

e-Government 2004: internet based interaction with European businesses and citizens

Statistics in focus

INDUSTRY, TRADE AND
SERVICES

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This edition of Statistics in Focus highlights the use of Information and Communication Technologies (ICT) for interaction with governmental bodies (e-Government) and is an update of an edition of Statistics in Focus that appeared earlier this year. This later edition now includes information from the new Member States.

Public bodies are increasingly creating websites for enterprises and citizens, allowing procedures to be handled and services to be supplied less expensively and more effectively.

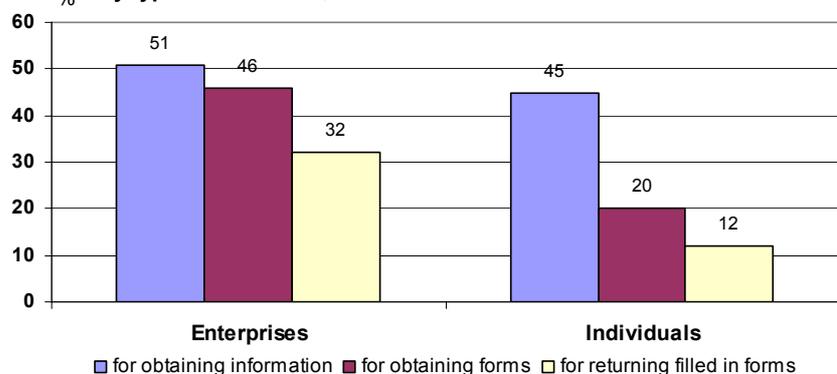
“e-Government” is one of the main goals of the “eEurope 2005 Action Plan — an information society for all”, an initiative taken by the Heads of State further to the Lisbon Strategy, the aim of which is to make the European Union the most competitive and dynamic knowledge-based society.

This publication highlights e-Government as separate from the point of view of enterprises and individuals. The figures presented are essentially taken from the latest survey, carried out in 2004 (see also Methodological Notes).

Highlights

- In 2004 and at the level of the EU-25, an average of 51% of enterprises contacted public authorities' websites in order to obtain information, with 46% downloading forms and 32% submitting completed forms.
- The type of an enterprise's activity notably influences the intensity of interaction with public authorities' websites. Real estate, renting and business activities (NACE Rev.1, section K) were particularly interactive on-line (this is an especially strong sector on-line, as the result is observed in nearly all 25 Member States).
- Interaction between public authorities and enterprises is particularly well-developed in Estonia, Finland and Sweden; Estonia and Denmark are the only countries where public authorities' websites offer full electronic case handling.
- In general, small enterprises interact less with public authorities than larger ones; this difference was very marked in Spain but marginal in Estonia, Sweden and Finland.

Graph 1: Percentage of enterprises and of individuals interacting with public authorities by type of interaction, EU-25* – 2004



* Enterprises with internet access, excluding: DK, FR, MT. Individuals having used the internet in the three months prior to the survey, excluding: BE, CZ, FR, IE, IT, MT, NL, SK.

Source: Eurostat, Community survey on ICT usage and E-commerce in Enterprises.

- Luxembourg's citizens interact more than any others with public authorities through the internet, although other countries' public online services appear to be more sophisticated.
- Persons in employment, persons with a tertiary education and persons aged between 25 and 34 years are the socio-demographic groups that interact most with public authorities' websites.



