table II.38 | **Type of payment of purchases over the Internet**

2004-2006, (%) Individuals using Internet commerce

	2004	2005	2006
Online payment with credit card	65	41	56
ATM	40	23	22
Cash on delivery	41	26	18
Postal order	51	26	18

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2004 - 2006.

Table II.39 | **Type of products ordered over the Internet**

2004-2006, (%) Individuals using or that have used (in the previous year) Internet commerce

	2004	2005	2006
Books/magazines/newspapers/e-Learning material	37	32	36
Travel or holiday accommodation	18	16	24
Films/music	21	25	23
Tickets for events	18	24	20
Clothes/sport goods	13	19	19
Electronic equipment	16	18	16
Computer software	20	19	14
Computer hardware	14	16	13
Share purchases/financial services	13	13	§

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2004 - 2006.

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Table II.40 | **Reasons for ordering over the Internet**

2005-2006, (%) Individuals using or that have used (in the previous year) Internet commerce

	2005	2006
Convenience	77	81
Speed of orders	60	70
Variety of goods	59	61
Detailed and current information on prices	58	59
Availability 24 hours per day	57	59
Easiness comparing different products	52	58
Accessible prices	41	53
Adapted supply of products	42	47
Access to products not avaliable in the region/country	55	46
Speed of deliveries	40	43
Privacity in the order	21	24

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

Table II.41 |**Reasons for not ordering over the Internet**

2005-2006, (%) Individuals that did not use Internet commerce in the previous years or never did

	2005	2006
Prefer to shop in person	84	81
Have no need	71	71
Force of habit/loyalty to shops	67	60
Trust concerns about receiving/returning goods	29	30
Lack of skills	14	13
Don't have a payment card	16	13
Products not available	6	8
Speed of the Internet connection is too slow	4	5

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

4.   e-SKILLS

Table II.42 | **Last training course about computer use**

2006, (%) Individuals aged between 16 and 74 years old

	2006
Within the last three months	4
Between 3 months and a year ago	4
Between 1 and 3 years ago	7
More than 3 years ago	10
Never taken one	24
Never used a computer	51

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2006.

Table II.43 | **Computer related activities**

2005-2006, (%) Individuals aged between 16 and 74 years old

	2005	2006
Using tools to open documents	45	47
Copying or moving a file folder	39	41
Using copy and paste tools to duplicate/move information within a document	37	38
Using basic arithmetic formulas in a spreadsheet	30	32
Compressing files	23	26
Connecting and instaling new devices	x	25
Writing a computer program using a specialised programming language	7	6

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

Table II.44   **Internet related activities**

2005-2006, (%) Individuals aged between 16 and 74 years old

	2005	2006
Using a search engine to find information	34	38
Sending e-mails with attached files	31	33
Posting messages to chatrooms, newsgroups or an online discussion forum	14	11
Using peer-to-peer file sharing for exchanging movies, music, etc.	8	9
Using the Internet to make phone calls	5	8
Creating a web page	5	5

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

Table II.45   **Origin of e-skills**

2005-2006, (%) Individuals aged between 16 and 74 years old

	2005	2006
Self-study in the sense of learning by doing	39	42
Informal assistance from colleagues, relatives, friends	39	40
Self-study using books, cd-roms, etc.	24	26
Formalised educational institution	17	18
Vocational training courses	9	10
Training courses in adult education centre	8	8
Some other way	2	2

Source: INE/UMIC, Survey on ICT Usage in Households and by Individuals 2005 - 2006.

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METHODOLOGICAL NOTES | PEOPLE AND ICT

The **Survey on ICT Usage in Households and by Individuals** is in the framework of the development of Information Society statistics, is carried out in an annual basis and follows the Eurostat's methodological guidelines.

Scope
Households with at least one individual aged between 16 and 74 years old, living in dwellings of main residence and individuals aged 16 to 74 years old.

Sample

2006:	5 941 dwellings of main residence, resulting in 4 038 households with at least one individual aged between 16 and 74 years old and 9 045 individuals within that age group were inquired
2005:	6 026 dwellings of main residence, resulting in 4 298 households with at least one individual aged between 16 and 74 years old and 9 716 individuals within that age group were inquired
2004:	6 026 dwellings of main residence, resulting in 4 432 households with at least one individual aged between 16 and 74 years old and 10 023 individuals within that age group were inquired
2003:	6 026 dwellings of main residence, resulting in 4 564 households with at least one individual aged between 16 and 74 years old and 9 990 individuals within that age group were inquired
2002:	ad-hoc module within the Labour Force Survey for which 20 000 dwellings of main residence were selected. For the ICT Survey, 14 175 households with at least one individual aged between 16 and 74 years old and 17 857 individuals within that age group were inquired

METHODOLOGICAL NOTES | PEOPLE AND ICT

Reference period:

2006:	first quarter 2006
2005:	first quarter 2005
2004:	first quarter 2004
2003:	March, April and May 2003
2002:	second quarter 2002

Survey Method
Face-to-face interview with portable computer.

Data collection

2006:	April and May 2006
2005:	April and May 2005
2004:	May and June 2004
2003:	June 2003
2002:	July to October 2002

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

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2.   REGIONAL PUBLIC ADMINISTRATION

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INTRODUCTION | eGOVERNMENT

Public Administration has, in many cases, constituted itself as an engine of development and a promoter of best practices in what Information Society is concerned. Therefore, the accompaniment and understanding of ICT usage by the Public Administration Bodies is decisive, being a key area to monitor.

In this chapter, you will find a variety of statistical information regarding some of the main Public Administration sub-sectors, such as: Central Public Administration, Regional Public Administration (Açores and Madeira) and City Councils.

Central Public Administration

The first subchapter concerns the results, from 2000 to 2006, of the Survey on Information and Communication Technologies Usage in Central Public Administration carried out by the UMIC - Knowledge Society Agency.

The main findings are:

- All Central Public Administration Bodies are connected to the Internet;

- In 2006, similarly to previous years, Internet is more frequently used for information and communication purposes and less for R&D activities;

- 77% of Central Public Administration Bodies have an Internet connection speed superior or equal to 512 Kbps, representing an annual average growth rate of 22% since 2003;

- Approximately 9 in 10 Central Public Administration Bodies have Internet presence (88%);

- The most commonly available website services, excluding e-mail (97%), are those of an informational nature: institutional information about the Central Public Administration Body (98%), information about the services provided (94%) and legislation (89%);

- 27% of Central Public Administration Bodies place orders over the Internet.

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Regional Public Administration

The second subchapter presents the results, from 2003 to 2005, of the Survey on Information and Communication Technologies Usage in Regional Public Administration (Açores and Madeira) performed by the UMIC - Knowledge Society Agency.

The main findings are:

- All Regional Public Administration Bodies are connected to the Internet;

- 63% of the Autonomous Region of Madeira Public Bodies and 46% of the Autonomous Region of Azores Public Bodies have an Internet connection speed superior or equal to 512 Kbps, which is equivalent to an annual average growth rate of, respectively, 34% and 28% since 2003;

- 86% of the Autonomous Region of Madeira Public Bodies and 77% of the ones which belong to the Autonomous Region of Azores have Internet presence;

- Ordering over the Internet is a method used by 10% of the Autonomous Region of Madeira Public Bodies and 21% of the Autonomous Region of Açores Public Bodies.

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City Councils

The final subchapter presents the results, from 2003 to 2006, of the Survey on Information and Communication Technologies Usage in City Councils carried out by the UMIC - Knowledge Society Agency.

The main findings are:

- All City Councils are connected to the Internet;

- Internet is mainly used for information and communication purposes: finding and gathering information/documentation (99%), email (98%) and electronic exchange of files (96%);

- 93% of City Councils have an Internet connection speed superior or equal to 512 Kbps, corresponding to an annual average growth rate of 44% since 2003;

- 96% of City Councils have Internet presence;

- Regarding the website services provided, e-mail still prevails the most usual (78%). Though, it should be pointed out that 74% of City Councils with Internet presence already allow the possibility to download and print forms;

- 16% of City Councils place orders over the Internet, generally acquiring computer consumables.

III – eGOVERNMENT

1   **CENTRAL PUBLIC ADMINISTRATION**

1.1   **Access to and Use of ICT**

Table III.1   **IT equipment**
2000, 2002-2006, (%) of all Central Public Administration Bodies

	2000	2002	2003	2004	2005	2006
e-mail	90	95	95	93	93	95
Local Area Network (LAN)	89	86	94	93	91	93
Intranet	50	58	82	75	77	81
Wide Area Network (WAN)	45	38	49	51	48	52
Extranet	23	27	45	43	43	45
Wireless LAN	x	x	x	25	29	32
Video conference	6	11	11	14	12	17

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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Table III.2

Persons employed using computers

2000, 2002-2006, (%) of all Central Public Administration Bodies

	2000	2002	2003	2004	2005	2006
Persons employed using computers	56	58	x	x	83	x

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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Table III.3 |**Computer based activities**

2000, 2002-2006, (%) of all Central Public Administration Bodies

	2000	2002	2003	2004	2005	2006
Exchange of files and other information	75	x	81	84	94	91
Financial and administrative management	71	x	87	88	86	87
Register of information	68	x	59	71	82	84
Organization of the information in databases	67	x	65	68	82	81
Collect/receive information	64	x	56	66	77	80
Processing and treatment of information	68	x	64	68	81	79
Human resources managment	58	x	67	72	76	79
Correspondence managment	54	x	60	65	75	79
Comunication inside the Central Public Administration Body	48	x	61	63	75	75
Diffusion of the Information	55	x	59	63	76	73
Documentation managment/documentation center	38	x	50	48	63	62
Stocks managment	51	x	44	50	55	58
Planing and scheduling of activities	21	x	27	28	39	40
Projects managment	14	x	19	20	29	31

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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Table III.4   **Security applications used**

2003-2006, (%) of all Central Public Administration Bodies

	2003	2004	2005	2006
Anti-virus software	98	97	98	98
Firewall	85	85	90	94
Anti-spam filters	x	x	61	69
Secure servers (e.g. shttp protocol)	x	x	40	49
Backups of information outside of the Central Public Administration Body	x	x	34	40

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.5   **Security problems**

2005-2006, (%) of all Central Public Administration Bodies

	2005	2006
Central Public Administration Bodies that found security problems	15	8

Sources: UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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Table III.6 | **Type of security problems detected**

2005-2006, (%) of all Central Public Administration Bodies

	2005	2006
Virus attack that caused loss of information	87	75
Non autorized access to the computer network or data	13	25
Blackmail or threats to the software or data	3	10

Sources: UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.7 | **Computers (desktop) age**

2004-2006, (%) of all Central Public Administration Bodies

	2004	2005	2006
Less than 2 years	36	27	37
Between 2 and 5 years	49	52	49
More than 5 years	15	21	14

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.8 | **Computers (laptop) age**

2004-2006, (%) of all Central Public Administration Bodies

	2004	2005	2006
Less than 2 years	39	42	38
Between 2 and 5 years	48	44	47
More than 5 years	13	14	16

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.9 | **Computers operating systems**

2004-2006, (%) of all Central Public Administration Bodies

	2004	2005	2006
Windows NT Workstation, Windows 2000 or XP professional	76	85	x
Window 98 or earlier version	23	14	x
Others (Mac OS, open source, etc.)	1	1	x

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

1.2 | **Access to and Use of Internet**

Table III.10 | **Internet connection and Internet connection speed**

2002-2006, (%) of all Central Public Administration Bodies

	2002	2003	2004	2005	2006
Internet connection	98	99	100	100	100
Internet connection speed ≥ 512Kbps	x	42	53	73	77

Notes: In The indicator "Internet connection speed", tha base is " Central Public Administration Bodies with Internet connection".

Fontes: OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.11 | **Computers with Internet connection**

2000, 2002-2006, (%) of all Central Public Administration Bodies

	2000	2002	2003	2004	2005	2006
Computers with Internet connection	43	47	x	x	63	72

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.12 | **Persons employed using computers with Internet connection**

2005-2006, (%) of all Central Public Administration Bodies

	2005	2006
Persons employed using computers with Internet connection	74	x

Sources: UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.13 | **Internet access policy in Central Public Administration Bodies**

2003-2006, (%) of all Central Public Administration Bodies

	2003	2004	2005	2006
Unrestricted access	72	76	87	87
Restricted access	25	19	13	10
Don't have Internet connection	1	-	-	-
Dk/Da	2	5	-	3

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.14 | **Main type of Internet connection**

2004-2006, (%) of all Central Public Administration Bodies

	2004	2005	2006
Dedicated access	x	52	58
DSL (xDSL, ADSL, SDSL, etc.)	18	18	29
Other broadband connection type	54	13	14
ISDN	9	7	10
Cable	7	5	9
Modem	5	2	7
Other narrowband connection type	x	x	1
Dk/Da	7	3	-

Notes: In 2005, was not included the possibility of answer "Dedicated Access". Therefor, the answers included in "Other broadband connection type" (in 2004), several can be include in "Dedicated Access".

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.15 | **Internet connection speed**

2003-2005, (%) of all Central Public Administration Bodies

	2003	2004	2005	2006
<128 Kbps	18	5	3	1
>= 128 Kbps and <256 kbps	13	14	8	6
>= 256 kbps and <512 kbps	22	23	12	11
>= 512kbps and <2mbps	29	34	36	28
>= 2mbps	13	18	37	49
Don´t have Internet connection	1	-	-	-
Dk/Da	5	5	4	4

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.16 | **Online activities recurred to by Central Public Administration Bodies**

2003-2006, (%) of all Central Public Administration Bodies with Internet access

	2003	2004	2005	2006
Search of information and documentation	84	80	82	84
Databases access	54	50	49	55
Comunication with other departments of the Ministry	44	54	47	49
Comunication with other Administration Public Bodies outside of the Ministry	40	45	36	46
Communication with enterprises	25	27	27	38
Comunication with citizens	25	24	27	29
Provision catalogue consultation	18	17	16	19
Develop R&D activities	5	5	5	7
Interaction with other Central Public Administration Bodies to the increase of the efficiency in the attendance to the usuaries	4	3	3	6

Notes: Only were considered the activities in the Internet which are used very often, by the organism.

