

# USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2009

\* Households/individuals\* Enterprises



Belgrade, 2009

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Printed by: "Publikum" Slavka Rodića 6, Belgrade

Circulation: 300 copies

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### INTRODUCTION

Modern society has become "information society" with the development and usage of information and communication technologies, which, as its main characteristic, play the most important part in production, the economy and all other spheres of in the life of individuals and the society as a whole.

Aware of the significance of those technologies the Statistical Office of the Republic of Serbia carried out in 2004 a pilot survey on the usage of information and communication technologies in organizations dealing with banking and insurance. This undertaking was primarily meant to test methodologies and instruments and prepare for implementation similar, regular surveys related to households and the economy.

In 2006, 2007 and 2008 the Statistical Office of the Republic of Serbia conducted two surveys on the usage of information and communication technologies. The first one referred to households and individuals, and the second included also enteprises.

Both surveys were also carried out on the territory of the Republic of Serbia in 2009 based on EUROSTAT methodology. Data for the Republic of Serbia exclude those for AP Kosovo and Metohija.

As for households and individuals, the three months preceeding the telephone interview were taken to be the reference period, which was, for most of the questions asked to enterprises, January 2009, while selected ones referred to the entire 2008.

The survey for households was carried out on a two-stage sample, which was stratified according to the criterion on urban characteristics. The sample was allocated to the territories of Central Serbia (excluding Belgrade), AP Vojvodina and Belgrade, proportionally to the number of households. It included 2400 households and 2400 individuals. The interview was done both by telephone and indirectly (answers given by another person other than the reference one).

The survey for enterprises was carried out on a sample stratified by size and activities, by telephone. It covered 1152 enterprises.

The Statistical Office of the Republic of Serbia is hopeful that this publication will provide the users enough information on the current situation in information and communication technologies, and be the basis for its further development.



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# USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2009

\* Households/individuals



### 1.1. METHODOLOGY

| Realisation       | Survey carried out on 7 May 2009  |
|-------------------|---|
| Type of survey    | Telephone interview   |
| Sample size       | <ul><li> 2400 households</li><li> 2400 individuals</li></ul>  |
| Target population | <ul> <li>For households: the target population includes all households with at least one member aged between 16 and 74</li> <li>For individuals: the target population includes all individuals aged between 16 and 74</li> </ul> |
| Sample type       | Two-stage stratified sample   |
| Survey coverage   | <ul> <li>Territory of the Republic of Serbia (without AP Kosovo and Metohia)</li> </ul>   |

# 1.2. SAMPLE

The surve y on the usage of info rmation and communication technologies in hou scholds has been carried out on a representative sample of 2 400 households on the territory of the Republic of Serbia. The response rate is 96.6% (2 318 households).

| Households             |                    |                    |                        |                   |           |          |       |                 |       |
|------------------------|--------------------|--------------------|------------------------|-------------------|-----------|----------|-------|-----------------|-------|
|                        |                    | Income             |                        |                   | Region    |          |       | be of<br>sehold |       |
| Sample<br>(households) | Under 300<br>euros | 300 - 600<br>euros | More than 600<br>euros | Central<br>Serbia | Vojvodina | Belgrade | Urban | Rural           | Total |
| Number                 | 1324               | 697                | 297                    | 1162              | 635       | 521      | 955   | 1363            | 2318  |
| %                      | 57.1               | 30.1               | 12.8                   | 50.1              | 27.4      | 22.5     | 41.2  | 58.8            | 100   |

The sample used for households has been applie d for individuals aged 16 to 74 living on the territory of the Republic of Serbia. The response rate is 96.6% (2318 households).

|                         | Godine  |         |         |         |         |         | Ρ    | ol     | Obr                     | azova     | anje     | F        | Radni      | statu   | S     |       |
|-------------------------|---------|---------|---------|---------|---------|---------|------|--------|-------------------------|-----------|----------|----------|------------|---------|-------|-------|
| Sample<br>(individuals) | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | Male | Female | Lower than<br>secondary | Secondary | Tertiary | Employed | Uenmployed | Student | Other | Total |
| Number                  | 312     | 330     | 328     | 408     | 449     | 491     | 1010 | 1308   | 560                     | 1321      | 437      | 711      | 627        | 104     | 876   | 2318  |
| %                       | 13.5    | 14.2    | 14.2    | 17.6    | 19.4    | 21.1    | 43.6 | 56.4   | 24.2                    | 57.0      | 18.8     | 30.7     | 27.0       | 4.5     | 37.8  | 100   |

#### Individuals

#### **`**73C

### 1.3. MAJOR FINDINGS

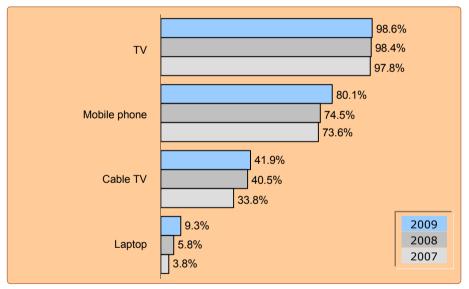
#### **1.3.1. Devices in households**

The respondents have been offered to give mu ltiple answers to the question relating to devices available in households. The su rvey indicates t hat 98.6% of hou seholds have a TV receiver, and 41.9% have cable TV.

#### 80.1% of households have a mobile phone

A total of 9.3% of households possess a laptop, which represents increases of 3.5%, 5.5% and 7.8% compared to 2008, 2007 and 2006 respectively.

The survey shows that 68.9% of households own a radio receiver.



#### Graph 1.1. Devices available in households

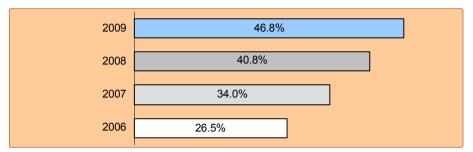
#### 1.3.2. Computers in households

Based on major findings of this surve y 46.8% of households in the Republic of Se rbia have a computer, which represents increases of 6%, 12.8% and 20.3% compared to 2008, 2007 and 2006 respectively. The availability of computers in households varies depending on the territory: in Belgrade it amounts to 59.8%, in Vojvodina to 46.1%, and in Central Serbia to 41.3%.

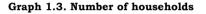
#### 46.8% of households have a computer

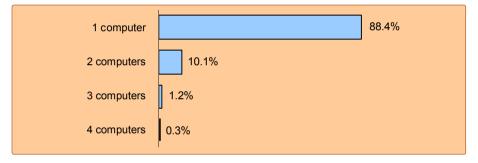
Survey results

#### Graph 1.2. Computers in households

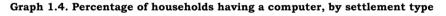


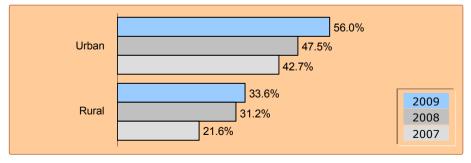
Most of households have one computer (88.4%), and just a fe w of them have t wo computers (10.1%).





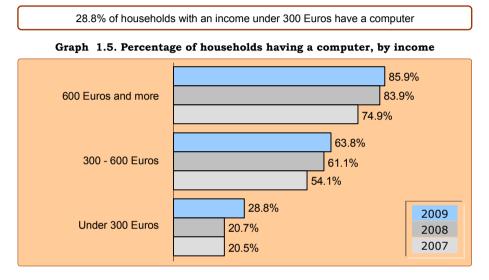
When comparing the u rban and rural a reas in Serbia differences are also notic ceable: 56% versus 33.6%. In relation to 2008, this gap has increased even more. Growth rates of the availability of computers in urban and rural areas of Serbia speak in favor of this finding. In urban parts of Serbia, the growth rate amounts to 8.5%, and to 2.4% in its rural parts in relation to 2008.





However, the largest gap concerning the availability of computers in households has been found in the structure of households by their monthly income. Computers are possessed mostly by households with an i ncome over 600 Eu ros (85.9%), and the percentage of those owning a computer and having an income under 300 Euros is 28.8%.

Compared to 2008 the gap in 2009 relating t o t he availabilit y of computers in households, according to th eir i ncome, has slightly decr eased of which e xpressive are g rowth rates i n selected categories of income for 2009 i n relation to the previous year. The growth rates for households with an i ncome ove r 300 Eu ros, i n rel ation to 20 08, are a bit hi gher than 2% contrary to those for households with an income under 300 Euros amounting to 8.1%.

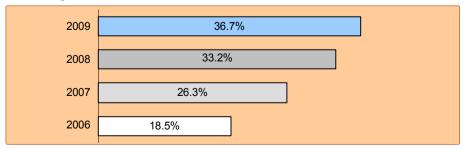


#### **1.3.3. Internet in households**

There are in the Republic of Serbia 36.7% of household that have access to the Internet, which represents i ncreases of 3.5%, 10.4% and 18 .2% i n relation to 2008, 2007 and 20 06 respectively.

36.7% of households have an Internet connection

#### Graph 1.6. Does the household have access to the Internet at home?



Rural

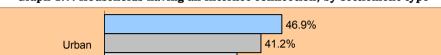
35.0%

2009

2008

2007

The Internet is most accessed to in Belgrade (48.6%), in Vojvodina (37.9%), and in Central Serbia (30.5%).



22.0%

21.7%

13.7%

#### Graph 1.7. Households having an Internet connection, by settlement type

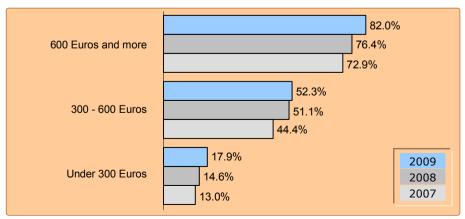
There are important differences when comparing the availability of Internet connections in urban and rural areas in Serbia: 46.9% versus 22.0%. In relation to 2008, the results are expressive of an increased gap existing in the availability of Internet connections in those areas. The growth rate in urban parts of Serbia amounts to 5.7% and that in rural parts to only 0.3%.

When observing the structure of households by monthly income, there is a large difference as to the availability of Internet connections, just as it is the case with the availability of computers in households. The Internet is mostly accessed in households with a monthly income over 60 0 Euros (82.0%), and in 17.9% of households, which income is under 300 Euros.

#### 17,9% of households with an income under 300 Euros have an Internet connection

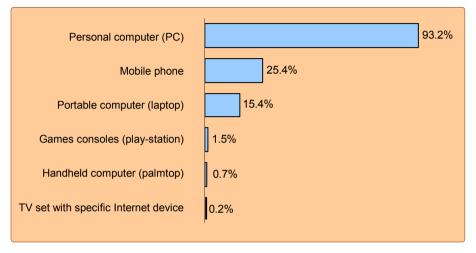
According to data for 2008, t here is an even more i mportant gap regarding the a vailability of Internet connect ions, by i ncome. Gro wth rates i n certai n cate gories of i ncome i n 2009, compared to the previous year, are clearly expressive of the previous. The growth rate for households which income exceeds 300 Euros, i n relation to 2008, amounts to 3.3 %, i.e. 1.2% for households with an income ranging between 300 and 600, and that for households with over 600 Euros of income is 5.6%.

Graph 1.8. Households having an Internet connection, by income



When asked ab out devices on which the Intern et is accessed, 93.2% of house holds said that they used personal computers for that purpose, 25.4% went to the Internet via a mobile phone, and 15.4% via a laptop.

The results of the survey are indicative of a 6.9 % growth of the number of household having access to the Internet when compared to 2 008. On the other hand, the number of households using a personal computer to access the Internet increased by 2%.

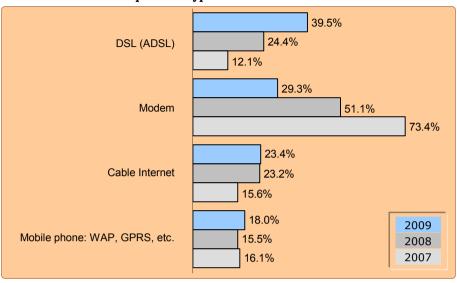


#### Graph 1.9. Devices on which the Internet is accessed

Regarding the w ay the I nternet is accessed (types of connections) households have been offered to choose among several answers. The results show that of the total number of thouseholds having an Internet connection, 39.5% of them have DSL (ADSL), 29.3% a modem connection, 23.4% cable Internet, and 18% have WAP and GPRS.

#### 29,3% of households access the Internet via a modem connection

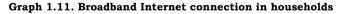
According to the results, the use of modem connections drop ped by 21.8 % and 44.1% compared to 20 08 and 2007 respectively, mainly because of the increased usage of the broadband connection.

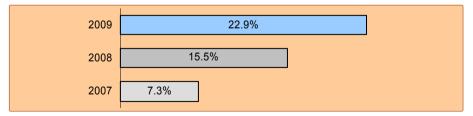


#### Graph 1.10. Type of Internet connection

22.9% of households in Serbia have a broadband Internet connection

Besides enabling quicker access to the Internet the b roadband Internet connection changes completely the way the Internet is used: information is downloaded rather f aster than with the traditional (dial-up) modem connection. Accordingly, the percentage of households having this type of Inter net connecti on is a among the maj or indicators showing the cour se of IC T development in the Euro pean Union since 2005. In Ser bia, 22. 9% of households have a broadband Internet connection, which are 7.4 % and 15.6% increases compared to 2008 and 2007 respectively. The percentage of this type of Internet connection is the highest in Belgrade amounting to 37.6%, then in Vojvodina being 23%, and is the lowest in Central Serbia reaching 16.1%.



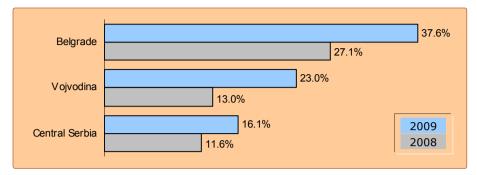


The broadband Internet connecti on is mainly utilized by households which monthly income exceeds 600 Euros (58.3%), while the share of households having an income under 300 Euros is 9.1%.

There are considerable differences when comparing this type of connection in urban and rural areas of Serbia: 33.7% versus 7.4%.



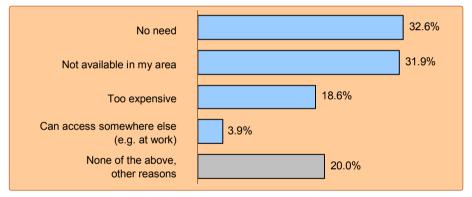
#### Graph 1.12. Broadband Internet connection in households, by territory



The most frequent answers as to the reasons of not having a broadband Internet connection at home are as follows:

- "No need" (32.6%)
- "Not available in my area" (31.9%)
- "T oo expensive" (18.6%)

#### Graph 1.13. Reasons for not having a broadband connection at home



#### 1.3.4. Individuals: use of computers

In the Republic of Serbia 49.3% of i ndividuals used a computer within the l ast three months, 2.7% more than n three months ago, and 3.3% more than one year ago. Eve n 44.7% of individuals have never used a computer. The number of computer users has grow n by 3.3%, 7.6% and 12.1% compared to 2008, 2007 and 2006 respectively.



Graph 1.14. When did you last use a computer?

The number of computer user has grown by 3.3% in relation to 2008

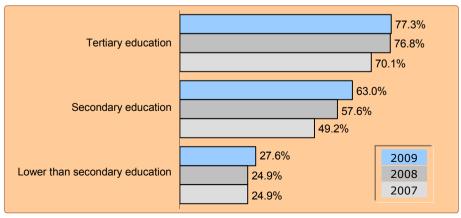
When compared to 2008, the number of individuals that used a computer within the last three months increased slightly by more than 200 000.

More than 2 850 000 individuals used a computer within the last three months

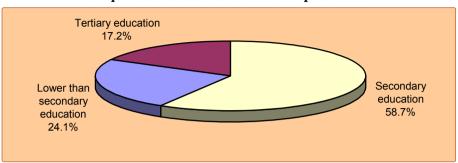
The percentage of computer users (within the last three months), by educational level:

- 77.3% of individuals with tertiary education;
- 63.0% of individuals with secondary education;
- 27.6% of individuals with an educational level lower than secondary.

### Graph 1.15. Percentage of computer users (within the last three months), by educational level



Among the users of computers, 58.7% of them have attai ned secondary educ ational level, 17.2% have attained tertiary educational level, and 24.1% have an educational level lower than secondary.

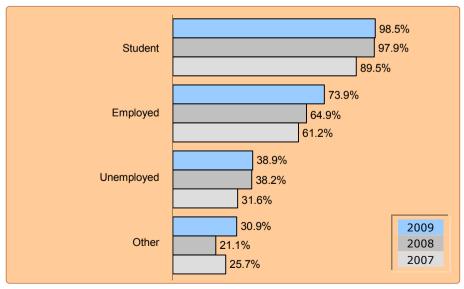


Graph 1.16. Educational levels of computer users

The percentage of computer users (within the last three months), by employment situation:

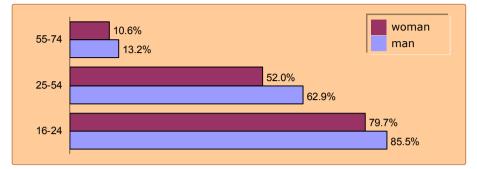
- 98.5% of students;
- 73.9% of employees;
- 38.9% of unemployed;
- 30.9% of others (retired, on compulsory military service...).

#### Graph 1.17. Share of computer users (within the last three months), by employment situation



After the analysis of the respondents by sex, it has appeared that 54.2% of males and 44.6% females have used a computer.

Graph 1.18. Use of computers (withing the last 3 months), by sex and age

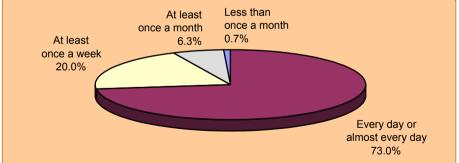


As far as the qu estion on how often on average households used a computer within the last 3 months, 73% of them used it every day or almost every day, 20% at least once a week, 6,3% at least once a month, and 0,7 % less than once a month.

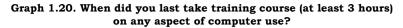
More than 2 080 000 individuals use a computer every day or almost every day

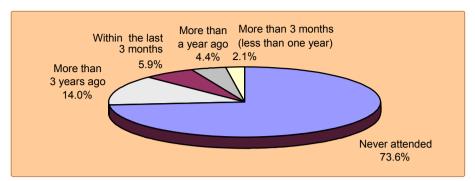
Compared to 20 08 the number of individuals that used a comput er every day or almost every day has grown slightly by more than 180 000.

Graph 1.19. How often, on average, did you use a computer in the last 3 months?



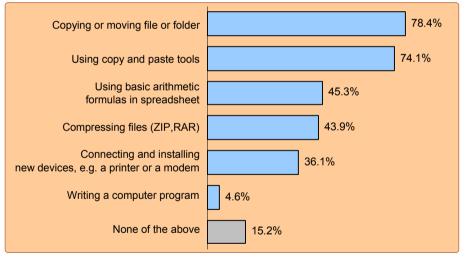
Within the last three months computers were m ostly used at home (92.6%), the n at pl ace of work (26.2%) and in place of education (13.3%).





The surve y indicates that onl y 5.9% of respondent took a training course on an y aspect of computer use within the last three months. There were even 73.6% who have never taken any training course.

### Graph 1.21. Which of the following computer-related activities have you already carried out?



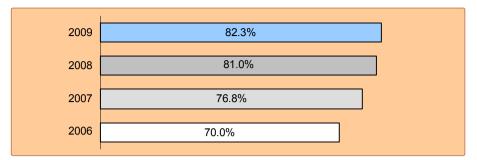
#### 1.3.5. Individuals: use of mobile phones

The surve y sho ws that 82. 3% of population us e a mobile phone, while in 2008 this figure amounted to 81%, and in 2007 to 76.8%.

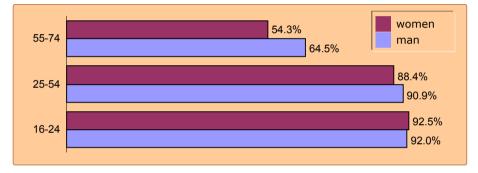
#### More than 4 760 000 persons use a mobile phone

Survey results

Graph 1.22. Use of mobile phones



In relation to 2008, the number of individuals who used a mobile phone grew by slightly more than 110 000.



Graph 1.23. Use of mobile phones, by sex and age

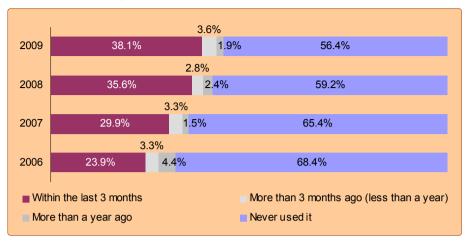
#### 1.3.6. Individuals: use of the Internet

In Serbi a 38.1 % of i ndividuals used the Internet within the last three months, 3.6% of respondents used it more than three months ago, and 1.9% more than one year ago. The percentage of respondents who have never used the Internet is 56.4%.

The number of I nternet users has increased by 2.8%, 9% and 12% compared to 2008, 2007 and 2006 respectively.

#### The number of Internet users has increased by 2.8% compared to 2008

#### Graph 1.24. When did you last use the Internet?



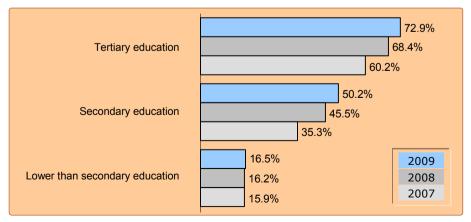
More than 2 200 000 individuals use the Internet within the last three months

In relation to 2008 the number of i ndividuals who used the Internet within the last three months has increased by slightly more than 200 000.

The percentage of Internet users (within the last three months), by level of education:

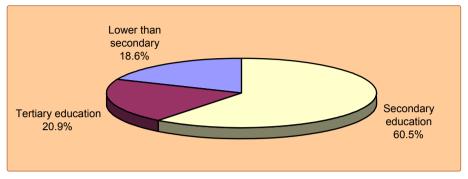
- 72.9% of individuals with tertiary education;
- 50.2% of individuals with secondary education;
- 16.5% of individuals with an educational level lower than secondary.

#### Graph 1.25. Percentage of Internet users (within the last three months), by educational level



Among Internet users 60.5% have attained seco ndary education al level, 20.9% tertiar y, and 18.6% of users have an educational level lower than secondary.

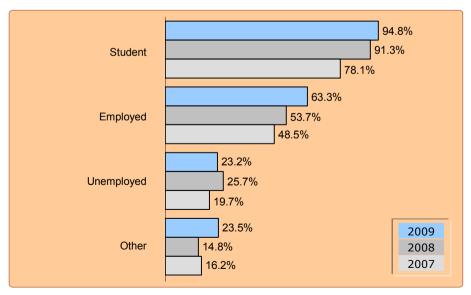




The percentage of Internet users (within the last three months), by employment situation:

- 94.8% of students;
- 63.3% of employees;
- 23.2% of unemployed;
- 23.5% of others (retired, on compulsory military service...).

### Graph 1.27. Percentage of Internet users (within the last three months), by employment situation

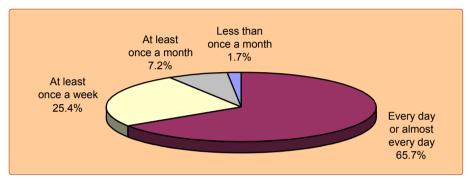


When asked how often on average they used the Internet within the last three months, 65.7% of respondents used it every day or almost every day.

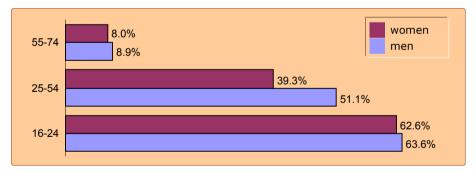
More than 1 450 000 individuals use the Internet every day or almost every day

Compared to 20 08, the number of individuals who have used the Internet every day or almost every day has grown by slightly more than 200 000.

### Graph 1.28. How often, on average, did you use the Internet within the last 3 months?

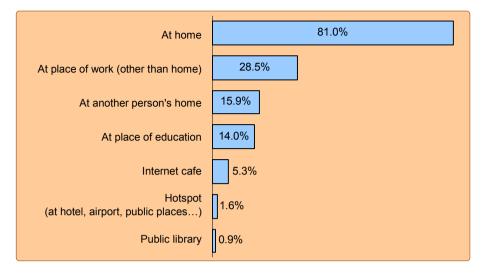


#### Graph 1.29. Use of the Internet (within the last 3 months), by sex and age



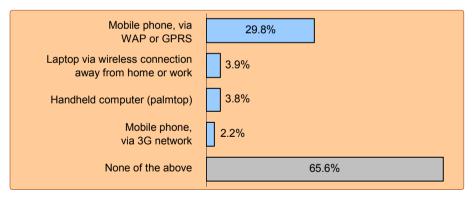
The analysis of the respondent by sex indicates that within the last three months 42.3% of male individuals and 34.1% of female individuals used the Internet.

#### Graph 1.30. Where did you use the Internet in the last 3 months?



Within the last three months most of the respondents used the Internet at home (81%), 28.5% used it at place of work, 15.9% at another person's home, 14% at place of education, and 5.3% in Internet-cafés.

Graph 1.31. Use of mobile devices to access the Internet



The respondents used the Internet in the last three months mostly for: sending and receiving e-mails (79.2%), pla ying or do wnloading games, images, music, film s (64%), finding information about goods and services (56.6%).



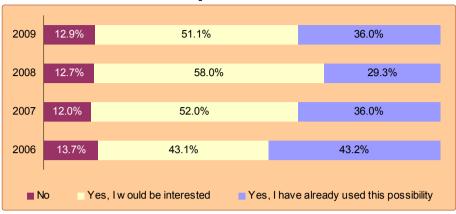
### Graph 1.32. Reasons for using the Internet (for private purposes) within the last 3 months

| Sending/receiving e-mails  | 79.2%  |
|--|--------|
| Playing or downloading games,<br>images, films or music  | 64.0%  |
| Finding information<br>about goods and services  | 56.6%  |
| Posting messages to chat sites,<br>to newsgroups or on-line discussion forum                   | 42.3%  |
| Reading or downloading<br>on-line newspapers/news magazines                                    | 42.1%  |
| Using services related to<br>travel and accommodation  | 35.0%  |
| Telephoning over the Internet/<br>video calls  | 27.0%  |
| Consulting the Internet with the purpose of learning   | 27.0%  |
| Uploading self-created content (text, images, videos, music, etc.) to any website to be shared | 26.8%  |
| Looking for information about education,<br>training or course offers                          | 26.4%  |
| Listening to web radios/<br>watching web television  | 25.3%  |
| Downloading software   | 23.5%  |
| Seeking health-related information   | 21.9%  |
| Looking for a job or sending a job application   | 15.7%  |
| Internet banking   | 12.0%  |
| Sale of goods or services<br>(e.g. via auctions)   | 4.4%   |
| Doing an on-line course<br>(of any subject)  | ] 1.3% |
|  |        |

#### 1.3.7. e-government

The surve y indicates that 12.9% of responden ts belonging to the Internet pop ulation us e Internet services instead of entering into personal contacts or going directly to public institutions or administration bodies, while 51.1% of them is interested in that possibility, but do not use it at the moment.

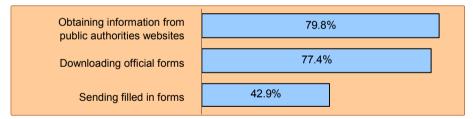
### Graph 1.33. Would you rather use the Internet service of public authorities instead personal contacts?



The fact that 36% of respondent are not interested in that possibility is disquieting. Compared to 2008 the number of individuals who use Internet services of pu blic authorities h as grown by slightly more than 25 000.

More than 285 000 individuals use Internet services of public authorities

### Graph 1.34. For which of the following local authorities services did you use the Internet?



The survey indicates also that 79.8% of respondents used the Internet in the last three months for obtaining information from websites of public authorities, 77.4% for downloading forms, and 42.9% for sending filled in forms.

#### 1.3.8. e-commerce

As far as the period w ithin which Internet users bought/ordered goods or services via the Internet, 6.5% of users did it w ithin the last three months, 4.0% m ore than three months ago, and 2.1% more than a year ago.

There are 87.4 % of Internet us ers who have never bought/or dered goods or services via the Internet.

More than 264 000 individuals bought/ordered goods/services in the last 12 months

### Graph 1.35. When did you last (for private use) bought/ordered goods or services via the Internet?

|      | 4.0%                     |   |
|------|--------------------------|---|
| 2009 | 6.5% 2.1%                | 87.4%                                     |
|      | 4.9%                     |   |
| 2008 | 6.3% 2.5%                | 86.3%                                     |
|      | 3.2%                     |   |
| 2007 | 3.7 <mark>% 3.</mark> 4% | 89.7%                                     |
|      | 4.6%                     |   |
| 2006 | 5.6% 1.4%                | 88.4%                                     |
|      |                          |   |
| With | ning the last 3 months   | More than 3 months ago (less than a year) |
| Mor  | e than a year ago        | Never used it                             |

Compared to 2008, the number of individuals who have bought/ordered goods/services over the Internet has grown to slightly more than 14 000.

### Graph 1.36. What types of goods/services did you buy/order (for private use) via the Internet in the last 12 months?

| Films, music  | 28.3% |
|---|-------|
| Holiday accommodation (hotel, etc.)   | 25.5% |
| Computer software and<br>their upgrades   | 24.8% |
| Clothes, sports goods   | 22.9% |
| Other travel arrangements<br>(transport tickets, carhire, etc.)                   | 22.2% |
| Electronic equipment (incl. cameras)  | 14.4% |
| Household goods<br>(furniture, toys, etc.)  | 12.6% |
| Books / magazines / newspapers<br>/ e-learning material                           | 10.9% |
| Computer hardware   | 7.6%  |
| Food/groceries  | 6.2%  |
| Tickets for cultural events   | 5.8%  |
| Pharmaceutical products   | 4.2%  |
| Games and upgrades  | 2.9%  |
| Telecommunication services (e.g. uploading<br>money on prepaid phone cards, etc.) | 2.0%  |
| Other   | 11.8% |

Most of Inter net users bu y/order over the I nternet films a nd music (28.3 %), h oliday accommodation (25.5%) and computer software (24.8%).