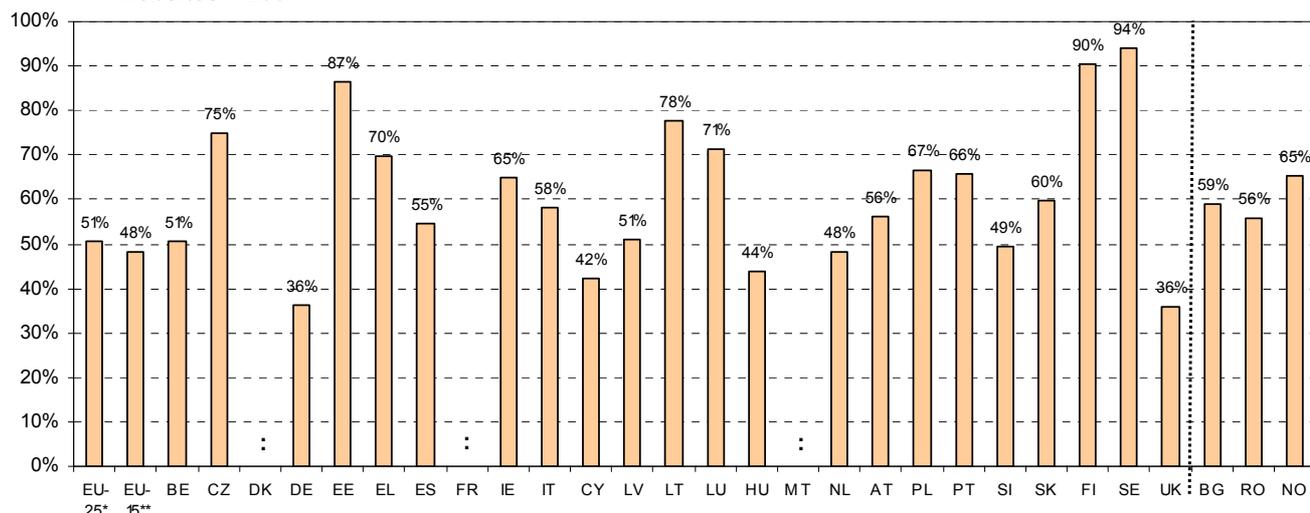
Around half of businesses with Internet access use it to interact with public authorities

With regards to interaction with public authorities, the survey on ICT usage in enterprises differentiates between various levels of interaction: obtaining information, downloading necessary forms to start a procedure and sending completed forms back to the public authority.

Obtaining information from a public authority's website is evidently the most common form of

interaction: in 2004 an average of 51% of enterprises with Internet Access in the EU-25 interacted with public authorities (see Graph 2). Finland and Sweden recorded percentages far above this average (90% and 94% respectively), closely followed by Estonia with 87%. Among the countries with data available, Germany and the United Kingdom reported very low rates (36% of enterprises).

Graph 2: Percentage of enterprises with internet access having obtained information from public authorities' websites – 2004



* excluding DK, FR and MT – ** excluding DK and FR.

Source: Eurostat, Community survey on ICT usage and E-commerce in Enterprises.

Although the supply side of on-line services and their degree of sophistication have a bearing on these figures the link is not that strong, particularly with regard to Germany and the United Kingdom (see last section of this publication).

On average, the new EU Member-States score higher than the old ones. With the accession of the new Member States, the percentage of enterprises in the EU with internet access obtaining information from the internet increased from 48% to 51%.

The level of interaction with public authorities varies considerably with the type of activity of the enterprise concerned: certain economic activities are more likely to handle cases with public authorities than others.

When looking at the various sectors of activity, enterprises associated with real estate, renting and

business activities (NACE Rev. 1 section K) generally display the highest percentages (see Table 1). At EU-25 level, 61% of the enterprises had obtained information from public authorities' websites, well ahead of 'manufacturing' with an average of 51%.

The particularly high proportions registered in Finland and Sweden are worthy of note, as to a lesser degree are those recorded in Estonia and Lithuania, regardless of the economic activity.

It should be noted that all these percentages and comparisons are influenced by features specific to the given country ranging from the availability of on-line public services to the type of services for which a request, a registration, permission or declaration must be made.

Table 1: Percentage of enterprises with internet access having obtained information from public authorities' websites, by economic activity – 2004

	EU-25*	EU-15**	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO	NO
Manufacturing (NACE D)	51	48	52	73	:	34	87	69	51	:	66	56	42	53	80	74	46	:	50	52	65	64	:	60	89	95	34	53	55	65
Wholesale and retail trade (NACE G)	47	43	42	75	:	29	85	70	54	:	59	52	38	47	75	56	43	:	38	54	62	61	:	58	91	92	28	59	54	55
Transport, storage and communication (NACE I)	50	47	43	69	:	34	89	74	51	:	70	61	48	56	80	81	35	:	53	53	72	64	:	53	87	99	28	65	61	74
Real estate, renting and business activities (NACE K)	61	59	66	84	:	51	86	71	68	:	75	71	63	56	81	83	47	:	59	76	76	79	:	68	96	94	49	65	67	79

* excluding DK, FR, MT, SI – ** excluding DK and FR.

Source: Eurostat, Community survey on ICT usage and E-commerce in Enterprises.