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

1.3 | **Web Presence**

Table III.17 | **Web presence**

2000, 2002-2006, (%) of all Central Public Administration Bodies

	2000	2002	2003	2004	2005	2006
Central Public Administration Bodies with web presence	72	81	87	86	87	88

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.18 | **Central Public Administration Bodies with web presence, by size**

2003-2006, (%) of all Central Public Administration Bodies with web presence

	2003	2004	2005	2006
1 to 49 employees	69	70	73	75
50 to 249 employees	90	90	92	92
More than 250 employees	94	94	98	96

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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Table III.19 | **Central Public Administration Bodies with web presence, by type**

2003-2006, (%) of all Central Public Administration Bodies with web presence

	2003	2004	2005	2006
Public institute	97	93	97	96
Directorate-General or equivalent	83	83	86	86
Mission structure/project	89	90	80	84
Commission/Council	64	46	71	69

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.20 | **Type of website**

2000, 2002-2006, (%) of all Central Public Administration Bodies with web presence

	2000	2002	2003	2004	2005	2006
Own website	72	x	x	86	82	82
Website integrated in the website of the Ministry	19	x	x	11	14	15
Other type of website	9	x	x	2	2	1
DK/Da	-	x	x	1	2	1

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.21 | **Reasons for not having web presence**

2003-2006, (%) of all Central Public Administration Bodies without web presence

	2003	2004	2005	2006
Recent administration public body/ in extinction process/ alteration of the organic law	6	9	12	33
Lack of employees with lack of abilities	24	29	21	22
Lack of financial resources	33	20	18	14
Not necessary/doesn't adjust to the profile of the administration public body	15	26	21	11
Under construction	52	43	56	x

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.22 | **Services available in the website**

2000, 2002-2006, (%) of all Central Public Administration Bodies with web presence

	2000	2002	2003	2004	2005	2006
Institutional information about the Central Public Administration Body	96	x	98	96	98	98
E-mail to receive messages and information	93	x	97	98	98	97
Information about the services	87	x	91	91	95	94
Legislation	x	x	x	79	88	89
Forms for download	37	x	53	58	65	62
Access to databases	36	x	43	47	53	58
Online free distribution of services or products in digital format	31	x	40	46	46	49
Forms to fulfill and submit online	22	x	25	29	36	42
Job oportunities (job stock market)	12	x	16	20	18	23
Online services appealing to the information and resident functionalities in databases of other Central Public Administration Bodies	9	x	10	13	10	15
Sale of services or products in digital format online	6	x	x	8	10	12
Online payments	7	x	x	8	8	7

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.23   **Functions totally contemplated in the website**

2000, 2002-2006, (%) of all Central Public Administration Bodies with web presence

	2000	2002	2003	2004	2005	2006
User support (FAQs, Helpdesk, etc.)	x	x	55	28	27	56
Personal data protection	36	x	30	34	36	34
Accessibility for citizens with special needs	8	x	24	23	22	19
Measure the satisfaction of the users about the website	x	x	10	14	12	12
Capacity to guarantee safe transactions	22	x	12	13	14	11

Sources: OCT, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2000; OCT, Survey on ICT usage in Central Public Administration 2002; UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

1.4   **Electronic Commerce**

Table III.24   **Orders over the Internet**

2004-2006, (%) of all Central Public Administration Bodies with Internet access

	2004	2005	2006
Central Public Administration Bodies that made orders over the Internet	19	24	27

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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Table III.25 | **Number of orders over the Internet**

2004-2006, (%) Central Public Administration Bodies that made orders over the Internet

	2004	2005	2006
Less than 10	68	45	33
Between 10 and 20	13	32	20
More than 20	19	23	41

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.26 | **Value of the purchases of products/services over the Internet, in the total of the purchases**

2004-2006, (%) Central Public Administration Bodies that made orders over the Internet

	2004	2005	2006
< 1%	55	42	36
≥ 1% and < 10%	34	37	31
≥ 10% and < 25%	6	11	14
≥ 25%	-	3	6
Dk/Da	4	7	13

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.27 | **Type of products/services ordered over the Internet**

2004-2006, (%) Central Public Administration Bodies that made orders over the Internet

	2004	2005	2006
Company store products	70	66	66
Computer consumables	x	x	61
Software, hardware	11	52	50
Travels	40	15	9
Other	10	13	9

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.28

Main reasons for not making orders over the Internet

2004-2006, (%) Central Public Administration Bodies that didn't make orders over the Internet

	2004	2005	2006
It is not justified	10	24	45
The acquired products or services are not possible to be ordered through the Internet	8	13	42
Uncertainty about the payment methods	18	23	41
Uncertainty about the privacy of the process	13	18	41
The process is bureaucratic and complicated	15	11	40
Uncertainty about the contracts, terms of delivery and guarantees	16	22	39
Preference for the forms of traditional commerce	11	15	39
Uncertainty about the security of the process	18	24	38
Lack of adequate legislation	37	32	36
Lack of specialized staff	16	18	34
Doesn't fit the Public Administration Body profile	14	26	30

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.29 | **Platforms used to make orders over the Internet**

2004-2006, (%) Central Public Administration Bodies that made orders over the Internet

	2004	2005	2006
Suppliers catalogues	52	48	53
e-mail	30	44	50
Auctions	45	40	36
e-marketplaces	15	26	31
Others	4	8	6

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.30 | **Central Public Administration Bodies that make online payments for the orders made over the Internet**

2004-2006, (%) Central Public Administration Bodies that made orders over the Internet

	2004	2005	2006
Central Public Administration Bodies that make online payments for the orders made over the Internet	28	11	16

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

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1.5   **ICT and Human Resources**

Table III.31   **ICT employees by education degree**

2005-2006, (%) of all Central Public Administration Bodies

	2005	2006
First stage of basic education	o	o
Second stage of basic education	2	1
Third stage of basic education	19	17
Secondary education	32	34
Bachelor/undergraduate	45	46
Master degree	1	2
PhD	o	o

Sources: UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.32   **Central Public Administration Bodies with lack of ICT employees**

2003-2006, (%) of all Central Public Administration Bodies

	2003	2004	2005	2006
Central Public Administration Bodies with lack of ICT employees	58	71	72	73

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.33   **Central Public Administration Bodies where the inexistence or the lack of ICT employees limits the development of working activity**

2003-2006, (%) of all Central Public Administration Bodies

	2003	2004	2005	2006
Central Public Administration Bodies where the inexistence or the lack of ICT employees limit the development of its working activity	58	60	50	53

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2003-2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.34   **Training courses**

2004-2006, (%) of all Central Public Administration Bodies

	2004	2005	2006
Employees who took general training courses	x	73	66
Employees who took ICT training courses	x	21	14
Ratio of the ICT training courses in the total training courses	21	19	22

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.35 | **Central Public Administration Bodies that promoted long distance training courses (e-Learning)**

2005-2006, (%) of all Central Public Administration Bodies

	2005	2006
Central Public Administration Bodies that promoted long distance training courses (e-Learning)	8	10

Sources: UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.36 | **Areas in which had been developed the long distance training courses (e-Learning)**

2005-2006, (%) of all Central Public Administration Bodies that promoted long distance training courses (e-Learning)

	2005	2006
ICT - Information and Communication Technologies	40	39
Management and administration	35	35
Languages	5	26
behavioral sciences	10	4

Sources: UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

Table III.37   **Resources used in the resolution of computer based problems**

2004-2006, (%) of all Central Public Administration Bodies

	2004	2005	2006
Only external acquisition of services	10	14	39
Only internal acquisition of services	16	10	35
Both	69	68	4
Dk/Da	5	9	26

Sources: UMIC, Institute of Informatics of the Ministry of Finance, Survey on ICT usage in Central Public Administration 2004; UMIC, Survey on ICT usage in Central Public Administration 2005-2006.

2   REGIONAL PUBLIC ADMINISTRATION

2.1   Access to and Use of ICT

Table III.38   IT equipment

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Local Area Network (LAN)	97	89	93	91	87	89	97	90	93
E-mail	94	92	93	94	95	94	87	92	90
Intranet	75	78	77	65	67	66	77	80	79
Wide Area Network (WAN)	36	30	33	38	42	40	51	41	46
Extranet	39	22	30	35	33	33	46	33	39
Wireless LAN	x	x	x	-	9	6	10	20	16
Video-conference	3	3	3	6	4	5	3	4	3

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003-2005.

Table III.39   Persons employed using computers

2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Persons employed using computers	93	43	55

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

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Table III.40 | **Computer based activities**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Exchange of files and other information	72	70	71	71	66	67	95	90	92
Correspondence	56	60	58	59	73	67	92	84	88
Register of information	75	65	70	68	71	70	100	73	84
Financial and administrative management	86	62	74	74	80	78	87	80	83
Processing and treatment of information	64	54	59	62	60	61	94	71	81
Collect/receive information	56	57	56	41	60	53	86	69	76
Organization of the information in databases	61	51	56	62	58	60	94	65	78
Human resources managment	47	54	51	44	53	50	74	68	70
Comunication inside the Central Public Administration Body	56	49	52	59	51	54	78	61	68
Diffusion of the Information	39	54	47	50	49	49	83	49	65
Documentation managment/documentation center	44	35	40	35	31	33	74	33	48
Stocks managment	11	30	21	18	33	27	30	39	36
Planing and scheduling of activities	22	27	25	18	26	23	32	33	33
Projects managment	19	19	19	21	20	20	22	26	24

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003-2005.

Table III.41 | **Security applications used**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Software anti-virus	89	84	86	88	89	89	100	92	96
Firewall	47	62	55	65	73	70	82	80	81
Anti-spam filters	x	x	x	x	x	x	67	37	50
Security service subscription	x	x	x	x	x	x	54	39	46
Backups of information outside of the Central Public Administration Body	x	x	x	x	x	x	56	31	42
Secure servers (e.g. shttp protocol)	x	x	x	x	x	x	36	18	26

Sources: UMIC, Survey on ICT usage in Central Public Administration 2003-2005.

Table III.42 | **Security problems**

2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Regional Administration Public bodies that found security problems	-	26	14

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.43   **Type of security problems detected**

2005, (%) Regional Public Administration Bodies that detected security problems

	2005		
	R.A. Açores	R.A. Madeira	Total
Virus attack that caused loss of information	x	100	100
Non autorized access to the computer network or data	x	8	8

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.44   **Computers (desktop) age**

2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Less than 2 years	47	35	39
Between 2 and 5 years	47	40	43
More than 5 years	6	25	18

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

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Table III.45 | **Computers (laptop) age**
2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Less than 2 years	45	36	40
Between 2 and 5 years	49	54	52
More than 5 years	6	10	8

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.46 | **Computers operating systems**
2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Windows NT Workstation, Windows 2000 or XP professional	96	84	88
Window 98 or earlier version	3	8	6
MAC OS	1	7	5
Others (open source, etc.)	-	1	1

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

2.2   **Access to and Use of Internet**

Table III.47   **Internet connection and Internet connection speed**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Internet connection	100	100	100	97	98	98	100	100	100
Internet connection speed ≥ 512Kbps	28	35	55	29	55	45	46	63	55

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003-2005.

Table III.48   **Computers with Internet connection**

2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Computers with Internet connection	89	77	81

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.49 | **Internet access policy in Regional Public Administration Bodies**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Unrestricted access	69	68	69	77	82	80	80	78	79
Restricted access	25	24	25	12	16	15	5	14	10
Do not have Internet connection	3	3	3	3	2	2	x	x	x
Dk/Da	3	5	3	8	-	3	15	8	11

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003-2005.

Table III.50 | **Main type of Internet connection**

2005, (%) of all Regional Public Administration Bodies with Internet access

	2005		
	R.A. Açores	R.A. Madeira	Total
Dedicated Access	49	24	35
DSL (xDSL, ADSL, SDSL, etc.)	28	26	27
Cable	0	29	17
Other broadband connection type	10	10	10
ISDN	13	4	8
Modem	-	4	2
Other narrow band connection type	-	2	1

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

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Table III.51 |**Internet connection speed**
2003-2005, (%) of all Regional Public Administration Bodies with Internet access

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
<128 Kbps	19	14	16	12	13	13	3	6	4
>= 128 Kbps and <256 kbps	25	16	21	29	4	13	23	8	14
>= 256 kbps and <512 kbps	22	24	23	21	24	23	26	18	21
>= 512kbps and <2mbps	25	35	30	26	40	35	41	43	42
>= 2mbps	3	-	1	3	15	10	5	20	13
Dk/Da	3	8	6	6	4	5	3	6	4
Do not have Internet	3	3	3	3	2	2	-	-	-

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003- 2005.

Table III.52 | **Purposes in using Internet**

2003-2005, (%) of all Regional Public Administration Bodies with Internet access

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Finding and gathering information and documentation	69	72	70	70	72	71	74	75	74
Databases access	34	36	35	39	41	40	39	33	36
Comunication with other departments of the Ministry	20	33	27	36	31	33	49	41	44
Comunication with other Administration Public Bodies outside of the Ministry	31	28	30	33	28	30	49	35	41
Communication with enterprises	17	17	17	15	9	12	26	22	23
Comunication with citizens	11	14	13	9	9	9	21	22	21
Provision catalogue consultation	6	11	9	6	13	10	5	12	9
Develop R&D activities	3	o	1	o	2	1	5	5	6
Interaction with other Central Public Administration Bodies to increase the efficiency of usuaries attendance	3	6	4	3	7	6	5	16	11

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003- 2005.

Notes: Only were considered the activities in the Internet which are used very often, by the organism.

2.3 | **Web Presence**

Table III.53   **Web presence**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Regional Public Administration Bodies with web presence	53	89	71	68	86	79	77	86	82

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003- 2005.

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Table III.54 | **Services available in the website**

2003-2005, (%) Regional Public Administration Bodies with web presence

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Institutional information about the Central Public Administration Body	100	97	98	83	92	88	93	98	97
Information about the services provided	90	91	90	78	85	83	89	93	93
E-mail to receive messages and information requests	95	91	92	74	83	80	86	96	92
Legislation	x	x	x	61	68	66	75	82	80
Forms for download	47	33	39	39	47	44	50	66	61
Online free distribution of services or products in digital format	42	36	39	22	21	21	36	50	45
Access to databases	32	33	33	13	23	20	22	30	27
Forms to fulfill and submit online	11	15	14	9	19	16	26	23	24
Online services appealing to the information and resident functionalities in databases of other Central Public Administration Bodies	5	15	12	9	15	13	15	16	16
Job oportunities (job stock market)	5	6	6	9	6	7	14	7	10
Online payments	x	x	x	9	15	13	7	9	9
Online consultation of processes	x	x	x	x	x	x	4	9	7

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003- 2005.

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Table III.55 | **Functions totally contemplated in the website**

2003-2005, (%) Regional Public Administration Bodies with web presence

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Personal data protection	11	21	17	22	23	23	23	18	20
User support (FAQs, helpdesk, etc.)	5	6	6	13	9	10	13	14	14
Accessibility for citizens with special needs	-	3	2	4	6	6	10	11	11
Capacity to guarantee safe transactions	5	6	6	13	9	10	10	9	9
Measure the satisfaction of the users about the website	5	3	4	13	13	13	10	2	5

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003- 2005.

2.4 | **Electronic Commerce**

Table III.56 | **Orders over the Internet**

2004-2005, (%) of all Regional Public Administration Bodies

	2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Regional Public Administration Bodies that made orders over the Internet	18	4	9	21	10	14

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2004- 2005.

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Table III.57   **Number of orders over the Internet**

2005, (%) Regional Public Administration Bodies that made orders over the Internet

	2005		
	R.A. Açores	R.A. Madeira	Total
Less than 10	87	80	85
Between 10 and 20	13	20	15

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.58   **Value of the purchases of products/services over the Internet, in the total of the purchases**

2005, (%) Regional Public Administration Bodies that made orders over the Internet

	2005		
	R.A. Açores	R.A. Madeira	Total
< 1%	75	100	85
≥ 1% and < 10%	25	-	15

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

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Table III.59 | **Type of products/services ordered over the Internet**

2005, (%) Regional Public Administration Bodies that made orders over the Internet

	2005		
	R.A. Açores	R.A. Madeira	Total
Software, hardware	63	40	54
Books	50	40	46
Company store products	-	40	15
Other	-	20	8

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.60 | **Main reasons for not making orders over the Internet**

2004-2005, (%) Regional Public Administration Bodies that didn`t make orders over the Internet

	2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Lack of adequate legislation	30	41	37	39	50	46
Uncertainty about the security of the process	15	24	21	26	29	28
Uncertainty about the payment methods	11	20	17	16	29	24
Uncertainty about the contracts, terms of delivery and guarantees	19	16	17	30	26	27
Lack of specialized staff	26	35	32	6	25	19
Uncertainty about the privacy of the process	7	20	15	11	23	19
The process is bureaucratic and complicated	22	18	19	33	22	26
Preference for the forms of traditional commerce	7	18	14	11	22	18
Do not fit the administration public body profile	22	23	23	28	16	20
It is not justified	26	18	21	38	15	22
The acquired products or services are not possible to be ordered through the Internet	11	12	12	13	14	14

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2004-2005.