### Graph 1.37. What were the reasons for not buying/ordering goods or services for personal use in the last 12 months?

| No need   | 59.2% |
|---|-------|
| Prefer to shop in person, like to see product, loyalty to shops, force of habit | 40.0% |
| Payment security concerns (e.g. giving credit card details)                     | 10.5% |
| Do not have a payment card allowing to pay over the Internet                    | 9.6%  |
| Lack of skills  | 5.7%  |
| Trust concerns about receiving or returning goods, complaint/redress concerns   | 5.7%  |
| Privacy concerns (e.g. giving personal information over the Internet)           | 5.2%  |
| Internet connection too slow  | 2.7%  |
| Delivery of goods ordered<br>over the Internet is a problem                     | 2.2%  |
| Relevant information about goods and services difficult to find on the website  | 0.7%  |
| Other   | 11.2% |



### 1.4. RESULTS OF THE SURVEY

# MODUL E1.A: Access to information and communication technologies

|   |   |                    |                        | 9                 |           |          |                      |       |        |  |  |  |
|---|---|--------------------|------------------------|-------------------|-----------|----------|----------------------|-------|--------|--|--|--|
|   |   |                    |                        |                   |           |          | in                   | perce | ntages |  |  |  |
| Answer<br>(households)                                    | Income  |                    |                        | Region            |           |          | Type of<br>household |       |        |  |  |  |
|   | under 300<br>Euros  | 300 - 600<br>Euros | more than<br>600 Euros | Central<br>Serbia | Vojvodina | Belgrade | urban                | rural | Total  |  |  |  |
| A1: Devices available in households (tick all that apply) |   |                    |                        |                   |           |          |                      |       |        |  |  |  |
| TV  | 97.7  | 99.7               | 99.9                   | 98.4              | 98.0      | 99.6     | 99.1                 | 97.9  | 98.6   |  |  |  |
| Mobile phone  | 69.7  | 91.9               | 98.2                   | 78.0              | 76.4      | 89.2     | 84.4                 | 73.9  | 80.1   |  |  |  |
| Radio-receiver  | 63.1  | 74.6               | 80.6                   | 67.6              | 72.4      | 67.3     | 70.2                 | 66.9  | 68.9   |  |  |  |
| Personal computer (PC)                                    | 28.8  | 63.8               | 85.9                   | 41.3              | 46.1      | 59.8     | 56.0                 | 33.6  | 46.8   |  |  |  |
| Cable TV  | 28.2  | 56.1               | 68.5                   | 32.9              | 34.5      | 70.6     | 61.3                 | 13.9  | 41.9   |  |  |  |
| Laptop  | 3.2   | 11.6               | 30.2                   | 6.6               | 8.1       | 16.5     | 13.2                 | 3.6   | 9.3    |  |  |  |
| None of the above   | 0.4   | 0.0                | 0.0                    | 0.3               | 0.3       | 0.0      | 0.0                  | 0.6   | 0.2    |  |  |  |
| A2: Do you  | or any  | one in             | your                   | housel            | hold h    | ave ac   | cess                 |       |        |  |  |  |
|   | to t  | he Into            | ernet a                | t hom             | le?       |          |                      |       |        |  |  |  |
| No  | 80.9  | 46.4               | 18.0                   | 69.1              | 59.5      | 50.9     | 52.3                 | 76.6  | 62.3   |  |  |  |
| Yes   | 17.9  | 52.3               | 82.0                   | 30.5              | 37.9      | 48.6     | 46.9                 | 22.0  | 36.7   |  |  |  |
| Don't know  | 1.2   | 1.3                | 0.0                    | 0.4               | 2.6       | 0.5      | 0.8                  | 1.4   | 1.0    |  |  |  |
| A3: Devices on wh   | A3: Devices on whicht he Internet is accessed (tick all that apply) $^{1)}$ |                    |                        |                   |           |          |                      |       |        |  |  |  |
| Personal computer (PC)                                    | 93.6  | 92.6               | 93.6                   | 93.2              | 92.1      | 94.1     | 94.3                 | 89.6  | 93.2   |  |  |  |
| Mobile phone  | 20.5  | 23.3               | 33.1                   | 19.7              | 21.9      | 36.6     | 25.2                 | 26.2  | 25.4   |  |  |  |
|   |   |                    |                        |                   |           |          |                      |       |        |  |  |  |

| Mobile phone                         | 20.5 | 23.3 | 33.1 | 19.7 | 21.9 | 36.6 | 25.2 | 26.2 | 25.4 |
|--------------------------------------|------|------|------|------|------|------|------|------|------|
| Portable computer (laptop)           | 7.2  | 16.0 | 22.4 | 13.1 | 13.7 | 20.3 | 18.2 | 7.1  | 15.4 |
| Games consoles<br>(play-station)     | 0.3  | 2.3  | 1.5  | 1.1  | 2.2  | 1.5  | 1.9  | 0.4  | 1.5  |
| Handheld computer (palmtop)          | 0.5  | 0.7  | 0.7  | 0.8  | 0.8  | 0.4  | 0.7  | 0.5  | 0.7  |
| TV set with specific Internet device | 0.0  | 0.6  | 0.0  | 0.0  | 0.9  | 0.0  | 0.3  | 0.0  | 0.2  |

<sup>1)</sup> The results refer to households that answered "YES" in question A2.

# MODUL E1.A: Access to information and communication technologies

| in percentages  |                    |                    |                        |                     |           |          |                   |       |       |  |  |
|---|--------------------|--------------------|------------------------|---------------------|-----------|----------|-------------------|-------|-------|--|--|
|   | Income             |                    |                        | Region              |           |          | Type of household |       |       |  |  |
| Answer<br>(households)  | under 300<br>Euros | 300 - 600<br>Euros | more than<br>600 Euros | Central<br>Serbia   | Vojvodina | Belgrade | urban             | rural | Total |  |  |
| A4: Type of Internet connection (tick all that apply) $^{1)}$ |                    |                    |                        |                     |           |          |                   |       |       |  |  |
| DSL (ADSL)  | 35.4               | 40.1               | 42.4                   | 37.0                | 37.9      | 44.4     | 45.5              | 21.0  | 39.5  |  |  |
| Modem   | 40.0               | 26.9               | 22.5                   | 39.5                | 26.0      | 18.4     | 23.4              | 47.3  | 29.3  |  |  |
| Cable Internet  | 15.6               | 24.1               | 29.8                   | 16.4                | 23.2      | 33.3     | 26.9              | 12.7  | 23.4  |  |  |
| Mobile phone: WAP, GPRS, etc.                                 | 14.3               | 16.0               | 24.5                   | 15.3                | 15.7      | 24.1     | 16.4              | 23.1  | 18.0  |  |  |
| ISDN  | 1.4                | 1.3                | 2.1                    | 2.2                 | 2.2       | 0.0      | 1.2               | 2.5   | 1.6   |  |  |
| A5: Reasons for not   |                    | -                  |                        |                     |           | onnect   | tion at           | home  |       |  |  |
|   | (t                 | ick all            | that a                 | (pply) <sup>2</sup> | )         |          |                   |       |       |  |  |
| No need   | 34.5               | 36.9               | 21.8                   | 31.2                | 33.2      | 36.0     | 39.6              | 23.3  | 32.6  |  |  |
| Not available in my area                                      | 29.5               | 28.6               | 41.5                   | 36.3                | 31.3      | 18.6     | 19.8              | 47.7  | 31.9  |  |  |
| Too expensive   | 23.0               | 18.9               | 10.8                   | 16.9                | 18.3      | 24.2     | 19.5              | 17.3  | 18.6  |  |  |
| Can access broadband  | 3.4                | 3.2                | 6.1                    | 4.2                 | 1.1       | 7.9      | 4.0               | 3.8   | 3.9   |  |  |

<sup>1)</sup> Data refer to households that answered "YES" in question A2.

16.9

20.2

24.6

17.7

22.1

23.6

22.3

17.1

20.0

<sup>2)</sup> Data refer to households that answered positively in question A4A and/or A4B and/or A4F.



somewhere elese None of the abov, other

#### MODULE 1.B: Use

|  |          |         | Gender  |           |              |         |          |        |  |
|--|----------|---------|---------|-----------|--------------|---------|----------|--------|--|
| Answer<br>(individuals)                          | 16 - 24  | 25 - 34 | 35 - 44 | 45 - 54   | 55 - 64      | 65 - 74 | male     | female |  |
|  | B1: When |         |         |           |              |         |          |        |  |
| Within the last 3 months                         | 82.7     | 71.5    | 61.9    | 41.9      | 17.3         | 5.7     | 54.2     | 44.6   |  |
| Never used one                                   | 7.9      | 19.8    | 31.7    | 54.6      | 77.4         | 91.9    | 42.6     | 46.7   |  |
| More than 1 year ago                             | 2.2      | 4.6     | 4.4     | 1.8       | 4.8          | 2.2     | 2.0      | 4.5    |  |
| More than 3 months (less than a year)            | 7.2      | 4.1     | 2.0     | 1.7       | 0.5          | 0.2     | 1.2      | 4.2    |  |
|  |          | в       | 2: How  | 7 often   | on av        | erage   | did yo   | u use  |  |
| Every day or almost every day                    | 68.7     | 77.7    | 73.5    | 73.6      | 74.9         | 56.5    | 73.8     | 72.0   |  |
| At least once a week                             | 24.6     | 18.2    | 17.2    | 17.2      | 21.2         | 27.5    | 21.1     | 18.6   |  |
| At least once a month                            | 6.5      | 4.1     | 8.5     | 6.9       | 3.3          | 13.0    | 4.7      | 8.3    |  |
| Less than once a month                           | 0.2      | 0.0     | 0.8     | 2.3       | 0.6          | 3.0     | 0.4      | 1.1    |  |
|  |          |         | вз:     | Where     | did y        | ou use  | a con    | puter  |  |
| At home  | 96.0     | 89.8    | 92.2    | 92.1      | 90.5         | 93.3    | 92.9     | 92.3   |  |
| At place of work (other than home)               | 4.0      | 33.7    | 33.9    | 41.4      | 35.1         | 14.6    | 24.9     | 27.7   |  |
| At another person's home                         | 34.7     | 12.6    | 8.7     | 9.1       | 4.5          | 9.2     | 11.7     | 23.5   |  |
| At place of education                            | 37.5     | 3.6     | 4.4     | 2.3       | 0.0          | 0.0     | 7.3      | 20.3   |  |
| Other (Internet-cafe, hotel)                     | 15.5     | 3.6     | 3.5     | 2.4       | 0.7          | 0.0     | 5.1      | 8.5    |  |
|  |          | ]       | B4: Wh  | en did    | <b>you l</b> | ast tal | te a tra | aining |  |
| Never taken one                                  | 82.9     | 75.5    | 67.3    | 64.6      | 70.8         | 67.8    | 76.8     | 70.3   |  |
| More than 3 years ago                            | 9.2      | 10.0    | 18.1    | 18.3      | 23.8         | 23.0    | 11.2     | 16.8   |  |
| Within the last 3 months                         | 4.5      | 6.8     | 8.6     | 4.3       | 2.8          | 7.8     | 5.9      | 5.9    |  |
| More than 1 year ago                             | 1.9      | 6.4     | 4.5     | 7.2       | 1.8          | 1.4     | 4.4      | 4.5    |  |
| More than 3 month ago (less than 1 year)         | 1.5      | 1.3     | 1.5     | 5.6       | 0.8          | 0.0     | 1.7      | 2.5    |  |
| <sup>1)</sup> Data refer to individuals who answ | ered in  | questio | n B1 "V | Vithin th | e last 3     | month   | s" .     |        |  |

<sup>2)</sup> Data refer to individuals who answered "Never used one" in question B1.

Sample

| of computers in percentages                    |       |                    |          |            |          |                       |                        |                                      |  |  |  |  |  |
|--|-------|--------------------|----------|------------|----------|-----------------------|------------------------|--------------------------------------|--|--|--|--|--|
|  |       | ation              | nt situa | oloyme     | Emp      | evel                  | ional le               | Educat                               |  |  |  |  |  |
| Answer<br>(individuals)                        | Total | other              | student  | unemployed | employee | tertiary<br>education | secondary<br>education | lower than<br>secondary<br>education |  |  |  |  |  |
| use a computer?                                |       |                    |          |            |          |                       |                        |                                      |  |  |  |  |  |
| Within the last 3 months                       | 49.3  | 30.9               | 98.5     | 38.9       | 73.9     | 77.3                  | 63.0                   | 27.6                                 |  |  |  |  |  |
| Never used one                                 | 44.7  | 65.2               | 0.0      | 52.3       | 20.8     | 15.4                  | 29.7                   | 68.1                                 |  |  |  |  |  |
| More than 1 year ago                           | 3.3   | 3.6                | 1.5      | 3.5        | 3.0      | 6.3                   | 4.4                    | 1.3                                  |  |  |  |  |  |
| More than 3 months (less than a year           | 2.7   | 0.3                | 0.0      | 5.3        | 2.3      | 1.0                   | 2.9                    | 3.0                                  |  |  |  |  |  |
| a computer in the last 3 months? <sup>1)</sup> |       |                    |          |            |          |                       |                        |                                      |  |  |  |  |  |
| Every day or almost every day                  | 73.0  | 67.7               | 92.3     | 61.9       | 79.2     | 84.2                  | 77.5                   | 54.0                                 |  |  |  |  |  |
| At least once a week                           | 20.0  | 29.9               | 3.9      | 24.4       | 15.3     | 10.0                  | 16.2                   | 36.4                                 |  |  |  |  |  |
| At least once a month                          | 6.3   | 1.7                | 3.8      | 11.5       | 5.5      | 5.6                   | 5.5                    | 8.8                                  |  |  |  |  |  |
| Less than once a month                         | 0.7   | 0.7                | 0.0      | 2.2        | 0.0      | 0.2                   | 0.8                    | 0.8                                  |  |  |  |  |  |
|  | )     | pply) <sup>1</sup> | hat a    | k all t    | s? (tic  | nonth                 | st 3 n                 | in the la                            |  |  |  |  |  |
| At home  | 92.6  | 96.5               | 96.2     | 95.7       | 89.0     | 93.4                  | 90.1                   | 98.2                                 |  |  |  |  |  |
| At place of work (other than home              | 26.2  | 3.7                | 17.6     | 6.1        | 47.3     | 60.2                  | 26.4                   | 1.5                                  |  |  |  |  |  |
| At another person's home                       | 17.1  | 45.4               | 25.4     | 8.6        | 9.9      | 14.3                  | 16.5                   | 20.6                                 |  |  |  |  |  |
| At place of education                          | 13.3  | 47.3               | 35.2     | 2.9        | 3.5      | 4.0                   | 12.8                   | 21.1                                 |  |  |  |  |  |
| Other (Internet-cafe, hotel                    | 6.7   | 19.5               | 10.3     | 0.6        | 4.6      | 6.4                   | 5.4                    | 10.0                                 |  |  |  |  |  |
| ter use? <sup>2)</sup>                         | compu | ct of o            | aspe     | on any     | ours) o  | st 3 ho               | at leas                | course (a                            |  |  |  |  |  |
| Never taken one                                | 73.6  | 82.8               | 73.2     | 79.2       | 66.2     | 49.5                  | 76.2                   | 83.7                                 |  |  |  |  |  |
| More than 3 years ago                          | 14.0  | 9.9                | 6.8      | 11.4       | 18.0     | 31.7                  | 11.4                   | 8.3                                  |  |  |  |  |  |
| Within the last 3 months                       | 5.9   | 4.7                | 12.0     | 4.2        | 6.9      | 6.1                   | 6.5                    | 4.4                                  |  |  |  |  |  |
| More than 1 year ago                           | 4.4   | 1.3                | 5.2      | 3.6        | 6.2      | 11.0                  | 4.0                    | 1.0                                  |  |  |  |  |  |
| More than 3 month ago (less than year          | 2.1   | 1.3                | 2.8      | 1.6        | 2.7      | 1.7                   | 1.9                    | 2.6                                  |  |  |  |  |  |

#### **MODULE 1.B: Use**

|  |         |         | Gender  |         |         |         |      |        |  |
|--|---------|---------|---------|---------|---------|---------|------|--------|--|
| Answer<br>(individuals)  | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | male | female |  |
| B5: Which of the following computer-relation                     |         |         |         |         |         |         |      |        |  |
| Copying or moving a file<br>or folder                            | 78.3    | 80.1    | 77.0    | 79.5    | 74.1    | 73.1    | 78.7 | 78.0   |  |
| Use of copy and paste tools                                      | 71.9    | 76.4    | 73.8    | 74.5    | 76.5    | 73.1    | 72.2 | 76.3   |  |
| Use of basic arithmetic<br>formula in a spreadsheet              | 50.4    | 47.7    | 41.3    | 42.9    | 36.3    | 27.1    | 42.3 | 48.9   |  |
| Compressing file (ZIP,RAR)                                       | 46.7    | 48.3    | 40.7    | 42.7    | 31.5    | 23.1    | 46.4 | 41.1   |  |
| Connecting and installing new devices, e.g. a printer or a modem | 33.8    | 44.8    | 37.4    | 29.4    | 26.1    | 34.3    | 46.1 | 24.5   |  |
| Writing a computer program                                       | 5.0     | 6.2     | 3.2     | 4.3     | 3.0     | 2.9     | 6.0  | 3.0    |  |
| None of the above  | 10.8    | 15.5    | 16.8    | 18.1    | 19.1    | 24.9    | 12.5 | 18.2   |  |

<sup>1)</sup> Data refer to individuals who answered "Within the last 3 months" in question B1.

# of computers

Sample

| of com                               | ipute                  | rs                    |          |            |          | in percentages |       |  |
|--------------------------------------|------------------------|-----------------------|----------|------------|----------|----------------|-------|--|
| Educa                                | tional le              | evel                  | Emp      | oloyme     | nt situa | ation          |       |  |
| lower than<br>secondary<br>education | secondary<br>education | tertiary<br>education | employee | unemployed | student  | other          | Total | Answer<br>(individuals)  |
| activitie                            | s have                 | e you                 | alread   | ly car     |          |                |       |  |
| 64.0                                 | 79.9                   | 93.5                  | 84.4     | 64.6       | 92.8     | 78.8           | 78.4  | Copying or moving a file<br>or folder                            |
| 54.4                                 | 76.7                   | 92.9                  | 77.8     | 61.8       | 94.5     | 76.9           | 74.1  | Use of copy and paste tools                                      |
| 34.5                                 | 44.4                   | 63.8                  | 45.1     | 33.4       | 65.0     | 57.7           | 45.3  | Use of basic arithmetic<br>formula in a spreadsheet              |
| 31.5                                 | 43.7                   | 62.3                  | 48.7     | 31.7       | 64.5     | 43.7           | 43.9  | Compressing file (ZIP,RAR)                                       |
| 25.1                                 | 36.0                   | 52.0                  | 43.8     | 30.3       | 57.6     | 19.2           | 36.1  | Connecting and installing new devices, e.g. a printer or a modem |
| 0.0                                  | 4.5                    | 11.8                  | 5.3      | 1.6        | 16.0     | 4.3            | 4.6   | Writing a computer program                                       |
| 19.0                                 | 16.6                   | 4.8                   | 11.6     | 25.7       | 5.5      | 11.8           | 15.2  | None of the above  |



| MODULE | 1.C: | Use | of |
|--------|------|-----|----|
|--------|------|-----|----|

|   |   |         | A       | ge      |         |         | Gei     | nder    |
|---|---|---------|---------|---------|---------|---------|---------|---------|
| Answer<br>(individuals)                                 | 16 - 24                                       | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | male    | female  |
|   |   |         |         |         | C1:     | When    | did yo  | ou last |
| Never used it   | 28.7  | 32.3    | 48.4    | 62.5    | 84.8    | 94.7    | 50.9    | 61.7    |
| Within the last 3 months                                | 62.6  | 58.2    | 46.4    | 33.4    | 12.8    | 3.6     | 42.3    | 34.1    |
| More than 3 months ago (less than a year)               | 6.4   | 5.5     | 4.2     | 2.8     | 0.4     | 1.0     | 5.0     | 2.2     |
| More than 1 year ago                                    | 2.3   | 4.0     | 1.0     | 1.3     | 2.0     | 0.7     | 1.8     | 2.0     |
|   |   |         | C2:     | How     | often o | on ave  | rage di | id you  |
| Every day or almost every day                           | 57.6  | 68.4    | 70.0    | 69.1    | 69.0    | 57.2    | 66.3    | 64.9    |
| At least once a week                                    | 37.4  | 21.5    | 18.9    | 19.9    | 25.6    | 21.7    | 24.8    | 26.1    |
| At least once a month                                   | 4.1   | 7.5     | 10.6    | 8.1     | 3.0     | 16.3    | 7.3     | 7.0     |
| Less than once a month                                  | 0.9   | 2.6     | 0.5     | 2.9     | 2.4     | 4.8     | 1.6     | 2.0     |
|   | C3: Where did you use the Internet in the las |         |         |         |         |         |         |         |
| At home   | 69.2  | 79.1    | 91.5    | 88.3    | 88.1    | 76.1    | 82.3    | 79.5    |
| At place of work (other than home)                      | 3.3   | 34.7    | 36.9    | 47.6    | 37.3    | 18.4    | 27.7    | 29.3    |
| At another person's home                                | 20.6  | 22.1    | 8.9     | 10.7    | 5.7     | 14.5    | 17.5    | 14.0    |
| At place of education                                   | 40.2  | 4.2     | 3.2     | 2.5     | 3.3     | 7.5     | 11.5    | 16.9    |
| In Internet café  | 10.1  | 4.8     | 2.6     | 2.7     | 1.2     | 3.1     | 7.4     | 2.8     |
| Hotspot (at hotel, airport, public places…)             | 1.0   | 1.5     | 2.8     | 1.1     | 1.7     | 0.0     | 1.6     | 1.5     |
| At public library                                       | 0.6   | 1.5     | 0.6     | 0.8     | 0.8     | 3.1     | 0.6     | 1.3     |
|   | C   | C4: Die | l you u | ise one | e of th | e follo | wing n  | nobile  |
| Mobile phone, via<br>WAP or GPRS                        | 36.6  | 31.2    | 32.8    | 19.1    | 12.4    | 10.9    | 34.3    | 24.4    |
| Laptop, via wireless connection, away from home or work | 1.8   | 4.6     | 4.1     | 5.7     | 5.0     | 0.0     | 3.6     | 4.2     |
| Handheld computer (palmtop)                             | 3.4   | 5.4     | 2.0     | 4.4     | 3.4     | 2.2     | 4.2     | 3.3     |
| Mobile phone,<br>via 3G network                         | 1.5   | 3.2     | 1.4     | 3.8     | 0.0     | 0.0     | 2.1     | 2.5     |
| None of the above                                       | 60.4  | 61.9    | 65.1    | 74.4    | 79.2    | 87.0    | 60.7    | 71.3    |
| <sup>1)</sup> Data refer to individuale who answe       |   | rate at |         |         |         |         |         |         |

<sup>1)</sup> Data refer to individuals who answered "Within the last 3 months" in question C1.

|  |        | tion                    | nt situa | oloyme          | Emp      | eve                   | tional le              | Educat                               |
|--|--------|-------------------------|----------|-----------------|----------|-----------------------|------------------------|--------------------------------------|
| Answer<br>(individuals)                                | Total  | other                   | student  | unemployed      | employee | tertiary<br>education | secondary<br>education | lower than<br>secondary<br>education |
|  |        |                         |          |                 |          | et?                   | ntern                  | ise the l                            |
| Never used   | 56.4   | 71.7                    | 1.1      | 71.0            | 30.8     | 22.4                  | 43.3                   | 78.9                                 |
| Within the last 3 month                                | 38.1   | 23.5                    | 94.8     | 23.2            | 63.3     | 72.9                  | 50.2                   | 16.5                                 |
| More than 3 months ago (less that a year               | 3.6    | 3.3                     | 1.3      | 4.0             | 3.5      | 0.9                   | 3.7                    | 4.0                                  |
| More than 1 year ag                                    | 1.9    | 1.5                     | 2.8      | 1.8             | 2.4      | 3.8                   | 2.8                    | 0.6                                  |
|  |        | <b>s?</b> <sup>1)</sup> | onths    | st 3 m          | the la   | et in f               | Intern                 | ise the l                            |
| Every day or almost every da                           | 65.7   | 51.2                    | 76.9     | 65.3            | 69.5     | 81.0                  | 66.6                   | 45.3                                 |
| At least once a wee                                    | 25.4   | 44.7                    | 18.6     | 26.7            | 18.9     | 11.5                  | 23.6                   | 46.6                                 |
| At least once a mon                                    | 7.2    | 3.3                     | 3.5      | 6.2             | 9.3      | 7.3                   | 7.8                    | 5.2                                  |
| Less than once a mon                                   | 1.7    | 0.8                     | 1.0      | 1.8             | 2.3      | 0.2                   | 2.0                    | 2.9                                  |
|  |        |                         | )        | ( <b>pply</b> ) | that a   | k all                 | s? (tio                | 3 month                              |
| At hom   | 81.0   | 57.8                    | 87.2     | 89.2            | 85.2     | 88.4                  | 82.3                   | 68.4                                 |
| At place of work (other than hom                       | 28.5   | 2.8                     | 13.7     | 9.3             | 46.7     | 56.7                  | 27.1                   | 1.3                                  |
| At another person's hom                                | 15.9   | 21.8                    | 24.0     | 14.2            | 13.6     | 15.9                  | 19.8                   | 3.2                                  |
| At place of education                                  | 14.0   | 48.7                    | 40.0     | 3.3             | 3.0      | 5.6                   | 12.8                   | 27.1                                 |
| In Internet ca   | 5.3    | 6.7                     | 15.7     | 4.1             | 4.0      | 5.1                   | 6.9                    | 0.0                                  |
| Hotspot (at hotel, airport, pub<br>places.             | 1.6    | 0.7                     | 2.8      | 0.0             | 2.3      | 4.2                   | 1.1                    | 0.0                                  |
| At public libra  | 0.9    | 0.7                     | 4.5      | 0.3             | 0.8      | 2.2                   | 0.7                    | 0.0                                  |
| <b>bly)</b> <sup>1)</sup>                              | at app | all th                  | (tick    | ernet?          | e Inte   | ess th                | to acc                 | levices (                            |
| Mobile phone, v<br>WAP or GPR                          | 29.8   | 34.8                    | 56.9     | 20.8            | 28.3     | 26.6                  | 35.4                   | 14.9                                 |
| Laptop, via wireless connectio<br>away from home or wo | 3.9    | 0.5                     | 12.5     | 3.7             | 4.1      | 7.6                   | 2.8                    | 3.3                                  |
| Handheld computer (palmto                              | 3.8    | 1.8                     | 5.3      | 8.3             | 2.6      | 3.0                   | 4.3                    | 3.2                                  |
| Mobile phon<br>via 3G netwo                            | 2.2    | 0.9                     | 4.2      | 1.8             | 2.7      | 3.7                   | 2.2                    | 0.9                                  |
| None of the above                                      | 65.6   | 63.7                    | 37.1     | 70.7            | 67.6     | 67.1                  | 59.7                   | 82.8                                 |



### **MODULE 1.C: Use of**

|   |         |         | A       | ge      |          |         | Gender |        |
|---|---------|---------|---------|---------|----------|---------|--------|--------|
| Answer<br>(individuals)   | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64  | 65 - 74 | male   | female |
|   | C5      | : For w | hich a  | ctivit  | ies (foı | r priva | te pur | poses) |
| Sending/receiving e-mails   | 78.2    | 75.5    | 80.5    | 83.6    | 82.1     | 81.0    | 74.3   | 85.0   |
| Playing or downloading games,<br>images, films or music                     | 88.6    | 62.0    | 53.6    | 47.6    | 38.9     | 52.8    | 65.4   | 62.2   |
| Finding information<br>about goods and services                             | 33.5    | 66.8    | 70.0    | 66.4    | 45.4     | 49.3    | 60.4   | 52.2   |
| Posting messages to chat sites,<br>newsgroups or online disucssion<br>forum | 66.0    | 44.0    | 28.4    | 24.1    | 23.6     | 36.3    | 37.3   | 48.2   |
| Reading or downloading online newspapers/news magazines                     | 37.6    | 41.8    | 41.9    | 47.8    | 48.2     | 49.8    | 41.4   | 42.9   |
| Using services related to<br>travel and accommodation                       | 42.1    | 31.7    | 33.2    | 34.2    | 26.3     | 14.7    | 27.8   | 43.5   |
| Telephoning over the Internet/<br>video-calls                               | 22.3    | 25.8    | 32.4    | 28.8    | 29.3     | 29.2    | 25.0   | 29.4   |
| Consulting the Internet for the<br>purpose of learning                      | 21.5    | 28.0    | 28.9    | 31.8    | 23.4     | 42.0    | 25.4   | 28.8   |
| Uploading self-created content (text, images, videos, music, etc.)          | 46.3    | 23.0    | 17.3    | 15.9    | 12.4     | 36.2    | 27.5   | 26.0   |
| Looking for information about education, training or course offers          | 28.5    | 27.0    | 27.7    | 25.6    | 11.7     | 13.4    | 20.7   | 33.3   |
| Listening to web radios or watching web television                          | 39.9    | 23.9    | 20.4    | 13.5    | 16.4     | 11.3    | 21.4   | 30.0   |
| Downloading software  | 24.2    | 28.0    | 23.3    | 19.3    | 12.5     | 24.5    | 29.7   | 16.2   |
| Seeking health-related information  | 6.9     | 28.7    | 25.5    | 32.0    | 22.7     | 15.6    | 20.5   | 23.6   |
| Looking for a job or sending job application                                | 6.2     | 25.1    | 18.4    | 13.9    | 15.8     | 17.6    | 15.8   | 15.6   |
| Internet banking  | 10.0    | 14.3    | 13.7    | 10.8    | 10.6     | 2.7     | 13.3   | 10.4   |
| Sale of goods or services (e.g. via auctions)                               | 3.6     | 6.3     | 5.2     | 3.3     | 0.8      | 2.3     | 5.7    | 3.0    |
| Doing an online course (in any subject)                                     | 0.6     | 1.0     | 1.5     | 2.7     | 1.4      | 0.0     | 1.4    | 1.2    |

<sup>1)</sup> Data refer to individuals who answered "Within the last 3 months" in question C1.

