

**RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES***

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ΠΑΡΑΤΗΡΗΤΗΡΙΟ  
για την Κοινωνία  
της Πληροφορίας  
**GREEK**  
Information Society  
**OBSERVATORY**

**January 2007**



**Project: "Study for measuring the indicators of  
the eEurope and i2010 initiatives for the years  
2006 and 2007"**

***REPORT ON THE RESEARCH FINDINGS***

***AMONG BUSINESSES***



***Prepared for the  
Greek Information Society Observatory***

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## **1. Identity of the research**

The present research was carried out among businesses throughout the country as part of a study for determining and monitoring the indicators of the eEurope plan. The project is co-funded by the European Union and forms part of Action Line 5 "Technical Assistance", Measure 5.2 of the Operational Programme "Information Society" of the 3<sup>rd</sup> Community Support Framework; it was designed and supervised by the Information Society Observatory and implemented by MRB Hellas.

### **1.1 Research objectives**

The present research aims to measure the access of businesses to the Internet and its use, as well as to calculate the relevant indicators.

### **1.2 Research Methodology**

The data were collected through face-to-face interviews using a fully structured questionnaire.

- ***Sampling frame:*** All businesses in each of the business activities NACE D, F, G, H, I, J92.1 and J92.2 and K, which correspond to the following industries: D (Manufacturing), F (Construction), G (Wholesale and retail), H (Hotels and restaurants), I (Transportation, Warehousing), K (Real Estate management) and J (Radio and television).

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- ***Sampling:*** The selection was made under the method of stratified random sampling, with systematic sampling within each stratum, from all businesses in the country, as follows:
  - The strata employed were the 13 Regions of the country and the 7 activities included in the research, combined with the number of employees in the businesses. The businesses were divided into 4 groups according to the number of employees: 1-9, 10-49, 50-249, 250+.
  - The sample corresponding to each region was allocated by business size according to the number of employees. Businesses were then similarly allocated by activity.
- Therefore the final allocation of businesses was done per region, activity and number of employees.
- For the sample of small businesses (1-9) we used a sampling file of the Statistical Service; for larger businesses we used the lists of ICAP and the business archive of MRB Hellas.
  
- ***Weightings:*** The data were weighted as follows:
  - Businesses with 1-9 staff: per number of staff and the legal form of the enterprise
  - Businesses with 10+ staff: per number of staff
  
- ***Statistical Errors:***

	<b><u>Sample</u></b>	<b><u>Statistical Error</u></b>
All businesses:	1407 businesses	+/-2,61
Businesses with 1-9 staff:	415 businesses	+/-4,82
Businesses with 1-9 staff and Internet connection	161 businesses	+/-7,78
Businesses with 10+ staff:	992 businesses	+/-3,12
Businesses with 10+ staff and Internet connection	917 businesses	+/-3,24

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**2. B Main conclusions of the research (among businesses with 10+ staff)  
Use of computers and electronic equipment**

Almost all businesses with 10+ staff use computers. The average number of computers in this size of businesses is calculated at 23.67 units, and the indicator of computers/employee is 0,40. There was no significant difference from 2005.

The calculated average number of computers in businesses with 10+ staff is made up of 18.9 desktop computers, 2.7 laptop and 1.5 server computers.

87% of these businesses have all or some of their computers connected to a network, at the same level as in 2005. The most prevalent forms of networks are LAN and Intranet.

Computers are used by 34,5% of the employees in businesses with 10+ staff; this percentage is significantly lower compared to the previous measurement, since the sample included more (and more responses from) businesses with higher numbers of production employees who do not use computers.

The employees who use computers often use them on a continuous basis, daily or almost daily, as in 2005.

Teleworking was reported by 9% of businesses, and no change was noted compared to 2005.

**Order processing / purchasing orders**

21% of the businesses have installed computer systems for processing sales or purchasing orders, a figure at the same level as that of 2005. Most of these systems are automatically connected with other internal systems of the company.

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**Internet Connection**

95% of businesses with 10+ staff have Internet connections, as in 2005. The average number of Internet accounts is 2.36 per firm. There is no overall difference over 2005 in the number of Internet connections and Internet users, except in large businesses where the number of Internet accounts is significantly lower this year. As already stated, this difference in large businesses is mainly due to the fact that this year they gave much lower numbers of employees who use computers and therefore are Internet connected, since the sample included more (and more responses from) businesses with higher numbers of production employees who do not use computers.

The Internet is used daily or almost daily.

The 2006 measurements showed a statistically significant increase in broadband connections compared to 2005 (from 38% to 65%), with a corresponding fall in dial-up and ISDN connections (from 49% to 23%).

All businesses use the Internet for sending and receiving email, but its greatest use is for finding information about goods and services, for banking and financing services and for monitoring the market.

E-learning applications are used by just 6% of all businesses, about the same as in 2005. On the other hand, the use of the Internet for transactions with Public Services is widespread.

54% of the businesses with 10+ staff have a corporate website, 6% are hosted by some portal and 5% reported websites currently under construction. 1 out of 3 businesses does not have its own or a portal-hosted website yet. The figures for 2006 are not different from those for 2005.

Only 4 out of 10 businesses (39%) stated that there is a security policy in their corporate website or the portal which hosts it, significantly fewer than in 2005. The prevailing security policies employed are SSL and S-HTTP.

**Electronic commerce**

14% of the businesses with corporate or portal-hosted websites made sales over the Internet in the last year, the same percentage as in 2005. These sales are essentially made through the INTERNET and account for up to 5% of the turnover for the majority of these businesses.

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32% of the businesses which make electronic sales also make electronic payments, or 5% of the businesses with corporate or portal-hosted websites. Among those which make electronic sales, 1 out of 4 stated that they used digital signatures in outgoing messages to ensure their messages' authenticity and integrity.

Very few companies sold products thanks to their presence in some specialized point of sale on the Internet, remaining at the very low levels that were found in 2005.

Finally, 10% of the businesses with Internet connection made electronic purchases, mainly through the INTERNET. Again, there is no differentiation over the figures for 2005.

**Security issues**

About 3 out of 4 companies reported no security problems in the last 12 months, significantly more than in 2005. The problems that did occur elsewhere had to do almost exclusively with viruses, worms or Trojan attacks.

The measures taken in the last three months comprised virus checks or protection software, private network protection, security for servers and the storage of data off the network.

73% of the businesses with Internet connection updated their security measures in the last three months, i.e. at the same level as in 2005.

**Staff training in new technologies**

Only 7% of all businesses reported difficulties in finding staff with basic skills such as using computer applications.

As regards the hiring of specialist IT or communications staff, 9% of businesses reported hiring such persons during the previous year (2005).

Difficulties in hiring specialist IT or communications staff in 2005 was reported by 4% of businesses.

### **3. 1. Summary of the research findings (among businesses with 10+ staff)**

#### **General information**

The average number of employees in businesses with 10+ staff was calculated at 62, of which 55 full-time, 1 part-time and 6 under fixed-term contracts.

#### **Use of computers and electronic equipment**

As it had been found in the 2005 survey, almost all of these businesses use computers (99%). Moreover, no statistically significant differences were found in computer use among large companies between 2005 and 2006 in terms of the numbers and types of computers.

The average number of computers per business with 10+ staff is calculated at 23.67 units, and it is clear that this is directly proportionate to the size of the business, i.e. the larger the company in terms of number of staff, the more computers it has. The ratio between the number of computers and employees in businesses with over 10 staff sets the indicator of **computers/employee at 0.40** for 2006, compared to 0.47 for 2005, which means that there is no difference here.

The calculated average number of computers in businesses with 10+ staff is made up of 18.9 desktop computers, 2.7 laptop and 1.5 networked computers.

The vast majority of businesses with 10+ employees have all (72%) or some (15%) of their computers connected to a network. Only 11% of the businesses do not have their computers networked. The 2006 data do not differ from those for 2005.

The most prevalent forms of networks are LAN and Intranet. In Athens there is a strong precedence of LAN over INTRANET, while the reverse is true of Salonica and all other regions of the country.

Overall, computers are used by 34,5% of the employees in computer-equipped businesses in 2006, a much lower percentage than that of the previous measurement (42%). This difference is due to large businesses that gave much lower numbers of employees who use computers this year, since the sample included more (and more responses from) businesses with higher numbers of production employees who do not use computers.



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A study of the degree of usage per industry gives much lower rates than in 2005 in Athens, in manufacturing and in commerce.

The computer-using employees use computers very often, on a continuous basis, daily or almost daily, as in 2005. A difference for 2006 was a marked increase in daily use.

Teleworking was reported by 9% of businesses for 2006, which is no different from the figure for 2005. Teleworking employees have access mainly from home, but also while on business trips, from a client's or other associate's premises or even from another branch of the company.

**Order processing / purchasing orders**

21% of the businesses with 10+ staff have installed computer systems for processing sales or purchasing orders, and these are mainly larger companies. This was no different from the findings for 2005.

The great majority of businesses with such systems have them automatically linked to other internal systems of the company (such as the system for stock-replacement orders, sales invoicing, production, distribution, transportation).

**Internet Connection**

The vast majority, 93%, of the businesses with 10+ staff have Internet connections. The rest (7%) do not have Internet connections because the kind of their activities does not make it necessary and there is no demand for it by the firm's suppliers and customers. It was also stated to a lesser extent that there are no applications to suit their needs.

The average number of Internet accounts is calculated at 2.36 per business. The number of accounts per business rises significantly together with the number of employees, and reaches 13.67 in companies with over 250 staff.

The average number of employees who use the Internet as part of their normal tasks is calculated at 15.78 persons, and this also changes significantly in line with the size of the company.

There is no overall differentiation against 2005 as to the number of Internet users and accounts except in large businesses, where the number of accounts is significantly lower this year. As we noted before, this difference in large businesses is mainly due to the fact that this year they gave much lower numbers of employees who use computers and therefore are

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Internet connected, since the sample included more (and more responses from) businesses with higher numbers of production employees who do not use computers.

The great majority of Internet connected businesses use the web daily or almost daily, with no difference noted compared to 2005.

The 2006 measurements showed a statistically significant increase in broadband connections compared to 2005, with a corresponding fall in dial-up and ISDN connections. 65% of all businesses have broadband connections (against 38% in 2005), while only 23% still have ISDN connections (against 49% in 2005). 30% of businesses with DSL connections have opted for speeds of over 1 Mb/sec. Greater speeds are significantly more prevalent among larger businesses and in Athens.

All businesses use the Internet for sending and receiving email. It is also used a lot for finding information about goods and services, for banking and financing services as well as for monitoring the market. The Web is used quite extensively, but to a much lesser extent (27% - 41%) for receiving digital goods or services, booking travel and hotels, accessing free software, and for educational and training purposes. More specifically, however, only 6% of the businesses use e-learning applications, about the same as in 2005.

The use of the Internet for transactions with Public Services is widespread. It is used a lot for finding information, obtaining official forms and, to a large extent, for submitting filled-in forms (larger businesses make more use). The Internet is used significantly more for transactions with Public Services by larger businesses as well by businesses in Athens and Salonica.

54% of the businesses with 10+ staff have a corporate website, 6% are hosted by some portal and 5% reported websites currently under construction. Therefore, about 1 in 3 businesses do not have their own or a portal-hosted website yet. The figures for 2006 are no different from those for 2005.

A corporate or portal-hosted website is mainly for advertising the company's products, while 4 out of 10 also provides access to product catalogues and pricelists.

Only 4 out of 10 businesses (39%) stated that there is a security policy in their corporate website or the portal which hosts it, significantly fewer than in 2005 (55%). The prevailing

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security policies employed are SSL (41%) and S-HTTP (28%), but there are many firms whose respondents knew that a security policy was in place but did not know what it was.

### **Electronic commerce**

14% of the businesses with their corporate or portal-hosted website made sales over the Internet last year. These figures remained unchanged compared to 2005. These sales are made mainly over the Internet, with only a few taking place through EDI or some other information exchange network.

In 6 out of 10 businesses which make electronic sales, these sales account for just 5% of their turnover.

35% of the businesses which make electronic sales also make electronic payments, or 5% of the businesses with corporate or portal-hosted websites. Among those which make electronic sales (75 companies), 1 out of 4 stated that they used digital signatures in outgoing messages, using for instance encryption methods to ensure their messages' authenticity and integrity.

Finally, very few companies sold products thanks to their presence in some specialized point of sale on the Internet (4% of those with electronic sales, or about only 1 of those with corporate or portal-hosted websites) remaining at very low levels.

10% of the businesses with Internet connection made electronic purchases, mainly through the INTERNET. Again, there is no differentiation over the figures for 2005.

### **Security issues**

About 3 out of 4 companies reported no security problems in the last 12 months, significantly more than in 2005 the problems that did occur elsewhere had to do almost exclusively with viruses, worms or Trojan attacks and resulted in loss of information and/or working time.

The measures taken in the last three months comprised virus checks or protection software, private network protection, but also to a great extent security for servers and the storage of data off the network. 73% of the businesses with Internet connection updated their security measures in the areas of protection software, private network protection, server security and off-network data storage in the last three months, i.e. at about the same level as in 2005.

### **Staff training in new technologies**

Only 7% of all businesses reported difficulties in finding staff with basic skills such as using computer applications. There was no corresponding measurement in 2005.

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As regards the hiring of specialist IT or communications staff, 9% of businesses reported hiring such persons in 2005.

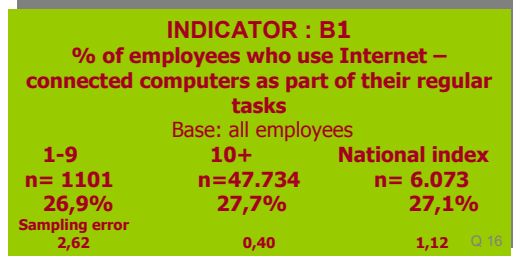
The average number of such staff hired by these businesses is calculated at 2.76 persons per business.