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Table III.61 | **Platforms used to make orders over the Internet**

2005, (%) Regional Public Administration Bodies that made orders over the Internet

	2005		
	R.A. Açores	R.A. Madeira	Total
Suppliers catalogues	63	x	54
e-mail	63	x	54
e-marketplaces	-	x	8
Auctions	-	x	8

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.62 | **Regional Public Administration Bodies that make online payments for the orders made over the Internet**

2005, (%) Regional Public Administration Bodies that made orders over the Internet

	2005		
	R.A. Açores	R.A. Madeira	Total
Regional Public Administration Bodies that make online payments for the orders made over the Internet	12	-	8

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

2.5 | **ICT and Human Resources**

Table III.63 | **ICT employees by education degree**

2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
First stage of basic education	-	-	-
Second stage of basic education	-	-	-
Third stage of basic education	19	17	18
Secondary education	59	48	53
Bachelor/undergraduate	22	33	28
Master degree	-	1	1
Total	100	100	100

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.64 | **Regional Public Administration Bodies with lack of ICT employees**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Regional Public Administration Bodies with lack of ICT employees	28	30	29	47	53	51	31	52	44

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003-2005.

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Table III.65 | **Regional Public Administration Bodies where the inexistence or the lack of ICT employees limit the development of its working activity**

2003-2005, (%) of all Regional Public Administration Bodies

	2003			2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Regional Public Administration Bodies with lack of ICT employees	44	38	41	35	40	37	31	45	39

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2003-2005.

Table III.66 | **Training courses**

2004-2005, (%) of all Regional Public Administration Bodies

	2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Employees who took training courses in general	x	x	x	38	28	36
Employees who took training courses in ICT	x	x	x	6	6	6
Ratio of the training courses in ICT in the total of the training courses	5	31	18	8	29	18

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2004-2005.

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Table III.67 | **Regional Public Administration Bodies that promoted long distance training courses (e-Learning)**

2005, (%) of all Regional Public Administration Bodies

	2005		
	R.A. Açores	R.A. Madeira	Total
Regional Public Administration Bodies that promoted long distance training courses (e-Learning)	8	10	9

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2005.

Table III.68 | **Resources used in the resolution of computer problems**

2004-2005, (%) of all Regional Public Administration Bodies

	2004			2005		
	R.A. Açores	R.A. Madeira	Total	R.A. Açores	R.A. Madeira	Total
Only external acquisition of services	18	26	23	13	22	18
Only internal acquisition of services	21	11	15	15	12	13
Both	50	53	52	62	61	61
Dk/Da	12	11	11	10	6	8

Sources: UMIC, Survey on ICT usage in Regional Public Administration 2004-2005.

3	CITY COUNCILS

3.1   Access to and Use of ICT

Table III.69   IT equipment

2003-2006, (%) City Councils

	2003	2004	2005	2006
Personal computer and Laptop	99	100	100	x
Local Area Network (LAN)	94	93	97	99
e-mail	95	93	95	99
Wireless LAN	x	x	56	68
Wide Area Network (WAN)	26	33	36	48
Intranet	48	49	47	46
Extranet	22	25	26	22
Video-conference	9	10	7	7

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.70 | IT equipment, by region NUTS II
2003-2006, (%) City Councils

	2003	2004	2005	2006
Local Area Network (LAN)				
North	95	94	99	100
Center	96	93	98	97
Lisbon	95	100	100	100
Alentejo	93	94	96	100
Algarve	94	93	93	93
A.R. Azores	95	93	100	100
A.R. Madeira	73	78	88	100
E-MAIL				
North	x	98	99	100
Center	x	92	98	100
Lisbon	x	94	100	100
Alentejo	x	90	90	98
Algarve	x	93	93	93
A.R. Azores	x	80	86	100
A.R. Madeira	x	89	86	83
Wireless LAN				
North	x	x	55	64
Center	x	x	56	64
Lisbon	x	x	94	94
Alentejo	x	x	53	72
Algarve	x	x	57	67
A.R. Azores	x	x	43	64
A.R. Madeira	x	x	25	67
Intranet				
North	47	43	44	39
Center	50	52	51	53
Lisbon	65	63	53	59
Alentejo	45	45	35	41
Algarve	63	64	79	53
A.R. Azores	32	47	57	43
A.R. Madeira	27	44	38	33

Table III.70 |IT equipment, by region NUTS II (continuation of table)
2003-2006, (%) City Councils

	2003	2004	2005	2006
Wide Area Network (WAN)				
North	31	30	35	47
Center	24	32	39	51
Lisbon	70	69	71	82
Alentejo	14	29	22	37
Algarve	25	64	50	53
A.R. Azores	16	13	14	29
A.R. Madeira	9	11	38	33
Extranet				
North	27	23	25	24
Center	24	35	27	23
Lisbon	15	25	29	12
Alentejo	14	20	18	24
Algarve	31	7	38	20
A.R. Azores	11	13	43	21
A.R. Madeira	23	22	13	-
Video conference				
North	7	14	6	4
Center	10	9	7	5
Lisbon	…	13	12	24
Alentejo	5	8	6	9
Algarve	…	7	14	13
A.R. Azores	…	-	-	7
A.R. Madeira	…	22	13	-

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.71 | **Services/Informations available in Intranet**
2004-2006, (%) City Councils with Intranet

	2004	2005	2006
Contacts (phone, fax, e-mail, etc.)	66	60	73
Legislation	42	45	65
Databases	45	60	58
Executive and administrative composition of the City Council	48	48	56
Organization charts	47	43	55
Meeting and events calendar	36	37	49
Accounting and budgets	22	37	39
Human resources policy	16	17	33
FAQ's	16	23	32
Training courses promoted by the City Council	17	19	32
Electronic discussion forum	6	9	17
Shareware	12	13	14

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

Table III.72 | **Open source software**
2003-2006, (%) City Councils

	2003	2004	2005	2006
City Councils with open source software for the operating systems	31	31	40	43
City Councils with open source software for the Internet servers	22	22	27	30

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.73 | Security applications

2003-2006, (%) City Councils

	2003	2004	2005	2006
Anti-virus software	96	94	97	99
Firewall	58	72	83	86
Anti-spam filters	x	x	57	66
Secure servers (ex: shttp protocol)	x	42	25	27
Backups of information outside of the Central Public Administration Body	x	16	20	22
Security service subscription	x	x	49	x

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.74 | Security problems

2005-2006, (%) City Councils

	2005	2006
City Councils that found security problems	15	11

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

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Table III.75 | **Type of security problems detected**
2005-2006, (%) City Councils that detected security problems

	2005	2006
Virus attack that caused loss of information	76	71
Non autorized access to the computer network or data	21	18
Blackmail or threats to the software or data	3	4

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

3.2 | **Access to and Use of Internet**

Table III.76 | **Internet connection and Internet connection speed**
2003-2006, (%) City Councils

	2003	2004	2005	2006
Internet connection	97	100	100	100
Internet connection speed	31	61	85	93

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.77 | **Internet connection speed, by region NUTS II**

2003-2006, (%) City Councils

	2003	2004	2005	2006
	Speed connection ≥ 512Kbps			
North	29	67	93	96
Center	33	62	82	87
Lisbon	50	81	94	94
Alentejo	27	53	90	96
Algarve	19	43	71	93
A.R. Azores	37	60	65	100
A.R. Madeira	18	44	63	100

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.78 | **Computers with Internet connection**

2005-2006, (%) City Councils

	2005	2006
Computers with Internet connection	67	79

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

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Table III.79 | **Persons employed using computers with Internet connection**

2005-2006, (%) City Councils

	2005	2006
Persons employed using computers with Internet connection	27	28

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

Table III.80 | **Internet access policy in City Councils**

2003-2006, (%) City Councils

	2003	2004	2005	2006
Unrestricted access	33	42	49	56
Restricted access	63	54	46	42
Dk/Da	4	4	5	2

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.81 | **Main type of Internet connection**

2004-2006, (%) City Councils with Internet connection

	2004	2005	2006
DSL (xDSL, ADSL, SDSL, etc.)	74	79	91
Dedicated Access	x	14	17
Cable	5	4	8
ISDN	4	1	9
Other broadband connection type	11	1	4
Other narrow band connection type	3	1	-
Modem	2	1	7

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

Table III.82 | **Internet connection speed**

2003-2006, (%) City Councils

	2003	2004	2005	2006
< 128 Kbps	34	9	3	-
>= 128 Kbps e < 256 kbps	11	7	2	1
>= 256 kbps e < 512 kbps	18	21	10	4
>= 512kbps e < 2mbps	30	59	47	29
>= 2mbps	1	2	38	64
Dk/Da	3	2	1	2
Do not have Internet connection	3	x	x	1

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.83 | **Purposes in using Internet**

2003-2006, (%) City Councils with Internet connection

	2003	2004	2005	2006
Finding and gathering information and documentation	98	97	98	99
E-mail	99	96	97	98
Electronic exchange of files	92	90	93	96
Provision catalogue consultation	70	80	78	83
Databases access	74	79	78	83
Comunication with other city councils, local authorities and Central Public Administration bodies	70	70	67	79
Products and services promotion	56	60	68	74
Electronic orders	10	10	14	15
Sale of products and services	4	9	12	12

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

3.3 | **Web Presence**

Table III.84 | **Web presence**

2003-2006, (%) City Councils

	2003	2004	2005	2006
City Councils with web presence	84	91	96	96

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.85 | **Web presence, by region NUTS II**
2003-2006, (%) City Councils

	2003	2004	2005	2006
Norte	89	98	99	97
Centro	82	91	93	94
Lisboa	95	100	100	100
Alentejo	79	80	96	91
Algarve	94	86	100	100
R. A. Açores	74	80	100	100
R. A. Madeira	82	100	100	100

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.86 | **Reasons to have a website**
2003-2006, (%) City Councils with web presence

	2003	2004	2005	2006
Turism and culture promotion	93	97	98	99
Institutional information about the City Council	94	96	98	99
Promote the cultural and sports agenda as well as other activities	91	94	95	97
Promote the relationship between the local power and the citizens	76	78	80	89
Promote the social and economic development of the municipality	65	70	73	82
To approach the emigrant communities to their city	67	71	70	75
Promote the use of the information technologies by the citizens	59	65	69	74
Promote online services	43	49	57	62

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.87 | **Functions totally contemplated in the website**
2003-2006, (%) City Councils with web presence

	2003	2004	2005	2006
Personal data protection	20	24	34	32
Measure the satisfaction of the users about the website	x	x	12	16
Accessibility for citizens with special needs	2	5	3	6
Capacity to guarantee safe transactions	4	6	-	5

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.88 | **Services available in the website**

2003-2006, (%) City Councils with web presence

	2003	2004	2005	2006
E-mail to receive messages and information requests	x	74	91	78
Forms for download	34	41	70	74
Newsletter subscription	x	16	32	41
Processes of public consultation (e.g. PDM)	x	24	36	36
User support (FAQs, Helpdesk, etc.)	12	15	25	27
Surveys to the citizens	x	13	26	24
Order of material referring to the city (local paperbacks, plans, maps, etc.)	7	11	19	22
Forms to fulfill and submit online	8	9	21	21
Platforms of online voting	x	6	14	15
Discussion foruns between the city council and the citizens	6	6	10	14
Online payments	1	x	1	2
Transmission, through videoconference of the City Council meetings and sessions	1	x	1	2
Personalized use of the website (personalized menu, etc.)	13	12	21	x
Electronic subscription of newspaper or selected notices	11	13	14	x
Consult personal data in administrative databases (books, taxes, buildings registration, etc.)	5	4	12	x

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.89

| Information available in the website | | | | |
| 2003-2006, (%) City Councils with web presence | | | | |

	2003	2004	2005	2006
Organization chart of the City council	70	77	78	83
City information and local plans	80	75	80	81
Announcement of meetings and city councils events	68	70	72	79
Resolutions taken in city council meetings and sessions	51	60	65	75
Contact and curriculum of main responsible persons of the city council	x	57	63	73
Information on services, rights and duties of the citizens	54	59	66	72
Administrative acts (resolutions, etc.)	x	35	44	49
Plain of activity and activity reports	x	35	39	49

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.90

| Website implementation | | | | |
| 2003-2006, (%) City Councils with web presence | | | | |

	2003	2004	2005	2006
City Council services	26	27	23	21
Other entity	51	47	44	45
Both	23	26	30	33
Dk/Da	-	-	3	1

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.91

Website maintenance
2003-2006, (%) City Councils with web presence

	2003	2004	2005	2006
City Council services	40	41	42	49
Other entity	32	26	24	23
Both	27	32	32	27
Dk/Da	1	1	3	1

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.92

Website contents update
2003-2006, (%) City Councils with web presence

	2003	2004	2005	2006
City Council services	53	61	58	72
Other entity	14	11	9	6
Both	32	27	29	21
Dk/Da	1	1	4	1

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.93 | Content uptdate frequency
2003-2006, (%) City Councils with web presence

	2003	2004	2005	2006
Permanent update	68	68	69	80
Every 15 days	8	8	15	8
Once a month	13	13	7	6
Every 3 months	1	1	3	2
More than 3 months	6	6	3	2
Dk/Da	4	4	3	2

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

3.4 | Electronic Commerce

Table III.94 | Orders over the Internet
2004-2006, (%) City Councils

	2004	2005	2006
City Councils that made orders over the Internet	11	13	16

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

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Table III.95 | **Number of orders over the Internet**

2004 - 2006, (%) City Councils that made orders over the Internet

	2004	2005	2006
Less than 10	58	66	55
Between 10 and 20	23	22	28
More than 20	19	12	13
Dk/Da	-	-	5

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

Table III.96 | **Value of the purchases of products/services over the Internet, in the total of purchases**

2004 - 2006, (%) City Councils that made orders over the Internet

	2004	2005	2006
< 1%	65	62	60
≥ 1% and < 10%	29	22	25
≥ 10% and < 25%	3	9	8
≥ 25%	-	3	-
Dk/Da	3	3	8

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

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Table III.97 | **Products/services ordered over the Internet**

2004 - 2006, (%) City Councils that made orders over the Internet

	2004	2005	2006
Computer consumables	x	x	63
Software, hardware	68	66	58
Company store products	36	53	40
Books	6	3	30
Travels	-	3	-
Vehicles	13	-	-

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

Table III.98 | **Platforms used to make orders over the Internet**

2004 - 2006, (%) City Councils that made orders over the Internet

	2004	2005	2006
Suppliers catalogues	58	84	68
e-mail	52	59	60
e-Marketplaces	16	13	30
Auctions	-	3	3

Fonte: UMIC, Inquérito à Utilização das TIC nas Câmaras Municipais 2004 - 2005.