Table 2: Percentage of enterprises with internet access having obtained information from public authorities' websites – by enterprise size-class – 2004

Country	10-49 persons employed (%)	50-249 persons employed (%)	250 persons employed and over (%)
EU-25*	48	62	66
EU-15**	46	59	62
BE	48	63	57
CZ	72	85	93
DK	:	:	:
DE	34	44	44
EE	86	90	96
EL	67	81	86
ES	49	81	93
FR	:	:	:
IE	62	70	87
IT	56	69	78
CY	39	55	64
LV	48	59	74
LT	75	84	91
LU	69	79	83
HU	41	53	60
MT	:	:	:
NL	45	58	64
AT	52	72	80
PL	62	79	91
PT	61	81	92
SI	45	62	73
SK	55	72	84
FI	89	96	96
SE	93	97	98
UK	33	46	56
BG	57	62	71
RO	52	60	73
NO	62	78	86

* excluding DK, FR and MT – ** excluding DK and FR.

Source: Eurostat, Community survey on ICT usage and E-commerce in Enterprises

In general, regardless of economic activity, large enterprises (those with 250 or more employees), used public authorities' websites to obtain information more often than smaller enterprises. Table 2 shows that in 2004, the gap between small and medium-sized enterprises (14 percentage points at EU-25

level) is wider than that between medium-sized and large enterprises (4 percentage points). At country level, the differences were smaller in Estonia, Finland and Sweden, suggesting a high level of sophistication from the supply side. The most marked difference was registered in Spain where there were 44 percentage points separating small businesses (49%) from large ones (93%). Belgium was the only country where medium-sized enterprises with internet access interacted more with public authorities' websites (63% of enterprises) than did their larger counterparts (57%).

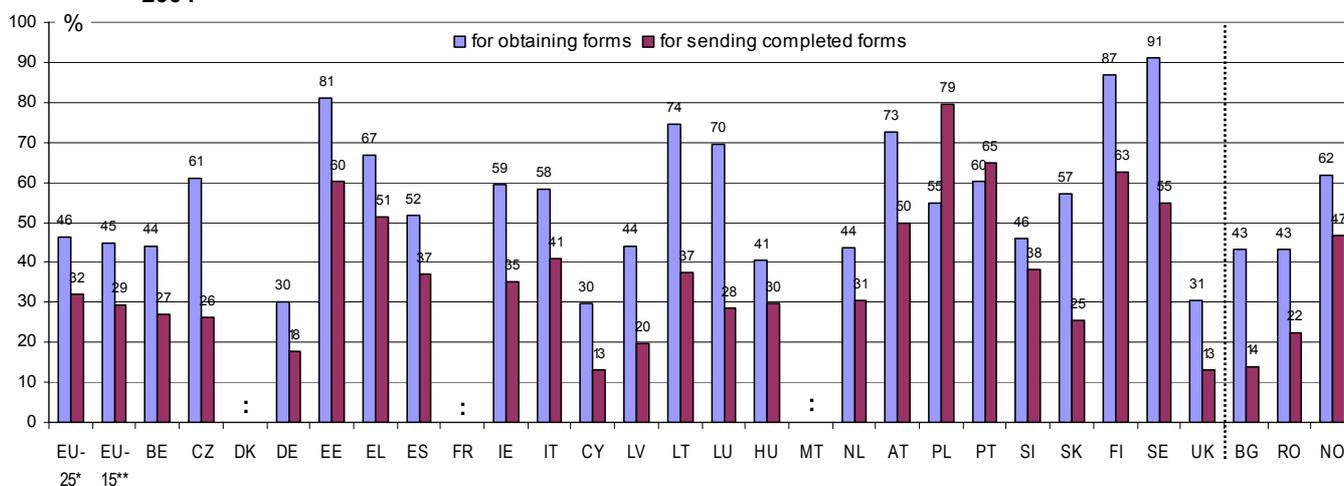
Going beyond merely obtaining information from public authorities' websites, the downloading of forms and submission of completed forms constitute the next most prevalent reasons for interaction. Fewer enterprises made use of these higher levels of interaction, a major factor in this being the limited availability of such on-line public services (see last section).

Graph 1 shows that at EU-25-level in 2004, 51% of enterprises with internet access obtained information, 46% downloaded forms to start a procedure but only 32% submitted (or were able to submit) completed forms.