Difficulties in hiring specialist IT or communications staff in 2005 was reported by 4% of businesses.

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3.2. e-Europe Indicators

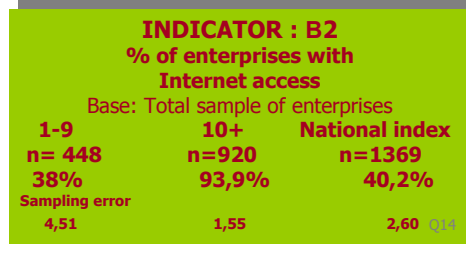
Green: 2005 results  
 Orange: 2006 results



Enterprises with 10+ employees

EU25	26%
EU15	26%
Max. value: Finland	
Denmark	53%

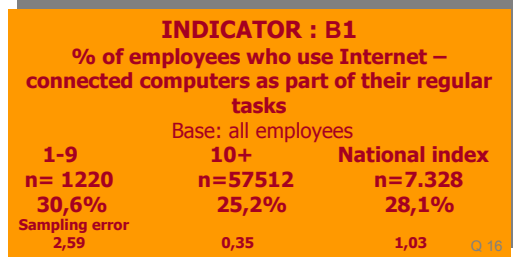
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	89%
EU15	90%
Max. value: Finland	
Denmark	97%

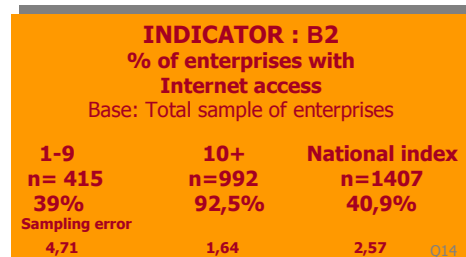
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	35%
EU15	37%
Max. value: Finland	56%

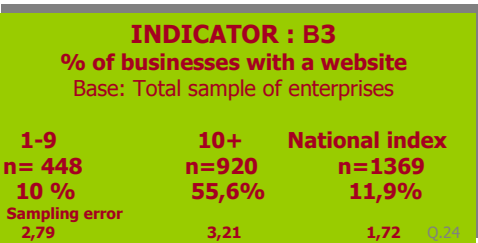
Source: Eurostat 2005



Enterprises with 10+ employees

EU25	91%
EU15	92%
Max. value: Finland	98%

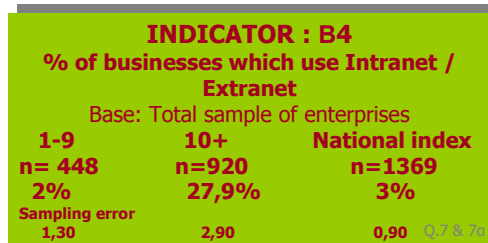
Source: Eurostat 2005



Enterprises with 10+ employees

EU25	58%
EU15	60%
Max. value: Sweden	82%

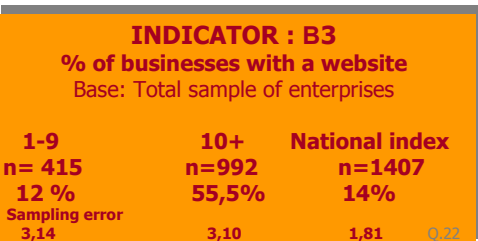
Source: Eurostat 2004



Enterprises with 10+ employees

Extranet		Intranet	
EU25	12%	EU25	33%
EU15	14%	EU15	34%
Max. value: Belgium	23%	Max. value: Belgium	45%

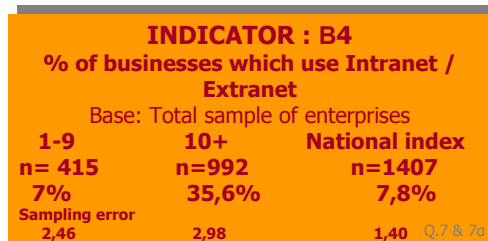
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	61%
EU15	63%
Max. value: Sweden	85%

Source: Eurostat 2005

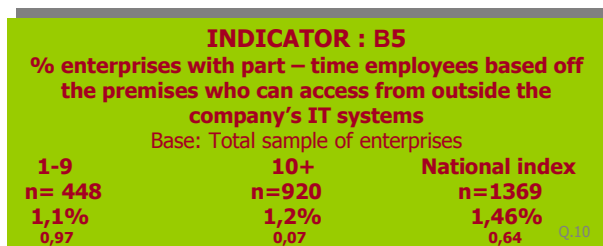


Enterprises with 10+ employees

Extranet		Intranet	
EU25	15%	EU25	34%
EU15	17%	EU15	35%
Max Value: Greece	32%	Max Value: Belgium	46%

Source: Eurostat 2005

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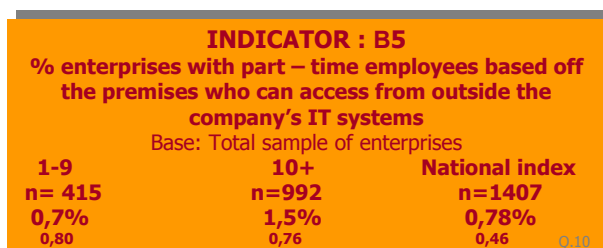


Enterprises with 10+ employees

EU25	16%
EU15	18%
Max. value: Germany	45%

Source: Eurostat 2004

Sampling error

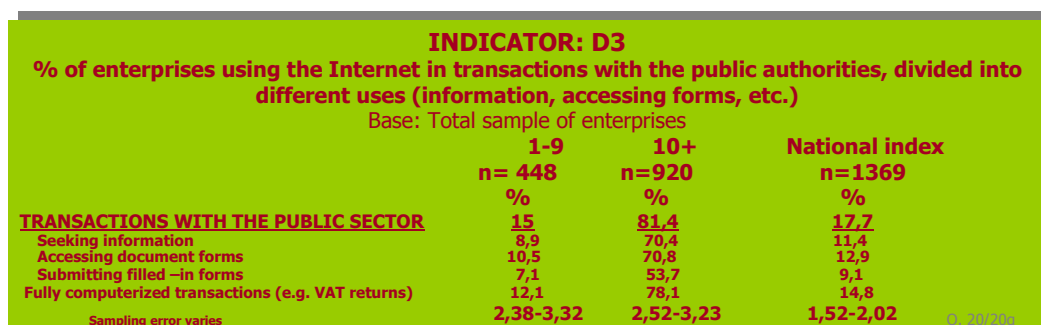


Enterprises with 10+ employees

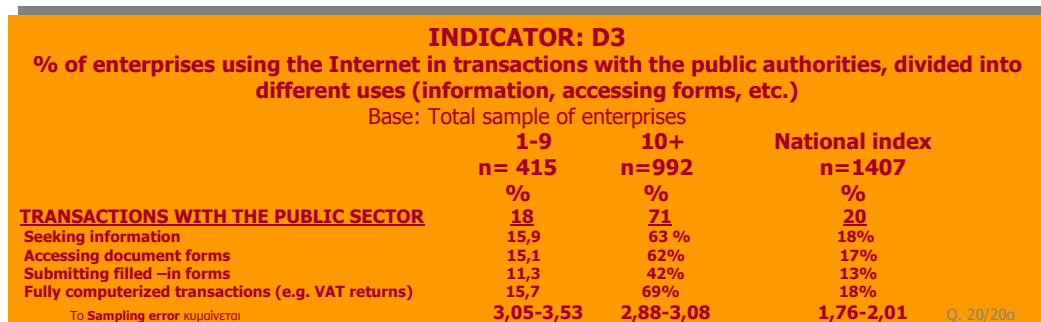
EU25	19%
EU15	20%
Max. value: Denmark	50%

Source: Eurostat 2005

Sampling error

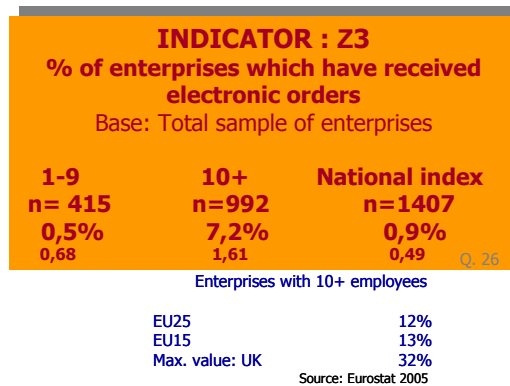
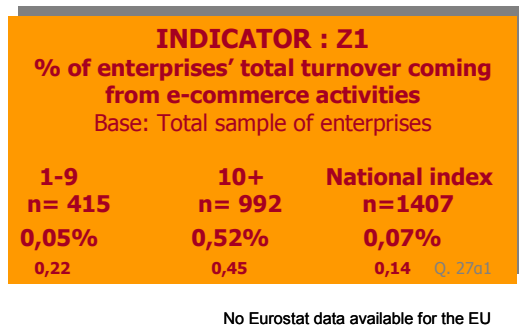
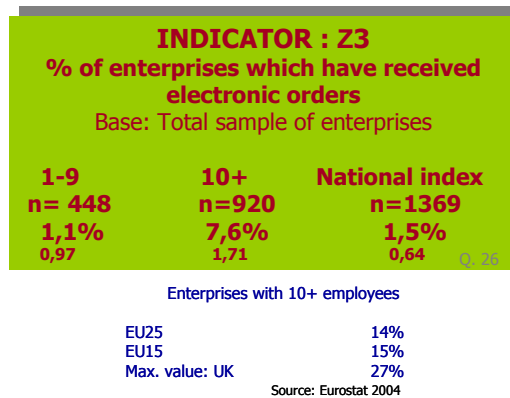
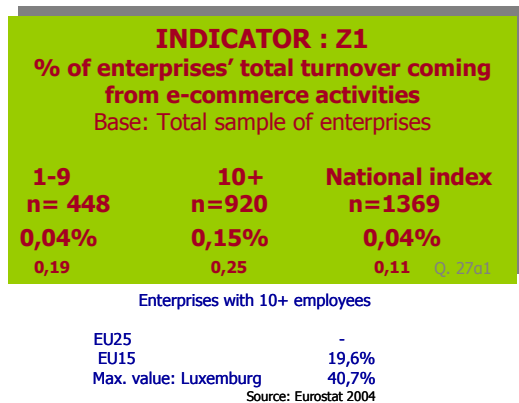
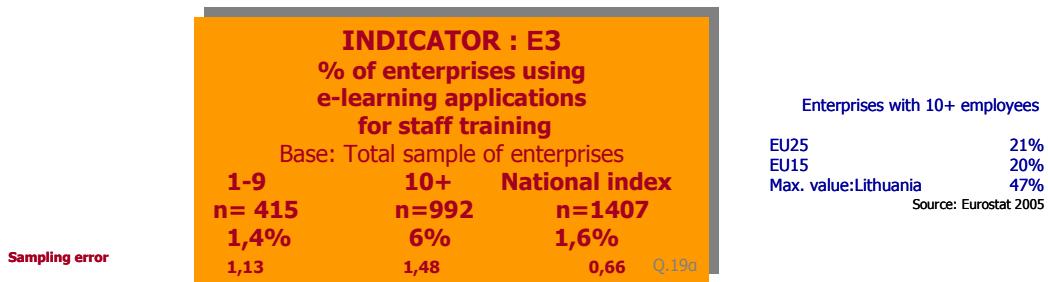
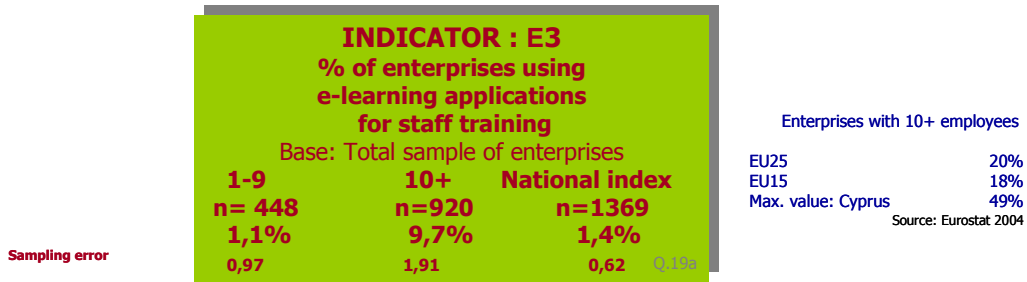


No Eurostat data available for the EU

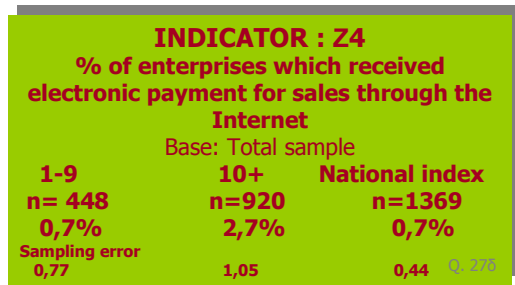


Enterprises with 10+ employees Seeking information	Enterprises with 10+ employees Accessing document forms	Enterprises with 10+ employees Submitting filled –in forms	Enterprises with 10+ employees Fully computerized transactions
EU25 51%	EU25 50%	EU25 33%	EU25 19%
EU15 50%	EU15 49%	EU15 31%	EU15 10%
Max. value: Finland 88%	Max. value : Finland 87%	Max. value : Finland 71%	Max. value : Finland 76%
Source: Eurostat 2005	Source: Eurostat 2005	Source: Eurostat 2005	Πηγή: Eurostat 2005

