Statistical Office of the Republic of Serbia

Usage of information and communication technologies in the Republic of Serbia, 2007

Households/individuals
Enterprises

Belgrade, 2007

INTRODUCTION

The Statistical Office of the Republic of Serbia (SORS) carried out in 2004 a pilot survey on the usage of information and communication technologies in organizations involved in banking and insurance. The primary aim of the project was to test methodologies and tools and prepare the implementation of similar and regular surveys on households and the economy.

In 2006, the Statistical Office of the Republic of Serbia conducted two ICT usage surveys. The first related to households and individuals, and the second to enterprises.

These two surveys were also carried out in 2007 and covered the financial sector (banks and insurance companies) as well. They were realized on the territory of the Republic of Serbia in compliance with Eurostat methodology. Data for the Autonomous Province of Kosovo and Metohia are not available, for UNMIK, as UN representative, has established civil administration in the Province.

The first quarter of 2007, which preceded the telephone interview, was taken to be the reference period for a selection of questions, and 2006 for the other set of questions.

The survey relating to households was carried out on a two-stage sample, which was stratified according to the criterion of urban characteristics. The sample was allocated to territories of Central Serbia (Belgrade excluded), Vojvodina and Belgrade, proportionally to the number of households. It covers 2000 households and 2000 individuals. The survey was realized by telephone, within which indirect interview was allowed (someone else answers the questions on the behalf of the absent person).

The survey relating to enterprises was conducted by telephone on a sample stratified by size and activity. It covered 1000 enterprises.

We hope that this publication will render to users a sufficient amount of data on the current situation in the domain of information and communication technologies, and that it will serve as a good base for further improvements.

CONTENT

Introduction

Part 1
Usage of information and communication technologies in households/by individuals in the Republic of Serbia, 2007

Part 2
Usage of information and communication technologies in enterprises in the Republic of Serbia, 2007

Glossary

GRAPHS

Part 1
Usage of information and communication technologies in households/by individuals in the Republic of Serbia, 2007

1. Devices used in households
2. Percentage of households having a computer, by type of settlements
3. Percentage of households having a computer, by income
4. Does your household have access to the Internet at home?
5. Percentage of households being connected to the Internet, by type of settlements
6. Percentage of households having an Internet connection, by income amount
7. Devices on which the Internet is accessed?
8. Types of Internet connection
9. Reasons of households for not having a broadband connection
10. When did you last use a computer?
11. Percentage of computer users (within the last three months), by educational level
12. Structure of computer users' education
13. Percentage of computer users (within the last three months), according to employment situation
14. Use of computers (within the last 3 months), by age and sex
15. How often, on average, did you use a computer in the last 3 months?
16. Do you use a mobile phone?
17. Percentage of mobile phone users, by educational level
18. Percentage of mobile phone users, by employment situation
19. When did you most recently use the Internet?
20. Percentage of Internet users (in the last 3 months), by educational level
21. Structure of the educational level of Internet users
22. Percentage of Internet users (in the last 3 months), by employment situation
23. How often, on average, did you use the Internet in the last 3 months?
24. Use of the Internet (in the last 3 months), by sex and age
25. For which of the activities did you use the Internet, for private purposes in the last 3 months?
26. Would you like to use the Internet more?
27. What are your barriers for more intensive use of the Internet?
28. Would you be interested in interacting with public authorities via the Internet rather than making personal contacts?
29. Why don't you interact with public authorities over the Internet?
30. Which of the following have you done via the Internet?
31. When did you last (for private purposes) buy/order goods or services via the Internet?

32. What types of goods/services did you ordered (for private use) via the Internet in the last 12 months?
33. When did you last take a training course (of at least 3 hours) on computer use?
34. What are the reasons for not having taken a computer use course?
35. Which of the following computer activities have you already done?
36. Which of the following Internet activities have you already done?
37. Where have you acquired skills to carry out these activities?

Part 2
Usage of information and communication technologies in enterprises in the Republic of Serbia, 2007

1. Does your enterprise use computers for its business operations?
2. Percentage of employed that use a computer at least once a week.
3. Does your enterprise use the following information and communication technologies?
4. Percentage of enterprises using IT systems for managing the placing or receiving of orders
5. Did your enterprise use the ERP system in January 2007?
6. Did your enterprise have in use, in January 2007, a software application for managing information on customers, so-called CRM, for :
7. Does your enterprise have access to the Internet?
8. Percentage of employees using the Internet at least once a week.
9. Does your enterprise have one of the following types of external connection to the Internet?
10. Does your enterprise use the Internet for the following purposes?
11. Does your enterprise interact with the public administration via the Internet?
12. Does your enterprise interact with the public administration via the Internet?
13. Does your enterprise have a Website?
14. Does your enterprise provide the following services via its Website?
15. Did your enterprise order goods/services over the Internet?
16. Percentage of purchases over the Internet compared to total purchases in 2006.
17. Did your enterprise receive orders over the Internet?
18. Does your enterprise use a secure protocol such as SSL or TLS for the reception of orders via the Internet?
19. Did your enterprise recruit IT specialists during January 2007?
20. What do you believe were the main problems of recruiting IT specialists?
21. Did your enterprise recruit or try to recruit personnel for jobs requiring skills in the use of IT?
22. Did your enterprise recruit or try to recruit personnel for jobs requiring IT user skills?

Usage of information and communication technologies in the Republic of Serbia, 2007.

Part 1 – Households/individuals

Part 2 – Enterprises

1.1. METHODOLOGY

Realisation:	• The survey was carried out from 24 April to 10 May 2007.
Type of interview:	• Telephone interview
Sample size:	• 2000 households • 2000 individuals
Target population:	• For households: the target population comprises all households with at least one member aged between 16 and 74; • For individuals: the target population comprises all individuals aged between 16 and 74.
Type of the sample:	• Two-stage, stratified sample
Scope of the survey:	• The territory of the Republic of Serbia (excluding Kosovo and Metohia)

1.2. SAMPLE

The survey on the usage of information and communication technologies in households was carried out on a representative sample of 2000 households on the territory of Serbia. The response rate was 97% (1939 households).

Households

Sample (households)	Income			Region			Type of households		Total
	Under 300 Euros	300 - 600 Euros	Over 600 Euros	Central Serbia	Vojvodina	Belgrade	Urban	Rural	
Number	1243	560	136	996	506	437	1143	796	1939
%	64.1	28.9	7.0	51.4	26.1	22.5	58.9	41.1	100

The same sample was used both with households and individuals aged between 16 and 74 residing on the territory of the Republic of Serbia. The response rate was 97% (1939 households).

Individuals

Sample (individuals)	Age						Sex		Educational level			Employment situation				Total
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Males	Females	Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	
Number	244	260	290	382	331	432	928	1011	540	992	407	588	513	107	731	1939
%	12.6	13.4	15.0	19.7	17.1	22.3	47.9	52.1	27.8	51.2	21.0	30.3	26.5	5.5	37.7	100

1.3. MAIN FINDINGS

1.3.1. Devices in households

The respondents were offered to tick all that was appropriate in the question about devices used in households. The survey indicates that 97.8% of households have a TV set, and 33.8% cable TV.

> 73.6% of households have a mobile phone.

73.6% of households have a mobile phone. Only 3.8% of households possess a laptop, which represents an increase of 2.3% compared to 2006.

Graph 1.1. Devices used in households

Device	2007	2006
TV	97.8%	95.7%
Mobile phone	73.6%	71.2%
Personal computer (PC)	34.0%	26.5%
Cable TV	33.8%	30.2%
Laptop	3.8%	1.5%
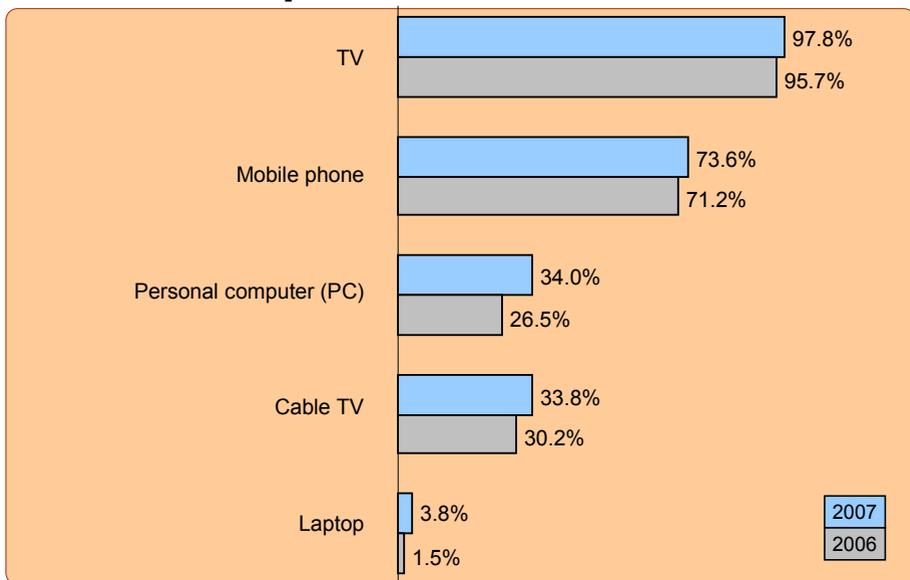
1.3.2. Computers in households

The main findings of this survey indicate that 34% of households in the Republic of Serbia possess a computer, which makes an increase of 7.5% compared to 2006. The rate of use of computers in households varies depending on the territorial unit: in Belgrade it amounts to 45.4%, in Vojvodina to 34.4%, and in Central Serbia to 26.3%.

> 34% of households have a computer.

Differences are noticeable even when one compares the rate of use of computers in urban and rural areas of Serbia: 42.7% and 21.6% respectively. Compared to 2006, the results show that there are significant differences in growth rates of computers use rate in urban and rural areas of Serbia. In the urban area of Serbia, the growth rate amounts to 11.1%, and in the rural area to 2.8% compared to 2006.

Graph 1.2. Percentage of households having a computer, by type of settlements

Urban — 42.7% (2007), 31.6% (2006)
Rural — 21.6% (2007), 18.8% (2006)

2007
2006
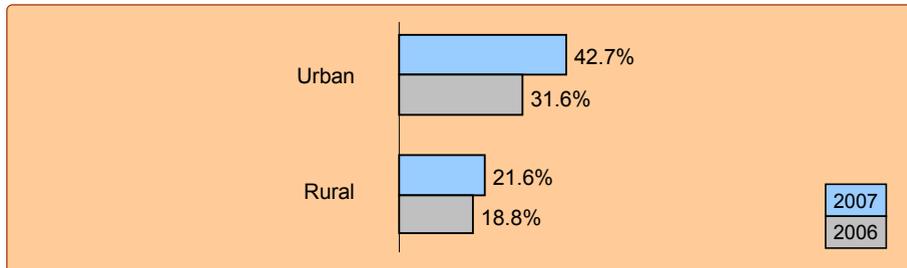
However, the structure of households by monthly income reflects the largest gap in the rate of use of computers in households. Computers are mainly used in households having a monthly income of over 600 Euros (74.9%). The share of households with an income under 300 Euros amounts to 20.5%.

> 20.5% of households with an income under 300 Euros have a computer.

Graph 1.3. Percentage of households having a computer, by income

600 Euros and over — 74.9% (2007), 65.9% (2006)
300 - 600 Euros — 54.1% (2007), 43.9% (2006)
Under 300 Euros — 20.5% (2007), 15.7% (2006)

2007
2006
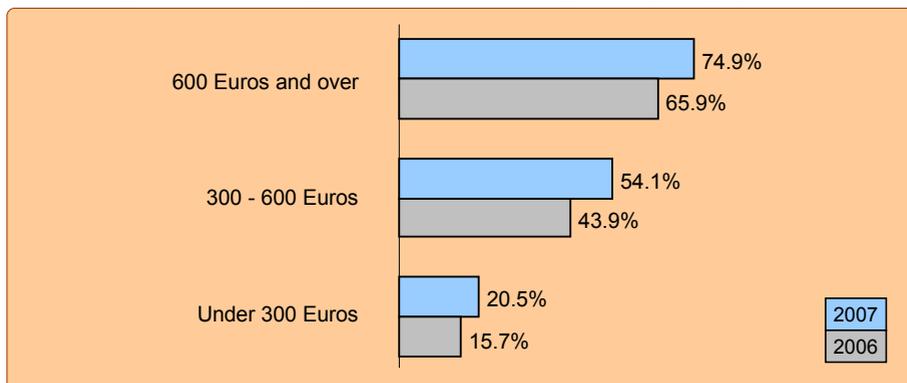
1.3.3. Internet in households

In the Republic of Serbia, 26.3% of households have access to the Internet, which makes an increase of 7.8% compared to 2006.

> 26.3% of households are connected to the Internet.

Graph 1.4. Does your household have access to the Internet at home?

2007 — 26.3%
2006 — 18.5%
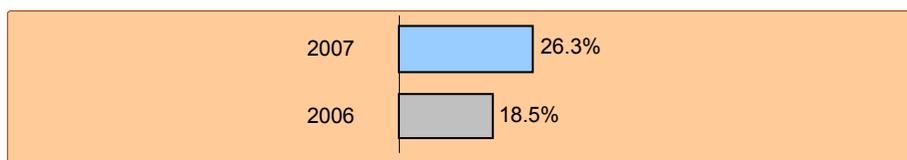
The percentage of households being connected to the Internet is highest in Belgrade and amounts to 39.1%. In Vojvodina it amounts to 29.2%, and in Central Serbia to 16.5%.

Graph 1.5. Percentage of households being connected to the Internet, by type of settlements

Urban
35.0%
22.5%

Rural
13.7%
12.5%

2007
2006
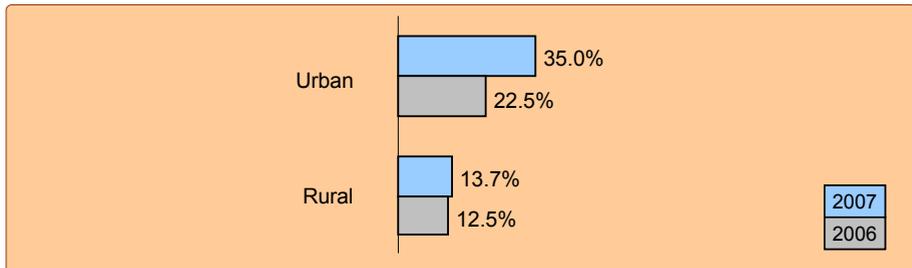
Significant differences exist even when one compares the percentage of Internet connections in urban and rural areas of Serbia: 35% and13.7% respectively. Compared to 2006, the results show the existence of considerable differences in growth rates of the percentage of Internet connections in urban and rural areas of Serbia. In urban areas, the growth rate amounts to 12.5%, while it amounts to 1.2% in rural areas.

Alike with the rate of the use of computers in households, there is also a large gap in having access to the Internet from the viewpoint of the structure of households according to monthly income. The Internet is mostly accessed to by households which monthly income is over 600 Euros (72.9%). The percentage of households having an Internet connection amounts to 13%.

13% of households with an income of 300 Euros have an Internet connection.

Graph 1.6. Percentage of households having an Internet connection, by income amount

600 Euros and over
72.9%
50.9%

300 - 600 Euros
44.4%
34.8%

Under 300 Euros
13.0%
8.6%

2007
2006
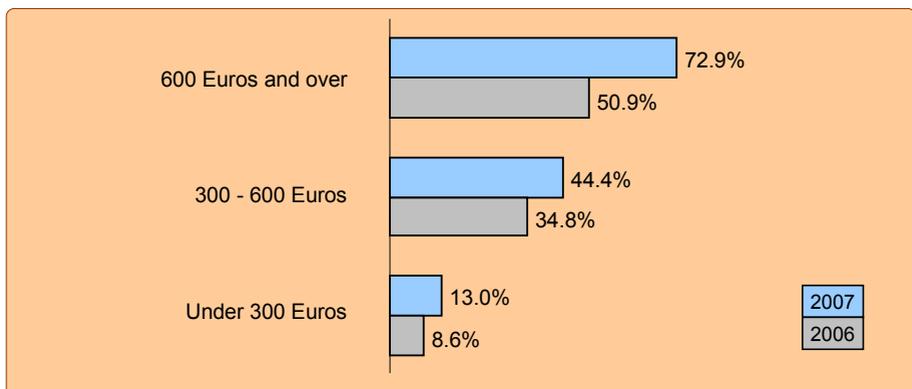
In the question about the devices on which the Internet is accessed, 90% of households ticked „personal computer", 26.6% „mobile phone", and 8.6% of households use a laptop to access the Internet.

Graph 1.7. Devices on which the Internet is accessed?

Device	Percentage
Personal computer (PC)	90.0%
Mobile phone	26.6%
Portable (laptop)	8.6%
Handheld computer (palmtop)	0.5%
TV with specific Internet device	0.2%
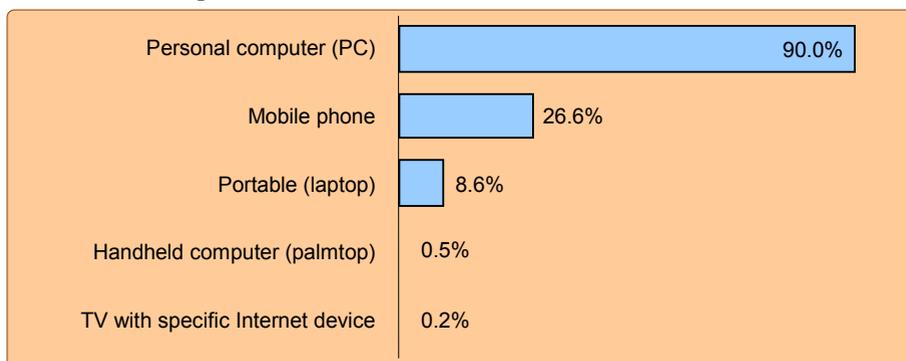
As for the way of accessing the Internet (types of connection), households were offered several answers among which they were expected to tick only one. The results indicate that of the total number of households having an Internet connection, 73.4% of them have a modem, 16.1% WAP and GPRS, 15.6% cable Internet, and 12.1% of households have DSL (ADSL).

> 73.4% of households having access to the Internet use a modem connection

The results of the survey indicate a decrease in modem and ISDN connection by 9.8% compared to 2006. This is primarily the result of an increase in the broadband connection use by slightly over 10% compared to 2006.

The broadband Internet connection enables quicker access and changes the entire way of using the Internet knowing that it enables quicker download of information compared to the traditional (dial-up) modem connection. Consequently, the percentage of households having this type of Internet connection is taken to be one of the main indicators of the development of ICT usage in the European Union from 2005. In Serbia, 7.3% of households have a broadband Internet connection. The rate of the use of the latter is the highest in Belgrade amounting to 15.3%, in Vojvodina it is 8.1%, and the lowest rate has been noticed in Central Serbia, amounting to 3.2%.

Graph 1.8. Types of Internet connection

Connection type	Percentage
Modem	73.4%
Mobile phone: WAP, GPRS, etc.	16.1%
Cable Internet	15.6%
DSL (ADSL)	12.1%
ISDN	2.2%
Other connection	3.0%
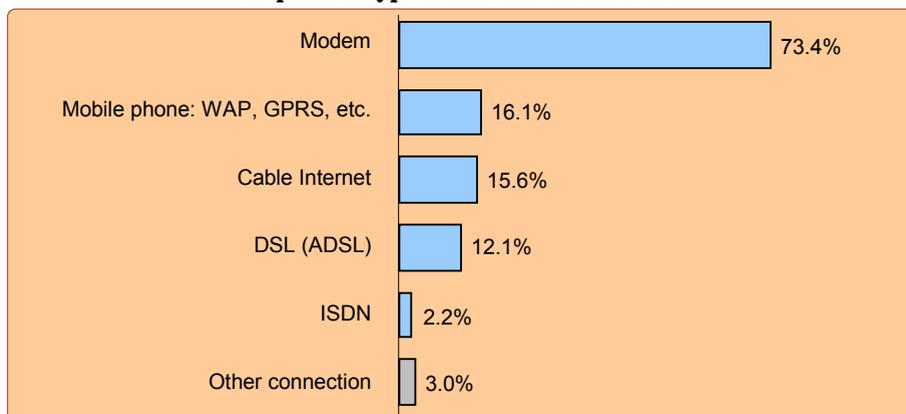
Among the reasons for not having a broadband connection, the most frequent ones are as follows:

"No need" (31.9%)
"Not available in my area" (25.3%)
"Too expensive" (22.3%)

7.3% of households in Serbia has a broadband Internet connection

Graph 1.9. Reasons of households for not having a broadband connection
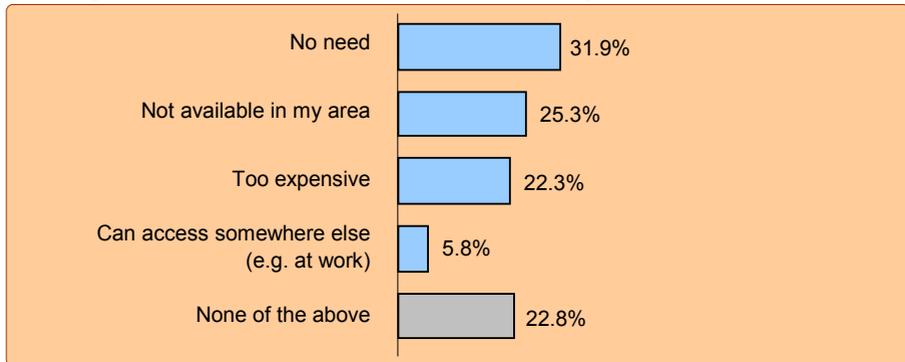
1.3.4. Individuals: use of computers

In the Republic of Serbia, 41.2% of individuals used a computer within the last three months, 2.6% individuals used a computer over three months ago, and 3.9% over a year ago. Even 52.3% individuals have never used a computer.

The number of computer users increased by 4.5% compared to 2006.

Graph 1.10. When did you last use a computer?
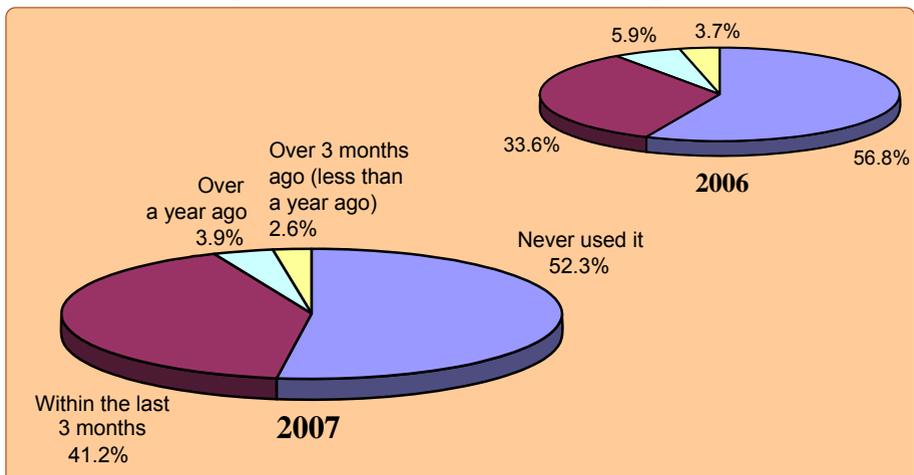
> More than 2 300 000 individuals used a computer within the last three months.

The percentage of computer users (within the last three months), by educational level:

- 70.1% of individuals with tertiary educational level;
- 49.2% of individuals with secondary educational level;
- 24.9% of individuals with an educational level lower than secondary.

Graph 1.11. Percentage of computer users (within the last three months), by educational level
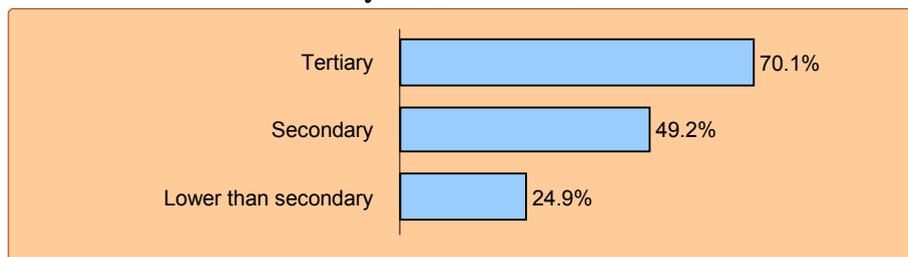
Among computer users, 54% attained secondary educational level, 26% have an educational level lower than secondary and 20% attained tertiary educational level.

Graph 1.12. Structure of computer users' education
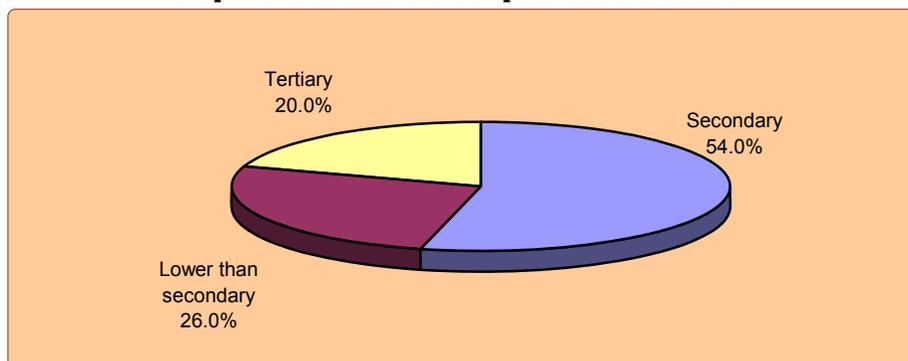
The percentage of computer users (within the last three months) according to employment situation:

- 89.5% of students;
- 61.2% of employed;
- 31.6% of unemployed;
- 25.7% of other adults (retired persons, persons serving military service...).