Table III.99   **City Councils that make online payments for the orders made over the Internet**

2004 - 2006, (%) City Councils that made orders over the Internet

	2004	2005	2006
City Councils that make online payments for the orders made over the Internet	16	13	10

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

3.5   Strategy and Cooperation

Table III.100   **City Councils with an ICT development strategy**

2003-2006, (%) City Councils

	2003	2004	2005	2006
City Councils with an ICT development strategy	67	67	62	60

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.101 | **Extent of ICT strategy**

2003-2006, (%) City Councils with an ICT development strategy

	2003	2004	2005	2006
ICT infraestructure	84	93	95	94
Online services for the citizens	88	84	84	89
Security policy about the use of ICT	75	80	83	85
ICT trainning and/or certification	x	46	44	50
Purchases over the Internet (e-Commerce)	15	18	27	26

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.102 | **Cooperation with local authorities**

2003-2006, (%) City Councils

	2003	2004	2005	2006
Maintenance and use of ICT	24	23	38	42
Development or acquisition of applications	15	16	27	32
Purchase of ICT infrastructures	17	14	26	30
Share of website or portal	11	12	15	23
Online services	8	13	16	22
Share of intranet structure	3	5	11	11
Sale/availability of products or services to the citizen	3	6	9	10
Database interconnection	3	5	8	10
Purchases of products and services through the Internet	2	2	3	5

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

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Table III.103 |**Cooperation with other City Councils**
2003-2006, (%) City Councils

	2003	2004	2005	2006
Share of website or portal	16	10	38	39
Development or acquisition of applications	20	18	38	44
Purchase of ICT infrastructures	13	13	34	37
Maintenance and use of ICT	15	15	31	31
Sale/availability of products or services to the citizen	4	4	13	17
Purchases of products and services through the Internet	2	2	8	10

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

3.6 |**ICT and Human Resources**

Table III.104 |**Employees by education degree**
2005-2006, (%) City Councils

	2005	2006
No education degree	2	1
First stage of basic education	32	31
Second stage of basic education	16	15
Third stage of basic education	15	17
Secondary education	19	18
Bachelor/undergraduate	15	17
Master Degree/Phd	1	-

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

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Table III.105 | **Employees working exclusively in ICT**

2003-2006, (%) City Councils

	2003	2004	2005	2006
Employees working exclusively in ICT	74	80	85	84

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.106 | **ICT employees by education degree**

2003-2006, (%) City Councils

	2003	2004	2005	2006
First stage of basic education/Second stage of basic education	o	9	1	3
Third stage of basic education	9	11	7	7
Secondary education	58	52	59	54
Bachelor/undergraduate	32	27	32	35
Master Degree	1	1	1	1

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.107 | **City Councils with lack of ICT employees**

2003-2006, (%) City Councils

	2003	2004	2005	2006
Lack of ICT employees	47	52	55	53

Sources: UMIC, Survey on ICT usage in City Council 2003-2006.

Table III.108 | City Councils where the inexistence or the lack of ICT employees limits the development of working activity

2004-2006, (%) City Councils

	2004	2005	2006
City Councils where the inexistence or the lack of ICT employees limit the development of working activity	39	36	35

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

Table III.109 | Training courses

2005-2006, (%) City Councils

	2005	2006
Employees who took training courses in general	26	21
Employees who took training courses in ICT	6	4
Ratio of the training courses in ICT in the total of the training courses	13	21

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

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Table III.110 | **City Councils that promoted long distance training courses** *(e-Learning)*
2005-2006, (%) City Councils

	2005	2006
City Councils that promoted long distance training courses *(e-Learning)*	2	-

Sources: UMIC, Survey on ICT usage in City Council 2005-2006.

Table III.111 | **Resources used in the resolution of computer based problems**
2004-2006, (%) City Councils

	2004	2005	2006
Only external acquisition of services	7	7	3
Only internal acquisition of services	12	10	14
Both	79	78	79
Dk/Da	2	5	3

Sources: UMIC, Survey on ICT usage in City Council 2004-2006.

METHODOLOGICAL NOTES | eGOVERNMENT

1.   CENTRAL PUBLIC ADMINISTRATION

The **Survey on Information and Communication Technologies Usage in Central Public Administration** is performed annually and falls within the scope of statistical indicators on Information Society development.

Scope
Central Public Administration Bodies.

Data collection period

2006:	September to November 2006
2005:	September to November 2005
2004:	September to December 2004
2003:	July to September 2003
2002:	February to July 2002

Response rates

2006:	76%
2005:	78%
2004:	74%
2003:	88%

Inquiry method
Self-administered mail and/or online survey.

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

METHODOLOGICAL NOTES | eGOVERNMENT

2. REGIONAL PUBLIC ADMINISTRATION

The **Survey on Information and Communication Technologies Usage in Regional Public Administration** is performed annually and falls within the scope of statistical indicators on Information Society development.

Scope
Regional Public Administration Bodies (Madeira' Regional Government and Açores' Regional Government).

Data collection period

2005:	September to November 2005
2004:	September to December 2004
2003:	July to September 2003

Response rates

2005:	100% Açores e 74% Madeira
2004:	70% Açores e 70% Madeira

Inquiry method
Self-administered mail and/or online survey.

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

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METHODOLOGICAL NOTES | eGOVERNMENT

3. CITY COUNCILS

The **Survey on Information and Communication Technologies Usage in City Councils** is performed annually and falls within the scope of statistical indicators on Information Society development.

Scope
All City Councils.

Data collection period

2006:	September to November 2006
2005:	September to November 2005
2004:	September to November 2004
2003:	July to September 2003

Response rates

2006:	80%
2005:	82%
2004:	88%
2003:	99%

Inquiry method
Self-administered mail and/or online survey.

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

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INTRODUCTION | EDUCATION AND ICT TRAINING

In the development of Information Society, promoting equality of ICT access and the appropriate skills for its use are crucial factors, assuming the educational sphere a determinant role in the changing process. In this sense, accompanying and monitoring the adaptation of the educational system to the demands of ICT are of extreme importance.

In this chapter, you will find statistical data regarding ICT diffusion in primary and secondary schools, as well as information about supply and demand of ICT training in higher education.

ICT in Schools

The information presented in the first subchapter, of the Bureau for Information and Evaluation of the Education System (GIASE) responsibility, refers to the number of enrolled students in the regular teaching, the number of computers and the number of computers connected to the internet in primary and secondary schools.

The main findings are:

- The data reveals the doubling of the number of computers connected to the internet in the education and teaching institutions between 2001/2002 and 2005/2006;

- In that period there is an increasing on the percentage of computers connected to the Internet in public establishments. In 2005/2006, about 3 in each 4 computers were connected to the Internet;

- Between 2001/2002 and 2005/2006, the ratio students per computer connected to the Internet went from 33,8 to 14,0. In the public facilities, the ratio went from 38,9 to 15,7.

INTRODUCTION | EDUCATION AND ICT TRAINING

ICT Training in Higher Education

The last subchapter presents statistical information on ICT training in higher education, produced by the Observatory for Science and Higher Education (OCES), namely regarding the creation of ICT courses, numerus clausus, number of new entrants (1st time) and number of graduates.

The main findings are:

- Between the 1997/1998 and 2004/2005 school years, the number of ICT courses in Higher Education applying to public higher education grew at an annual average rate of 8,02%, while non public higher education registered an annual average growth of 1,57%;

- Between the 1997/1998 and 2004/2005 school years, there was a positive growth of the total of numerus clausus in ICT in public higher education (AAGR of 4,97%). However the total of numerus clausus in ICT presents a negative annual average growth (-0,35%);

- From 1997/1998 to 2004/2005, the number of new entrants (1st year, 1st time) in ICT courses increased in public higher education (AAGR of 2,88%) and decreased in non public higher education (AAGR of -6,54%), which corresponded to a global average growth of 1,22% per year;

- During this period, the proportion of women enrolled in ICT (1st year, 1st time) was lower than that of men. This difference has been rising with the increase in the percentage of men enrolled in ICT 1st year, 1st time (on average 0,78%) and the decrease in the percentage of women (AAGR of -3,68%);

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- Between the 1997/1998 and 2003/2004 school years, the annual average growth of the number of ICT graduates was positive (AAGR of 6,65%). This growth was mainly due to the performance of public higher education (AAGR of 9,05%);

- The proportion of women graduates in ICT has always been lower than that of men during this period. This difference has still increased between 1997/1998 and 2003/2004, mostly as a result of the slowdown in the annual growth rate of women graduates in ICT (AAGR of -5,13%).

IV – EDUCATION AND ICT TRAINING

1. | **ICT IN SCHOOLS**

Table IV.1 | **Number of enrolled students, by nature of institution and by level of education**
2001/2002, 2004/2005-2005/2006, Number of enrolled students (Mainland)

	2001/2002	2004/2005	2005/2006
Total	**1 372 680**	**1 329 977**	**1 326 549**
Public	**1 202 229**	**1 157 602**	**1 152 779**
Primary (ISCED 1)	425 477	415 564	419 199
Lower secondary (ISCED 2)	220 384	215 994	210 606
Upper secondary (ISCED 3)	311 615	298 824	313 207
Upper Secondary Education	244 753	227 220	209 767
Private	**170 451**	**172 375**	**173 770**
Primary (ISCED 1)	47 924	46 152	47 539
Lower secondary (ISCED 2)	28 139	28 207	28 334
Upper secondary (ISCED 3)	38 918	41 760	43 745
Upper Secondary Education	55 470	56 256	54 152

Source: GIASE/ME.

Table IV.2   **Number of computers and of computers connected to the Internet, by nature of institution and by level of education**

2001/2002, 2004/2005-2005/2006, Number of computers/ Number of computers connected to the Internet (Mainland)

	Computers			Computers connected to the Internet		
	2001/2002	2004/2005	2005/2006	2001/2002	2004/2005	2005/2006
Total	**79 407**	**113 921**	**125 756**	**40 573**	**82 780**	**94 644**
Public	**63 084**	**90 389**	**100 273**	**30 911**	**63 694**	**73 251**
Primary (ISCED 1)	15 906	18 175	26 166	8 132	10 828	15 744
Lower secondary (ISCED 2)	11 267	18 759	19 244	5 710	13 812	15 085
Upper secondary (ISCED 3)	17 713	27 918	30 507	8 633	20 436	23 598
Upper Secondary Education	18 198	25 537	24 356	8 436	18 618	18 824
Private	**16 323**	**23 532**	**25 483**	**9 662**	**19 086**	**21 393**
Primary (ISCED 1)	3 015	4 692	5 104	1 206	3 066	3 533
Lower secondary (ISCED 2)	1 745	2 735	2 983	944	2 165	2 471
Upper secondary (ISCED 3)	2 502	4 349	4 999	1 380	3 487	4 182
Upper Secondary Education	9 061	11 756	12 397	6 132	10 368	11 207

Source: GIASE/ME.

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Table IV.3

Ratio of students per computer and per computer connected to the Internet, by nature of institution and by level of education
2001/2002, 2004/2005-2005/2006, Ratio (Mainland)

	Students/Computer			Students/Computer connected to the Internet		
	2001/2002	2004/2005	2005/2006	2001/2002	2004/2005	2005/2006
Total	**17.3**	**11.7**	**10.5**	**33.8**	**16.1**	**14.0**
Public	**19.1**	**12.8**	**11.5**	**38.9**	**18.2**	**15.7**
Primary (ISCED 1)	26.7	22.9	16.0	52.3	38.4	26.6
Lower secondary	19.6	11.5	10.9	38.6	15.6	14.0
Upper secondary	17.6	10.7	10.3	36.1	14.6	13.3
Upper Secondary Education	13.4	8.9	8.6	29.0	12.2	11.1
Private	**10.4**	**7.3**	**6.8**	**17.6**	**9.0**	**8.1**
Primary (ISCED 1)	15.9	9.8	9.3	39.7	15.1	13.5
Lower secondary	16.1	10.3	9.5	29.8	13.0	11.5
Upper secondary	15.6	9.6	8.8	28.2	12.0	10.5
Upper Secondary Education	6.1	4.8	4.4	9.0	5.4	4.8

Source: GIASE/ME.

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Table IV.4

Schools connected to the Internet through the Science Technology and Society Network (RCTS)

1997/1998-2006/2007, Public schools from the first cycle to upper secondary education level (Mainland)

	Number of schools	Number of schools connected to the Internet	
		ISDN	Broadband
1997/1998	10466	1623	-
1998/1999	10270	2113	-
1999/2000	10174	2352	-
2000/2001	9937	8845	-
2001/2002	9865	10592	-
2002/2003	9497	10902	-
2003/2004	9212	10902	-
2004/2005	8733	9043	618
2005/2006	8584	3468	8618
2006/2007	7068	-	7219

Sources: GIASE/ME e FCCN.

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2. | **ICT TRAINING IN HIGHER EDUCATION**

2.1 | **Creation of ICT Courses in Higher Education**

Table IV.5 | **Trends in the total number of pairs educational institution/initial training course and of pairs educational institution/ICT course**

1997/1998-2004/2005, Number of pairs educational institution/initial training course/Number of pairs educational institution/ICT course

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Total number of pairs educational institution/initial training	1 404	1 494	1 541	1 585	1 633	1 673	1 696	1 745
Number of pairs educational institution/ICT course	119	137	140	153	157	157	163	173

Note: The pairs educational institution/course corresponds to the number of courses in higher education for which numerus clausus in the 1997-2004 school years were agreed.
Source: OCES / MCTES.

Table IV.6 | **Trends in the number of pairs educational institution/ICT course, by type of educational institution**

1997/1998-2004/2005, Number of pairs educational institution/ICT course

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Public	67	75	79	91	95	105	110	115
Non public	52	62	61	62	62	52	53	58
Total	**119**	**137**	**140**	**153**	**157**	**157**	**163**	**173**

Notes:
1) The pairs educational institution/course corresponds to the number of courses in higher education for which numerus clausus in the 1997-2004 school years were agreed;

2) The pairs educational institution/course corresponds to the application procedures at national, local and institutional levels;

3) Non-public education includes the private and cooperative education and Portuguese Catholic University.

Source: OCES / MCTES.

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2.2 | **Trends in Numerus Clausus in Higher Education**

Table IV.7 | **Trends in the total numerus clausus and in numerus clausus in ICT**

1997/1998-2004/2005, Numerus clausus/Numerus clausus in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Total numerus clausus	85 639	89 248	91 555	84 130	85 270	85 430	80 430	81 268
Numerus clausus in ICT	9 160	9 855	9 930	8 400	8 794	9 145	8 716	8 935

Note: Numerus clausus corresponds to the number of places set for the application procedures to higher education, at national, local and institutional levels, in the 1997-2004 school years. These refer to initial training courses: tertiary education – first degree; starting programme to second degree university level; second degree university level (in two phases) and second degree university level.

Source: OCES / MCTES.

Table IV.8 | **Trends in numerus clausus in ICT, by type of educational institution**

1997/1998-2004/2005, Numerus clausus in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Public	4 265	4 645	5 080	5 385	5 634	6 170	5 967	5 988
Non public	4 895	5 210	4 850	3 015	3 160	2 975	2 749	2 947
Total	**9 160**	**9 855**	**9 930**	**8 400**	**8 794**	**9 145**	**8 716**	**8 935**

Notes:

1) Numerus clausus corresponds to the number of places set for the application procedures to higher education, at national, local and institutional levels, in the 1997-2004 school years. These refer to initial training courses: tertiary education - first degree; starting programme to second degree university level; second degree university level (in two phases - 1st cycle) and second degree university level;

2) Non-public education includes the private and cooperative education and Portuguese Catholic University.

Source: OCES / MCTES.

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Table IV.9

Trends in numerus clausus, by scientific field

1997/1998-2004/2005, (N*umerus clausus*) (%)

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
TOTAL	**85 639**	**89 248**	**91 555**	**84 130**	**85 270**	**85 430**	**80 430**	**81 268**
Education	8 477 (9.9%)	8 873 (9.9%)	9 851 (10.8%)	9 656 (11.5%)	9 291 (10.9%)	8 806 (10.3%)	7 164 (8.9%)	5 695 (7.0%)
Arts and Humanities	7 557 (8.8%)	8 138 (9.1%)	8 662 (9.5%)	8 374 (10.0%)	8 602 (10.1%)	8 597 (10.1%)	8 276 (10.3%)	8 168 (10.1%)
Social Sciences, Business and Law	33 632 (39.3%)	34 152 (38.3%)	33 416 (36.5%)	27 968 (33.2%)	27 598 (32.4%)	26 683 (31.2%)	24 814 (30.9%)	25 690 (31.6%)
Science	8 596 (10.0%)	8 948 (10.0%)	9 060 (9.9%)	7 640 (9.1%)	7 650 (9.0%)	7 625 (8.9%)	6 808 (8.5%)	6 923 (8.5%)
Engineering, Manufacturing Industry and Construction	15 833 (18.5%)	16 547 (18.5%)	17 505 (19.1%)	16 180 (19.2%)	16 052 (18.8%)	15 835 (18.5%)	15 159 (18.8%)	15 095 (18.6%)
Agriculture	1 930 (2.3%)	1 920 (2.2%)	1 750 (1.9%)	1 915 (2.3%)	1 855 (2.2%)	1 780 (2.1%)	1 484 (1.8%)	1 308 (1.6%)
Health and Welfare	5 476 (6.4%)	6 277 (7.0%)	6 558 (7.2%)	7 664 (9.1%)	9 315 (10.9%)	10 910 (12.8%)	11 584 (14.4%)	12 945 (15.9%)
Services	4 138 (4.8%)	4 393 (4.9%)	4 753 (5.2%)	4 733 (5.6%)	4 907 (5.8%)	5 194 (6.1%)	5 141 (6.4%)	5 444 (6.7%)
ICT	**9 160**	**9 855**	**9 930**	**8 400**	**8 794**	**9 145**	**8 716**	**8 935**

Note: Numerus clausus corresponds to the number of places set for the application procedures to higher education, at national, local and institutional levels, in the 1997-2004 school years. These refer to initial training courses: tertiary education – first degree; starting programme to second degree university level; second degree university level (in two phases – 1st cycle) and second degree university level.

