

# **AND SERVICES**

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# Contents

Highlights ..... 1

e-Gover	nment and b	usin	esses 2
e-Gover	nment and ci	tizeı	าร 4
On-line	availability	of	public



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# e-Government: Internet based interaction with the European businesses and citizens

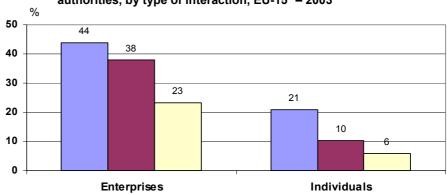
This edition of Statistics in Focus highlights the use of Information and Communication Technologies (ICT) for interacting with government bodies (e-Government). Increasingly, public bodies are creating websites for enterprises and citizens that enable easier, cheaper and more efficient handling of procedures and supply of services.

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 or Government in pursuit of the Lisbon Strategy, which aims to make the European Union the most competitive and dynamic knowledge-based society. This publication highlights e-Government from enterprises' and private individuals' separate points of view. The figures presented here are taken from surveys which have been coordinated by Eurostat since 2001 (see also Methodological Notes).

# **Highlights**

- In 2003, an average of 44% of enterprises interacted with public authority websites in order to obtain information, while 38% downloaded forms and 23% returned completed forms.
- The type of activity in which an enterprise is engaged affects the intensity of its interaction with public authority websites. The on-line interaction of enterprises engaged in real estate, renting and business activities (NACE Rev.1, section K) is particularly marked (there is an especially strong sectoral effect at work here, as the result is observed throughout EU-15).
- Interaction with public authorities is particularly well developed in Denmark, Finland and Sweden, both for enterprises and for citizens; Germany and the United Kingdom appear to be lagging.
- In general, small enterprises interact less with public authorities than larger ones, except for in Finland and Sweden, where there is little difference.

Graph 1: Percentage of enterprises and individuals interacting with public authorities, by type of interaction, EU-15\* - 2003



■ for obtaining information ■ for obtaining forms □ for returning filled in forms

\* Excluding: Enterprises: DK, FR — Individuals: BE, FR, IT, NL.

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

- Interaction by citizens is rapidly increasing, and in some countries the percentage nearly doubled between 2002 and 2003.
- Students, persons educated to tertiary level and persons aged between 25 and 34 years are the socio-demographic groups that interact most with public authority websites.

# e-Government and businesses

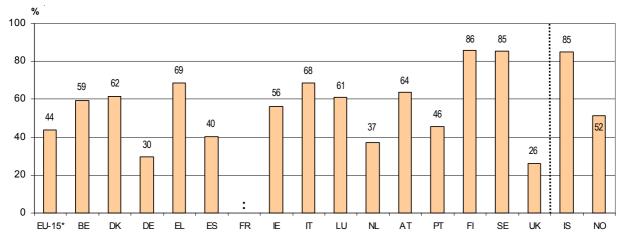
As regards interaction with public authorities, the survey on ICT usage in enterprises makes a distinction between various levels of interaction: obtaining information, downloading forms required for starting a procedure, and returning completed forms to the public authority.

As one would expect, obtaining information from a public authority website is the most common level of interaction: on average, 44% of all enterprises in EU-

15 interacted with public authorities during 2003 (see Graph 2). Finland and Sweden recorded percentages far above this average (86% and 85% respectively), whereas the United Kingdom and Germany scored remarkably low (26% and 30% respectively).

The availability of basic on-line services influences these figures, but the link does not appear particularly strong, especially in Germany or the United Kingdom (see last section of this publication).

Graph 2: Percentage of enterprises having obtained information from public authority websites - 2003



<sup>\*</sup> Excluding FR.

The methodology used in Greece changed considerably from 2002 to 2003. Caution should be applied when comparing the data for Greece with those for other countries. **Source**: Eurostat, Community survey on ICT usage and E-commerce in Enterprises.

The level of interaction with public authorities varies considerably, depending on the type of activity of the enterprise concerned: some economic activities are more likely to involve public authorities than others. For instance, a fashion retailer will certainly interact less with public authorities than an enterprise involved in the transport of dangerous goods.

As regards the various sectors of activity, enterprises involved in real estate, renting and business activities (NACE Rev. 1 section K) display the highest percentages (see Table 1). At EU-15 level, 54% of enterprises obtained information from public authority websites. This sector also had the highest percentage in all Member States.