The difference between 'obtaining forms' and 'submitting completed forms' ranged from 8 percentage points in Slovenia to 37 in Lithuania. Despite the considerable disparity recorded for Lithuania, one should be aware that the value for "submitting completed forms" (37%) was still higher than the EU-25 average.

Over 80% of enterprises in Estonia (81%), Finland (87%) and Sweden (91%) interacted with public authorities' websites for downloading forms; the highest value for submitting completed forms being recorded in Poland (79%). As for "obtaining information", the lowest rates of interaction were recorded in the United Kingdom and Germany.

Graph 3: Percentage of enterprises with Internet access having interacted with public authorities, by type of interaction — 2004



* excluding DK, FR and MT – excluding DK and FR.

Source: Eurostat, Community survey on ICT usage and E-commerce in Enterprises.

Note: The three (or four) levels of interaction between individuals or enterprises and public authorities need not necessarily show decreasing values of usage for higher levels, because higher level usage may not be dependent on usage at the other lower levels. It is possible that enterprises download forms they have previously used without first having to search for the information. Similarly it is possible to return completed forms without having had to firstly download them.

Highly educated citizens or those aged between 25 and 34 use the internet the most to interact with public authorities

With increasing development of the internet over recent years, and the spread of web access at home, the need for public authorities to make useful information available on websites has been growing. Public authorities have responded rapidly to this challenge websites and increasingly, entire procedures are planned or designed in such a way that they can be dealt with "virtually". This situation is beneficial for public authorities and citizens alike: reduced "traffic" at public authorities' locations and the absence of restrictions on opening hours are better for all parties involved.

The ICT survey of households asks individuals about their interaction with public authorities over the last three months and, as with the enterprise survey, assesses the "intensity" of this interaction.

Table 3 covers socio-demographic elements relating to the use of the internet by citizens to obtain information from public authorities' websites.

In 2004 and within the EU-15, there was a 5 percentage point increase on the previous year in the number of internet users consulting those websites (from 40% in 2003 to 45% in 2004). At national level, Germany and Luxembourg saw the greatest increases (around 8 percentage points respectively) whereas a noticeable decrease was registered in Sweden (from 54% to 44%).

On the basis of data available from the Member States, it appears that the category of employees, self-employed and family workers contacted public authorities' websites more than any other: this was true for nine of the thirteen countries on which full details were available.

Students in Estonia and Lithuania were particularly poorly represented, reflecting in part an access to information and communication technologies that still lags behind those in Western European Member States.

In general, the gap between the various socio-demographic categories appears to be narrowest in the Nordic countries.

In all Member States with information available, those with a tertiary educational attainment level (ISCED level 5 and 6 – see Methodological Notes) were always foremost in obtaining information from public authorities' websites (see also Graph 4), the proportion ranging from 44% in Estonia to 76% in Finland. Although generally speaking the percentages increased rapidly with the level of individuals' qualifications, the range appeared to be quite wide in Greece (48 percentage points) whereas it was relatively narrow in Denmark (20 percentage points).

When considering the age groups, the 25-34 year-olds' category scored highest with 51% on average (see Graph 4), immediately followed by that of 35-44 year-olds (with 50%).

In Greece, Luxembourg and Poland, the 55-64 year-olds' age group had interacted most with public authorities' websites in order to obtain information. For those internet users aged between 16-24, many of whom were students or using a computer during their leisure time, the utility of obtaining information from public authorities' websites is probably of lesser importance.