Sample

| erne                   | t  |  |  |   |   |  | in percentages  |
|------------------------|--|--|--|---|---|--|---|
| ional le               | eve  | Emp  | oloyme   | nt situa  | ation   |  |   |
| secondary<br>education | tertiary<br>education  | employee   | unemployed   | student   | other   | Total  | Answer<br>(individuals)   |
| ise th                 | e Inte   | rnet i   | in the   | last 3  | 8 mon   | <b>ths?</b> <sup>1)</sup>  |   |
| 75.5                   | 92.5   | 80.5   | 78.9   | 88.7  | 72.5  | 79.2   | Sending/receiving e-mails   |
| 61.9                   | 47.3   | 56.6   | 63.0   | 71.8  | 83.3  | 64.0   | Playing or downloading games,<br>images, films or music   |
| 59.2                   | 72.4   | 67.7   | 58.7   | 53.4  | 23.8  | 56.6   | Finding information<br>about goods and services   |
| 39.3                   | 36.0   | 34.6   | 34.8   | 57.8  | 67.5  | 42.3   | Posting messages to chat sites,<br>newsgroups or online disucssion<br>forum   |
| 38.6                   | 52.0   | 45.1   | 38.5   | 45.2  | 36.5  | 42.1   | Reading or downloading online newspapers/news magazines   |
| 27.2                   | 40.7   | 33.5   | 30.7   | 32.6  | 44.6  | 35.0   | Using services related to<br>travel and accommodation   |
| 25.5                   | 31.0   | 27.7   | 25.8   | 20.8  | 28.4  | 27.0   | Telephoning over the Internet/<br>video-calls   |
| 27.9                   | 38.8   | 25.6   | 25.1   | 64.2  | 20.3  | 27.0   | Consulting the Internet for the<br>purpose of learning  |
| 22.9                   | 22.3   | 20.4   | 20.3   | 53.0  | 43.4  | 26.8   | Uploading self-created content (text,<br>images, videos, music, etc.)   |
| 26.9                   | 30.6   | 23.4   | 25.0   | 45.8  | 30.0  | 26.4   | Looking for information about education, training or course offers  |
| 22.7                   | 22.9   | 20.9   | 13.7   | 37.0  | 47.1  | 25.3   | Listening to web radios or watching web television  |
| 23.7                   | 30.2   | 28.0   | 16.7   | 39.3  | 13.2  | 23.5   | Downloading software  |
| 23.5                   | 32.4   | 25.4   | 24.9   | 26.3  | 7.1   | 21.9   | Seeking health-related information  |
| 16.3                   | 21.6   | 13.8   | 29.9   | 24.1  | 2.3   | 15.7   | Looking for a job or sending job<br>application   |
| 8.7                    | 21.2   | 18.3   | 5.6  | 12.3  | 1.0   | 12.0   | Internet banking  |
| 4.4                    | 6.9  | 5.1  | 4.4  | 5.2   | 2.2   | 4.4  | Sale of goods or services (e.g. via auctions)   |
| 0.6                    | 3.7  | 1.5  | 1.4  | 1.7   | 0.5   | 1.3  | Doing an online course (in any subject)   |
| i                      | Image: New York         Image: New York           State         11           75.5         61.9           61.9         39.3           38.6         27.2           25.5         27.9           22.9         26.9           22.7         23.7           23.5         16.3           8.7         4.4 | Annols       Second Secon | Noncolumnation       Entropy         Image: Section of the s | None         Second level         Second level           No         No | AnnoleEmperimentationappendixap | AnnoleEmploymentappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>boundappending<br>appendingappending<br>boundappending<br>boundappending<br>boundappending<br>appendingappending<br>appendingappending<br>appendingappending<br>appendingappending<br>appending<br>appendingappending<br>appendingappending<br>appendingappending<br>appendingappending<br>appending<br>appendingappending<br>appendingappending<br>appendingappending<br>appendingappending<br>appending<br>appendingappending<br> | NonallesticationExperimentationSecond Second |



Introduction

Sending filled in forms

Obtaining information

Sending filled in forms

from Websites of public institutions "Downloading" official forms

### MODULE 1.F:

|  |         |         | A       | ge      |         |         | Gender |        |
|--|---------|---------|---------|---------|---------|---------|--------|--------|
| Answer<br>(individual)   | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | male   | female |
| с  | 6: Did  | you u   | se Inte | ernet s | ervice  | s to in | teract | with   |
| Yes, I would<br>(but currently I do not use this<br>possibility) | 46.9    | 52.7    | 51.9    | 56.8    | 46.8    | 36.7    | 53.9   | 47.9   |
| No   | 42.9    | 33.0    | 36.0    | 29.4    | 29.7    | 54.2    | 32.5   | 40.0   |
| Yes, I have already been using this possibility                  | 10.2    | 14.3    | 12.1    | 13.8    | 23.5    | 9.1     | 13.6   | 12.1   |
| C7: For wh   | ich of  | the fo  | llowin  | g servi | ces of  | public  | autho  | rities |
|  |         |         |         |         |         |         | Withiı | ng the |
| Obtaining information<br>from Websites of public institutions    | 31.7    | 62.2    | 48.6    | 82.9    | 82.6    | 70.1    | 59.2   | 57.5   |
| "Downloading" official forms                                     | 95.9    | 42.0    | 40.8    | 49.7    | 74.9    | 0.0     | 67.4   | 45.2   |

| <sup>1)</sup> Data refer to individuals who answe | ered "Within th | ne last 3 months | " in question C1.   |          |
|---|-----------------|------------------|---------------------|----------|
| <sup>2)</sup> Data refer to individuals who answe | ered "Yes. I ha | ave been alread  | v usina this possib | ilitv" . |

11.5

4.1

0.0

4.3

24.0

32.1

28.4

25.1

45.1

30.4

32.8

15.8

29.0

17.1

13.9

16.5

23.7

17.4

21.0

26.2

0.0

29.9

29.9

0.0

19.0

14.1

12.2

11.6

Within the last

35.6

30.8

29.2

23.6

| Questionnaire                       | Survey results             | ings    | jor find | Ma       |            | ample    | S                     | gу                     | Methodolo                            |
|-------------------------------------|----------------------------|---------|----------|----------|------------|----------|-----------------------|------------------------|--------------------------------------|
| in noreenteree                      |                            |         |          |          |            |          | ent <sup>1)</sup>     | rnme                   | e-gove                               |
| in percentages                      |                            |         |          |          |            |          |                       |                        |                                      |
|                                     |                            |         | ation    | nt situa | oloyme     | Emp      | evel                  | tional le              | Educa                                |
|                                     | Answ<br>(individ           | Total   | others   | student  | unemployed | employee | tertiary<br>education | secondary<br>education | lower than<br>secondary<br>education |
|                                     |                            | cts?    | conta    | sonal    | of per     | stead    | es ins                | thoriti                | local aut                            |
| Yes, I would                        |                            |         |          |          |            |          |                       |                        |                                      |
| I do not use this possibility)      | (but currently             | 51.1    | 44.1     | 52.0     | 50.1       | 53.9     | 58.8                  | 49.9                   | 46.7                                 |
| No                                  |                            | 36.0    | 43.9     | 31.6     | 36.0       | 33.6     | 24.4                  | 38.5                   | 40.4                                 |
| eady been using<br>this possibility | Yes, I have alr            | 12.9    | 12.0     | 16.4     | 13.9       | 12.5     | 16.8                  | 11.6                   | 12.9                                 |
| ) <sup>2)</sup>                     | tick all that apply        | ths? (1 | 8 mon    | last 3   | in the     | ernet i  | e Inte                | use th                 | did you                              |
|                                     |                            |         |          |          |            |          |                       | onths                  | last 3 m                             |
| ining information                   | Obta<br>from Websites of p | 58.5    | 16.8     | 69.3     | 56.7       | 71.6     | 81.9                  | 63.1                   | 10.5                                 |
| ng" official forms                  | "Downloadi                 | 57.9    | 91.6     | 73.0     | 50.1       | 47.6     | 49.0                  | 52.3                   | 87.4                                 |
| ng filled in forms                  | Sendi                      | 26.1    | 0.0      | 26.7     | 40.2       | 28.7     | 25.2                  | 31.2                   | 12.6                                 |
|                                     |                            |         |          |          |            |          |                       | hs                     | 12 mont                              |
| ining information                   | Obta                       | 21.3    | 1.5      | 25.0     | 32.9       | 22.3     | 12.8                  | 32.8                   | 0.0                                  |

| Obtaining information<br>from Websites of public institutions | 21.3 | 1.5 | 25.0 | 32.9 | 22.3 | 12.8 | 32.8 | 0.0  |  |
|---|------|-----|------|------|------|------|------|------|--|
| "Downloading" official forms                                  | 19.5 | 1.5 | 13.6 | 34.3 | 20.0 | 16.9 | 27.5 | 0.0  |  |
| Sending filled in forms                                       | 16.8 | 0.0 | 24.5 | 23.4 | 18.4 | 11.7 | 21.5 | 10.5 |  |

### MODULE 1E.D: e-commerce,

|  |         |         | A        | ge      |          |         | Ger    | nder   |
|--|---------|---------|----------|---------|----------|---------|--------|--------|
| Answers<br>(individuals)   | 16 - 24 | 25 - 34 | 35 - 44  | 45 - 54 | 55 - 64  | 65 - 74 | male   | female |
| I  | 01: Wh  | en did  | l you la | ast (fo | r priva  | te pur  | poses) | buy /  |
| Never  | 88.6    | 85.9    | 88.2     | 85.3    | 90.3     | 93.4    | 86.1   | 89.0   |
| Within the last 3 months   | 9.0     | 6.2     | 6.1      | 4.0     | 4.0      | 4.9     | 8.2    | 4.3    |
| More than 3 months ago   | 1.8     | 4.9     | 4.8      | 5.9     | 3.6      | 0.0     | 3.9    | 4.1    |
| More than 1 ago  | 0.6     | 3.0     | 0.9      | 4.8     | 2.1      | 1.7     | 1.8    | 2.6    |
| D2: What types of goo  | ds or s | ervice  | s did y  | ou ord  | ler (foi | r priva | te pur | poses) |
| Films, music   | 68.6    | 9.7     | 24.9     | 0.0     | 0.0      | 0.0     | 35.9   | 14.8   |
| Hotel accommodation (hotel, etc.)  | 65.7    | 5.7     | 21.3     | 0.0     | 0.0      | 0.0     | 34.2   | 10.1   |
| Computer sofware and upgrades  | 65.7    | 6.6     | 11.8     | 6.5     | 0.0      | 0.0     | 34.9   | 7.0    |
| Clothers, sports goods   | 9.3     | 35.7    | 16.2     | 26.2    | 44.9     | 100.0   | 16.9   | 33.6   |
| Other travel arrangements (transport tickets, carhire, etc.)                   | 66.1    | 6.9     | 0.0      | 5.2     | 0.0      | 0.0     | 34.3   | 1.0    |
| Electronic equipment<br>(incl. cameras)  | 8.8     | 21.4    | 2.7      | 31.2    | 0.0      | 0.0     | 21.6   | 1.6    |
| Household goods (furniture, toys, etc.)  | 3.6     | 11.0    | 21.8     | 18.0    | 20.5     | 0.0     | 9.5    | 18.1   |
| Books/magazines/newspapers/<br>e-learning material)                            | 0.0     | 22.3    | 17.3     | 4.5     | 0.0      | 32.7    | 6.3    | 19.2   |
| Computer hardware  | 0.4     | 11.1    | 7.5      | 10.4    | 29.2     | 0.0     | 9.1    | 5.1    |
| Foods/groceries  | 0.0     | 1.2     | 23.9     | 4.5     | 0.0      | 0.0     | 0.0    | 17.3   |
| Tickets for cultural events  | 0.4     | 10.6    | 12.6     | 0.0     | 0.0      | 0.0     | 5.8    | 5.7    |
| Pharmaceutical products  | 2.2     | 10.7    | 0.0      | 0.0     | 16.8     | 0.0     | 1.7    | 8.7    |
| Video games software and<br>upgrades   | 0.0     | 1.2     | 11.8     | 0.0     | 0.0      | 0.0     | 0.0    | 8.0    |
| Telecommunication services (e.g.<br>uploading money on prepaid phone<br>cards) | 3.2     | 0.0     | 4.9      | 0.0     | 0.0      | 0.0     | 3.1    | 0.0    |
| Other  | 5.8     | 17.1    | 16.7     | 8.4     | 9.1      | 0.0     | 8.9    | 17.0   |

<sup>1)</sup> Data refer to individuals who did not answer "Never" in question C1.

<sup>2)</sup> Data refer to individuals who answered "Within the last 3 months" or "More than 3 months ago (less than a year) in question D1.

# activities and barriers<sup>1)</sup>

| - | activit                              | ies a                  | na ba                 | irrie     | rs         |          | in percentages |       |                          |
|---|--------------------------------------|------------------------|-----------------------|-----------|------------|----------|----------------|-------|--------------------------|
|   | Educat                               | tional le              | evel                  | Emp       | oloyme     | nt situa | ation          |       |                          |
|   | lower than<br>secondary<br>education | secondary<br>education | tertiary<br>education | employees | unemployed | student  | others         | Total | Answers<br>(individuals) |
|   |                                      |                        |                       |           |            |          |                |       |                          |

### order goods or services over the Internet?

Sample

| Never                    | 87.4 | 95.8 | 84.0 | 85.8 | 85.3 | 83.4 | 90.0 | 83.7 |
|--------------------------|------|------|------|------|------|------|------|------|
| Within the last 3 months | 6.5  | 2.4  | 6.2  | 4.4  | 9.0  | 6.6  | 4.9  | 10.7 |
| More than 3 months ago   | 4.0  | 1.1  | 5.4  | 6.6  | 3.8  | 6.5  | 3.2  | 4.0  |
| More than 1 ago          | 2.1  | 0.7  | 4.4  | 3.2  | 1.9  | 3.5  | 1.9  | 1.6  |

# over the Internet in the last 12 months? (tick all that apply)<sup>2)</sup>

| Films, music   | 28.3 | 11.7 | 7.1  | 19.5 | 35.5 | 5.0  | 6.7  | 81.7 |
|--|------|------|------|------|------|------|------|------|
| Hotel accommodation (hotel, etc.)  | 25.5 | 0.0  | 0.0  | 10.5 | 36.5 | 3.9  | 5.8  | 74.6 |
| Computer sofware and upgrades  | 24.8 | 0.0  | 0.0  | 15.0 | 33.6 | 0.0  | 6.3  | 74.6 |
| Clothers, sports goods   | 22.9 | 24.8 | 46.7 | 36.6 | 15.0 | 23.6 | 31.6 | 8.7  |
| Other travel arrangements (transport tickets, carhire, etc.)                   | 22.2 | 0.0  | 5.4  | 0.4  | 34.6 | 1.9  | 5.3  | 66.0 |
| Electronic equipment<br>(incl. cameras)  | 14.4 | 26.8 | 0.0  | 17.3 | 13.5 | 7.5  | 18.3 | 13.9 |
| Household goods (furniture, toys,<br>etc.)                                     | 12.6 | 0.0  | 16.4 | 18.9 | 11.1 | 21.9 | 10.2 | 8.7  |
| Books/magazines/newspapers/<br>e-learning material)                            | 10.9 | 3.7  | 21.8 | 0.0  | 14.8 | 13.9 | 16.3 | 0.0  |
| Computer hardware  | 7.6  | 5.9  | 0.0  | 5.8  | 9.3  | 13.8 | 9.2  | 0.0  |
| Foods/groceries  | 6.2  | 0.0  | 5.4  | 10.5 | 5.3  | 3.9  | 5.9  | 8.7  |
| Tickets for cultural events  | 5.8  | 0.0  | 12.4 | 0.4  | 7.7  | 12.6 | 5.8  | 0.0  |
| Pharmaceutical products  | 4.2  | 9.5  | 15.3 | 5.1  | 2.2  | 6.0  | 6.0  | 0.0  |
| Video games software and<br>upgrades   | 2.9  | 0.0  | 0.0  | 10.5 | 0.6  | 1.4  | 0.0  | 8.7  |
| Telecommunication services (e.g.<br>uploading money on prepaid phone<br>cards) | 2.0  | 0.0  | 0.0  | 3.9  | 1.7  | 4.4  | 2.0  | 0.0  |
| Other  | 11.8 | 21.3 | 1.5  | 22.0 | 8.0  | 16.7 | 14.0 | 4.3  |
|  |      |      |      |      |      |      |      |      |



### MODULE 1E.D: e-commerce,

|   |         |         |         | Gender  |         |         |      |        |  |
|---|---------|---------|---------|---------|---------|---------|------|--------|--|
| Answers<br>(individuals)                                  | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | male | female |  |
| D3: Were any of the following products that you bought or |         |         |         |         |         |         |      |        |  |

| Tickets for travel or cultural events  | 95.7 | 0.0  | 0.0  | 32.1 | 0.0 | 0.0   | 68.4 | 0.0  |
|--|------|------|------|------|-----|-------|------|------|
| (Electronic) books, magazines, newspapers, e-learning material                 | 0.0  | 16.0 | 0.0  | 27.8 | 0.0 | 100.0 | 0.8  | 17.3 |
| Films  | 0.0  | 12.3 | 7.5  | 0.0  | 0.0 | 0.0   | 0.0  | 14.6 |
| Music  | 3.7  | 4.9  | 0.0  | 0.0  | 0.0 | 0.0   | 4.1  | 0.0  |
| Computer software (incl. computer<br>and video games and software<br>upgrades) | 0.0  | 0.0  | 0.0  | 40.1 | 0.0 | 0.0   | 3.7  | 0.0  |
| None of the above  | 0.5  | 79.1 | 92.5 | 0.0  | 0.0 | 0.0   | 23.0 | 76.9 |

## D4: From whom did you buy/order goods or

| National sellers                          | 28.2 | 85.4 | 97.2 | 88.3 | 67.6 | 100.0 | 62.5 | 85.9 |
|---|------|------|------|------|------|-------|------|------|
| Sellers from other EU countries           | 71.8 | 18.5 | 2.8  | 11.7 | 37.1 | 32.7  | 42.5 | 9.3  |
| Sellers from the rest of the world        | 0.7  | 13.2 | 5.0  | 0.0  | 20.0 | 0.0   | 6.2  | 4.7  |
| Country of origin of sellers is not known | 0.4  | 9.8  | 0.0  | 0.0  | 0.0  | 0.0   | 2.7  | 3.2  |

### D5: In the last 12 months, how did you pay for goods

| Payment not via the Internet (in cash, via ordinary bank transfer, etc.) | 29.1 | 73.6 | 75.8 | 74.1 | 46.1 | 67.3 | 53.4 | 71.8 |
|--|------|------|------|------|------|------|------|------|
| Provided credit or debit card details over the Internet                  | 70.8 | 24.1 | 19.9 | 21.6 | 24.6 | 32.7 | 46.1 | 20.2 |
| Electronic bank transfer via Internet<br>banking                         | 0.4  | 16.5 | 4.3  | 4.2  | 29.3 | 32.7 | 7.9  | 7.1  |
| Provided prepaid or prepaid account details over the Internet            | 0.0  | 11.3 | 0.0  | 0.0  | 0.0  | 32.7 | 4.8  | 1.0  |

<sup>1)</sup> Data refer to individuals who did not answer "Never" in question C1.

<sup>2)</sup> Data refer to individuals who answered "Within the last 3 months" or "More than 3 months ago (less than a year) in question D1.

<sup>3)</sup> Data refer to individuals who answered positively in questions D2D and/or D2E and/or D2G and/or D2H and/or D2N and/or D2O.

in nercentages

# activities and barriers<sup>1)</sup>

Sample

|                                      |                        |                       |           |            |          |        |       | in percentages           |
|--------------------------------------|------------------------|-----------------------|-----------|------------|----------|--------|-------|--------------------------|
| Educat                               | tional le              | evel                  | Emp       | oloyme     | nt situa | ation  |       |                          |
| lower than<br>secondary<br>education | secondary<br>education | tertiary<br>education | employees | unemployed | student  | others | Total | Answers<br>(individuals) |

## ordered over the Internet dowloaded (or accessed) from Websites?<sup>3)</sup>

| Tickets for travel or cultural events  | 47.5 | 0.0  | 0.0  | 0.0  | 59.4 | 0.0  | 6.8  | 80.7 |
|--|------|------|------|------|------|------|------|------|
| (Electronic) books, magazines, newspapers, e-learning material                 | 5.8  | 24.3 | 0.0  | 0.0  | 6.6  | 10.3 | 14.7 | 0.0  |
| Films  | 4.5  | 0.0  | 0.0  | 0.0  | 5.6  | 0.0  | 14.7 | 0.0  |
| Music  | 2.8  | 75.7 | 26.0 | 0.0  | 0.0  | 8.0  | 5.8  | 0.0  |
| Computer software (incl. computer<br>and video games and software<br>upgrades) | 2.6  | 0.0  | 0.0  | 18.8 | 0.0  | 0.0  | 8.5  | 0.0  |
| None of the above  | 39.5 | 0.0  | 74.0 | 81.2 | 31.7 | 81.7 | 58.3 | 19.3 |

# services over the Internet in the last 12 months?<sup>2)</sup>

| National sellers                          | 71.0 | 89.0 | 75.1 | 82.8 | 64.2 | 88.1        | 86.0 | 34.0 |
|---|------|------|------|------|------|-------------|------|------|
| Sellers from other EU countries           | 30.5 | 9.6  | 13.9 | 11.6 | 41.6 | 23.3        | 11.6 | 66.0 |
| Sellers from the rest of the world        | 5.7  | 5.1  | 16.5 | 1.6  | 6.1  | 5. <b>9</b> | 9.1  | 0.0  |
| Country of origin of sellers is not known | 2.9  | 0.0  | 0.0  | 5.3  | 2.6  | 0.5         | 5.9  | 0.0  |

### or services ordered over the Internet for private use?<sup>2)</sup>

| Payment not via the Internet (in cash, via ordinary bank transfer, etc.) | 60.0 | 86.7 | 62.2 | 74.0 | 51.7 | 66.3 | 78.8 | 25.4 |
|--|------|------|------|------|------|------|------|------|
| Provided credit or debit card details over the Internet                  | 36.8 | 3.7  | 17.3 | 21.9 | 47.9 | 20.9 | 20.5 | 74.6 |
| Electronic bank transfer via Internet banking                            | 7.6  | 13.3 | 15.0 | 4.5  | 7.4  | 17.7 | 7.5  | 0.0  |
| Provided prepaid or prepaid<br>account details over the Internet         | 3.5  | 3.7  | 5.5  | 0.0  | 4.5  | 8.0  | 3.4  | 0.0  |



Introduction

### MODULE 1E.D: e-commerce,

|                          |         | Gei     | Gender  |         |         |         |      |        |
|--------------------------|---------|---------|---------|---------|---------|---------|------|--------|
| Answers<br>(individuals) | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | male | female |

### D6: In the last 12 months, did you encounter problems when

| No  | 99.2 | 100.0 | 100.0 | 88.4 | 90.9 | 100.0 | 97.8 | 97.3 |
|-----|------|-------|-------|------|------|-------|------|------|
| Yes | 0.8  | 0.0   | 0.0   | 11.6 | 9.1  | 0.0   | 2.2  | 2.7  |

### D7: What problems did you encounter when buying/ordering

| Technical failure of website during ordering or payment                              | 53.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.7 | 0.0 |
|--|------|-----|-----|-----|-----|-----|-----|-----|
| Speed of delivery lower than<br>indicated  | 46.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 |
| Frauds (e.g. no goods/services<br>delivered, misuse of credit card<br>details, etc.) | 46.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 |

### D9: Do you read conditions of sale when purchasing goods

| Always    | 22.2 | 69.9 | 78.5 | 87.5 | 66.3 | 100.0 | 56.6 | 67.6 |
|-----------|------|------|------|------|------|-------|------|------|
| Sometimes | 77.4 | 26.7 | 9.7  | 12.5 | 33.7 | 0.0   | 43.4 | 22.3 |
| Never     | 0.3  | 3.4  | 11.8 | 0.0  | 0.0  | 0.0   | 0.0  | 10.1 |

<sup>1)</sup> Data refer to individuals who did not answer "Never" in question C1.

<sup>2)</sup> Data refer to individuals who answered "Within the last 3 months" or "More than 3 months ago (less than a year) in question D1.

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# activities and barriers<sup>1)</sup>

|                                      |                        |                       |           |            |          |        |       | in percentages           |
|--------------------------------------|------------------------|-----------------------|-----------|------------|----------|--------|-------|--------------------------|
| Educat                               | tional le              | evel                  | Emp       | oloyme     | nt situa | ation  |       |                          |
| lower than<br>secondary<br>education | secondary<br>education | tertiary<br>education | employees | unemployed | student  | others | Total | Answers<br>(individuals) |

### byuing/ordering goods or services over the Internet for private use?<sup>2)</sup>

| No  | 97.6 | 100.0 | 100.0 | 95.0 | 98.1 | 99.0 | 95.5 | 100.0 |
|-----|------|-------|-------|------|------|------|------|-------|
| Yes | 2.4  | 0.0   | 0.0   | 5.0  | 1.9  | 1.0  | 4.5  | 0.0   |

# goods or services over the Internet in the last 12 months?

| Technical failure of website during<br>ordering or payment                           | 5.2 | 0.0 | 0.0 | 10.4 | 0.0 | 53.5 | 0.0 | 0.0 |
|--|-----|-----|-----|------|-----|------|-----|-----|
| Speed of delivery lower than<br>indicated  | 4.5 | 0.0 | 0.0 | 9.0  | 0.0 | 46.5 | 0.0 | 0.0 |
| Frauds (e.g. no goods/services<br>delivered, misuse of credit card<br>details, etc.) | 4.5 | 0.0 | 0.0 | 9.0  | 0.0 | 46.5 | 0.0 | 0.0 |

### or services over the Internet for private use? $^{2)}$

| Always    | 60.5 | 72.1 | 50.3 | 72.9 | 55.7 | 85.4 | 70.7 | 25.4 |
|-----------|------|------|------|------|------|------|------|------|
| Sometimes | 35.8 | 27.9 | 33.2 | 16.4 | 44.3 | 14.1 | 27.3 | 66.0 |
| Never     | 3.7  | 0.0  | 16.5 | 10.8 | 0.0  | 0.4  | 2.0  | 8.7  |



### MODULE 1E.D: e-commerce,

|                          |         |         | Ą       | ge      |         |         | Gei  | nder   |
|--------------------------|---------|---------|---------|---------|---------|---------|------|--------|
| Answers<br>(individuals) | 16 - 24 | 25 - 34 | 35 - 44 | 45 - 54 | 55 - 64 | 65 - 74 | male | female |

### D10: What were the reasons for not buying/ordering goods or

| Have no need  | 59.3   | 61.6  | 60.3   | 55.1   | 57.0   | 54.5    | 63.4    | 54.2  |
|---|--------|-------|--------|--------|--------|---------|---------|-------|
| Prefer to shop in person, like to see<br>product, loyalty to shops, force of<br>habit | 37.6   | 38.8  | 36.1   | 45.2   | 55.6   | 42.0    | 34.7    | 46.2  |
| Payment security concerns (e.g. giving credit card details)                           | 5.9    | 7.5   | 14.1   | 16.6   | 14.7   | 13.8    | 11.9    | 8.9   |
| Don't have a payment card allowing to pay over the Internet                           | 6.2    | 8.8   | 12.5   | 10.2   | 13.9   | 20.8    | 12.2    | 6.5   |
| Lack of skills  | 1.7    | 1.8   | 4.5    | 15.0   | 13.5   | 24.6    | 7.1     | 4.0   |
| Trust concerns about receiving or<br>returning goods, complaints/redress<br>concerns  | 2.8    | 6.7   | 7.4    | 6.3    | 7.1    | 8.3     | 6.4     | 4.9   |
| Privacy concerns (e.g. giving personal details over the Internet)                     | 2.7    | 3.9   | 8.1    | 6.1    | 9.0    | 9.9     | 6.1     | 4.1   |
| Internet connection is too slow   | 1.1    | 3.6   | 1.9    | 3.5    | 6.1    | 5.5     | 3.9     | 1.3   |
| Delivery of goods ordered over the Internet is a problem                              | 1.8    | 3.6   | 1.0    | 2.2    | 2.5    | 2.6     | 2.5     | 1.9   |
| Relevant information about gooods<br>and services difficult to find on<br>website     | 0.4    | 0.4   | 1.0    | 0.5    | 3.4    | 2.3     | 0.7     | 0.7   |
| Other   | 7.5    | 9.1   | 10.4   | 18.1   | 20.6   | 14.4    | 11.3    | 11.1  |
| 10  | 1. Did | wou n | lace a | het (e | a snot | rte het | tina) a | nd/or |

#### D11: Did you place a bet (e.g. sports betting) and/or

| No  | 97.9 | 98.1 | 97.5 | 98.9 | 99.3 | 96.8 | 97.5 | 98.9 |
|-----|------|------|------|------|------|------|------|------|
| Yes | 2.1  | 1.9  | 2.5  | 1.1  | 0.7  | 3.2  | 2.5  | 1.1  |

<sup>1)</sup> Data refer to individuals who did not answer "Never" in question C1.

<sup>2)</sup> Data refer to individuals who answered "More than 1 ago" or "Never" in question D1.

<sup>3)</sup> Data refer to individuals who answered "Within the last 3 months" in question C1.

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Survey results

Sample

|                                      |                        |                       |           |            |          |        |       | in por contagoo          |
|--------------------------------------|------------------------|-----------------------|-----------|------------|----------|--------|-------|--------------------------|
| Educa                                | tional le              | evel                  | Emp       | oloyme     | nt situa | ation  |       |                          |
| lower than<br>secondary<br>education | secondary<br>education | tertiary<br>education | employees | unemployed | student  | others | Total | Answers<br>(individuals) |

### services for personal use in the last 12 months?<sup>2)</sup>

| Have no need  | 59.2 | 62.1 | 61.5 | 66.6 | 54.3 | 52.3 | 61.5 | 58.5 |
|---|------|------|------|------|------|------|------|------|
| Prefer to shop in person, like to see<br>product, loyalty to shops, force of<br>habit | 40.0 | 33.8 | 43.3 | 37.3 | 43.5 | 45.5 | 37.6 | 42.2 |
| Payment security concerns (e.g. giving credit card details)                           | 10.5 | 6.5  | 13.2 | 9.1  | 12.6 | 21.9 | 9.3  | 3.6  |
| Don't have a payment card allowing<br>to pay over the Internet                        | 9.6  | 7.1  | 13.2 | 7.8  | 11.0 | 15.8 | 9.2  | 4.8  |
| Lack of skills  | 5.7  | 3.4  | 4.5  | 7.4  | 6.0  | 5.8  | 5.2  | 7.0  |
| Trust concerns about receiving or<br>returning goods, complaints/redress<br>concerns  | 5.7  | 2.7  | 5.0  | 4.4  | 7.6  | 7.1  | 6.9  | 0.5  |
| Privacy concerns (e.g. giving<br>personal details over the Internet)                  | 5.2  | 3.2  | 6.4  | 7.8  | 4.7  | 7.5  | 5.5  | 2.0  |
| Internet connection is too slow   | 2.7  | 1.5  | 5.1  | 7.0  | 1.0  | 0.5  | 2.5  | 5.6  |
| Delivery of goods ordered over the<br>Internet is a problem                           | 2.2  | 1.3  | 4.1  | 1.7  | 2.7  | 1.1  | 3.3  | 0.0  |
| Relevant information about gooods<br>and services difficult to find on<br>website     | 0.7  | 0.3  | 1.8  | 0.6  | 0.8  | 0.6  | 1.0  | 0.0  |
| Other   | 11.2 | 7.2  | 13.1 | 13.2 | 11.8 | 14.1 | 11.9 | 6.5  |
|   |      |      |      |      |      |      |      |      |

play lotto over the Internet in the last 12 months?<sup>3)</sup>

| No  | 98.1 | 98.6 | 96.2 | 97.1 | 98.6 | 98.1 | 97.9 | 98.7 |
|-----|------|------|------|------|------|------|------|------|
| Yes | 1.9  | 1.4  | 3.8  | 2.9  | 1.4  | 1.9  | 2.1  | 1.3  |

# 1.5. QUESTIONNAIRE

# USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN HOUSEHOLDS AND BY INDIVIDUALS

# MODUL 1.A: ACCESS TO INFORMATIONA AND COMMUNICATION TECHNOLOGIES

| A  | 1 Do yo   | u 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                                   |                            |  |  |  |  |  |  |  |
|    |   | a4) Total number of TV receivers in your house   | holds                      |  |  |  |  |  |  |  |
|    | b)  | Radio-receivers (including walkman, mobile phor  | ne, car radio)             |  |  |  |  |  |  |  |
|    |   | b1) total number of receivers in your household  |                            |  |  |  |  |  |  |  |
|    | c)  | Personal computer (PC)                           |                            |  |  |  |  |  |  |  |
|    |   | c1) total number of computers in your household  | b                          |  |  |  |  |  |  |  |
|    | d)  | Laptop   |                            |  |  |  |  |  |  |  |
|    |   | d1) total number of laptop computers in the hou  | sehold                     |  |  |  |  |  |  |  |
|    | e)  | Mobile telephone                                 |                            |  |  |  |  |  |  |  |
|    | f)  | None of the mentioned                            |                            |  |  |  |  |  |  |  |
|    | -> go to  | o A2   |                            |  |  |  |  |  |  |  |
| A2 | A2 Do you or anyone in your household have access to the Internet <u>at home</u> , whether it is used or not? |  |                            |  |  |  |  |  |  |  |
|    | (one answer only)   |  |                            |  |  |  |  |  |  |  |
|    | a) Y  | es   | -> go to A3                |  |  |  |  |  |  |  |
|    | b)  | No   | -> go to A6                |  |  |  |  |  |  |  |
|    | c)  | Don't know                                       | -> go to A6                |  |  |  |  |  |  |  |

| A3 | On which of the following devices do you access the Internet at home?  |      |   |
|----|--|------|---|
|    | (tick all that apply)  |      |   |
|    | a) Personal computer (PC)  |      |   |
|    | b) Portable computer (laptop)  |      |   |
|    | c) Other   |      |   |
|    | c1) Mobile phone (GPRS, etc.)  |      |   |
|    | c2) Handheld computer (palmtop, PDA)   |      |   |
|    | d) TV with specific Internet device  |      |   |
|    | e) Games consoles (play-station)   |      |   |
|    | f) Don't know  |      |   |
|    | -> go to A4  |      |   |
| A4 | What type of Internet connection do you use?   |      |   |
|    | (tick all that apply)  |      |   |
|    | a) Modem   |      |   |
|    | b) ISDN  |      |   |
|    | c) DSL (ADSL)  |      |   |
|    | d) Cable Internet  |      |   |
|    | e) Wireless Internet   |      |   |
|    | f) Mobile telephone (GPRS etc.)  |      |   |
|    | If c,d or e are ticked -> go to A6; otherwise go to A5.  |      |   |
| A5 | What are the reasons for not having a broadband Internet connection (such as ca<br>or DSL connection) at home? | able |   |
|    | (tick all that apply)  |      |   |
|    | a) Too expensive   |      |   |
|    | b) No need   |      |   |
|    | c) Not available in my area  |      |   |
| Γ  | d) Can access somewhere else (e.g. at work)  |      |   |
|    | e) None of the above, other reasons  |      |   |
|    | -> go to A6  |      |   |
| A6 | (IT costs include costs for the purchase of software, hardware and<br>other services) In Euros                 |      | ] |
|    | -> go to B1  |      |   |