It should be remembered that the various percentages and comparisons are influenced by national particularities ranging from the availability of on-line public services to the type of services for which an application, registration, authorisation or declaration is required.

Table 1: Percentage of enterprises having obtained information from public authority web sites, by economic activity – 2003

	Manufacturing (NACE D)	Wholesale and retail trade (NACE G)	Transport, storage and communic. (NACE I)	Real estate, renting and business activities (NACE K)			
EU-15*	46	38	44	54			
BE	65	48	56	74			
DK	63	60	53	81			
DE	27	23	32	46			
EL	60	69	69	79			
ES	40	43	40	52			
FR	:	:	:	:			
IE	58	47	55	70			
IT	66	64	73	76			
LU	63	43	67	81			
NL	43	33	40	47			
AT	59	61	67	82			
PT	44	43	40	63			
FI	88	81	79	92			
SE	87	82	76	92			
UK	26	18	22	40			
IS	85	83	91	92			
NO	55	38	57	74			

<sup>\*</sup> Excluding FR.

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



The methodology used in Greece changed considerably from 2002 to 2003. Caution should be applied when comparing the data for Greece with those for other countries.

Table 2: Percentage of enterprises having obtained information from public authority web sites – by enterprise size-class – 2003

	10-49 persons employed (%)	50-249 persons employed (%)	250 persons employed and over (%)
EU-15*	41	57	62
BE	56	73	73
DK	58	75	77
DE	28	39	41
EL	66	82	88
ES	35	68	89
FR	•	:	•
ΙΕ	53	67	65
IT	66	86	90
LU	57	76	86
NL	34	52	55
AT	59	83	83
PT	41	69	86
FI	84	93	96
SE	84	93	96
UK	23	37	49
IS	83	92	97
NO	48	67	77

<sup>\*</sup> Excluding FR.

The methodology used in Greece changed considerably from 2002 to 2003. Caution should be applied when comparing the data for Greece with those for other countries.

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

In general, large enterprises (250 or more persons employed), regardless of their economic activities, used public authority websites to obtain information more frequently than smaller ones. As can be seen from Table 2, the EU-15-average in 2003 was 62%

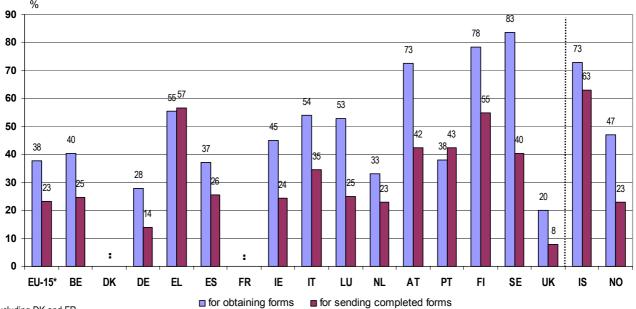
for large enterprises, compared with 41% for small enterprises (10-49 persons employed). In general, the gap was much wider between small enterprises and medium-sized ones (50-249 persons employed) than between medium-sized and large ones. Indeed, the difference was marginal or even non-existent in Belgium, Denmark, Germany, Austria and Ireland.

Looking beyond the activity of merely obtaining information from public authority websites, the downloading of forms and the return of completed forms constitute the next levels of interaction. Fewer enterprises used these higher levels of interaction, a major factor here being the lower availability of online public services (see last section). Graph 1 on the cover page shows that at EU-15 level, 44% of enterprises obtained information, 38% downloaded forms to start a procedure, but only 23% returned completed forms in 2003.

The difference between 'obtaining forms' and 'returning completed forms' ranged from 10% in the Netherlands to 43% in Sweden (the EU-15 average was 15%). Despite the big difference recorded for Sweden, one should bear in mind that the figure for 'returning completed forms' in that country (40%) was still far higher than the EU-15 average and the fifth highest among the countries for which comparable data are available.

More than 70% of enterprises in Austria (73%), Finland (78%) and Sweden (83%) interacted with public authority websites for downloading forms; the highest value for the return of completed forms being recorded in Finland (55%). Again, the United Kingdom and Germany scored poorly.

Graph 3: Percentage of enterprises having interacted with public authorities, by type of interaction — 2003



<sup>\*</sup> Excluding DK and FR.

The methodology used in Greece changed considerably from 2002 to 2003. Caution should be applied when comparing the data for Greece with those for other countries.