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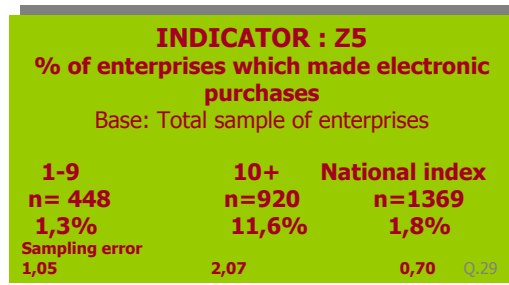
RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*



Enterprises with 10+ employees

EU25	3%
EU15	3%
Max. value: Ireland	8%

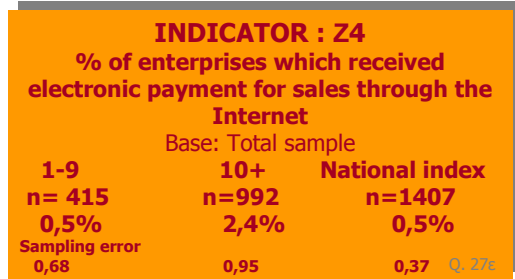
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	27%
EU15	29%
Max. value: UK	50%

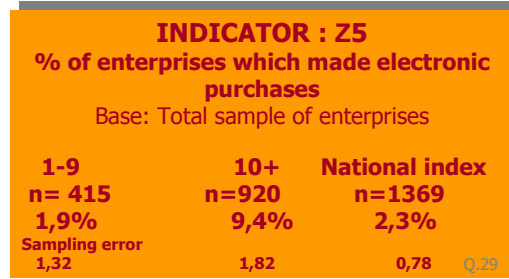
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	3%
EU15	3%
Max. value: Ireland	8%
Denmark	

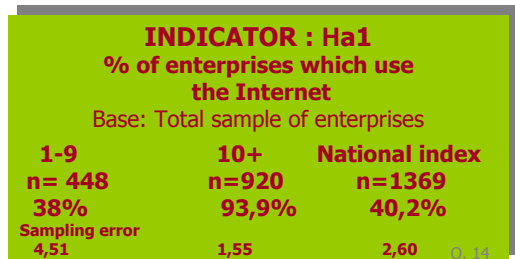
Source: Eurostat 2005



Enterprises with 10+ employees

EU25	24%
EU15	26%
Max. value: UK	51%

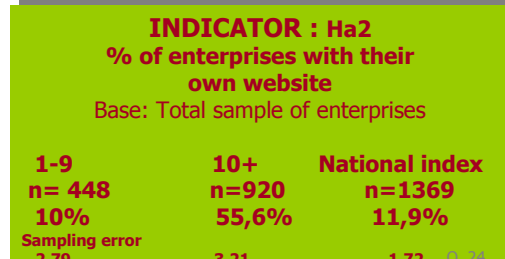
Source: Eurostat 2005



Enterprises with 10+ employees

EU25	-
EU15	87%
Max. value: Denmark	
Finland	98%

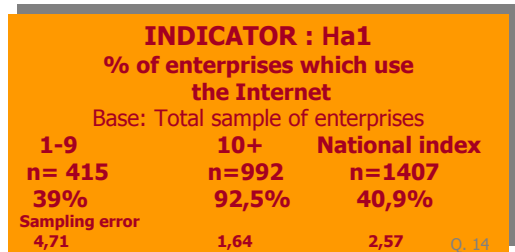
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	58%
EU15	60%
Max. value: Sweden	82%

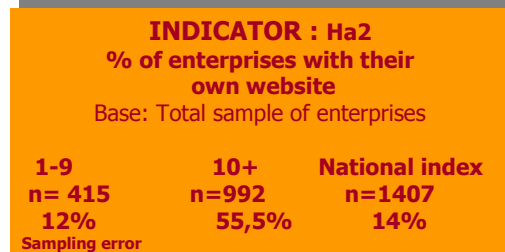
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	-
EU15	87%
Max. value: Denmark	
Finland	98%

Source: Eurostat 2004



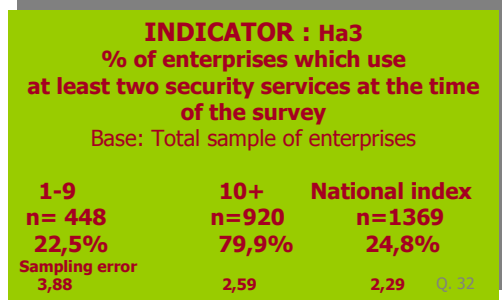
Enterprises with 10+ employees

EU25	61%
EU15	63%
Max. value: Sweden	85%

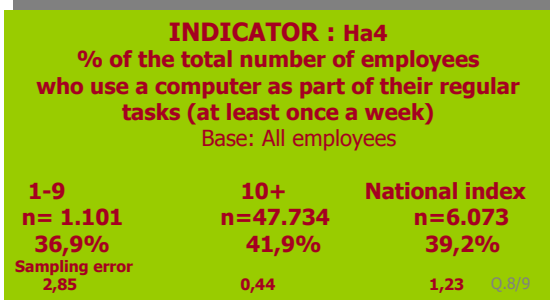
Source: Eurostat 2005



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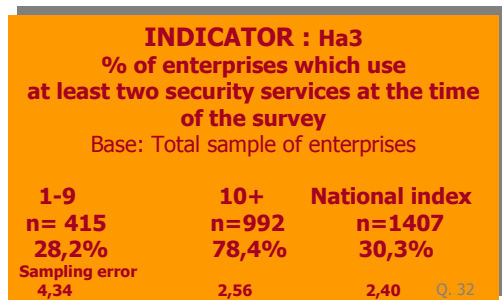
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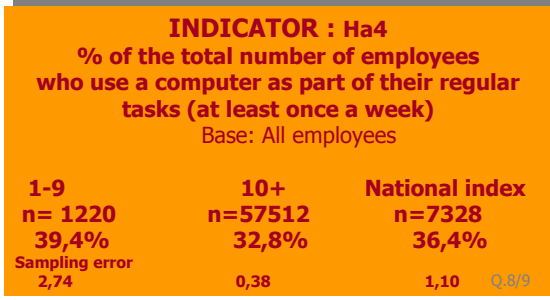
Enterprises with 10+ employees

EU25	-
EU15	47%
Max. value: Sweden	72%

Source: Eurostat 2002



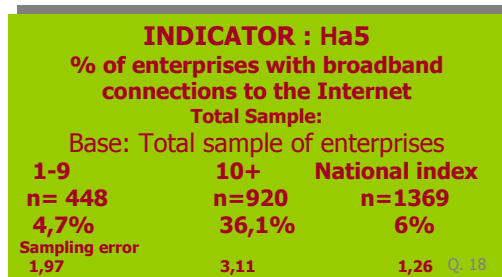
No Eurostat data available for the EU



Enterprises with 10+ employees

EU25	-
EU15	47%
Max. value: Sweden	72%

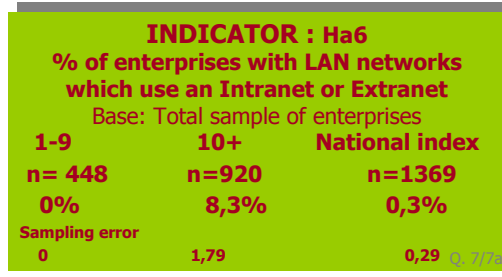
Source: Eurostat 2002



Enterprises with 10+ employees

EU25	52%
EU15	55%
Max. value: Denmark	80%

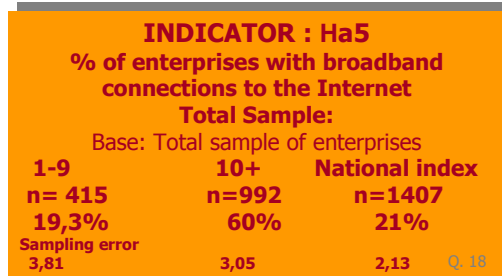
Source: Eurostat 2004



Enterprises with 10+ employees

Extranet		Intranet	
EU25	12%	EU25	33%
EU15	14%	EU15	34%
Max. value: Belgium	23%	Max. value: Belgium	45%

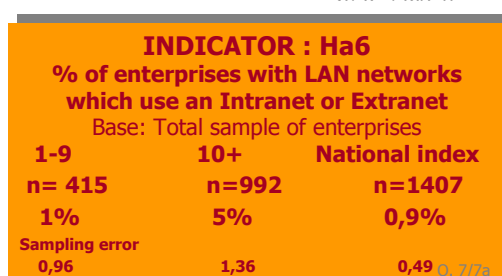
Source: Eurostat 2004



Enterprises with 10+ employees

EU25	63%
EU15	65%
Max. value: Denmark	83%

Source: Eurostat 2005

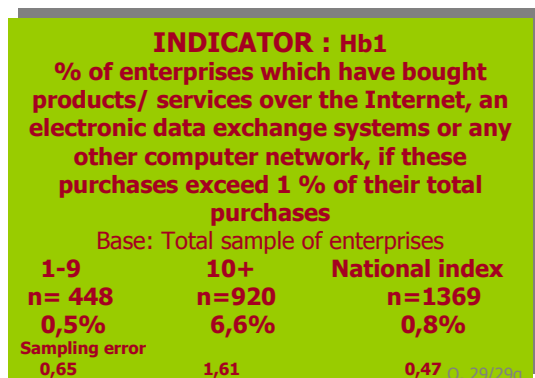


Enterprises with 10+ employees

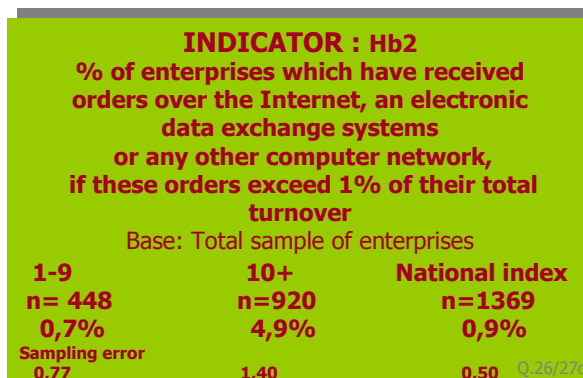
Extranet		Intranet	
EU25	15%	EU25	34%
EU15	17%	EU15	35%
Max. value: Greece	32%	Max. Value Belgium	46%

Source: Eurostat 2005

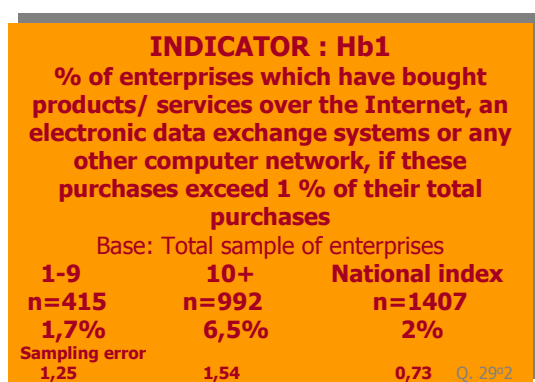
RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*



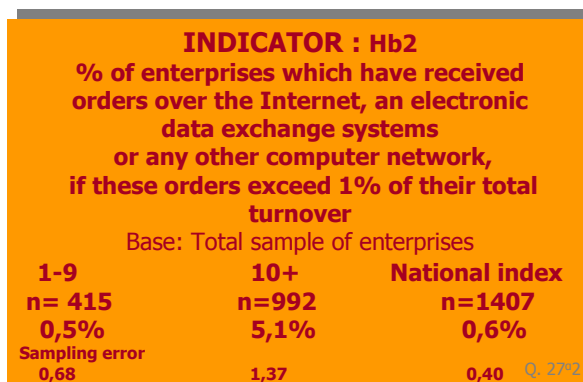
No Eurostat data available for the EU



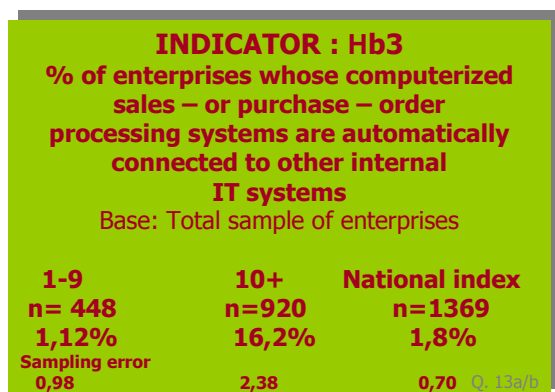
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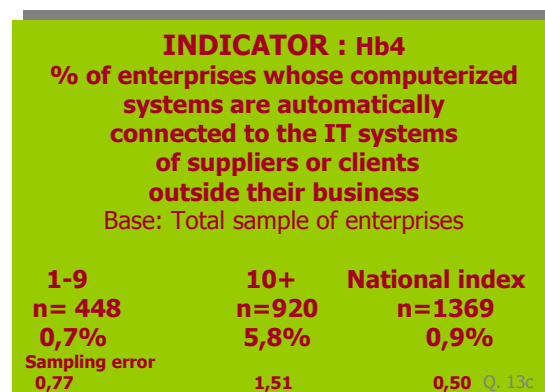
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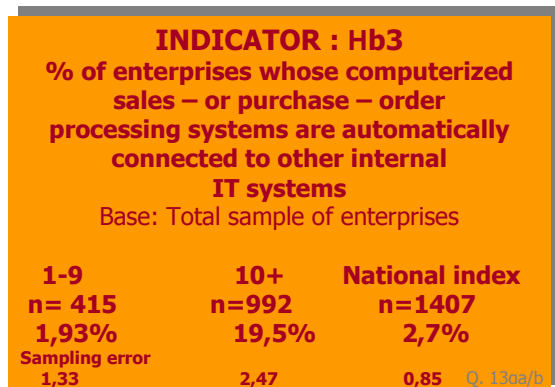
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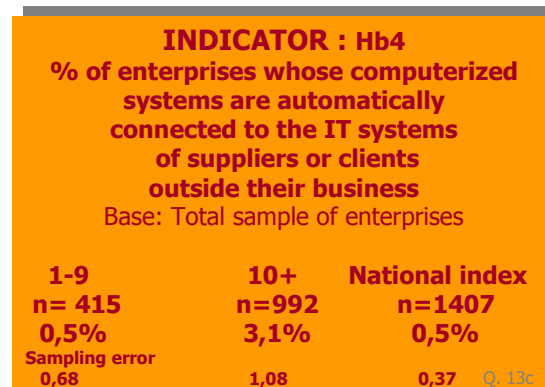
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No Eurostat data available for the EU