Graph 1.13. Percentage of computer users (within the last three months), according to employment situation

Category	2007	2006
Students	89.5%	89.2%
Employed	61.2%	52.9%
Unemployed	31.6%	24.5%
Others	25.7%	14.5%
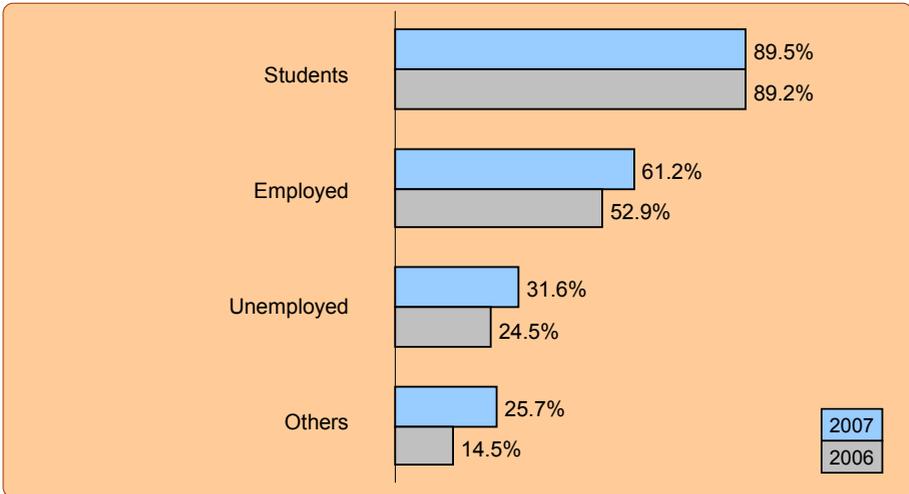
The analysis of respondents by age indicates that, within the last three months, 45.9% od males and 36.7% of females used a computer.

Graph 1.14. Use of computers (within the last 3 months), by age and sex

Age	females	males
16-24	70.2%	79.7%
25-54	41.5%	51.6%
55-74	8.6%	9.5%
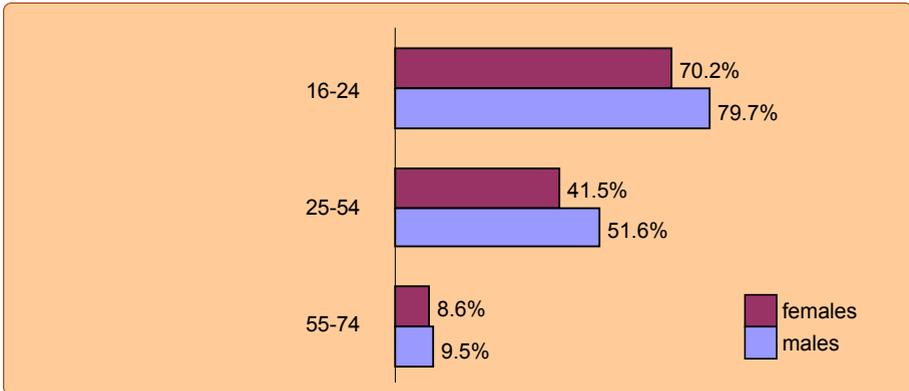
As far as the question on how often, on average, the respondents used a computer in the last three months, 65.7% of them used one every day or almost every day, 25.9% at least once a week, 6.5% at least once a month, and 2% less than once a month.

> More than 1 500 000 individuals use a computer every day or almost every day.

Graph 1.15. How often, on average, did you use a computer in the last 3 months?

At least
once a month
6.5%

Less than
once a month
2.0%

At least
once a week
25.9%

Every day or
almost every day
65.7%
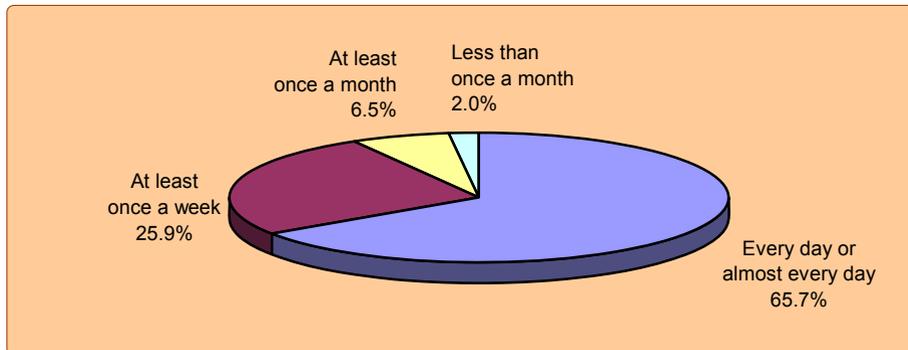
In the last three months, computers were used primarily at home (81.2%), then at place of work (28.9%), at place of education (14.9%), and at another person's home (13.5%).

1.3.5. Individuals: use of mobile phones

The survey indicates that 76.8% of population use a mobile phone. This figure amounted to 70% in 2006.

More than 4 400 000 individuals use a mobile phone.

Graph 1.16. Do you use a mobile phone?

30.0%

NO
23.2%

70.0%

2006

YES
76.8%

2007
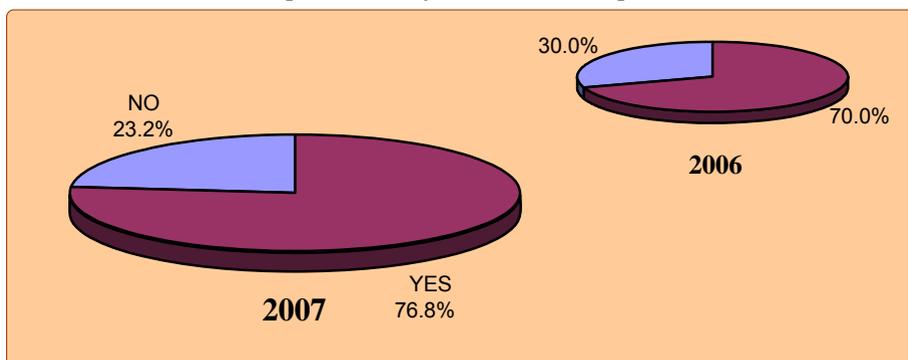
The percentage of mobile phone users, by educational level:

- 87.1% of individuals with tertiary educational level;
- 86.1% of individuals with secondary educational level;
- 64.2% of individuals with an educational level lower than secondary.

Graph 1.17. Percentage of mobile phone users, by educational level

Tertiary	87.1%
Secondary	86.1%
Lower than secondary	64.2%
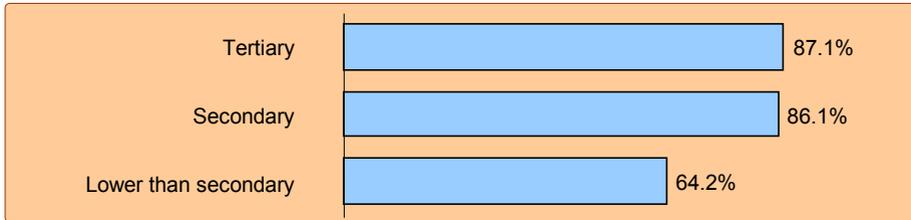
The percentage of mobile phone users, by employment situation:

- 97.6% of students;
- 90.9% of employed;
- 79.2% of unemployed;
- 57.6% of other individuals (retired persons, persons serving military service...).

Graph 1.18. Percentage of mobile phone users, by employment situation

Students	97.6%
Employed	90.9%
Unemployed	79.2%
Others	57.6%
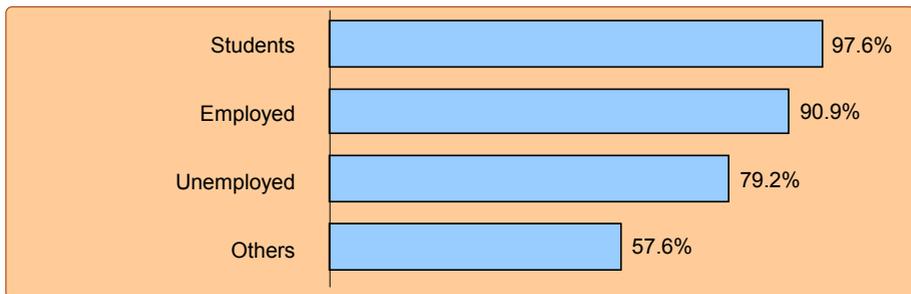
The analysis of the respondents shows that 78.8% of males and 74.8% females use a mobile phone.

1.3.6. Individuals: use of the Internet

In Serbia, 29.9% of individuals used the Internet in the last three months, 3.3% of respondents used it more than three months ago, and 1.5% used it more than a year ago. 65.4% of respondents have never used Internet.

> The number of Internet users increased by 3% compared to 2006.

**Graph 1.19. When did you most recently use the Internet?**
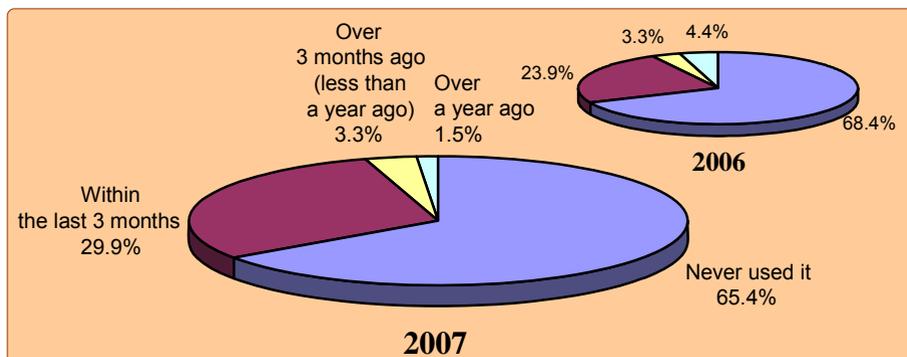
More than 1 700 000 individuals used the Internet in the last three months.

The percentage of Internet users (in the last three months), by educational level:

- 60.2% of individuals with tertiary educational level;
- 35.3% of individuals with secondary educational level;
- 15.9% of individuals with an educational level lower than secondary.

Graph 1.20. Percentage of Internet users (in the last 3 months), by educational level
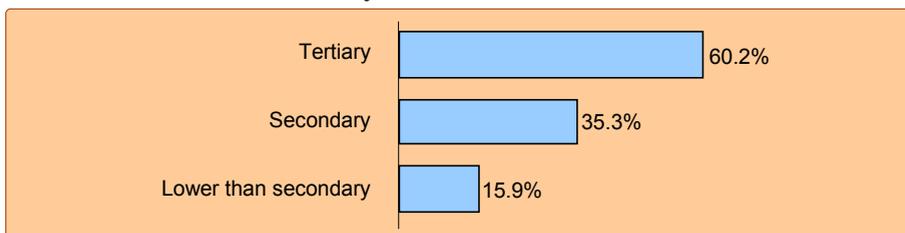
Among the users of the Internet, 53% of them have secondary educational level, 24% tertiary, and 23% of users have an educational level lower than secondary.

Graph 1.21. Structure of the educational level of Internet users

Lower than secondary 22.9%

Secondary 53.3%

Tertiary 23.8%
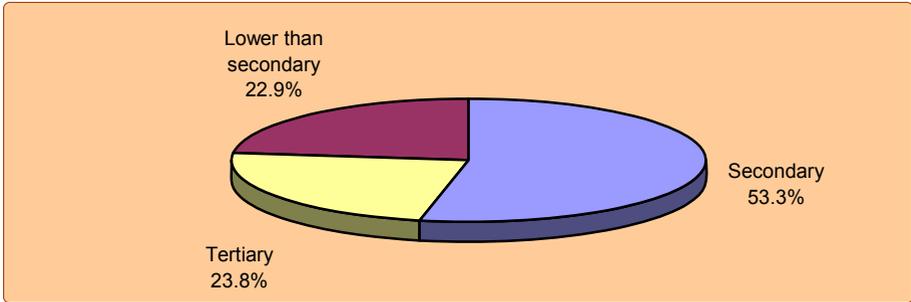
The percentage of the users of the Internet (in the last three months), by employment situation:

- 78.1% of students;
- 48.5% of employed;
- 19.7% of unemployed;
- 16.2% of other individuals (retired persons, persons serving military service...).

Graph 1.22. Percentage of Internet users (in the last 3 months),
by employment situation
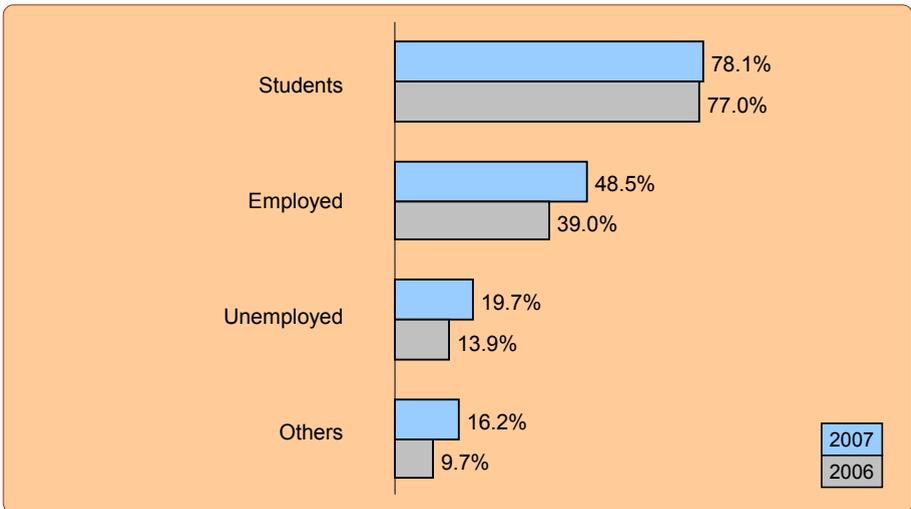
Students	78.1% / 77.0%
Employed	48.5% / 39.0%
Unemployed	19.7% / 13.9%
Others	16.2% / 9.7%

2007
2006

As far as the question on how often, on average, the respondents used the Internet in the last three months is concerned, 50.1% of them ticked: every day or almost every day.

More than 850 000 individuals use the Internet.

Graph 1.23. How often, on average, did you use the Internet in the last 3 months?

At least once a month
8.2%

Less than once a month
4.4%

Every day or almost every day
50.1%

At least once a week
37.3%
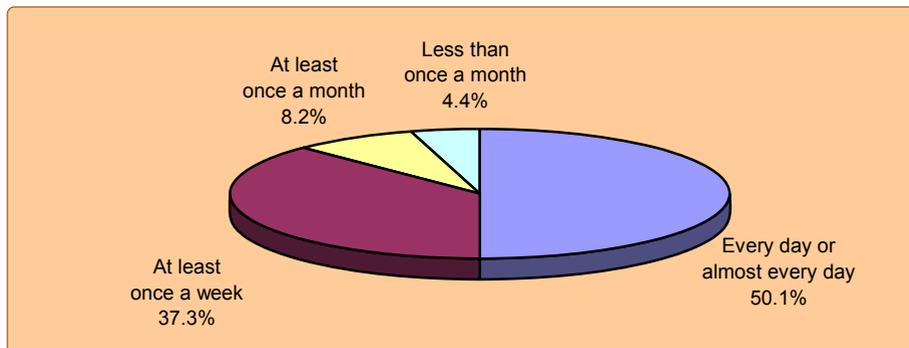
Graph 1.24. Use of the Internet (in the last 3 months), by sex and age

16-24
44.4%
66.5%

25-54
29.4%
38.9%

55-74
4.0%
5.8%

females
males
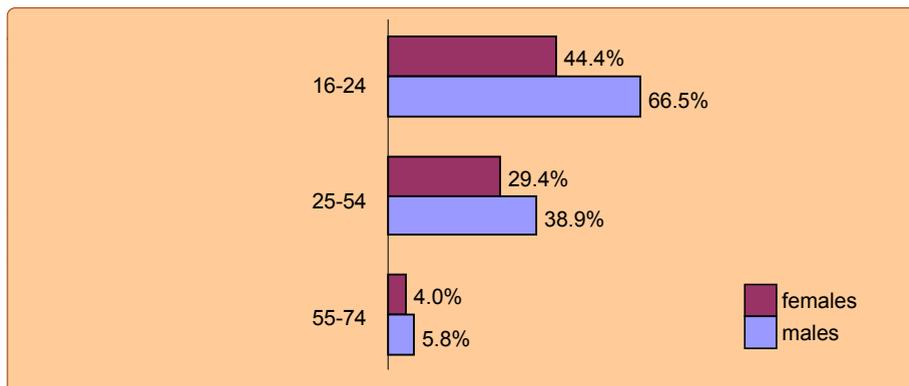
Graph 1.25. For which of the activities did you use the Internet, for private purposes, in the last 3 months?

Activity	Percentage
Sending/receiving e-mails	75.9%
Finding information about goods	64.5%
Playing or downloading games, pictures, films or music	51.4%
Using services relating to travel and accommodation	29.9%
Reading or downloading on-line newspapers/news magazines	29.7%
Downloading software	20.2%
Other information search or on-line services	16.5%
Seeking health-related information	16.3%
Formal education	16.3%
Looking for a job or sending a job application	15.4%
Telephoning over the Internet / video-conferencing	15.1%
Internet banking	14.0%
Listening to web radio / watching web television	11.2%
Post-graduate education	5.9%
Selling of goods or services (e.g. via auctions)	4.7%
None of the above	5.0%

59.2% of Internet users affirmed the question: "Would you like to use the Internet more?". As far as the barriers to more intensive use of the Internet are concerned, the respondents ticked most often: "lack of time" (50.7%), "Connection is too slow" (23.0%), "Better connection type is too expensive " (14.7%).

Graph. 1.26. Would you like to use the Internet more?
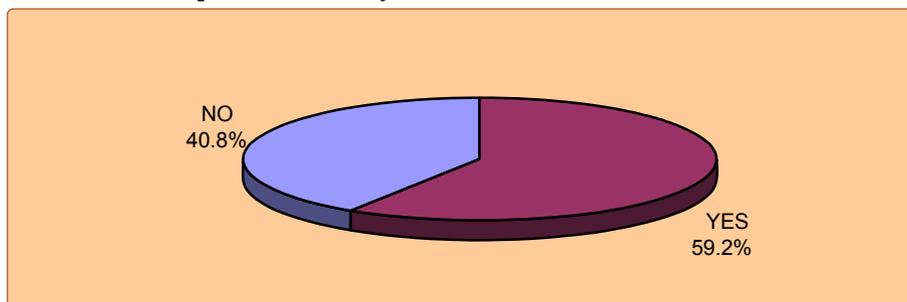
Graph 1.27. What are your barriers for more intensive use of the Internet?
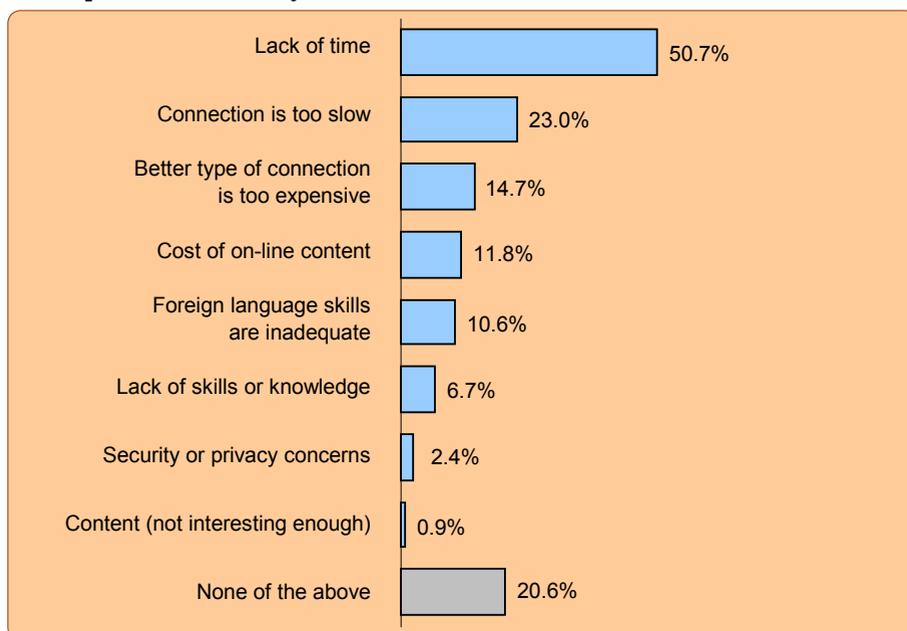
1.3.7. Public administration (e-government)

The survey indicates that, among the Internet population, 12% of the respondents interact with public authorities over the Internet, while 52% of them are interested in that possibility but do not currently take advantage of it.

The fact that 36% of respondents are not interested in using this possibility is a disquieting finding.

Compared to 2006, the number of individuals that use public authorities e-services increased by slightly 40 000.

> More than 230 000 individuals interact with public authorities over the Internet.

Graph. 1.28. Would you be interested in interacting with public authorities via the Internet rather than making personal contacts?

Yes, I have already used this possibility 12%

No 36%

Yes, I would be interested (but I do not use this possibility) 52%
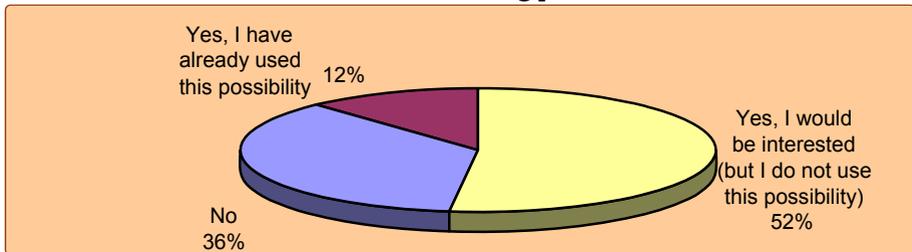
Most of the respondents gave the following reasons for not using the Internet for paying bills or interacting with public authorities:

"Lack of information" (50.8%)
"Services I need are not available on the Internet" (19.4%)
"Too complicated" (10.4%)

Graph 1.29. Why don't you interact with public authorities over the Internet?

Lack of information	50.8%
Services I need are not available on the Internet	19.4%
Too complicated	10.4%
Additional costs	9.3%
I prefer personal contact	8.7%
I want direct response	5.0%
Data security concerns	1.9%
None of the above	24.0%
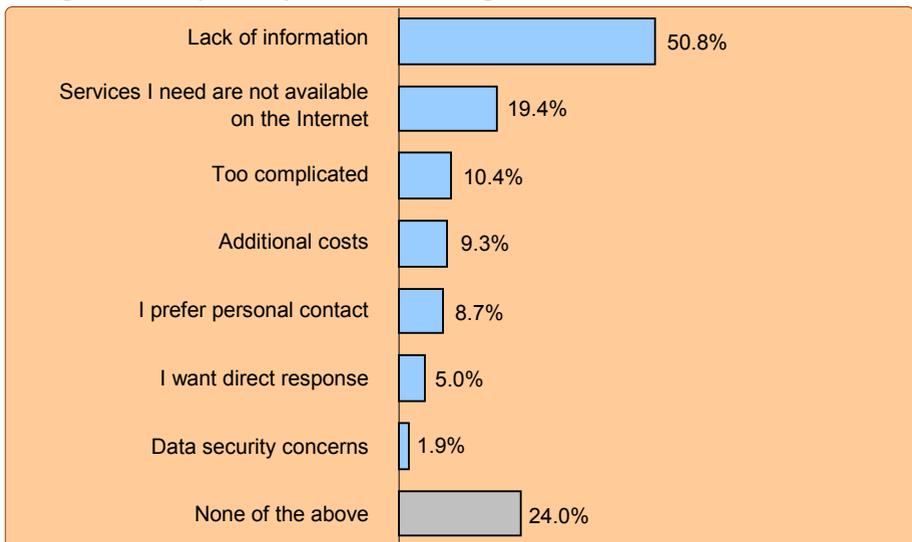
Graph 1.30. Which of the following have you done via the Internet?

Category	Percentage
Certificates (births/deaths)	64.5%
Personal identification documents (passport or driving license)	34.5%
Vehicle registration	23.9%
Enrollment at colleges or universities	14.7%
Seeking a job through the placement bureau	13.9%
Change of place of residence (address)	11.1%
Public library	8.4%
Health-related services	5.5%
Revenue tax	5.5%
Social insurance	5.2%
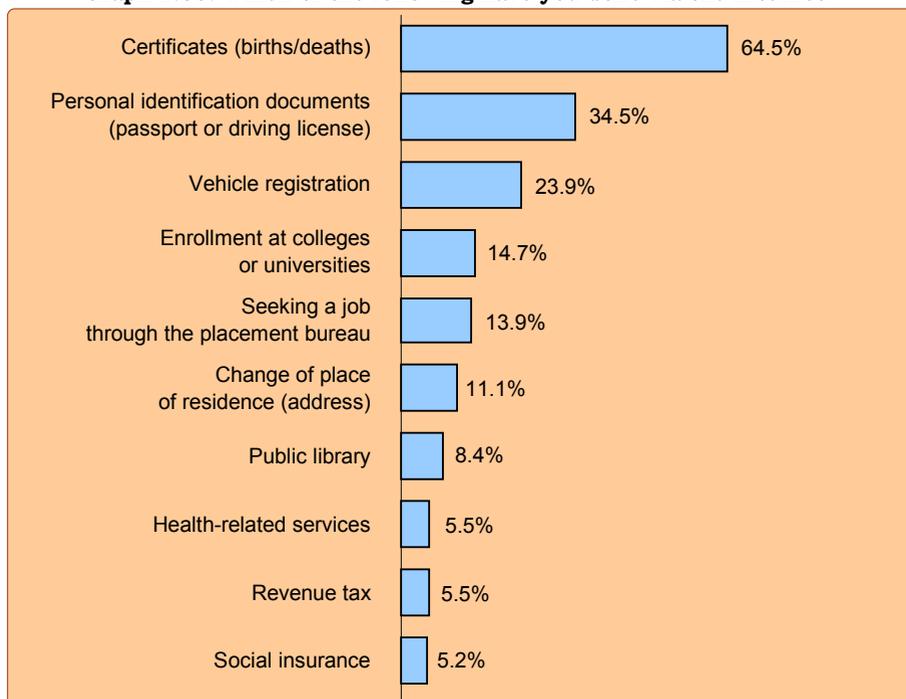
The survey indicates that 79.5% of respondents used the Internet, in the last three months, for obtaining information from public authorities websites, 57.3% for downloading official forms, and 33.3% for sending filled in forms.

1.3.8. E-commerce

As far as the time within which the respondents bought/ordered goods or services via the Internet is concerned, 3.7% of them bought/ordered in the last three months, 3.2% more than three months ago, and 3.4% more than a year ago.

89.7% of respondents have never bought/ordered goods or services via the Internet.

Over 135 000 individuals bought/ordered goods/services via the Internet over the last year.

Graph 1.31. When did you last (for private purposes) buy/order goods or services via the Internet?