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



# e-Government and citizens

With the rapid development of the Internet in recent years, and the spread of web access from home, the need to have information available on public authority websites has been growing. Public authorities have rapidly made useful information available on their 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: less 'traffic' on public authority premises and no restrictions with regards to opening hours are a boon to all concerned.

The ICT survey of households asks individuals about their interaction with public authorities over the last three months and, analogous to the enterprise survey, permits an assessment of the 'intensity' of this interaction.

Table 3 offers an insight into the socio-demographic elements which determine the extent of Internet usage by citizens as a means of obtaining information from public authority websites.

In 2003, citizens consulted those websites significantly more than just a year before. Whereas the average was 12.4% of surveyed individuals in 2002, it rose to 21.0% in 2003; some countries actually recorded a doubling or near doubling, such as Greece, Austria, Portugal and the United Kingdom.

Students were the group which most frequently accessed public authority websites (28.4% of students on average), closely followed, in many cases, by employees, the self-employed and family workers (27.0%), except in Luxembourg, where the figure for the latter group was significantly higher. The gap between the two groups in Germany is quite wide

In all countries for which information is available, persons with a tertiary educational attainment level (ISCED levels 5 and 6 – see Methodological Notes) were the most active in obtaining information from public authority websites (see Graph 4). The survey revealed that, in general, the percentages increased as a function of individuals' qualifications.

When considering the age groups, the 25-34 age group scored highest, with nearly 31% on average (see Graph 4), followed by the 35-44 and 16-24 age groups (26.4% and 25.9% respectively).

For the 25-34 and 35-44 age groups, the percentages were very similar in Denmark, Finland, Sweden and the United Kingdom.

In Denmark, Finland and Sweden, the percentages recorded for the over-55s were relatively high. The values were sometimes much higher than those for the younger age groups, e.g. in Greece, Ireland, Portugal and the United Kingdom.

Table 3: Percentage of individuals having obtained information from public authority websites in the last three months

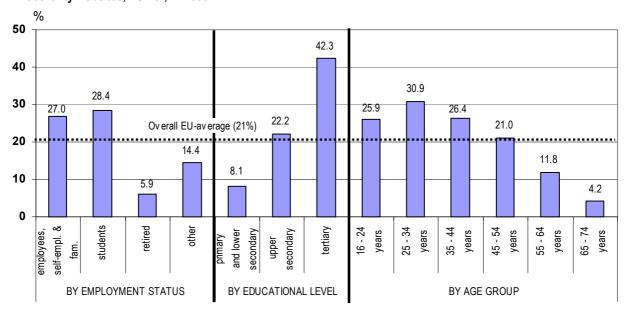
	EU-15*	BE	DK	DE	EL	ES	FR	ΙE	IT	LU	NL	AT	PT	FI	SE	UK	IS	NO
2003	21.0	:	39.4	23.3	6.1	19.5	:	9.6	:	25.0	:	14.4	9.7	38.5	41.1	18.8	48.9	43.4
2002	12.4	:	35.1	14.0	3.5	:	:	:	:	14.9	:	7.9	3.1	31.4	40.0	6.4	:	:
by employment status	(2003)																	
empl., self-empl. & fam. workers	27.0	:	45.4	30.2	9.1	26.7	:	12.1	:	36.2	:	18.9	13.2	46.9	46.8	23.2	54.8	52.2
students	28.4	:	47.1	61.1	10.0	:	:	15.0	:	29.0	:	29.1	15.1	48.9	42.5	22.2	46.4	48.8
retired	5.9	:	12.4	7.3	0.2	2.4	:	1.7	:	3.9	:	3.0	:	8.9	13.1	5.9	6.3	12.8
other	14.4	:	31.8	20.5	2.1	9.8	:	3.6	:	8.2	:	7.7	2.2	31.6	38.1	12.0	21.1	35.2
by level of qualification (2003) — according to ISCED classification**																		
primary and lower secondary	8.1	:	22.7	13.6	8.0	4.4	:	2.2	:	7.4	:	5.4	2.7	36.5	23.1	4.3	32.7	20.1
upper secondary	22.2	:	40.7	23.3	5.6	27.5	:	9.4	:	29.8	:	14.9	25.3	58.2	38.5	17.3	54.6	35.7
tertiary	42.3	:	61.0	39.2	24.0	48.7	:	23.8	:	50.3	:	40.6	50.5	76.6	60.7	37.6	80.7	72.2
by age group (2003)																		
16 - 24 years	25.9	:	36.9	33.6	8.7	:	:	9.6	:	32.7	:	19.4	12.1	41.1	34.9	20.5	39.0	34.0
25 - 34 years	30.9	:	49.2	35.6	11.5	32.9	:	15.7	:	43.6	:	23.5	17.7	53.9	52.6	24.4	67.5	56.2
35 - 44 years	26.4	:	49.7	28.9	8.5	23.9	:	12.3	:	26.1	:	18.2	11.1	53.8	49.3	24.4	64.2	55.1
45 - 54 years	21.0	:	45.3	24.2	3.9	15.2	:	7.4	:	27.3	:	12.1	8.8	39.2	46.2	19.6	54.6	50.3
55 - 64 years	11.8	:	29.3	11.6	1.9	6.7	:	3.9	:	6.7	:	7.7	:	24.2	39.5	12.0	33.6	34.4
65 - 74 years	4.2	:	11.1	:	0.4	1.7	:	:	:	3.5	:	1.1	:	5.9	12.7	:	10.8	9.6