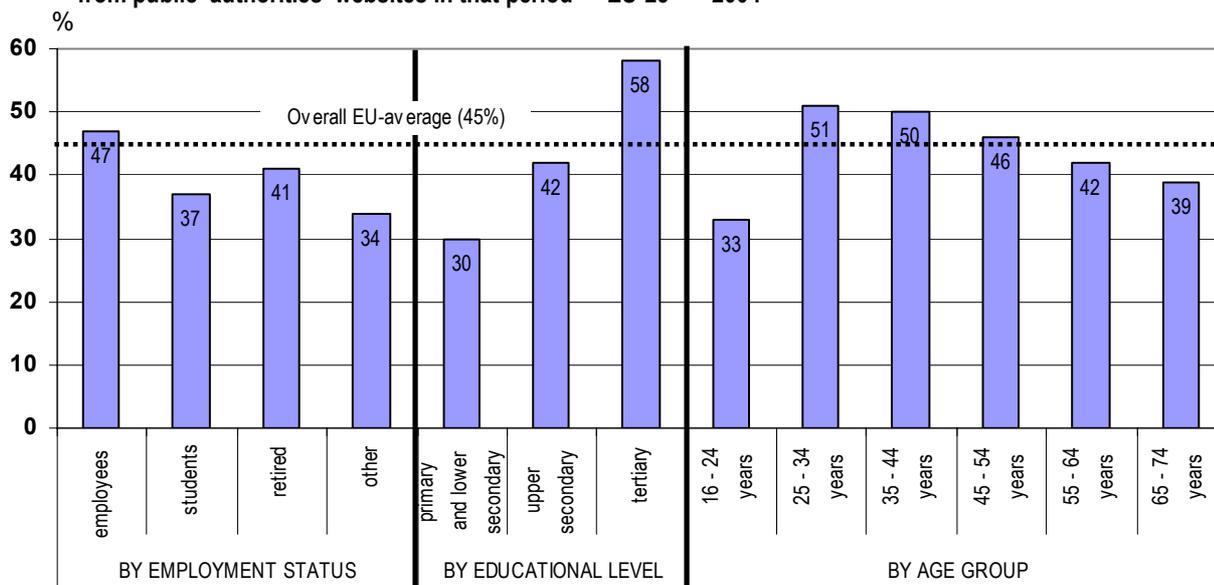
Table 3: Percentage of individuals that used the internet in the three months prior to the survey, having obtained information from public authorities' websites in that period, 2004 (%)

	EU-25*	EU-15*	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	TR	IS	NO
2004	45	45	:	:	56	51	28	36	54	:	:	:	33	36	31	55	54	:	:	34	41	35	32	:	62	44	31	24	43	68	50
2003	:	40	:	12	56	43	:	38	53	:	31	:	:	:	24	47	:	:	23	35	:	38	:	:	58	54	31	:	:	60	58
by employment status (2004)																															
employees**	:	:	:	:	59	52	35	44	59	:	:	:	39	44	47	60	58	:	:	:	51	42	:	:	66	47	32	31	52	:	51
students	37	39	:	:	48	53	8	20	38	:	:	:	21	20	9	42	46	:	:	21	31	19	18	:	54	30	31	11	26	69	41
retired	41	42	:	:	50	48	16	45	45	:	:	:	30	11	19	61	38	:	:	27	37	:	:	:	47	44	:	10	37	62	48
other	34	34	:	:	46	39	29	45	46	:	:	:	16	17	22	39	48	:	:	29	29	:	:	:	52	49	25	14	33	64	77
by level of qualification (2004) — according to ISCED classification***																															
primary and lower sec.	30	31	:	:	44	39	8	4	31	:	:	:	10	14	5	39	41	:	:	15	21	19	:	:	44	26	:	5	18	54	37
upper secondary	42	43	:	:	58	50	24	31	51	:	:	:	26	31	24	50	52	:	:	35	40	38	27	:	61	41	28	17	39	68	45
tertiary	58	58	:	:	64	66	44	52	67	:	:	:	45	54	48	69	68	:	:	46	62	53	51	:	76	57	43	38	64	85	63
by age group (2004)																															
16 - 24 years	33	35	:	:	37	44	13	22	38	:	:	:	21	24	12	38	47	:	:	17	29	20	15	:	47	27	26	12	30	64	36
25 - 34 years	51	51	:	:	63	58	36	44	61	:	:	:	40	43	44	60	57	:	:	38	52	40	41	:	70	51	35	31	52	72	58
35 - 44 years	50	50	:	:	60	53	28	42	63	:	:	:	34	42	44	55	58	:	:	43	50	47	38	:	66	49	38	35	58	72	57
45 - 54 years	46	46	:	:	62	52	40	48	60	:	:	:	45	47	51	58	58	:	:	37	50	43	:	:	66	46	28	37	53	64	52
55 - 64 years	42	41	:	:	55	47	39	59	58	:	:	:	45	46	47	66	:	:	:	32	53	42	:	:	57	44	26	31	44	66	47
65 - 74 years	39	39	:	:	47	45	47	29	35	:	:	:	28	39	27	59	:	:	:	24	41	:	:	:	49	47	:	8	63	58	24

* : on the basis of available data. ** including self-employed and family workers. *** see Methodological Notes.

Source: Eurostat, Community survey on ICT usage in households and by individuals.