Within the last 3 months 3.7%

Over a year ago 3.4%

Over 3 months ago (less than a year ago) 3.2%

Never used it 89.7%
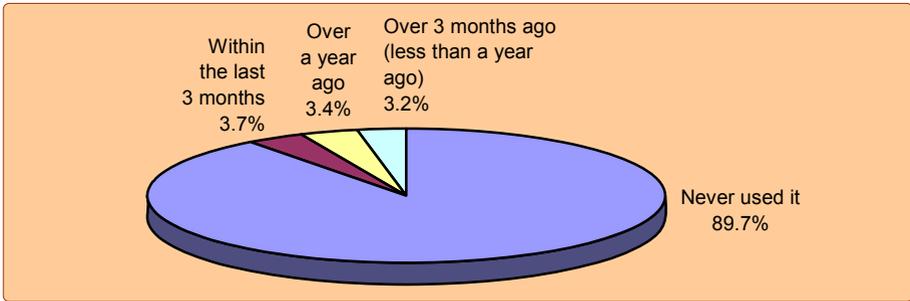
Most of the respondents buy/order, via the Internet, books, magazines and learning material (37.1%), computer software (22.2%), films and music (21.7%).

Graph 1.32. What types of goods/services did you order (for private use) via the Internet in the last 12 months?

Category	Percentage
Books/news magazines/newspapers/e-learning material	37.1%
Computer software and upgrades (incl. computer and video games)	22.2%
Films, music	21.7%
Household goods (furniture, toys, etc.)	20.5%
Electronic equipment (incl. cameras)	14.4%
Computer hardware	10.9%
Tickets for cultural events	8.3%
Clothes, sports goods	4.9%
Foods or groceries	4.7%
Lotteries or betting	2.1%
Travels and holiday accommodation	1.7%
None of the above	7.8%

1.3.9. E-skills

The survey indicates that only 3.7% of respondents took a training course on computer use within the last three months. 73.2% of individuals did not take any training course.

Graph 1.33. When did you last take a training course (of at least 3 hours) on computer use?
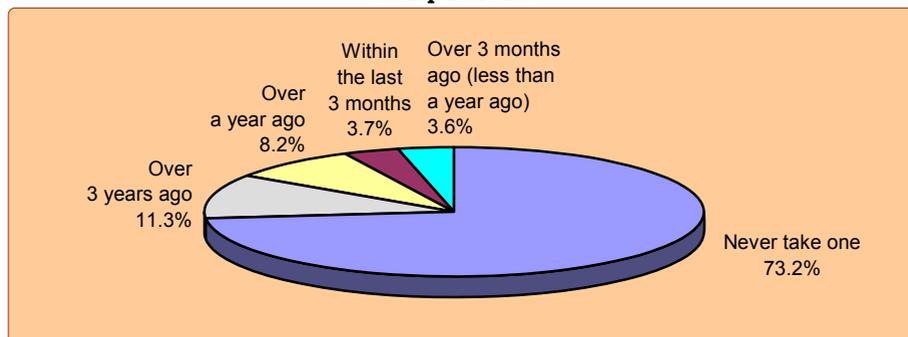
Graph 1.34. What are the reasons for not having taken a computer use course?

The largest share of respondents know how to copy or move files (74.6%), to use copy/paste tools (68.9%), to compress files (35.5%), to use basic arithmetic means formulas in spreadsheet (30.8%).

Graph 1.35. Which of the following computer activities have you already done?

Activity	Percentage
Copying or moving files or folders	74.6%
Copy or paste tools to duplicate or move information within a document	68.9%
Compressing files (ZIP, RAR)	35.5%
Use of main arithmetic formulas in spreadsheet	30.8%
Connecting and installing new devices (e.g. printer or modem)	21.5%
Detect and solve computer problems (e.g. computer runs slowly)	9.9%
Connecting computers to a local network area	8.0%
Writing a computer program	6.9%
None of the above	21.7%

Graph 1.36. Which of the following Internet activities have you already done?

Activity	Percentage
Using browsers to find information	87.4%
Sending e-mails with attachment	71.4%
Chatting on an on-line discussion forum	30.7%
Finding, downloading and installing software	19.0%
Keeping viruses away of computer	14.2%
Peer-to-peer file sharing for exchanging movies, music, etc.	13.5%
Using the Internet to make telephone calls	9.2%
Creating a web page	6.4%
None of the above	7.6%
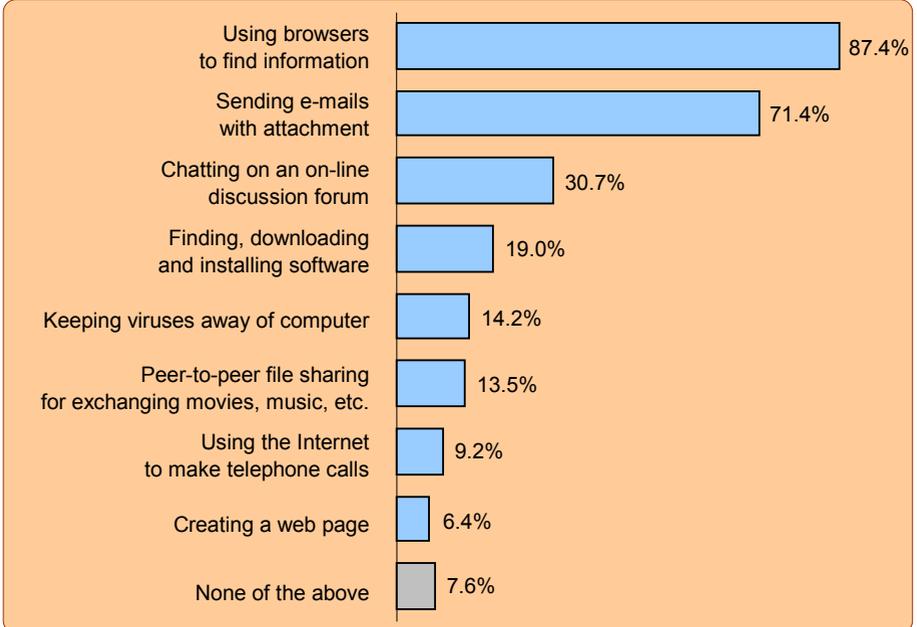
As far as Internet activities are concerned, the largest share of respondents know how to: use browsers for finding information (87.4%), sending e-mails with attachments (71.4%), chat on on-line forums (30.7%).

Graph 1.37. Where have you acquired skills to carry out these activities?
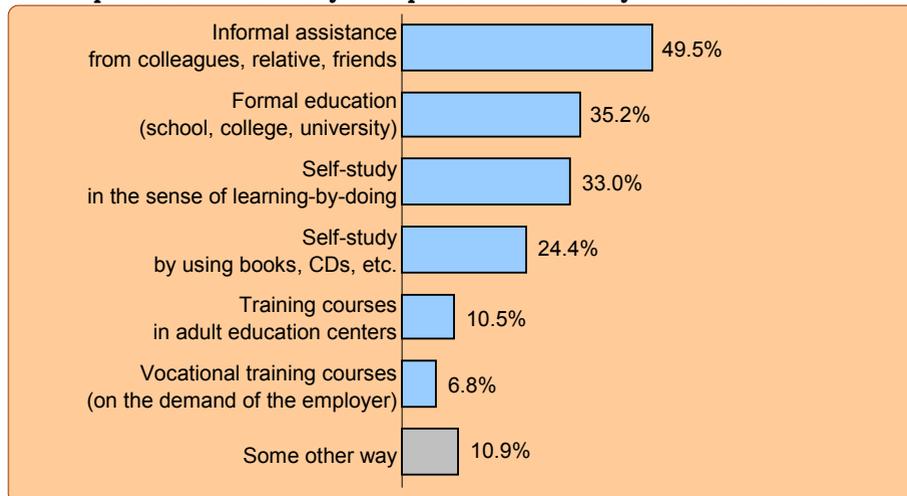
The fact that 49.5% of respondents acquired skills for computer use by asking their colleagues', relatives' and friends' assistance, and that 33.0% acquired them through self-study is expressive of the need for additional training on computer use.

1.4. RESULTS OF THE SURVEY

MODULE 1.A: Access to information and communication technologies

in percentages

Answer (households)	Income			Region			Type of household		
	Under 300 Euros	300 - 600 Euros	Over 600 Euros	Central Serbia	Vojvodina	Belgrade	Urban	Ruraln	Total
A1: Devices available in households (all that apply)									
TV	96.8	99.7	98.8	97.6	96.5	99.8	98.5	96.7	97.8
Mobile phone	63.5	90.6	95.8	69.3	74.8	81.4	78.2	67.0	73.6
Personal computer (PC)	20.5	54.1	74.9	26.3	34.4	45.4	42.7	21.6	34.0
Cable TV	24.0	47.3	68.6	24.1	27.7	62.7	49.5	11.3	33.8
Internet via mobile phone (GPRS, WAP)	5.5	18.3	27.8	6.5	10.4	20.4	13.3	7.1	10.7
Portable computer (laptop)	0.8	6.3	20.9	1.6	3.1	9.7	6.0	0.6	3.8
Game consoles (Playstations)	1.5	5.0	14.5	1.3	5.0	6.2	4.9	1.3	3.4
Handheld computer (palmtop)	0.2	0.2	2.6	0.3	0.2	0.9	0.7	0.0	0.4
None of the above	2.2	0.0	0.0	2.2	1.3	0.0	0.6	2.6	1.4
A2: Do you or anyone in your household have access to the Internet at home?									
No	84.9	55.1	27.1	81.3	69.6	60.7	64.1	83.9	72.2
Yes	13.0	44.4	72.9	16.5	29.2	39.1	35.0	13.7	26.3
Don't know	2.1	0.5	0.0	2.2	1.2	0.2	0.9	2.4	1.5
A3: Devices on which the Internet is accessed (all that apply)[1]									
Personal computer (PC)	86.5	90.9	93.5	91.8	87.3	90.7	91.1	85.9	90.0
Mobilne phone	22.0	27.9	30.7	23.9	23.6	31.2	26.2	28.0	26.6
Portable computer (laptop)	2.0	8.0	20.8	6.1	5.9	12.9	10.2	3.0	8.6
Handheld (palmtop)	0.0	0.3	1.6	0.0	0.5	0.8	0.6	0.0	0.5
TV with specific Internet device	0.0	0.4	0.0	0.6	0.0	0.0	0.3	0.0	0.2

[1] The data refer to households that ticked "YES" in question A2.

MODULE 1.A: Access to information and communication technologies

in percentages

Answer (households)	Income			Region			Type of household		
	Under 300 Euros	300 - 600 Euros	Over 600 Euros	Central Serbia	Vojvodina	Belgrade	Urban	Ruraln	Total
A4: Type of Internet connection (all that apply)[1]									
Modem	74.2	76.7	64.2	82.0	72.9	66.9	71.9	79.1	73.4
Mobile phone: WAP, GPRS, etc.	15.3	17.3	14.7	13.7	16.6	17.8	14.9	20.6	16.1
Cable Internet	7.6	15.5	28.8	10.2	15.6	20.0	18.1	6.4	15.6
DSL (ADSL)	9.9	13.3	12.9	9.1	12.0	14.7	13.4	7.4	12.1
ISDN	0.9	2.0	4.6	2.2	2.0	2.4	2.4	1.5	2.2
Other connection	2.4	2.5	5.2	1.1	2.7	4.9	3.2	2.4	3.0
A5: Reasons for not having a broadband connection at home (all that apply)[2]									
No need	31.3	28.5	43.7	38.8	22.3	33.6	32.6	29.7	31.9
Not available in my area	25.7	26.0	22.2	31.2	24.6	19.9	21.5	36.4	25.3
Too expensive	31.2	19.1	11.5	22.9	29.4	15.2	23.1	19.7	22.3
Can access somewhere else (e.g. at work)	4.7	8.0	1.3	2.5	4.6	10.1	7.0	2.2	5.8
None of the above, other reasons	19.6	24.6	24.6	12.6	28.3	28.1	24.0	19.2	22.8

[1] The data refer to households that ticked "YES" in question A2.

[2] The data refer to households not having a broadband connection.

MODULE 1.B: Use of

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
B1: When did you most recently								
Never used one	17.8	32.2	44.1	58.3	79.8	96.0	49.5	55.0
Within the last 3 months	75.0	57.1	50.6	34.4	14.5	2.9	45.9	36.7
More than a year ago	3.3	6.7	3.7	3.9	4.1	1.0	2.4	5.3
More than 3 months ago (less than a year ago)	3.9	4.0	1.6	3.4	1.6	0.1	2.2	2.9
B2: How often, on average, did you use								
Every day or almost every day	66.9	66.7	66.2	62.3	61.8	73.1	66.1	65.2
At least once a week	25.2	23.2	28.1	28.2	25.8	22.7	25.5	26.3
At least once a month	6.8	7.2	4.4	7.4	8.1	0.1	6.2	6.9
Less than once a month	1.1	2.9	1.3	2.1	4.4	4.1	2.2	1.6
B3: Where did you use a computer in								
At home	74.7	77.4	91.3	83.6	84.0	100.0	80.8	81.6
At place of work (other than home)	10.4	37.3	30.1	48.7	34.2	26.6	28.4	29.6
At place of education	36.6	7.2	4.4	3.6	0.0	0.0	14.5	15.4
At another person's home	24.2	14.5	7.7	2.5	7.8	0.0	16.9	9.6
Other (Internet cafe, hotel...)	3.3	5.5	3.2	0.5	1.1	0.0	4.0	2.1
B4: Do you use								
Yes	96.2	93.4	85.2	81.5	61.5	27.2	78.8	74.8
No	3.8	6.6	14.8	18.5	38.5	72.8	21.2	25.2

[1] The data refer to individuals that ticked "Within the last 3 months" in question B1.

computers and mobile phones

in percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
use a computer?								
72.9	40.4	22.7	31.7	59.8	4.1	70.7	52.3	Never used one
24.9	49.2	70.1	61.2	31.6	89.5	25.7	41.2	Within the last 3 months
1.3	6.2	4.3	4.1	5.0	3.0	2.7	3.9	More than a year ago
0.9	4.1	2.9	3.1	3.7	3.4	0.9	2.6	More than 3 months ago (less than a year ago)
a computer in the last 3 months? [1]								
60.7	63.0	79.3	70.0	52.6	78.0	66.4	65.7	Every day or almost every day
28.5	27.8	17.3	25.1	30.2	13.6	28.6	25.9	At least once a week
8.3	7.2	2.3	3.1	13.5	8.3	4.2	6.5	At least once a month
2.4	2.0	1.1	1.9	3.7	0.1	0.9	2.0	Less than once a month
the last 3 months? (all that apply) [1]								
80.0	80.0	85.9	79.3	84.0	82.0	81.2	81.2	At home
12.7	26.7	56.1	53.7	6.6	18.8	7.5	28.9	At place of work (other than home)
29.4	11.7	4.6	1.8	7.2	45.5	37.4	14.9	At place of education
12.9	16.5	6.3	6.7	20.7	15.7	18.7	13.5	At another person's home
3.1	3.6	2.0	3.8	1.7	6.9	1.6	3.2	Other (Internet cafe, hotel...)
a mobile phone?								
64.2	86.1	87.1	90.9	79.2	97.6	57.6	76.8	Yes
35.8	13.9	12.9	9.1	20.8	2.4	42.4	23.2	No

MODULE 1.C: Use

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
C1: When did you most recenty								
Never used it	35.4	45.1	62.8	72.2	89.2	98.3	60.6	70.0
Within the last 3 months	55.7	46.9	34.4	23.5	8.0	1.3	35.4	24.5
More than 3 months ago (less than a year ago)	7.2	5.8	2.2	2.4	1.1	0.0	2.9	3.7
More than a year ago	1.6	2.2	0.7	1.9	1.7	0.4	1.2	1.8
C2: How often, on average, did you use								
Every day or almost every day	47.6	47.2	52.2	55.7	56.8	53.9	50.8	49.2
At least once a week	40.0	38.9	34.8	32.2	36.8	38.5	39.2	34.5
At least once a month	6.2	9.6	11.2	6.7	6.4	7.6	6.6	10.4
Less than once a month	6.2	4.3	1.8	5.4	0.0	0.0	3.4	5.9
C3: Where did you use the Internet in								
At home	71.5	70.9	83.5	78.8	89.3	90.9	75.5	76.1
At place of work (other than home)	9.9	39.5	41.6	49.2	47.3	48.8	28.9	36.9
At another person's home	29.8	18.7	6.9	12.4	2.2	0.0	21.0	14.3
At place of education	29.7	8.6	3.7	2.9	0.0	0.0	12.7	13.8
Internet cafe	6.7	5.4	3.0	0.0	0.0	0.0	6.2	1.5
C4: Did you use one of the following mobile								
Mobile phone, via WAP or GPRS	42.8	35.3	23.3	10.6	15.1	0.0	35.1	23.8
Mobile phone, via 3G network	3.9	2.7	3.1	1.6	0.0	0.0	3.5	2.0
Handheld computer (palmtop)	0.0	0.3	2.2	0.8	0.0	0.0	0.5	0.8
None of the above	57.2	63.8	73.5	83.6	86.2	98.6	63.5	72.7

[1] The data refer to individuals that ticked "Within the last 3 months" in question C1.

of the Internet

in percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	

use the Internet?

82.5	57.6	32.3	45.0	74.8	14.2	81.6	65.4	Never used it
15.9	35.3	60.2	48.5	19.7	78.1	16.2	29.9	Within the last 3 months
1.3	4.6	5.6	4.9	3.7	2.9	1.4	3.3	More than 3 months ago (less than a year ago)
0.3	2.5	1.9	1.5	1.8	4.7	0.9	1.5	More than a year ago

the Internet in the last 3 months?[1]

44.5	44.5	68.1	54.9	35.8	65.0	43.9	50.1	Every day or almost every day
38.7	42.2	24.9	32.5	41.0	32.9	49.1	37.3	At least once a week
8.4	9.4	5.3	8.2	15.6	2.1	3.4	8.2	At least once a month
8.4	4.0	1.7	4.4	7.5	0.0	3.6	4.4	Less than once a month

the last 3 months? (all that apply)[1]

75.2	73.1	82.3	73.7	76.2	81.2	76.9	75.8	At home
12.8	29.8	56.5	55.9	9.4	12.7	8.8	32.2	At place of work (other than home)
18.2	21.7	10.2	12.5	26.3	21.1	21.9	18.2	At another person's home
25.1	11.8	4.9	1.1	11.0	44.8	26.7	13.2	At place of education
7.8	3.8	1.8	4.8	2.1	4.2	5.4	4.2	Internet cafe

devices to access the Internet? (all that apply)[1]

35.0	34.2	25.1	25.2	30.9	32.3	42.4	30.3	Mobile phone, via WAP or GPRS
2.1	3.5	2.3	3.3	0.8	1.7	5.1	2.9	Mobile phone, via 3G network
0.0	0.5	1.5	1.1	0.5	0.0	0.0	0.6	Handheld computer (palmtop)
65.0	63.5	78.2	70.6	68.6	67.5	56.5	67.3	None of the above

MODULE 1.C: Use

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
C5: For which activities (for private purposes)								
Sending/receiving e-mails	70.7	78.4	74.8	78.8	93.5	92.9	77.4	73.8
Seeking information about goods and services	58.4	67.7	70.5	61.9	73.2	67.4	65.4	63.2
Playing or dowloading games, pictures or music	73.2	42.8	45.3	31.5	46.5	29.9	49.2	54.5
Using services related to travel and accommodation	24.0	30.0	34.6	32.0	44.6	37.2	26.2	35.0
Reading or downloading on-line newspapers/news magazines	23.4	30.8	34.4	30.1	45.2	50.6	29.0	30.6
Downloading softwares	24.9	19.1	13.5	18.8	30.1	14.4	26.0	12.2
Other information or on-line services	17.5	16.7	14.9	18.2	9.8	10.9	19.3	12.7
Seeking health-related information	8.0	20.9	22.6	18.3	10.4	39.5	12.8	21.3
Formal education	23.2	17.2	11.1	10.0	7.4	0.0	15.6	17.3
Looking for a job or sending job applications	8.3	28.4	14.3	11.3	8.0	3.1	14.3	16.8
Telephoning via the Internet/ video-conferencing	14.0	17.3	16.5	10.0	22.0	23.5	16.8	12.8
Internet banking	4.2	16.5	14.3	25.5	27.3	19.4	10.3	19.1
Listening to web radio/ watching web television	11.9	14.7	7.6	9.1	8.2	14.4	11.7	10.4
Post-graduate upgrading	1.4	10.9	4.1	7.2	2.5	0.0	5.4	6.6
Selling of goods or services (e.g.: via auctions)	2.6	9.5	3.3	3.8	0.0	0.0	5.7	3.2
None of the above	5.7	6.0	4.0	3.6	2.5	0.0	6.9	2.2
C6: Would you like to								
Yes	69.9	58.1	48.4	55.4	47.1	68.9	58.9	59.5
No	30.1	41.9	51.6	44.6	52.9	31.1	41.1	40.5

[1] The data refer to individuals that ticked "Within the last 3 months" in question C1.

of the Internet

in percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
did you use the Internet in the last 3 months?[1]								
65.2	74.2	89.9	77.0	66.4	83.7	78.8	75.9	Sending/receiving e-mails
52.5	66.7	71.1	67.6	58.7	65.9	62.3	64.5	Seeking information about goods and services
69.2	51.2	34.8	42.2	57.4	49.0	71.6	51.4	Playing or dowloading games, pictures or music
22.8	26.9	43.6	33.1	24.1	29.0	29.0	29.9	Using services related to travel and accommodation
17.2	27.7	46.2	35.5	24.2	36.9	14.9	29.7	Reading or downloading on-line newspapers/news magazines
20.7	16.8	27.5	17.7	9.8	39.0	26.6	20.2	Downloading softwares
11.8	17.0	20.0	18.1	13.3	10.1	20.9	16.5	Other information or on-line services
4.7	18.2	23.4	22.7	9.8	14.1	8.3	16.3	Seeking health-related information
21.9	12.6	19.0	12.3	8.1	36.7	22.8	16.3	Formal education
4.5	17.8	20.4	16.2	21.0	20.1	2.5	15.4	Looking for a job or sending job applications
13.7	15.7	15.2	17.4	8.3	19.2	14.0	15.1	Telephoning via the Internet/ video-conferencing
1.6	13.6	26.7	21.1	8.1	10.7	3.6	14.0	Internet banking
3.0	13.9	12.9	12.2	5.2	20.0	9.3	11.2	Listening to web radio/ watching web television
2.2	3.9	13.9	7.2	4.4	9.0	2.1	5.9	Post-graduate up-grading
4.3	4.1	6.2	5.1	4.0	6.6	2.8	4.7	Selling of goods or services (e.g.: via auctions)
1.7	6.7	4.1	4.9	4.3	10.0	2.3	5.0	None of the above
use more often the Internet?[1]								
74.8	58.9	44.8	51.2	70.2	58.9	67.8	59.2	Yes
25.2	41.1	55.2	48.8	29.8	41.1	32.2	40.8	No

MODULE 1.C: Use

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
C7: What are your barriers to more intensive								
Lack of time	41.3	50.2	61.0	61.2	60.6	70.9	49.4	52.4
Connection is too slow	22.8	29.2	11.4	24.5	25.7	30.8	27.2	17.2
Better type of connection is too expensive	12.0	16.5	9.4	20.0	35.2	15.9	14.8	14.5
Costs of on-line content	10.0	16.2	8.1	12.6	15.4	0.0	14.1	8.7
Foreign language skills are inadequate	5.4	8.7	17.4	17.5	21.2	13.2	13.6	6.5
Lack of skills or knowledge	2.0	2.3	4.8	10.9	15.8	13.2	8.2	4.6
Security or privacy concerns	0.7	5.7	1.2	0.0	15.4	0.0	3.1	1.5
Content (not sufficiently interesting)	0.0	0.8	3.2	0.0	4.0	0.0	1.3	0.3
None of the above	32.0	16.4	16.1	7.9	6.5	0.0	18.3	23.9
C8: Did you have computer viruses resulting								
No	76.0	75.0	68.7	70.3	72.9	54.2	70.3	76.8
Yes	24.0	25.0	31.3	29.7	27.1	45.8	29.7	23.2
C9: How often do you make safety copies or back up files from								
Sometimes	35.2	45.4	45.7	50.0	36.9	57.9	42.7	42.5
Never or hardly ever	37.3	28.8	27.6	29.4	25.0	16.7	29.0	34.2
Always or almost always	20.7	20.4	21.6	12.4	32.9	25.3	20.5	19.2
Not applicable (I don't keep files on a computer)	6.8	5.5	5.2	8.2	5.2	0.0	7.8	4.1

[1] The data refer to individuals that ticked "YES" in question C6.

[2] The data refer to individuals that ticked "Within the last 3 months" in queston C1.

of the Internet

in percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
use of the Internet? (all that apply)[1]								
37.6	55.6	57.4	59.9	45.5	40.9	44.3	50.7	Lack of time
20.3	23.8	24.9	19.4	19.6	37.2	26.1	23.0	Connection is too slow
10.2	17.1	14.8	11.9	19.7	12.9	15.3	14.7	Better type of connection is too expensive
13.4	11.1	11.3	10.7	10.1	9.2	17.8	11.8	Costs of on-line content
11.4	10.1	10.7	13.5	8.5	2.3	12.5	10.6	Foreign language skills are inadequate
7.3	6.5	6.5	6.0	6.0	2.1	12.0	6.7	Lack of skills or knowledge
1.6	3.3	1.1	1.2	4.6	2.1	2.4	2.4	Security or privacy concerns
0.0	1.2	1.2	1.8	0.0	0.0	0.6	0.9	Content (not sufficiently interesting)
35.5	15.9	10.7	12.9	28.6	26.8	22.9	20.6	None of the above
in loss of information or time?[2]								
67.8	73.7	76.9	71.6	76.6	70.8	72.0	73.1	No
32.2	26.3	23.1	28.4	23.4	29.2	28.0	26.9	Yes
your computer on diskettes, CDs, diskspace on Internet servers?[2]								
43.4	39.8	48.1	45.8	41.0	44.6	34.4	42.6	Sometimes
37.5	32.3	22.7	25.4	42.2	19.0	42.5	31.2	Never or hardly ever
10.3	21.8	25.1	20.4	14.3	35.2	14.8	19.9	Always or almost always
8.8	6.1	4.1	8.5	2.5	1.3	8.3	6.2	Not applicable (I don't keep files on a computer)

MODULE 1.D: e-commerce:

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
D1: When did you last buy/order goods								
Never bought or ordered	88.9	88.5	92.4	90.8	88.3	81.1	88.4	91.3
Within the last 3 months	4.0	4.3	2.6	3.7	1.8	6.1	5.1	1.9
More than a year ago	4.4	1.8	1.9	4.4	7.6	12.8	3.0	4.0
More than 3 months ago (less than a year ago)	2.7	5.4	3.1	1.1	2.3	0.0	3.4	2.9
D2: What types of goods or services did you order, for private use,								
Books/magazines/newspapers/ e-learning material	46.1	27.4	49.6	37.6	0.0	0.0	35.7	40.2
Computer softwares and upgrades (incl. computer and video games)	23.6	35.4	0.0	11.0	0.0	0.0	29.8	4.9
Films, music	50.6	5.5	23.2	0.0	0.0	0.0	20.0	25.5
Household goods (furniture, toys, etc.)	9.6	16.8	35.8	24.1	100.0	0.0	19.3	23.0
Electronic equipment (incl. cameras)	0.0	34.7	0.0	11.0	0.0	0.0	14.4	14.3
Computer hardware	0.5	28.5	0.0	0.0	0.0	0.0	15.7	0.0
Tickets for cultural events	10.2	4.5	13.3	11.0	0.0	0.0	2.7	21.1
Clothes, sports goods	0.0	2.5	17.7	0.0	44.5	0.0	3.6	7.9
Food/groceries	7.7	0.0	14.6	0.0	0.0	0.0	6.8	0.0
Lotteries and betting	0.0	0.0	13.3	0.0	0.0	0.0	6.8	0.0
Travel, holiday, accommodation	1.6	0.0	0.0	0.0	44.5	0.0	2.2	0.7
Other	5.2	6.2	0.0	27.4	0.0	100.0	9.8	3.1

[1] The data refer to individuals that did not tick "Never used it" in question C1.