<sup>\*</sup> Based on available data. \*\* see Methodological Notes.

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



Graph 4: Percentage of individuals having used the Internet in the last three months to obtain information from public authority websites, EU-15\*, — 2003



<sup>\*</sup> All categories: excluding FR and IT, by age group; 16-24 years: excluding ES; 55-64 years: excluding PT; 65-74 years: excluding DE, IE, PT, UK. **Source**: Eurostat, Community survey on ICT usage in households and by individuals.

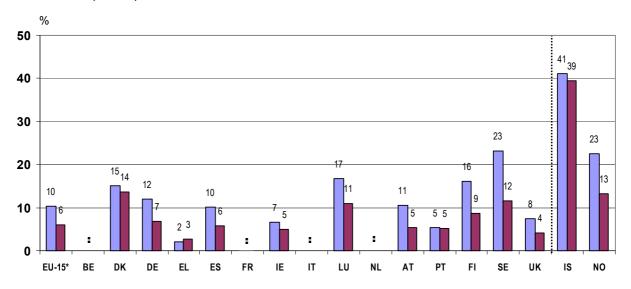
The survey results are influenced by the supply side, i.e. by the information content available on public authority websites. This should be borne in mind when interpreting Graph 5, which relates to steps beyond obtaining information.

Of the 21% of surveyed individuals at EU level who, according to the available data, obtained information, fewer than half (10%) downloaded official forms dealing with matters such as income tax, vehicle

registration, personal documents or certificates, etc., and only 6% returned completed forms (see also Graph 1 on the cover page).

The highest percentages were again recorded in Finland and Sweden, but Luxembourg is also among the leading countries, even though it does not score particularly well on the information supply side (see next page).

Graph 5: Percentage of individuals having used the Internet in the last three months to obtain information from public authority websites, EU-15\*,— 2003



<sup>\*</sup> Excluding BE, FR, IT, NL. 

Dow nload of official forms 

Sending filled forms

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



# On-line availability of public services

Clearly, there can be no on-line interaction between businesses or citizens on the one hand and public authorities on the other if no or only insufficiently developed public services are available on-line.

A study carried out in October 2003 was designed to assess a range of public services for citizens and businesses separately, and gave rise to an overall 'scoreboard' showing the degree of sophistication. An explanation of the method of measurement can be found in the Methodological Notes.

Public services to citizens that have been assessed include the handling of procedures linked to income tax, job search services, various topics relating to social security benefits. obtaining personal documents and certificates, vehicle registration, police statements, applications for building permission, and public library catalogues and search tools, etc.

On-line public services for businesses that have been examined include the handling of social contributions, VAT and corporate tax, the registration of new companies, the submission of statistical data, customs declarations, environment-related permits and elements relating to public procurement.

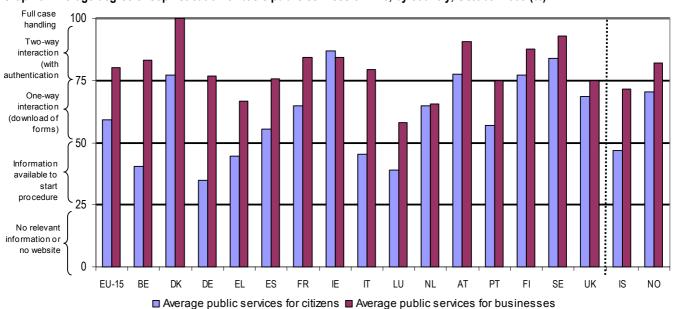
Graph 6 shows that in all countries except Ireland, on-line public services for businesses were further

developed than those for citizens. The gap appeared to be particularly wide in Belgium and Germany.