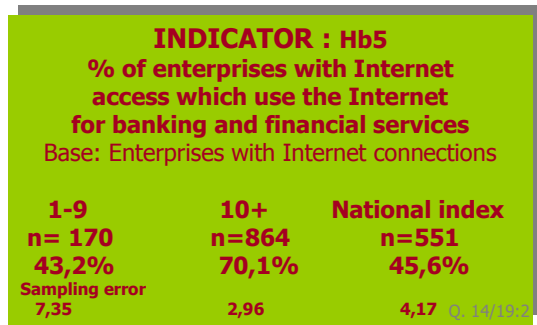


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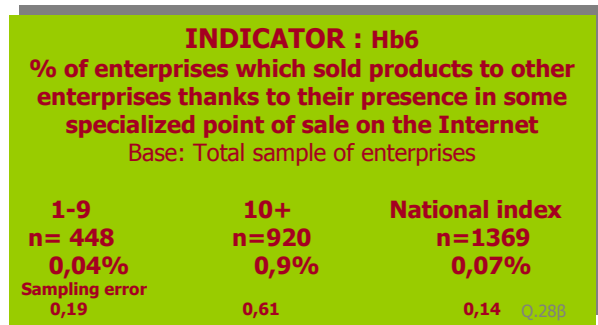
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RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*



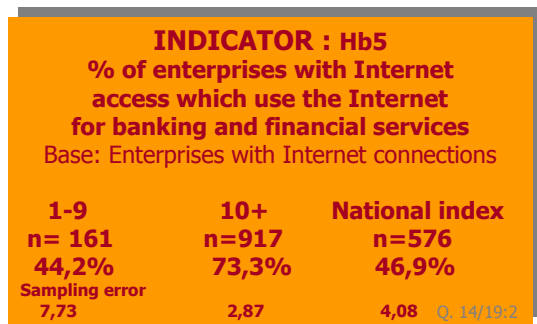
Enterprises with 10+ employees

EU15 65%  
 Max. value: Finland 85%  
 Source: Eurostat 2002



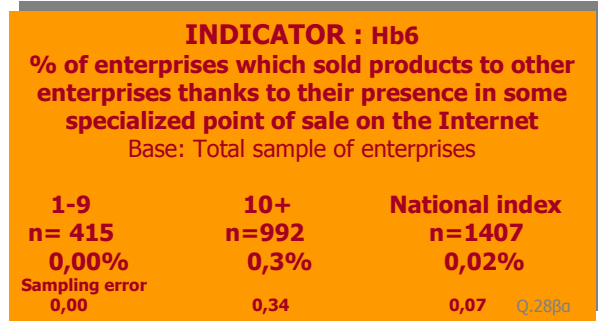
Enterprises with 10+ employees

Max. value: Portugal 29%  
 Source: Eurostat 2001



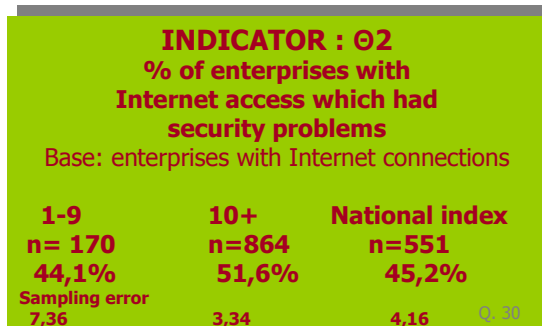
Enterprises with 10+ employees

EU15 65%  
 Max. value: Finland 85%  
 Source: Eurostat 2002

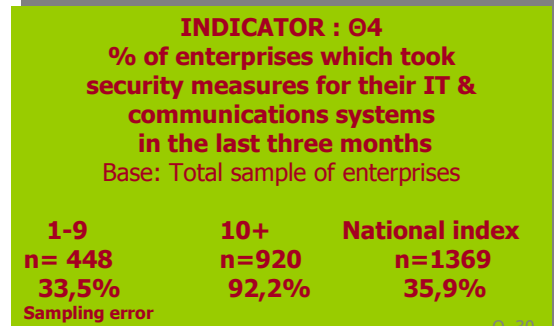


Enterprises with 10+ employees

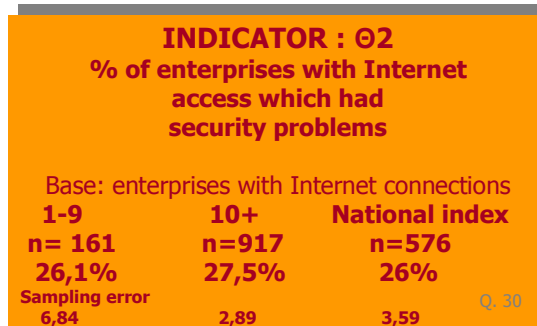
Max. value: Portugal 29%  
 Source: Eurostat 2001



No Eurostat data available for the EU

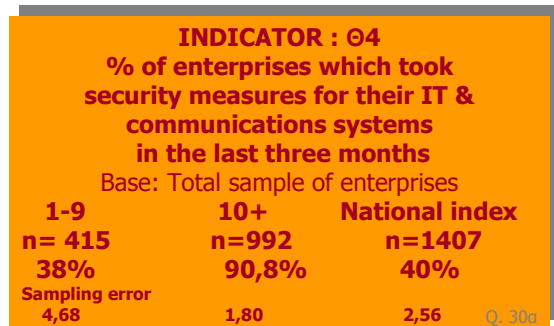


No Eurostat data available for the EU



Enterprises with 10+ employees

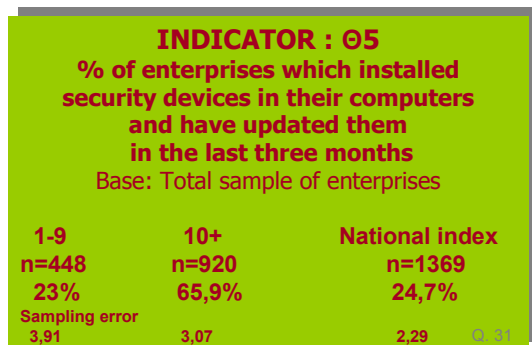
EU25 2%  
 EU15 2%  
 Max. value: Denmark 5%  
 Hungary 5%  
 Source: Eurostat 2005



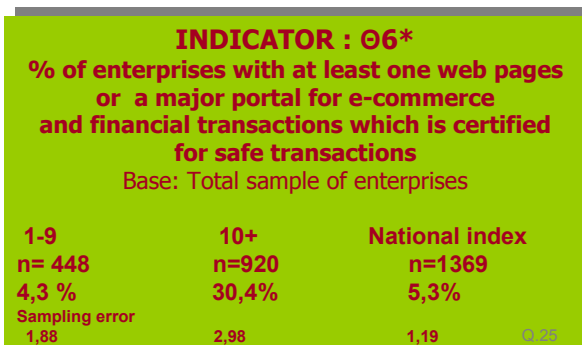
Enterprises with 10+ employees

EU25 89%  
 EU15 90%  
 Max. value: Finland 97%  
 Source: Eurostat 2005

RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*

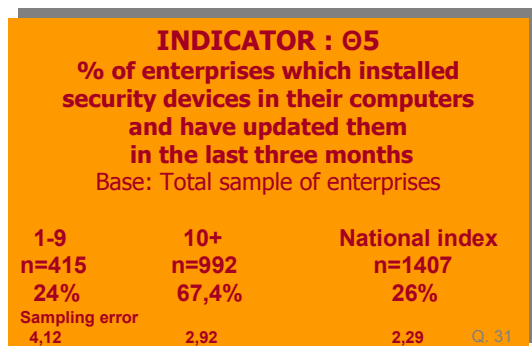


No Eurostat data available for the EU

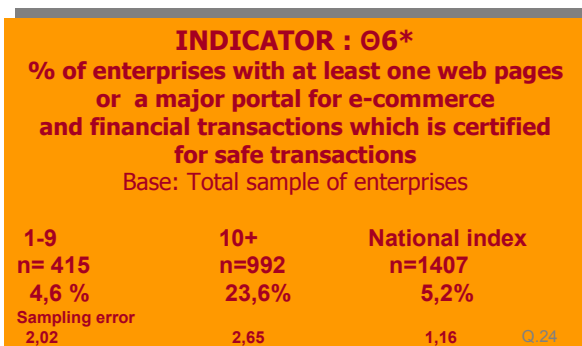


\* This indicator was calculated on the base of enterprises rather than on the total number of websites or portals

No Eurostat data available for the EU

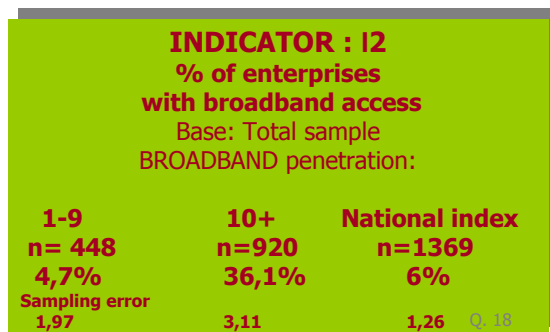


No Eurostat data available for the EU



\* This indicator was calculated on the base of enterprises rather than on the total number of websites or portals

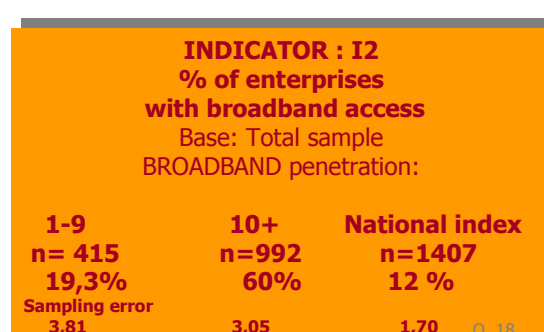
No Eurostat data available for the EU



Enterprises with 10+ employees

EU25	52%
EU15	55%
Max. value: Denmark	80%

Source: Eurostat 2004



Enterprises with 10+ employees

EU25	63%
EU15	65%
Max. value: Sweden	83%

Source: Eurostat 2005

RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*

**INDICATOR : I5**

**Difference between availability & adoption of broadband Internet access, divide into types of access**

Population of enterprises :

1-9	10+	National index
n= 778.400	n=30.940	n=809.340

DSL Penetration :

1-9	10+	National index
n=448	n=920	n=1369
4,7%	36,1%	6%

Estimated no. of enterprises with DSL connection :

1-9	10+	National index
n=36.585	n=11.169	n=48.560

**DSL Availability: 117.022**

**Απορρόφηση DSL:**

<b>31,2%</b>	<b>9,5%</b>	<b>41,5%</b> <small>Q.18 I2-I4</small>
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No Eurostat data available for the EU

**INDICATOR : I5**

**Difference between availability & adoption of broadband Internet access, divide into types of access**

Population of enterprises:

1-9	10+	National index
n= 778.400	n=30.940	n=809.340

DSL Penetration :

1-9	10+	National index
n=415	n=992	n=1407
19,3%	60%	21%

Estimated no. of enterprises with DSL connection :

1-9	10+	National index
n=150.231	n=18.564	n=169.961

**DSL Availability: 759.456**

**DSL Absorption:**

<b>19,8%</b>	<b>2,4%</b>	<b>22,4%</b> <small>Q.18 I2-I4</small>
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No Eurostat data available for the EU

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

**4. Findings of the research (among businesses with 10+ staff)**

**General information**

The average number of employees in businesses with 10+ staff is 62, of which 55 full-time, 1 part-time and 6 under fixed-term contracts.

**NUMBER OF EMPLOYEES IN THE BUSINESS**

	M.S.	
	2005	2006
<b>TOTAL EMPLOYEES</b>	52	62
<b>FULL TIME EMPLOYEES</b>	47	55
<b>PART TIME EMPLOYEES</b>	1	1
<b>EMPLOYEES WITH CONTRACT</b>	4	6

**n=920    n=992**

In 2006 the lowest average number of employees was found in commerce again (Ave. = 38, the same as in 2005), while most other industries reported increases.

2005	Manufacturing	Commerce	Hotels Restaurants	Transport, Warehousing, Communication	Real Estate Mgt	Radio Television	Construction
n=920	%	%	%	%	%	%	%
10-49	75	88	77	78	75	79	81
50-249	19	11	20	16	21	18	15
250+	6	1	3	6	4	3	4
M.O.	60.43	37.85	54.91	91.21	61.14	54.25	61.46

2006	Manufacturing	Commerce	Hotels Restaurants	Transport, Warehousing, Communication	Real Estate Mgt	Radio Television	Construction
n=992	%	%	%	%	%	%	%
10-49	69	88	66	75	72	92	78
50-249	22	10	30	17	21	8	15
250+	9	2	4	8	7	-	7
M.O.	81.15	37.55	75.87	110,6	101,5	46.19	69.5

**Note:** The reduction in radio/television is based on a minimal sample of just 6 businesses and as a result it cannot be relied upon.