[2] The data refer to individuals that ticked "Within the last 3 months" or "More than 3 months ago (less than a year ago) in question D1.

activities and barriers[1]

in percentages

Educational level			Employment situation				Total	Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other		

or services over the Internet for private use?

Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer
89.4	90.5	88.1	89.8	92.9	78.0	92.8	89.7	Never bought or ordered
2.0	4.2	4.0	4.3	1.5	9.2	1.4	3.7	Within the last 3 months
4.8	3.2	2.8	2.5	4.3	5.4	3.4	3.4	More than a year ago
3.8	2.1	5.1	3.4	1.3	7.4	2.4	3.2	More than 3 months ago (less than a year ago)

over the Internet in the last 12 months? (all that apply)[2]

Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer
0.0	46.1	44.3	30.3	62.1	53.6	0.0	37.1	Books/magazines/newspapers/ e-learning material
34.6	27.7	5.7	9.5	37.9	48.0	0.0	22.2	Computer softwares and upgrades (incl. computer and video games)
31.0	23.4	13.3	6.9	23.4	30.3	77.8	21.7	Films, music
34.6	5.7	36.4	18.7	1.6	32.7	12.6	20.5	Household goods (furniture, toys, etc.)
34.4	11.5	7.2	27.3	0.0	0.0	0.0	14.4	Electronic equipment (incl. cameras)
0.0	21.2	0.5	14.1	36.7	0.0	0.0	10.9	Computer hardware
0.0	9.8	10.8	9.6	1.6	10.9	0.0	8.3	Tickets for cultural events
0.0	0.0	15.9	7.0	0.0	0.0	12.6	4.9	Clothes, sports goods
0.0	9.3	0.0	8.9	0.0	0.0	0.0	4.7	Food/groceries
0.0	4.1	0.0	0.0	21.8	0.0	0.0	2.1	Lotteries and betting
0.0	0.0	5.5	0.0	0.0	0.7	16.0	1.7	Travel, holiday, accommodation
0.0	7.0	13.6	7.8	17.2	5.0	6.2	7.8	Other

MODULE 1.E:

Answers (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
E1: When did you last take a training course								
Never took one	77.9	73.7	75.2	61.5	75.2	80.1	77.8	68.3
More than 3 years ago	4.4	12.0	15.4	15.6	17.6	3.0	7.3	15.6
More than a year ago	6.4	7.0	5.9	16.5	3.6	13.5	7.7	8.7
Within the last 3 months	9.2	1.5	0.8	2.4	0.0	0.0	4.5	2.9
More than 3 months ago (less than a year ago)	2.2	5.8	2.7	4.0	3.6	3.4	2.7	4.5
E2: What are the reasons for not having taken								
No need to take one because my computer skills are sufficient	36.7	37.9	25.6	27.5	20.2	15.4	35.5	27.4
Lack of time	9.9	24.1	33.9	20.7	21.3	8.5	21.3	21.1
No need to take one because I rarely use computers	17.4	18.2	20.8	24.7	26.3	5.8	18.8	21.4
Course costs	12.6	10.6	17.2	10.2	10.1	10.0	14.7	10.2
No suitable offer available	3.2	3.1	7.4	5.6	5.4	0.0	4.3	4.9
Courses are too difficult	1.4	1.2	1.1	2.6	2.8	0.0	1.9	1.1
None of the above	32.7	19.8	16.9	24.4	32.4	60.3	22.2	28.0

[1] The data refer to individuals that did not tick "Never used it" in question B1.

[2] The data refer to individuals that ticked "Never taken one" or "More than 3 months ago" in question E1.

e-skills[1]

in percentages

Educational level			Employment situation					Answers (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
(of at least 3 hours) on any aspect of computer use?								
77.7	76.3	58.4	65.6	78.7	75.7	81.0	73.2	Never took one
3.7	12.4	17.7	18.0	8.6	3.5	4.4	11.3	More than 3 years ago
5.9	6.9	14.8	10.6	8.4	6.9	3.3	8.2	More than a year ago
10.1	1.6	1.9	1.2	2.0	11.4	7.8	3.7	Within the last 3 months
2.7	2.8	7.2	4.6	2.3	2.5	3.6	3.6	More than 3 months ago (less than a year ago)
a course on computer use recently? (all that apply)[2]								
19.8	31.0	50.2	34.9	24.2	44.3	29.7	31.7	No need to take one because my computer skills are sufficient
13.2	25.0	19.1	27.4	22.9	12.7	9.4	21.2	Lack of time
19.0	21.7	15.6	20.4	22.9	13.2	18.3	20.0	No need to take one because I rarely use computers
14.5	13.5	6.5	11.1	13.8	11.0	14.5	12.5	Course costs
2.3	6.3	2.1	4.9	6.4	1.4	2.9	4.6	No suitable offer available
1.1	1.2	3.2	1.5	1.9	1.3	1.2	1.5	Courses are too difficult
42.7	20.6	15.6	16.8	28.2	27.6	36.5	25.0	None of the above

MODULE 1.E:

Answers (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
E3: Which of the following computer-related activities								
Copying or moving a file or folder	85.5	76.2	73.4	63.4	55.8	49.4	76.4	72.6
Using copy and paste tools to duplicate or move information within a document	77.4	72.5	68.9	57.9	48.6	49.4	71.6	66.0
Compressing files (ZIP, RAR)	45.4	38.1	31.1	29.2	13.0	18.1	40.0	30.7
Using basic arithmetic formulas in a spreadsheet	32.2	32.1	29.2	32.0	21.1	24.3	34.2	27.1
Connecting and installing new devices (e.g. a printer or modem)	26.3	26.5	16.8	17.1	10.9	0.0	26.6	16.1
Detecting or solving computer problems (e.g. computer runs slowly)	10.0	13.7	10.0	7.5	3.0	0.0	14.6	4.8
Connecting computers to a local area network	8.3	13.5	4.4	5.4	6.0	0.0	10.5	5.2
Writing a computer program	10.9	6.4	3.8	5.9	4.1	0.0	7.7	6.1
None of the mentioned	10.9	20.6	22.1	32.8	40.5	50.6	20.2	23.4
E4: Which of the following Internet activities								
Using browsers to find information	89.4	86.1	92.1	81.7	83.0	84.1	88.1	86.5
Sending e-mails with attached files	64.7	73.4	79.6	70.0	77.8	78.6	72.2	70.4
Chatting on on-line forum	47.0	29.5	20.0	17.7	14.2	7.9	34.0	26.5
Finding, downloading and installing softwares	19.0	19.7	19.8	19.0	14.3	0.0	21.4	16.0
Keeping viruses off computer	16.2	17.0	14.2	8.3	5.4	7.9	19.1	8.1
Using peer-to-peer file sharing for exchanging movies, music, etc.	21.1	12.6	8.0	9.8	0.0	0.0	14.3	12.4
Using the Internet to make telephone calls	7.5	11.7	9.7	9.2	2.3	18.0	10.0	8.1
Creating a web page	8.5	7.1	6.0	2.7	3.4	0.0	6.9	5.8
None of the above	8.3	7.9	4.5	8.5	11.6	4.9	7.9	7.3

[1] The data refer to individuals that did not tick "Never used it" in question B1.

[2] The data refer to individuals that did not tick "Never used it" in question C1.

e-skills[1]

in percentages

Educational level			Employment situation					Answers (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
have you already carried out? (all that apply)								
67.9	73.1	87.6	78.7	61.8	87.2	77.3	74.6	Copying or moving a file or folder
65.2	66.0	82.2	72.9	54.7	91.9	68.5	68.9	Using copy and paste tools to duplicate or move information within a document
28.3	33.3	51.1	36.7	23.4	64.8	35.4	35.5	Compressing files (ZIP, RAR)
24.3	28.4	46.0	36.0	17.6	50.8	27.9	30.8	Using basic arithmetic formulas in a spreadsheet
16.4	20.0	32.5	20.6	18.5	43.9	16.6	21.5	Connecting and installing new devices (e.g. a printer or modem)
6.4	8.6	18.2	12.4	3.4	21.7	7.6	9.9	Detecting or solving computer problems (e.g. computer runs slowly)
5.9	7.6	11.8	8.4	5.1	15.9	7.1	8.0	Connecting computers to a local area network
4.0	7.3	9.7	5.1	7.9	9.8	8.0	6.9	Writing a computer program
23.7	24.2	11.9	19.5	32.5	2.9	20.9	21.7	None of the mentioned
have you already carried out? (all that apply)[2]								
81.7	87.5	92.7	90.0	81.3	86.3	89.6	87.4	Using browsers to find information
64.4	68.7	84.2	77.1	56.1	84.6	67.7	71.4	Sending e-mails with attached files
31.0	31.3	28.9	23.4	23.3	52.8	45.7	30.7	Chatting on on-line forum
21.4	16.0	23.8	20.2	13.3	32.2	14.6	19.0	Finding, downloading and installing softwares
19.6	11.6	15.3	14.0	7.6	25.0	16.4	14.2	Keeping viruses off computer
11.0	15.0	12.2	9.2	9.1	37.0	15.2	13.5	Using peer-to-peer file sharing for exchanging movies, music, etc.
3.3	9.7	13.6	9.5	5.9	21.0	4.8	9.2	Using the Internet to make telephone calls
6.6	6.5	6.1	4.6	5.8	16.5	5.4	6.4	Creating a web page
13.4	7.1	3.5	5.3	13.2	3.5	9.0	7.6	None of the above

MODULE 1.E:

Answers (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
E5: Where have you acquired skills								
Informal assistance from colleagues, relatives, friends	50.2	51.6	49.2	46.3	46.2	62.5	54.0	44.7
Formal education (schools, college, university)	61.2	33.6	20.4	17.9	17.7	17.7	33.0	37.5
Self-study in the sense of learning-by-doing	27.5	39.0	34.9	32.1	31.6	41.2	35.6	30.3
Self-study by using books, CDs, etc.	23.4	26.1	29.4	18.5	24.3	21.8	29.9	18.6
Training courses in adult education centers	1.4	13.1	13.4	21.0	4.7	4.8	9.3	11.7
Vocational training courses (on the demand of the employer)	0.5	5.7	6.3	15.3	18.2	9.7	6.0	7.7
Some other way	8.6	10.3	15.0	7.9	17.7	22.8	11.1	10.6
E6: Do you judge your computer skills								
Yes	37.0	58.1	45.6	41.1	29.5	32.9	45.1	43.1
No	26.4	29.7	44.6	42.6	30.7	20.0	33.5	34.6
Not applicable	36.6	12.2	9.7	16.3	39.7	47.1	21.4	22.3

[1] The data refer to individuals that did not tick "Never used it" in question B1.

e-skills[1]

in percentages

Educational level			Employment situation					Answers (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	

to carry out these activities? (all that apply)

Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answers (individuals)
48.9	51.3	45.0	50.5	46.2	46.4	53.8	49.5	Informal assistance from colleagues, relatives, friends
42.8	31.3	37.0	26.6	24.1	82.4	45.9	35.2	Formal education (schools, college, university)
22.8	32.5	47.6	40.1	25.1	28.7	30.9	33.0	Self-study in the sense of learning-by-doing
25.3	22.3	29.7	25.4	18.6	35.7	25.1	24.4	Self-study by using books, CDs, etc.
5.9	9.5	19.1	16.5	10.0	2.5	2.0	10.5	Training courses in adult education centers
0.0	6.5	16.4	12.1	2.1	0.5	5.1	6.8	Vocational training courses (on the demand of the employer)
15.4	11.1	4.4	9.1	17.4	2.2	10.0	10.9	Some other way

to be sufficient if you were to look for a job or change jobs.

Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answers (individuals)
25.8	44.7	65.8	52.3	36.0	70.2	24.5	44.1	Yes
31.4	38.6	24.0	35.9	40.5	19.4	28.3	34.1	No
42.8	16.6	10.1	11.8	23.5	10.4	47.2	21.8	Not applicable

MODULE 1.F: Public administration

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
F1: Would you be interested in interacting via the Internet								
Yes, I would be interested (but currently I do not use this possibility)	47.0	59.8	52.6	51.9	37.4	50.0	49.9	54.8
No	44.4	25.0	37.3	33.6	45.7	39.7	36.2	35.9
Yes, I have already been using this possibility	8.6	15.2	10.2	14.5	16.9	0.3	36.2	35.9
F2: Why don't you interact via the Internet								
Lack of information	58.3	48.2	61.0	34.6	19.1	48.3	46.7	55.9
Services I need are not available on the Internet or are difficult to be found	20.5	22.2	8.9	24.3	25.8	14.1	21.7	16.4
Too complicated	11.6	10.5	5.5	16.3	0.0	0.0	12.7	7.5
Additional costs	8.6	8.1	13.2	9.8	0.0	0.0	10.7	7.6
I prefer personal contact	5.1	10.0	2.1	14.6	45.2	18.2	8.2	9.4
I want immediate response	1.9	6.2	3.1	6.8	28.9	0.0	5.0	5.1
Data security concerns	0.7	2.9	1.2	3.6	0.0	0.0	2.3	1.4
None of the above	27.1	23.7	19.8	23.2	27.6	33.4	23.0	25.1

[1] The data refer to individuals who ticked "Within the last 3 months" in question C1.

[2] The data refer to individuals who ticked "Yes, I would be interested" in question F1.

(e-government)[1]

in percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
with public administrations or do you prefer personal contacts?								
45.6	56.3	48.4	51.9	61.8	49.4	41.7	52.0	Yes, I would be interested (but currently I do not use this possibility)
49.7	33.4	28.8	33.0	34.4	29.5	51.2	36.0	No
4.6	10.3	22.8	15.1	3.7	21.0	7.1	12.0	Yes, I have already been using this possibility
with the public administration? (all that apply)[2]								
52.4	53.7	41.6	45.2	48.3	78.1	51.3	50.8	Lack of information
21.2	17.0	23.8	20.0	18.3	17.5	20.6	19.4	Services I need are not available on the Internet or are difficult to be found
3.3	13.5	8.8	10.7	10.6	14.3	5.4	10.4	Too complicated
11.9	7.9	10.7	12.4	1.3	6.1	16.2	9.3	Additional costs
8.3	8.2	10.3	9.8	6.4	3.9	13.2	8.7	I prefer personal contact
4.0	4.8	6.6	6.9	2.6	3.3	4.5	5.0	I want immediate response
0.0	1.5	4.8	3.0	0.0	2.2	1.6	1.9	Data security concerns
23.4	24.2	23.8	20.6	37.6	11.4	21.4	24.0	None of the above

MODULE 1.F: Public administration

Answer (individuals)	Age						Sex	
	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Male	Female
F3: Which of the following activities								
Certificates (births/deaths)	76.2	42.4	62.7	91.0	67.3	0.0	62.0	69.7
Identification documents (passport and driving license)	21.0	38.8	50.3	39.6	0.0	0.0	36.9	29.5
Vehicle registration	20.4	20.4	30.5	31.4	14.5	0.0	28.4	14.6
Enrolling at colleges and universities	31.4	19.5	0.0	0.0	0.0	0.0	13.3	17.8
Looking for a job via the placement bureau	12.2	21.4	14.1	4.3	0.0	0.0	8.5	24.9
Change of place of residence (address)	19.9	4.7	17.5	9.5	0.0	0.0	12.9	7.5
Public library	16.4	7.0	7.4	0.0	18.2	0.0	4.7	16.1
Health-related services	0.0	12.0	0.0	7.5	0.0	0.0	3.7	9.4
Tax on revenue	0.0	16.2	0.0	0.0	0.0	0.0	7.2	1.9
Social insurance (for the unemployed, children's allowance, medical costs)	6.0	4.7	0.0	11.3	0.0	0.0	5.4	4.9
F4: For which of the following services of the public administration								
Obtain information from public institutions websites	65.0	79.0	89.0	87.4	85.5	100.0	84.8	68.7
Downloading official forms	41.0	67.1	55.3	57.8	67.3	100.0	55.2	61.6
Sending filled in forms	37.2	38.5	15.3	28.9	50.9	100.0	23.5	53.5

[1] The data refer to individuals who ticked "Within the last three months" in question C1.

[2] The data refer to individuals who ticked "Yes, I have already been using this possibility" in question F1.

(e-government)[1]

in percentages

Educational level			Employment situation					Answer (individuals)
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	
have you carried out via the Internet? (all that apply)[2]								
100.0	49.6	72.6	65.5	55.9	62.8	68.0	64.5	Certificates (births/deaths)
47.3	27.4	39.1	46.2	20.3	22.3	0.0	34.5	Identification documents (passport and driving license)
0.0	28.2	24.2	27.8	22.3	21.1	7.7	23.9	Vehicle registration
0.0	19.3	13.1	5.7	18.8	45.3	0.0	14.7	Enrolling at colleges and universities
0.0	17.2	13.2	9.3	44.1	21.5	4.9	13.9	Looking for a job via the placement bureau
0.0	13.6	10.7	10.6	0.0	21.1	0.0	11.1	Change of place of residence (address)
0.0	14.6	3.9	4.7	0.0	20.9	9.6	8.4	Public library
0.0	8.9	3.3	9.1	0.0	0.0	0.0	5.5	Health-related services
0.0	5.6	6.4	9.0	0.0	0.0	0.0	5.5	Tax on revenue
0.0	8.7	2.7	4.6	0.0	6.4	9.9	5.2	Social insurance (for the unemployed, children's allowance, medical costs)
did you use the Internet in the last 3 months? (tick all that apply)[2]								
47.3	81.5	83.9	83.5	100.0	77.7	46.7	79.5	Obtain information from public institutions websites
47.3	54.8	61.8	70.0	46.9	39.5	27.2	57.3	Downloading official forms
52.7	36.6	26.1	27.4	64.5	24.0	67.8	33.3	Sending filled in forms

1.5. QUESTIONNAIRE

ICT usage in households and by individuals

MODULE 1.A: Access to Information and Communication Technologies

A1	Do you or anyone in your household have access to the following devices at home?	
	(tick all that apply)	
	a) TV	
	a1) Satellite TV	
	a2) Cable TV	
	a3) Digital TV	
	b) Personal computer (PC)	
	c) Mobile phone	
	d) Internet enabled mobile phone (GPRS, WAP)	
	e) Games console (play-station)	
	f) Laptop	
	g) Handheld computer (palmtop)	
	h) None of the above	
	-> go to A2	
A2	Do you or anyone in your household have access to the Internet <u>at home</u>, regardless of whether it is used?	
	(tick only one)	

a)	Yes		-> go to A3
b)	No		-> go to B1
c)	Don't know		-> go to B1

A3	On which of the following devices is the Internet accessed <u>at home</u>?	
	(tick all that apply)	
	a)	Personal computer (PC)	
	b)	Portable computer (laptop)	
	c)	TV set with specific Internet device	
	d)	Games console (play-station)	
	e)	Other means	
		e1) via Internet enabled mobile phone (WAP, GPRS, ...)	
		e2) via handheld computer (palmtop, PDA)	
	f)	Don't know	
	-> go to A4	

A4	What types of Internet connection are used?	
	(tick all that apply)	
	a)	Modem	
	b)	ISDN	
	c)	DSL (ADSL)	
	d)	Cable Internet	
	e)	Mobile phone: WAP, GPRS, etc.	
	f)	Other connection	
	Ticked c or d -> go to B1, otherwise go to A5	

A5	What are the reasons for not having a broadband connection (such as cable or DSL) at home:	
	(tick all that apply)	
	a)	Too expensive	
	b)	No need	
	c)	Not available in my area	
	d)	Can access somewhere else (e.g. at work)	
	e)	None of the above; other reasons	
	-> go to B1	

MODULE 1.B: Use of mobile phone and computers

B1	When did you most recently use a computer?		
(tick only one)			
	a) Within the last 3 months		-> go to B2
	b) Between 3 months and a year		-> go to B4
	c) More than 1 year ago		-> go to B4
	d) Never used one		-> go to B4

B2	How often on average have you used a computer in the last 3 months?	
(tick only one)		
	a) Every day or almost everyday	
	b) At least once a week	
	c) At least once a month	
	d) Less than once a month	
-> go to B3		

B3	Where have you used a computer in the last 3 months?	
(tick all that apply)		
	a) At home	
	b) At place of work (other than home)	
	c) At place of education	
	d) At another person's home	
	e) Other (Internet café, hotel, airport...)	
-> go to B4		

B4	Do you use a mobile phone?	
(tick only one)		
	a) Yes	
	b) No	
-> go to C1		

MODULE 1.C: Use of the Internet

C1	When did you most recently use the Internet?

(tick only one)

a)	Within the last 3 months		-> go to C2
b)	Between 3 months and a year ago		-> go to D1
c)	More than a year ago		-> go to D1
d)	Never used it		-> go to E1

C2	On average, how often did you use the Internet in the last 3 months?

(tick only one)

a)	Every day or almost every day	
b)	At least once a week	
c)	At least once a month	
d)	Less than once a month	

-> go to C3

C3	Where have you used the Internet in the last 3 months?

(tick all that apply)

a)	At home	
b)	At place of work (other than home)	
c)	At place of education	
d)	At another person's home	
e)	At other places	
e1)	Public library	
e2)	Post office	
e3)	Public office, town hall, government agency	
e4)	Community or voluntary organization	
e5)	Internet café	

-> go to C4

C4	Did you use any of the following mobile devices to access the Internet?	

(tick all that apply)

a)	Mobile phone via WAP or GPRS	
b)	Mobile phone via 3G network	
c)	Handheld computer (palmtop)	
d)	Laptop via wireless connection away from home or work	
e)	None of the above	

-> go to C5

C5	For which activities did you use the Internet in the last 3 months for private purpose?	

(tick all that apply)

Communication		
a)	Sending/receiving e-mails	
b)	Telephoning over the Internet /video-conferencing	
c)	Other	
Information search and on-line services		
d)	Finding information about goods or services	
e)	Using services related to travel and accommodation	
f)	Listening to web radio or watching web television	
g)	Playing or downloading games, pictures or music	
h)	Downloading software	
i)	Reading or downloading on-line newspapers/news magazines	
j)	Looking for a job or sending a job application	
k)	Seeking health-related information	
l)	Other information search or on-line services	
Selling of goods or services, banking		
m)	Internet banking	
n)	Selling of goods or services (e.g. via auctions)	
Training and education		
o)	Formal education	
p)	Post-graduate studies	
q)	Other	

-> go to C6

C6	Would you like to use the Internet more?

(tick only one)		
a)	Yes	-> go to C7
b)	No	-> go to C8

C7	What are your barriers to more intensive use of the Internet?

(tick all that apply)

a)	Foreign language skills are inadequate	
b)	Lack of time	
c)	Connection is too slow	
d)	Better type of connection is too expensive (e.g. cable Internet is too expensive)	
e)	Cost of on-line content (content payable to sites)	
f)	Content (what is there is not interesting enough to make more use of the Internet)	
g)	Lack of skills or knowledge (e.g. sites are too complicated)	
h)	Security or privacy concerns	
i)	None of the above	

-> go to C8

C8	Through using the Internet, did you have a computer virus (worms or troyan) resulting in loss of information or working time in the last 12 months?

(tick only one)

a)	Yes	
b)	No	

-> go to C9

C9	How often do you make safety copies or back up files (documents, pictures, etc.) from your computer on diskettes, CD or diskspace on Internet servers?

(tick only one)

a)	Always or almost always	
b)	Sometimes	
c)	Never of hardly ever	
d)	Not applicable (because I don't keep files on a computer)	

-> go to D1

MODULE 1.D: e-commerce: activities and barriers

D1	When did you last buy or order goods or services for private use over the Internet (excluding manually typed e-mails)?		
	(tick only one)		
	a)	Within the last 3 months		-> go to D2
	b)	Between 3 months and a year ago		-> go to D2
	c)	More than a year ago		-> go to E1
	d)	Never		-> go to E1

D2	What types of goods or services did you buy or order over the Internet for private use in the last 12 months?	
	(tick all that apply)	
	a)	Food/groceries	
	b)	Household goods (furniture, toys, etc.)	
	c)	Films, music	
	d)	Books/magazines/newspapers/e-learning material	
	e)	Clothes, sports goods	
	f)	Computer software and upgrades (incl. computer and video games)	
	g)	Computer hardware	
	h)	Electronic equipment (incl. cameras)	
	i)	Share purchases / financial services / insurance	
	j)	Travel and holiday, accommodation	
	k)	Tickets for cultural events	
	l)	Lotteries and betting	
	m)	Other	
	->go to E1	

MODULE 1.E: e-skills

E1	When did you last take a training course (of at least 3 hours) on any aspect of computer use?	
(tick only one)		
a)	Within the last 3 months -> go to E3	
b)	Between 3 months and a year ago -> go to E3	
c)	Between 1 and 3 years ago -> go to E3	
d)	More than 3 years ago -> go to E2	
e)	Never taken one -> go to E2	

E2	What are the reasons for not having taken a course on computer use recently?	
(tick all that apply)		
a)	No need to take one because my computer skills are sufficient	
b)	No need to take one because I rarely use computers	
c)	Lack of time	
d)	Course costs	
e)	No suitable offer available	
f)	Courses are too difficult	
g)	None of the above	

-> go to E3

E3	Which of the following computer-related activities have you already carried out?	
(tick all that apply)		
a)	Copying or moving a file or folder	
b)	Using copy and paste tools to duplicate or move information within a document	
c)	Using basic arithmetic formulas in a spreadsheet	
d)	Compressing files (ZIP, RAR)	
e)	Connecting and installing new devices, e.g. printer or modem	
f)	Writing a computer program	
g)	Connecting computers to a local area network	
h)	Detecting and solving computer problems (e.g. computer runs slowly)	
i)	None of the mentioned	

-> go to E4

E4	Which of the following Internet-related activities have you already carried out?	
	(tick all that apply)	
	a)	Using a browser to find information	
	b)	Sending e-mails with attached files (documents, pictures, etc.)	
	c)	Posting messages to chatrooms or on-line discussion forum	
	d)	Using the Internet to make telephone calls	
	e)	Using peer-to-peer file sharing for exchanging movies, music, etc.	
	f)	Creating a web page	
	g)	Finding, downloading and installing software	
	h)	Detecting viruses, spyware and adware and keeping them off your computer	
	i)	None of the above	
	-> go to E5	
E5	Where or how did you acquire the skills to carry out these activities?	
	(tick all that apply)	
	a)	Formal educational institution (school, college, university)	
	b)	Training courses in adult education center	
	c)	Vocational training course (on the demand of the employer)	
	d)	Self-study by using books, CDs, etc.	
	e)	Self-study in the sense of learning-by-doing	
	f)	Informal assistance from colleagues, relatives, friends	
	g)	Some other way	
	-> go to E6	
E6	Do you judge your computer skills to be sufficient if you were to look for a job or change jobs?	
	(tick all that apply)	
	a)	Yes	
	b)	No	
	c)	Not applicable	
	-> go to F1	

MODULE 1.F: e-government (administration)

F1	Would you be interested in interacting with public administration Internet service or do you prefer personal contacts?		