Source: OCES / MCTES.

2.3 | **Trends in the Number of New Entrants in Higher Education (1st year, 1st time)**

Table IV.10 | **Trends in the total number of new entrants (1st time) and of enrolled students (1st time) in ICT**

1997/1998-2004/2005, Number of new entrants (1st time)/Number of enrolled students (1st time) in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Total number of new entrants (1st time)	74 918	72 263	76 521	84 463	82 495	82 889	76 012	72 017
Number of enrolled students (1st time) in ICT	6 486	6 378	6 184	7 409	7 601	7 831	7 384	7 061

Note: The new entrants (1st year, 1st time) refer to students enrolled in the following courses: tertiary education – first degree; starting programme to second degree university level; second degree university level (in two phases – 1st cycle) and second degree university level, complementary training for the attainment of a second degree university level addressed to early childhood, primary, lower secondary education and secondary education teachers; qualification for early childhood, primary, lower secondary education and secondary education teachers to perform other educational activities; complementary training for nurses; higher education specialized studies (already extinct).

Source: OCES / MCTES.

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Table IV.11

Trends in the number of enrolled students (1st time) in ICT, by type of educational institution

1997/1998-2004/2005, Number of enrolled students (1st time) in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Public	5 060	5 036	5 025	5 934	6 137	6 484	6 268	6 173
Non public	1 426	1 342	1 159	1 475	1 464	1 347	1 116	888
Total	**6 486**	**6 378**	**6 184**	**7 409**	**7 601**	**7 831**	**7 384**	**7 061**

Notes:

1) The new entrants (1st year, 1st time) refer to students enrolled in the following courses: tertiary education - first degree; starting programme to second degree university level; second degree university level (in two phases - 1st cycle) and second degree university level, complementary training for the attainment of a second degree university level addressed to early childhood, primary, lower secondary education and secondary education teachers; qualification for early childhood, primary, lower secondary education and secondary education teachers to perform other educational activities; complementary training for nurses; higher education specialized studies (already extinct);

2) Only the new entrants (1st year, 1st time, 1st cycle) in second degree university level (in two phases) courses were included;

3) Non-public education includes the private and cooperative education and Portuguese Catholic University.

Source: OCES / MCTES.

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Table IV.12 | **Trends in the number of enrolled students (1st time), by scientific field**

1997/1998-2004/2005, (Number of enrolled students - 1st time) (%)

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
TOTAL	**74 918**	**72 263**	**76 521**	**84 463**	**82 495**	**82 889**	**76 012**	**72 017**
Education	10 865 (14.5%)	9 959 (13.8%)	14 579 (19.1%)	15 068 (17.8%)	13 420 (16.3%)	12 059 (14.5%)	9 403 (12.4%)	6 458 (9.0%)
Arts and Humanities	6 750 (9.0%)	6 860 (9.5%)	6 727 (8.8%)	7 172 (8.5%)	6 804 (8.2%)	7 053 (8.5%)	6 694 (8.8%)	6 314 (8.8%)
Social Sciences, Business and Law	25 700 (34.3%)	23 098 (32.0%)	22 825 (29.8%)	24 077 (28.5%)	23 129 (28.0%)	24 379 (29.4%)	22 352 (29.4%)	22 455 (31.2%)
Science	6 281 (8.4%)	6 457 (8.9%)	5 927 (7.7%)	6 368 (7.5%)	5 812 (7.0%)	5 599 (6.8%)	5 088 (6.7%)	4 663 (6.5%)
Engineering, Manufacturing Industry and Construction	13 368 (17.8%)	13 880 (19.2%)	13 237 (17.3%)	14 164 (16.8%)	13 252 (16.1%)	13 679 (16.5%)	13 136 (17.3%)	12 393 (17.2%)
Agriculture	2 131 (2.8%)	1 959 (2.7%)	1 575 (2.1%)	1 604 (1.9%)	1 248 (1.5%)	1 094 (1.3%)	860 (1.1%)	966 (1.3%)
Health and Welfare	6 536 (8.7%)	6 484 (9.0%)	7 833 (10.2%)	11 664 (13.8%)	14 535 (17.6%)	14 515 (17.5%)	14 385 (18.9%)	14 938 (20.7%)
Services	3 287 (4.4%)	3 566 (4.9%)	3 818 (5.0%)	4 346 (5.1%)	4 295 (5.2%)	4 511 (5.4%)	4 094 (5.4%)	3 830 (5.3%)
ICT	**6 486**	**6 378**	**6 184**	**7 409**	**7 601**	**7 831**	**7 384**	**7 061**

Notes:

1) The new entrants (1st year, 1st time) refer to students enrolled in the following courses: tertiary education - first degree; starting programme to second degree university level; second degree university level (in two phases - 1st cycle) and second degree university level, complementary training for the attainment of a second degree university level addressed to early childhood, primary, lower secondary education and secondary education teachers; qualification for early childhood, primary, lower secondary education and secondary education teachers to perform other educational activities; complementary training for nurses; higher education specialized studies (already extinct);

2) Non-public education includes the private and cooperative education and Portuguese Catholic University.

Source: OCES / MCTES.

Table IV.13

Trends in the percentage of enrolled students (1st time) in ICT, by gender

1997/1998-2004/2005, (%) Total enrolled students (1st time) in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005
Men	80.6	81.5	83.8	83.1	83.8	84.5	84.6	85.0
Women	19.4	18.5	16.2	16.9	16.2	15.5	15.4	15.0

Note: The new entrants (1st year, 1st time) refer to students enrolled in the following courses: tertiary education - first degree; starting programme to second degree university level; second degree university level (in two phases - 1st cycle) and second degree university level, complementary training for the attainment of a second degree university level addressed to early childhood, primary, lower secondary education and secondary education teachers; qualification for early childhood, primary, lower secondary education and secondary education teachers to perform other educational activities; complementary training for nurses; higher education specialized studies (already extinct).

Source: OCES / MCTES.

2.4 **Trends in the Number of Graduates in Higher Education**

Table IV.14

Trends in the total number of graduates and of graduates in ICT

1997/1998-2003/2004, Number of graduates/ Number of graduates in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
Total number of graduates	43 365	48 443	51 129	57 299	59 906	63 493	62 908
Total number of graduates in ICT	2 502	2 449	2 666	2 647	3 144	3 265	3 681

Note: The data concerning graduates refer to the following graduation degrees and diplomas: "bachelor"; "undergraduate"; higher education specialized studies diploma (already extinct).

Source: OCES / MCTES.

Table IV.15   **Trends in the number of graduates in ICT, by type of educational institution**

1997/1998-2003/2004, Number of graduates in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
Public	1 749	1 657	1 773	1 876	2 346	2 598	2 942
Non public	753	792	893	771	798	667	739
Total	**2 502**	**2 449**	**2 666**	**2 647**	**3 144**	**3 265**	**3 681**

Notes:

1) The data concerning graduates refer to the following graduation degrees and diplomas: "bachelor"; "undergraduate"; higher education specialized studies diploma (already extinct);

2) Non-public education includes the private and cooperative education and Portuguese Catholic University.

Source: OCES / MCTES.

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Table IV.16 | **Trends in the number of graduates, by scientific field**

1997/1998-2003/2004, (Number of graduates) (%)

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
TOTAL	**43 365**	**48 443**	**51 129**	**57 299**	**59 906**	**63 493**	**62 908**
Education	6 365 (14.7%)	8 022 (16.6%)	9 314 (18.2%)	11 656 (20.3%)	13 667 (22.8%)	14 484 (22.8%)	11 598 (18.4%)
Arts and Humanities	4 377 (10.1%)	4 383 (9.0%)	4 488 (8.8%)	4 458 (7.8%)	4 960 (8.3%)	5 142 (8.1%)	5 405 (8.6%)
Social Sciences, Business and Law	17 103 (39.4%)	18 947 (39.1%)	18 002 (35.2%)	18 063 (31.5%)	16 793 (28.0%)	17 426 (27.4%)	17 464 (27.8%)
Science	2 660 (6.1%)	2 575 (5.3%)	2 684 (5.2%)	2 788 (4.9%)	3 117 (5.2%)	3 338 (5.3%)	3 566 (5.7%)
Engineering, Manufacturing Industry and Construction	5 622 (13.0%)	6 297 (13.0%)	6 520 (12.8%)	6 578 (11.5%)	7 656 (12.8%)	8 320 (13.1%)	8 877 (14.1%)
Agriculture	1 133 (2.6%)	1 120 (2.3%)	1 155 (2.3%)	1 329 (2.3%)	1 243 (2.1%)	1 308 (2.1%)	1 272 (2.0%)
Health and Welfare	4 356 (10.0%)	5 078 (10.5%)	6 790 (13.3%)	10 027 (17.5%)	9 669 (16.1%)	10 325 (16.3%)	11 302 (18.0%)
Services	1 749 (4.0%)	2 021 (4.2%)	2 176 (4.3%)	2 400 (4.2%)	2 801 (4.7%)	3 150 (5.0%)	3 424 (5.4%)
ICT	**2 502**	**2 449**	**2 666**	**2 647**	**3 144**	**3 265**	**3 681**

Note: The data concerning graduates refer to the following graduation degrees and diplomas: "bachelor"; "undergraduate"; higher education specialized studies diploma (already extinct).
Source: OCES / MCTES.

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Table IV.17

Trends in the percentage of graduates in ICT, by gender

1997/1998-2003/2004, (%) Total graduates in ICT

	1997/1998	1998/1999	1999/2000	2000/2001	2001/2002	2002/2003	2003/2004
Men	71.5	74.7	74.6	76.7	77.6	79.3	79.2
Women	28.5	25.3	25.4	23.3	22.4	20.7	20.8

Note: The data concerning graduates refer to the following graduation degrees and diplomas: "bachelor"; "undergraduate"; higher education specialized studies diploma (already extinct).
Source: OCES / MCTES.

METHODOLOGICAL NOTES | EDUCATION AND ICT TRAINING

1.   ICT IN SCHOOLS

The statistical data collected was obtained from surveys, models 400 and 700 registered in INE, directed to all state and private education and teaching institutions (ETI), during the school years of 2001/2002, 2004/2005 and 2005/2006.

Electronic formularies were conceived from the quoted notation instruments, which allowed a significant increase in the quality of the data made available by each ETI. Emphasize the fact that all the state ETI made use of the electronic format to answer the notation instruments used by GIASE.

The data made available in this chapter refers to the number of students in the regular teaching, the number of computers and the number of computers connected to the internet in the Primary School and the Secondary School.

2.   ICT TRAINING IN HIGHER EDUCATION

Statistical data regarding the supply and demand of ICT courses (courses offering training in Information and Communication Technologies) in Higher Education, between 1997/1998 and 2004/2005.

Variables

Pairs educational institution / course
The pair educational institution/ course corresponds to the number of courses in higher education for which numerus clausus in the 1997/1998 and 2004/2005 school years were agreed

METHODOLOGICAL NOTES | EDUCATION AND ICT TRAINING

Numerus Clausus
Numerus Clausus corresponds to the number of places set for the application procedures to higher education, at national, local and institutional levels, between 1997/1998 and 2004/2005. These refer to initial training courses: tertiary education – first degree; starting programme to second degree university level; second degree university level (in two phases) and second degree university level.

New entrants (1st year 1st time)
The new entrants (1st year 1st time) refer to students enrolled in the following courses:

- tertiary education – first degree;
- second degree university level (in two phases – 1st cycle);
- starting programme to second degree university level;
- second degree university level;
- complementary training for the attainment of a second degree university level addressed to early childhood, primary, lower secondary and secondary education teachers;
- qualification for early childhood, primary, lower secondary education and secondary education teachers to perform other educational activities;
- complementary training for nurses;
- higher education specialised studies (already extinct).

The data presented refer to the period between the 1997/1998 and 2004/2005 school years and result from the students' annual statistical survey.

Only the new entrants (1st year 1st time 1st cycle) in second degree university level (in two phases) courses were included.

METHODOLOGICAL NOTES | EDUCATION AND ICT TRAINING

Enrolled Students

Enrolled students correspond to the number of students enrolled in the courses mentioned in the previous item (2.3.).

The data presented refer to the period between the 1997/1998 and 2004/2005 school years and result from the students' annual statistical survey.

Graduates

The data concerning graduates refer to the following degrees and diplomas:

- • Graduation degree "Bacharel" (first university degree);
- • Graduation degree "Licenciado" (second university degree);
- • Higher education specialised studies diploma (already extinct).

The data presented refer to the period between the 1997/1998 and 2003/2004 school years and result from the students' annual statistical survey.

Data collection for Variables Pairs educational institution / course and Numerus Clausus Administrative data (of a census nature) collected by OCES' (Observatory of Science and Higher Education) Department of Higher Education Statistics (DSEI), based on the global volume of training supply in Information and Communication Technologies (ICT).

Methodological procedures

The scientific fields was used from International Standard Classification of Education (ISCED) 1997, as defined by the National Classification of Fields of Training (legally approved by Portaria n.º 316/2001, of 2nd April), hereafter specified in the following table.

From this categorisation, courses with a sound ICT training component were chosen based on curricular plans. It was created a new field (ICT field) which gathers several courses from the different groups that integrate the National Classification of Fields of Training.

METHODOLOGICAL NOTES | EDUCATION AND ICT TRAINING

Cite's Categories (1997)

Code	Groups	Code	Fields of Training
1	Education	14	Training of teachers/ trainers and educational sciences
2	Arts and Humanities	21 22	Arts Humanities
3	Social Sciences, Business and Law	31 32 34 38	Social and behavioural science Information and journalism Business Sciences Law
4	Sciences	42 44 46 48	Life science Physical science Mathematics and statistics Computing
5	Engineering, Manufacturing Industry and Construction	52 54 58	Engineering and engineering trades Manufacturing and processing Architecture and construction
6	Agriculture	62 64	Agriculture, forestry and fishing Veterinary sciences
7	Health and Welfare	72 76	Health Social services
8	Services	81 84 85 86	Personal service Transportation services Environmental protection services Security services

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INTRODUCTION | ICT IN HOSPITALS

The analysis of the health sector as dimension of the Information Society is justified by the importance of the sector both for social and economic matters. The closer the health care is to consumers the more effective it is – the information and communication technologies (ICT) as well as its mechanisms may and should stimulate that relation.

The analytical tool for the analysis of ICT diffusion in the health sector, namely in hospitals, and source of this chapter, is the Survey on ICT Usage in Hospitals. It was conducted in 2004 and 2006 under joint responsibility of the Portuguese National Statistical Institute (INE) and the UMIC - Knowledge Society Agency.