### MODULE 1.B: USE OF COMPUTERS

| B1 When did you last use a comput            | ter?                  |                              |
|--|-----------------------|------------------------------|
| (one answer only)                            |                       |                              |
| a) Within the last 3 months                  |                       | -> go to B2                  |
| b) More than 3 months ago (                  | less than a year)     | -> go to B4                  |
| c) More than 1 year ago                      |                       | -> go to B4                  |
| d) Never used one                            |                       | -> go to C1                  |
| B2 How often on average did you u            | se a computer in the  | last 3 months?               |
| (one answer only)                            |                       |                              |
| 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 B3                                  |                       |                              |
| B3 Where did you use a computer i            | in the last 3 months? |                              |
| (tick all that apply)                        |                       |                              |
| a) At home                                   |                       |                              |
| b) At place of work (other tha               | an nome)              |                              |
| c) At place of education                     |                       |                              |
| d) At another person's home                  |                       |                              |
| e) Other (Internet-cafe, hotel               | , airport)            |                              |
| B4   | computer use?         | st 3 hours) on any aspect of |
| (only for respondents who <u>did not</u> and | nswer "Never used one | " in question B1)            |
| (one answer only)                            |                       |                              |
| a) Within the last 3 months                  | loss than a year'     |                              |
| b) More than 3 months ago (                  | - /                   |                              |
| c) More than 1 year ago (less                | s man 3 years)        |                              |
| d) More than 3 years ago                     |                       |                              |
| e) Never taken one                           |                       |                              |
| -> go to B5                                  |                       |                              |

| B | 5 V   | Vhio | ch of the following computer-related activities have you already carried ou   | ut? |  |
|---|-------|------|---|-----|--|
|   | (tick | all  | that apply)   |     |  |
|   | i     | 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. a printer or a modem              |     |  |
|   | 1     | f)   | Writing a computer program  |     |  |
|   | (     | g)   | None of the above   |     |  |
|   | -> g  | o to | o C1  |     |  |

### MODULE 1.C: USE OF THE INTERNET

| C | :1                | Whe   | en did you last use the Internet?                            |               |  |  |  |  |  |
|---|-------------------|-------|--|---------------|--|--|--|--|--|
|   | (one answer only) |       |  |               |  |  |  |  |  |
|   |                   | e)    | Within the last 3 months                                     | -> go to C2   |  |  |  |  |  |
|   |                   | f)    | More than 3 months ago (less than a year)                    | -> got to D1  |  |  |  |  |  |
|   |                   | g)    | More than 1 year ago   | -> go to D1   |  |  |  |  |  |
|   |                   | h)    | Never used it  | -> go to E1   |  |  |  |  |  |
| С | ;2                | How   | <i>v</i> often on average did you use the Internet in the la | ast 3 months? |  |  |  |  |  |
|   | (0                | ne an | swer only)   |               |  |  |  |  |  |
|   |                   | e)    | Every day or almost every day                                |               |  |  |  |  |  |
|   |                   | f)    | At least once a week   |               |  |  |  |  |  |
|   |                   | g)    | At least once a month  |               |  |  |  |  |  |
|   |                   | h)    | Less than once a month                                       |               |  |  |  |  |  |
|   |                   | -> go | to C3  |               |  |  |  |  |  |

| C3 Where did you use the Internet in the last 3 months?            |
|--|
| (tick all that apply)  |
| f) At home   |
| g) At place of work (other than home)                              |
| h) At place of education   |
| i) At another person's home  |
| a) Other   |
| e1) Public library   |
| e2) Post office  |
| e3) Public office, town hall, government agency                    |
| e4) Community or voluntary organization                            |
| e5) Internet -cafe   |
| e6) Hotspot (at hotels, airports, public places)                   |
| -> go to C4  |
| C4 Do you use one of the following devices to access the Internet? |
| (tick all that apply)  |
| a) Mobile phone  |
| a1) Mobile phone, via GPRS   |
| a2) Mobile phone, via 3G network                                   |
| b) Handheld computer (palmtop, PDA)                                |
| c) L aptop, via <u>wireless</u> , away from home or work           |
| d) None of the above   |
| -> go to C5  |

| C |  | ch of the following activities did you carry out over the oses in the last 3 months?                               | he Inte | rnet for ( | orivate     |  |  |  |  |
|---|--|--|---------|------------|-------------|--|--|--|--|
|   | (tick all  | that apply)  |         |            |             |  |  |  |  |
|   | Communication  |  |         |            |             |  |  |  |  |
|   | a) Sending/receiving e-mails   |  |         |            |             |  |  |  |  |
|   | <ul> <li>b) Telephoning over the Internet /video calls (via webcam) over the<br/>Internet</li> </ul> |  |         |            |             |  |  |  |  |
|   | c)   | Posting messages to chat sites, newsgroups or for  | orum    |            |             |  |  |  |  |
|   |  | on search and online services  |         |            |             |  |  |  |  |
|   | <u>d)</u>  | Finding information about goods and services   |         |            |             |  |  |  |  |
|   | e)   | Using services related to travel and accommodati   |         |            |             |  |  |  |  |
|   | f)<br>g)   | Listening to web radios or watching web television<br>Uploading self-created content on the Internet (te           |         | ges, vid   | eos,        |  |  |  |  |
|   |  | music, etc.)   | ,       | 0 /        | <i>,</i>    |  |  |  |  |
|   | <u>h)</u>  | Downloading software   |         |            | <b>  </b>   |  |  |  |  |
|   | i)   | Playing or downloading games, images, films or r   |         |            |             |  |  |  |  |
|   | j)   | Reading or downloading online newspapers/news  | s maga  | zines      |             |  |  |  |  |
|   | k)<br> )   | Looking for a job or sending a job application<br>Seeking health-related information                               |         |            |             |  |  |  |  |
|   | .,   | f goods or services, banking   |         |            |             |  |  |  |  |
|   | Ŭ  | Internet banking   |         |            |             |  |  |  |  |
|   | n)   | Selling of goods or services (e.g. via auctions)   |         |            |             |  |  |  |  |
|   | ,  | and education  |         |            |             |  |  |  |  |
|   | 0)   | Looking information about education, training or o   | courses | s offers   |             |  |  |  |  |
|   | p) [   | Doing an <u>online</u> course (in any subject)   |         |            |             |  |  |  |  |
|   | q)   | Consulting the Internet with the purpose of learning   | ng      |            |             |  |  |  |  |
|   | -> go to   | o C6   |         |            |             |  |  |  |  |
| С |  | ld you rather use the Internet instead of personal co<br>es or public authorities?                                 | ontacts | s or going | g to public |  |  |  |  |
|   | (one ar  | nswer only)  |         |            |             |  |  |  |  |
|   | a)   | Yes, I have been already using this possibility  |         | -> go t    | o C7        |  |  |  |  |
|   | b)   | Yes, I would   |         | -> go t    | o D1        |  |  |  |  |
|   | c)   | No   |         | -> go t    | o D1        |  |  |  |  |
| C |  | which of the following activities relating to interactio<br>inistrations did you use the Internet for private purp |         | public se  | ervices or  |  |  |  |  |
|   | (tick all that apply)  |  |         |            |             |  |  |  |  |
|   | In the last 3 In the last 1 months months  |  |         |            |             |  |  |  |  |
|   | a)   | Obtaining information from public authorities websites   |         |            |             |  |  |  |  |
|   | b)   | Downloading official forms   |         |            |             |  |  |  |  |
|   | c)   | Sending filled in forms  |         |            |             |  |  |  |  |

### MODUL D: E-COMMERCE: activities and barriers

(only for respondents who did not answer "Never used it" in question C1.

| D1 When did you last buy or order goods or service (excluding manually typed e-mails) | es over the Internet for private use?   |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| (one answer only)   |   |  |  |  |  |  |  |
| a) Within the last 3 months -> go to D  |   |  |  |  |  |  |  |
| b) More than 3 months ago (less than a year)  | ) -> go to D2                           |  |  |  |  |  |  |
| c) More than 1 year ago   | -> go to D10                            |  |  |  |  |  |  |
| d) Never bought or ordered  | -> go to D10                            |  |  |  |  |  |  |
| D2 What types of goods or services did you order ov for private use?                  | ver the Internet in the last 12 months, |  |  |  |  |  |  |
| (tick all that apply)   |   |  |  |  |  |  |  |
| a) Food/gr oceries  |   |  |  |  |  |  |  |
| b) Household goods (furniture, toys, etc.)  |   |  |  |  |  |  |  |
| c) Pharmaceutical products  |   |  |  |  |  |  |  |
| d) F ilms, music  |   |  |  |  |  |  |  |
| e) Books/magazines/new spapers/e-learning r   | material                                |  |  |  |  |  |  |
| f) Clothes, sports goods  |   |  |  |  |  |  |  |
| g) Games and upgrades   |   |  |  |  |  |  |  |
| h) Computer software and upgrades   |   |  |  |  |  |  |  |
| i) Computer hardware  |   |  |  |  |  |  |  |
| j) Electronic equipment (incl. cameras)   |   |  |  |  |  |  |  |
| k) Telecommunication services (e.g. TV broad uploading money on prepaid phone cards,  |   |  |  |  |  |  |  |
| I) Share purchase, insurance policies and oth   | her financial services                  |  |  |  |  |  |  |
| m) Holiday accommodation (hotel, etc.)  |   |  |  |  |  |  |  |
| n) Other travel arrangement (transport tickets  | s, car hire, etc.)                      |  |  |  |  |  |  |
| o) Tickets for cultural events  |   |  |  |  |  |  |  |
| p) Other  |   |  |  |  |  |  |  |
| If to d, e, g, h, n or o are ticked -> go to D3; otherw                               | vise go to D4.                          |  |  |  |  |  |  |

| D3 Were any of the following products that you bought or downloaded or accessed from websites rather than |              |                |            |  |  |  |  |  |
|---|--------------|----------------|------------|--|--|--|--|--|
| (tick all that apply)   |              |                | , 010.1    |  |  |  |  |  |
|   |              |                |            |  |  |  |  |  |
|   |              |                |            |  |  |  |  |  |
| b) Music  | b) Music     |                |            |  |  |  |  |  |
| c) (Electronic) books, newspapers, magazines, e-lear  | -            |                |            |  |  |  |  |  |
| <ul> <li>d) Computer software (incl. computer and video game<br/>upgrades)</li> </ul>                     | s and        | software       |            |  |  |  |  |  |
| e) Tickets for travel and cultural events   |              |                |            |  |  |  |  |  |
| f) None of the above  |              |                |            |  |  |  |  |  |
| -> go to D4   |              |                | <u> </u>   |  |  |  |  |  |
| D4 From whom did you buy/order goods or services over the months?   | e Inter      | rnet in the la | ast 12     |  |  |  |  |  |
| (tick all that apply)   |              |                |            |  |  |  |  |  |
| a) National sellers   |              |                |            |  |  |  |  |  |
| b) Sellers from other EU countries  |              |                |            |  |  |  |  |  |
| c) Sellers from the rest of the world   |              |                |            |  |  |  |  |  |
| d) Country of origin of sellers is not known  |              |                |            |  |  |  |  |  |
| -> go to D5   |              |                |            |  |  |  |  |  |
| D5 In the last 12 months, how did you pay for goods or servi<br>Internet for private use?                 | ces o        | rdered over    | r the      |  |  |  |  |  |
| (tick all that apply)   |              |                |            |  |  |  |  |  |
| a) Provided credit or debit card details over the Internet  | et           |                |            |  |  |  |  |  |
| b) Provided prepaid card or prepaid account details of  | /er th       | e Internet     |            |  |  |  |  |  |
| c) Electronic bank transfer via Internet banking  |              |                |            |  |  |  |  |  |
| d) Payment not via the Internet (in cash, via ordinary b  | oank 1       | transfer, etc  | .)         |  |  |  |  |  |
| > go to D6  |              |                |            |  |  |  |  |  |
| D6 In the last 12 months, did you encounter any problems w or services over the Internet for private use? | hen b        | ouying/orde    | ring goods |  |  |  |  |  |
| (one answer only)   |              |                |            |  |  |  |  |  |
| a) Yes  | Π            | -> go          | to D7      |  |  |  |  |  |
| b) No -> go to D8   |              |                |            |  |  |  |  |  |
|   | • <u> </u> • |                |            |  |  |  |  |  |

| D7 In the last 12 months, what problems did you encounter when buying/ordering goods or services over the Internet? |  |                |                 |            |  |  |  |  |  |
|---|--|----------------|-----------------|------------|--|--|--|--|--|
| (tick   | all that apply)  |                |                 |            |  |  |  |  |  |
| a)  | Technical failure of website during orde                                       | ring or paym   | ent             |            |  |  |  |  |  |
| b)  | b) Difficulties in finding information concerning guarantees and other         |                |                 |            |  |  |  |  |  |
| c) Speed of delivery lower than indicated   |  |                |                 |            |  |  |  |  |  |
| d)  | d) Final costs higher than indicated (e.g. higher delivery costs)              |                |                 |            |  |  |  |  |  |
| e)  | Wrong or damaged goods/services del  | vered          |                 |            |  |  |  |  |  |
| f)  | Frauds (e.g. no goods/services delivere etc.)                                  | ed, misuse of  | credit cards de | tails,     |  |  |  |  |  |
| g)  | Complaints and redress were difficult o<br>complaint                           | r no satisfact | ory response af | ter        |  |  |  |  |  |
| h) (  | Other  |                |                 |            |  |  |  |  |  |
| -> go   | o to D8  |                |                 |            |  |  |  |  |  |
|   | w important are the following arguments f<br>er the Internet for personal use? | -              | lering goods or | services   |  |  |  |  |  |
|   | (tick a  | ,<br>          | To some         |            |  |  |  |  |  |
|   |  | Very           | extent          | Not at all |  |  |  |  |  |
| aj  | Wider choice of goods or services  |                |                 |            |  |  |  |  |  |
| b)  | Lo wer prices  |                |                 |            |  |  |  |  |  |
| c)  |  |                |                 |            |  |  |  |  |  |
| d)  | ) Convenience (e.g. less time<br>consuming)                                    |                |                 |            |  |  |  |  |  |
| e   | <ul> <li>Opportunity to buy products not<br/>available in my region</li> </ul> |                |                 |            |  |  |  |  |  |
| f)  | Certification of quality of website services or recognized trust mark          |                |                 |            |  |  |  |  |  |
| g)  | <ul> <li>Opinion and feedback from other<br/>users</li> </ul>                  |                |                 |            |  |  |  |  |  |
| h)  | ) Certainty about legal rights and<br>guarantees                               |                |                 |            |  |  |  |  |  |
| -> ge   | o to D9  |                |                 |            |  |  |  |  |  |

|   | 9   |            | you read the conditions of sale when purchasing goods or services over the rnet for private use? | ie      |  |  |  |  |
|---|-----|------------|--|---------|--|--|--|--|
|   | (0  | ne ar      | nswer only)  |         |  |  |  |  |
|   |     | a) Alw ays |  |         |  |  |  |  |
|   |     | ,          | Sometimes  |         |  |  |  |  |
|   |     | - /        | lever  |         |  |  |  |  |
|   | ->  | go to      | o D11  |         |  |  |  |  |
| D | 10  |            | at were the reasons for not buying/ordering goods or services for personal<br>ast 12 months?     | use in  |  |  |  |  |
|   | (ti | ck all     | that apply)  |         |  |  |  |  |
|   |     | a)         | Have no need   |         |  |  |  |  |
|   |     | b)         | Prefer to shop in person, like to see product, loyalty to shops, force of habit                  |         |  |  |  |  |
|   |     | C)         | Relevant information about goods and services difficult to find on<br>website                    |         |  |  |  |  |
|   |     | d)         | Lack of skills   |         |  |  |  |  |
|   |     | e)         | Delivery of goods ordered over the Internet is a problem   |         |  |  |  |  |
|   |     | f)         | Payment security concerns (e.g. giving credit cards details)                                     |         |  |  |  |  |
|   |     | g)         | Privacy concerns (e.g. giving personal details over the Internet)                                |         |  |  |  |  |
|   |     | h)         | Trust concerns about receiving or returning goods, complaints/redress concerns                   |         |  |  |  |  |
|   |     | i)         | Don't have a payment card allowing to pay over the Internet                                      |         |  |  |  |  |
|   |     | j)         | Speed of the Internet connection is too slow   |         |  |  |  |  |
|   |     | k) C       | Dther  |         |  |  |  |  |
|   | ->  | go to      | DD11   | -       |  |  |  |  |
| D | 11  |            | you place a bet (e.g. sports betting) and/or play lotto over the Internet in the nonths?         | ne last |  |  |  |  |
|   | (0  | nce a      | answer only)   |         |  |  |  |  |
|   |     | c) Y       | ′ es   |         |  |  |  |  |
|   |     | b) N       |  |         |  |  |  |  |
|   | ->  | go to      | ) E1   |         |  |  |  |  |

### MODUL E: BAKCGROUNG INFORMATION ON THE RESPONDENT

| E1             | <b>A</b> .go       |                           |                       |                  |                  |          |                             |  |
|----------------|--------------------|---------------------------|-----------------------|------------------|------------------|----------|-----------------------------|--|
|                | Age                |                           |                       | <u> </u>         |                  |          |                             |  |
| E2             | Gender<br>a)<br>b) | Male<br>Fema              | ale                   |                  |                  |          |                             |  |
| E3<br>b)<br>c) | Educatio<br>a)     | Lower<br>Secor            |                       |                  | ucation          |          |                             |  |
| E4<br>b)       | c)                 | Emplo<br>Unem<br>Stude    | oyee<br>iployed<br>nt | labor forc       | e (retired perso | ns, in c | ompulsory military service) |  |
| E5             | Municipa           | ality                     |                       |                  |                  | code     |                             |  |
| E6             | Locality           |                           |                       |                  |                  | code     |                             |  |
| E7             | Number             | of hou                    | isehold me            | embers           |                  |          |                             |  |
| F8             | Of                 | which,                    | number o              | f children       | under 18         |          |                             |  |
| E9             | Househo            | old inc<br>a)<br>b)<br>c) | Under 30<br>From 300  |                  |                  |          |                             |  |
| E10            | Informa            | ation re<br>a)<br>b)      | responde              | ent<br>usehold m | ember            |          |                             |  |

# USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2009

\* Enterprises



# 2.1. METHODOLOGY

| Realization       | • The survey was carried out on from 2 June to 20 June 2009   |  |  |  |
|-------------------|---|--|--|--|
| Type of survey    | Telephone interview   |  |  |  |
| Sample size       | 1152 enterprises  |  |  |  |
| Target population | <ul> <li>Enterprises with 10 employees and more</li> <li>Section D: Manufacturing</li> <li>Section F: Construction</li> <li>Section G: Wholesale and retail trade, motor vehicle repair</li> <li>Groups 55.1 and 55.2: Hotels, camping sites and other short-stay accommodation</li> <li>Section I: Transport, storage and communication</li> <li>Section K: Real estate, renting and business activities</li> <li>Groups 92.1 and 92.2: Motion picture, video, radio and TV activities</li> <li>Banks and insurance companies</li> </ul> |  |  |  |
| Sample type       | Stratified sample   |  |  |  |
| Survey coverage   | <ul> <li>Territory of the Republic of Serbia (without AP Kosovo and Metohia)</li> </ul>   |  |  |  |

# 2.2. SAMPLE

The survey on the usage of information and communication technology in enterprises has been carried out on a representative sample of 1152 enterprises on the territory of the Republic of Serbia. The response rate is 94% (1083 enterprises).

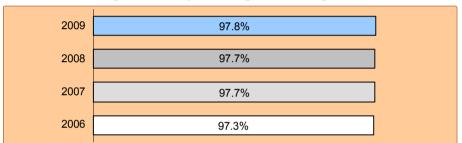
| Sample<br>(enterprises) |   | Size                  |                         |              | Region            |           |          |       |
|-------------------------|---|-----------------------|-------------------------|--------------|-------------------|-----------|----------|-------|
|                         |   | Small-size<br>(10-49) | Medium-size<br>(50-249) | Large (250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|                         | Manufacturing   | 246                   | 75                      | 104          | 194               | 122       | 109      | 425   |
|                         | Construction  | 69                    | 20                      | 25           | 41                | 26        | 47       | 114   |
|                         | Wholesale and retail trade; motor vehicle repai                             | 208                   | 51                      | 24           | 88                | 81        | 114      | 283   |
| ity                     | Hotels, camping sites and other<br>provision of short stay<br>accommodation | 14                    | 8                       | 4            | 12                | 4         | 10       | 26    |
| Activity                | Transport, storage and<br>communications                                    | 71                    | 13                      | 20           | 29                | 27        | 48       | 104   |
|                         | Real estate, renting and business activities                                | 100                   | 23                      | 13           | 19                | 22        | 95       | 136   |
|                         | Motion picture and video activities, radio and TV activities                | 18                    | 5                       | 3            | 12                | 6         | 8        | 26    |
|                         | Banking and insurance<br>companies  | 7                     | 5                       | 26           | 4                 | 6         | 28       | 38    |
| Number                  |   | 733                   | 200                     | 219          | 399               | 294       | 459      | 1152  |
| Percentage              |   | 63.6                  | 17.4                    | 19.0         | 34.6              | 25.5      | 39.9     | 100   |

# 2.3. MAJOR FINDINGS

### 2.3.1. Computers in enterprises

The results of the survey indicates that 97.8% of enterprises on the territory of the Republic of Serbia use computers for their business operations, which represents increases of 0.1% compared to 2008. The percentage of computers is the highest in large enterprises (more than 250 employees) and medium-size enterprises (50-249), amounting to 100%, but it totals to 97% in small-size enterprises (10-49 employees).

97.8% of enterprises use computers for their business operations



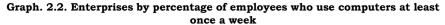
Graph 2.1. Does your enterprise use computers?

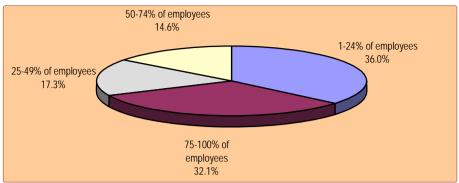
The percentage of computers used in enterprises is different depending on the territory: in Belgrade it is 98.5%, in Vojvodina 98.2%, and in Central Serbia 96.4%.

The use of computers in enterprises according to activities:

- Banks and insurance companies (100%)
- Real estate, renting and business activities (100%)
- Transport, storage and communications (98.5%)
- Wholesale and retail trade (98.1%)
- Manufacturing (97.5%)
- Motion picture, video, radio and TV activities (96%)
- Construction (95.7%)
- Hotels, camping sites and other short-stay accommodation (87.1%)

In 36% of enterprise there is  $\frac{1}{4}$  of employees who use a computer at least once a week, and in 32.1% of enterprises the percentage of employees using a computer at least once a week amounts to 75-100%.



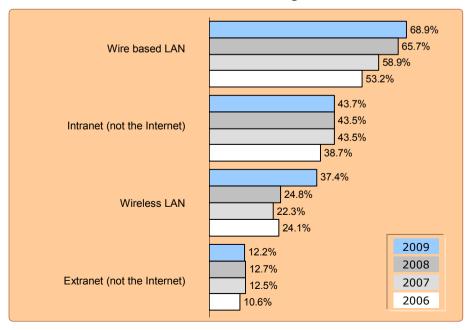


### **2.3.2.** Computer networks in enterprises

Several answers were allowed in the question relating to the availability of information and communication technologies in enterprises. The survey indicates that 8.9% of enterprises have in use Wire based LAN, 43.7% Intranet, 37.4% Wireless LAN, and 12.2% have Extranet.

#### 68.9% of enterprises have in use Wire based LAN

# Graph. 2.3. Does your enterprise use the following informations and communication technologies?



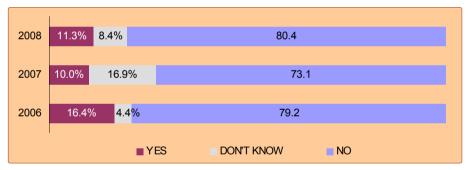


#### 11.3% of enterprises used ERP in January 2009

ERP (abbreviation for Enterprise Resource Planning), i.e. a businness information system, can be most concisely defined as a software application that integrates main business functions in the enterprise, such as production, distribution, finance (i.e. accounting) in a single whole. Thus one obtains a system allowing, on one hand, the enterprise to manage all human and material resources, and on the other one, to plan, develop and monitor business functions and procedures.

Beginning 2007, the extent in which ERP is used in enterprise has been used as one of the indicator for measuring how much the use of information and communication technologies has been developed in enterprises.

In January 2009, 11.3% of enterprises in Serbia used ERP. The enterprises being analyzed by their size, it has appeared that of the total number of large enterprises 49.2% of them have in use ERP. ERP is available in 21.6% medium-size enterprises and in 7% small-size ones. The results of the analysis of enterprises by their activity show that banks and insurance companies are the most numerous to use ERP (41.9%), followed by enterprises dealing with transport, storage and communications (15.7%).



#### Graph 2.4. Did your enterprise use ERP in January?

Alike ERP, the use of the application for managing customer relationship, CRM (abbreviation of Customer Relationship Management), beginning 2007, is one of the main indicators of the level of development of information and communication technologies in EU enterprises. Briefly, CRM can be defined as a set of functions allowing the collection of information about customers, sales, marketing efficiency, customers' reactions and market trends.

#### 14.1% of enterprises used CRM in January 2009

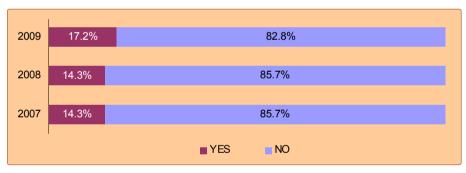
During January 2009, 10.1% of enterprises in Serbia used CRM meant for the analysis of information related to customers for marketing purposes, while 12.9% used it to capture, store and make available to other business services information about customers. The analysis of enterprises by their size indicates that of the total number of large enterprises 36.8% of them have in use CRM. As far as medium-size enterprises are concerned, CRM is in use in 26.1% of them, and in 10.2% small-size ones. When analyzed by their activity, it appears that banks and insurance companies are the most numerous to use CRM (71%), followed by enterprises dealing with transport, storage and communications (24.8%).

# Graph 2.5. Did your enterprise use, in January 2009, a software application for customer management relationship, so-called CRM, allowing:

| Capture, store and make available<br>to other business functions the<br>information about the clients  | 12.9% |
|--|-------|
| Make analysis of the information about clients for<br>marketing purposes (setting prices, sales<br>promotions, selection of distribution channels, etc.) | 10.1% |

During 2009, 17% of enterprises used Linux, which is most used in large enterprises (39.7%), then in medium-size ones (25.1%), and at the end in small ones (14%).

The analysis of enterprises by their activities indicates that banks and insurance companies are the most numerous to use Linux (83,9%).



# Graph 2.6. Did your enterprise use open source operating systems, such as Linux?

17% of enterprises used Linux Linux "open source" operating system in 2009

### **2.3.3.** Internet in enterprises

In the Republic of Serbia, 94.5% of enterprises have an Internet connection, which represents increases by 3%, 3.9% and 4.3% compared to 2008, 2007 and 2006 respectively. The analysis of enterprises by their size indicates that of the total number of large enterprises, 100% of them have an Internet connection, which is available in 97.7% of medium-size enterprises. The situation is slightly different in small-size enterprises among which 93.4% can access the Internet.

#### 94.5% of enterprises has an Internet connection

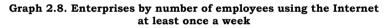
#### Graph 2.7. Does your enterprise have access to the Internet?

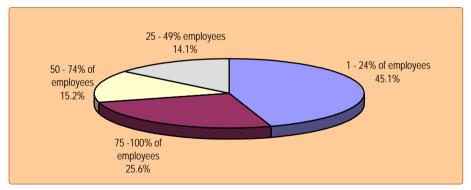


Use of the Internet in enterprises, according to activities:

- Banks and insurance companies (100%)
- Motion picture, video, radio and TV activities (100%)
- Real estate, renting and business activities (98.7%)
- Manufacturing (97%)
- Construction (92.3%)
- Wholesale and retail trade (92%)
- Hotels, camping sites and other short-stay accommodation (89%)
- Transport, storage and communications (88.5%)

In 45.1% of enterprises,  $\frac{1}{4}$  of employees use the Internet at least once a week, while in 25.6% of enterprises 75-100% of employees use the Internet at least once a week.





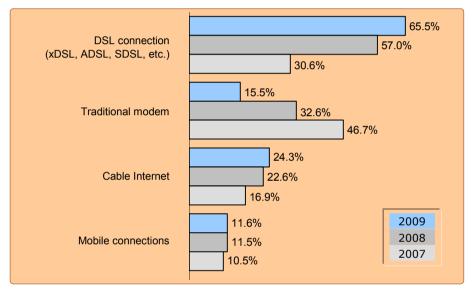
Regarding the way the Internet is accessed (type of connection) enterprises were asked to choose one of the offered answers.

The results indicate that of the total number of enterprises having an Internet connection, 65.5% of enterprises have in use DSL, 15.5% a modem connection and 34.3% cable Internet.

The data are expressive of a decreased use of modem connection by 17.1%, and of an increased use of DSL by 8.5%, compared to 2008.

65.5% of enterprises having access to the Internet use DSL (xDSL, ADSL) connection

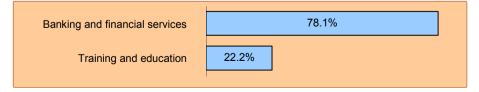
### Graph 2.9. Does your institution have one of the following types of external connections to the Internet?



The most frequent answers to the question related to the use of the Internet by enterprises are as follows:

- "Banking and financial services"(78.1%)
- "Training and education"(22.2%)

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

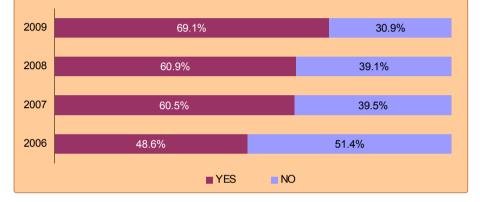




#### 2.3.4. e-government

Of the total number of enterprises having a connection to the Internet, 69.1% of them use the Internet services of public authorities, which represents increases of 8.2%, 8.6% and 20.5% compared to 2008, 2007 and 2006 respectively. There are 30.9% of enterprises that use this possibility.

69.1% of enterprise having an Internet connection use the Internet services of public authorities



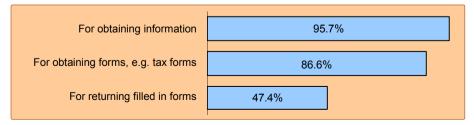
Graph 2.11. Does your enterprise use Internet services of public authoristies?

The analysis of enteprises by their activity indicates that banks and insurance companies are the most numerous to use Internet services of public authorities (90.3%), followed by enterprises dealing with construction (86.8%).