Graph 4: Percentage of individuals that used the internet in the three months prior to the survey, having obtained information from public authorities' websites in that period — EU-25* — 2004



* all categories exclude BE, CZ, FR, IT, MT, NL, SK. In addition, the following information is excluded: 'Employment status': PT, SI and UK for 'retired'; PT and SI for 'other'. 'Age groups': SI for 45-54 years; HU and SI for 55-64 years; HU, PT, SI and UK for 65-74 years.

Source: Eurostat, Community survey on ICT usage in households and by individuals.

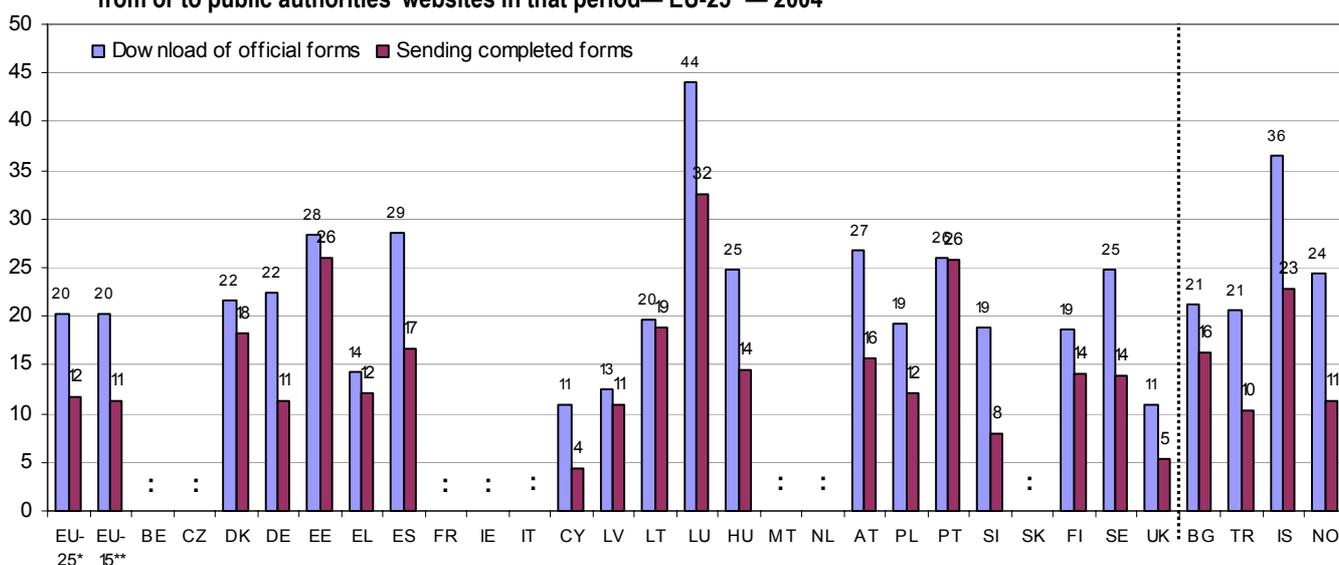
It should be noted that these results are all influenced by the supply side, i.e. the information content as well as the interaction facilities offered on the websites of the public authorities. This should be borne in mind when looking at Graph 5 where the steps taken beyond obtaining information are presented.

Whereas 45% of internet users at EU level obtained information, less than half this number (20%) downloaded official forms on such matters as income

taxes, car registration, personal documents or certificates etc. and 12% returned completed forms (see also Graph 1 on the cover page).

The highest percentages were registered in Luxembourg (44% downloading official forms, 32% submitting completed forms) despite the fact that this country did not score particularly highly on the information supply side (see next page). Greece, Cyprus and the UK recorded low rates of interaction.

Graph 5: Percentage of individuals that used the internet in the three months prior to the survey, having downloaded or sent forms from or to public authorities' websites in that period — EU-25* — 2004



* excluding BE, CZ, FR, IE, IT, MT, NL, SK. ** excluding BE, FR, IE, IT, NL.

Source: Eurostat, Community survey on ICT usage in households and by individuals.

All basic public services are available online across Europe

It is obvious that there cannot be any interaction between businesses or citizens and public authorities where there are no public services available on-line or where those available are insufficiently developed.

In October 2004 a range of public services was assessed, individually for citizens and businesses, establishing an overall "scoreboard" describing the degree of sophistication involved. A more detailed explanation of the measurement method applied is given in the Methodological Notes.