(tick only one)

a)	Yes, I have already been using this possibility		-> go to F3
b)	Yes, I would be interested		-> go to F2
c)	No		-> go to G1

F2	What are the reasons for not interacting with public administration Internet services?

(tick all that apply)

a)	Lack of information	
b)	Services I need are not available on the Internet or are difficult to be found	
c)	I prefer personal contact	
d)	I want an immediate response	
e)	Concerns about data security	
f)	Additional costs	
g)	Too complicated	
h)	None of the above	

-> go to G1

F3	Which of the following activities have you carried out via the Internet?

(tick all that apply)

a)	Tax on revenue	
b)	Services of finding a job provided by the placement bureau	
c)	Social insurance (for the unemployed, children's allowance, health-related costs)	
d)	Identification documents (passport or driving license)	
e)	Vehicle registration	
f)	Request for a building permit	
g)	Statement to the police department	
h)	Public library	
i)	Certificates (births/deaths)	
j)	Enrolling at schools and faculties	
k)	Declaring change of place of residence (address)	
l)	Health-related services	

-> go to F4

F4	For which of the following public administration services did you use the Internet in the last 3 months for private purpose?	
	(tick all that apply)	
	a) Obtaining information from websites of public authorities	☐
	b) Downloading official forms	☐
	c) Sending filled in forms	☐
	-> go to G1	

MODULE 1.G: Respondent's background characteristics

G1 Age   _____

G2 Sex
    a) Man   ☐
    b) Woman   ☐

G3 Educational level
    a) Lower than secondary education   ☐
    b) Secondary education   ☐
    c) Tertiary education   ☐

G4 Employment situation
    a) Employed   ☐
    b) Unemployed   ☐
    c) Student   ☐
    d) Other not in the labor force (in compulsory military service, retired) ☐

G5 Municipality   ……………………………………… code |__|__|__|__|__|__|

G6 Settlement   ……………………………………… code |__|__|__|__|__|__|__|

G7 Number of members in the household   _____

G8 of which, number of children under 18   _____

G9 Household income (average net monthly income)
    a)   under 300 Euros   ☐
    b)   300 to 600 Euros   ☐
    c)   Over 600 Euros   ☐

G10 Information provided for:
    a)   respondent   ☐
    b)   other member of the household   ☐

Usage of information and communication technologies in the Republic of Serbia, 2007

Part 1 – Households/individuals

Part 2 – Enterprises

2.1. METHODOLOGY

Realisation:	• The survey was carried out from 22 May to 5 June 2007
Type of survey:	• Telephone interview
Sample size:	• 1000 enterprises
Population target:	• Enterprises with 10 employees and over • Sector D: Manufacturing • Sector F: Construction • Sector G: Wholesale and retail trade, motor vehicle repair • Groups 55.1 and 55.2: Hotels, camping sites and other short stay accommodation • Sector I: Transport, storage and communications • Sector K: Real estate-related operations, renting and business operations • Groups 92.1 and 92.2: Cinema and video activities, radio and TV activities • Banks and insurance companies
Type of sample:	• Stratified sample
Scope of the survey:	• Territory of the Republic of Serbia (Kosovo and Metohia excluded)

2.2. SAMPLE

The survey on the usage of information and communication technologies was carried out on a representative sample of 1000 enterprises located on the territory of Serbia. The response rate was 94.2% (942 enterprises).

Sample (enterprises)		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Activity	Manufacturing	102	88	164	144	107	103	354
	Construction	30	22	29	25	24	32	81
	Wholesale and retail trade, motor vehicle repair	89	67	32	56	62	70	188
	Hotels, camping sites and short stay accommodation	19	18	10	21	11	15	47
	Transport, storage and communications	35	26	38	35	15	49	99
	Real estate-related activities, renting and business activities	48	22	23	23	26	44	93
	Cinema and video activities, radio and TV activities	21	11	0	12	12	8	32
	Banks and insurance companies	7	13	28	3	9	36	48
Number		351	267	324	319	266	357	942
Percentage		37.3	28.3	34.4	33.9	28.2	37.9	100

2.3. MAIN FINDINGS

2.3.1. Computers in enterprises

The results of the survey indicate that 97.7% of the enterprises located on the territory of the Republic of Serbia use computers for carrying out their business operations, which is higher by 0.4% compared to 2006. The computers use rate is the highest with large enterprises (more than 250 employees), amounting to 100%. It amounts to 98.9% and 96.9% with medium size enterprises (50-249 employees) and small-size enterprises (10-49 employees) respectively.

> 97.7% of enterprises in the Republic of Serbia use computers for their business operations

Graph. 2.1. Does your enterprise use computers for its business operations?

	2007	2006
Total	97.7%	97.3%
Large	100.0%	100.0%
Medium-size	98.9%	98.7%
Small-size	96.9%	96.7%
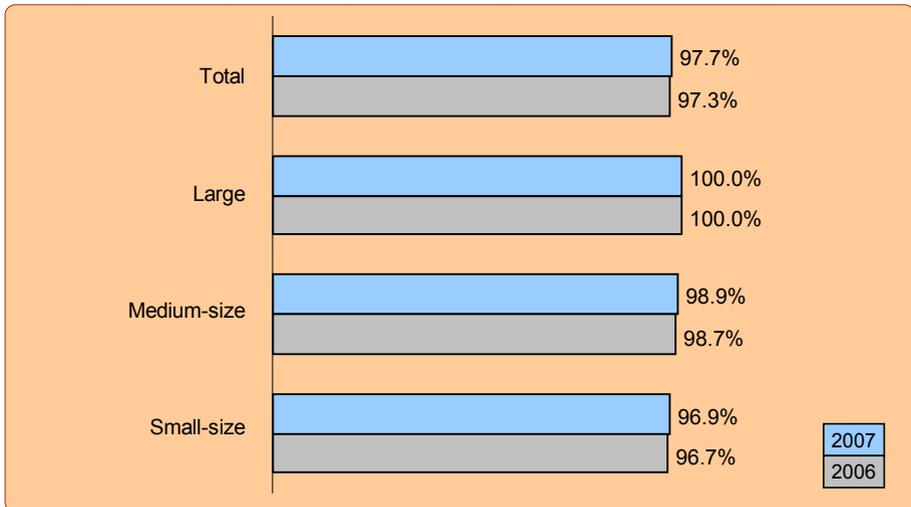
The rate of use of computers in enterprises varies depending on the territorial unit: in Vojvodina it amounts to 98.3%, in Central Serbia to 98.2%, and in Belgrade to 97%.

The use of computers in enterprises according to activities:

- Transport, storage and communications (100%);
- Real estate-related activities, renting and business operations (100%);
- Cinema and video activities, radio and TV activities (100%);
- Banks and insurance companies (100%);
- Hotels, camping sites and other short stay accommodation (100%);
- Wholesale and retail trade (95.2%);
- Manufacturing (93.6%);
- Construction (90.4%).

In 35.2% of the enterprises, ¼ of employees use a computer at least once a week while 75-100% of employees use a computer at least once a week in 33.0% of the enterprises.

**Graph. 2.2. Percentage of employed that use a computer
at least once a week**
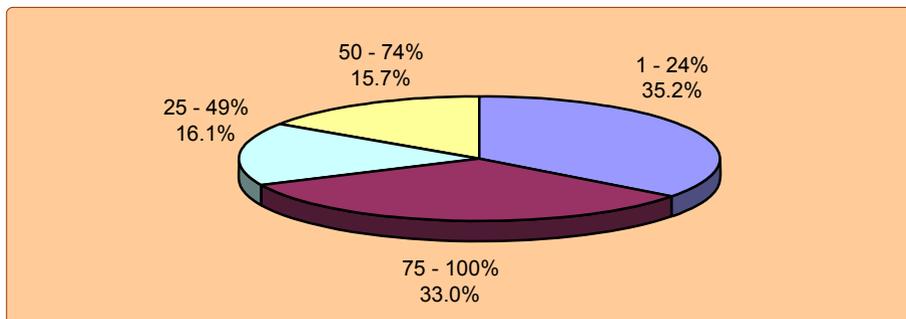
2.3.2. Computer systems in enterprises

The respondents were offered to tick all that is appropriate in the question referring to the rate of use of information and communication technologies in enterprises. The survey indicates that 58.9% of enterprises have Wire based LAN, 43.5% the Intranet, 22.3% Wireless LAN, while 12.5% have the Extranet.

58.9% of enterprises have Wire based LAN.

**Graph 2.3. Does your enterprise use the following information and
communication technologies?**
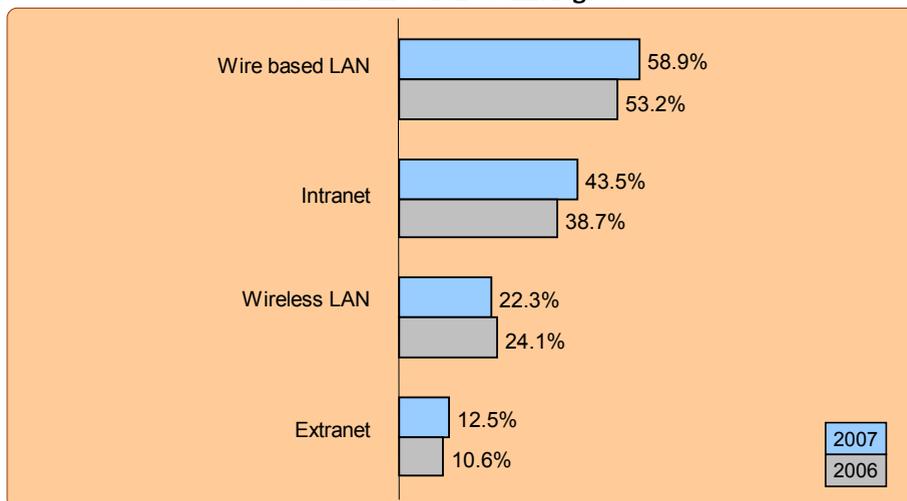
The survey indicates that 30.4% of enterprises use IT systems for managing the placing or receiving of orders, while 69.6% do not possess such systems.

30.4% of enterprises use IT systems for managing the placing and receiving of orders.

Graph 2.4. Percentage of enterprises using IT systems for managing the placing or receiving of orders
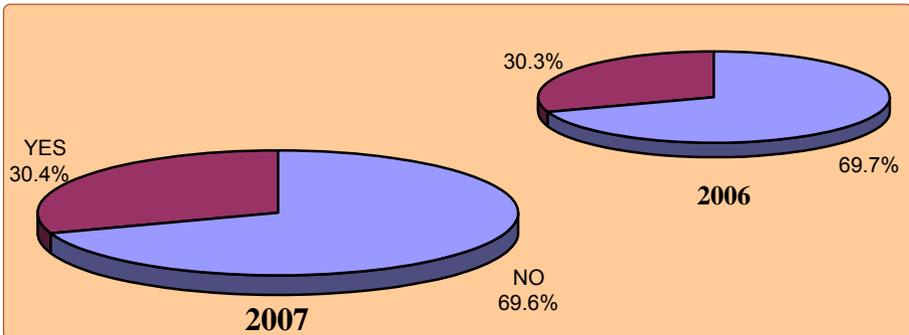
IT systems for managing orders (in enterprises dealing with them) automatically link with the following systems:

"Invoicing and payment systems" (76.9%)
"Internal system for re-ordering replacement supplies" (49%)
"The enterprise system for managing production, logistics and service operations" (28.6%)
"The enterprise customers' business systems (customers outside the enterprise group)" (27%)
"The enterprise suppliers' systems (suppliers outside the enterprise group)" (23%)

16.4% of enterprises in Serbia used the ERP system in January 2007.

The ERP system (abbreviation of Enterprise Resource Planning), i.e. the Business Information System is, in a few words, a software system that integrates the main business processes in an enterprise, such as the production, distribution, finances (i.e. accountancy), in a unique unit. This way one obtains a system for managing human and material resources on one hand, and on the other one for planning, developing and monitoring business processes and procedures.

In the European Union, starting 2007, the measure of the use of the ERP system in enterprises has been taken to be one of the indicators on ICT development.

During January 2007, 16.4% of enterprises in Serbia used the ERP system. The analysis of enterprises by their size indicates that the ERP system has been installed in 32.9% of large enterprises, 20.7% of medium-size enterprises and 13.5% of small-size enterprises. The analysis of enterprises by business domain shows that banks and insurance companies prevail in the use of the ERP system (39.3%), followed by enterprises dealing with „Transport, storage and communications" (25.1%).

Graph. 2.5. Did your enterprise use the ERP system in January 2007?
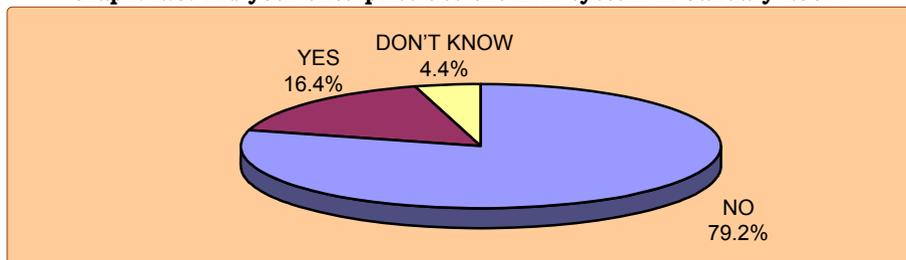
Alike the ERP system, the use of the system for managing relationships with customers, (CRM-Customer Relationship Management), also represents, starting from 2007, one of the main indicators on the ICT use rate in enterprises in the European Union. In a few words, the CRM system for managing relationships with customers is a set of processes for collecting necessary information on customers, sales, marketing efficiency, customers' reactions and market trends.

11.9% of enterprises in Serbia used the CRM system during January 2007.

During January 2007, 11.9% of enterprises in Serbia used the CRM system for analyzing information on customers for marketing purposes while 10.9% of enterprises uses it for inputting, storing information on customers and making them available to other business services. The analysis of enterprises by their size indicates that the CRM system has been installed in 26.1% of large enterprises, 12.9% of medium-size enterprises and 8.8% of small-size enterprises. The analysis of enterprises by their business domain shows that banks and insurance companies prevail in the use of the CRM system (42.1%), followed by enterprises dealing with „Transport, storage and communications" (29.5%).

Graph 2.6. Did your enterprise have in use, in January 2007, a software application for managing information on customers, so-called CRM, for :
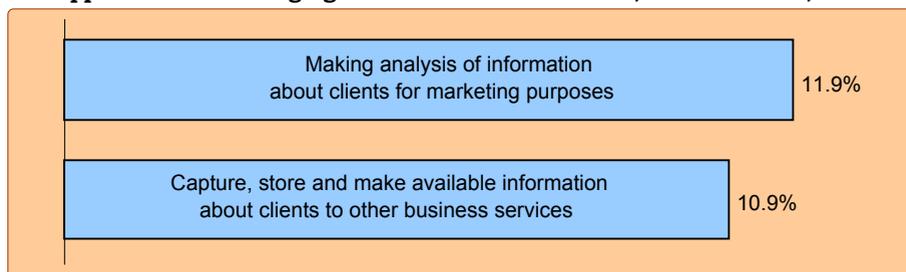
During January 2007, 14.3% of enterprises used the Linux operating system. The Linux operating system is most widely used in large enterprises (32.1%). Its rate of use in medium-size enterprises amounts to 14.1%, and in small-size enterprises to 12.7%.

14.3% of enterprises had in use the Linux „open source" operating system during January 2007.

2.3.3. The Internet in enterprises

In the Republic of Serbia 90.6% of enterprises has an Internet connection, which is by 0.4% higher compared to 2006. The analysis of enterprises by their size indicates that of the total number of large enterprises 94.5% have access to the Internet. As for medium-size enterprises 91% of them are connected to the Internet. The situation is slightly different with small-size enterprises of which 89.9% have access to the Internet.

> 90.6% of enterprises in the Republic of Serbia are connected to the Internet.

Graph 2.7. Does your enterprise have access to the Internet?

Total		90.6%
		90.2%
Large		94.5%
		94.1%
Medium-size		91.0%
		90.9%
Small-size		89.9%
		89.7%

2007
2006
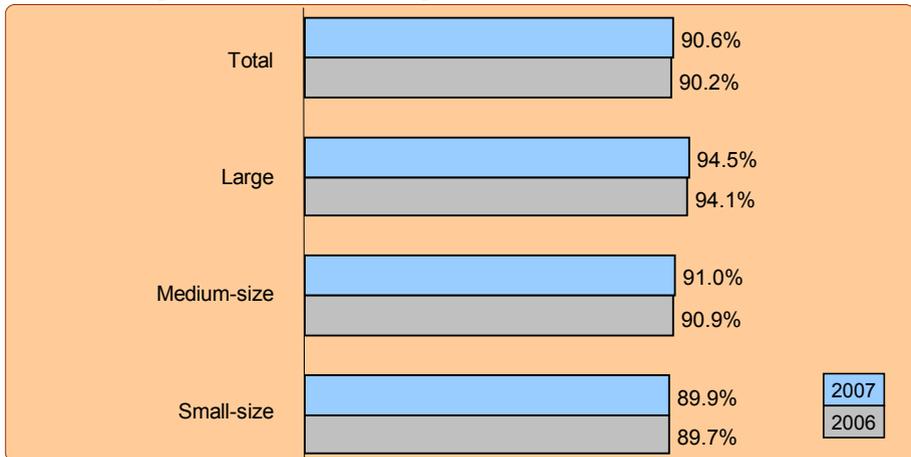
The use of the Internet in enterprises by activities:

• Cinema and video activities, radio and TV activities (100%);
• Banks and insurance companies (99.2%);
• Real estate-related activities, renting and business operations (96.1%);
• Transport, storage and communications (94.5%);
• Manufacturing (92.1%);
• Wholesale and retail trade (91.9%);
• Hotels, camping sites and other short stay accommodation (84.9%);
• Construction (79.3%).

In 45.9% of enterprises, ¼ of employees use the Internet at least once a week, while in 20.4% of enterprises 75-100% of employees use the Internet at least once a week.

Graph 2.8. Percentage of employees using the Internet at least once a week.

50 - 74%	16.2%
25 - 49%	17.5%
1 - 24%	45.9%
75 - 100%	20.4%
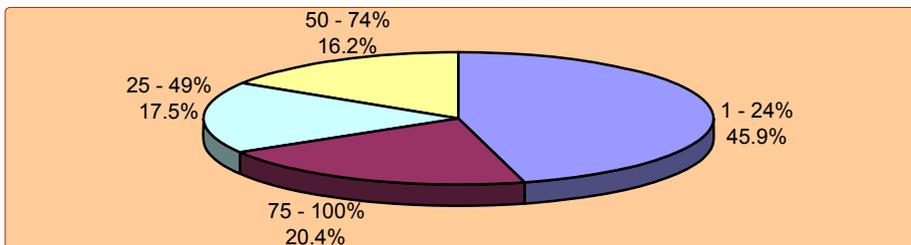
Enterprises were offered several answers referring to the access to the Internet (types of connection), among which they were expected to tick one.

The results indicate that of the total number of enterprises having access to the Internet, 46.7% have a modem connection, 30.6% DSL, 19.6% ISDN and 16.9% cable Internet.

> 46.7% of enterprises having access to the Internet use the modem "dial-up" connection.

Graph 2.9. Does your enterprise have one of the following types of external connection to the Internet?

Traditional modem	46.7%
DSL (xDSL, ADSL, SDSL, etc.) connection	30.6%
ISDN connection	19.6%
Cable Internet	16.9%
Other fixed Internet connection (e.g. leased line)	11.9%
Mobile connection	10.5%
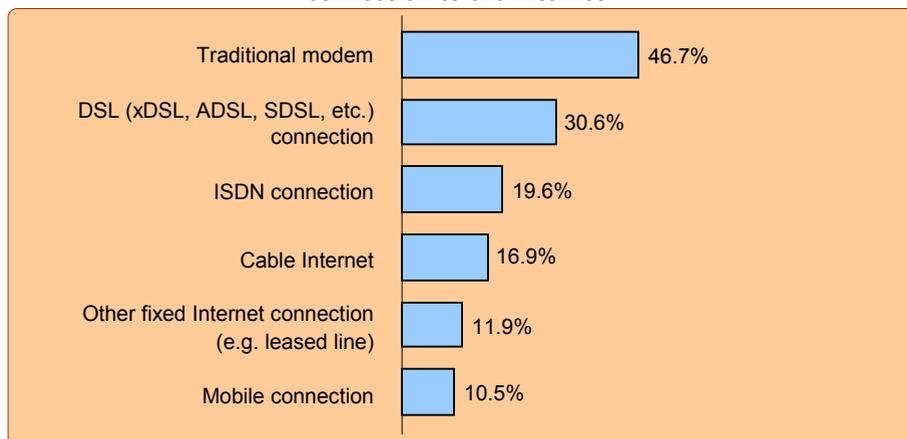
The most frequent answers to the question about the purposes of the enterprise to use the Internet are as follows:

"Banking and financial services" (65%)
"Market monitoring" (54%)
"Training and education" (23.9%)

Graph 2.10. Does your enterprise use the Internet for the following purposes?

Banking and financial services	65.0%
Market monitoring (e.g. prices)	54.0%
Training and education	23.9%
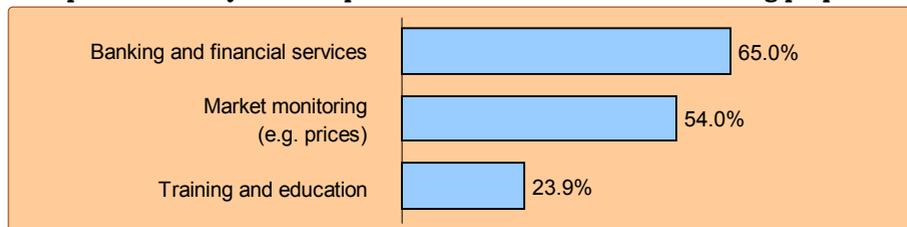
2.3.4. Public administration (e-government)

Of the total number of enterprises that are connected to the Internet, 60.5% of them interact with the public administration while 39.5% do not.

> 60.5% of enterprises, which are connected to the Internet, interact with the public administration.

Graph 2.11. Does your enterprise interact with the public administration via the Internet?
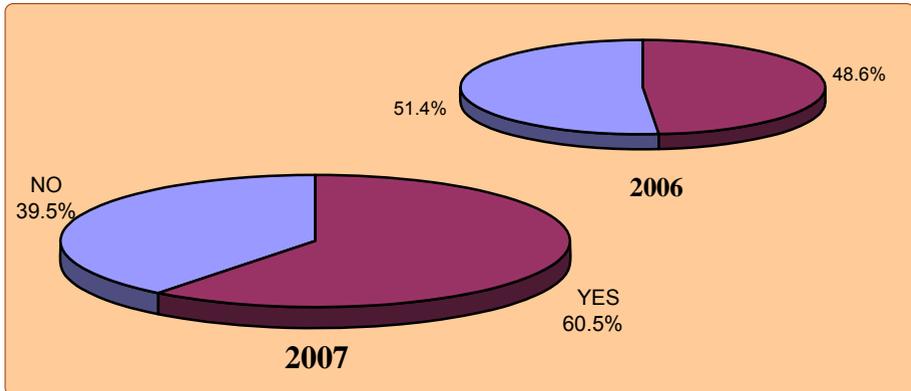
The most frequent answers to the question about the purposes of the enterprise to interact with the public administration are as follows:

"For obtaining information" (84.4%)
"For filling in forms" (75.5%)
"For returning filled in forms" (46.2%)

Graph 2.12. Does your enterprise interact with the public administration via the Internet?
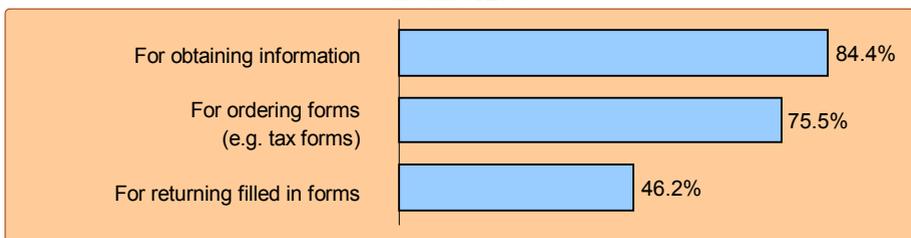
2.3.5. Website

61.8% of enterprises, which are connected to the Internet, have developed a Website. This percentage amounted to 52.9% in 2006.

If one observes the size of enterprises, one obtains the following results:

- 82.4% of large enterprises have a Website;
- 63.7% of medium-size enterprises have a Website;
- 59.4% of small-size enterprises have a Website.

> 61.8% of enterprises being connected to the Internet have a Website

There are also differences depending on the territorial unit. In Belgrade 67.7% of enterprises have a Website, in Central Serbia 65.6% and in Vojvodina 47.5%.