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

In terms of per-industry employment figures there is a marked increase in manufacturing, hotels/ restaurants and transportation/ warehousing/ communications.

**Use of computers and electronic equipment**

Almost all businesses with 10+ staff (99%) use computers, the figure being exactly the same as for 2005.

Moreover, no statistically significant changes were found between 2005 and 2006 regarding computer use in larger businesses or the number and type of computers.

**No of PCs**

	2005 (n=912)	2006 (n=986)
1-5 PCs =	26%	31%
6-10 PCs =	24%	26%
11-29 PCs =	34%	28%
30-99 PCs =	12%	11%
100+ PCs =	4%	4%

M.S.

	2005	2006
<b>TOTAL PC</b>	<b>24.4</b>	<b>23.67</b>
<b>Desktop</b>	<b>18.8</b>	<b>18.9</b>
<b>Note-books</b>	<b>2.7</b>	<b>2.7</b>
<b>Server</b>	<b>2.5</b>	<b>1.5</b>
<b>Palmtops</b>	<b>-</b>	<b>0.6</b>

3 out of 10 businesses had 1-5 computers in 2006, and 1 out of 4 had 6-10 computers. Moreover, about 3 out of 10 had 11-29 computers and 15% of businesses with 10+ staff had more than 30 units.

The ratio of desktop, notebook and server computers did not change in 2006. The average number of computers in businesses with 10+ staff is 23.67 units and comprises 18.9 desktop computers, 2.7 laptop and 1.5 server computers.

By correlating the average number of computers per business with the number of employees, the industry and the region, we get the following results:

RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES

COMPUTERS PER No. OF EMPLOYEES, REGION AND INDUSTRY

2005	Total n=912	10-49 n=743	50-249 n=140	250+ n=~29~	Athens n=479	Salonica n=117	North n=106	Central n=97	South n=113
	M.S. of PCs	24.37	11.73	45.93*	241.42*	33.18	20.68	11.86* <small>Significantly lower vs Attiki</small>	14.40
	Total n=912	Manufacturing n=259	Commerce n=409	Hotels & restaurants n=~53~	Transport Warehousing Communication n=~54~	Real Estate Mgt n=~44~	Radio & television n=~25~	Construction n=~68~	
M.S. of PCs	24.37	21.69	21.80	13.00	45.59	46.96	32.59	24.33	

2006	Total n=986	10-49 n=782	50-250 n=163	250+ n=~41~	Athens n=532	Salonica n=121	North n=106	Central n=111	South n=116
	M.S. of PCs	23.67	9.57	46.79*	201.8*	30.37*	23.37*	15.5*	11.87*
	Total n=986	Manufacturing n=284	Commerce n=465	Hotels & Restaurants n=~42~	Transport Warehousing Communication n=~65~	Real Estate Mgt n=~52~	Radio & television n=~6~	Construction n=~74~	
M.S. of PCs	23.67	23.88	17.89	21.41	26.5	73.33*	69.87*	19.36*	

It is clear from the above table that the possession and use of computers rises in line with the number of employees and is significantly higher in Athens and Salonica in relation to the other regions of the country.

The analysis per industry does not reveal any statistically significant differences among the industries whose bases permit a reliable analysis (manufacturing and commerce). A much higher number of computers is observed in transportation/ warehousing/ communications, real estate management and radio/ television, but the sample does not permit a reliable analysis.

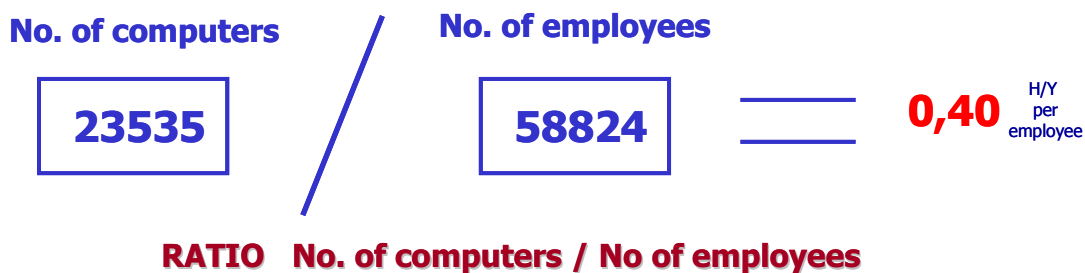
Overall, no differences were noted from 2005 to 2006 in the number of computers in businesses per number of employees, region and industry.

The correlation of the number of computers and the employees in businesses with over 10 staff leads to the indicator of computers/employee, which is calculated at 0.40 computers per employee in 2006, against 0.47 for 2005, which means that there is no differentiation.



RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*

COMPUTERS PER No. OF EMPLOYEES, REGION AND INDUSTRY

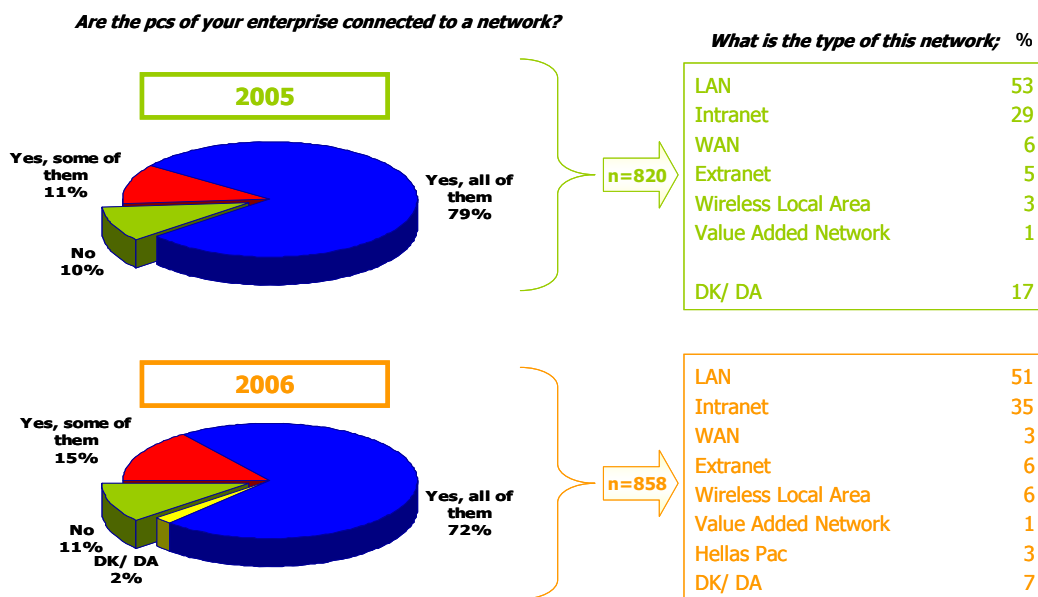


Enterprise size	Region	Sector
10-49 0,46	Attiki 0,45	Manufacturing 0,30
50-250 0,43	Salonica 0,37	Wholesale and retail 0,47
250+ 0,34	North 0,27	Hotels and restaurants 0,27
	Central 0,30	Transportation, warehousing 0,41
	South 0,33	Real estate management 0,72
		Radio and television 1,51
		Construction 0,28

This indicator does not show any major change among the different company sizes, but it is significantly higher in Attiki (0.45 units per employee) compared to the rest of the country, as well as in wholesale and retail (0.47) while falling considerably in manufacturing (0.30).

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

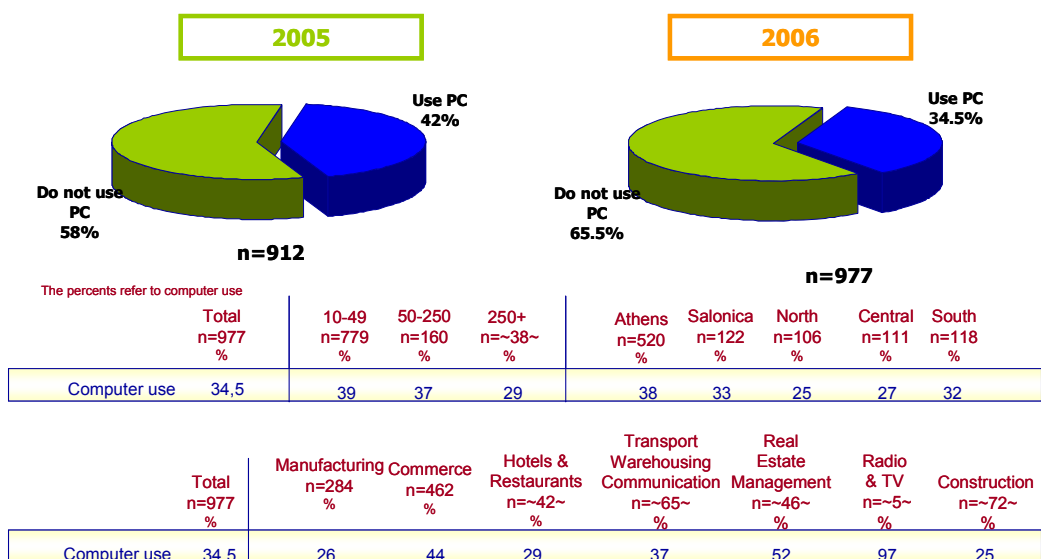
The vast majority of businesses with 10+ employees have all (72%) or some (15%) of their computers connected to a network. Only 11% of the businesses do not have their computers networked. The data for 2006 are no different than those for 2005, and the same is true of the types of networks. The most widely used type is LAN, followed by INTRANET. In Athens there is a strong prevalence of LAN (71%) against the INTRANET (23%), while the reverse is true of Salonica and all other regions of the country.



**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

Overall, computers are used by 34.5% of the employees in computer-equipped businesses in 2006, a much lower percentage than that of the previous measurement (42%). This difference is due to large businesses that gave much lower numbers of employees who use computers this year, since the sample included more (and more responses from) businesses with higher numbers of production employees who do not use computers. Compared to 2005, the degree of computer usage per industry appears to be much lower in Athens, in manufacturing and in commerce.

*What percent of the total sample of employees in the company uses any type of PC either desktop, laptop, palmtop as a part of their normal tasks?*

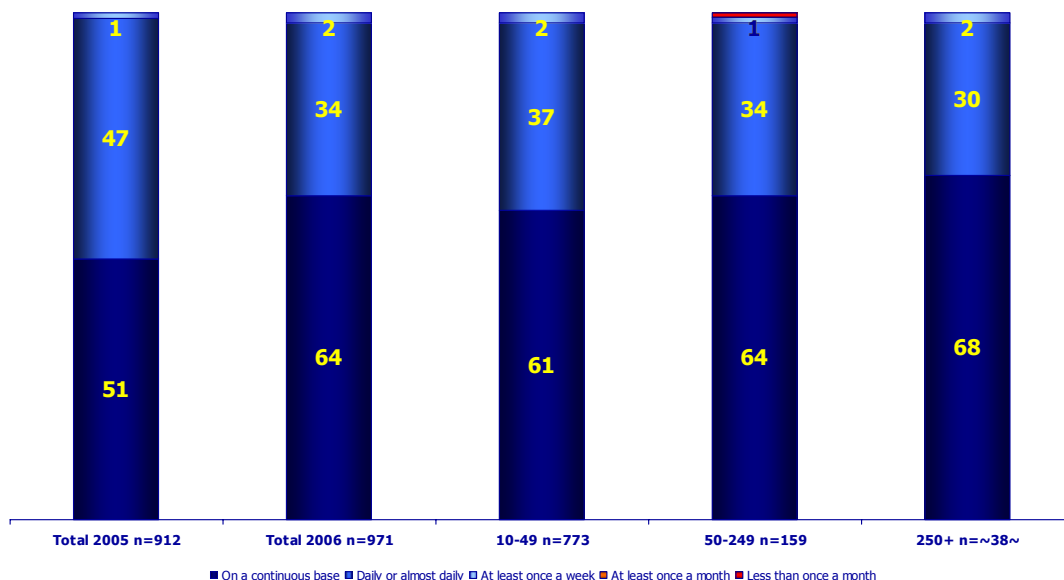


**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

Computer-using employees use computers on a continuous basis, daily or almost daily, just as in 2005. However, there was a significant increase in daily usage in 2006, as shown in the following graph:

**FREQUENCY OF COMPUTER USAGE PER NUMBER OF EMPLOYEES**

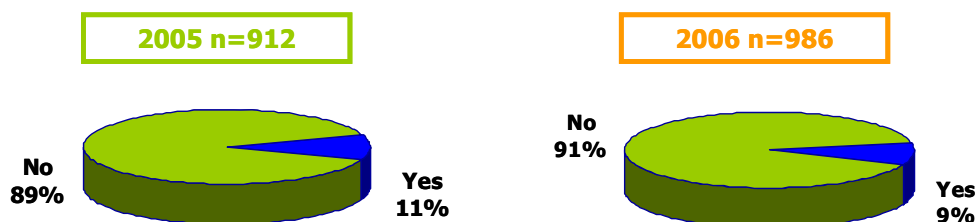
*Amongst all employees who use computers, what percentage use computers...?*



Teleworking was reported by 9% of all businesses in 2006, no different from the figure for 2005.

The term refers to persons who work systematically for some of their working time off the business premises and have access to the company's computer system.