The most frequent answers to purposes for which enterprises are using Internet services are as follows:

- "For obraining information"(95.7%)
- "For obtaining forms"(86.6%)
- "For returning filled in forms"(47.4%)

### Graph 2.12. Does your enterprise use public authorities Internet for the following purposes?



### 2.3.5. Website

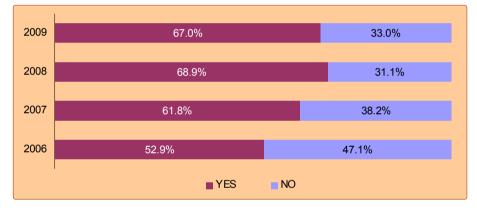
There are 67% of enterprises with an Internet connection that have a Website, while this percentage in 2008 amounted to 68.9%, in 2007 to 61.8%, and in 2006 to 52.9%.

When observing the structure of enterprises by their size, the following results have been obtained:

- 81.0% of large enterprises have a Website
- 79.8% of medium-size enterprises have a Website
- 62.5% of small-size enterprises have a Webiste

67% of enterprises with an Internet connection have a Website

There also differences regargind the territory. In Belgrade, 78.2% of enterprises have a Website, in Vojvodina there are 66.3% of them, and in Central Serbia 55,3% that have a Website.



#### Graph 2.13. Does your enterprise have its Website?

Websites in enterprises, by activities:

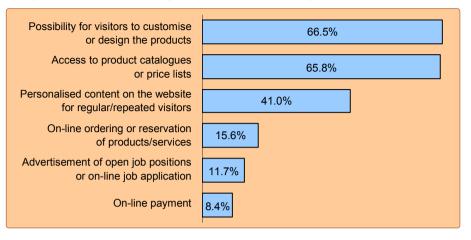
- Banks and insurance companies (96.8%)
- Hotel, camping sites and other short stay accommodation (86.9%)
- Real estate activities, renting and business activities (75.4%)
- Manufacturing (70.4%)
- Motion picture, video, radio and TV activities (66.2%)
- Transport, storage and communications (64.6%)
- Wholesale and retail trade (61%)
- Construction (60.4%)

Enterprises provide mostly provide via their Website:

- Possibility for visitors to customize with products (66.5%)
- Access to product catalogue s or price lists (65.8%)
- Personlized content in the Website for regular/repeated visitors (41%)



#### Graph 2.14. Does your enterprise provide the following facilities via its Website?



### 2.3.6. e-banking

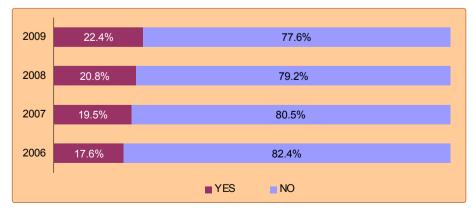
During 2008, 22.4% of enterprises having an Internet connection in the Republic of Serbia ordered goods/services over the Internet, which represents increases of 1.6%, 2.9% and 4.8% compared to 2007, 2006 and 2005 respectively.

The structure of enterprises by their size taken into account, the results are as follows:

- 24.4% of large enterprises ordered goods/services via the Internet
- 24.1% of medium-size enterprises ordered goods/services via the Internet
- 21.9% of small-size enterprises ordered goods/services via the Internet

22.4% of enterprises having an Internet connection ordered goods/services in January 2008

Graph 2.15. Did your enterprise order goods/services via the Internet?

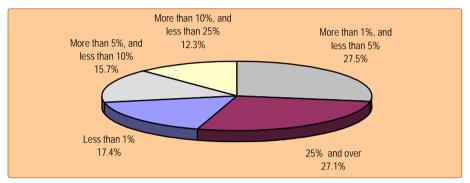


Survev results

The answers to the question on the percentage of Internet purchases in total purchases are as follows:

- "Less than 1%"(17.4% of enterprises)
- "More than 1%, and less than 5%"(27.5% of enterprises)
- "More than 5%, and less than 10%"(15.7 % of enterprises)
- "More than 10%, and less than 25%" (12.3% of enterprises)
- "25 % and over" (27.1% of enterprisespreduzeća)

### Graph 2.16. Please, indicate an estimate for 2008 of the percentage of Internet purchases in relation to total purchases?



The results of the survey indicate that only 19.9% of enterprises, which have an Internet connection, received orders during 2008 (excluding e-mail orders) over the Internet. In terms of trends, one has increased by 2.9%, 3.1% and 11.6% compared to 2007, 2006 and 2005 respectively.



Graph 2.17. Did your enterprise receive orders over the Internet?

19.9% of enterprises having an Internet connection received orders via the Internet in 2008



Graph 2.18. Was your enterprise using a secure protocole, such as SSL or TLS, for the reception of orders via the Internet?



### 2.3.7. Safety of information systems in enterprises

In the Republic of Serbia only 20.2% of enterprises have regulations on information safety.

#### Graph 2.19. Does your enterprise have regulations on information safety?

| YES: 20.2% | NO: 79.8% |  |
|------------|-----------|--|
| 120.20.270 | NO. 79.0% |  |

As far as the awareness of information safety is concerned, 16.8% of enterprises check their employees, while 83.2% of them have not implemented this kind of checking yet.

### Graph 2.20. Are the employees in your enterprises checked as to the awareness of information safety measures?

| YES: 16.8% NO: 83.2% |
|----------------------|
|----------------------|

The results of the surveys indicate that 52.9% of enterprises identify the users of information systems being allowed to access them.

### Graph 2.21. Were copying or taking away data (including software) prevented in your enterprise on mobile mdia (DVD, CD etc.)?



As for the problems encountered, enterprises have provided the following answers:

- "Accidental damage to information system and data" (22.3% of enterprises)
- "Intentional damage of equipment and data" (2.4% of enterprises)
- "Abuse of power"(1.3 % of enterprises)

### 2.4. RESULTS OF THE SURVEY

### MODULE 2.A: General information on ICT system<sup>1)</sup>

### A1: Does your enterprise use computers?

|   | -  | -                |                    | -               |                   | in percentages |          |       |  |  |  |
|---|--|------------------|--------------------|-----------------|-------------------|----------------|----------|-------|--|--|--|
|   |  |                  | Size               |                 | Region            |                |          |       |  |  |  |
| Enterprises   |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina      | Belgrade | Total |  |  |  |
|   |  | YES              |                    |                 |                   |                |          |       |  |  |  |
|   | Real estate, renting and professional 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 |  |  |  |
|   | Transport, storage and<br>communications                     | 98.2             | 100.0              | 100.0           | 100.0             | 100.0          | 95.8     | 98.5  |  |  |  |
| Activity  | Wholesale and retail trade                                   | 97.7             | 100.0              | 100.0           | 97.0              | 97.3           | 99.4     | 98.1  |  |  |  |
| Acti  | Manufacturing  | 96.5             | 100.0              | 100.0           | 96.1              | 97.6           | 100.0    | 97.5  |  |  |  |
|   | Motion picture, video, radio and TV activities               | 95.3             | 100.0              | 100.0           | 91.5              | 100.0          | 100.0    | 96.0  |  |  |  |
|   | Construction   | 94.3             | 100.0              | 100.0           | 97.1              | 100.0          | 91.1     | 95.7  |  |  |  |
|   | Hotels, camping sites and other short-<br>stay accommodation | 77.9             | 100.0              | 100.0           | 76.7              | 100.0          | 100.0    | 87.1  |  |  |  |
| Total         97.0         100.0         100.0         96.4         98.2         98.5 |  |                  |                    |                 |                   | 97.8           |          |       |  |  |  |

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

#### in percentages

|         |                  | Enterprises        |                 |                   |           |          |       |  |  |
|---------|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|--|
|         | Size             |                    |                 |                   |           |          |       |  |  |
|         | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | total |  |  |
| 1-24%   | 34.7             | 41.0               | 36.8            | 43.0              | 44.9      | 22.8     | 36.0  |  |  |
| 75-100% | 32.6             | 29.5               | 34.0            | 22.2              | 23.4      | 48.0     | 32.1  |  |  |
| 25-49%  | 17.1             | 18.6               | 15.6            | 20.3              | 18.6      | 13.4     | 17.3  |  |  |
| 50-74%  | 15.6             | 10.9               | 13.6            | 14.5              | 13.1      | 15.8     | 14.6  |  |  |

<sup>1)</sup> The results in tables A2 - A7 refer only to enterprises that answered positively in question A1.



### Does your enterprise use the following information and communication technologies?

| in percentage |  |                  |                    |                 |                   |           |          |       |  |
|---------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|               |  |                  | Size               |                 |                   | Region    |          |       |  |
|               | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
|               | A3: W  | ire bas          | ed LAN             | I               |                   |           |          |       |  |
|               | Banks and insurance companies                            | 100.0            | 80.0               | 100.0           | 100.0             | 100.0     | 96.2     | 96.8  |  |
|               | Motion picture, video, radio and TV activities           | 88.7             | 100.0              | 100.0           | 90.7              | 100.0     | 77.1     | 90.3  |  |
|               | Real estate, renting and business activities             | 87.2             | 100.0              | 42.9            | 74.5              | 92.9      | 91.4     | 88.4  |  |
| Activitiy     | Manufacturing  | 61.7             | 90.1               | 87.9            | 66.8              | 71.8      | 74.3     | 70.2  |  |
| Acti          | Wholesale and retail trade                               | 65.6             | 93.8               | 95.3            | 54.2              | 70.6      | 81.2     | 69.8  |  |
|               | Hotels, camping sites and other short stay accommodation | 36.4             | 71.4               | 87.5            | 34.8              | 40.9      | 85.2     | 53.7  |  |
|               | Construction   | 44.0             | 78.9               | 98.2            | 52.0              | 35.0      | 70.3     | 53.5  |  |
|               | Transport, storage and<br>communications                 | 36.5             | 100.0              | 95.8            | 30.0              | 71.0      | 51.7     | 48.8  |  |
| Total         |  | 62.6             | 90.5               | 89.1            | 59.4              | 68.6      | 78.3     | 68.9  |  |
|               | A4: V  | Wireles          | s LAN              |                 |                   |           |          |       |  |
|               | Transport, storage and<br>communications                 | 58.8             | 44.3               | 80.4            | 19.2              | 47.6      | 87.4     | 55.2  |  |
|               | Hotels, camping sites and other short stay accommodation | 75.3             | 40.0               | 14.3            | 64.5              | 0.0       | 52.2     | 50.0  |  |
|               | Wholesale and retail trade                               | 44.2             | 38.2               | 66.0            | 55.1              | 27.9      | 46.1     | 43.7  |  |
| Activity      | Motion picture, video, radio and TV activities           | 39.5             | 63.3               | 25.0            | 39.8              | 33.7      | 59.3     | 42.0  |  |
| વ             | Manufacturing  | 30.1             | 36.1               | 62.1            | 37.8              | 28.8      | 33.4     | 34.0  |  |
|               | Construction   | 39.0             | 13.2               | 56.4            | 23.4              | 46.6      | 33.8     | 32.7  |  |
|               | Banks and insurance companies                            | 28.6             | 25.0               | 31.6            | 100.0             | 0.0       | 28.0     | 30.0  |  |
|               | Real estate, renting and business activities             | 29.1             | 23.3               | 66.7            | 25.1              | 37.9      | 26.7     | 28.5  |  |
| Total         |  | 37.3             | 33.9               | 60.1            | 39.5              | 31.9      | 39.3     | 37.4  |  |

### Does your enterprise use the following information and communication technologies?

| in percenta |  |                  |                    |                 |                   |           |          | ntages |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|             |  |                  | Size               |                 | Region            |           |          |        |
|             | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|             | A5: Intrane  | t (not 1         | the Int            | ernet)          |                   |           |          |        |
|             | Banks and insurance companies                            | 71.4             | 80.0               | 94.7            | 100.0             | 100.0     | 84.6     | 87.1   |
|             | Manufacturing  | 39.3             | 54.5               | 75.1            | 48.9              | 40.2      | 43.1     | 44.9   |
|             | Wholesale and retail trade                               | 35.7             | 95.3               | 77.8            | 51.4              | 53.6      | 33.0     | 44.2   |
|             | Construction   | 31.4             | 84.2               | 52.7            | 42.5              | 45.0      | 42.0     | 43.1   |
| Activity    | Real estate, renting and business activities             | 34.7             | 83.6               | 95.2            | 46.2              | 19.8      | 48.2     | 42.8   |
| Ac          | Transport, storage and<br>communications                 | 26.0             | 100.0              | 89.6            | 19.3              | 66.1      | 42.3     | 40.2   |
|             | Hotels, camping sites and other short stay accommodation | 9.5              | 57.1               | 87.5            | 34.8              | 40.9      | 29.6     | 33.6   |
|             | Motion picture, video, radio and TV activities           | 17.6             | 100.0              | 100.0           | 25.7              | 11.6      | 54.3     | 28.3   |
| Total       |  | 35.2             | 72.1               | 75.8            | 46.0              | 44.9      | 40.5     | 43.7   |
|             | A6: Extrane  | t (not           | the Int            | ernet)          |                   |           |          |        |
|             | Banks and insurance companies                            | 28.6             | 80.0               | 78.9            | 50.0              | 100.0     | 65.4     | 67.7   |
|             | Real estate, renting and business activities             | 11.5             | 27.1               | 28.6            | 18.4              | 11.9      | 13.3     | 14.0   |
|             | Manufacturing  | 11.8             | 15.6               | 36.7            | 17.5              | 5.7       | 16.8     | 13.9   |
| Activity    | Transport, storage and<br>communications                 | 14.1             | 1.5                | 52.1            | 4.7               | 6.3       | 28.4     | 13.1   |
| Acti        | Wholesale and retail trade                               | 6.2              | 43.3               | 63.7            | 11.4              | 12.2      | 12.3     | 12.0   |
|             | Construction   | 4.2              | 10.4               | 16.1            | 9.0               | 3.9       | 4.7      | 6.0    |
|             | Motion picture, video, radio and TV activities           | 0.0              | 0.0                | 75.0            | 0.0               | 2.3       | 5.7      | 2.1    |
|             | Hotels, camping sites and other short stay accommodation | 0.0              | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0    |
| Total       |  | 8.9              | 20.5               | 39.9            | 13.5              | 7.9       | 14.0     | 12.2   |

### A7: Did your enterprise have in use, in 2009, open source operating systems, such as Linux?

|             |   |                  |                    |                 |                   | in p      | bercer   | tages |
|-------------|---|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|             |   |                  | Size               |                 | Region            |           |          |       |
| Enterprises |   | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|             |   | YES              |                    |                 |                   |           |          |       |
|             | Banks and insurance companies                               | 57.1             | 80.0               | 94.7            | 100.0             | 100.0     | 80.8     | 83.9  |
|             | Motion picture, vide, radio and TV activities               | 37.4             | 63.3               | 100.0           | 36.1              | 77.9      | 8.6      | 41.9  |
|             | Real estate, renting and business activities                | 34.9             | 52.2               | 14.3            | 21.5              | 60.3      | 35.4     | 37.1  |
| Activity    | Construction  | 17.0             | 15.3               | 16.1            | 0.2               | 27.0      | 24.4     | 16.6  |
| Act         | Transport, storage and<br>communications                    | 16.1             | 1.5                | 29.2            | 1.1               | 19.0      | 24.7     | 14.1  |
|             | Manufacturing   | 9.5              | 20.6               | 38.4            | 17.1              | 7.2       | 14.9     | 13.7  |
|             | Wholesale and retail trade                                  | 8.9              | 34.8               | 62.6            | 15.4              | 15.0      | 10.4     | 13.2  |
|             | Hotels, camping sites and other<br>short-stay accommodation | 0.0              | 28.6               | 12.5            | 12.3              | 0.0       | 18.5     | 12.8  |
| Total       |   |                  | 25.1               | 39.7            | 14.2              | 17.8      | 19.1     | 17.0  |

### MODULE 2.B: Use of the Internet<sup>1)</sup>

#### B1: Does your enterprise have access to the Internet?

| in percentages |  |       |                    |                 |                   |           |          |       |  |
|----------------|--|-------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|                |  |       | Size               |                 |                   |           |          |       |  |
|                | Enterprises  |       | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
|                |  | YES   |                    |                 |                   |           |          |       |  |
|                | Motion picture, video, 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 |  |
|                | Real estate, renting and business activities                 | 98.5  | 100.0              | 100.0           | 100.0             | 92.9      | 100.0    | 98.7  |  |
| Activity       | Manufacturing  | 96.2  | 98.7               | 100.0           | 97.3              | 96.6      | 97.1     | 97.0  |  |
| Acti           | Construction   | 92.6  | 89.5               | 100.0           | 94.0              | 85.0      | 96.7     | 92.3  |  |
|                | Wholesale and retail trade                                   | 90.6  | 100.0              | 100.0           | 84.3              | 98.4      | 94.0     | 92.0  |  |
|                | Hotels, camping sites and other short-<br>stay accommodation | 90.5  | 85.7               | 100.0           | 77.5              | 100.0     | 100.0    | 89.0  |  |
|                | Transport, storage and<br>communications                     | 85.7  | 100.0              | 100.0           | 77.0              | 90.3      | 100.0    | 88.5  |  |
| Total          |  | 93.4  | 97.7               | 100.0           | 91.8              | 95.0      | 96.8     | 94.5  |  |

### B2: Percentage of the number of employees using the Internet

#### in percentages

|         | in percentagee   |                    |                 |                   |           |          |       |  |  |
|---------|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|--|
|         |                  | Enterprises        |                 |                   |           |          |       |  |  |
|         | Size             |                    |                 |                   |           |          |       |  |  |
|         | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | total |  |  |
| 1-24%   | 41.6             | 56.6               | 57.1            | 55.2              | 57.3      | 27.4     | 45.1  |  |  |
| 75-100% | 27.2             | 21.3               | 15.7            | 13.7              | 13.6      | 45.1     | 25.6  |  |  |
| 50-74%  | 16.0             | 12.3               | 12.4            | 15.3              | 14.3      | 15.4     | 15.2  |  |  |
| 25- 49% | 15.2             | 9.8                | 14.8            | 15.8              | 14.8      | 12.1     | 14.1  |  |  |

<sup>1)</sup> The results in tables B2 - B9 refer only to enterprises that answered positively in question B1.



### B3: Does your enterprise have one of the following types of external connections with the Internet?

| in percentag |  |          |                    |                 |                   |           |          |       |
|--------------|--|----------|--------------------|-----------------|-------------------|-----------|----------|-------|
|              |  | Size     |                    |                 | Region            |           |          |       |
|              | Enterprises  |          | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|              | Tradit   | tional 1 | moder              | 1               |                   |           |          |       |
|              | Transport, storage and<br>communications                     | 14.4     | 65.3               | 0.0             | 31.7              | 25.6      | 14.6     | 23.4  |
|              | Banks and insurance companies                                | 14.3     | 40.0               | 21.1            | 50.0              | 66.7      | 15.4     | 22.6  |
|              | Construction   | 24.9     | 12.1               | 3.6             | 22.3              | 11.8      | 27.4     | 21.4  |
| 2            | Manufacturing  | 15.7     | 13.7               | 18.8            | 13.4              | 15.5      | 18.5     | 15.3  |
| Activity     | Real estate, renting and business activities                 | 15.4     | 10.1               | 0.0             | 18.7              | 17.4      | 12.3     | 14.4  |
|              | Hotels, camping sites and other short-<br>stay accommodation | 0.0      | 33.3               | 12.5            | 31.9              | 0.0       | 1.9      | 14.3  |
|              | Wholesale and retail trade                                   | 11.1     | 22.5               | 13.5            | 23.8              | 14.5      | 4.1      | 12.8  |
|              | Motion picture, video, radio and TV activities               | 6.4      | 0.0                | 25.0            | 0.0               | 2.3       | 22.9     | 6.2   |
| Tota         | I  | 14.8     | 18.7               | 13.8            | 18.4              | 15.4      | 12.9     | 15.5  |
|              | DSL (xDSL, ADSL  | ., SDSI  | ., etc.)           | conne           | ction             |           |          |       |
|              | Construction   | 71.8     | 82.8               | 91.1            | 74.2              | 84.3      | 68.6     | 74.9  |
|              | Wholesale and retail trade                                   | 75.4     | 49.3               | 38.0            | 72.7              | 82.5      | 62.7     | 71.0  |
|              | Hotels, camping sites and other short-<br>stay accommodation | 80.1     | 58.3               | 12.5            | 68.1              | 79.5      | 61.1     | 67.2  |
| ≳            | Manufacturing  | 60.0     | 66.5               | 70.5            | 60.1              | 63.9      | 64.1     | 62.2  |

|   |          | Construction   | 71.8 | 82.8 | 91.1 | 74.2  | 84.3  | 68.6 | 74.9 |
|---|----------|--|------|------|------|-------|-------|------|------|
|   |          | Wholesale and retail trade                                   | 75.4 | 49.3 | 38.0 | 72.7  | 82.5  | 62.7 | 71.0 |
|   |          | Hotels, camping sites and other short-<br>stay accommodation | 80.1 | 58.3 | 12.5 | 68.1  | 79.5  | 61.1 | 67.2 |
|   | >        | Manufacturing  | 60.0 | 66.5 | 70.5 | 60.1  | 63.9  | 64.1 | 62.2 |
|   | Activity | Real estate, renting and business activities                 | 62.3 | 57.4 | 85.7 | 53.0  | 52.9  | 67.1 | 61.9 |
|   |          | Motion picture, video, radio and TV activities               | 60.0 | 73.3 | 25.0 | 62.9  | 68.6  | 45.7 | 60.4 |
|   |          | Transport, storage and<br>communications                     | 48.6 | 65.3 | 52.1 | 37.0  | 44.6  | 70.2 | 51.8 |
|   |          | Banks and insurance companies                                | 28.6 | 80.0 | 57.9 | 100.0 | 100.0 | 46.2 | 54.8 |
| ٦ | Fotal    |  | 66.0 | 63.6 | 66.2 | 63.1  | 70.0  | 64.8 | 65.5 |

### B3: Does your enterprise have one of the following types of external connections with the Internet?

| in percentag |  |                  |                    |                 |                   |           |          |       |  |
|--------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|              |  |                  | Size               |                 |                   | Region    |          |       |  |
|              | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
|              | Cab  | able Internet    |                    |                 |                   |           |          |       |  |
|              | Banks and insurance companies                                | 71.4             | 60.0               | 100.0           | 50.0              | 100.0     | 88.5     | 87.1  |  |
|              | Real estate, renting and business activities                 | 36.3             | 52.2               | 19.0            | 37.6              | 35.8      | 39.2     | 38.3  |  |
|              | Motion picture, video, radio and TV activities               | 35.1             | 0.0                | 75.0            | 27.8              | 24.4      | 51.4     | 32.5  |  |
| Activity     | Manufacturing  | 27.2             | 26.3               | 36.7            | 23.1              | 25.2      | 37.3     | 27.5  |  |
| Acti         | Transport, storage and<br>communications                     | 27.8             | 15.3               | 66.7            | 17.5              | 34.9      | 28.8     | 26.8  |  |
|              | Hotels, camping sites and other short-<br>stay accommodation | 20.4             | 8.3                | 87.5            | 13.1              | 20.5      | 25.9     | 19.5  |  |
|              | Wholesale and retail trade                                   | 10.0             | 52.6               | 58.5            | 11.8              | 5.7       | 27.5     | 16.9  |  |
|              | Construction   | 11.2             | 23.7               | 43.8            | 13.2              | 7.4       | 22.7     | 15.2  |  |
| Tota         | l  | 21.1             | 32.6               | 46.2            | 19.7              | 18.7      | 32.6     | 24.3  |  |
|              | Mobile   | e connections    |                    |                 |                   |           |          |       |  |
|              | Banks and insurance companies                                | 28.6             | 40.0               | 52.6            | 50.0              | 66.7      | 42.3     | 45.2  |  |
|              | Motion picture, video, radio and TV activities               | 26.1             | 26.7               | 25.0            | 37.1              | 9.3       | 25.7     | 26.1  |  |
|              | Transport, storage and<br>communications                     | 28.1             | 1.5                | 33.3            | 19.9              | 6.9       | 38.5     | 23.3  |  |
| Activity     | Real estate, renting and business activities                 | 11.2             | 15.9               | 23.8            | 5.7               | 27.4      | 10.2     | 12.2  |  |
| ط            | Wholesale and retail trade                                   | 8.8              | 19.2               | 31.6            | 7.4               | 7.6       | 14.8     | 10.7  |  |
|              | Manufacturing  | 10.7             | 6.2                | 31.9            | 13.1              | 8.2       | 8.8      | 10.6  |  |
|              | Hotels, camping sites and other short stay accommodation     | 19.9             | 0.0                | 0.0             | 0.0               | 0.0       | 25.9     | 10.6  |  |
|              | Construction   | 6.3              | 5.4                | 28.6            | 6.6               | 7.4       | 7.7      | 7.2   |  |
| Tota         | I  | 11.1             | 9.5                | 31.3            | 11.2              | 9.2       | 13.5     | 11.6  |  |



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

(as consumer of Internet services)

|          |  |                  |                    |                 |                   | in        | perce    | ntages |
|----------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|          |  |                  | Size               |                 |                   | Region    |          |        |
|          | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|          | Banking an   | d finan          | cial se            | rvices          |                   |           |          |        |
|          | Banks and insurance companies                            | 100.0            | 80.0               | 100.0           | 100.0             | 100.0     | 96.2     | 96.8   |
|          | Construction   | 86.6             | 76.1               | 86.6            | 74.4              | 88.2      | 91.6     | 84.5   |
|          | Manufacturing  | 76.9             | 89.3               | 74.9            | 77.3              | 83.2      | 81.3     | 80.0   |
| >        | Real estate, renting and business activities             | 78.0             | 83.6               | 100.0           | 78.0              | 72.9      | 81.2     | 79.2   |
| Activity | Wholesale and retail trade                               | 77.6             | 82.1               | 93.0            | 69.1              | 71.5      | 89.4     | 78.5   |
| Ac       | Transport, storage and<br>communications                 | 62.9             | 66.0               | 95.8            | 30.7              | 91.0      | 74.6     | 64.6   |
|          | Motion picture, video, radio and TV activities           | 45.2             | 63.3               | 100.0           | 45.4              | 11.6      | 100.0    | 48.5   |
|          | Hotels, camping sites and other short stay accommodation | 29.8             | 50.0               | 87.5            | 31.9              | 0.0       | 68.5     | 41.5   |
| Tota     |  | 76.5             | 83.3               | 83.5            | 70.9              | 78.3      | 84.8     | 78.1   |
|          | Training   | g and e          | ducati             | on              |                   |           |          |        |
|          | Motion picture, video, radio and TV activities           | 78.9             | -                  | 25.0            | 55.7              | 88.4      | 71.4     | 69.2   |
|          | Banks and insurance companies                            | 42.9             | 40.0               | 68.4            | 50.0              | 100.0     | 53.8     | 58.1   |
|          | Real estate, renting and business activities             | 40.8             | 63.6               | 14.3            | 53.0              | 23.8      | 46.0     | 43.7   |
| Activity | Hotels, camping sites and other short stay accommodation | 19.9             | 33.3               | 12.5            | 0.0               | 0.0       | 61.1     | 24.9   |
| ٩        | Construction   | 4.5              | 75.8               | 61.6            | 22.8              | 22.9      | 18.6     | 21.3   |
|          | Wholesale and retail trade                               | 10.3             | 62.0               | 60.2            | 19.3              | 12.9      | 21.6     | 18.5   |
|          | Manufacturing  | 15.9             | 19.7               | 30.7            | 13.7              | 15.9      | 26.1     | 17.6   |
|          | Transport, storage and<br>communications                 | 10.8             | 35.5               | 66.7            | 15.4              | 24.7      | 13.5     | 17.3   |
| Tota     |  | 16.7             | 39.6               | 42.0            | 19.2              | 18.0      | 27.8     | 22.2   |

### B5: Does your enterprise use the Internet to interact with public authorities?

|          |  |                  |                    |                 |                   | ir        | n perce  | ntages |
|----------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|          |  |                  | Size               |                 |                   | Region    |          |        |
|          | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|          |  | YES              |                    |                 |                   |           |          |        |
|          | Motion picture, video, radio and TV activities           | 100.0            | 63.3               | 100.0           | 91.8              | 100.0     | 100.0    | 96.2   |
|          | Banks and insurance companies                            | 71.4             | 100.0              | 94.7            | 100.0             | 100.0     | 88.5     | 90.3   |
|          | Construction   | 84.3             | 94.1               | 96.4            | 84.0              | 82.4      | 92.8     | 86.8   |
| Activity | Real estate, renting and business activities             | 75.8             | 90.4               | 95.2            | 52.3              | 91.8      | 82.9     | 78.2   |
| Acti     | Manufacturing  | 66.5             | 85.3               | 76.6            | 75.0              | 64.0      | 74.8     | 71.8   |
|          | Wholesale and retail trade                               | 52.6             | 87.9               | 95.3            | 47.4              | 37.2      | 79.3     | 58.4   |
|          | Transport, storage and<br>communications                 | 57.0             | 52.3               | 95.8            | 48.0              | 29.4      | 86.6     | 57.4   |
|          | Hotels, camping sites and other short stay accommodation | 19.9             | 41.7               | 100.0           | 15.9              | 20.5      | 57.4     | 33.6   |
|          |  |                  |                    |                 |                   | 69.1      |          |        |

### **B6:** Does your enterprise use the Internet to interact with public authorities for the following purposes?<sup>1)</sup>

| in percentages |  |                  |                    |                 |                   |           |          |       |
|----------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                |  |                  | Size               |                 |                   | Region    |          |       |
|                | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | central<br>Serbia | Vojvodina | Belgrade | Total |
|                | For obtain   | ning ir          | format             | tion            |                   |           |          |       |
|                | Hotels, camping sites and other short stay accommodation | 100.0            | 100.0              | 100.0           | 100.0             | 100.0     | 100.0    | 100.0 |
|                | Real estate, renting and business activities             | 100.0            | 100.0              | 100.0           | 100.0             | 100.0     | 100.0    | 100.0 |
|                | Manufacturing  | 98.5             | 100.0              | 88.0            | 97.6              | 100.0     | 98.3     | 98.4  |
| vity           | Construction   | 97.5             | 100.0              | 100.0           | 100.0             | 92.9      | 100.0    | 98.2  |
| Activity       | Motion picture, video, radio and TV activities           | 93.6             | 100.0              | 100.0           | 100.0             | 100.0     | 77.1     | 94.3  |
|                | Banks and insurance companies                            | 100.0            | 80.0               | 94.4            | 100.0             | 100.0     | 91.3     | 92.9  |
|                | Wholesale and retail trade                               | 86.1             | 100.0              | 100.0           | 81.4              | 64.9      | 100.0    | 89.5  |
|                | Transport, storage and<br>communications                 | 85.0             | 100.0              | 100.0           | 100.0             | 100.0     | 79.9     | 88.4  |
| Total          |  | 94.3             | 99.9               | 94.1            | 95.3              | 91.9      | 97.9     | 95.7  |
|                | For obtaining  | forms            | (e.g. ta           | x form          | ıs)               |           |          |       |
|                | Banks and insurance companies                            | 100.0            | 100.0              | 100.0           | 100.0             | 100.0     | 100.0    | 100.0 |
|                | Hotels, camping sites and other short stay accommodation | 100.0            | 100.0              | 87.5            | 100.0             | 100.0     | 96.8     | 97.8  |
|                | Transport, storage and<br>communications                 | 96.3             | 97.1               | 100.0           | 100.0             | 96.6      | 95.0     | 96.6  |
| Activity       | Real estate, renting and business activities             | 91.2             | 94.5               | 90.0            | 100.0             | 86.9      | 91.5     | 91.7  |
| 4              | Manufacturing  | 86.5             | 98.6               | 85.5            | 94.5              | 89.8      | 83.0     | 90.1  |
|                | Wholesale and retail trade                               | 78.8             | 100.0              | 100.0           | 79.1              | 100.0     | 81.2     | 83.9  |
|                | Construction   | 67.5             | 100.0              | 100.0           | 84.8              | 50.0      | 85.4     | 76.1  |
|                | Motion picture, video, radio and TV activities           | 46.3             | 100.0              | 100.0           | 49.4              | 33.7      | 77.1     | 51.5  |
| Total          |  | 82.1             | 98.7               | 92.3            | 89.8              | 84.1      | 85.4     | 86.6  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B5.