Graph 2.13. Does your enterprise have a Website?
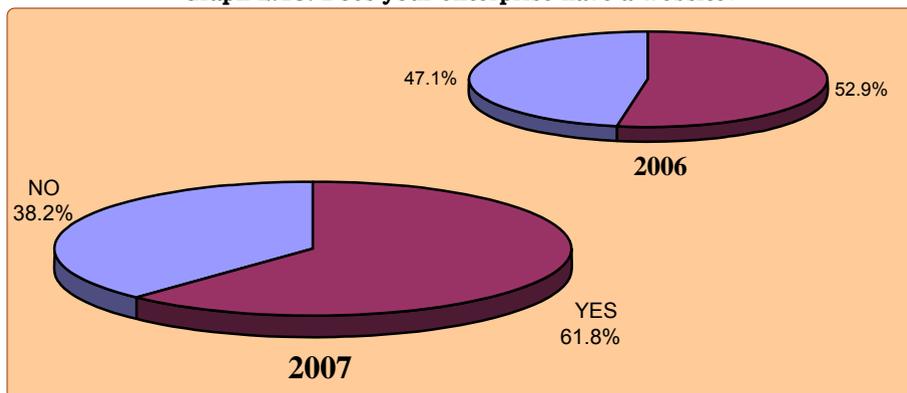
Websites in enterprises by activities:

- Banks and insurance companies (96.4%);
- Hotels and camping sites and other short stay accommodation (86.7%);
- Real estate-related activities, renting and business operations (74.5%);
- Cinema and video activities, radio and TV activities (72.7%);
- Manufacturing (68.6%)
- Wholesale and retail trade (52.8%);
- Construction (49.3%);
- Transport, storage and communications (47.3%).

Graph 2.14. Does your enterprise provide the following services via its Website?
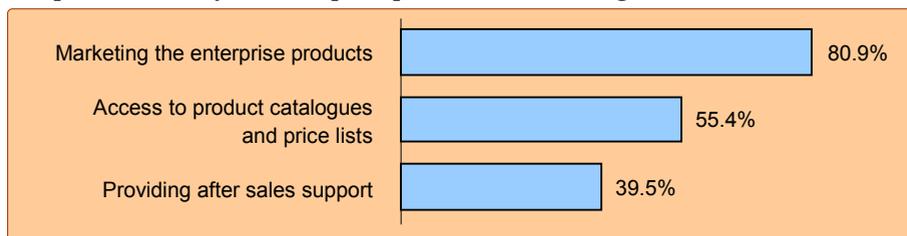
The following services are most often provided by enterprises Websites:

- Marketing the enterprise products (80.9%);
- Facilitating access to product catalogues and price lists (55.4%);
- Providing after sales support (39.5%).

2.3.6. E-commerce

19.5% of enterprises in the Republic of Serbia being connecting to the Internet placed orders via the Internet, which represents an increase of 1.9% compared to 2005.

If one observes the size of enterprises, one obtains the following results:

- 16.3% of large enterprises ordered goods/services over the Internet;
- 21% of medium-size enterprises ordered goods/services over the Internet;
- 19.4% of small-size enterprises ordered goods/services over the Internet.

> 19.5% of enterprises being connected to the Internet ordered goods/services over the Internet during 2006.

Graph 2.15. Did your enterprise order goods/services over the Internet?
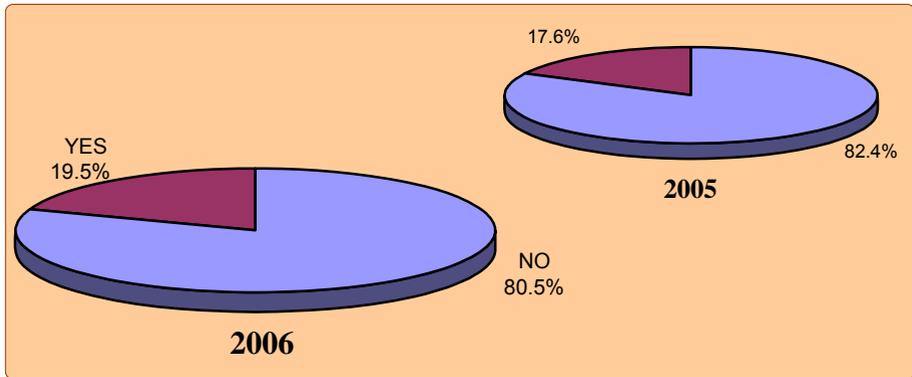
Here are the answers, given by enterprises, to the question about the percentage of total Internet purchases:

"Less than 1%." (21.8% of enterprises)
"More than 1% and less than 5%." (38.4% of enterprises)
"More than 5% and less than 10%" (12.6% of enterprises)
"More than 10% and less than 25%" (7.9% of enterprises)
"25% and over" (19.3% of enterprises)

Graph. 2.16. Percentage of purchases over the Internet compared to total purchases in 2006.
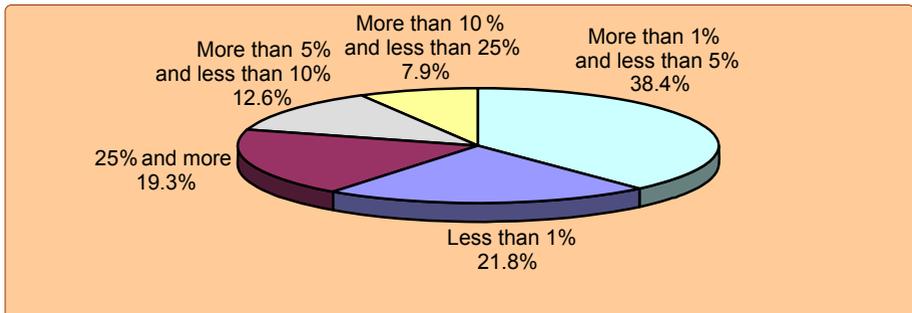
The results of the survey indicate that only 16.8% of enterprises being connected to the Internet received orders (excluding e-mails orders) via the Internet during 2006, which represents an increase of 8.5% compared to 2005.

> 16.8% of enterprises being connected to the Internet received orders over the Internet during 2006.

Graph 2.17. Did your enterprise receive orders over the Internet?
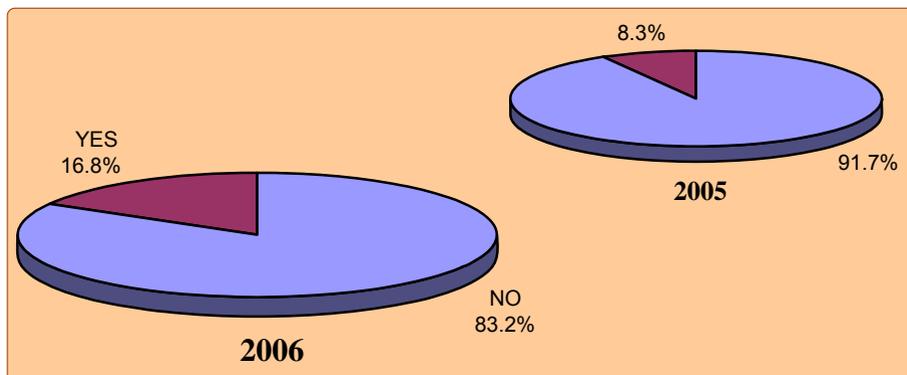
Graph. 2.18. Does your enterprise use a secure protocol such as SSL or TLS for the reception of orders via the Internet?
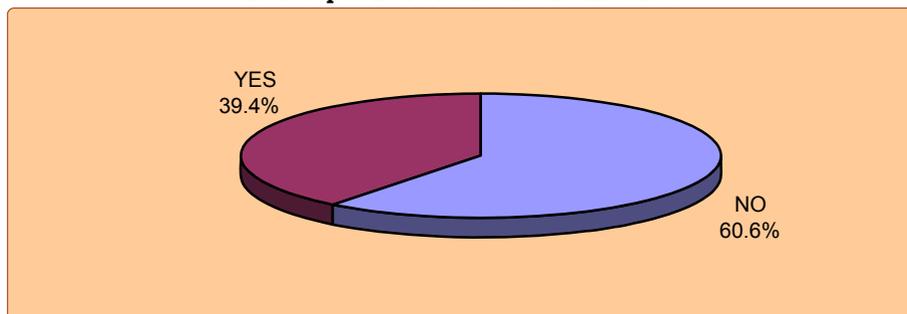
> 3% of enterprises in the Republic of Serbia ordered, during 2006, goods/services via external computer networks other than the Internet.

2.3.7. E-skills

8.8% of enterprises employed IT specialists during 2007. IT specialists are persons having the capability to specify, design, develop, install, operate, maintain, manage, evaluate and research IT systems. IT is their main job.

IT specialists were mostly employed in banks and insurance companies (42.9%).

Graph 2.19. Did your enterprise recruit IT specialists during January 2007?

YES
8.8%

NO
91.2%
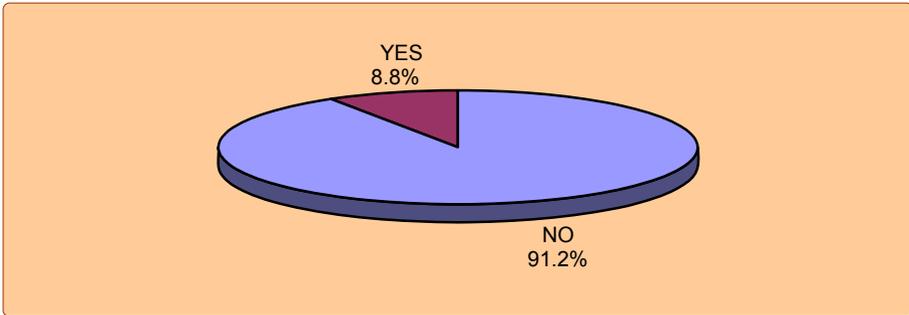
In 2006, 6.8% of enterprises in Serbia recruited or tried to recruit IT specialists among which 44.1% faced problems with hard-to-fill vacancies. The most frequently stated problems are as follows:

"Salary requests too high" (49.1%)
"Lack or too low number of applicants with IT specialist skills" (43%)
"Lack of work experience in the field of IT" (39.7%)

Graph 2.20. What do you believe were the main problems of recruiting IT specialists?

Salary requests too high — 49.1%

Lack or too low number of applicants with IT specialist skills — 43.0%

Lack of work experience in the field of IT — 39.7%

Lack of IT related qualification from education and/or training — 27.6%

Other — 9.4%

17.6% of enterprises recruited or tried to recruit in 2006 personnel for jobs requiring IT skills in the use of IT. IT user skills are capabilities enabling the effective use of common software tools (basic user skills) or advanced, often sector-specific, software tools (advanced user skills).

Employees for jobs requiring IT user skills were mostly recruited in banks and insurance companies (89.3%).

In 2006, 18.2% of enterprises had hard-to-fill vacancies for jobs requiring IT user skills.

Graph 2.21. Did your enterprise recruit or try to recruit personnel for jobs requiring skills in the use of IT?

YES
17.6%

NO
82.4%
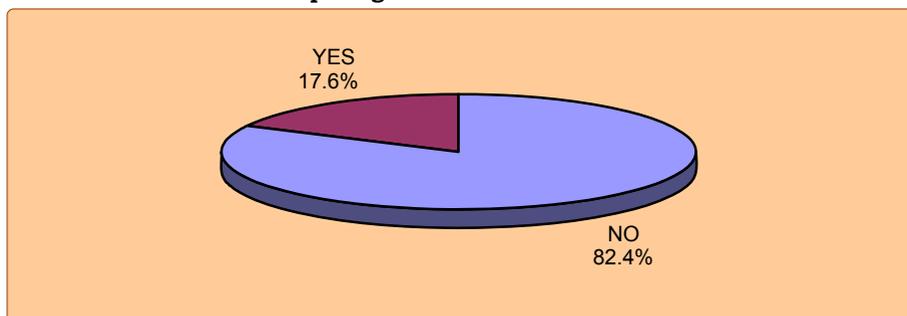
13.3% of enterprises provided, during 2006, training (to develop and upgrade IT related skills) for their IT users in the enterprise, and 10.1% provided training for IT specialists in the enterprise.

Graph 2.22. Did your enterprise provide training to develop and upgrade skills for:

IT specialists in your enterprise   13.3%

IT users in your enterprise   10.1%

In 53.3% of enterprises in the Republic of Serbia, external suppliers (outside an enterprise) performed IT specialist functions in 2006.

2.4. RESULTS OF THE SURVEY

MODULE 2.A: Main information on the ICT system[1]

A1: Does your enterprise use computers?

in percentages

Enterprises	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES							
Transport, storage and communications	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Real estate-related activities, renting and business activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cinema and video activities, radio and TV activities	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Banks and insurance companies	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hotels, camping sites and short stay accommodation	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wholesale and retail trade, motor vehicle repair	92.7	98.8	100.0	93.3	86.5	88.0	95.2
Manufacturing	90.4	98.9	100.0	93.0	90.1	98.2	93.6
Construction	90.7	94.6	100.0	86.3	100.0	90.7	90.4
Total	96.9	98.9	100.0	98.2	98.3	97.0	97.7

(The row label "Activity" is printed vertically at the left of the Activity rows.)

A2: Percentage of employed using a computer
(at least once a week)

in percentages

	Enterprises						
	Size			region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
1 - 24%	26.7	58.2	49.1	45.6	40.0	20.9	35.2
75 - 100%	38.7	19.7	16.3	14.7	27.9	55.7	33.0
25 - 49%	18.2	9.9	14.9	22.6	18.7	7.6	16.1
50 - 74%	16.4	12.2	19.7	17.1	13.4	15.8	15.7

[1] The results in tables A2-A8 refer only to enterprises which answer to question A1 was positive.

A3: Does your enterprise have in use the following information and communication technologies?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Wireless LAN								
Activity	Transport, storage and communications	42.5	16.4	55.3	36.8	43.6	38.1	39.0
	Cinema and video activities, radio and TV activities	38.6	35.0	-	20.4	65.7	39.4	38.5
	Wholesale and retail trade, motor vehicle repair	32.5	28.3	49.1	50.7	43.8	9.8	32.2
	Banks and insurance companies	14.3	31.3	33.3	33.3	36.4	28.6	30.4
	Hotels, camping sites and other short stay accommodation	14.7	27.0	46.2	7.8	44.8	38.6	22.7
	Construction	21.6	26.0	22.2	9.2	36.3	23.3	22.6
	Real estate-related activities, renting and business activities	9.8	44.2	45.7	11.4	13.1	19.1	16.3
	Manufacturing	8.7	17.2	32.6	6.9	19.8	18.2	13.5
Total		21.0	22.9	35.6	20.8	30.5	18.3	22.3
Wire based LAN								
Activity	Banks and insurance companies	85.7	100.0	90.9	100.0	81.8	95.2	92.9
	Manufacturing	63.2	75.8	77.2	51.3	87.0	77.4	68.2
	Tansport, storage and communications	64.3	59.1	100.0	88.9	8.8	83.8	65.9
	Cinema and video activities, radio and TV activities	63.4	80.0	-	79.6	52.9	54.5	65.3
	Real estate-related activities, renting and business activities	51.5	87.2	42.9	15.6	25.1	80.9	56.7
	Wholesale and retail trade, motor vehicle repair	50.0	70.2	92.7	35.4	77.5	56.1	54.0
	Hotels, camping sites and other short stay accommodation	7.9	56.8	85.7	34.1	10.7	59.1	36.8
	Construction	28.9	52.0	61.1	10.6	43.2	54.4	35.9
Total		53.3	71.7	77.4	43.9	66.5	69.3	58.9

A3: Does your enterprise have in use the following information and communication technologies?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Intranet (not Internet)								
Activity	Banks and insurance companies	85.7	87.5	97.0	100.0	81.8	95.2	92.9
	Cinema and video activities, radio and TV activities	80.2	85.0	-	90.7	47.1	100.0	81.0
	Real estate-activities, renting and business activities	79.4	76.3	74.3	73.5	80.1	80.1	78.7
	Transport, storage and communications	51.7	20.9	53.2	50.6	6.6	72.5	46.8
	Manufacturing	34.8	44.8	53.6	31.4	40.5	51.8	39.5
	Wholesale and retail trade, motor vehicle repair	35.6	37.1	63.6	34.8	5.5	56.0	36.5
	Construction	28.7	49.3	63.9	4.5	32.3	69.4	35.5
	Hotels, camping sites and short stay accommodation	22.4	12.2	69.2	28.9	3.6	15.9	21.0
Total		41.7	44.4	59.5	34.3	30.9	61.9	43.5
Extranet (not Internet)								
Activity	Manufacturing	57.1	75.0	90.9	100.0	90.9	78.6	82.1
	Construction	16.8	35.0	-	20.4	0.0	39.4	19.8
	Wholesale and retail trade, motor vehicle repair	18.3	21.2	36.1	4.7	17.2	25.2	19.4
	Hotels, camping sites and other short stay accommodation	7.7	19.2	25.2	10.1	14.2	15.6	12.7
	Transport, storage and communications	7.3	21.1	16.7	0.6	4.8	26.7	10.9
	Real estate-related activities, renting and business activities	7.3	19.3	43.6	11.1	4.7	11.9	9.9
	Cinema and video activities, radio and TV activities	7.7	3.6	34.0	0.8	2.7	21.9	8.8
	Banks and insurance companies	0.0	5.4	14.3	6.6	0.0	0.0	3.7
Total		8.9	18.8	30.1	8.5	9.8	18.5	12.5

**A4: Does your enterprise have in use IT systems to manage
the placing and/or receipt of orders?**

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	57.1	56.3	66.7	0.0	72.7	64.3	62.5
	Wholesale and retail trade, motor vehicle repair	47.2	32.1	58.2	57.9	19.0	49.4	45.1
	Real estate-related activities, renting and business activities	33.7	62.8	28.6	20.4	9.9	53.0	38.0
	Cinema and video activities, radio and TV activities	34.7	0.0	-	20.4	22.9	51.5	29.5
	Transport, storage and communciations	21.1	24.5	36.2	11.5	12.2	42.1	22.6
	Manufacturing	20.5	20.6	33.7	12.0	31.5	28.6	21.9
	Hotels, camping sites and other short stay accommodation	18.7	16.2	30.8	20.0	28.6	11.4	19.1
	Construction	10.9	0.0	22.2	12.5	15.4	0.6	9.3
Total		29.7	23.9	36.1	24.3	23.9	37.7	30.4

A5: Do the IT systems in your enterprise for managing orders link automatically with any of the following IT systems?[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Internal system for re-ordering replacement supplies								
Activity	Construction	69.5	-	87.5	97.8	50.0	50.0	72.2
	Wholesale and retail trade, motor vehicle repair	50.0	88.3	68.8	69.1	25.4	47.0	54.8
	Manufacturing	50.7	39.7	41.7	31.1	38.4	65.3	46.4
	Transport, storage and communications	53.6	14.8	50.0	6.7	0.0	67.3	46.2
	Real estate-related activities, renting and business activities	40.2	30.9	30.0	11.9	0.0	43.2	37.6
	Banks and insurance companies	0.0	11.1	45.5	-	25.0	32.1	30.6
	Hotels, camping sites and other short stay accommodation	14.3	30.8	75.0	16.7	75.0	0.0	29.0
	Cinema and video activities, radio and TV activities	25.7	-	-	0.0	50.0	35.3	27.8
Total		49.1	48.4	49.6	54.8	34.4	51.3	49.0
Invoicing and payment systems								
Activity	Construction	100.0	-	100.0	100.0	100.0	100.0	100.0
	Banks and insurance companies	75.0	100.0	86.4	-	75.0	92.6	88.6
	Cinema and video activities, radio and TV activities	85.7	-	-	50.0	100.0	100.0	85.7
	Real estate-related activities, renting and business activities	84.4	71.1	100.0	100.0	100.0	78.0	81.5
	Transport, storage and communications	75.0	100.0	88.2	100.0	81.8	75.0	80.8
	Wholesale and retail trade, motor vehicle repair	78.2	65.1	78.1	69.5	47.5	90.7	76.8
	Manufacturing	70.7	67.7	85.0	85.4	59.4	76.2	72.0
	Hotels, camping sites and other short stay accommodation	14.3	69.2	14.3	63.2	25.0	0.0	43.8
Total		77.6	70.1	85.5	77.0	63.1	82.8	76.9

[1] The results refer only to enterprises which answer to question A4 was positive.

A5: Do the IT systems in your enterprise for managing orders link automatically with any of the following IT systems? [1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Your system for managing production, logistic and service operations								
Activity	Real estate-related activities, renting and business activities	27.9	78.6	20.0	45.2	63.2	38.5	40.5
	Manufacturing	37.2	33.9	56.7	31.6	30.7	53.5	39.2
	Transport, storage and communications	29.5	29.6	55.6	26.7	8.7	40.4	33.1
	Cinema and video activities, radio and TV activities	31.4	-	-	50.0	0.0	35.3	31.4
	Construction	30.5	-	18.8	2.2	50.0	100.0	28.9
	Banks and insurance companies	0.0	22.2	22.7	-	37.5	14.3	19.4
	Wholesale and retail trade, motor vehicle repair	11.8	53.9	50.0	12.8	30.5	19.2	17.5
	Hotels, camping sites and other short stay accommodation	0.0	0.0	40.0	10.5	0.0	0.0	6.3
Total		22.1	46.5	47.6	19.0	31.9	33.7	28.6
Your suppliers' business systems (for suppliers outside your enterprise group)								
Activity	Transport, storage and communications	66.1	25.9	52.9	93.3	0.0	59.6	57.7
	Hotels, camping sites and other short stay accommodation	14.3	33.3	75.0	38.9	25.0	0.0	29.0
	Construction	30.5	-	12.5	2.2	50.0	50.0	27.8
	Manufacturing	31.4	14.3	33.9	35.4	26.4	22.4	27.2
	Real estate-related activities, renting and business activities	21.4	19.6	20.0	2.3	15.8	23.6	20.8
	Banks and insurance companies	0.0	0.0	28.6	-	0.0	22.2	17.1
	Wholesale and retail trade, motor vehicle repair	15.2	15.5	56.3	18.4	18.8	13.7	16.3
	Cinema and video activities, radio and TV activities	-	-	-	-	-	-	-
Total		23.1	16.6	36.8	23.6	24.9	21.9	23.0

[1] The results refer only to enterprises which answer to question A4 was positive.

A5: Do the IT systems in your enterprise for managing orders link automatically with any of the following IT systems? [1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Your customers' business system (for customers outside your enterprise)								
Activity	Banks and insurance companies	50.0	22.2	68.2	-	50.0	55.6	54.3
	Transport, storage and communications	50.0	29.6	61.1	100.0	13.6	40.4	48.1
	Hotels, camping sites and other short stay accommodation	0.0	69.2	100.0	63.2	0.0	20.0	40.6
	Real estate-related activities, renting and business activities	40.2	37.8	60.0	7.1	63.2	42.9	39.9
	Manufacturing	47.8	19.7	34.1	45.9	36.5	35.0	38.3
	Construction	30.5	-	40.0	13.3	50.0	0.0	32.0
	Cinema and video activities, radio and TV activities	14.3	-	-	50.0	0.0	0.0	14.3
	Wholesale and retail trade, motor vehicle repair	6.7	33.3	43.8	6.5	23.1	12.0	10.6
Total		24.7	28.9	43.6	21.1	34.2	28.0	27.0

[1] The results refer only to enterprises which answer to question A4 was positive.