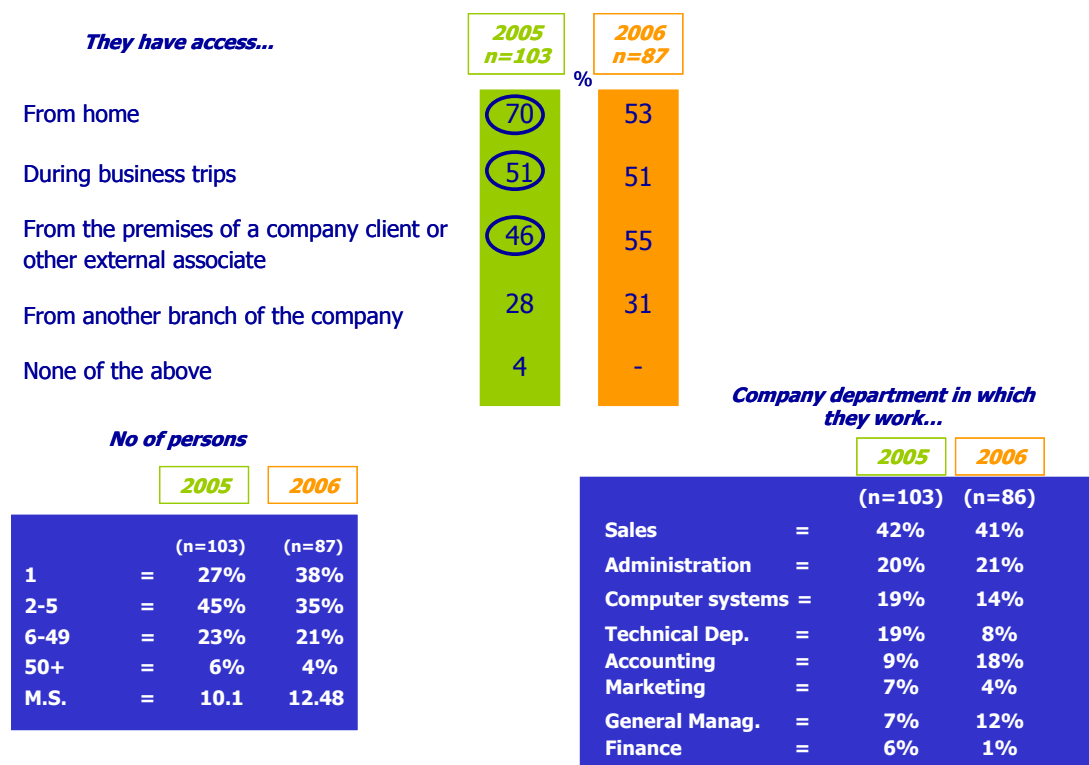
*Does your company employ some persons who work systematically for some of their working time off the business premises and have access to the company's computer system?*



These persons gain access to the company's computer system mainly from home (53% – significantly lower in comparison with 2005), during business trips (51%), from the premises of a company client or other external associate (55%), but also from another branch of the company (31%).

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

**TELEWORKING**



In 38% of the businesses which use teleworking, only 1 person works in this way, 2-5 persons in 35% and 6-49 persons in 21% of the businesses.

In 41% of the businesses these persons are employed mainly in sales, the department in which teleworking appears to be most prevalent, as in 2005.

**Order processing/ purchase orders**

21% of the businesses with 10+ staff have introduced IT systems for processing orders and handling purchase orders, and these are mainly larger businesses. No difference was found in this area in comparison with 2005.

**PROVISION OF IT SYSTEMS FOR ORDER PROCESSING OR PURCHASE ORDERS**

*Has your company installed any IT system for sale or order-processing such as NAVIGATION ή SAP?*



In 93% of the companies with such systems, these are automatically linked to other internal systems of the company such as the system for stock-replacement orders (76%), the sales

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

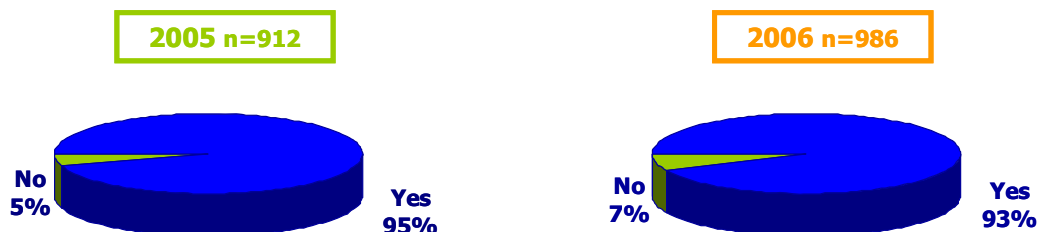
invoicing system (92%), and, to a significant degree, with the system of production, distribution, transportation (31%).

<b>Are those IT systems for processing orders, handling or receiving orders connected to other internal company systems ?</b>	Base n=178	n=210		
		<b>2005</b>	<b>2006</b>	
	Yes	83%	93%	
	No	17%	7%	
		Base n=148	n=194	
<b>To what other internal company systems are they automatically connected?</b>		<b>2005</b>	<b>2006</b>	
Internal system for stock – replacement orders		78%	76%	
Payment invoicing system		75%	92%	
System of production, distribution, transportation		56%	31%	

**Internet Connection**

93% of the businesses with 10+ staff, i.e. the vast majority, have Internet connections. The percentage of non-connected companies is very low and virtually unchanged from 2005.

**PROVISION OF INTERNET CONNECTION IN THE BUSINESS**



The few remaining businesses with no connection are mainly small businesses outside Athens, active in manufacturing, wholesale and retail.

The main reason why they do not have Internet connections is because the kind of their activities does not make it necessary and there is no demand for it by the firm’s suppliers and customers and to a lesser extent because there are no applications to suit their needs.

Among the companies without connection, 3 out of 10 intend to establish one in the next 12 months.

The average number of Internet accounts among the connected firms is calculated at 2.36 per business. It is clear that the average number of Internet accounts rises along with the size of the business and reaches 13.67 in businesses with over 250 staff.

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

**NUMBER OF ACCOUNTS AND INTERNET USERS**

		<i>TOTAL</i>	<i>10-49</i>	<i>50-249</i>	<i>250+</i>
1 account	=	73%	79%	59%	27%
2 accounts	=	15%	13%	20%	29%
3 +	=	10%	7%	16%	28%
DK/ DA	=	-	-	1%	2%
		2,36	1,49	3,33*	13,67*

**M.S. OF ACCOUNTS**

The average number of employees who use the Internet as part of their normal tasks is 15.78 persons. This average changes significantly with the size of the company, from 6.31 for businesses with 10-40 staff to 29.14 for those with 50-249 staff and 131.70 for very large companies.

There is no overall difference over 2005 in the number of Internet connections and Internet users, except in large businesses where the number of Internet accounts is significantly lower this year. This difference in large businesses is mainly due to the fact that this year they gave much lower numbers of employees who use computers and therefore are Internet connected, since the sample included more (and more responses from) businesses with higher numbers of production employees who do not use computers.

**NUMBER OF ACCOUNTS AND INTERNET USERS**

<b>M.S. OF EMPLOYEES WHO USE THE INTERNET AS A PART OF THEIR NORMAL TASKS</b>		<i>TOTAL</i>	<i>10-49</i>	<i>50-249</i>	<i>250+</i>
		15, 78	6,31	29,14*	131,7*

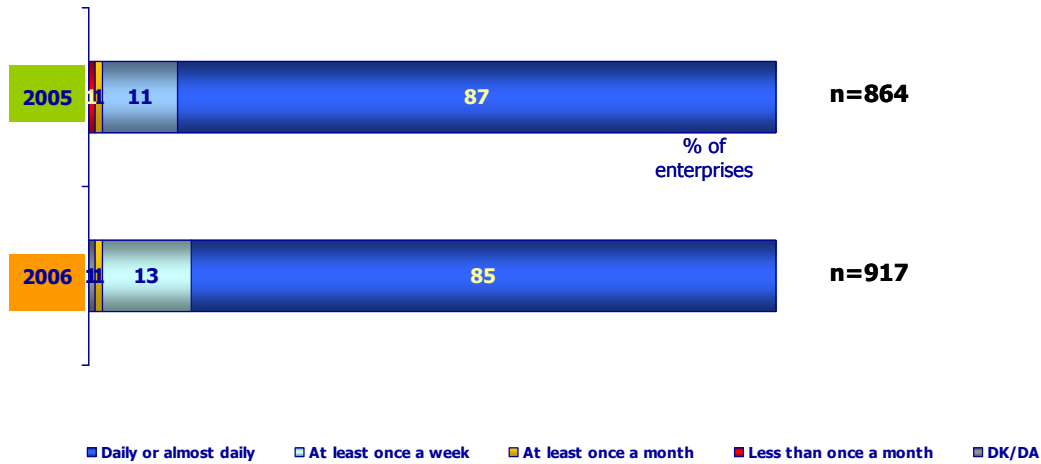
<b>% OF EMPLOYEES WHO USE THE INTERNET AS A PART OF THEIR NORMAL TASKS</b>		<i>TOTAL</i>	<i>10-49</i>	<i>50-249</i>	<i>250+</i>
		24,2	30	27,2	19,1

In the great majority of businesses with Internet connection, the Web is used daily or almost daily (85%). In almost all other cases it is used at least once per week.

No difference in comparison with 2005 was noted as regards the frequency of Internet use.

RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES

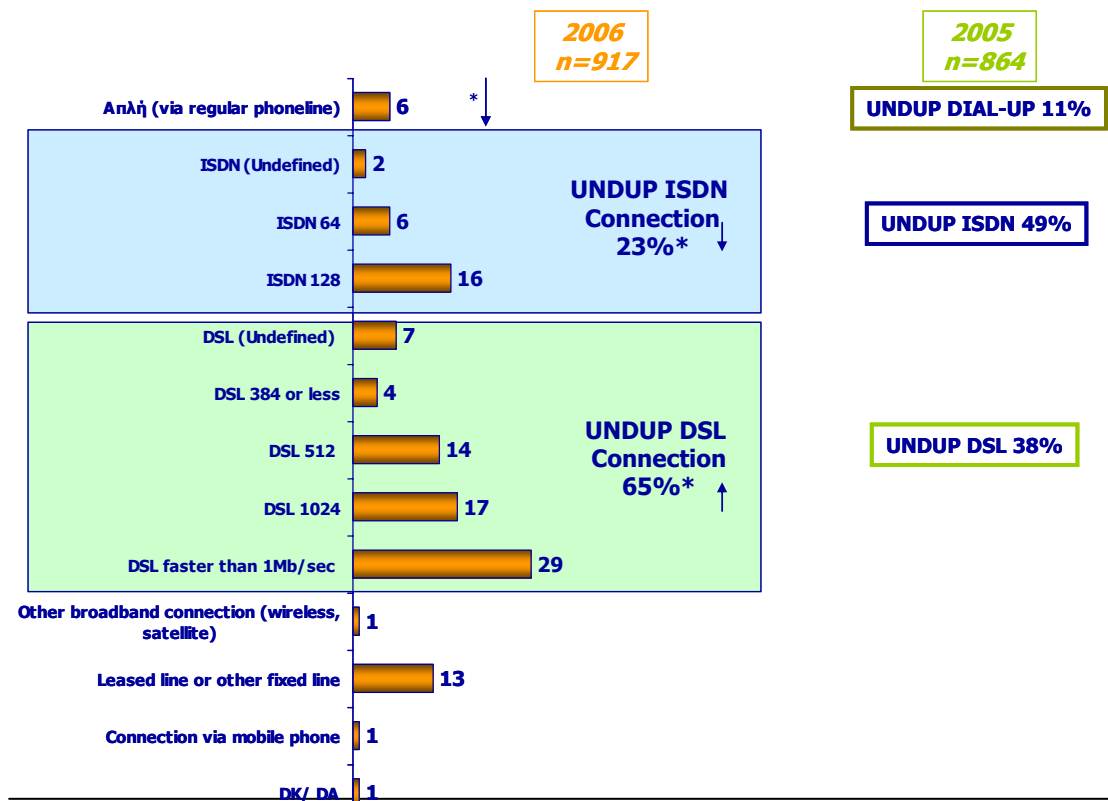
FREQUENCY OF USE OF THE INTERNET



The 2006 measurements showed a statistically very significant increase in broadband connections compared to 2005, with a corresponding fall in dial-up and ISDN connections. 65% of all businesses have broadband connections (against 38% in 2005), while only 23% still have ISDN connections (against 49% in 2005).

Almost 30% of businesses with DSL connections have opted for speeds of over 1 Mb/sec. Greater speeds are significantly more prevalent among larger businesses and in Athens.