Citizens' public services that were assessed include the handling of procedures linked to income taxes, job search services, various topics relating to social security benefits, obtaining personal documents and certificates, car registration, police declarations, applications for planning permission, catalogues and search tools for public libraries etc.

On-line public services for businesses that have been investigated include the handling of social security contributions for employees, VAT and corporate tax, the registration of a new company, the submission of statistical data, customs declarations, environment-related permits and public procurement issues.

Graph 6 shows that in all countries except for Cyprus, Latvia, Slovenia and the United Kingdom, on-line public services for businesses were better developed than those for citizens. However, the gap appeared to be fairly narrow in Cyprus, Latvia, the Netherlands, Austria, Finland, Sweden and the United Kingdom, albeit at various levels of advancement.

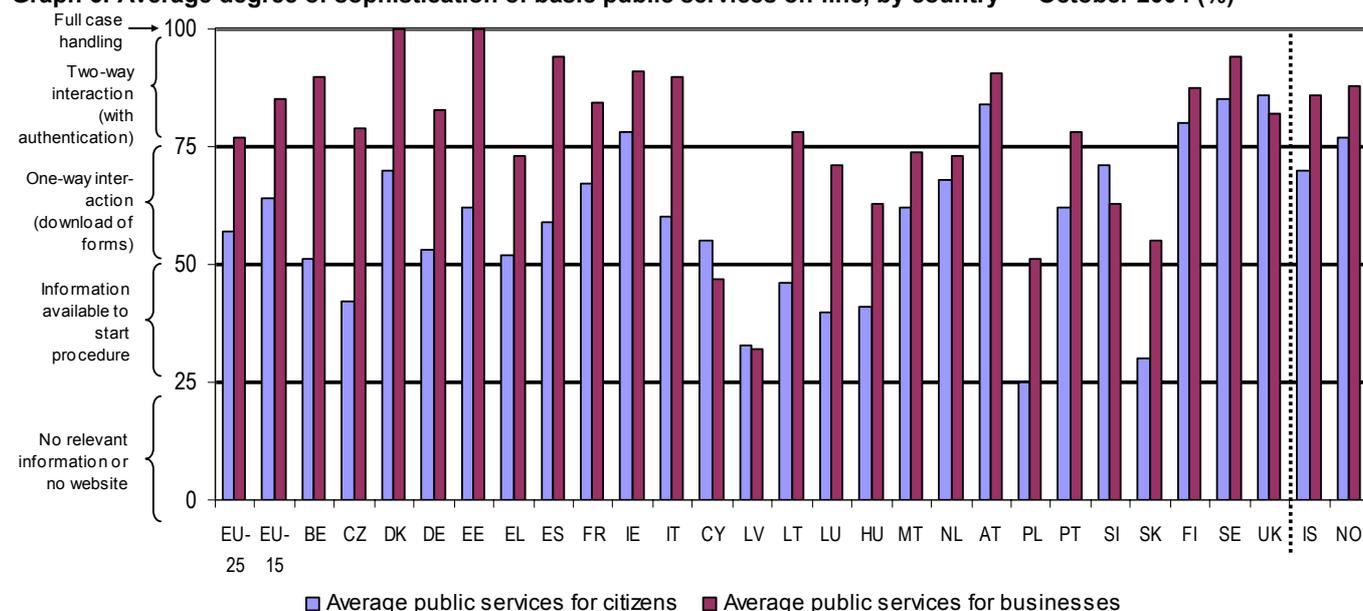
Fifteen of the 25 Member States had reached a level of sophistication that allowed at least two-way interaction between enterprises and public authorities, but only two countries (Denmark and Estonia) scored a 100% result where all basic services to businesses could be handled entirely on-line. Spain and Sweden came close to that result whereas Cyprus and Latvia appear to be lagging behind.

As regards the available on-line public services for citizens, the assessment revealed that there was no country in the EU-25 group that did not have a relevant website or did not offer the information required to start a procedure. All but five countries went beyond this stage (meaning at least a one-way interaction) but only Ireland, Austria, Finland, Sweden and the United Kingdom achieved two-way interaction. Complete on-line case handling for all citizens' services was not thus far possible in any country.

Ireland, Austria, Finland, Sweden and the United Kingdom scored particularly well in the overall availability of information and on-line handling of public services, as these countries all achieved a score above the 75% threshold — both in services for businesses and those for citizens.