### **B6:** Does your enterprise use the Internet to interact with public authorities for the following purposes?<sup>1)</sup>

in percentages Size Region Total Enterprises Vojvodina **Belgrade** nedium 50-249) 10-49) central Serbia large (250+) small For returning filled in forms Banks and insurance companies 100.0 60.0 100.0 100.0 100.0 91.3 92.9 Hotels, camping sites and other short 50.0 100.0 87.5 100.0 100.0 82.0 74.2 stay accommodation Construction 63.0 75.1 96.3 77.2 38.1 77.7 67.4 Transport, storage and 45.3 50.5 Activity 40.0 97.1 82.6 71.6 52.1 communications 68.5 53.7 43.8 52.6 50.9 Manufacturing 45.2 59.7 Real estate, renting and business 30.5 80.7 90.0 75.6 36.8 34.3 40.3 activities Motion picture, video, radio and TV 32.4 100.0 100.0 49.4 11.6 54.3 39.0 activities Wholesale and retail trade 36.2 34.7 33.2 17.8 81.1 81.0 23.7 Total 37.6 70.4 79.6 54.7 38.5 46.4 47.4

For complete electronic treating and administrative procedure (e.g. declaration, registration, authorization request) without the need for additional paper work (including payment if required)

|          | Banks and insurance companies                            | 60.0 | 60.0 | 44.4 | 100.0 | 66.7 | 43.5 | 50.0 |
|----------|--|------|------|------|-------|------|------|------|
|          | Transport, storage and<br>communications                 | 51.5 | 0.0  | 52.2 | 16.3  | 25.0 | 60.1 | 42.7 |
|          | Manufacturing  | 25.8 | 28.2 | 25.9 | 30.0  | 24.4 | 22.7 | 26.5 |
| Activity | Motion picture, video, radio and TV activities           | 14.8 | 57.9 | 50.0 | 39.3  | 0.0  | 5.7  | 18.7 |
| Acti     | Wholesale and retail trade                               | 10.6 | 39.2 | 24.2 | 13.0  | 28.0 | 15.6 | 17.1 |
|          | Construction   | 0.0  | 32.1 | 35.2 | 4.3   | 4.8  | 15.1 | 8.7  |
|          | Real estate, renting and business activities             | 7.8  | 4.3  | 60.0 | 11.4  | 0.0  | 10.1 | 8.3  |
|          | Hotels, camping sites and other short stay accommodation | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| Tota     |  | 16.7 | 27.7 | 31.5 | 21.9  | 18.6 | 19.3 | 20.0 |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B5.



### **B6:** Does your enterprise use the Internet to interact with public authorities for the following purposes?<sup>1)</sup>

|             |  |                           |                    |                 |                   | ir        | ) perce  | ntages |
|-------------|--|---------------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|             |  | Size                      |                    |                 |                   | Region    |          |        |
| Enterprises |  | small<br>(10-49)          | medium<br>(50-249) | large<br>(250+) | central<br>Serbia | Vojvodina | Belgrade | Total  |
|             | For submitting a proposa                                 | l in an                   | electr             | onic t          | ender :           | system    |          |        |
|             | Transport, storage and<br>communications                 | 18.7                      | 40.1               | 0.0             | 65.9              | 0.0       | 5.0      | 21.3   |
|             | Banks and insurance companies                            | 0.0                       | 20.0               | 16.7            | 50.0              | 33.3      | 8.7      | 14.3   |
|             | Manufacturing  | 5.5                       | 22.5               | 10.1            | 8.2               | 15.8      | 11.1     | 10.9   |
| Activity    | Motion picture, video, radio and TV activities           | 11.3                      | 0.0                | 0.0             | 10.1              | 0.0       | 22.9     | 10.2   |
| Acti        | Wholesale and retail trade                               | 5.8                       | 2.3                | 3.7             | 6.6               | 0.0       | 5.9      | 5.0    |
|             | Construction   | 3.6                       | 6.6                | 3.7             | 7.6               | 0.0       | 4.0      | 4.2    |
|             | Real estate, renting and business activities             | 1.4                       | 4.3                | 0.0             | 5.4               | 0.0       | 1.7      | 1.9    |
|             | Hotels, camping sites and other short stay accommodation | 0.0                       | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0    |
| Tota        |  | 5.6 14.7 6.8 10.3 7.3 6.2 |                    |                 |                   | 7.8       |          |        |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B5.

|             | in percentage  |                  |                    |                 |                   |           |          |       |  |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|             |  |                  | Size               |                 |                   | Region    |          |       |  |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
|             |  | YES              |                    |                 |                   |           |          |       |  |
|             | Banks and insurance companies                                | 85.7             | 100.0              | 100.0           | 100.0             | 100.0     | 96.2     | 96.8  |  |
|             | Hotels, camping sites and other short-<br>stay accommodation | 89.5             | 83.3               | 87.5            | 71.0              | 100.0     | 98.1     | 86.9  |  |
|             | Real estate, renting and business activities                 | 70.8             | 100.0              | 95.2            | 55.4              | 84.7      | 79.5     | 75.4  |  |
| Activity    | Manufacturing  | 66.9             | 76.2               | 70.3            | 63.0              | 70.8      | 78.9     | 70.4  |  |
| Acti        | Motion picture, video, radio and TV activities               | 61.1             | 100.0              | 100.0           | 81.4              | 33.7      | 77.1     | 66.2  |  |
|             | Transport, storage and<br>communications                     | 59.9             | 78.2               | 95.8            | 41.6              | 67.4      | 82.6     | 64.6  |  |
|             | Wholesale and retail sale                                    | 57.7             | 78.1               | 81.3            | 46.8              | 54.9      | 74.6     | 61.0  |  |
|             | Construction   | 52.3             | 82.0               | 100.0           | 36.2              | 70.6      | 76.4     | 60.4  |  |
| Tota        | I  | 62.5             | 79.8               | 81.0            | 55.3              | 66.3      | 78.2     | 67.0  |  |

### B7: Does your enterprise have a Website/Home Page?



(your enterprise and provider of Internet services)<sup>1)</sup>

|             |                  |                    |                 |                   | ir        | n perce  | ntages |
|-------------|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|             |                  | Size               |                 |                   | Region    |          |        |
| Enterprises | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |

#### Confidentiality (protection) of data of the visitors of the Website or asserting Website security?

|          |  |      | •    |      |      |      |      |      |
|----------|--|------|------|------|------|------|------|------|
|          | Banks and insurance companies                            | 16.7 | 40.0 | 73.7 | 50.0 | 33.3 | 60.0 | 56.7 |
|          | Hotels, camping sites and other short stay accommodation | 33.3 | 80.0 | 71.4 | 22.4 | 40.9 | 83.0 | 53.9 |
|          | Manufacturing  | 40.4 | 30.6 | 21.1 | 42.0 | 29.6 | 35.9 | 36.6 |
| >        | Wholesale and retail trade                               | 36.7 | 32.0 | 13.2 | 25.9 | 56.8 | 29.4 | 35.3 |
| Activity | Real estate, renting and business activities             | 27.4 | 66.4 | 5.3  | 37.1 | 13.9 | 39.7 | 34.5 |
|          | Motion picture, video, radio and TV activities           | 38.9 | 0.0  | 50.0 | 22.8 | 72.4 | 33.3 | 33.3 |
|          | Transport, storage and<br>communications                 | 18.7 | 62.0 | 21.7 | 35.2 | 40.7 | 18.5 | 28.7 |
|          | Construction   | 0.0  | 21.7 | 8.9  | 0.0  | 6.0  | 9.8  | 6.5  |
| Tota     |  | 32.3 | 36.5 | 21.6 | 34.2 | 33.6 | 31.6 | 32.9 |

#### Access to product catalogues and price lists?

|          | Hotels, camping sites and other short stay accommodation | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|----------|--|-------|-------|-------|-------|-------|-------|-------|
|          | Transport, storage and<br>communications                 | 71.2  | 100.0 | 58.7  | 73.6  | 68.2  | 84.1  | 77.1  |
|          | Manufacturing  | 63.8  | 78.2  | 77.9  | 66.6  | 72.3  | 68.1  | 68.7  |
| Activity | Wholesale and retail trade                               | 71.6  | 39.4  | 53.7  | 53.9  | 46.4  | 79.1  | 65.4  |
| Acti     | Motion picture, video, radio and TV activities           | 73.5  | 26.7  | 25.0  | 57.0  | 93.1  | 63.0  | 64.1  |
|          | Real estate, renting and business activities             | 64.5  | 57.4  | 5.3   | 61.1  | 57.7  | 63.3  | 61.9  |
|          | Banks and insurance companies                            | 16.7  | 60.0  | 63.2  | 50.0  | 66.7  | 52.0  | 53.3  |
|          | Construction   | 58.7  | 20.8  | 55.4  | 45.1  | 69.5  | 35.7  | 48.4  |
| Tota     |  | 66.8  | 63.3  | 63.7  | 62.7  | 64.2  | 68.9  | 65.8  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B7.

(your enterprise and provider of Internet services)<sup>1)</sup>

| in | percentages |
|----|-------------|
|    | percentages |

| Logical     Size     Regional       Logical     (10-49)     medium       Logical     (10-49)     medium       Central     (20-249)     Central       Volvodina     Central     Central       Volvodina     Central     Central |             |                  |                    |                 |     |        | 1 00100  | mageo |
|--|-------------|------------------|--------------------|-----------------|-----|--------|----------|-------|
|  |             |                  | Size               |                 |     | Region |          |       |
|  | Enterprises | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | ent | vodir  | Belgrade | Total |

### Possibility for visitors to customise or design the products?

| Motion picture, video, radio and TV activities           | 91.9   | 73.3   | 50.0  | 88.6  | 65.5  | 96.3   | 87.3  |
|--|--|--|---|---|---|--|---|
| Hotels, camping sites and other short stay accommodation | 100.0  | 60.0   | 28.6  | 77.6  | 100.0   | 73.6   | 80.0  |
| Banks and insurance companies                            | 100.0  | 40.0   | 84.2  | 100.0   | 100.0   | 76.0   | 80.0  |
| Real estate, renting and business activities             | 81.6   | 54.8   | 94.7  | 67.5  | 70.6  | 80.4   | 76.7  |
| Transport, storage and<br>communications                 | 86.4   | 45.4   | 54.3  | 73.6  | 68.5  | 80.5   | 75.4  |
| Manufacturing  | 66.8   | 88.4   | 61.2  | 57.0  | 89.3  | 78.7   | 72.8  |
| Construction   | 43.3   | 100.0  | 83.0  | 100.0   | 41.7  | 57.3   | 61.6  |
| Wholesale and retail trade                               | 38.9   | 95.4   | 69.9  | 50.1  | 63.4  | 43.5   | 49.9  |
|  | 60.4   | 84.1   | 68.3  | 61.3  | 73.8  | 65.6   | 66.5  |
|  | activities<br>Hotels, camping sites and other short<br>stay accommodation<br>Banks and insurance companies<br>Real estate, renting and business<br>activities<br>Transport, storage and<br>communications<br>Manufacturing<br>Construction | activities91.9Hotels, camping sites and other short<br>stay accommodation100.0Banks and insurance companies100.0Real estate, renting and business<br>activities81.6Transport, storage and<br>communications86.4Manufacturing66.8Construction43.3Wholesale and retail trade38.9 | activities91.973.3Hotels, camping sites and other short<br>stay accommodation100.060.0Banks and insurance companies100.040.0Real estate, renting and business<br>activities81.654.8Transport, storage and<br>communications86.445.4Manufacturing66.888.4Construction43.3100.0Wholesale and retail trade38.995.4 | activities91.973.350.0Hotels, camping sites and other short<br>stay accommodation100.060.028.6Banks and insurance companies100.040.084.2Real estate, renting and business<br>activities81.654.894.7Transport, storage and<br>communications86.445.454.3Manufacturing66.888.461.2Construction43.3100.083.0Wholesale and retail trade86.495.469.9 | activities91.973.350.088.6Hotels, camping sites and other short<br>stay accommodation100.060.028.677.6Banks and insurance companies100.040.084.2100.0Real estate, renting and business<br>activities81.654.894.767.5Transport, storage and<br>communications86.445.454.373.6Manufacturing66.888.461.257.0Construction43.3100.083.0100.0Wholesale and retail trade38.995.469.950.1 | activities     91.9     73.3     50.0     88.6     65.5       Hotels, camping sites and other short<br>stay accommodation     100.0     60.0     28.6     77.6     100.0       Banks and insurance companies     100.0     40.0     84.2     100.0     100.0       Real estate, renting and business<br>activities     81.6     54.8     94.7     67.5     70.6       Transport, storage and<br>communications     86.4     45.4     54.3     73.6     68.5       Manufacturing     66.8     88.4     61.2     57.0     89.3       Construction     43.3     100.0     83.0     100.0     41.7       Wholesale and retail trade     38.9     95.4     69.9     50.1     63.4 | activities       91.9       73.3       50.0       88.6       65.5       96.3         Hotels, camping sites and other short stay accommodation       100.0       60.0       28.6       77.6       100.0       73.6         Banks and insurance companies       100.0       40.0       84.2       100.0       100.0       76.0         Real estate, renting and business activities       81.6       54.8       94.7       67.5       70.6       80.4         Transport, storage and communications       86.4       45.4       54.3       73.6       68.5       80.5         Manufacturing       66.8       88.4       61.2       57.0       89.3       78.7         Construction       43.3       100.0       83.0       100.0       41.7       57.3         Wholesale and retail trade       38.9       95.4       69.9       50.1       63.4       43.5 |

#### Online ordering or reservation of goods/services?

|          | Hotels, camping sites and other short stay accommodation | 34.5 | 60.0 | 28.6 | 59.2 | 40.9 | 34.0 | 44.1 |
|----------|--|------|------|------|------|------|------|------|
|          | Transport, storage and<br>communications                 | 31.0 | 40.0 | 21.7 | 39.2 | 15.4 | 40.1 | 32.6 |
|          | Banks and insurance companies                            | 16.7 | 0.0  | 36.8 | 50.0 | 33.3 | 24.0 | 26.7 |
| Activity | Motion picture, video, radio and TV activities           | 18.5 | 0.0  | 25.0 | 11.4 | 0.0  | 33.3 | 15.8 |
| 4        | Wholesale and retail trade                               | 14.6 | 19.9 | 23.5 | 11.0 | 12.8 | 19.2 | 15.8 |
|          | Manufacturing  | 12.6 | 19.2 | 20.4 | 19.7 | 6.5  | 16.4 | 14.9 |
|          | Real estate, renting and business activities             | 12.9 | 9.6  | 0.0  | 17.1 | 11.5 | 11.1 | 12.0 |
|          | Construction   | 7.2  | 0.0  | 26.8 | 9.9  | 8.3  | 4.4  | 6.8  |
| Tota     |  | 14.3 | 18.4 | 22.1 | 18.5 | 9.8  | 17.2 | 15.6 |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B7.

Т

(your enterprise and provider of Internet services)<sup>1)</sup>

| in percentag |  |                  |                    |                 |                   |           |          | ntages |
|--------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|              |  |                  | Size               |                 |                   | Region    |          |        |
|              | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|              | Onlir  | ie payi          | nent?              |                 |                   |           |          |        |
|              | Banks and insurance companies                            | 0.0              | 20.0               | 47.4            | 50.0              | 33.3      | 32.0     | 33.3   |
|              | Transport, storage and<br>communications                 | 16.4             | 2.0                | 8.7             | 11.9              | 15.4      | 11.5     | 12.7   |
|              | Wholesale and retail trade                               | 12.3             | 2.0                | 15.4            | 13.5              | 8.2       | 10.3     | 10.5   |
| Activity     | Motion picture, video, radio and TV activities           | 10.4             | 0.0                | 25.0            | 0.0               | 0.0       | 33.3     | 9.4    |
| Acti         | Manufacturing  | 5.7              | 17.5               | 1.4             | 9.8               | 6.9       | 9.6      | 8.9    |
|              | Hotels, camping sites and other short stay accommodation | 11.1             | 0.0                | 14.3            | 0.0               | 0.0       | 15.1     | 6.9    |
|              | Construction   | 3.2              | 7.6                | 28.6            | 9.9               | -         | 9.0      | 6.4    |
|              | Real estate, renting and business activities             | 0.6              | 3.3                | 0.0             | 0.0               | 0.0       | 1.7      | 1.1    |
| Tota         |  | 7.6              | 10.3               | 12.0            | 9.7               | 6.3       | 8.8      | 8.4    |
|              | Personalized content on the V                            | Vebsite          | for re             | gular/          | repeat            | ed visi   | tors?    |        |
|              | Banks and insurance companies                            | 33.3             | 80.0               | 68.4            | 50.0              | 66.7      | 64.0     | 63.3   |
|              | Motion picture, video, radio and TV activities           | 67.8             | 0.0                | 25.0            | 34.2              | 65.5      | 92.6     | 55.4   |
|              | Real estate, renting and business activities             | 58.4             | 19.7               | 10.5            | 16.6              | 32.0      | 62.2     | 49.9   |
| Activity     | Manufacturing  | 47.1             | 49.9               | 46.0            | 55.8              | 35.7      | 48.6     | 47.9   |
| Act          | Construction   | 56.5             | 21.7               | 5.4             | 1.3               | 30.6      | 70.8     | 43.2   |
|              | Hotels, camping sites and other short stay accommodation | 35.0             | 40.0               | 0.0             | 100.0             | 0.0       | 0.0      | 34.9   |
|              | Wholesale and retail trade                               | 33.8             | 8.1                | 6.6             | 57.4              | 42.0      | 9.8      | 28.5   |
|              | Transport, storage and<br>communications                 | 36.7             | 2.0                | 4.3             | 18.8              | 33.3      | 27.2     | 27.2   |
| Tota         |  | 45.0             | 31.8               | 28.2            | 48.3              | 36.1      | 39.2     | 41.0   |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B7.

(your enterprise and provider of Internet services)<sup>1)</sup>

| in | percentages |
|----|-------------|
|    | percentages |

| In percentages |  |                  |                    |                 |                   |           |          |       |  |
|----------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|                |  | Size             |                    |                 |                   |           |          |       |  |
| Enterprises    |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
|                | Advertisement of open job positions or online job application? |                  |                    |                 |                   |           |          |       |  |
|                | Banks and insurance companies                                  | 16.7             | 40.0               | 68.4            | 50.0              | 66.7      | 52.0     | 53.3  |  |
|                | Motion picture, video, radio and TV activities                 | 38.9             | 0.0                | 50.0            | 22.8              | 65.5      | 37.0     | 33.3  |  |
|                | Real estate, renting and business activities                   | 19.7             | 23.3               | 21.1            | 16.6              | 20.0      | 21.4     | 20.5  |  |
| Activity       | Construction   | 22.5             | 14.2               | 3.6             | 18.2              | 13.9      | 22.3     | 18.8  |  |
| Acti           | Manufacturing  | 8.6              | 12.1               | 24.9            | 5.0               | 13.3      | 15.0     | 10.4  |  |
|                | Wholesale and retail trade                                     | 8.4              | 0.0                | 28.7            | 6.0               | 7.0       | 8.0      | 7.3   |  |
|                | Transport, storage and<br>communications                       | 3.0              | 2.0                | 37.0            | 2.6               | 1.5       | 7.1      | 4.5   |  |
|                | Hotels, camping sites and other short-<br>stay accommodation   | 0.0              | 0.0                | 71.4            | 0.0               | 0.0       | 9.4      | 4.3   |  |
| Total          |  | 11.4             | 10.1               | 26.3            | 7.2               | 11.9      | 14.6     | 11.7  |  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B7.



# B9: Was your enterprise using, in January 2009, a digital signature in any message sent, i.e. encryption methods that assure the authenticity and integrity of the message?

|             | in percentages   |                  |                    |                 |                   |           |          |       |  |  |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|--|
|             |  |                  | Size               |                 |                   |           |          |       |  |  |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |  |
|             | YES  |                  |                    |                 |                   |           |          |       |  |  |
|             | Banks and insurance companies                                | 28.6             | 60.0               | 36.8            | 50.0              | 66.7      | 34.6     | 38.7  |  |  |
|             | Transport, storage and<br>communication                      | 39.7             | 0.0                | 16.7            | 14.9              | 9.4       | 62.5     | 31.5  |  |  |
|             | Wholesale and retail trade                                   | 10.4             | 12.2               | 35.4            | 9.7               | 21.0      | 5.9      | 11.1  |  |  |
| ~           | Manufacturing  | 8.5              | 5.5                | 14.5            | 6.2               | 9.1       | 9.8      | 8.0   |  |  |
| Activity    | Real estate, renting and business activities                 | 7.5              | 9.6                | 9.5             | 6.4               | 2.0       | 9.9      | 7.9   |  |  |
|             | Construction   | 3.0              | 24.8               | 5.4             | 6.4               | 0.6       | 13.3     | 7.4   |  |  |
|             | Hotels, camping sites and other short-<br>stay accommodation | 0.0              | 0.0                | 12.5            | 0.0               | 0.0       | 1.9      | 0.8   |  |  |
|             | Motion picture, video, radio and TV activities               | 0.0              | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |  |  |
| Tota        | I  | 10.3             | 8.9                | 17.0            | 7.5               | 11.2      | 12.2     | 10.3  |  |  |

### MODULE 2.C: AUTOMATED DATA EXCHANGE<sup>1)</sup>

### C1: Was your enterprise using automated data exchange in January 2009?

| in percentage |  |                  |                    |                 |                   |           |          |       |  |
|---------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|               |  | Size             |                    |                 |                   |           |          |       |  |
| Enterprises   |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
| YES           |  |                  |                    |                 |                   |           |          |       |  |
|               | Banks and insurance companies                            | 57.1             | 60.0               | 78.9            | 100.0             | 100.0     | 65.4     | 71.0  |  |
|               | Transport, storage and<br>communications                 | 36.8             | 1.5                | 39.6            | 21.1              | 19.0      | 52.3     | 31.1  |  |
|               | Wholesale and retail trade                               | 22.5             | 32.8               | 83.0            | 21.5              | 10.3      | 36.1     | 24.8  |  |
| Activity      | Real estate, renting and business activities             | 26.1             | 15.8               | 14.3            | 41.2              | 3.8       | 24.9     | 24.4  |  |
| Acti          | Manufacturing  | 12.4             | 30.2               | 42.8            | 18.2              | 14.6      | 22.9     | 18.4  |  |
|               | Motion picture, video, radio and TV activities           | 0.0              | 100.0              | 25.0            | 16.5              | 9.3       | 2.9      | 11.0  |  |
|               | Construction   | 7.7              | 5.5                | 58.9            | 12.4              | 8.2       | 7.8      | 9.5   |  |
|               | Hotels, camping sites and other short stay accommodation | 0.0              | 14.3               | 12.5            | 12.3              | 0.0       | 1.9      | 6.7   |  |
| Tota          |  | 18.5             | 25.1               | 50.1            | 19.9              | 11.9      | 28.0     | 20.8  |  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question A1.



### C2: Was automated data exchange used for the following purposes? $^{1)} \label{eq:c2}$

| in percentage |  |                  |                    |                 |                   |           |          | ntages |
|---------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|               |  |                  | Size               |                 |                   | Region    |          |        |
|               | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|               | Sending o  | rders t          | o supp             | liers           |                   |           |          |        |
|               | Hotels, camping sites and other short-<br>stay accommodation | 0.0              | 100.0              | 0.0             | 100.0             | 0.0       | 0.0      | 90.0   |
|               | Construction   | 100.0            | 100.0              | 57.6            | 100.0             | 63.9      | 91.4     | 88.3   |
|               | Wholesale and retail trade                                   | 84.3             | 83.5               | 37.0            | 89.2              | 65.2      | 81.0     | 81.6   |
| 2             | Manufacturing  | 85.0             | 73.7               | 43.5            | 74.0              | 69.5      | 82.1     | 75.7   |
| Activity      | Real estate, renting and business activities                 | 68.2             | 60.4               | 0.0             | 84.5              | 50.0      | 58.3     | 66.8   |
|               | Transport, storage and<br>communications                     | 41.9             | 0.0                | 21.1            | 36.3              | 95.2      | 26.4     | 40.8   |
|               | Motion picture, video, radio and TV activities               | 0.0              | 36.7               | 100.0           | 50.0              | 0.0       | 100.0    | 40.6   |
|               | Banks and insurance companies                                | 25.0             | 0.0                | 20.0            | 50.0              | 0.0       | 17.6     | 18.2   |
| Tota          |  | 76.2             | 75.1               | 40.8            | 78.5              | 69.1      | 70.4     | 73.0   |
|               | Receiv   | ing e-i          | nvoice             | s               |                   |           |          |        |
|               | Construction   | 100.0            | 100.0              | 66.7            | 100.0             | 67.2      | 97.1     | 90.8   |
|               | Hotels, camping sites and other short-<br>stay accommodation | 0.0              | 100.0              | 0.0             | 100.0             | 0.0       | 0.0      | 90.0   |
|               | Real estate, renting and business activities                 | 87.0             | 20.8               | 66.7            | 84.5              | 50.0      | 79.8     | 80.6   |
| Activity      | Transport, storage and<br>communications                     | 76.7             | 0.0                | 89.5            | 58.4              | 95.2      | 79.2     | 76.5   |
| ٩             | Manufacturing  | 70.9             | 79.6               | 55.9            | 68.5              | 70.6      | 80.1     | 72.8   |
|               | Wholesale and retail trade                                   | 53.5             | 68.1               | 31.0            | 71.4              | 53.6      | 47.5     | 54.8   |
|               | Motion picture, video, radio and TV activities               | 0.0              | 36.7               | 100.0           | 50.0              | 0.0       | 100.0    | 40.6   |
|               | Banks and insurance companies                                | 75.0             | 33.3               | 26.7            | 50.0              | 0.0       | 41.2     | 36.4   |
| Tota          |  | 68.6             | 72.5               | 51.3            | 72.7              | 67.0      | 65.1     | 68.0   |

<sup>1)</sup> The results refer only to enterprises that answered positively in question C1.

### C2: Was automated data exchange used for the following purposes?<sup>1)</sup>

| Size     Region       Enterprises     (10-49)       Vojvodina     (250+1)       Vojvodina     (250+1)  | Total |
|--|-------|
|  |       |
|  |       |
| Receiving orders from customers  |       |
| Hotels, camping sites and other short 0.0 100.0 0.0 100.0 0.0 0.0 0.0  | 90.0  |
| Construction         100.0         100.0         54.5         100.0         63.9         88.3  | 87.5  |
| Manufacturing 83.6 82.7 35.6 75.8 82.7 77.   | 77.8  |
| Motion picture, video, radio and TV<br>activities<br>Transport, storage and<br>71.7 0.0 31.6 54.5 95.2 68  | 75.0  |
| Transport, storage and communications 71.7 0.0 31.6 54.5 95.2 68.  | 69.6  |
| Real estate, renting and business<br>activities65.620.80.084.5100.046.1  | 60.8  |
| Wholesale and retail trade         60.7         53.2         34.9         53.7         63.9         58.9   | 58.0  |
| Banks and insurance companies         0.0         0.0         6.7         0.0         0.0         5.9  | 4.5   |
| Total         69.9         71.1         35.8         70.8         76.6         62.1  | 67.4  |
| Sending e-invoices   |       |
| Construction 100.0 100.0 63.6 100.0 67.2 94.   | 90.0  |
| Transport, storage and<br>communications87.0100.089.594.874.687.0  | 87.2  |
| Real estate, renting and business<br>activities80.420.866.784.5100.068.4   | 74.6  |
| Image: Wanufacturing         54.9         71.0         58.2         54.8         69.5         66.3   | 61.9  |
| Approx         Manufacturing         54.9         71.0         58.2         54.8         69.5         66.           Wholesale and retail trade         43.7         41.6         46.8         45.6         18.1         46.5 | 43.5  |
| Motion picture, video, radio and TV 0.0 36.7 100.0 50.0 0.0 100  | 40.6  |
| Banks and insurance companies         75.0         33.3         26.7         50.0         0.0         41.3   | 36.4  |
| Hotels, camping sites and other short<br>stay accommodation0.00.00.00.00.00.0  | 0.0   |
| Total     61.2     58.9     55.5     61.1     56.0     60.4 <sup>1)</sup> The results refer only to enterprises that answered positively in question C!.   | 60.2  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question C!.

### C2: Was automated data exchange used for the following purposes?<sup>1)</sup>

|             |                  |                    |                 |                   | ir        | n perce  | ntages |
|-------------|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|             |                  | Size               |                 |                   |           |          |        |
| Enterprises | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |

### Sending or receiving product information (e.g. catalogues, price lists, etc.)

|          | Manufacturing  | 70.5 | 83.3  | 84.2  | 83.9 | 78.8 | 67.8  | 77.4 |
|----------|--|------|-------|-------|------|------|-------|------|
|          | Construction   | 56.4 | 100.0 | 90.9  | 75.8 | 39.3 | 91.4  | 71.0 |
|          | Real estate, renting and business activities             | 63.8 | 20.8  | 33.3  | 61.5 | 0.0  | 60.9  | 59.5 |
| >        | Wholesale and retail trade                               | 61.8 | 42.7  | 68.7  | 41.8 | 54.0 | 67.4  | 58.8 |
| Activity | Motion picture, video, radio and TV activities           | 0.0  | 36.7  | 100.0 | 50.0 | 0.0  | 100.0 | 40.6 |
|          | Transport, storage and<br>communications                 | 27.4 | 0.0   | 63.2  | 18.2 | 69.8 | 20.9  | 28.6 |
|          | Banks and insurance companies                            | 0.0  | 0.0   | 20.0  | 0.0  | 0.0  | 17.6  | 13.6 |
|          | Hotels, camping sites and other short stay accommodation | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  |
| Total    |  | 58.8 | 66.0  | 74.6  | 61.7 | 64.6 | 60.9  | 61.8 |

### Sending or receiving trasnport documents (e.g. consignment notes)

|          | Manufacturing  | 24.6 | 52.0  | 36.7 | 39.6 | 52.2 | 24.4 | 37.4 |
|----------|--|------|-------|------|------|------|------|------|
|          | Wholesale and retail trade                               | 33.0 | 8.3   | 6.3  | 22.3 | 7.8  | 32.8 | 27.3 |
|          | Real estate, renting and business activities             | 15.4 | 20.8  | 0.0  | 15.1 | 0.0  | 16.8 | 15.8 |
| >        | Construction   | 0.0  | 100.0 | 12.1 | -    | 3.3  | 49.3 | 15.1 |
| Activity | Transport, storage and<br>communications                 | 12.9 | 0.0   | 0.0  | 18.2 | 44.4 | 0.0  | 12.3 |
|          | Hotels, camping sites and other short stay accommodation | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
|          | Motion picture, video, radio and TV activities           | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
|          | Banks and insurance companies                            | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Tota     | I  | 23.7 | 36.9  | 19.9 | 26.3 | 33.4 | 24.4 | 26.4 |

<sup>1)</sup> The results refer only to enterprises that answered positively in question C1.