These are the main conclusions:

- Accessing to the Internet is possible for almost all hospitals, mainly by a connection through broadband;

- Around 17% of the hospitals with Internet access have computers connected to the web for inpatients;

- Telediagnosis and teleappointment are the main activities within the telemedicine since 2004;

- The proportion of hospitals with presence in the Internet increased from 40% to 58%, between 2004 and 2006;

- The presence in the Internet through a webpage in a health portal or in the Ministry of Health website tends to increase;

INTRODUCTION | ICT IN HOSPITALS

- The majority of hospitals without presence in the Internet stated that the website is in implementation (65% in 2006);

- 34% of the hospitals have ordered over the Internet in 2005;

- From the hospitals that have ordered over the Internet, around 32% made online payments.

V - ICT IN HOSPITALS

1. COMPUTING IN HOSPITALS

Table V.1 **Hospitals using computer**
2004, 2006, (%) Hospitals

	2004	2006
Hospitals using computer	100	99

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.2 **Hospitals using computer, by regions NUTS II**
2004, 2006, (%) Hospitals

	2004	2006
Norte	100	100
Centro	100	100
Lisboa	100	100
Alentejo	93	90
Algarve	100	100
R.A. Açores	100	100
R.A. Madeira	100	100

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

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Table V.3

Persons employed using computers by number of computers
2004, 2006, (%) Hospitals with computers

	2004	2006
Persons employed using computers by number of computers	2	2

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.4

Hospitals with remote employed persons who connect to IT systems through electronic networks
2006, (%) Hospitals with computers

	2006
Remote access to the hospital's IT systems	15

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

Table V.5

Hospitals with computers for inpatients
2004, 2006, (%) Hospitals with computers

	2006
Hospitals with computers for inpatients	25

Source: INE/UMIC - Survey on ICT usage in Hospitals and 2006.

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Table V.6

Equipments and electronic services used by the hospital
2004, 2006, (%) Hospitals with computers

	2004	2006
Equipments and electronic services		
e-mail	87	93
LAN	88	90
Medical software	x	55
WAN	37	42
Wireless LAN	17	34
Videoconference	21	22
Security devices		
Virus checking software	93	98
Firewall	66	83
Anti-spam filters	x	62
Netwoorks		
Intranet	70	77
Extranet	36	36
Virtual Private Networks	x	21

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

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Table V.7 | **Activities/working areas with IT systems**
2004, 2006, (%) Hospitals with computers

	2004	2006
Activities		
Financial and administrative management	94	92
Human resources management	84	88
Stocks management	84	87
Management of pharmaceutical stocks	81	86
Making an appointment and medical treatments	79	84
Internal transmission of files and other information	74	75
Management of integrated diagnostic areas	x	70
Management of waiting time	x	55
Internal communication	37	49
Planning and scheduling activities	30	43
Correspondence management	38	42
Management of admission	23	33
Internal transmission of medical images	x	30
Documental management/documentation centres	18	23
Medical activities		
Inpatient service	x	76
External appointment service	67	71
Surgery block	52	52
Database with clinic information of patients	39	46
Emergency service	48	44
Database with information about clinical practitioners	40	42
Electronic clinical process	42	30

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

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2. | **ACCESS TO AND USE OF INTERNET**

Table V.8 | **Hospitals with Internet connection**
2004, 2006, (%) Hospitals

	2004	2006
Hospitals with Internet connection	95	97

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.9 | **Hospitals with Internet connection, by regions NUTS II**
2004, 2006, (%) Hospitals

	2004	2006
Norte	96	97
Centro	98	98
Lisboa	95	98
Alentejo	71	90
Algarve	100	100
R.A. Açores	100	100
R.A. Madeira	100	100

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.10   **Persons employed using computers connected to the Internet, by number of computers**

2004, 2006, (%) Hospitals with Internet access

	2004	2006
Persons employed using computers connected to the Internet by number of computers	1	1

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.11   **Hospitals with computers connected to the Internet for inpatients**

2006, (%) Hospitals with Internet access

	2006
Hospitals with computers connected to the Internet for inpatients	17

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

Table V.12   **Hospitals with videoconference systems for school attendance by inpatients**

2006, (%) Hospitals with Internet access

	2006
Videoconference system	3

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

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Table V.13 | **Internet access points for inpatient's visitors and family**
2006, (%) Hospitals with Internet access

	2006
Internet access points	6

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

Table V.14 | **Main type of Internet connection**
2004, 2006, (%) Hospitals with Internet access

	2004	2006
HIN (health informatic network)	45	47
xDSL (ADSL, SDSL, etc.)	30	34
Cable	6	9
Other broadband connection	9	7
Analogue connection or ISDN	11	4

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.15 | **Hospitals with broadband Internet connection**
2004, 2006, (%) Hospitals

	2004	2006
Hospitals with broadband Internet connection	84	94

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.16 | **Hospitals with broadband Internet connection, by regions NUTS II**
2004, 2006, (%) Hospitals

	2004	2006
Norte	88	95
Centro	84	94
Lisboa	85	96
Alentejo	64	90
Algarve	63	71
R.A. Açores	100	88
R.A. Madeira	100	100

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.17 | **Internet connection speed**
2004, 2006, (%) Hospitals with Internet access

	2004	2006
< 128 kbps	10	6
>=128 kbps e <256 kbps	27	8
>=256 kbps e <512 kbps	22	20
>=512 kbps e <2 mbps	32	29
>=2 mbps	8	38

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.18   **Purposes in using Internet**
2004, 2006, (%) Hospitals with Internet access

	2004	2006
Searching information	96	98
Monitoring of supply catalogues	78	81
Accessing databases	67	77
External communication with other hospital units	63	61
Orders or purchases	x	50
Internal communication between hospital areas	45	49
Human resources training	28	38
Recruitment announcement	x	29
Changing files with other hospital units	55	27
Biomedical investigation	25	24
External communication with citizens	11	20
Internal communication by pager/PDA	x	5

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.19   **Telemedicine**
2004, 2006, (%) Hospitals with Internet access

	2004	2006
Telemedicine	27	23

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.20

Type of activities in telemedicine
2004, 2006, (%) Hospitals with Internet access

	2004	2006
Telediagnosis	22	21
Teleappointment	16	15
Electronic presciption	4	8
Telemonitoring	6	4
Electronic transmission of credentials	x	2

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

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3.   ORDERING ONLINE

Table V.21   **Hospitals ordering over the Internet**
2006, (%) Hospitals

	2006
Internet orders	34

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.22   **Number of orders over the Internet**
2006, (%) Hospitals that have ordered over the Internet

	2006
<10	26
>=10 and <19	7
>=20	66

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.23   **Products ordered over the Internet**

2006, (%) Hospitals that have ordered over the Internet

	2006
Clinical products	68
Office products	54
Software/hardware	38
Books	16

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

Table V.24   **Online applications used to order over the Internet**

2006, (%) Hospitals that have ordered over the Internet

	2006
e-mail	71
Supllier's catalogues	66
e-marketplaces	19
Auctions	…

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

Table V.25   **Hospitals paying online for Internet purchases**

2006, (%) Hospitals that have ordered over the Internet

	2006
Online payments	32

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

4. | **WEB PRESENCE**

Table V.26 | **Hospitals with website**
2004, 2006, (%) Hospitals

	2004	2006
Hospitals with website	40	58

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.27 | **Hospitals with website, by regions NUTS II**
2004, 2006, (%) Hospitals

	2004	2006
Norte	38	51
Centro	35	52
Lisboa	44	68
Alentejo	36	70
Algarve	63	86
R.A. Açores	50	63
R.A. Madeira	…	…

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.28 | **Website availability**
2004, 2006, (%) Hospitals with website

	2004	2006
Own website	85	70
Webpage in a health portal/website	12	25
Other	10	14

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.29 | **Resources used in website implementation, maintenance and actualization**
2006, (%) Hospitals with website

	2006
External entity	39
Hospital services	27
Both	34

Source: INE/UMIC - Survey on ICT usage in Hospitals 2006.

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Table V.30

Facilities of the website
2004, 2006, (%) Hospitals with website

	2004	2006
Institutional information about the hospital	94	98
Information about the supplied services	90	93
E-mail for reception of messages, requests, suggestions and complaints	80	88
Location, access and hospital parking	63	59
Availability of information about prevention	23	50
Information about clinical practitioners	42	48
Indications concerning procedures in medical emergency cases	7	30
Payment table of the supplied services	11	19
Downloading forms	x	17
Returning filled in forms	x	12
Online appointment marking	…	10
Acessibility for citizens with special needs	x	7

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.31 | **Planned facilities of the website**
2004, 2006, (%) Hospitals with website

	2004	2006
Online appointment marking	37	43
Acessibility for citizens with special needs	x	43
Payment table of the supplied services	25	36
Downloading forms	x	34
Returning filled in forms	x	32
Indications concerning procedures in medical emergency cases	33	26
Location, access and hospital parking	17	26
Information about clinical practitioners	27	24
Availability of information about prevention	33	23
Online appointments	11	21
Online medical tracing	12	17
e-mail for reception of messages, requests, suggestions and complaints	16	10
Information about the supplied services	9	6
Institutional information about the hospital	5	…

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

Table V.32

Reasons for not having a website		
2004, 2006, (%) Hospitals without website		
	2004	**2006**
On implementation	66	65
Lack of skills	12	23
Lack of financial resources	18	16
No need	17	13

Source: INE/UMIC - Survey on ICT usage in Hospitals 2004 and 2006.

METHODOLOGICAL NOTES | ICT IN HOSPITALS

The **Survey on ICT Usage in Hospitals is in the framework of the development of the Information Society** statistics and was conducted twice: the first time in 2004 and the second in 2006.

Scope
Hospitals in activity within the Official (Public and Non-Public Hospitals) and Particular Sectors in Portugal.

Frame population
For both editions of this survey a census was conducted.

    2006:   198 hospitals
    2004:   203 hospitals

Reference period
30th June of the reference year.

Survey method
Self-administered mail survey.

Data collection

    2006:   June to October 2006
    2004:   August to October 2004

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

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VI. DIGITAL ECONOMY

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VI. DIGITAL ECONOMY

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3.3.   Web Presence

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INTRODUCTION | DIGITAL ECONOMY

Enterprises have a crucial role in Information Society development. On the one hand, the access and usage of information and communication technologies works as an important catalyser of this area. On the other hand, the introduction of ICT in enterprises may correspond to significant profits, in what concerns to its increasing competitiveness in economic context.

This chapter presents statistic information about enterprises, enterprises of financial sector and micro enterprises.

Enterprises
The first subchapter concerns the results, from 2003 to 2005, based in the Survey on Information and Communication Technologies Usage in Enterprises, developed by Portuguese National Statistical Institute (INE) in cooperation with the UMIC - Knowledge Society Agency.

The main findings are:

- 81% of enterprises use Internet ;

- Broadband is the most usual type of internet connection in enterprises (63%), which represents an Average Tax of Annual Growth of 43% comparing with 2003;

- Approximately 4 in each 10 enterprises have website presence;

- 26% of enterprises use Internet or other electronic network for ordering and/or receiving orders of products and/or services.

Enterprises – Financial Sector
The second subchapter concerns the results, from 2003 to 2005, based in the Survey on Information and Communication Technologies Usage in Enterprises of NACE Section J, developed by Portuguese National Statistical Institute (INE) in cooperation with the UMIC - Knowledge Society Agency.

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The main findings are;

- All enterprises of financial sector use Internet;

- Broadband is the most usual type of Internet connection (89%);

- Approximately 9 in each 10 enterprises of financial sector use Internet for interaction with public bodies;

- Almost half of enterprises of financial sector use the Internet for interaction with costumers (49%).

Micro Enterprises
The last subchapter concerns the results, from 2003 to 2005, based in the Survey on Information and Communication Technologies Usage in Enterprises, developed by Portuguese National Statistical Institute (INE) in cooperation with the UMIC - Knowledge Society Agency.

The main findings are:

- Approximately 4 in each 10 micro enterprises use Internet (49%);

- Broadband connection type is used by 26% of micro enterprises;

- Internet for interaction with public bodies is used by 21% of micro enterprises;

- 8% of micro enterprises use Internet or other electronic network for ordering and/or receiving orders of products and/or services.

VI. DIGITAL ECONOMY

1. | **ENTERPRISES**

1.1. | **Access to and Use of ICTs**

Table VI.1 | **Computers usage in the enterprises**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Computers usage in the enterprises	82	92	91

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.2 | **Computers usage in the enterprises, by economic activity**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Manufacturing	77	90	92
Construction	77	80	75
Retail and wholesale commerce	84	99	99
Hotels and restaurants	100	100	94
Transports, storage and communications	90	97	100
Business property activities, rents and services to enterprises	91	97	95
Other colective, social and personal services activities	89	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.3

Computers usage the enterprises, by size class

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	80	90	89
Medium enterprises (50-249 employees)	92	98	99
Large entreprises (250 or more employees)	100	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.4 **Computer usage in the enterprises in European Union**

2003-2005, (%) Enterprises with 10 or more employees with economic activity

	2003	2004	2005
EU25	x	**95**	**96**
EU15	**95**	**96**	**96**
Austria	96	96	97
Belgium	97	98	97
Cyprus	x	93	94
Czech Republic	96	96	96
Germany	98	97	97
Denmark	99	98	98
Estonia	x	93	92
Greece	95	95	98
Spain	95	97	97
Finland	99	98	99
France	97	x	x
Hungary	x	91	88
Ireland	95	96	97
Italy	96	97	96
Lithuania	x	91	93
Luxembourg	97	97	97
Latvia	x	87	86
Malta	97	x	93
Netherlands	95	95	95
Poland	x	92	93
Portugal	**82**	**92**	**91**
Sweden	98	97	96
Slovenia	x	95	98
Slovakia	x	77	97
United Kingdom	89	93	94

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

Table VI.5   **Technologies used in the enterprises**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
e-mail	65	72	82
Intranet	30	35	38
LAN	22	28	34
Extranet	16	21	26
Electronic network other than Internet (EDI, self exclusive network)	11	13	17
WAN	6	8	10
Wireless LAN	3	5	10

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.6   **Enterprises with open source software**

2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2005
Operative systems (e.g. Linux, FreeBSD)	11
Other type of software (e.g. Python, Apache, Mozilla)	11

Source: INE/UMIC - Survey on ICT usage in Enterprises 2005.