A6: Did your enterprise use an ERP system in January 2007?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	42.9	43.8	38.2	0.0	54.5	38.1	39.3
	Transport, storage and communications	24.8	19.1	41.7	57.1	1.7	8.5	25.1
	Wholesale and retail trade, motor vehicle repair	18.8	32.1	54.5	8.5	18.7	34.4	21.6
	Manufacturing	9.2	22.0	33.2	10.1	22.4	16.6	15.2
	Cinema and video activities, radio and TV activities	10.9	15.0	-	5.6	0.0	33.3	11.6
	Construction	11.2	7.7	12.5	9.5	10.9	11.1	10.5
	Hotels, camping sites and other short stay accommodation	2.6	10.8	30.8	6.6	21.4	6.7	9.1
	Real estate-related activities, renting and business activities	7.4	5.8	22.2	6.2	5.2	8.9	7.6
Total		13.5	20.7	32.9	12.7	16.8	19.9	16.4
NO								
Activity	Hotels, camping sites and other short stay accommodation	89.5	89.2	53.8	91.2	71.4	84.4	86.0
	Construction	85.5	87.4	65.3	86.0	77.9	88.9	84.4
	Manufacturing	88.9	77.3	64.7	88.0	74.8	83.4	83.2
	Real estate-related activities, renting and business activities	78.5	65.8	52.8	93.8	82.3	67.4	75.7
	Wholesale and retail trade, motor vehicle repair	78.2	60.4	43.6	90.6	69.1	64.5	74.7
	Transport, storage and communications	75.2	76.4	50.0	42.1	98.3	88.7	73.6
	Cinema and video activities, radio and TV activities	74.3	65.0	-	79.6	88.2	45.5	72.7
	Banks and insurance companies	57.1	56.3	50.0	100.0	45.5	52.4	53.6
Total		82.6	74.3	60.4	85.4	76.2	75.0	79.2

A6: Did your enterprise use an ERP system in January 2007?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
DON'T KNOW								
Activity	Real estate-related activities, renting and business activities	14.0	28.4	25.0	0.0	12.5	23.7	16.6
	Cinema and video activities, radio and TV activities	14.9	20.0	-	14.8	11.8	21.2	15.7
	Banks and insurance companies	0.0	0.0	11.8	0.0	0.0	9.5	7.1
	Construction	3.3	5.0	22.2	4.5	11.2	0.0	5.1
	Hotels, camping sites and other short stay accommodation	7.9	0.0	15.4	2.2	7.1	8.9	4.9
	Wholesale and retail trade, motor vehicle repair	3.0	7.5	1.8	0.9	12.2	1.1	3.7
	Manufacturing	1.9	0.7	2.1	1.9	2.7	0.0	1.6
	Transport, storage and communications	0.0	4.5	8.3	0.8	0.0	2.8	1.3
Total		4.0	5.0	6.6	1.9	7.0	5.1	4.4

A7: Did your enterprise use in January a software application for managing information on clients, so-called CRM, that allows to:

in percentages

Enterprises	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Capture, store and make available to other business functions the information about its clients							
Banks and insurance companies	42.9	31.3	45.5	100.0	45.5	35.7	41.1
Transport, storage and communications	15.2	3.6	46.8	26.4	3.3	12.6	15.4
Hotels, camping sites and other short stay accommodation	7.1	10.8	17.7	12.1	35.7	2.3	13.5
Manufacturing	10.4	13.9	24.7	6.3	18.6	17.8	12.8
Real estate-related activities, renting and business activities	10.4	16.0	11.4	4.7	11.0	13.7	11.3
Construction	7.8	7.6	20.8	10.3	3.3	12.2	8.8
Wholesale and retail trade, motor vehicle repair	5.3	14.5	27.3	1.3	14.7	7.8	7.2
Cinema and video activities, radio and TV activities	0.0	0.0	-	0.0	0.0	0.0	0.0
Total	8.8	12.9	26.1	6.9	13.8	12.9	10.9
Make analysis of the information about clients for marketing purposes (setting prices, making sales promotion, choose distribution channels, etc.)?							
Banks and insurance companies	42.9	25.0	50.0	100.0	50.0	35.7	42.1
Transport, storage and communications	32.9	4.5	48.9	26.8	40.3	24.3	29.5
Manufacturing	10.7	13.6	20.7	8.3	14.8	17.0	12.5
Hotels, camping sites and other short stay accommodation	11.8	10.8	21.4	13.3	21.4	2.3	11.7
Real estate-related activities, renting and business activities	10.4	5.8	8.6	1.9	12.0	11.3	9.5
Construction	7.8	7.6	18.1	10.3	3.3	11.9	8.7
Wholesale and retail trade, motor vehicle repair	6.1	17.3	25.5	2.2	16.9	8.4	8.3
Cinema and video activities, radio and TV activities	5.9	0.0	-	0.0	0.0	18.2	5.0
Total	10.6	12.5	23.9	8.0	15.5	13.4	11.9

**A8: Did your enterprise use, during January 2007,
"open source" operating systems such as Linux?**

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	28.6	50.0	75.8	100.0	75.0	54.8	61.4
	Cinema and video activities, radio and TV activities	32.7	20.0	-	14.8	32.4	54.5	30.6
	Transport, storage and communications	25.0	6.4	44.7	10.0	42.0	24.3	23.5
	Real estate-related activities, renting and business activities	15.9	39.7	31.4	18.5	18.8	21.1	20.1
	Manufacturing	17.3	10.7	27.9	7.4	12.3	35.2	16.5
	Wholesale and retail trade, motor vehicle repair	4.6	21.6	47.3	6.9	7.1	9.9	8.2
	Construction	7.0	2.7	20.8	0.6	10.9	9.7	7.0
	Hotels, camping sites and other short stay accommodation	2.6	5.4	7.7	0.0	21.4	2.3	4.3
Total		12.7	14.1	32.1	7.4	14.2	21.5	14.3

2007　2006

MODULE 2.B: Use of the Internet[1)]

B1: Does your enterprise have access to the Internet?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Cinema and video activities, radio and TV activities	100.0	100.0	-	100.0	100.0	100.0	100.0
	Banks and insurance companies	95.7	100.0	100.0	100.0	100.0	97.6	99.2
	Real estate-related activities, renting and business activities	94.9	100.0	94.3	93.1	85.3	99.8	96.1
	Transport, storage and communications	96.1	86.4	91.5	88.2	100.0	98.8	94.5
	Manufacturing	91.8	93.8	96.0	87.6	86.4	94.5	92.1
	Wholesale and retail trade, motor vehicle repair	86.0	90.4	98.2	92.3	87.3	97.0	91.9
	Hotels, camping sites and other short stay accommodation	85.9	82.4	85.7	69.1	100.0	90.9	84.9
	Construction	83.4	64.3	84.7	72.4	87.3	89.8	79.3
Total		89.9	91.0	94.5	87.4	87.9	96.3	90.6

B2: Percentage of employed using the Internet

in percentages

	Enterprises						
	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
1 - 24%	37.2	71.2	62.5	56.2	57.4	27.9	45.9
75 - 100%	24.2	11.0	8.5	10.6	20.2	30.2	20.4
25 - 49%	19.3	10.9	17.9	20.7	14.7	16.1	17.5
50 - 74%	19.4	6.9	11.1	12.4	7.7	25.8	16.2

[1)] The results in tables B2 - B8 refer only to enterprises which answer to question B1 was positive.

B3: Does your enterprise have one of the following types of external connection to the Internet?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Traditional modem								
Activity	Transport, storage and communications	62.8	91.7	53.5	86.9	59.1	52.9	66.0
	Construction	52.6	59.7	82.0	68.1	54.0	46.2	55.8
	Cinema and video activities, radio and TV activities	53.5	40.0	-	35.2	50.0	78.8	51.2
	Manufacturing	44.2	63.5	44.2	50.9	55.4	41.3	49.4
	Hotels, camping sites and other short stay accommodation	41.3	48.4	36.4	70.1	35.7	7.5	44.4
	Wholesale and retail trade, motor vehicle repair	37.5	48.8	46.3	36.3	80.5	18.3	39.3
	Real estate-related activities, renting and business activities	30.7	57.1	41.2	35.6	39.1	34.6	35.5
	Banks and insurance companies	50.0	12.5	21.2	33.3	36.4	17.1	21.8
Total		43.0	59.9	47.4	50.2	60.5	34.0	46.7
ISDN connection								
Activity	Wholesale and retail trade, motor vehicle repair	31.6	25.2	29.6	20.7	41.4	32.9	30.7
	Banks and insurance companies	0.0	18.8	33.3	33.3	81.8	9.8	25.5
	Transport, storage and communications	22.9	7.1	32.6	22.2	38.7	8.6	21.6
	Real estate-related activities, renting and business activities	21.6	21.8	18.2	18.6	17.3	23.4	21.5
	Cinema and video activities, radio and TV activities	20.8	0.0	-	0.0	44.1	18.2	17.4
	Manufacturing	11.0	18.4	27.3	15.0	14.0	14.6	14.6
	Construction	3.6	28.9	13.1	0.7	22.5	3.9	8.7
	Hotels, camping sites and other short stay accommodation	0.0	6.6	0.0	6.0	0.0	0.0	3.0
Total		19.0	19.8	25.8	15.5	24.9	20.2	19.6

**B3: Does your enterprise have one of the following types
of external connection to the Internet?**

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
DSL (xDSL, ADSL, SDSL, etc.) conncection								
Activity	Real estate-related activities, renting and business activities	53.5	50.0	39.4	30.5	60.3	57.2	52.4
	Construction	15.6	29.4	54.1	20.9	33.6	51.1	35.7
	Wholesale and retail trade, motor vehicle repair	32.9	36.8	53.7	23.3	26.6	46.8	33.9
	Banks and insurance companies	50.0	25.0	27.3	33.3	9.1	34.1	29.1
	Cinema and video activities, radio and TV activities	24.8	38.1	-	40.7	17.6	18.2	28.1
	Manufacturing	22.2	31.7	31.5	21.0	15.0	43.5	25.7
	Hotels, camping sites and other short stay accommodation	22.2	6.6	33.3	11.9	0.0	32.5	15.6
	Transport, storage and communications	6.7	10.7	48.8	2.4	2.2	22.1	9.9
Total		29.6	32.2	37.3	21.1	22.3	45.7	30.6
Cable Internet								
Activity	Hotels, camping sites and other short stay accommodation	42.9	52.5	33.3	25.0	64.3	70.0	46.3
	Cinema and video activities, radio and TV activities	34.7	55.0	-	40.7	22.9	51.5	38.5
	Banks and insurance companies	16.7	12.5	27.3	33.3	0.0	26.8	21.8
	Real estate-related activities, renting and business activities	18.9	23.1	18.2	13.8	9.7	23.9	19.6
	Wholesale and retail trade, motor vehicle repair	17.5	18.8	37.0	8.3	34.1	17.2	18.1
	Construction	20.5	7.5	10.0	21.3	8.7	21.8	17.5
	Manufacturing	17.0	8.9	11.4	12.6	9.2	21.7	14.2
	Transport, storage and communications	12.0	7.1	18.6	3.3	1.1	27.3	11.9
Total		17.9	13.8	15.7	12.4	15.8	22.0	16.9

B3: Does your enterprise have one of the following types of external connection to the Internet?

in percentages

Enterprises	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Mobile connection							
Banks and insurance companies	16.7	0.0	-	0.0	50.0	12.2	19.6
Cinema and video activities, radio and TV activities	18.8	10.0	-	0.0	22.9	39.4	17.2
Transport, storage and communications	18.2	2.4	27.9	41.0	1.7	7.0	16.8
Construction	12.4	18.1	11.5	10.6	7.6	20.5	13.2
Real estate-related activities, renting and business activities	10.8	16.0	15.2	11.8	8.4	12.5	11.7
Wholesale and retail trade, motor vehicle repair	8.0	11.3	35.2	14.0	3.2	8.2	9.0
Manufacturing	8.8	8.4	11.9	9.0	7.2	10.6	9.0
Hotels, camping sites and other short stay accommodation	11.1	6.6	8.3	16.2	0.0	2.5	8.8
Total	10.1	10.0	16.1	12.7	6.2	11.1	10.5
Other fixed Internet connection (e.g. leased line)							
Banks and insurance companies	16.7	62.5	78.8	66.7	100.0	58.5	67.3
Wholesale and retail trade, motor vehicle repair	19.5	8.7	20.4	48.2	2.0	1.9	18.0
Cinema and video activities, radio and TV activities	16.8	20.0	-	0.0	2.9	60.6	17.4
Transport, storage and communications	12.1	4.8	22.7	10.8	2.7	19.3	11.8
Manufacturing	6.1	14.9	21.8	10.6	10.7	8.5	10.0
Real estate-related activities, renting and business activities	4.7	18.6	27.3	6.4	7.7	8.1	7.7
Construction	4.4	3.8	8.2	10.3	3.8	0.0	4.6
Hotels, camping sites and other short stay accommodation	-	-	-	-	-	-	-
Total	10.7	12.5	23.3	19.8	6.9	7.4	11.9

B4: Does your enterprise use the Internet for the following purposes?

(as consumer of Internet services)

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Banking and financial services								
Activity	Banks and insurance companies	83.3	100.0	87.9	66.7	90.9	92.7	90.9
	Construction	76.6	73.0	88.3	68.1	63.0	96.4	76.7
	Manufacturing	73.1	79.2	80.1	78.2	60.7	85.3	75.4
	Real estate-related activities, renting and business activities	77.0	59.6	52.9	93.1	63.9	69.5	73.3
	Transport, storage and communications	73.8	61.9	81.4	64.2	52.7	95.1	72.8
	Hotels, camping sites and other short stay accommodation	43.5	60.7	58.3	41.8	53.6	72.5	53.3
	Wholesale and retail trade, motor vehicle repair	35.5	72.5	90.7	49.0	49.2	31.7	41.8
	Cinema and video activities, radio and TV activities	32.7	50.0	-	14.8	44.1	60.6	35.5
Total		61.0	74.1	80.6	67.8	57.4	67.4	65.0
Training and education								
Activity	Banks and insurance companies	33.3	56.3	66.7	0.0	81.8	58.5	60.0
	Real estate-related activities, renting and business activities	54.0	64.1	15.2	46.3	21.3	65.4	54.4
	Real estate-related activities, renting and business activities	20.5	49.4	53.7	21.6	24.4	28.8	25.2
	Cinema and video activities, radio and TV activities	21.8	40.0	-	14.8	44.1	21.2	24.8
	Hotels, camping sites and other short stay accommodation	25.4	26.2	8.3	22.4	21.4	30.0	24.4
	Transport, storage and communications	15.9	25.0	55.8	33.8	12.2	13.1	19.7
	Manufacturing	13.6	23.6	37.6	15.5	26.2	16.6	18.7
	Construction	7.6	18.2	15.0	1.7	10.7	16.6	9.9
Total		20.3	32.1	37.9	18.8	22.8	29.7	23.9

B4: Does your enterprise use the Internet for the following purposes?

(as consumer of Internet services)

in percentages

Enterprises	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Market monitoring (e.g. prices)							
Banks and insurance companies	100.0	87.5	97.0	100.0	100.0	92.7	94.5
Real estate-related activities, renting and business activities	66.6	76.9	41.2	39.0	28.8	86.2	67.5
Hotels, camping sites and other short stay accommodation	68.3	59.7	66.7	66.2	48.3	72.5	64.2
Transport, storage and communications	58.5	64.3	69.8	65.7	61.3	54.3	60.1
Construction	57.5	58.1	75.4	65.8	45.3	64.4	58.8
Manufacturing	52.4	56.2	67.7	38.8	68.5	67.5	54.9
Wholesale and retail trade, motor vehicle repair	38.9	65.6	79.6	70.0	29.0	29.6	43.5
Cinema and video activities, radio and TV activities	30.7	70.0	-	40.7	44.1	27.3	38.0
Total	50.6	60.8	69.8	51.8	51.5	57.8	54.0

B5: Does your enterprise use the Internet for interaction with public administration?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	83.3	87.5	81.8	100.0	90.9	78.0	81.8
	Real estate-related activities, renting and business activities	79.0	84.0	60.6	64.9	92.9	79.9	79.1
	Cinema and video activities, radio and TV activities	70.3	70.0	-	85.2	44.1	72.7	70.2
	Hotels, camping sites and other short stay accommodation	69.8	66.1	66.7	58.8	48.3	97.5	67.9
	Manufacturing	67.5	59.6	68.5	76.1	56.9	56.7	65.4
	Construction	54.2	80.0	86.9	69.8	26.0	83.1	60.8
	Transport, storage and communications	51.7	73.8	69.8	53.5	14.9	88.1	55.8
	Wholesale and retail trade, motor vehicle repair	40.7	70.5	85.2	63.0	38.4	35.7	45.8
Total		57.6	66.7	72.2	69.9	47.1	60.2	60.5

B6: Does your enterprise interact with public administration over the Internet for:[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Obtaining information?								
Activity	Wholesale and retail trade, motor vehicle repair	99.2	87.7	80.4	95.2	92.9	98.9	96.0
	Hotels, camping sites and other short stay accommodation	100.0	90.2	100.0	100.0	71.4	100.0	95.7
	Banks and insurance companies	80.0	92.9	100.0	100.0	100.0	93.8	95.6
	Transport, storage and communications	90.5	100.0	100.0	100.0	100.0	88.4	93.0
	Real estate-related activities, renting and business activities	92.5	90.8	76.2	52.9	100.0	99.2	91.9
	Cinema and video activities, radio and TV activities	91.7	85.7	-	100.0	100.0	70.8	91.8
	Construction	75.3	95.3	88.5	52.6	92.0	99.6	80.9
	Manufacturing	65.7	89.6	98.0	59.0	88.4	96.5	75.1
Total		81.3	90.6	94.2	70.2	91.6	96.9	84.4
Obtaining forms, e.g. tax forms?								
Activity	Hotels, camping sites and other short stay accommodation	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Banks and insurance companies	80.0	92.9	96.3	100.0	90.0	93.8	93.3
	Transport, storage and communications	90.2	90.3	96.7	93.0	100.0	88.4	90.7
	Real estate-related activities, renting and business activities	86.0	83.2	71.4	73.8	66.0	93.6	85.1
	Wholesale and retail trade, motor vehicle repair	86.7	75.3	97.8	83.3	77.0	91.4	84.7
	Construction	83.4	81.9	98.1	70.1	100.0	90.9	84.3
	Manufacturing	55.8	74.2	85.5	45.9	82.6	82.0	63.4
	Cinema and video activities, radio and TV activities	46.5	42.9	-	30.4	86.7	54.2	47.1
Total		73.2	77.7	89.3	61.4	81.2	88.7	75.5

[1] The results refer only to enterprises which answer to question B5 was positive.

B6: Does your enterprise interact with public administration over the Internet for:[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Returning filled in forms?								
Activity	Banks and insurance companies	80.0	69.2	77.8	100.0	70.0	75.0	75.6
	Real estate-related activities, renting and business activities	74.5	66.4	15.0	68.6	27.6	85.4	71.5
	Construction	58.7	68.0	60.4	19.4	86.7	85.8	60.9
	Hotels, camping sites and other short stay accommodation	47.7	61.0	100.0	82.5	57.1	31.6	57.6
	Transport, storage and communications	49.6	71.0	83.3	86.8	85.2	36.7	56.5
	Manufacturing	32.0	48.9	53.6	25.5	46.2	58.5	38.4
	Wholesale and retail trade, motor vehicle repair	32.8	36.1	68.1	21.5	60.6	39.2	35.0
	Cinema and video activities, radio and TV activities	23.6	14.3	-	10.9	73.3	8.3	21.2
Total		43.0	51.6	58.7	30.1	51.3	62.0	46.2

[1] The results refer only to enterprises which answer to question B5 was positive.

B7: Does your enterprise have a Web Site?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	83.3	93.8	100.0	100.0	100.0	95.1	96.4
	Hotels, camping sites and other short stay accommodation	73.0	100.0	91.7	80.6	82.1	100.0	86.7
	Real estate-related activities, renting and business activities	73.2	76.9	93.9	44.9	60.6	87.1	74.5
	Cinema and video activities, radio and TV activities	73.3	75.0	-	44.4	97.1	93.9	72.7
	Manufacturing	69.3	63.1	78.5	77.8	50.7	71.1	68.6
	Wholesale and retail trade, motor vehicle repair	51.3	56.5	87.0	63.0	36.5	53.6	52.8
	Construction	42.5	65.6	85.2	27.5	66.4	54.4	49.3
	Transport, storage and communications	46.2	35.7	83.7	55.7	7.7	69.4	47.3
Total		59.4	63.7	82.4	65.6	47.5	67.7	61.8

B8: Does the Website of your enterprise provide the following facilities:

(your enterprise as provider of Internet services)[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Marketing the products of the enterprise								
Activity	Banks and insurance companies	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Cinema and video activities, radio and TV activities	94.6	100.0	-	100.0	87.9	100.0	95.5
	Wholesale and retail trade, motor vehicle repair	94.6	64.6	74.5	88.4	77.7	95.0	89.4
	Real estate-activities, renting and business activities	90.3	81.7	77.4	92.9	100.0	85.5	88.3
	Hotels, camping sites and other short stay accommodation	84.8	93.4	60.0	74.5	100.0	97.5	87.3
	Transport, storage and communications	80.4	100.0	88.9	81.4	100.0	84.0	83.7
	Manufacturing	69.4	85.0	81.7	62.3	87.1	87.7	74.7
	Construction	72.5	55.8	88.5	61.0	58.9	87.2	70.5
Total		81.0	79.8	82.8	71.8	82.0	89.2	80.9
Facilitating access to product catalogues and price lists								
Activity	Hotels, camping sites and other short stay accommodation	95.7	86.9	72.7	89.1	73.9	97.5	89.0
	Banks and insurance companies	80.0	73.3	93.9	100.0	100.0	82.1	86.8
	Cinema and video activities, radio and TV activities	70.3	50.0	-	88.0	57.6	58.1	66.3
	Wholesale and retail trade, motor vehicle repair	66.0	41.8	46.8	77.4	62.8	46.0	61.8
	Transport, storage and communications	60.4	23.3	77.8	61.3	100.0	54.1	59.1
	Real estate-activities, renting and business activities	59.6	53.3	41.9	40.0	26.6	66.0	57.7
	Manufacturing	52.4	57.9	49.8	39.1	72.2	65.7	53.5
	Construction	34.9	10.6	9.8	0.0	45.8	18.3	26.6
Total		57.3	51.2	50.5	50.4	61.9	57.0	55.4

[1] The results refer only to enterprises which answer to question B7 was positive.

B8: Does the Website of your enterprise provide the following facilities:

(your enterprise as provider of Internet services)[1]

in percentages

Enterprises	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Providing after sales support							
Cinema and video activities, radio and TV activities	100.0	100.0	-	100.0	100.0	100.0	100.0
Banks and insurance companies	80.0	80.0	76.5	100.0	58.3	82.1	77.8
Real estate-activities, renting and business activities	57.6	47.1	16.1	4.8	34.0	65.4	54.0
Hotels, camping sites and other short stay accommodation	39.1	47.5	36.4	46.3	34.8	42.5	42.7
Manufacturing	39.5	39.7	38.0	23.8	58.8	53.3	39.4
Transport, storage and communications	38.6	12.9	66.7	60.2	53.8	23.5	39.2
Construction	44.0	22.1	7.8	0.0	45.8	39.4	34.9
Wholesale and retail trade, motor vehicle repair	34.3	32.7	40.4	42.6	66.7	13.5	34.3
Total	40.3	37.3	38.4	29.3	53.5	42.6	39.5

[1] The results refer only to enterprises which answer to question B7 was positive.

MODULE 2.C: e-commerce (via the Internet)[1)]

C1: Did your enterprise order products/services via the Internet, during 2006 (excluding manually typed e-mails)?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Real estate-related activities, renting and business activities	47.0	51.3	32.4	31.0	15.5	60.3	47.2
	Transport, storage and communications	22.5	28.6	30.2	21.7	12.2	34.7	24.0
	Cinema and video activities, radio and TV activities	21.8	15.0	-	9.3	0.0	60.6	20.7
	Hotels, camping sites and other short stay accommodation	27.0	13.1	16.7	27.9	14.3	10.0	19.9
	Manufacturing	17.9	15.2	13.5	14.4	13.4	23.6	16.7
	Wholesale and retail trade, motor vehicle repair	12.5	25.2	18.5	22.7	18.0	5.4	14.4
	Construction	11.8	18.1	11.7	1.3	5.9	29.6	12.9
Total		19.4	21.0	16.3	17.0	13.5	26.2	19.5

C2: Percentage of purchases via the Internet in relation to total purchases in 2006[2)]

in percentages

	Enterprises						
	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Less than 1%	19.5	22.0	51.1	31.7	9.2	19.8	21.8
More than 1% and less than 5%	35.6	50.9	27.2	26.2	47.1	43.3	38.4
More than 5% and less than 10%	14.6	6.0	10.9	22.4	12.4	6.2	12.6
More than 10% and less than 25%	8.3	7.3	5.4	6.4	0.7	11.5	7.9
25% and more	22.0	13.6	5.4	13.3	30.7	19.1	19.3

[1)] The results refer only to enterprises that ticked YES in question B1.

[2)] The results refer to enterprises that ticked YES to question C1.

C3: Did your enterprise receive orders via the Internet during 2006 (excluding e-mail orders)?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Hotels, camping sites and other short stay accommodiation	43.5	52.5	25.0	36.8	27.6	75.0	46.0
	Transport, storage and communications	29.5	36.9	23.3	43.9	9.9	32.8	30.0
	Real estate-related activities, renting and business activities	19.8	37.2	0.0	0.0	12.2	31.1	21.9
	Cinema and video activities, radio and TV activities	19.8	0.0	-	9.3	11.8	33.3	16.5
	Manufacturing	15.8	15.7	14.9	16.6	12.9	16.7	15.7
	Wholesale and retail trade, motor vehicle repair	15.9	11.9	13.0	30.6	9.5	5.9	15.3
	Construction	4.0	14.5	13.1	1.0	5.2	12.1	6.3
Total		16.5	18.7	14.3	20.0	10.9	17.6	16.8

C4: Percentage of the total turnover resulted from orders received via the Internet, in 2006[1]

in percentages

	Enterprises						
	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Less than1%	21.0	25.1	34.1	30.5	17.4	16.3	22.7
More than 1% and less than 5%	16.1	43.7	22.0	17.1	27.5	26.9	22.7
More than 5% and less than 10%	23.7	10.3	26.8	20.9	13.8	23.6	20.8
More than 10% and less than 25%	19.2	8.3	3.7	17.7	30.4	7.5	15.8
25% and over	20.0	12.7	13.4	13.8	10.9	25.7	18.0

[1] The results refer only to enterprises which answer to the question C3 was positive.

C5: Was your enterprise using a secure protocol, such as SSL or TLS, for the reception of orders via the Internet? [1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Hotels, camping sites and other short stay accommodation	100.0	62.5	50.0	76.0	0.0	100.0	77.8
	Construction	100.0	26.1	37.5	100.0	37.5	68.3	61.7
	Transport, storage and communications	48.0	16.1	100.0	71.0	10.5	23.8	45.3
	Real estate-related activities, renting and business activities	39.3	39.7	-	71.0	63.2	36.8	39.2
	Manufacturing	54.9	8.4	18.9	21.9	64.8	45.6	38.7
	Cinema and video activities, radio and TV activities	28.6	-	-	0.0	0.0	50.0	28.6
	Wholesale and retail trade, motor vehicle repair	24.6	43.9	100.0	29.2	14.3	35.5	28.0
Total		44.1	24.9	38.3	34.0	44.7	43.3	39.4

[1] The results refer only to enterprises that ticked YES in question C3.

MODULE 2.D: e-commerce via external computer networks other than the Internet[1)]

D1: Did your enterprise order products/services via external computer networks other than the Internet (excl. manually types e-mails), during 2006?

in percentages

		Size			Region			Total
Enterprises		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Begrade	
YES								
Activity	Real estate-related activities, renting and business activities	6.6	17.9	2.9	0.0	0.0	13.7	8.2
	Hotels, camping sites and other short stay accommodation	9.2	0.0	0.0	7.7	0.0	0.0	4.3
	Manufacturing	3.6	3.2	7.2	7.2	1.2	1.0	3.9
	Wholesale and retail trade, motor vehicle repair	0.4	5.3	10.9	0.2	3.5	1.0	1.4
	Transport, storage and communications	0.6	0.0	12.8	0.0	0.0	3.6	1.3
	Construction	0.0	0.0	2.8	0.3	0.0	0.3	0.2
	Cinema and video activities, radio and TV activities	0.0	0.0	-	0.0	0.0	0.0	0.0
Total		2.3	4.1	7.0	3.7	1.4	3.4	3.0

[1)] The results refer only to enterprses which answer to question A1 was positive.