In the case of the United Kingdom in particular this might come as a surprise, as the actual interaction rates were among the lowest in the EU.

Graph 6: Average degree of sophistication of basic public services on-line, by country — October 2004 (%)



* Score based on various stages of sophistication, ranging from 0% (no website) to 100% (complete handling of demands, declarations or procedures) — see also Methodological Notes.

Source: Study commissioned by Directorate General Information Society.

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

ABBREVIATIONS

EU: European Union, including the 25 Member States (EU-25): Belgium (BE), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Greece (EL), Spain (ES), France (FR), Ireland (IE), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE) and the United Kingdom (UK).

EU-15: European Union, including 15 Member States (BE, DK, DE, EL, ES, FR, IE, IT, LU, NL, AT, PT, FI, SE, UK).

BG: Bulgaria – RO: Romania – TR: Turkey – IS: Iceland – NO: Norway

SYMBOLS

“.” non available or confidential.

Survey on ICT usage in enterprises

Survey type: enterprise survey

Survey period; first quarter of 2004

Sample size: 99 069 enterprises with 10 or more employees

Activity coverage: enterprises classified in the following NACE Rev. 1.1 categories:

Section D – Manufacturing

Section F - Construction

Section G – Distributive trades

Section H, Groups 55.1 and 55.2 – Hotels and accommodation

Section I – Transport, storage and communication

Section J, Division 67 – Act. auxiliary to financial intermediation

Section K – Real estate, renting and business activities

Section O Groups 92.1 and 92.2 - Motion picture, video, radio and television activities

For a full overview of the NACE classification, please refer to RAMON, Eurostat's classification server:
<http://www.europa.eu.int/comm/eurostat/ramon>.

Survey on ICT usage in households and by individuals

Survey type: household survey

Survey period; first quarter of 2004

Sample size: 75 016 households and 136 452 individuals

Lower age limit for survey of individuals: 16 years

Upper age limit for survey of individuals: 74 years

Educational attainment levels: Educational attainment levels were based on the International Standard Classification of Education (ISCED), as revised in 1997. This divides education into seven main levels, grouped into three levels in the analysis:

- lower secondary, defined as ISCED levels 0 to 2, pre-primary, primary and lower secondary education;
- upper secondary, defined as ISCED levels 3 and 4, upper secondary and post-secondary, non-tertiary education;
- tertiary, defined as ISCED levels 5 and 6, first stage and second stage of tertiary education.

For the UK, the upper secondary level includes GSCE levels.

Public services available on-line, by degree of sophistication (Graph 6)

This table is based on a study commissioned by the Information Society and Media Directorate-General in the context of the eEurope programme that has so far included five surveys with others planned. The results presented refer to the survey conducted in October 2004. This study surveyed a list of twenty basic public services agreed by the Council. The information in Graph 6 is, in principle, based on a four-stage scoring framework:

Stage 0: no website (score: 0%-24%)

Stage 1: information starting the procedure to find the public service is available on-line (score: 25%-49%)

Stage 2: one-way interaction, i.e. the paper form starting the procedure to find the service in question can be obtained in non-electronic format (by downloading forms) (score: 50%-74%)

Stage 3: two-way interaction, i.e. electronic intake with an electronic form, implying an authentication of the (natural or legal) person requesting the service in question (score: 75%-99%)

Stage 4: Full electronic case handling: the matter can be handled in its entirety by the public service's website, including decisions and delivery. No other formal procedures are required via "paperwork" (score: 100%).

Certain services (personal documents, declarations to the police, certificates, change of address and submission of data to statistical offices) were, however, limited to three stages. The scoring for these cases was as follows: Stage 0: 0%-32%, Stage 1: 33%-66%, Stage 2: 67%-99%; Stage 3: 100%.

Some of the public service providers were classified as 'not relevant' in certain countries due to the legal context and administrative organisation of that specific country. The overall scores of such countries were thus calculated as the average of the relevant services.

The figures in this publication reflect the data available as at June 2005.

Further information:

Databases

[EUROSTAT Website/Industry, trade and services/Information society statistics/Policy indicators/e-government](#)

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Eurostat set up with the members of the 'European statistical system' a network of support centres, which will exist in nearly all Member States as well as in some EFTA countries.

Their mission is to provide help and guidance to Internet users of European statistical data.

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