Table VI.7

Enterprise with dedicated IT systems for managing orders

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises with IT systems for managing orders	22	35	38

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.8

Systems in the enterprises with dedicated IT systems for managing orders

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal with dedicated IT systems for managing orders

	2003	2004	2005
Invoicing and payment systems	91	91	92
Customers' business systems	59	63	68
Internal system for re-ordering replacement supplies	56	57	67
Suppliers' business systems	58	63	62
System for managing production, logistics or service operations	54	44	51

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.9   **Enterprise with employed persons who regularly work part of their time away from its premises and who access the enterprise's IT system from where they are working**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprise with employed persons who regularly work part of their time away from its premises and who access the enterprise's IT system from where they are working	10	13	15

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

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Table VI.10   **Enterprise with employed persons who regularly work part of their time away from its premises and who access the enterprise's IT system from where they are working in European Union**

2003-2005, (%) Enterprises with 10 or more employees with economic activity

	2003	2004	2005
EU25	x	**16**	**19**
EU15	**16**	**18**	**20**
Austria	16	18	20
Belgium	32	29	33
Cyprus	x	16	18
Czech Republic	4	4	6
Germany	20	22	24
Denmark	38	45	50
Estonia	x	18	20
Greece	20	14	17
Spain	7	9	8
Finland	42	31	33
Hungary	x	5	20
Ireland	24	24	27
Italy	7	9	9
Lithuania	x	10	14
Luxembourg	24	19	17
Latvia	x	7	8
Malta	11	x	23
Netherlands	26	25	29
Poland	x	4	4
Portugal	**10**	**13**	**15**
Sweden	36	39	40
Slovenia	x	16	22
Slovakia	x	12	35
United Kingdom	x	x	26

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

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Table VI.11   **Persons employed using computers**

2003-2005, (%) Persons employed in enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Persons employed using computers	32	33	33

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.12   **Persons employed using computers, by economic activity**

2003-2005, (%) Persons employed in enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Manufacturing	22	24	24
Construction	18	18	19
Retail and wholesale commerce	48	54	52
Hotels and restaurants	38	36	32
Transports, storage and communications	43	37	46
Business property activities, rents and services to enterprises	46	36	34
Other colective, social and personal services activities	79	83	75

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.13 | **Persons employed using computers, by size class**

2003-2005, (%) Persons employed in enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	27	30	31
Medium enterprises (50-249 employees)	32	32	31
Large entreprises (250 or more employees)	39	36	36

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

1.2. | **Access to and Use of Internet**

Table VI.14 | **Enterprises with Internet connection**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises with Internet connection	70	77	81

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.15   **Enterprises with Internet connection, by economic activity**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Manufacturing	64	77	77
Construction	65	62	64
Retail and wholesale commerce	73	79	93
Hotels and restaurants	88	95	91
Transports, storage and communications	76	89	93
Business property activities, rents and services to enterprises	85	94	94
Other colective, social and personal services activities	89	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.16   **Enterprises with Internet connection, by size class**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	66	73	78
Medium enterprises (50-249 employees)	87	95	98
Large entreprises (250 or more employees)	98	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI. 17 | **Enterprises with Internet connection in European Union**

2003-2005, (%) Enterprises with 10 or more employees with economic activity

	2003	2004	2005
EU25	x	89	91
EU15	86	90	92
Austria	89	94	95
Belgium	91	96	95
Cyprus	x	82	85
Czech Republic	88	90	92
Germany	95	94	94
Denmark	97	97	97
Estonia	x	90	90
Greece	88	87	92
Spain	82	87	90
Finland	97	97	98
France	83	x	x
Hungary	x	78	78
Ireland	86	92	92
Italy	83	87	92
Lithuania	x	81	86
Luxembourg	85	90	92
Latvia	x	74	75
Malta	90	x	90
Netherlands	86	88	91
Poland	x	85	87
Portugal	70	77	81
Sweden	95	96	96
Slovenia	x	93	96
Slovakia	x	71	92
United Kingdom	80	87	90

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

Table VI.18   **Type of external connection to the Internet**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
xDSL (ADSL, SDSL, etc.)	33	51	63
Dial-up	54	35	31
ISDN	11	27	24
Dedicated access	x	x	12
Cable	8	7	9
Wireless connection	5	3	5
Other broadband connection	7	8	2

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.19   **Enterprises with broadband Internet connection**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises with broadband Internet connection	31	49	63

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.20   **Enterprises with broadband Internet connection, by economic activity**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Manufacturing	22	38	54
Construction	26	37	41
Retail and wholesale commerce	34	60	81
Hotels and restaurants	36	58	77
Transports, storage and communications	45	58	83
Business property activities, rents and services to enterprises	60	76	80
Other colective, social and personal services activities	57	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.21   **Enterprises with broadband Internet connection, by size class**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	27	43	59
Medium enterprises (50-249 employees)	50	72	83
Large entreprises (250 or more employees)	80	90	96

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI. 22 |**Enterprises with broadband Internet connection in European Union**

2003-2005, (%) Enterprises with more than 10 employees with economic activity

	2003	2004	2005
EU25	x	**52**	**63**
EU15	**40**	**55**	**65**
Austria	48	55	61
Belgium	49	70	78
Cyprus	x	35	40
Czech Republic	20	38	52
Germany	42	54	62
Denmark	69	80	82
Estonia	x	68	67
Greece	13	21	44
Spain	51	72	76
Finland	65	71	81
France	49	x	x
Hungary	x	x	48
Ireland	19	32	48
Italy	31	x	57
Lithuania	x	50	57
Luxembourg	39	48	64
Latvia	x	45	48
Malta	62	x	78
Netherlands	37	54	71
Poland	x	28	43
Portugal	**31**	**49**	**63**
Sweden	62	x	83
Slovenia	x	62	74
Slovakia	x	25	48
United Kingdom	29	44	65

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

Table VI.23

Enterprises purposes in using Internet

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
For obtaining information	63	74	75
Banking and financial services	53	56	61
Market monitoring (prices)	23	33	36
Receiving digital products	14	17	28
Obtaining after-sales service	13	14	16
Training and education	16	18	15

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.24

Enterprises which use the Internet for interaction with public bodies

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises which use the Internet for interaction with public bodies	50	57	58

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.25 | **Enterprises purposes in using Internet for interaction with public bodies**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal, using Internet for interaction with public bodies

	2003	2004	2005
For obtaining forms, e.g. tax forms	76	82	92
For returning filled in forms	85	88	91
For obtaining information	91	89	90
For full electronic case handling, e.g. return filled tax form and include electronic payment	71	71	76
For consulting public tender online	x	48	50
For complaints/suggestions	x	22	20
For submit online proposals offering products/services in public electronic purchase (e-procurement)	x	x	11

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.26 | **Persons employed using Internet connection**

2003-2005, (%) Persons employed in enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Persons employed using Internet connection	18	19	21

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.27   **Persons employed using Internet connection, by economic activity**

2003-2005, (%) Persons employed in enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Manufacturing	11	13	14
Construction	13	13	14
Retail and wholesale commerce	20	26	29
Hotels and restaurants	24	18	21
Transports, storage and communications	27	25	36
Business property activities, rents and services to enterprises	32	29	29
Other colective, social and personal services activities	69	73	60

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.28   **Persons employed using Internet connection, by size class**

2003-2005, (%) Persons employed in enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	15	19	22
Medium enterprises (50-249 employees)	18	20	21
Large entreprises (250 or more employees)	21	18	21

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.29   **Enterprises with defined rules of Internet and e-mail usage**

2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2005
Enterprises with defined rules of Internet and e-mail usage	37

Source: INE/UMIC - Survey on ICT usage in Enterprises 2005.

1.3.   **Web Presence**

Table VI.30   **Enterprises with web presence**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises with web presence	25	29	37

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.31 |**Enterprises with web presence, by economic activity**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Manufacturing	19	32	40
Construction	20	15	15
Retail and wholesale commerce	26	27	38
Hotels and restaurants	74	59	75
Transports, storage and communications	29	35	46
Business property activities, rents and services to enterprises	49	47	60
Other colective, social and personal services activities	50	90	71

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.32 |**Enterprises with web presence, by size class**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	22	25	33
Medium enterprises (50-249 employees)	42	50	56
Large entreprises (250 or more employees)	67	75	75

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI. 33 | **Enterprises with web presence in European Union**

2003-2005, (%) Enterprises with 10 or more employees with economic activity

	2003	2004	2005
EU25	x	58	61
EU15	54	60	63
Austria	66	71	70
Belgium	62	68	65
Cyprus	x	45	44
Czech Republic	56	61	67
Germany	71	72	72
Denmark	75	81	82
Estonia	x	52	53
Greece	52	49	56
Spain	33	40	43
Finland	70	75	76
France	26	x	x
Hungary	x	35	40
Ireland	59	59	60
Italy	47	46	54
Lithuania	x	39	41
Luxembourg	58	59	59
Latvia	x	33	29
Malta	68	x	54
Netherlands	61	66	72
Poland	x	44	49
Portugal	25	29	37
Sweden	80	82	85
Slovenia	x	58	59
Slovakia	x	47	61
United Kingdom	63	66	74

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

Table VI.34   **Functions available in the website**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal, with web presence

	2003	2004	2005
Marketing the enterprise's products	91	90	84
Facilitating access to product catalogues and price lists	47	45	38
Customised page for repeat clients	22	18	22
Providing after sales support	28	20	18
Delivering digital products	6	5	14
Providing mobile Internet services	6	7	6

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

1.4.   **Security**

Table VI.35   **Security facilities used in the enterprises**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Virus checking or protection software	54	69	76
Firewalls	19	30	50
Subscription of a security service (e.g. antiviruses)	29	26	38
Anti-spam filters	x	x	31
Secure survers	35	29	18
Off-site data backup	15	21	17
Other authentication mechanism (e.g. PIN code)	21	13	17
Data encryption for confidentiality	7	8	7
Electronic digital signature as customer's authentication mechanism	8	5	9

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.36 | **Enterprises which updated some security facilities, in the last three months (e.g. virus protection software)**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises which updated some security facilities	48	61	65

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.37 | **Enterprises which found security problems**

2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises which found security problems	22	27	12

Source: INE/UMIC - Survey on ICT usage in Enterprises 2005.

1.5. | **Electronic Commerce: use of communication network in business processes**

Table VI.38 | **Enterprises using Internet or other electronic network for ordering and/or receiving orders of products and/or services**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises using Internet or other electronic network for ordering and/or receiving orders of products and/or services	14	21	26

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.39 | **Enterprises using Internet or other electronic network for ordering and/or receiving orders of products and/or services,**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	12	18	25
Medium enterprises (50-249 employees)	23	35	31
Large entreprises (250 or more employees)	35	47	48

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.40 | **Enterprises using Internet or other electronic network for ordering products and/or services**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises using Internet or other electronic network for ordering products and/or services	12	18	22

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.41 | **Enterprises using Internet or other electronic network for ordering products and/or services, by size class**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	10	15	22
Medium enterprises (50-249 employees)	20	30	25
Large entreprises (250 or more employees)	27	38	39

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

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Table VI.42 | **Enterprises which have ordered online over the last calendar year (at least 1%)**
(International Benchmark)

2003-2005, (%) Enterprises with 10 or more employees with economic activity

	2003	2004	2005
Austria	21	22	22
Belgium	22	9	18
Cyprus	x	14	15
Czech Republic	22	19	21
Germany	11	47	41
Denmark	22	28	32
Estonia	x	32	13
Greece	7	14	14
Spain	3	3	4
Finland	16	19	19
France	x	x	x
Hungary	x	14	5
Ireland	24	33	41
Italy	4	6	4
Lithuania	x	13	7
Luxembourg	17	34	22
Latvia	x	1	1
Malta	x	x	33
Netherlands	20	22	20
Poland	x	9	9
Portugal	**9**	**8**	**12**
Sweden	23	38	41
Slovenia	x	17	15
Slovakia	x	3	7
United Kingdom	27	50	51
Canada	x	56	x
Korea (Republic of South)	x	15	x
EU25	**x**	**26**	**24**
EU15	**13**	**28**	**26**

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

Table VI.43 | **Enterprises using Internet or other electronic network for ordering products and/or services, by type of technology**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises using Internet for ordering products and/or services	10	16	19
Enterprises using other electronic network for ordering products and/or services	1	3	4

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.44 | **Enterprises which paid online for ordering products and/or services**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises which paid online for ordering products and/or services	5	8	10

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.45 | **Enterprises using Internet or other electronic network for receiving orders of products and/or services**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises using Internet or other electronic network for receiving orders of products and/or services	3	7	10

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.46   **Enterprises using Internet or other electronic network for receiving orders of products and/or services, by size class**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Small enterprises (10-49 employees)	3	6	8
Medium enterprises (50-249 employees)	5	11	16
Large entreprises (250 or more employees)	18	25	27

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

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Table VI.47 | **Enterprises which have received orders online over the last calendar year (at least 1%) (International Benchmark)**

2003-2005, (%) Enterprises with 10 or more employees with economic activity

	2003	2004	2005
Austria	12	12	10
Belgium	20	18	16
Cyprus	x	5	4
Czech Republic	18	11	13
Germany	9	18	16
Denmark	18	25	32
Estonia	x	8	8
Greece	7	6	7
Spain	2	2	3
Finland	18	17	17
France	x	x	x
Hungary	x	6	4
Ireland	14	19	21
Italy	3	7	3
Lithuania	x	5	6
Luxembourg	13	11	10
Latvia	x	1	1
Malta	x	x	16
Netherlands	17	17	14
Poland	x	4	5
Portugal	**3**	**6**	**9**
Sweden	13	20	23
Slovenia	x	15	12
Slovakia	x	6	7
United Kingdom	20	27	25
Canada	x	11	x
Korea (Republic of South)	x	10	x
EU25	**x**	**13**	**12**
EU15	**10**	**15**	**13**

Source: EUROSTAT, Survey on ICT Usage in Enterprises 2003 - 2005.

Table VI.48 | **Enterprises using Internet or other electronic network for receiving orders of products and/or services, by type of technology**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises using Internet for receiving orders of products and/or services	2	6	6
Enterprises using other electronic network for receiving orders of products and/or services	1	2	4

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

1.6. | **Human Resource in ICT**

Table VI.49 | **Enterprises with ICT expertise employees**

2003-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2003	2004	2005
Enterprises with ICT expertise employees	7	9	10

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.50 | **Main difficulty in recruiting ICT expertise employees**

2004-2005, (%) Enterprises with 10 or more employees with economic activity in Portugal, with difficulty in recruiting ICT expertise employees

	2004	2005
ICT expertise competences don´t fit in the enterprise needs	30	38
High costs with ICT expertise employees	34	36
Difficulty in finding available ICT expertise employees	21	24
Other	15	2

Source: INE/UMIC - Survey on ICT usage in Enterprises 2004 - 2005.

Table VI.51 | **Enterprise promoting training courses related with computer areas for employees**

2005, (%) Enterprises with 10 or more employees with economic activity in Portugal

	2005
Enterprise promoting training courses related with computer areas for employees	28

Source: INE/UMIC - Survey on ICT usage in Enterprises 2005.

2.   ENTERPRISES - FINANCIAL SECTOR

2.1.   Access to and Use of ICTs

Table VI.52   **Computers usage in the enterprises**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Computers usage in the enterprises	99	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.53   **Technologies used in the enterprises**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
e-mail	98	100	100
Intranet	85	86	71
LAN	70	73	67
Extranet	54	69	50
Electronic network other than Internet (EDI, self exclusive network)	24	51	47
WAN	36	55	41
Wireless LAN	16	12	15

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.54

Enterprise with employed persons who regularly work part of their time away from its

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Enterprise with employed persons who regularly work part of their time away from its premises and who access the enterprise's IT system from where they are working	29	39	21

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.55

Persons employed using computers

2003-2005, (%) Persons employed in enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Persons employed using computers	94	98	97

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.56

Persons employed using computers, by size class

2003-2005, (%) Persons employed in enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Small enterprises (10-49 employees)	91	93	86
Medium enterprises (50-249 employees)	95	94	95
Large entreprises (250 or more employees)	95	99	99

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.57   **Enterprise promoting training courses related with computer areas for employees**

2005, (%) Enterprises of NACE Section J with 10 or more employees

	2005
Enterprise promoting training courses related with computer/informatic areas for employees	53

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2005.

2.2.   **Access to and Use of Internet**

Table VI.58   **Enterprises with Internet connection**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Enterprise with Internet connection	99	100	100

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.59 | **Type of external connection to the Internet**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Dedicated access	x	x	56
xDSL (ADSL, SDSL, etc.)	24	28	48
Dial-up	43	10	18
ISDN	24	29	16
Other broadband connection	65	55	14
Cable	6	10	8
Wireless connection	3	12	8

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.60 | **Enterprises with broadband Internet connection**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Enterprises with broadband Internet connection	85	83	89

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.61 | **Enterprises which use the Internet for interaction with public bodies**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Enterprises which use the Internet for interaction with public bodies	96	94	86

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.62 | **Enterprises purposes in using the Internet for interaction with public bodies**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees, which use Internet for interaction with public bodies

	2003	2004	2005
For obtaining information	98	97	98
For returning filled in forms	88	94	96
For obtaining forms, e.g. tax forms	92	98	96
For full electronic case handling, e.g. return filled tax form and include electronic payment	82	86	86
For consulting public tender online	x	77	74
For complaints/suggestions	x	33	26
For submit online proposals offering products/services in public electronic purchase (e-procurement)	x	x	11

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

| 2.3. | Web Presence |

Table VI.63 | **Enterprises with web presence**
2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Enterprises with web presence	70	84	50

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.64 | **Enterprise which use the website for marketing its products**
2003-2005, (%) Enterprises of NACE Section J with 10 or more employees, with web presence

	2003	2004	2005
Enterprises using website for marketing	95	92	64

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

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2.4.   Security

Table VI.65   **Enterprises with the following security measures**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Virus checking or protection software	90	100	88
Firewalls	73	90	81
Off-site data backup	63	63	69
Anti-spam filters	x	x	69
Secure survers	70	79	65
Subscription of a security service (e.g. antiviruses)	85	74	64

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

Table VI.66   **Enterprises which updated some security facilities, in the last three months**

2003-2005, (%) Enterprises of NACE Section J with 10 or more employees

	2003	2004	2005
Enterprises which updated some security facilities	92	95	88

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2003 - 2005.