FORMS OF INTERNET CONNECTION



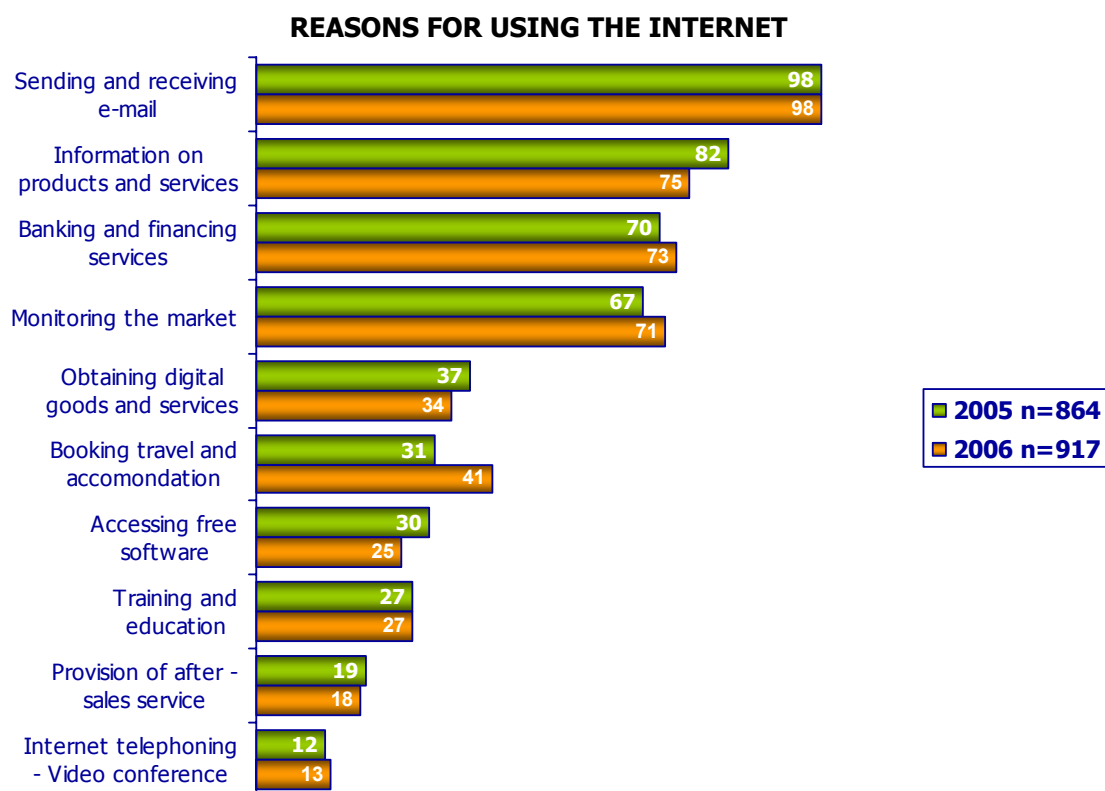


**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

The Internet is used by almost all businesses with a connection for sending and receiving email. Moreover, 75% of the businesses use it also for finding information about goods and services. The web is also used a lot for banking and financing services (73%), as well as for monitoring the market (71%).

A sizeable percentage of businesses (from 27% - 41%) use the Internet for obtaining digital goods or services, booking travel and accommodation, accessing free software, and for educational and training purposes.

The reasons for using the Internet did not change from 2005, as shown in the following graph:

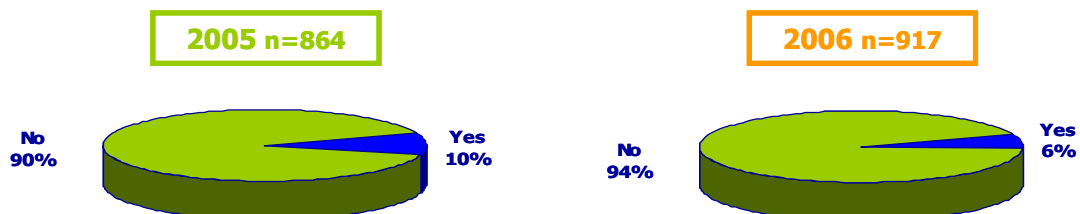


Specifically, although the Internet is used for education and training by 27% of the businesses, e-learning applications are used only by 6%, about the same as in 2005.

RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*

**E-LEARNING APPLICATIONS**

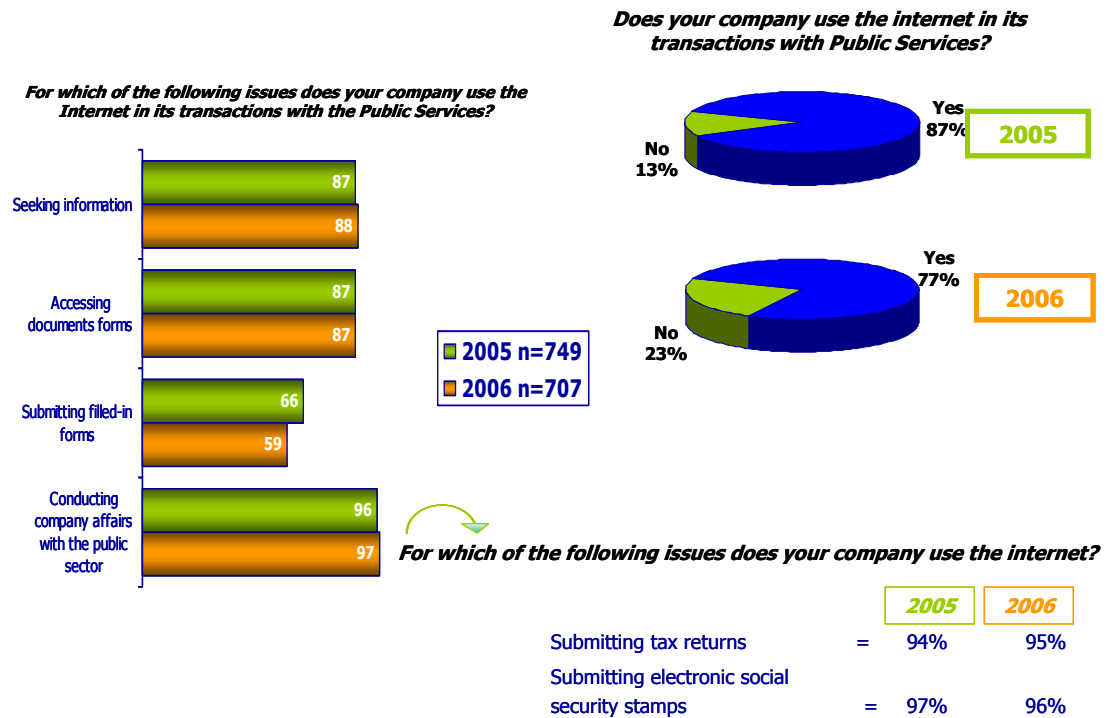
*Does your company use e-learning applications for staff training;*



By contrast, the use of the Internet for transactions with Public Services is widespread, since it is reported by 77% of the companies, although this figure is much lower than in 2005 (87%).

RESEARCH FINDINGS AMONG *BUSINESSES WITH 1-9 & 10+ EMPLOYEES*

**PUBLIC SERVICES AND THE INTERNET**



The Internet is used very much, as shown in the table, for conducting affairs with the public sector (97%, namely for tax returns and electronic social security stamps), seeking information from public agencies (88%), obtaining official forms (87%), and, to a large extent, for submitting filled-in forms (59%), more so by larger businesses.

Larger firms as well as businesses in Athens, Salonica uses the Internet considerably more.

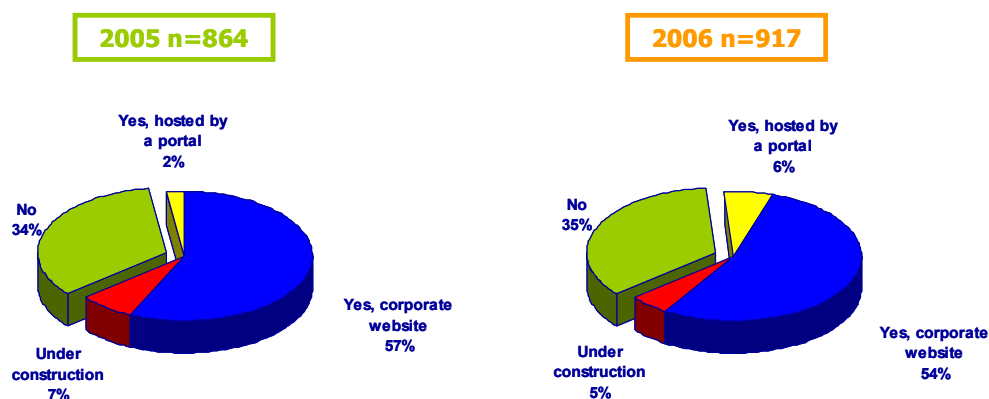
**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

54% of the businesses with 10+ staff have a corporate website, 6% are hosted by some portal and 5% reported websites currently under construction. 1 in 3 businesses does not have its own or a portal-hosted website yet.

The figures for 2006 are no different from those for 2005.

**CORPORATE WEBSITE / PORTAL**

*Is your company present on the internet with a corporate or portal-hosted website;*



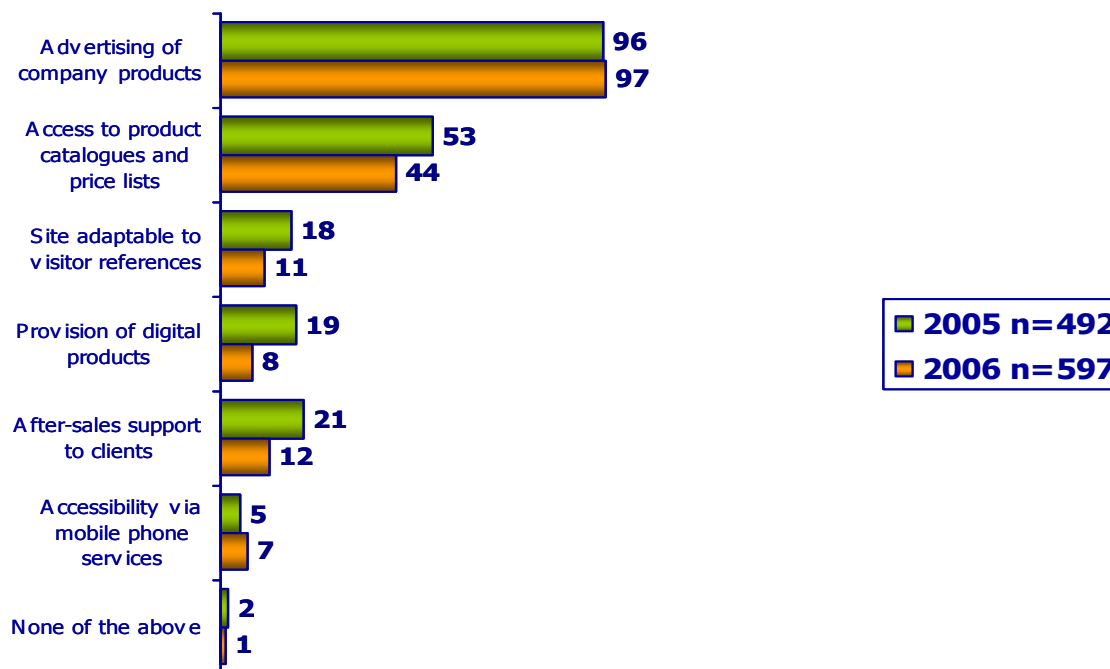
Larger businesses and those of Athens and Salonica have a much greater presence on the Internet.

A corporate or portal-hosted website is mainly for advertising the company's products (97%), while 4 out of 10 (44%) also provide access to product catalogues and pricelists.

RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES

SERVICES FOUND ON THE CORPORATE / PORTAL-HOSTED WEBSITE

*The corporate or portal-hosted website of your company provide....*



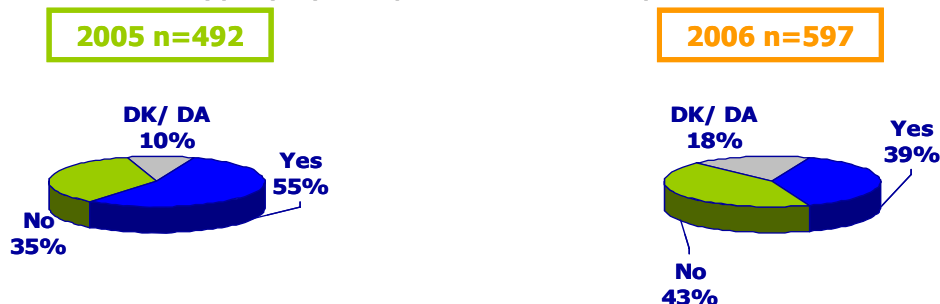
Only 4 out of 10 businesses (39%) stated that there is a security policy in their corporate website or the portal which hosts it, significantly fewer than in 2005. The rest either do not have a security policy (43%) or they do not know whether they have one or not (18%).

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

The most usual security policies applied are SSL (41%) and S-HTTP (28%), but there is a sizeable percentage of firms whose respondents knew that a security policy was in place but did not know what it was.

**PROVISION OF SECURITY POLICY**

*Is there a security policy in your corporate website or in the portal which hosts it?*



*Which of the following security policies do you have in your corporate website / know to exist in the portal which hosts it?*

	2005	2006
Base	n=281	n=234
SSL	37%	41%
S-HTTP	20%	28%
Other	4%	1%
DK/ DA	42%	31%

**Electronic commerce**

14% of the businesses with their corporate or portal-hosted website made sales over the Internet in the last year. The remaining 86% did not take any electronic orders.

These figures remained unchanged compared to the previous measurement in 2005.

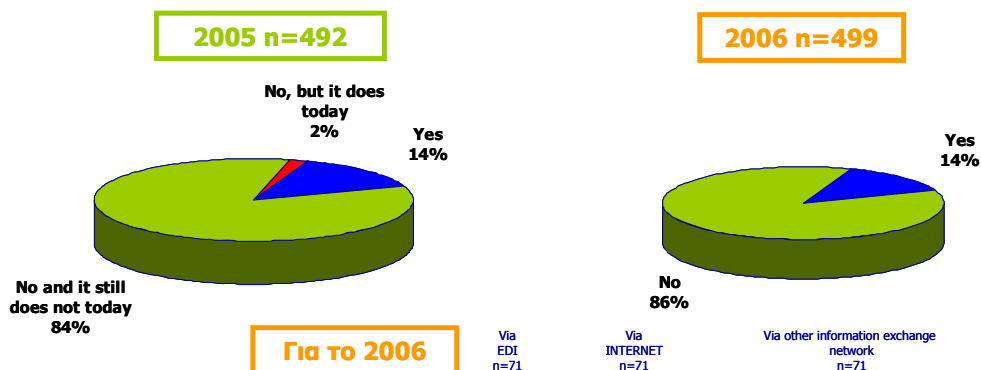
These sales are made mainly over the Internet, with only a few taking place through EDI or some other information exchange network.