Ten out of 15 countries reached a level of sophistication that allowed at least a two-way interaction between an enterprise and the public authority, but only one country (Denmark) scored 100%, meaning that all basic services to businesses can be handled entirely on-line. Austria and Sweden are coming close to that result, whereas Luxembourg and the Netherlands appear to be lagging.

As regards public services available to citizens online, the assessment revealed that there is no country in EU-15 that has no relevant website or does not offer the necessary information for initiating a procedure. Ten countries went beyond this stage (at least one-way interaction) but only half of those had two-way interaction. Fully on-line case handling for all services to citizens were not yet possible in any country, although Ireland and Sweden were the most advanced in EU-15.

Denmark, Finland and Sweden scored particularly well in the overall availability of information and the on-line handling of public services. Austria and Ireland also stood out, as they also achieved a score above the 75% threshold, for services to both businesses and citizens.



Graph 6: Average degree of sophistication of basic public services on-line, by country, October 2003 (%)

Source: Study commissioned by Directorate General Information Society.



<sup>\*</sup> Score based on various stages of sophistication, ranging from 0% (no website) to 100% (complete handling of applications, declarations or procedures). See also Methodological Notes.

### > ESSENTIAL INFORMATION - METHODOLOGICAL NOTES

#### **ABBREVIATIONS**

**EU-15**: European Union before the May 2004 enlargement, comprising 15 Member States: Belgium (BE), Denmark (DK), Germany (DE), Greece (EL), Spain (ES), France (FR), Ireland (IE), Italy (IT), Luxembourg (LU), the Netherlands (NL), Austria (AT), Portugal (PT), Finland (FI), Sweden (SE) and the United Kingdom (UK).

#### SYMBOLS

":" not available, or confidential.

#### Survey on ICT usage in enterprises

**Survey type**: enterprise survey **Survey period**; first quarter of 2003 **Reference period**: January 2003

Sample size: 66 162 units with 10 or more persons employed

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.

Size coverage: enterprises with 10 or more persons employed

**Notes on coverage and breakdown**: Coverage of the target population sometimes differs from country to country, and this should be borne in mind when interpreting the data. The data presented refer to all activities covered by the survey, with the following exceptions:

DK excludes NACE Division 67
DE excludes NACE Division 67
IE excludes NACE Division 67
IT excludes NACE Division 67

NL includes Groups 55.3 to 55.5 and Divisions 65 and 66.
 FI the results for Division 67 have been included in the results for Section K and in the aggregate total of NACE

Sections D, G, Groups 55.1, 55.2, I and K.

Data presented by size class: exceptions

NL the size-class split between medium-sized and large enterprises is 200 persons employed, not 250.

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**; second quarter of 2003 Reference period: first quarter of 2003

Sample size: 60 000 households and 88 000 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 are based on the International Standard Classification of Education (ISCED), as revised in 1997. This divides education into seven main levels, which have been grouped into three levels for present purposes:

- 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.

The upper secondary level includes GCSEs taken in the UK.

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

This table is based on a study commissioned by the European Commission's Information Society Directorate-General as part of the eEurope programme, which currently takes four measurements, with additional ones planned for the future. The results presented refer to October 2003. The study surveys 20 basic public services selected by the Council. The information in Graph 6 is based essentially on a four-stage scoring framework:

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

**Stage 1**: information on how to initiate a procedure for obtaining a public service available on-line (score: 25%-49%)

**Stage 2**: one-way interaction, i.e. obtaining by non-electronic means (i.e. other than downloading) the paper form to start the procedure for obtaining a service (score: 50%-74%)

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

**Stage 4**: Full electronic case handling: public service dealt with entirely via the website, including decision and delivery. No other formal procedure involving "paperwork" necessary (score: 100%).

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

Some public service providers are classified as 'not relevant' for certain countries, because of the legal context and administrative arrangements in those countries. The overall scores of those countries are calculated as the average for the relevant services.

The figures in this publication reflect **data availability** as of August 2004.



# Further information:

# Databases

EUROSTAT website/Industry, trade and services/Information society statistics/Policy indicators/e-government

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# **European Statistical Data Support:**

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.

The complete details concerning this support network can be found on our Internet site: <a href="www.europa.eu.int/comm/eurostat/">www.europa.eu.int/comm/eurostat/</a>

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