2.5.	Electronic Commerce: use of communication network in business processes

Table VI.67 — **Enterprises which use the Internet for interaction with costumers**

2005, (%) Enterprises of NACE Section J with 10 or more employees

	2005
Enterprises which use the Internet for interaction with costumers	49

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2005.

Table VI.68 — **Enterprises with IT systems use for interaction with costumers by Internet, automatically linked**

2005, (%) Enterprises of NACE Section J, which use Internet for interaction with costumers

	2005
To IT systems of the enterprise or enterprise`s group	93
To IT systems of costumers, outside the enterprise group	23

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2005.

Table VI.69 — **Enterprises which use computer network, other than Internet, for interaction with costumers**

2005, (%) Enterprises of NACE Section J with 10 or more employees

	2005
Enterprises which use computer network,other than Internet, for interaction with costumers	7

Source: INE/UMIC - Survey on ICT usage in Enterprises of NACE Section J, 2005.

3.   MICRO ENTERPRISES

3.1.   Access to and Use of ICTs

Table VI.70   **Computers usage in the enterprises**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Computers usage in the enterprises	45	60	53

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.71   **Technologies used in the enterprises**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
e-mail	28	39	37
Intranet	11	22	15
LAN	6	5	8
Extranet	5	5	7
Electronic network other than Internet (EDI, self exclusive network)	3	3	4
Wireless LAN	1	1	3

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.72   **Enterprises with dedicated IT systems for managing orders**

2003-2005, (%) Micro enterprises with economic activity in Portugal (except NACE Section J)

	2003	2004	2005
Enterprises with IT systems	7	12	13

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.73   **Systems in enterprises with dedicated IT systems for managing orders, link automatically**

2003-2005, (%) Micro enterprises with economic activity in Portugal (except NACE Section J) with IT system for managing orders

	2003	2004	2005
Invoicing and payment systems	82	91	88
Suppliers' business systems	43	56	54
Customers' business systems	53	55	53
Internal system for re-ordering replacement supplies	49	44	46
System for managing production, logistics or service operations	37	36	27

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.74   **Persons employed using computers**

2003-2005, (%) Persons employed in micro enterprises with economic activity in Portugal

	2003	2004	2005
Persons employed using computers	30	37	36

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

3.2.   **Access to and Use of Internet**

Table VI.75   **Enterprises with Internet connection**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Enterprise with Internet connection	31	45	39

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.76 | **Type of external connection to the Internet**

2003-2005, (%) Micro enterprises with economic activity in Portugal, with Internet connection

	2003	2004	2005
xDSL (ADSL, SDSL, etc.)	29	53	51
Dial-up	59	32	38
ISDN	12	18	20
Cable	11	8	14

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.77 | **Enterprises with broadband Internet connection**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Enterprises with broadband Internet connection	13	28	26

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.78   **Enterprises purposes in using Internet**

2003-2005, (%) Micro enterprises with economic activity in Portugal (except NACE Section J)

	2003	2004	2005
For obtaining information	28	35	37
Banking and financial services	17	20	23
Interaction with public bodies	18	19	21
Receiving digital products	9	10	13
Market monitoring (prices)	7	5	10
Training and education	7	7	5
Obtaining after-sales service	4	3	5

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.79   **Enterprises which use the Internet for interaction with public bodies**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Enterprises which use the Internet for interaction with public bodies	18	17	21

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.80   **Enterprises purposes in using the Internet for interaction with public bodies**

2003-2005, (%) Micro enterprises with economic activity in Portugal, which use Internet for interaction with public bodies

	2003	2004	2005
For obtaining information	89	86	87
For returning filled in forms	76	78	81
For obtaining forms, e.g. tax forms	71	73	80
For full electronic case handling, e.g. return filled tax form and include electronic payment	56	63	64
For consulting public tender online	x	41	43
For complaints/suggestions	x	14	20
For submit online proposals offering products/services in public electronic purchase (e-procurement)	x	x	10

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.81   **Persons employed using Internet connection**

2003-2005, (%) Persons employed in micro enterprises with economic activity in Portugal

	2003	2004	2005
Persons employed using Internet connection	19	25	24

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.82 | **Enterprises with defined rules of Internet and e-mail usage**
2005, (%) Micro enterprises with economic activity in Portugal

	2005
Enterprises with defined rules of Internet and e-mail usage	11

Source: INE/UMIC - Survey on ICT usage in Enterprises 2005.

3.3. | **Web Presence**

Table VI.83 | **Enterprises with web presence**
2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Enterprises with web presence	7	6	9

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

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3.4 | **Security**

Table VI.84 | **Security facilities used in the enterprises**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Virus checking or protection software	22	40	33
Firewalls	7	20	19
Subscription of a security service (e.g.antiviruses)	12	7	12
Anti-spam filters	x	x	12
Off-site data backup	6	5	8
Other authentication mechanism (e.g. PIN code)	8	2	6
Secure survers	13	18	5

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.85 | **Enterprises which updated some security facilities, in the last three months (e.g. virus protection software)**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Enterprises which updated some security measures	18	32	27

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.86 | **Enterprises which found security problems**

2003-2005, (%) Micro enterprises with economic activity in Portugal

	2003	2004	2005
Enterprises which found security problems	8	9	5

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

3.5 | **Electronic Commerce: use of communication network in business processes**

Table VI.87 | **Enterprises using Internet or other electronic network for ordering and/or receiving orders of products and/or services**

2003-2005, (%) Micro enterprises with economic activity in Portugal (except NACE Section J)

	2003	2004	2005
Enterprises using Internet or other electronic network for ordering and/or receiving orders of products and/or services	5	5	8

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

Table VI.88 | **Enterprises using Internet or other electronic network for ordering products and/or services**

2003-2005, (%) Micro enterprises with economic activity in Portugal (except NACE Section J)

	2003	2004	2005
Enterprises using Internet or other electronic network for ordering products and/or services	4	4	7

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

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3.6   **Human Resource in ICT**

Table VI.89   **Enterprise promoting training courses related with computer areas for employees**
2005, (%) Micro enterprises with economic activity in Portugal

	2005
Enterprise promoting training courses related with computer/informatic areas for employees	6

Source: INE/UMIC - Survey on ICT usage in Enterprises 2005.

Table VI. 90   **Enterprises with self resource for the resolution of computer, communication and telecommunication problems**
2003-2005, (%) Micro enterprises with economic activity in Portugal (except NACE Section J)

	2003	2004	2005
Outsoursing services	36	42	36
Internal resolution, with the existing employees	13	15	15
Services developed by expert enterprises inside of the business group	3	4	4

Source: INE/UMIC - Survey on ICT usage in Enterprises 2003 - 2005.

METHODOLOGICAL NOTES | DIGITAL ECONOMY

1. ENTERPRISES

The **Survey on ICT Usage in Enterprises is in the framework of the development of Information Society** statistics, is carried out in an annual basis and follows the Eurostat's methodological guidelines.

Scope
Enterprises in Portugal with 10 or more persons employed.

Scope of economic activity

NACE Sections:

D	Manufacturing
F	Construction
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
H	Hotels and restaurants (only groups 551 and 552)
I	Transport, storage and communication
K	Real estate, renting and business activities
O	Other community, social and personal service activities (only groups 921 and 922)

Sample

2005:	2 075 enterprises
2004:	2 809 enterprises
2003:	3 107 enterprises

METHODOLOGICAL NOTES | DIGITAL ECONOMY

Reference period:

2004 and 2005:	January of reference year
2003:	Inquiry moment

Survey Method

2004 and 2005:	Self-administered mail and/or online survey
2003:	Self-administered mail survey

Data collection

2005:	May to September 2005
2004:	June to September 2004
2003:	July to October 2003

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total it's different from 100%.

METHODOLOGICAL NOTES | DIGITAL ECONOMY

2.   ENTERPRISES– FINANCIAL SECTOR

The **Survey on ICT Usage in Financial Enterprises is in the framework of the development of Information Society statistics**, is carried out in an annual basis and follows the Eurostat's methodological guidelines.

Scope
Enterprises of financial sector (NACE Section J) in Portugal with 10 or more persons employed.

Scope of economic activity
NACE Section J – Financial activities

Sample

2005:	142 enterprises
2004:	142 enterprises
2003:	127 enterprises

Reference period

2004 and 2005:	January of reference year
2003:	Inquiry moment

Survey Method

2004 and 2005:	Self-administered mail and/or online survey
2003:	Self-administered mail survey

METHODOLOGICAL NOTES | DIGITAL ECONOMY

Data collection

2005:   May to September 2005
2004:   June to September 2004
2003:   July to October 2003

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

METHODOLOGICAL NOTES | DIGITAL ECONOMY

3.   MICRO ENTERPRISES

The **Survey on ICT Usage in Enterprises is in the framework of the development of Information Society** statistics, is carried out in an annual basis and follows the Eurostat's methodological guidelines.

Scope
Enterprises in Portugal with less than 10 persons employed.

Scope of economic activity

NACE Sections:

D	Manufacturing
F	Construction
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
H	Hotels and restaurants (only groups 551 and 552)
I	Transport, storage and communication
J	Financial intermediation
K	Real estate, renting and business activities
O	Other community, social and personal service activities (only groups 921 and 922)

Sample

2005:	2 145 enterprises
2004:	1 782 enterprises
2003:	1 468 enterprises

.

METHODOLOGICAL NOTES | DIGITAL ECONOMY

Reference period

2004 and 2005:	January of reference year
2003:	Inquiry moment

Survey Method

2004 and 2005:	Self-administered mail and/or online survey
2003:	Self-administered mail survey

Data collection

2005:	May to September 2005
2004:	June to September 2004
2003:	July to October 2003

Note
In some tables, not considering multi responses tables, due to unit percentages rounding, total may differ from 100%.

TECHNICAL NOTE

Coordination

- **UMIC - Knowledge Society Agency**
- **National Statistical Institute (INE)**

Working Team

- **National Communications Authority (ANACOM)**

  Entity responsible for the development of the content presented in chapter I - Telecommunications.

- **National Statistical Institute (INE)**

  Entity responsible for the development of the content presented in chapters II - People and ICT and V - ICT in Hospitals.

- **UMIC - Knowledge Society Agency**

  Entity responsible for the development of the content presented in chapters III - Electronic Government and VI - Digital Economy.

TECHNICAL NOTE

- **Bureau for Information and Evaluation of the Education System (GIASE)**

  Entity responsible for the development of the content presented in subchapter 1 - ICT in Schools, part of the chapter IV - Education and ICT Training.

- **Observatory for Science and Higher Education (OCES)**

  Entity responsible for the development of the content presented in subchapter 2 - ICT Training in Higher Education, part of the chapter IV - Education and ICT Training.

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ACRONYMS, ABBREVIATIONS AND CONVENTIONAL SIGNS

- **OECD**   Organisation for Economic Co-operation and Development

- **EU15**   European Union of 15

- **EU25**   European Union of 25

- **NACE**   Classification of Economic Activities

- **NTUS**   Nomenclature of Territorial Units for Statistics

- **§**   Extremely unreliable value

- **…**   Confidential data

- **o**   Less than half of the unit used (<0,5)

- **x**   Not available

- **-**   Nil

- **%**   Percentage

- **Dk**/**Da**   Doesn't know/Doesn't answer

GTAESI | Information Society Statistics Monitoring Working Group

By deliberation of the High Council of Statistics (nº 174), in plenary session on 8th July of 1999, was approved the implementation of an Official Statistics for the Information Society area. In the context of this deliberation was also decided to create the Information Society Statistics Monitoring Working Group.

The mandate of this group was defined according to the following terms:

a)   The coordination, integration and methodological harmonization of statistical information collected by the different organizations, in the scope of Information Society, and eventually the presentation of proposals for new survey inquiries creation;

b)   The conceptual and methodological reflection on the production of indicators for the Information Society;

c)   The presentation of proposals for statistical indicators production which allow to express the levels of economic-social impact and of the Information Society penetration development in the Portuguese society; being, in order to achieve this purpose, necessary to revise and/or incorporate methodologies that stress the country specificities;

d)   The articulation with several representations of Portugal in international organizations, namely, OECD and EUROSTAT.

GTAESI | Information Society Statistics Monitoring Working Group

The current composition of the working group is the following:

- **UMIC - Knowledge Society Agency**
  Public agency operating within the Portuguese Ministry of Science, Technology and Higher Education with the mission of planning, coordination and projects development in the areas of the Information Society, including those of electronic government.

    More information at http://www.umic.pt/

- **National Statistical Institute (INE)**
  Public institution responsible for the production of national statistics.

    More information at http://www.ine.pt/

- **DGEEP -General Directorate of Study and Prevision**
  Public office integrated in State's direct administration, designed for studies, statistics, prospective, planning, scientific and technical information production and coordination.

    More information at http://www.dgeep.mtss.gov.pt

- **Institute of Informatics (II)**
  Public institution tutored by the Portuguese Ministry of Finance and Public Administration with the role to promote, develop, implement and use IT systems.

    More information at http://www.inst-informatica.pt/

GTAESI | Information Society Statistics Monitoring Working Group

- **Observatory for Science and Higher Education (OCES)**
  Public institution, tutored by the Portuguese Ministry of Science, Technology and Higher Education which aims at the collection and dissemination of information concerning the Portuguese science & technology (S&T) and higher education systems.

  More information at http://www.oces.mctes.pt/

- **National Communications Authority (ANACOM)**
  Regulatory authority for the electronic communications and postal services in Portugal.

  More information at http://www.anacom.pt

- **Bureau for Information and Evaluation of the Education System (GIASE)**
  Public institution operating within the Portuguese Ministry of Education, which aims at the production and dissemination of statistical information concerning the national educational system.

  More information at http://www.giase.min-edu.pt/

- **Regional Statistical Office of Azores (SREA)**
  Public institution, responsible for the production of official statistics in the Autonomous Region of Azores, operating as a delegation of the National Statistical Institute in what concerns statistics of national scope.

  More information at http://srea.ine.pt/

GTAESI | Information Society Statistics Monitoring Working Group

- **Regional Directorate of Statistics of Madeira (DREM)**
  Public institution with the mission of producing e disseminating statistical information of regional relevance as well as participating in national projects through the production of statistics of regional scope.

  More information at http://estatistica.gov-madeira.pt/

Observers:

- **Cabinet of the National Coordinator for the Lisbon Strategy and the Technological Plan (GCNELPT)**
  Cabinet with the specific mission of coordinating and monitoring the implementation of PNACE 2005-2008 and the Technological Plan, administrated in direct consultation with the respective Prime Minister.

  More information at
  http://www.cnel.gov.pt/default.aspx?site=gabinetedocoordenador

- **Communication Observatory (OberCom)**
  Non-profit private organization focused on the production and dissemination of information, as well as on the development of studies and research work that contribute to a better understanding of the communication area.

  More information at http://www.obercom.pt/