#### ICT 2009

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### C2: Was automated data exchange used for the following purposes?<sup>1)</sup>

| in percentag |  |                     |                    |                 |                   |           |          |        |
|--------------|--|---------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|              |  |                     | Size               |                 |                   | Region    |          |        |
|              | Enterprises  |                     | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|              | Sending payment instru                                   | ictions             | to fina            | ancial          | institu           | itions    |          |        |
|              | Banks and insurance companies                            | 75.0                | 66.7               | 60.0            | 0.0               | 100.0     | 64.7     | 63.6   |
|              | Manufacturing  | 24.6                | 45.6               | 41.8            | 28.1              | 59.6      | 28.3     | 35.3   |
|              | Motion picture, video, radio and TV activities           | 0.0                 | 26.7               | 100.0           | 0.0               | 100.0     | 100.0    | 31.3   |
| ~            | Construction   | -                   | 100.0              | 57.6            | 27.3              | 3.3       | 49.3     | 27.6   |
| Activity     | Transport, storage and<br>communications                 | 27.4                | 0.0                | 21.1            | 36.3              | 69.8      | 9.8      | 26.9   |
|              | Wholesale and retail trade                               | 30.5                | 3.6                | 27.8            | 12.7              | 2.9       | 35.5     | 25.7   |
|              | Real estate, renting and business activities             | 17.6                | 20.8               | 33.3            | 23.0              | 0.0       | 16.2     | 18.0   |
|              | Hotels, camping sites and other short stay accommodation | 0.0                 | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0    |
| Tota         |  | 25.3                | 32.9               | 41.4            | 22.8              | 40.8      | 28.6     | 28.4   |
| Sen          | ding or receiving data to/from p<br>d                    | ublic au<br>ata, et |                    | ies (e.         | g. tax :          | returns   | s, stati | stical |
|              | Construction   | 54.7                | 100.0              | 21.2            | 72.7              | 6.6       | 55.1     | 50.8   |
|              | Banks and insurance companies                            | 25.0                | 66.7               | 26.7            | 50.0              | 66.7      | 23.5     | 31.8   |
|              | Wholesale and retail trade                               | 28.6                | 4.8                | 18.0            | 3.8               | 7.8       | 35.8     | 23.9   |
|              | Manufacturing  | 16.7                | 34.2               | 13.6            | 19.5              | 45.8      | 14.0     | 23.6   |

16.4

0.0

2.8

0.0

20.9

0.0

0.0

60.4

0.0

27.7

10.5

100.0

33.3

0.0

17.4

5.2

0.0

7.5

0.0

15.5

44.4

0.0

0.0

0.0

31.1

12.5

100.0

9.4

0.0

24.3

16.1

10.0

8.5

0.0

22.2

in percentages

<sup>1)</sup> The results refer only to enterprises that anwered positively in question C1.



Activity

Total

Transport, storage and

stay accommodation

Hotels, camping sites and other short

Real estate, renting and business

Motion picture, video, radio and TV

communications

activities

activities

# MODULE 4.D: Module D: Sharing electronically information on the Supply Chain Management $^{1)} \label{eq:module}$

D1: In January 2009, was your enterprise regularly sharing electronically information on the supply chain management with your suppliers or customers?

| Enterprises |  | Size             |                    |                 |                   |           |          |       |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|             |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
| YES         |  |                  |                    |                 |                   |           |          |       |
|             | Transport, storage and<br>communications                     | 47.4             | 0.0                | 37.5            | 23.0              | 47.6      | 50.9     | 39.3  |
|             | Wholesale and retail trade                                   | 34.1             | 12.7               | 41.2            | 26.7              | 26.6      | 37.9     | 31.4  |
|             | Manufacturing  | 18.5             | 35.9               | 26.1            | 23.1              | 17.7      | 29.7     | 23.3  |
| Activity    | Real estate, renting and business activities                 | 18.4             | 14.5               | 19.0            | 41.2              | 11.7      | 12.2     | 17.8  |
| Ă           | Construction   | 10.9             | 5.5                | 41.1            | 9.6               | 5.5       | 17.4     | 11.2  |
|             | Hotels, camping sites and other short-<br>stay accommodation | 9.5              | 0.0                | 0.0             | 10.1              | 0.0       | 0.0      | 5.0   |
|             | Motion picture, video, radio and TV activities               | 0.0              | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
| Tota        | I  | 24.7             | 22.3               | 30.1            | 23.1              | 20.2      | 28.7     | 24.4  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question A1.

### D2: In January 2009, was your enterprise regularly sharing electronically the following information with its suppliers?<sup>1)</sup>

| in percentages   |  |         |                    |                 |                   |           |          |       |
|--|--|---------|--------------------|-----------------|-------------------|-----------|----------|-------|
|  | Enterprises  |         | Size               |                 |                   | Region    |          |       |
|  |  |         | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
| Inventory levels, production plans or demand forecasts |  |         |                    |                 |                   |           |          |       |
|  | Construction   | 58.9    | 100.0              | 69.6            | 66.4              | 90.2      | 57.2     | 64.8  |
|  | Wholesale and retail trade                                   | 54.8    | 74.9               | 78.7            | 53.9              | 44.5      | 62.7     | 56.4  |
|  | Manufacturing  | 46.8    | 55.6               | 63.0            | 57.4              | 51.8      | 42.5     | 51.1  |
| vity   | Real estate, renting and business activities                 | 48.6    | 56.8               | 50.0            | 46.0              | 51.2      | 53.0     | 49.6  |
| Activity   | Transport, storage and<br>communications                     | 6.5     | 0.0                | 22.2            | 0.0               | 7.6       | 10.0     | 7.0   |
|  | Hotels, camping sites and other short-<br>stay accommodation | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
|  | Motion picture, video, radio and TV activities               | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
| Tota   |  | 45.6    | 59.2               | 63.9            | 50.9              | 42.5      | 50.0     | 48.7  |
| Pro  | gress of deliveries (i.e. of distribu                        | ution o | of raw r           | nateria         | als or f          | finishe   | d prod   | ucts) |
|  | Manufacturing  | 53.9    | 66.0               | 37.0            | 54.5              | 73.9      | 51.7     | 57.7  |
|  | Construction   | 44.8    | 100.0              | 8.7             | 31.2              | 90.2      | 39.6     | 44.5  |
|  | Real estate, renting and business activities                 | 40.5    | 22.7               | 25.0            | 30.5              | 16.3      | 51.9     | 38.1  |
| /ity   | Wholesale and retail trade                                   | 35.1    | 55. <b>9</b>       | 78.7            | 40.4              | 48.6      | 30.6     | 37.1  |
| Activity   | Transport, storage and<br>communications                     | 18.1    | 0.0                | 55.6            | 33.3              | 7.6       | 20.8     | 19.1  |
|  | Hotels, camping sites and other short-<br>stay accommodation | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
|  | Motion picture, video, radio and TV activities               | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |

<sup>1)</sup> The results refer only to enterprises that answered positively in question D1.

38.3

63.4

41.0

44.6

50.5



Total

42.9

37.7

### D3: In January 2009, was your enterprise regularly sharing electronically the following information with its customers?<sup>1)</sup>

| in percentages |  |         |                    |                 |                   |           |          |       |
|----------------|--|---------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                | Enterprises  |         | Size               |                 | Region            |           |          |       |
|                |  |         | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|                | Inventory levels, produc                                     | tion p  | lans or            | dema            | nd for            | ecasts    |          |       |
|                | Construction   | 43.6    | 100.0              | 69.6            | 97.7              | 90.2      | 19.5     | 53.5  |
|                | Wholesale and retail trade                                   | 50.8    | 44.1               | -               | 40.8              | 40.2      | 57.8     | 49.4  |
|                | Manufacturing  | 34.8    | 53.0               | 61.1            | 49.7              | 45.6      | 33.8     | 43.4  |
| vity           | Real estate, renting and business activities                 | 27.3    | 100.0              | 50.0            | 38.5              | 34.9      | 34.4     | 36.3  |
| Activity       | Transport, storage and<br>communications                     | 10.4    | 0.0                | 22.2            | 0.0               | 7.6       | 18.6     | 10.7  |
|                | Hotels, camping sites and other short-<br>stay accommodation | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
|                | Motion picture, video, radio and TV activities               | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
| Tota           |  | 38.6    | 55.8               | 46.7            | 43.9              | 37.9      | 42.4     | 41.9  |
| P              | rogress deliveries (i.e. of distribut                        | tion of | raw m              | aterial         | ls or fi          | nished    | produ    | cts)  |
|                | Manufacturing  | 53.1    | 63.4               | 63.0            | 60.7              | 68.6      | 46.7     | 57.7  |
|                | Construction   | 57.7    | 100.0              | 4.3             | 62.5              | 90.2      | 38.4     | 53.2  |
|                | Wholesale and retail trade                                   | 36.0    | 37.5               | 25.5            | 39.7              | 47.3      | 29.0     | 35.9  |
| /ity           | Real estate, renting and business activities                 | 21.3    | 65.9               | 25.0            | 23.0              | 16.3      | 33.3     | 26.7  |
| Activity       | Transport, storage and communications                        | 17.7    | 0.0                | 55.6            | 16.7              | 17.8      | 20.8     | 18.8  |
|                | Hotels, camping sites and other short-<br>stay accommodation | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
|                | Motion picture, video, radio and TV activities               | 0.0     | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |

<sup>1)</sup> The results refer only to enterprises that answered positively in question D1.

37.4

61.5

41.4

41.8

49.9

34.0

46.6

Total

# MODULE 2.E: Automatic share of information within the $enterprise^{1)}$

E1: In January 2009, when your enterprise received a sales order (either electronically or not), was the relevant information about it shared electronically and automatically with the software used for the following functions?

|          |  |          |                    |                 |                   | ir        | n perce  | ntages |
|----------|--|----------|--------------------|-----------------|-------------------|-----------|----------|--------|
|          |  |          | Size               |                 |                   | Region    |          |        |
|          | Enterprises  |          | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|          | Managemen  | t of inv | rentory            | 7 levels        | 5                 |           |          |        |
|          | Manufacturing  | 20.0     | 45.5               | 48.1            | 34.0              | 22.4      | 23.3     | 27.8   |
|          | Banks and insurance companies                                | 28.6     | 40.0               | 21.1            | 100.0             | 66.7      | 15.4     | 25.8   |
|          | Wholesale and retail trade                                   | 21.2     | 13.1               | 49.4            | 9.9               | 22.2      | 27.9     | 20.6   |
| >        | Real estate, renting and business activities                 | 9.6      | 9.6                | 4.8             | 6.4               | 7.1       | 11.2     | 9.5    |
| Activity | Construction   | 1.5      | 11.1               | 25.0            | 0.4               | 2.7       | 10.1     | 4.5    |
| Ad       | Transport, storage and<br>communications                     | 3.5      | 0.0                | 33.3            | 0.0               | 6.6       | 5.9      | 3.8    |
|          | Hotels, camping sites and other short-<br>stay accommodation | 0.0      | 0.0                | 12.5            | 0.0               | 0.0       | 1.9      | 0.7    |
|          | Motion picture, video, radio and TV activities               | 0.0      | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0    |
| Tota     | I  | 15.6     | 27.4               | 39.3            | 18.7              | 17.2      | 19.7     | 18.7   |
|          | You  | accou    | nting              |                 |                   |           |          |        |
|          | Banks and insurance companies                                | 57.1     | 60.0               | 42.1            | 100.0             | 66.7      | 42.3     | 48.4   |
|          | Manufacturing  | 16.3     | 55.1               | 51.7            | 32.8              | 26.5      | 21.0     | 27.8   |
|          | Wholesale and retail trade                                   | 15.9     | 11.1               | 71.3            | 10.2              | 16.8      | 20.3     | 16.2   |
|          | Construction   | 13.0     | 16.0               | 57.1            | 6.8               | 16.1      | 23.8     | 15.5   |
| Activity | Motion picture, video, radio and TV activities               | 16.2     | 0.0                | 25.0            | 18.6              | 0.0       | 25.7     | 14.8   |
| Ac       | Real estate, renting and business activities                 | 12.2     | 13.4               | 57.1            | 9.2               | 14.2      | 14.0     | 13.1   |
|          | Transport, storage and<br>communications                     | 11.9     | 0.0                | 37.5            | 1.7               | 9.7       | 21.8     | 10.7   |
|          | Hotels, camping sites and other short-<br>stay accommodation | 0.0      | 0.0                | 12.5            | 0.0               | 0.0       | 1.9      | 0.7    |
| Tota     | I  | 14.9     | 32.7               | 53.2            | 19.5              | 19.6      | 19.7     | 19.6   |

<sup>1)</sup> The results refer only to enterprises that answered positively in question A1.



# E1: In January 2009, when your enterprise received a sales order (either electronically or not), was the relevant information about it shared electronically and automatically with the software used for the following functions?

|                      |  |                  |                    |                 |                   | ntages    |          |       |
|----------------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                      |  |                  | Size               |                 | Region            |           |          |       |
|                      | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|                      | Your production produc                                   | tion a           | nd serv            | vices n         | nanage            | ment      |          |       |
|                      | Banks and insurance companies                            | 57.1             | 40.0               | 31.6            | 100.0             | 66.7      | 30.8     | 38.7  |
|                      | Manufacturing  | 8.7              | 47.6               | 52.7            | 24.2              | 17.0      | 18.7     | 20.7  |
|                      | Hotels, camping sites and other short stay accommodation | 18.9             | 14.3               | 12.5            | 32.6              | 0.0       | 1.9      | 16.6  |
| ivity                | Transport, storage and<br>communications                 | 10.7             | 0.0                | 35.4            | 8.5               | 1.8       | 17.4     | 9.6   |
| Acti                 | Real estate, renting and business activities             | 7.7              | 9.6                | 61.9            | 6.4               | 7.1       | 10.2     | 8.9   |
|                      | Wholesale and retail trade                               | 5.8              | 6.6                | 51.2            | 2.5               | 12.0      | 6.7      | 6.7   |
|                      | Construction   | 1.5              | 10.4               | 46.4            | 3.4               | 6.1       | 6.7      | 5.3   |
|                      | Motion picture, video, radio and TV activities           | 0.0              | 0.0                | 25.0            | 0.0               | 0.0       | 2.9      | 0.7   |
| Total                |  | 7.0              | 27.4               | 48.9            | 13.7              | 12.0      | 11.3     | 12.4  |
|                      | Your distrib   | ution            | manag              | ement           |                   |           |          |       |
|                      | Banks and insurance companies                            | 28.6             | 40.0               | 21.1            | 100.0             | 66.7      | 15.4     | 25.8  |
|                      | Manufacturing  | 7.6              | 48.3               | 42.0            | 22.0              | 16.5      | 18.6     | 19.6  |
|                      | Transport, storage and<br>communications                 | 10.4             | 0.0                | 8.3             | 3.8               | 3.6       | 18.2     | 8.6   |
| >                    | Wholesale and retail trade                               | 6.5              | 6.6                | 51.2            | 2.5               | 8.5       | 10.1     | 7.2   |
| Activit              | Real estate, renting and business activities             | 6.4              | 9.6                | 4.8             | 0.0               | 7.1       | 8.9      | 6.8   |
|                      | Construction   | 1.5              | 5.5                | 28.6            | 3.4               | 0.0       | 6.7      | 3.5   |
|                      | Hotels, camping sites and other short stay accommodation | 0.0              | 0.0                | 12.5            | 0.0               | 0.0       | 1.9      | 0.7   |
| Activity<br>Activity | Motion picture, video, radio and TV activities           | 0.0              | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
| Total                |  | 6.5              | 26.8               | 35.4            | 11.5              | 10.1      | 12.2     | 11.4  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question A1.

#### E2: In January 2009, when your enterprise sent a purchase order (either electronically or not), was the relevant information about it shared electronically and automatically with the software used for the following function?

|          |  | anctio |                    |                 |                   | ntages    |          |       |
|----------|--|--------|--------------------|-----------------|-------------------|-----------|----------|-------|
|          |  |        | Size               |                 | Region            |           |          |       |
|          | Enterprises  |        | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|          | Your manageme  | ent of | invent             | ory lev         | vels              |           |          |       |
|          | Manufacturing  | 13.9   | 41.3               | 40.8            | 25.9              | 16.9      | 21.4     | 22.1  |
|          | Banks and insurance companies                            | 28.6   | 40.0               | 10.5            | 100.0             | 33.3      | 11.5     | 19.4  |
|          | Wholesale and retail trade                               | 16.9   | 7.5                | 51.2            | 5.1               | 13.7      | 26.3     | 16.2  |
|          | Real estate, renting and business activities             | 7.7    | 3.3                | 4.8             | 6.4               | 7.1       | 7.1      | 7.0   |
| Activity | Construction   | 1.5    | 11.1               | 21.4            | 0.2               | 2.7       | 9.8      | 4.4   |
| Aci      | Transport, storage and<br>communications                 | 3.5    | 0.0                | 25.0            | 0.0               | 6.6       | 5.1      | 3.6   |
|          | Hotels, camping sites and other short stay accommodation | 0.0    | 0.0                | 12.5            | 0.0               | 0.0       | 1.9      | 0.7   |
|          | Motion picture, video, radio and TV activities           | 0.0    | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
| Tota     | l i i i i i i i i i i i i i i i i i i i                  | 11.8   | 23.7               | 34.3            | 13.7              | 12.4      | 17.8     | 14.9  |
|          | Your   | accou  | inting             |                 |                   |           |          |       |
|          | Banks and insurance companies                            | 42.9   | 60.0               | 26.3            | 100.0             | 66.7      | 26.9     | 35.5  |
|          | Manufacturing  | 10.4   | 52.7               | 48.3            | 27.1              | 20.2      | 19.1     | 23.0  |
|          | Construction   | 13.0   | 16.0               | 53.6            | 6.6               | 16.1      | 23.6     | 15.4  |
|          | Wholesale and retail trade                               | 11.8   | 7.9                | 71.3            | 7.9               | 13.2      | 15.1     | 12.3  |
| Activity | Real estate, renting and business activities             | 11.3   | 14.5               | 4.8             | 6.4               | 18.3      | 11.5     | 11.7  |
| Ac       | Motion picture, video, radio and TV activities           | 9.9    | 0.0                | 25.0            | 18.6              | 0.0       | 2.9      | 9.3   |
|          | Transport, storage and<br>communications                 | 10.2   | 0.0                | 18.8            | 0.8               | 4.8       | 21.0     | 8.8   |
|          | Hotels, camping sites and other short stay accommodation | 0.0    | 0.0                | 12.5            | 0.0               | 0.0       | 1.9      | 0.7   |
| Tota     | l i i i i i i i i i i i i i i i i i i i                  | 11.2   | 30.9               | 46.3            | 16.0              | 15.9      | 16.6     | 16.2  |

| in percentag |  |       |                    |                 |                   |           |          | ntages |
|--------------|--|-------|--------------------|-----------------|-------------------|-----------|----------|--------|
|              |  |       | Size               |                 |                   | Region    |          |        |
|              | Enterprises  |       | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|              | YES  |       |                    |                 |                   |           |          |        |
|              | Banks and insurance companies                                | 14.3  | 20.0               | 57.9            | 62.0              | 50.2      | 35.0     | 41.9   |
|              | Transport, storage and communications                        | 18.2  | 0.0                | 35.4            | 4.7               | 14.2      | 29.4     | 15.7   |
|              | Hotels, camping sites and other short-<br>stay accommodation | 0.0   | 28.6               | 25.0            | 12.3              | 0.0       | 20.4     | 13.4   |
| Activity     | Real estate, renting and business activities                 | 13.6  | 3.3                | 71.4            | 25.3              | 10.9      | 9.8      | 13.1   |
| ٩            | Manufacturing  | 5.4   | 25.2               | 50.2            | 16.2              | 11.0      | 8.1      | 12.6   |
|              | Wholesale and retail trade                                   | 5.1   | 31.2               | 69.0            | 2.7               | 5.9       | 17.0     | 9.6    |
|              | Construction   | 4.7   | 10.4               | 25.0            | 6.0               | 11.3      | 3.8      | 6.8    |
|              | Motion picture, video, radio and TV activities               | 0.0   | 36.7               | 25.0            | 8.2               | 0.0       | 2.9      | 4.5    |
| Tota         |  | 7.0   | 21.6               | 49.2            | 11.0              | 9.6       | 12.7     | 11.3   |
|              |  | NO    |                    |                 |                   |           |          |        |
|              | Motion picture, video, radio and TV activities               | 100.0 | 63.3               | 50.0            | 91.8              | 97.7      | 97.1     | 94.8   |
|              | Construction   | 93.8  | 89.6               | 48.2            | 87.6              | 88.7      | 96.2     | 91.0   |
|              | Wholesale and retail trade                                   | 90.4  | 65.3               | 31.0            | 95.5              | 84.5      | 80.0     | 86.1   |
| ost          | Manufacturing  | 86.9  | 65.2               | 45.7            | 75.3              | 81.0      | 84.7     | 79.4   |
| Delatnost    | Real estate, renting and business activities                 | 81.3  | 71.6               | 23.8            | 68.3              | 87.2      | 80.0     | 79.0   |
|              | Hotels, camping sites and other short-<br>stay accommodation | 54.9  | 71.4               | 75.0            | 57.3              | 40.9      | 79.6     | 63.0   |
|              | Banks and insurance companies                                | 85.7  | 80.0               | 42.1            | 38.0              | 49.8      | 65.0     | 58.1   |
|              | Transport, storage and<br>communications                     | 45.9  | 49.2               | 64.6            | 55.6              | 66.5      | 21.1     | 47.0   |
| Tota         |  | 85.1  | 67.8               | 43.9            | 80.2              | 82.3      | 79.2     | 80.4   |

### E3: In January 2009, did your enterprise use an ERP software package?

### E3: In January 2009, did your enterprise use an ERP software package?

|            |  |      |                    |                 |                   | ir        | n perce  | ntages |  |
|------------|--|------|--------------------|-----------------|-------------------|-----------|----------|--------|--|
|            |  |      | Size               |                 |                   | Region    |          |        |  |
|            | Enterprises  |      | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |  |
| DON'T KNOW |  |      |                    |                 |                   |           |          |        |  |
|            | Transport, storage and<br>communications                     | 35.9 | 50.8               | 0.0             | 39.7              | 19.3      | 49.4     | 37.3   |  |
|            | Hotels, camping sites and other short-<br>stay accommodation | 45.1 | 0.0                | 0.0             | 30.4              | 59.1      | 0.0      | 23.6   |  |
|            | Manufacturing  | 7.7  | 9.6                | 4.1             | 8.5               | 8.0       | 7.2      | 8.0    |  |
| Activity   | Real estate, renting and business activities                 | 5.1  | 25.1               | 4.8             | 6.4               | 1.9       | 10.2     | 8.0    |  |
| ٩          | Wholesale and retail trade                                   | 4.5  | 3.5                | 0.0             | 1.8               | 9.6       | 3.0      | 4.3    |  |
|            | Construction   | 1.4  | 0.0                | 26.8            | 6.4               | 0.0       | 0.0      | 2.2    |  |
|            | Motion picture, video, radio and TV activities               | 0.0  | 0.0                | 25.0            | 0.0               | 2.3       | 0.0      | 0.7    |  |
|            | Banks and insurance companies                                | 0.0  | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0    |  |
| Tota       | I  | 7.9  | 10.6               | 6.9             | 8.8               | 8.2       | 8.1      | 8.4    |  |



### E4: In January 2009, did your enterprise have in use any software application for information about clients, so-callled CRM, that allows to:

|          |  |                  |                    |                 |                   | ir        | n perce  | ntages |
|----------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|          |  |                  | Size               |                 |                   | Region    |          |        |
|          | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
| Ca       | pture, store and make available t                                      |                  |                    | less fu         | nction            | s the i   | nforma   | ation  |
|          | abo  | ut clie          | nts?               |                 |                   |           |          |        |
|          | Banks and insurance companies  | 14.3             | 80.0               | 89.5            | 50.0              | 100.0     | 69.2     | 71.0   |
|          | Transport, storage and<br>communications                               | 23.9             | 1.5                | 31.3            | 9.6               | 14.6      | 37.4     | 20.4   |
|          | Real estate, renting and business activities                           | 15.9             | 19.8               | 71.4            | 21.1              | 24.0      | 14.4     | 17.4   |
| Activity | Hotels, camping sites and other short-<br>stay accommodation           | 18.0             | 14.3               | 0.0             | 0.0               | 0.0       | 42.6     | 15.4   |
| ٩        | Manufacturing  | 7.0              | 30.5               | 39.9            | 17.2              | 13.0      | 11.8     | 14.6   |
|          | Wholesale and retail trade   | 7.8              | 19.7               | 38.0            | 8.6               | 7.3       | 12.3     | 9.8    |
|          | Construction   | 1.9              | 20.8               | 1.8             | 0.0               | 11.7      | 6.6      | 5.8    |
|          | Motion picture, video, radio and TV activities                         | 4.9              | 0.0                | 0.0             | 9.3               | 0.0       | 0.0      | 4.3    |
| Tota     |  | 9.1              | 23.9               | 36.5            | 12.3              | 11.9      | 14.1     | 12.9   |
| Ма       | ke analysis of the information ab<br>price lists, sales promotions, se |                  |                    |                 | -                 |           | •        | -      |
|          | Banks and insurance companies  | 14.3             | 40.0               | 73.7            | 50.0              | 100.0     | 50.0     | 54.8   |
|          | Transport, storage and<br>communications                               | 27.0             | 0.0                | 27.1            | 8.5               | 13.7      | 45.8     | 22.5   |
|          | Real estate, renting and business activities                           | 9.5              | 12.1               | 76.2            | 9.2               | 16.9      | 9.9      | 11.0   |
| vity     | Manufacturing  | 4.3              | 24.4               | 27.5            | 12.1              | 9.6       | 8.7      | 10.5   |
| Activity | Hotels, camping sites and other short-<br>stay accommodation           | 18.0             | 0.0                | 0.0             | 0.0               | 0.0       | 25.9     | 9.4    |
|          | Motion picture, video, radio and TV activities                         | 9.9              | 0.0                | 0.0             | 18.6              | 0.0       | 0.0      | 8.6    |
|          | Wholesale and retail trade   | 6.9              | 13.3               | 26.3            | 6.0               | 7.0       | 10.2     | 8.0    |
|          | Construction   | 1.9              | 16.0               | 0.0             | 0.0               | 8.4       | 6.3      | 4.7    |
| Tota     |  | 7.4              | 17.8               | 27.4            | 8.7               | 9.4       | 12.0     | 10.1   |

# **MODULE 2.F: e-commerce**<sup>1)</sup>

# F1: Did your enterprise receive during 2008 orders over the Internet (excluding manually typed e-mails)?

|             |  |                  |                    |                 |                   | ir        | n perce  | ntages |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|             |  |                  | Size               |                 |                   |           |          |        |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|             |  | YES              |                    |                 |                   |           |          |        |
|             | Transport, storage and<br>communications                     | 56.2             | 1.5                | 8.3             | 24.9              | 42.5      | 62.8     | 44.4   |
|             | Hotels, camping sites and other short-<br>stay accommodation | 50.7             | 16.7               | 25.0            | 26.1              | 0.0       | 59.3     | 35.3   |
| ⋧           | Wholesale and retail trade                                   | 23.9             | 21.0               | 34.2            | 33.6              | 27.1      | 14.7     | 23.7   |
| Activity    | Motion picture, video, radio and TV activities               | 16.2             | 36.7               | 50.0            | 26.8              | 0.0       | 28.6     | 19.3   |
|             | Manufacturing  | 15.4             | 24.6               | 20.0            | 26.4              | 9.2       | 13.4     | 18.0   |
|             | Real estate, renting and business activities                 | 15.5             | 3.3                | 71.4            | 31.7              | 15.8      | 9.0      | 14.6   |
|             | Construction   | 2.1              | 17.8               | 0.0             | 0.0               | 9.8       | 6.6      | 5.1    |
| Tota        | I  | 19.8             | 19.8               | 21.8            | 25.6              | 17.4      | 16.2     | 19.9   |

# F3: Percentage of the total turnover in 2008 that resulted from orders received over the Internet<sup>2)</sup>

#### in percentages

|         | po. co           |                    |                 |                   |           |          |       |  |  |
|---------|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|--|
|         |                  | Enterprises        |                 |                   |           |          |       |  |  |
|         |                  | Size               |                 |                   |           |          |       |  |  |
|         | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |  |
| 0-1%    | 5.2              | 21.4               | 2.5             | 6.1               | 8.8       | 11.1     | 8.3   |  |  |
| 2-5%    | 19.7             | 25.9               | 23.5            | 21.8              | 29.7      | 13.4     | 21.0  |  |  |
| 6-10%   | 14.6             | 11.6               | 36.4            | 13.7              | 19.8      | 12.9     | 14.8  |  |  |
| 11-25%  | 12.7             | 22.7               | 14.2            | 15.2              | 16.8      | 12.6     | 14.8  |  |  |
| 26-100% | 47.8             | 18.4               | 23.4            | 43.2              | 24.9      | 50.0     | 41.1  |  |  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question B1.

<sup>2)</sup> The results refer only to enterprises that answered positively in question F1.



.

### F5: Was your enterprise using a secure protocole, such as SSL or TLS, for the reception of orders via the Internet?<sup>1)</sup>

|          |  |      |                    |                 |                   | ir        | n perce  | ntages |
|----------|--|------|--------------------|-----------------|-------------------|-----------|----------|--------|
|          |  |      | Size               |                 |                   | Region    |          |        |
|          | Enterprises  |      | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|          | YES  |      |                    |                 |                   |           |          |        |
|          | Motion picture, video, radio and TV activities               | 69.6 | 0.0                | 50.0            | 34.6              | 0.0       | 90.0     | 54.5   |
|          | Real estate, renting and business activities                 | 23.5 | 100.0              | 100.0           | 0.0               | 25.8      | 70.9     | 32.0   |
| Activity | Hotels, camping sites and other short-<br>stay accommodation | 39.2 | 0.0                | 0.0             | 0.0               | 0.0       | 43.8     | 29.9   |
| Ac       | Transport, storage and<br>communications                     | 26.6 | 100.0              | 0.0             | 20.0              | 24.4      | 30.8     | 27.0   |
|          | Wholesale and retail trade                                   | 23.0 | 41.4               | 59.0            | 5.2               | 10.9      | 76.8     | 26.2   |
|          | Manufacturing  | 28.1 | 16.0               | 31.3            | 20.9              | 39.8      | 22.8     | 24.0   |
|          | Construction   | 0.0  | 34.8               | 0.0             | 0.0               | 0.0       | 50.0     | 23.9   |
| Total    |  | 25.8 | 24.6               | 49.4            | 14.0              | 19.8      | 49.9     | 26.4   |

<sup>1)</sup> The results refer only to enterprises that answered positively in question F1.