In 6 out of 10 businesses which make electronic sales, these sales account for just 5% of their turnover. Another 11% sell electronically more than 5% and less than 10%, and another 11% stated that they sell between 10% and 25% of their turnover this way, as shown clearly in the following table.

RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES

INCIDENCE OF ELECTRONIC SALES

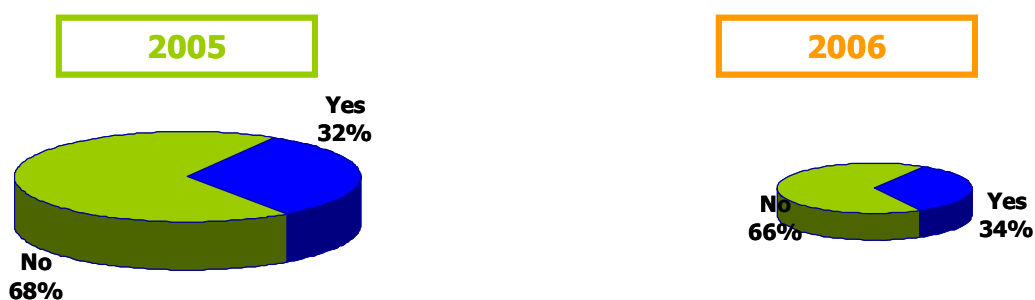
Did your company take electronic orders / make sales via the Internet, via EDI or other networks besides the Internet in 2005?



34% of the businesses which make electronic sales, or 5% of the businesses with a corporate or portal-hosted website, also make electronic payments.

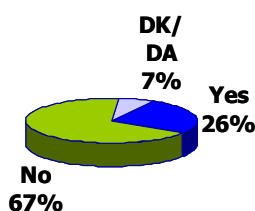
ELECTRONIC PAYMENTS

Does your company make electronic payments for sales over the Internet, via EDI or other networks besides the Internet?



Has your company used digital signature in outgoing messages, using for instance encryption methods to ensure their messages' authenticity and integrity?

ONLY FOR 2006



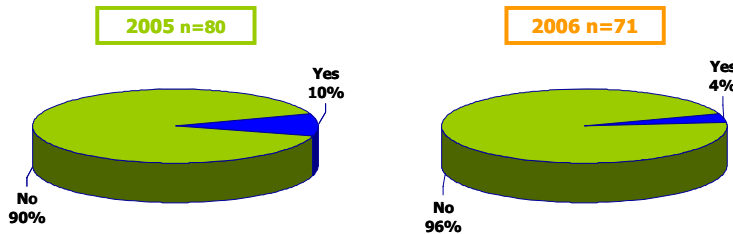
**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

Among those which make electronic sales (71 companies), 26% stated that they used digital signatures in outgoing messages, using for instance encryption methods to ensure their messages' authenticity and integrity, as shown in the previous table. This particular measurement was made only for 2006.

Very few companies sold products thanks to their presence in some specialized point of sale on the Internet: 4% of those which make electronic sales, or just around 1% of those with a corporate or portal-hosted website.

**SPECIALIZED POINTS OF SALE (MARKETPLACES)**

*Did your company sell products to other enterprises due to the presence to an Internet Market Place in 2005?*



As in 2005, 10% of the businesses with Internet connection made electronic purchases.

Like electronic sales, electronic purchases are affected through the INTERNET by the great majority of businesses.

**INCIDENCE OF ELECTRONIC PURCHASES**

*Does your company make electronic purchases using Business – to – Business e-commerce i.e. via EDI, Internet or other networks?*



	Via EDI n=11 %	Via INTERNET n=88 %	Via other information exchange network n=5 %
Less than 1% (0.5)	32%	26%	-
More than 1% & less than 5% (2.5)	23%	34%	-
More than 5% & less than 10% (7.5)	-	13%	-
More than 10% & less than 25% (17.5)	-	7%	10%
More than 25% (25)	27%	14%	30%
None (0)	-	-	-
DK/DA	18%	6%	60%
M.S.	9,2	7,2	23,2

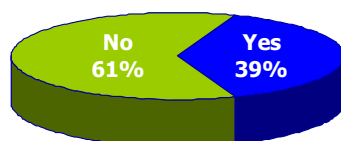


**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

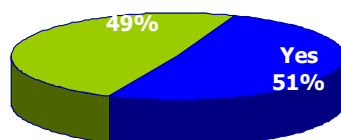
The electronic payment for Internet purchases are made via EDI, INTERNET or some other network by 51% of companies which make such purchases (93 businesses in 2006).

**ELECTRONIC PAYMENTS**

*Does your company make electronic payments for purchases over the Internet, via EDI or other networks besides the Internet?*



**2005**  
**n=107**



**2006**  
**n=93**

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

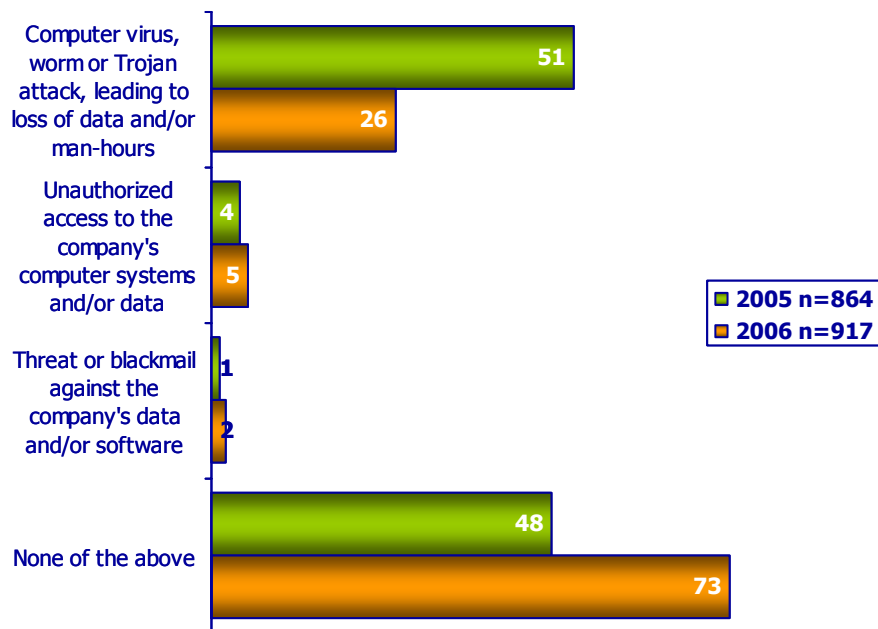
**Security issues**

About 3 out of 4 companies (73%) reported that they had none of the security problems we mentioned in the last 12 months, significantly more than in 2005 (48% had had no security problems).

The problems that did occur elsewhere in the last 12 months had to do almost exclusively with viruses, worms or Trojan attacks and resulted in loss of information and/or working time (26%, about half of what it was last year).

**SECURITY-RELATED PROBLEMS**

*Has your company faced any of the following security-related problems in the last 12 months?*

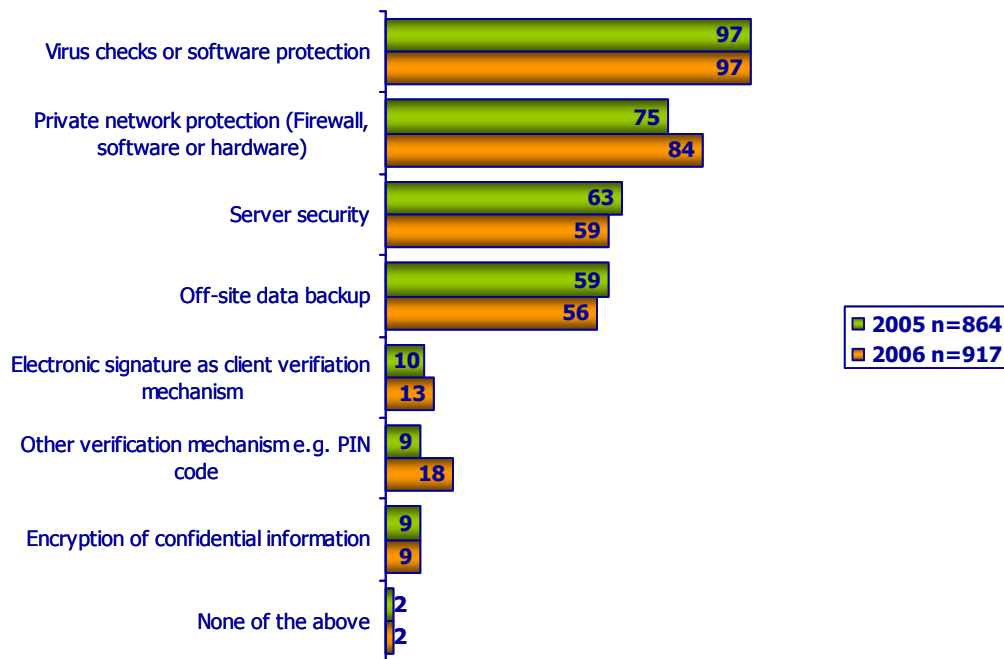


**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

The measures taken in the last three months comprised virus checks or protection software (97% of businesses), private network protection (firewall, software or hardware) (84% – significantly higher than in 2005), and to a major degree server security (59%) and off-site data backup (56%).

**SECURITY MEASURES ADOPTED**

*Which of the following security measures have you used in the last three months in your company?*



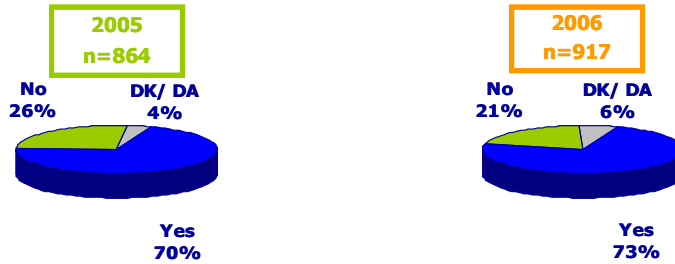
73% of the businesses with Internet connection updated their security measures in the last three months, i.e. at about the same level as in 2005.

in the areas of protection software, , and off-network data storage These updates had to do mainly with protection software (98%), private network protection (80%), server security (59%) and off-site data backup (53%). No significant change over 2005 was noted.

**RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES**

**SECURITY UPDATES**

*Did your company update any of its security measures in the last three months?*



*What security measure(s) do you currently employ?*

	2005	2006
Software protection checks	97%	98%
Private network protection (firewall, software or hardware)	74%	80%
Server security	62%	59%
Off-site data backup	57%	53%
Electronic signature as customer verification mechanism	10%	11%
Encryption of confidential information	9%	9%
Other verification mechanism e.g. PIN code	8%	18%
Antivirus	2%	-
None of the above	3%	1%

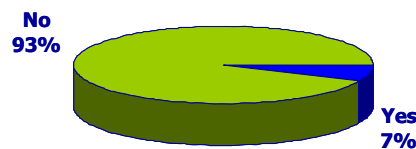
**Staff training in new technologies**

Only 7% of all businesses reported difficulties in finding staff with basic skills such as using computer applications.

There was no corresponding measurement in 2005.

**ONLY FOR 2006**

*Did your company encountered difficulties in hiring personnel with basic skills, such as using computer applications in 2005;*



**n=986**

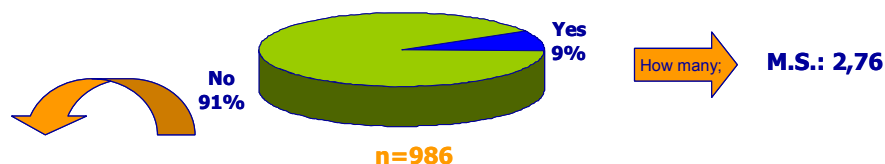
9% of businesses reported specialist IT or communications staff in 2005.

The incidence of such hiring was significantly lower in Salonica.

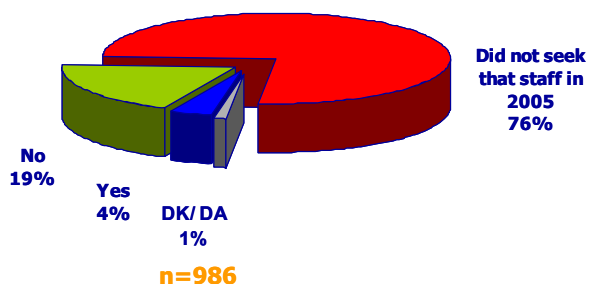
RESEARCH FINDINGS AMONG BUSINESSES WITH 1-9 & 10+ EMPLOYEES

ONLY FOR 2006

Did your company hire specialist IT or communications staff in 2005?



Did your company encounter difficulties in hiring personnel with skills in the use of IT and communication systems in 2004;



The average number of such staff hired by these businesses is calculated at 2.76 persons per business (87 businesses hired such staff).

Difficulties in hiring specialist IT or communications staff in 2005 was reported by 4% of businesses. The greatest difficulties reported were outside Athens.

DIFFICULTIES IN FINDING STAFF SPECIALIZED IN INFORMATION TECHNOLOGY

Main reasons for which the company was faced with difficulties at recruiting personnel

Base: Those encountered difficulties in hiring personnel n=40

Lack of or not enough qualified IT and communications experts	61%
Lack of required skills due to insufficient training	65%
Lack of work experience in IT & communication sector	76%
The IT and communication experts requested too high salaries	21%