D3: Did your enterprise receive orders via external computer networks, other than the Internet (excl. orders by e-mails), during 2006?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Begrade	
YES								
Activity	Hotels, camping sites and other short stay accommodation	9.2	0.0	0.0	7.7	0.0	0.0	4.3
	Real estate-related activities, renting and business activities	0.0	17.9	0.0	0.0	0.0	4.6	2.8
	Wholesale and retail trade, motor vehicle repair	1.0	5.5	12.5	0.7	5.2	1.2	2.0
	Transport, storage and communications	0.6	0.0	12.8	0.0	0.0	3.6	1.3
	Manufacturing	0.8	1.6	3.7	1.1	2.8	0.1	1.3
	Construction	0.0	0.0	1.4	0.3	0.0	0.0	0.1
	Cinema and video activities, radio and TV activities	0.0	0.0	-	0.0	0.0	0.0	0.0
Total		0.7	3.3	4.7	0.9	2.5	1.5	1.5

MODULE 2.E: E-skills

E1: Did your enterprise recruit IT specialists during January 2007?

in percentages

Enterprises	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES							
Banks and insurance companies	28.6	31.3	51.5	66.7	63.6	35.7	42.9
Real estate-related activities, renting and business activities	20.3	33.3	22.9	4.3	13.1	31.6	22.4
Cinema and video activities, radio and TV activities	10.9	25.0	-	0.0	8.8	39.4	13.2
Manufacturing	6.6	9.8	14.1	5.6	13.0	8.1	8.3
Transport, storage and communications	3.8	9.1	46.8	1.9	3.3	16.6	7.5
Hotels, camping sites and other short stay accommodation	0.0	10.8	23.1	0.0	0.0	25.0	6.7
Wholesale and retail trade, motor vehicle repair	2.4	17.3	46.4	4.0	4.3	7.9	5.7
Construction	0.0	14.3	12.5	8.1	1.8	1.7	3.9
Total	6.0	13.8	21.8	4.9	8.5	13.0	8.8

(Activity)

E2: Percentage of IT specialists employed in the enterprise during January 2007 (at least once a week)[1]

in percentages

	Enterprises						
	Size			Region			Total
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
1 - 5%	41.6	82.6	87.9	80.3	68.6	54.6	63.5
6 - 10%	20.4	1.4	3.6	16.3	2.4	12.9	11.0
11 - 25%	25.4	2.4	6.4	1.1	6.3	23.2	14.3
26 - 75%	3.9	13.5	1.4	1.7	8.7	8.0	6.8
75 - 100%	8.6	0.0	0.0	0.6	14.0	1.3	4.3

[1] The results refer only to enterprises which answer to question E1 was positive.

E3: Did your enterprise recruit or try to recruit personnel for jobs requiring IT specialist skills, during 2006?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	14.3	75.0	72.7	100.0	90.9	57.1	66.1
	Cinema and video activities, radio and TV activities	16.8	10.0	-	0.0	0.0	54.5	14.9
	Real estate-related activities, renting and business activities	7.8	26.3	34.3	10.9	18.8	9.7	11.7
	Manufacturing	7.5	4.1	13.0	3.0	10.7	10.1	7.0
	Hotels, camping sites and other short stay accommodation	2.6	5.4	28.6	2.2	7.1	13.6	6.1
	Transport, storage and communications	2.6	4.5	44.7	1.5	1.7	13.4	5.8
	Wholesale and retail trade, motor vehicle repair	3.8	8.5	43.6	8.1	4.8	3.4	5.4
	Construction	0.0	2.7	6.9	0.8	1.8	0.6	1.0
Total		5.2	7.1	21.8	4.4	8.1	8.3	6.8

E4: Did your enterprise have hard-to-fill vacancies for jobs requiring IT specialists skills, during 2006?[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Construction	-	100.0	20.0	33.3	100.0	0.0	63.6
	Transport, storage and communications	28.6	50.0	85.7	75.0	100.0	56.3	61.5
	Cinema and video activities and radio and TV activities	64.7	0.0	-	-	-	61.1	61.1
	Wholesale and retail trade, motor vehicle repair	58.5	72.7	54.2	93.2	24.1	25.0	60.9
	Hotels, camping sites and other short stay accommodation	100.0	0.0	100.0	100.0	100.0	33.3	60.0
	Manufacturing	20.0	68.9	73.5	41.2	50.9	23.4	38.1
	Banks and insurance companies	100.0	8.3	39.1	66.7	27.3	29.2	31.6
	Real estate-related activities, renting and business activities	30.8	14.6	91.7	47.8	47.2	15.3	31.4
Total		34.1	47.7	66.4	67.9	47.4	28.7	44.1

[1] The results refer only to enterprises which answer to question E3 was positive.

E5: What do you believe were the main reasons of having hard-to-fill vacancies for jobs requiring IT specialists skills, during 2006?[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Lack or too low number of applicants with IT specialist skills								
Activity	Construction	0.0	100.0	0.0	0.0	100.0	0.0	85.7
	Transport, storage and communications	60.0	50.0	94.4	66.7	50.0	94.4	84.0
	Hotels, camping sites and other short stay accommodation	0.0	0.0	100.0	100.0	0.0	100.0	66.7
	Banks and insurance companies	0.0	0.0	66.7	50.0	50.0	57.1	54.5
	Cinema and video activities and radio and TV activities	50.0	0.0	-	0.0	0.0	50.0	50.0
	Manufacturing	50.0	38.7	25.0	85.7	35.7	0.0	37.3
	Real estate-related activities, renting and business activities	30.0	0.0	63.6	0.0	35.3	77.8	35.1
	Wholesale and retail trade, motor vehicle repair	0.0	64.0	100.0	17.6	100.0	100.0	33.3
Total		25.6	48.6	60.4	32.4	44.7	54.9	43.0
Lack of IT-related qualifications from education and/or training								
Activity	Hotels, camping sites and other short stay accommodation	100.0	-	25.0	0.0	100.0	50.0	50.0
	Cinema and video activities and radio and TV activities	50.0	-	-	-	-	50.0	50.0
	Cinema and video activities and radio and TV activities	30.0	0.0	54.5	9.1	35.3	55.6	32.4
	Manufacturing	50.0	38.7	8.3	61.9	33.9	0.0	31.4
	Transport, storage and communications	60.0	50.0	16.7	66.7	50.0	16.7	28.0
	Wholesale and retail trade, motor vehicle repair	0.0	29.2	76.9	5.9	100.0	70.0	21.2
	Banks and insurance companies	0.0	0.0	11.1	0.0	50.0	0.0	9.1
	Construction	-	-	-	-	-	-	-
Total		27.3	28.6	26.4	18.5	39.8	25.6	27.6

[1] The results refer only to enterprises which answer to question E4 was positive.

E5: What do you believe were the main reasons of having hard-to-fill vacancies for jobs requiring IT specialists skills, during 2006?[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Lack of work experience in the field of IT								
Activity	Construction	0.0	100.0	100.0	100.0	100.0	-	100.0
	Wholesale and retail trade, motor vehicle repair	45.8	66.7	92.3	50.0	100.0	88.9	58.3
	Hotels, camping sites and other short stay accommodation	100.0	0.0	25.0	0.0	100.0	50.0	50.0
	Cinema and video activities and radio and TV activities	50.0	0.0	-	0.0	0.0	50.0	50.0
	Real estate-related activities, renting and business activities	45.0	0.0	63.6	27.3	35.3	77.8	43.2
	Banks and insurance companies	0.0	0.0	44.4	100.0	50.0	14.3	36.4
	Transport, storage and communications	100.0	100.0	5.6	33.3	100.0	16.7	29.2
	Manufacturing	0.0	38.7	41.7	71.4	16.1	8.0	25.5
Total		35.0	42.9	42.9	51.4	30.9	34.6	39.7
Salary requests too high								
Activity	Real estate-related activities, renting and business activities	55.0	100.0	75.0	63.6	64.7	80.0	68.4
	Wholesale and retail trade, motor vehicle repair	54.2	64.0	84.6	54.4	100.0	77.8	60.7
	Banks and insurance companies	0.0	100.0	50.0	0.0	50.0	70.0	57.1
	Transport, storage and communications	40.0	50.0	50.0	33.3	50.0	50.0	48.0
	Manufacturing	0.0	61.3	61.1	90.5	23.2	36.0	40.2
	Hotels, camping sites and other short stay accommodation	0.0	0.0	25.0	0.0	0.0	50.0	16.7
	Construction	0.0	0.0	100.0	100.0	0.0	0.0	14.3
	Cinema and video activities and radio and TV activities	0.0	0.0	-	0.0	0.0	0.0	0.0
Total		31.4	61.6	62.4	60.2	36.6	48.8	49.1

[1] The results refer only to enterprises which answer to the question E4 was positive.

E5: What do you believe were the main reasons of having hard-to-fill vacancies for jobs requiring IT specialists skills, during 2006?[1]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
Other								
Activity	Hotels, camping sites and other short stay accommodation	0.0	0.0	25.0	0.0	0.0	50.0	16.7
	Manufacturing	0.0	38.7	11.4	4.8	1.8	57.7	16.5
	Construction	0.0	0.0	100.0	100.0	0.0	-	14.3
	Banks and insurance companies	100.0	0.0	10.0	0.0	0.0	20.0	13.3
	Transport, storage and communications	0.0	0.0	16.7	33.3	0.0	11.1	12.5
	Wholesale and retail trade, motor vehicle repair	0.0	0.0	23.1	0.0	0.0	30.0	3.5
	Real estate-related activities, renting and business activities	0.0	0.0	8.3	0.0	0.0	10.0	2.6
	Cinema and video activities and radio and TV activities	0.0	0.0	-	0.0	0.0	0.0	0.0
Total		0.8	16.7	15.1	2.8	1.1	26.7	9.4

[1] The results refer only to enterprises which answer to the question E4 was positive.

E6: Did your enterprise recruit or try to recruit personnel for jobs requiring skills in the use of IT, during 2006?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	57.1	81.3	100.0	66.7	100.0	88.1	89.3
	Cinema and video activities, radio and TV activities	48.5	80.0	-	70.4	5.9	78.8	54.5
	Manufacturing	24.6	17.9	18.8	10.8	22.5	40.1	22.1
	Real estate-related activities, renting and business activities	15.5	21.8	31.4	20.4	13.1	17.1	17.0
	Construction	14.7	15.7	34.7	0.6	6.9	40.3	16.2
	Hotels, camping sites and other short stay accommodation	25.0	0.0	28.6	16.5	21.4	4.5	14.1
	Transport, storage and communcations	12.2	8.2	47.9	9.2	2.7	27.1	13.9
	Wholesale and retail sale, motor vehicle repair	6.4	20.8	60.0	10.6	6.3	11.2	9.8
Total		16.1	18.4	31.3	11.3	14.1	26.7	17.6

E7: Did your enterprise have hard-to-fill vacancies due to applicants' lack of IT skills ?[1)]

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Wholesale and retail trade, motor vehicle repair	25.4	47.0	51.5	57.3	48.7	14.3	35.8
	Hotels, camping sites and other short stay accommodation	10.5	0.0	100.0	13.3	33.3	100.0	26.1
	Transport, storage and communications	6.2	12.5	87.0	8.3	60.0	29.9	26.0
	Real estate-related activities, renting and business activities	17.3	41.2	18.2	0.0	65.4	21.2	22.5
	Banks and insurance companies	25.0	0.0	21.2	50.0	25.0	13.5	17.6
	Cinema and video activities, radio and TV activities	22.4	0.0	-	13.2	0.0	23.1	16.7
	Manufacturing	13.5	3.6	31.4	7.5	5.2	19.3	12.8
	Construction	0.0	50.0	0.0	0.0	26.1	8.3	10.6
Total		14.1	20.5	36.0	19.3	17.9	17.8	18.2

[1)] The results refer only to enterprises which answer to question E6 was positive.

E8: Did your enterprise provide training to develop or upgrade IT-related skills, during 2006, for:

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
IT specialists in your enterprise								
Activity	Banks and insurance companies	28.6	68.8	87.9	33.3	100.0	71.4	75.0
	Real estate-related activities, renting and business activities	12.7	28.8	17.1	7.1	13.1	18.8	15.2
	Wholesale and retail trade, motor vehicle repair	11.0	24.3	40.0	26.7	4.8	7.7	13.7
	Cinema and video activities, radio and TV activities	8.9	0.0	-	0.0	11.8	18.2	8.3
	Hotels, camping sites and other short stay accommodation	5.3	10.8	0.0	0.0	0.0	27.3	7.4
	Manufacturing	6.2	6.0	18.8	4.3	9.7	9.9	7.3
	Construction	7.6	2.7	11.1	9.2	9.4	1.7	6.7
	Transport, storage and communications	3.9	4.5	29.8	2.3	1.7	12.6	5.8
Total		8.5	11.3	23.9	10.3	8.4	11.2	10.1
IT users in your enterprise								
Activity	Banks and insurance companies	28.6	62.5	90.9	33.3	100.0	71.4	75.0
	Cinema and video activities, radio and TV activities	24.8	35.0	-	35.2	20.6	21.2	27.3
	Hotels, camping sites and other short stay accommodation	35.5	21.6	7.7	7.7	21.4	70.5	27.0
	Manufacturing	11.4	15.2	31.0	9.1	20.0	17.5	14.4
	Real estate-related activities, renting and business activities	10.0	29.5	31.4	7.1	8.3	17.8	13.7
	Wholesale and retail trade, motor vehicle repair	6.1	35.3	58.2	14.0	5.2	13.6	11.7
	Construction	11.1	4.9	22.2	9.2	12.7	10.0	10.6
	Transport, storage and communications	3.0	4.5	48.9	1.9	2.7	13.8	6.4
Total		9.4	19.3	36.4	10.1	13.3	16.7	13.3

E9: Did any external suppliers perform IT functions in your enterprise (fully or partly), during 2006?

in percentages

Enterprises		Size			Region			Total
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	
YES								
Activity	Banks and insurance companies	85.7	87.5	85.3	100.0	75.0	88.1	86.0
	Hotels, camping sites and other short stay accommodation	88.2	48.6	61.5	51.1	75.0	97.7	67.9
	Manufacturing	52.6	77.4	63.1	53.2	83.4	51.1	60.8
	Construction	54.9	48.4	58.3	48.7	57.1	55.6	53.7
	Wholesale and retail trade, motor vehicle repair	45.1	58.1	80.0	94.4	20.8	24.2	47.9
	Transport, storage and communications	47.9	29.1	68.1	38.7	5.0	84.6	46.3
	Real estate-related activities, renting and business activities	40.3	45.5	60.0	48.3	74.5	29.3	41.8
	Cinema and video activities, radio and TV activities	38.6	20.0	-	29.6	2.9	78.8	35.5
Total		48.9	64.1	65.5	61.4	56.0	43.1	53.3

2.5. QUESTIONNAIRE

ICT usage in enterprises

MODULE 2.A: General information about ICT

	YES	NO
A1: Does your enterprise use computers?	☐	☐ end

A2: Please, indicate an estimate of the percentage of the number of persons employed that used computers at least once a week during January 2007.	|___|___|___| %

A3: Does your enterprise have the following information and communication technologies?		
	YES	NO
a) Wireless LAN	☐	☐
b) Wire based LAN	☐	☐
c) Intranet (not Internet)	☐	☐
d) Extranet (not Internet)	☐	☐

	YES	NO
A4: Does your enterprise use IT systems to manage the placing or receipt of orders?	☐	☐ go to A6

A5: Do your enterprise IT systems for managing orders link automatically with any of the following IT system?		
	YES	NO
a) Internal system for re-ordering replacement supplies	☐	☐
b) Invoicing and payment systems	☐	☐
c) Your system for managing production, logistics or service operations	☐	☐
d) Your suppliers' business systems (for suppliers outside your enterprise group)	☐	☐
e) Your customers' business systems (for customers outside your enterprise group)	☐	☐

	YES	NO	Don't know
A6: Did your enterprise use, in January 2007, the ERP software package? (System for managing enterprises that allows to monitor all current operations and information about finance and goods transactions).	☐	☐	☐

		YES	NO
A7: Did your enterprise use, in January 2007, any software application for managing information about clients (so called CRM) that allows to:			
	a) Capture, store and make available to other business functions the information about its clients?	☐	☐
	b) Make analysis of the information about clients for marketing purposes (setting prices, sales promotions, selection of distribution channels, etc.)?	☐	☐

	YES	NO
A8: Did your enterprise use, in January 2007, open source operating systems, such as Linux?	☐	☐

	YES	NO
A9: Was your enterprise <u>sending,</u> in January 2007, e-invoices in a digital format that allows their automatic processing?	☐	☐

	YES	NO
A10: Was your enterprise <u>receiving,</u> in January 2007, e-invoices in a digital format that allows automatic processing?	☐	☐

	YES	NO
A11: Was your enterprise using, in January 2007, a digital signature in any message sent, i.e. using encryption methods that assure the authenticity and integrity of the message?	☐	☐

MODULE 2.B: Use of the Internet

	YES	NO
B1: Did your enterprise have access to the Internet during January 2007?	☐	☐ go to D1
B2: Please, indicate estimate of the percentage of persons employed that used the Internet during January 2007?	| | | %	

B3: Did your enterprise have one of the following types of external connection to the Internet, during January 2007?	YES	NO
a) Traditional Modem (dial-up access over normal telephone line)	☐	☐
b) ISDN connection	☐	☐
c) DSL (xDSL, ADSL, SDSL, etc.) connection	☐	☐
d) Cable Internet	☐	☐
e) Mobile connection (e.g. analogue mobile phone, GSM, GPRS, UMTS, EDGE, CDMA2000 1xEVDO)	☐	☐
f) Other fixed Internet connection (e.g. cable, leased line, e.g. E1 or E3 at level 1 and ATM at level 2, Frame Relay)	☐	☐

B4: Did your enterprise use the Internet for the following purposes during January 2007? (as consumer of Internet services)	YES	NO
a) Banking and financial services	☐	☐
b) Training and education	☐	☐
c) Market monitoring (e.g. prices)	☐	☐

	DA	NE
B5: Did your enterprise use the Internet for interaction with public authorities during 2006?	☐	☐ go to B7

B6: Did your enterprise interact with public authorities in the following ways during 2006?	YES	NO
a) For obtaining information	☐	☐
b) For obtaining forms, e.g. tax forms	☐	☐
c) For returning filled in forms, e.g. provision of statistical information to public authorities	☐	☐
d) For submitting a proposal in an electronic tender system	☐	☐

	YES	NO
B7: Does your enterprise have a Website / Home Page?	☐	☐ go to C1

B8: Does the Website of your enterprise provide the following services: (Your enterprise <u>as provider</u> of Internet services)	YES	NO
a) Marketing the enterprise products	☐	☐
b) Facilitating the access to product catalogues and price lists	☐	☐
c) Providing after sale support	☐	☐

MODULE 2.C: e-commerce via the Internet

Orders placed via the Internet (purchases)		
	YES	NO
C1: Did your enterprise order products/services via the Internet during 2006 (excluding manually typed e-mails)?	☐	☐ go to C3
C2: Please, indicate for 2006 the percentage of the Internet purchases in relation to total purchases. (tick only one)		
a) Less than 1%	☐	
b) More than 1% and less than 5%	☐	
c) More than 5% and less than 10%	☐	
d) More than 10% and less than 25%	☐	
e) 25% or more	☐	
Orders received via the Internet (sales)		
	YES	NO
C3: Did your enterprise receive orders via the Internet during 2006 (excluding e-mail orders)?	☐	☐ go to D1
C4: Please, indicate an estimate of the percentage of the total turnover resulted from orders received via the Internet, in 2006.	| | | | %	
C5: Does your enterprise use a secure protocol, such as SSL or TLS, for the reception of orders via the Internet?	YES	NO
	☐	☐

MODULE 2.D: e-commerce via external computer networks (excluding the Internet)

Orders placed via external computer networks (excluding the Internet) (purchases) (EDI, EDIFACT...)		
	YES	NO
D1: Did your enterprise order products/services via external computer networks (excluding the Internet), during 2006?	☐	☐ go to D3
D2: Please, indicate for 2006 the percentage of the orders via external computer networks (excluding the Internet) in relation to the total value of purchases. (tick only one)		
a) Less than 1%		☐
b) 1% or more and less than 25%		☐
c) 25% or more and less than 50%		☐
d) 50% or more and less than 75%		☐
e) 75% or more		☐
Orders received via external computer networks (excluding the Internet) (Sale) (EDI, EDIFACT...)		
	YES	NO
D3: Did your enterprise receive orders via external computer networks (excluding the Internet), during 2006?	☐	☐ go to E1
D4: Please, indicate an estimate of the percentage of the total turnover resulted from orders received via computer networks (excluding the Internet) during 2006.	☐☐☐ %	

MODULE 2.E: e-skills

E1: Did your enterprise employ IT specialists in January 2007? *Definition IT specialist: IT specialists have the capability to specify, design, develop, install, operate, support, maintain, manage, evaluate and research IT systems. IT is the main job.*	YES	NO
	☐	☐ go to E3
E2: Please, indicate an estimate of the percentage of IT specialists in your enterprise in relation to the total number of persons employed, during 2007.	☐☐☐ %	
E3: Did your enterprise recruit of try to recruit personnel for jobs requiring IT specialist skills, during 2006?	YES	NO
	☐	☐ go to E6

	YES	NO
E4: Did your enterprise have hard-to-fill vacancies for jobs requiring IT skills, during 2006?	☐	☐ go to E6

E5: What do you believe were the main reasons of having hard-to-fill vacancies for jobs requiring IT skills, during 2006?	
a) Lack or too low number of applicants with IT specialist skills	☐
b) Lack of IT-related qualifications from education and/or training	☐
c) Lack of work experience in the field of IT	☐
d) Salary requests too high	☐
e) Other	☐

	YES	NO
E6: Did your enterprise recruit or try to recruit personnel for jobs requiring IT skills in the use of IT, during 2006? *Definition IT user skills: Capabilities enabling the effective use of common, generic software tools (basic user skills) or advanced, often sector-specific, software tools (advanced user skills). Jobs requiring IT user skills: IT is an important tool for the job and is used to produce work output and/or used intensively at work (in day-to-day activities).*	☐	☐ go to E8

	YES	NO
E7: Did your enterprise have hard-to-fill vacancies due to applicants' lack of skills in the use of IT, during 2006?	☐	☐

E8: Did your enterprise provide training to develop or upgrade IT-related skills, in 2006, for:	YES	NO
a) IT specialists in your enterprise	☐	☐
b) IT users in your enterprise	☐	☐

	YES	NO
E9: Were any of IT functions performed by external suppliers (suppliers outside the enterprise) (fully or partially), during 2006? *Definition of external (third party) suppliers: Other enterprises; includes also foreign/legal entities, associated or not associated to a group of enterprises.*	☐	☐

ICT DICTIONARY

ADSL (Asymmetric Digital Subscriber Line):

A broadband digital transmission technology that uses the existing telephone line and provides for possible simultaneous data sending and voice communication. The larger part of range serves for data sending to user and the speed extends up to 6 Mbps.

Bit (Binary Digit):

The smallest information unit that a computer handles. A bit is expressed as 1 or 0 in binary presentation, or as true, i.e. false in logic presentation. A group of 8 bits makes 1 bite.

Broadband:

A communication system the agent (carrier) of which (e.g. optical cable) forwards multiplied data simultaneously, and each individual data is made module at different frequency.

B2B (Business-to-Business):

Transactions between two enterprises that are carried out by the way of networks based on IP and through other computer networks.

B2C (Business-to-Customer):

Transactions that are carried out between business and private customer through IP networks and via other computer networks.

CRM (Customer Relationship Management):

It is a process or methodology that helps managing information about our clients' needs and habits and developing tighter relationships with them. CRM contains several technological components, but in organizational terms, CRM represents a set of processes for collecting necessary information on customers, sales, marketing efficiency, customers' reactions and market trends. CRM helps managing technologies and human resources in order to have a view of customers' behavior and value.

Downloading

Electronic transmission of information from a remote computer to your computer. Downloading of data files from anonymous FTP is a popular way of obtaining free of charge software of public property.

Dial-up connection:

Use of a telephone network for the purpose of connecting to another network. Included are modem and regular telephone line, ISDN card and ISDN line, etc. If you are a typical computer user, you have one or two dial-up connections: one for the link to Internet and another for the link to the network at your enterprise.

DSL (Digital Subscriber Line):

A type of fast Internet connection that utilizes standard telephone lines. It could also be a type of broadband connection.

xDSL, ADSL, etc.

Transmissions via the Internet networks based on protocols and via other computer networks. Goods and services are ordered over those networks, but payments and final delivery of goods or services can be carried out on/outside the off-line network. Orders received by telephone, fax or e-mail do not fall into this category of e-commerce.

Digital goods or services:

Goods/services that can be ordered or delivered directly via a computer over the Internet, e.g. films, games, computer software, "on-line" newspapers, consulting services, etc.

E-mail:

Electronic transmission of messages, including text and attachments, between computers located inside or outside an organization. This comprises electronic mails over the Internet or other computer networks.

Extranet:

A secure extension of Intranet enabling external users to have access to certain parts of the organization Intranet.

Electronic commerce:

E-Commerce (Electronic Commerce) is the purchase or selling of goods or services over the Internet particularly via the World Wide Web service. Practically this term is often used instead of the recent one, e-business, which means business over the Internet.

Electronic (digital) signature:

Electronic signature is meant to be a technology used in systems of electronic business for checking the signatory's authenticity, securing the integrity of transmitted information and the irrevocability of the electronic signature in the message or document. Therefore, alike the signature in standard business, the electronic signature is used in electronic business. Besides, the latter secures electronically signed messages, which is not the case with personal signatures.

ERP (Enterprise Resource Planning):

ERP is a software system that monitors all the aspects of business operations of a company. The implemented ERP system is able to integrate business operations of different company functions (e.g. accountancy, sales, production, etc.) in one entity. One obtains this way a system through which one can, on one hand, manage all human and material resources, and on the other one, develop and monitor business processes and procedures.

Firewall:

A combination of hardware and software keeping the system secure. It is usually used to prevent any unauthorized access to the internal local network from the outside. Firewall prevents direct communication between a network and external computers.

Hardware:

A physical unit of a computer system, including external units, printers, modems, mice, etc.

Internet:

World computer network.

Internet address:

Address of one of the Internet resources. It typically reads for example:
http://www.statserb.sr.gov.yu

Intranet:

A network inside an organization based on Internet technologies and protocols, but being only available to a specific group of persons, e.g. the employees.

ISDN (Integrated Services Digital Network):

A fast telephone service which speed ranges up to 128 Kbps, which is several times faster than the analogous modem.

Local Area Network (LAN):

A local network that covers and connects a group of computers, printers and other units within a relatively limited location (e.g. building). Each connected LAN units is allowed to communicate with other networks, if needed.

Network:

A group of computers or other devices, such as printers, scanners, etc., being connected to the communication link, which enables all the devices to interact. It can be of small range, linked with cables, wireless, permanently, temporary linked, ... The Internet is the largest network, the largest group of all interconnected world networks.

Server:

A computer, in a network environment, having shared resources and used by network users.

Virus:

A computer program, which, by being started-up and installed, damages or erases data in a computer.

Wide Area Network (WAN):

A communication network that links geographically remote computers, printers and other devices.

Window:

A part of a screen from which programs and processes can be started-up. Users can start-up several "windows" at the same time.