### F6: Did your enterprise send orders, in January 2008, for products or services over the Internet (excluding manually typed e-mail)?

|             |  |                  |                    |                 |                   | ir        | n perce  | ntages |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|
|             |  | Size             |                    |                 |                   | Region    |          |        |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|             |  | YES              |                    |                 |                   |           |          |        |
|             | Motion picture, video, radio and TV activities               | 58.5             | 22.5               | 16.7            | 46.6              | 26.9      | 71.2     | 50.4   |
|             | Real estate, renting and business activities                 | 40.8             | 50.0               | 0.0             | 42.0              | 0.0       | 59.3     | 42.1   |
| ₹           | Manufacturing  | 26.2             | 14.5               | 85.7            | 41.2              | 12.6      | 23.9     | 25.5   |
| Activity    | Hotels, camping sites and other short-<br>stay accommodation | 23.4             | 22.2               | 28.4            | 28.0              | 25.4      | 18.8     | 23.3   |
|             | Transport, storage and<br>communications                     | 15.8             | 26.4               | 22.2            | 20.0              | 16.3      | 19.8     | 18.9   |
|             | Construction   | 11.3             | 36.7               | 75.0            | 17.5              | 2.3       | 28.6     | 15.7   |
|             | Wholesale and retail trade                                   | 9.2              | 18.3               | 8.9             | 3.5               | 12.1      | 17.4     | 11.0   |
| Total       |  | 21.9             | 24.1               | 24.4            | 23.4              | 18.8      | 23.9     | 22.4   |

## F7: Percentage of purchases over the Internet in total purchases in 2008 $^{1)}$

### in percentages

|                                 | Enterprises      |                    |                 |                   |           |          |       |  |
|---------------------------------|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|                                 |                  | Size               |                 |                   |           |          |       |  |
|                                 | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
| Less than 1%                    | 14.0             | 27.1               | 30.4            | 19.9              | 30.0      | 8.2      | 17.4  |  |
| More than 1% and less 5%        | 26.1             | 32.2               | 29.8            | 32.0              | 24.9      | 24.8     | 27.5  |  |
| More than 5% and less than 10%  | 15.0             | 18.3               | 14.1            | 10.3              | 22.2      | 17.0     | 15.7  |  |
| More than 10% and less than 25% | 12.6             | 9.6                | 22.4            | 13.7              | 9.4       | 12.7     | 12.3  |  |
| 25% and over                    | 32.3             | 12.8               | 3.3             | 24.1              | 13.5      | 37.3     | 27.1  |  |

# F8: In January 2008, did your enterprise send e-orders via computer networks to suppliers located in the following areas?<sup>1)</sup>

### in percentages

|             |  |                  |                    |                 |                   |           |          | mages |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|             |  |                  | Size               |                 |                   | Region    |          |       |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|             | Repu   | blic of          | Serbia             |                 |                   |           |          |       |
|             | Manufacturing  | 100.0            | 100.0              | 100.0           | 100.0             | 100.0     | 100.0    | 100.0 |
|             | Construction   | 100.0            | 100.0              | 80.0            | 100.0             | 100.0     | 98.7     | 99.2  |
|             | Wholesale and retail trade                                   | 74.3             | 100.0              | 0.0             | 68.9              | 0.0       | 100.0    | 86.8  |
| 'ity        | Hotels, camping sites and other short-<br>stay accommodation | 76.3             | 89.2               | 77.3            | 82.0              | 70.9      | 80.2     | 78.1  |
| Activity    | Transport, storage and<br>communications                     | 67.7             | 84.9               | 89.1            | 81.0              | 70.1      | 69.7     | 75.2  |
|             | Real estate, renting and business activities                 | 70.2             | 100.0              | 94.4            | 38.1              | 83.7      | 92.2     | 74.1  |
|             | Motion picture, video, radio and TV activities               | 42.0             | 6.8                | 100.0           | 21.3              | 80.1      | 38.8     | 39.7  |
| Total       |  | 68.4             | 84.2               | 88.4            | 69.5              | 74.3      | 74.4     | 72.5  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question F6.



| F8: During 2008, was your enterprise regularly sending e-orders via computer |
|--|
| networks to suppliers located in the following areas? <sup>1)</sup>          |

| in percentages |  |                  |                    |                 |                   |           |          |       |
|----------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                |  |                  | Size               |                 | Region            |           |          |       |
|                | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|                | EU   | count            | ries               |                 |                   |           |          |       |
|                | Manufacturing  | 52. <b>9</b>     | 63.1               | 58.7            | 55.8              | 84.6      | 34.7     | 56.9  |
|                | Real estate, renting and business activities                 | 40.4             | 100.0              | 72.2            | 15.5              | 67.4      | 61.6     | 47.2  |
|                | Wholesale and retail trade                                   | 36.0             | 53.8               | 28.9            | 27.1              | 39.4      | 48.9     | 38.3  |
| Activity       | Hotels, camping sites and other short stay accommodation     | 24.3             | 33.3               | 0.0             | 0.0               | 0.0       | 50.0     | 28.7  |
| Ă              | Construction   | 18.1             | 33.9               | 20.0            | 6.9               | 0.0       | 38.3     | 23.3  |
|                | Transport, storage and<br>communications                     | 23.4             | 0.0                | 0.0             | 10.7              | 0.0       | 33.2     | 21.2  |
|                | Motion picture, video, radio and TV activities               | 0.0              | 0.0                | 33.3            | 0.0               | 0.0       | 10.0     | 4.4   |
| Tota           | 1  | 37.4             | 54.9               | 50.6            | 34.3              | 50.2      | 43.9     | 41.7  |
|                | Rest   | of the           | world              |                 |                   |           |          |       |
|                | Manufacturing  | 20.7             | 39.4               | 43.5            | 25.5              | 32.3      | 31.2     | 28.8  |
|                | Real estate, renting and business activities                 | 21.3             | 100.0              | 5.6             | 0.0               | 67.4      | 36.1     | 27.0  |
| ity            | Hotels, camping sites and other short-<br>stay accommodation | 48.7             | 0.0                | 0.0             | 0.0               | 0.0       | 43.8     | 25.1  |
| Activity       | Wholesale and retail trade                                   | 23.4             | 17.5               | 22.7            | 11.7              | 26.0      | 30.9     | 22.6  |
| Ă              | Construction   | 18.1             | 0.0                | 0.0             | 0.0               | 0.0       | 19.4     | 11.4  |
|                | Transport, storage and<br>communications                     | 6.7              | 0.0                | 0.0             | 0.0               | 0.0       | 11.2     | 6.0   |
|                | Motion picture, video, radio and TV activities               | 0.0              | 0.0                | 33.3            | 0.0               | 0.0       | 10.0     | 4.4   |
| Tota           | 1  | 19.4             | 30.2               | 27.8            | 14.0              | 25.8      | 27.5     | 22.1  |

<sup>1)</sup> The results refer only to enterprises that answered positively in question F6.

### MODUL E2.H: Security of information systems in enterprises<sup>1)</sup> H1: Does your enterprise have regulations on information security issues? in percentages

|             | in percentages   |                  |                    |                 |                   |           |          |       |  |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|--|
|             |  |                  | Size               |                 |                   | Region    |          |       |  |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |  |
|             |  | YES              |                    |                 |                   |           |          |       |  |
|             | Banks and insurance companies                            | 71.4             | 60.0               | 84.2            | 100.0             | 100.0     | 73.1     | 77.4  |  |
|             | Hotels, camping sites and other short stay accommodation | 0.0              | 42.9               | 75.0            | 24.7              | 0.0       | 27.8     | 22.2  |  |
|             | Motion picture, video, radio and TV activities           | 19.1             | 36.7               | 50.0            | 8.2               | 2.3       | 71.4     | 21.8  |  |
| Activity    | Transport, storage and<br>communication                  | 11.6             | 55.7               | 66.7            | 22.3              | 13.0      | 24.3     | 20.4  |  |
| ٩           | Wholesale and retail trade                               | 15.5             | 46.2               | 69.0            | 10.0              | 6.1       | 36.8     | 20.4  |  |
|             | Manufacturing  | 12.9             | 38.1               | 32.9            | 17.7              | 18.0      | 26.8     | 20.2  |  |
|             | Real estate, renting and business activities             | 17.0             | 30.9               | 80.0            | 2.8               | 16.9      | 26.3     | 20.0  |  |
|             | Construction   | 7.3              | 57.8               | 23.6            | 21.1              | 13.0      | 19.7     | 18.2  |  |
| Tota        |  | 13.6             | 42.7               | 44.5            | 15.4              | 13.1      | 30.0     | 20.2  |  |

H2: Does your enterprise check its employees' awareness of information security measures?

|          | of informatio  |      | <b>j</b>           |                 |                   | ir        | n perce  | ntages |
|----------|--|------|--------------------|-----------------|-------------------|-----------|----------|--------|
|          |  |      | Size               |                 |                   | Region    |          |        |
|          | Enterprises  |      | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |
|          |  | YES  |                    |                 |                   |           |          |        |
|          | Banks and insurance companies                                | 71.4 | 20.0               | 73.7            | 100.0             | 66.7      | 61.5     | 64.5   |
|          | Wholesale and retail trade                                   | 14.3 | 55.5               | 45.5            | 9.5               | 7.4       | 36.1     | 20.2   |
|          | Construction   | 13.4 | 36.5               | 27.3            | 21.0              | 18.0      | 17.0     | 18.7   |
|          | Manufacturing  | 12.4 | 23.5               | 19.3            | 13.6              | 15.8      | 18.5     | 15.5   |
| Activity | Real estate, renting and business activities                 | 10.2 | 24.6               | 70.0            | 2.8               | 7.9       | 18.0     | 13.2   |
| Ac       | Transport, storage and<br>communications                     | 6.4  | 34.0               | 57.1            | 12.9              | 13.0      | 11.1     | 12.3   |
|          | Motion picture, video, radio and TV activities               | 6.4  | 36.7               | 25.0            | 8.2               | 2.3       | 22.9     | 10.0   |
|          | Hotels, camping sites and other short-<br>stay accommodation | 0.0  | 14.3               | 12.5            | 12.3              | 0.0       | 1.9      | 6.7    |
| Tota     |  | 12.3 | 32.2               | 31.4            | 12.5              | 12.5      | 24.0     | 16.8   |

<sup>1)</sup> The results refer ony to enterprises that answered positively in question A1.



# H3: Were the following resources, which required provision of alternative resolutions, identified in your enterprise?

| in percentages             |  |                  |                    |                 |                   |           |          |       |
|----------------------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                            |  |                  | Size               |                 |                   | Region    |          |       |
|                            | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|                            | Hum  | an reso          | ources             |                 |                   |           |          |       |
|                            | Banks and insurance companies                            | 71.4             | 80.0               | 89.5            | 50.0              | 100.0     | 84.6     | 83.9  |
|                            | Motion pictures, video, radio and TV activities          | 68.7             | 100.0              | 50.0            | 81.4              | 53.5      | 74.3     | 71.4  |
|                            | Construction   | 48.3             | 26.8               | 77.7            | 48.3              | 56.6      | 32.8     | 45.3  |
| Ę                          | Manufacturing  | 43.0             | 45.0               | 46.4            | 37.1              | 35.1      | 63.6     | 43.7  |
| Activity                   | Real estate, renting and business activities             | 32.4             | 62.3               | 95.2            | 53.0              | 56.5      | 27.7     | 37.8  |
|                            | Wholesale and retail trade                               | 39.2             | 23.0               | 74.9            | 26.0              | 14.7      | 60.2     | 37.6  |
|                            | Transport, storage and<br>communications                 | 33.6             | 30.5               | 70.8            | 5.3               | 43.2      | 59.7     | 34.2  |
|                            | Hotels, camping sites and other short stay accommodation | 37.9             | 7.1                | 25.0            | 40.5              | 20.5      | 3.7      | 24.2  |
| Total                      |  | 40.7             | 38.2               | 60.6            | 34.7              | 34.1      | 51.8     | 40.9  |
|                            | F  | Iardwa           | re                 |                 |                   |           |          |       |
|                            | Banks and insurance companies                            | 100.0            | 60.0               | 94.7            | 100.0             | 100.0     | 88.5     | 90.3  |
|                            | Motion pictures, video, radio and TV activities          | 67.2             | 100.0              | 75.0            | 90.7              | 55.8      | 51.4     | 70.9  |
|                            | Real estate, renting and business activities             | 36.3             | 83.6               | 95.2            | 52.7              | 62.5      | 36.3     | 44.1  |
| Activity                   | Manufacturing  | 36.2             | 52.6               | 50.2            | 38.7              | 38.1      | 48.2     | 41.1  |
| Act                        | Transport, storage and<br>communications                 | 28.1             | 51.5               | 87.5            | 13.3              | 30.5      | 59.7     | 33.8  |
|                            | Hotels, camping sites and other short stay accommodation | 9.0              | 57.1               | 87.5            | 12.3              | 40.9      | 59.3     | 33.6  |
|                            | Construction   | 21.2             | 36.3               | 45.5            | 54.0              | 9.9       | 9.5      | 25.3  |
| Wholesale and retail trade |  | 18.2             | 51.2               | 90.1            | 10.2              | 13.7      | 39.9     | 23.7  |
| Total                      |  | 28.1             | 53.4               | 63.1            | 31.9              | 28.9      | 40.1     | 34.2  |

# H3: Were the following resources, which required provision of alternative resolutions, identified in your enterprise?

| in percentages |  |                  |                    |                 |                   |           |          |       |
|----------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                |  |                  | Size               |                 |                   | Region    |          |       |
|                | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|                |  |                  | re                 |                 |                   |           |          |       |
|                | Banks and insurance companies                                | 85.7             | 60.0               | 78.9            | 100.0             | 100.0     | 73.1     | 77.4  |
|                | Motion pictures, video, radio and TV activities              | 45.8             | 100.0              | 75.0            | 90.7              | 11.6      | 28.6     | 52.2  |
|                | Real estate, renting and business activities                 | 29.9             | 83.6               | 95.2            | 52.7              | 41.2      | 33.7     | 38.8  |
| Activity       | Manufacturing  | 28.0             | 41.4               | 47.8            | 34.8              | 25.6      | 35.6     | 32.4  |
| Act            | Transport, storage and<br>communications                     | 25.7             | 51.5               | 87.5            | 12.2              | 30.5      | 55.3     | 31.9  |
|                | Hotels, camping sites and other short stay accommodation     | 0.0              | 57.1               | 87.5            | 12.3              | 40.9      | 46.3     | 28.9  |
|                | Construction   | 21.2             | 36.3               | 43.8            | 54.0              | 9.9       | 9.2      | 25.2  |
|                | Wholesale and retail trade                                   | 16.8             | 52.5               | 90.1            | 11.7              | 16.4      | 34.8     | 22.6  |
| Total          |  | 23.6             | 48.1               | 60.8            | 30.5              | 22.4      | 33.7     | 29.6  |
|                |  | None             |                    |                 |                   |           |          |       |
|                | Transport, storage and<br>communications                     | 62.7             | 48.5               | 0.0             | 85.6              | 55.0      | 30.5     | 58.4  |
|                | Wholesale and retail trade                                   | 59.5             | 43.2               | 8.2             | 69.2              | 77.2      | 34.5     | 56.6  |
|                | Real estate, renting and business activities                 | 62.1             | 10.1               | 0.0             | 44.2              | 37.5      | 61.0     | 53.6  |
| Activity       | Hotels, camping sites and other short-<br>stay accommodation | 53.1             | 42.9               | 12.5            | 47.2              | 59.1      | 40.7     | 46.6  |
| 4              | Manufacturing  | 46.9             | 43.1               | 45.4            | 52.4              | 50.0      | 30.6     | 45.9  |
|                | Construction   | 44.7             | 47.3               | 20.5            | 24.7              | 40.1      | 66.9     | 44.1  |
|                | Motion pictures, video, radio and TV activities              | 26.4             | 0.0                | 0.0             | 9.3               | 44.2      | 22.9     | 22.9  |
|                | Banks and insurance companies                                | 0.0              | 20.0               | 0.0             | 0.0               | 0.0       | 3.8      | 3.2   |
| Total          |  | 53.6             | 40.9               | 28.1            | 55.2              | 56.3      | 41.3     | 50.3  |

|             | access?  |                  |                    |                 |                   |           |          |        |  |  |
|-------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|--------|--|--|
|             |  |                  |                    |                 |                   | in p      | bercer   | ntages |  |  |
|             |  |                  | Size               |                 | F                 | Region    |          |        |  |  |
| Enterprises |  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total  |  |  |
|             |  | YES              |                    |                 |                   |           |          |        |  |  |
|             | Banks and insurance companies                            | 100.0            | 80.0               | 100.0           | 100.0             | 100.0     | 96.2     | 96.8   |  |  |
|             | Hotels, camping sites and other short stay accommodation | 45.9             | 100.0              | 100.0           | 69.6              | 40.9      | 87.0     | 71.7   |  |  |
|             | Motion picture, video, radio and TV activities           | 61.1             | 73.3               | 100.0           | 81.4              | 24.4      | 77.1     | 63.5   |  |  |
| Activity    | Manufacturing  | 48.7             | 86.8               | 79.5            | 60.9              | 55.0      | 63.2     | 59.9   |  |  |
| Acti        | Transport, storage and<br>communications                 | 42.6             | 73.3               | 100.0           | 23.1              | 50.8      | 78.0     | 49.3   |  |  |
|             | Real estate, renting and business activities             | 43.2             | 72.4               | 95.0            | 74.9              | 67.5      | 34.5     | 48.3   |  |  |
|             | Wholesale and retail trade                               | 41.2             | 85.1               | 89.9            | 34.8              | 25.5      | 70.8     | 47.7   |  |  |
|             | Construction   | 36.7             | 73.4               | 82.7            | 37.0              | 50.0      | 52.1     | 46.2   |  |  |
| Total       |  | 44.0             | 83.2               | 85.0            | 49.9              | 45.7      | 60.9     | 52.9   |  |  |

# H5: Does your enterprise prevent copying and carrying data (inc. software) on mobile media (e.g.DVD, CD, disquettes, etc.)?

| in percentages |  |      |                    |                 |                   |           |          |       |
|----------------|--|------|--------------------|-----------------|-------------------|-----------|----------|-------|
|                |  |      | Size               |                 | F                 | Region    |          |       |
| Enterprises    |  |      | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
| YES            |  |      |                    |                 |                   |           |          |       |
|                | Manufacturing  | 47.4 | 50.6               | 32.4            | 65.8              | 32.3      | 33.0     | 47.5  |
|                | Banks and insurance companies                                | 28.6 | 40.0               | 52.6            | 50.0              | 33.3      | 46.2     | 45.2  |
|                | Construction   | 32.8 | 57.8               | 24.5            | 39.0              | 50.1      | 25.6     | 37.5  |
| >              | Transport, storage and<br>communications                     | 38.1 | 21.0               | 61.9            | 35.9              | 11.9      | 55.9     | 35.9  |
| Activity       | Wholesale and retail trade                                   | 33.6 | 40.0               | 45.8            | 23.0              | 36.1      | 42.6     | 34.6  |
| Act            | Hotels, camping sites and other short-<br>stay accommodation | 35.6 | 35.7               | 12.5            | 32.6              | 79.5      | 18.5     | 34.4  |
|                | Real estate, renting and business activities                 | 24.5 | 25.9               | 25.0            | 22.0              | 18.0      | 27.4     | 24.7  |
|                | Motion picture, video, radio and TV activities               | 0.0  | 0.0                | 75.0            | 0.0               | 2.3       | 5.7      | 2.1   |
| Total          |  |      | 44.6               | 35.4            | 45.0              | 33.0      | 35.7     | 38.4  |

# H4: Does your enterprise identify the users of information systems having

### H6: Did your enterprise encounter the following problems?

| in percentag                                   |                  |                    |                 |                   |           |          |       |
|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|  |                  | Size               |                 |                   | Region    |          |       |
| Enterprises                                    | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
| Accidental damage to t                         | he info          | rmatio             | n syste         | em ano            | l data    |          |       |
| Motion picture, video, radio and TV activities | 66.4             | 0.0                | 25.0            | 46.4              | 66.3      | 71.4     | 58.4  |
| Real estate, renting and business activities   | 30.3             | 70.4               | 23.8            | 33.6              | 43.5      | 34.7     | 36.0  |
| Manufacturing                                  | 24.4             | 34.7               | 29.7            | 28.7              | 25.8      | 26.7     | 27.3  |

20.6

34.7

45.8

11.6

28.5

33.4

23.7

20.5

20.4

10.5

3.2

22.3

# Activitiy

Total

Transport, storage and

Hotels, camping sites and other short

communications

#### 9.0 35.7 12.5 12.3 20.5 31.5 stay accommodation Construction 21.6 16.6 17.9 33.1 0.3 24.4 Wholesale and retail trade 9.5 13.6 33.0 10.1 20.1 4.9 Banks and insurance companies 5.3 0.0 0.0 0.0 0.0 3.8 27.6 23.2 19.9 30.9 23.0 21.0

### Deliberate damage to hardware and data?

|           | Motion picture, video, radio and TV activities           |     | 0.0 | 0.0  | 9.3 | 0.0  | 0.0 | 4.3 |
|-----------|--|-----|-----|------|-----|------|-----|-----|
|           | Real estate, renting and business activities             | 4.1 | 0.0 | 4.8  | 0.0 | 14.2 | 1.5 | 3.5 |
|           | Manufacturing  | 3.3 | 0.0 | 7.7  | 2.0 | 3.4  | 3.0 | 2.7 |
| vitiy     | Construction   | 1.4 | 5.3 | 3.6  | 6.0 | 0.0  | 0.4 | 2.3 |
| Activitiy | Transport, storage and<br>communications                 | 1.8 | 0.0 | 20.8 | 0.0 | 0.0  | 6.2 | 2.1 |
|           | Wholesale and retail trade                               | 2.0 | 1.2 | 4.7  | 0.0 | 1.2  | 3.9 | 2.0 |
|           | Hotels, camping sites and other short stay accommodation | 0.0 | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0 |
|           | Banks and insurance companies                            | 0.0 | 0.0 | 0.0  | 0.0 | 0.0  | 0.0 | 0.0 |
| Total     |  | 2.6 | 0.9 | 6.7  | 1.7 | 2.8  | 2.9 | 2.4 |



| in percentage |  |                  |                    |                 |                   |           |          |       |
|---------------|--|------------------|--------------------|-----------------|-------------------|-----------|----------|-------|
|               |  |                  | Size               |                 |                   | Region    |          |       |
|               | Enterprises  | small<br>(10-49) | medium<br>(50-249) | large<br>(250+) | Central<br>Serbia | Vojvodina | Belgrade | Total |
|               | Abu  | se of p          | ower               |                 |                   |           |          |       |
|               | Construction   | 0.0              | 16.1               | 1.8             | 6.0               | 0.0       | 3.4      | 3.3   |
|               | Banks and insurance companies                            | 0.0              | 0.0                | 5.3             | 0.0               | 0.0       | 3.8      | 3.2   |
|               | Real estate, renting and business activities             | 2.6              | 6.3                | 0.0             | 0.0               | 0.0       | 4.9      | 3.0   |
| .≥            | Manufacturing  | 0.5              | 3.5                | 1.0             | 1.0               | 2.9       | 0.1      | 1.3   |
| Activitiy     | Transport, storage and<br>communications                 | 0.0              | 0.0                | 8.3             | 0.0               | 0.0       | 0.7      | 0.3   |
|               | Wholesale and retail trade                               | 0.0              | 0.0                | 14.0            | 0.6               | 0.0       | 0.1      | 0.2   |
|               | Hotels, camping sites and other short stay accommodation | 0.0              | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
|               | Motion picture, video, radio and TV activities           | 0.0              | 0.0                | 0.0             | 0.0               | 0.0       | 0.0      | 0.0   |
| Tota          | I  | 0.5              | 4.1                | 3.5             | 1.3               | 1.2       | 1.4      | 1.3   |
|               | None of  | the m            | ention             | ed              |                   |           |          |       |
|               | Banks and insurance companies                            | 100.0            | 100.0              | 94.7            | 100.0             | 100.0     | 96.2     | 96.8  |
|               | Wholesale and retail trade                               | 88.7             | 85.2               | 46.5            | 89.2              | 79.6      | 91.1     | 87.5  |
|               | Hotels, camping sites and other short stay accommodation | 91.0             | 64.3               | 87.5            | 87.7              | 79.5      | 68.5     | 79.5  |
| .≥            | Construction   | 78.4             | 67.6               | 80.4            | 57.8              | 99.7      | 75.4     | 76.3  |
| Activitiy     | Transport, storage and<br>communications                 | 77.6             | 65.3               | 25.0            | 88.4              | 71.5      | 59.6     | 73.9  |
| 4             | Manufacturing  | 73.0             | 61.7               | 69.3            | 69.5              | 70.4      | 70.3     | 70.0  |
|               | Real estate, renting and business activities             | 66.7             | 29.6               | 71.4            | 66.4              | 49.4      | 63.2     | 61.4  |
|               | Motion picture, video, radio and TV activities           | 33.6             | 100.0              | 75.0            | 53.6              | 33.7      | 28.6     | 41.6  |
| Tota          | I  | 78.1             | 65.3               | 66.7            | 74.9              | 74.9      | 75.9     | 75.3  |

## H6: Did your enterprise encounter the following problems?

# 2.5. QUESTIONNAIRE

### USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN ENTERPRISES

### **MODULE 2.A: General information on ICT system**

| A1. Did your enterning use computers for its energings in   | YES | NO       |
|---|-----|----------|
| A1 : Did your enterprise use computers for its operations in January 2009?  |     | □<br>end |
| A2: Please indicate the percentage of the number of persons employed who used computers at least once a week in January 2009. |     | %        |
|   | YES | NO       |
| A3 : Did your enterprise use an INTERNAL COMPUTER<br>NETWORK (e.g. LAN – Local area Network) in January 2009?                 |     | go to A5 |
|   | YES | NO       |
| A4 : Did your enterprise use, in January 2009, a WIRELESS<br>ACCESS within its internal computer network (e.g. Wireless LAN)? |     |          |
|   | YES | NO       |
| A5 : Did your enterprise have in use INTRANET (an internal network within the enterprise) in January 2009?                    |     |          |
|   | YES | NO       |
| A6 : Did your enterprise have in use EXTRANET in January 2009?  |     |          |
| A7 : Did your enterprise have in use open source operating  | YES | NO       |
| systems, such as Linux, in January 2009?  |     |          |

### MODULE 2.B: Use of the Internet

| D4         | Diduan      |   | YES | NO       |
|------------|-------------|---|-----|----------|
| B1<br>2009 |             | enterprise have access to the Internet in January   |     | go to C1 |
|            |             | ndicate an estimate of the percentage of the number ployed who used the Internet in January 2009.   |     | %        |
| DO         | D'.         | and an also because of the fallowing to the set   |     |          |
|            |             | enterprise have one of the following types of<br>ections to the Internet in January 2009?   | YES | NO       |
|            | a)          | Traditional Modem (dial-up)   |     |          |
|            | b)          | DSL (xDSL, ADSL, SDSL, etc.) connection   |     |          |
|            | c)          | Cable Internet  |     |          |
|            | d)          | Mobile connections (e.g. analogue mobile phone,<br>GSM, GPRS, UMTS, EDGE, CDMA2000<br>1xEVDO)   |     |          |
| B4         | : Did your  |   |     |          |
|            | wing purpo  | YES   | NO  |          |
|            | a)          | Banking and financial services  |     |          |
|            | b)          | Training and education  |     |          |
| P5         | Did your    | enterprise use in January 2008, the Internet to   | YES | NO       |
|            |             | enterprise use, in January 2008, the Internet to ublic authorities?   |     | go to B7 |
| B6         | : Did your  | enterprise use the Internet to interact with public   |     |          |
| auth       | orities for |   | YES | NO       |
|            | a)          | Obtaining information   |     |          |
|            | b)          | Obtaining forms (e.g. tax forms)  |     |          |
|            | c)          | Returning filled in forms (e.g. provision of statistical information to public authorities)   |     |          |
|            | d)          | For treating an administrative procedure (e.g. declaration, registration, authorization request) completely electronically without the need for additional paper work (including payment if required) |     |          |
|            | e)          | Submitting a proposal in a public electronic tender<br>system   |     |          |
|            |             | YES   | NO  |          |
| B7         | : Does you  | ir enterprise have a Website/Home Page?   |     | go to B9 |

|    | : Did the V               |  |     |    |
|----|---------------------------|--|-----|----|
|    | ities:<br>(your entei     | prise as provider of Internet services)  | YES | NO |
|    | a)                        | Confidentiality (privacy seal) of Website visitors' details or certification related to Website safety |     |    |
|    | b)                        | Access to product catalogues and price lists   |     |    |
|    | c)                        | Possibility for visitors to customize or design the<br>products  |     |    |
|    | d)                        | Online ordering or reservation of goods/services   |     |    |
|    | e)                        | Online payment   |     |    |
|    | f)                        | Personalized content on the Website for<br>regular/repeated visitors                                   |     |    |
|    | g)                        | Advertisement of open job positions or online job application  |     |    |
| B9 | : Did your                | YES  | NO  |    |
|    | ny messag<br>nenticity an |  |     |    |

### **MODULE 2.C: AUTOMATED DATA EXCHANGE OUTSIDE THE ENTERPRISE**

# Automated data exchange between the enterprise and other ICT systems outside the enterprise means:

• exchange of messages (e.g. orders, invoices, payment transactions or description of goods) over the Internet or other computer network in an agreed format which allows their automatic processing (e.g. XML, EDIFACT, etc.)

• without individual messages being manually types

| C1   | Didyour         | YES NO  |   |          |
|------|-----------------|---|---|----------|
| 2009 |                 | enterprise use automated data exchange in January   |   | go to D1 |
|      | Was the a oses? |   |   |          |
|      | a)              | Sending orders to suppliers   | Γ |          |
|      | b)              | Receiving e-invoices  | Γ |          |
|      | c)              | Receiving orders from customers   | C |          |
|      | d)              | Sending e-invoices  | Γ |          |
|      | e)              | Sending or receiving information on products (e.g. catalogues, price lists, etc.)               | C |          |
|      | f)              | Sending or receiving transport documents (e.g. consignment notes)                               | Ľ |          |
|      | g)              | Sending payment instructions to financial<br>institutions                                       |   |          |
|      | h)              | Sending or receiving data to/from public authorities (e.g. tax returns, statistical data, etc.) |   |          |

Survey results

### Module 2.D: Sharing electronically information on the Supply Chain Management

| Sharing electronically information on the supply chain management means:   |                |          |  |  |  |  |
|--|----------------|----------|--|--|--|--|
| <ul> <li>exchanging all types of information with suppliers and/or customers in order to coordinate<br/>the availability and delivery of products and services to the final consumer,</li> </ul> |                |          |  |  |  |  |
| • including information on demand forecasts, inventories, production, development product,   | distribution o | r        |  |  |  |  |
| <ul> <li>via computer networks, not only the Internet, but also other connection computers of different enterprises.</li> </ul>  | ons between    | l        |  |  |  |  |
| This information may be exchanged via websites or via automated da definition in module C), but it excludes normal e-mail messages many  |                | (see     |  |  |  |  |
| D1 : Was your enterprise, in January 2009, regularly sharing   | YES            | NO       |  |  |  |  |
| electronically information on the supply chain management with suppliers or customers?   |                | go to E1 |  |  |  |  |
| <b>D2</b> : Was your enterprise, in January 2009, regularly sharing electronically the following information with its suppliers?   | YES            | NO       |  |  |  |  |
| <ul> <li>a) Inventory levels, production plans or demand<br/>forecasts</li> </ul>  |                |          |  |  |  |  |
| <ul> <li>b) Progress of deliveries (i.e. distribution of raw<br/>materials or finished products)</li> </ul>  |                |          |  |  |  |  |
| D3: Was your enterprises, in January 2009, regularly exchanging electronically the following information with its customers?   |                |          |  |  |  |  |
| <ul> <li>a) Inventory levels, production plans or demand<br/>forecasts</li> </ul>  |                |          |  |  |  |  |
| <ul> <li>b) Progress of deliveries (i.e. distribution of raw materials or finished products)</li> </ul>  |                |          |  |  |  |  |

#### Module 2.E: Automatic share of information within the enterprise

# Automatic share of information between different functions of the enterprise means any of the following:

• Use of one single software application to support different functions of the enterprise;

• Data linking between software applications that support the different functions of the enterprise

• Use of a common database or data storage accessed by software applications that support the different functions of the enterprise

• Automated data exchange between different software systems (see definition in module C)

| E1: In January 2009, when your enterprise received a sale order  |  |   |     |     |    |               |
|--|--|---|-----|-----|----|---------------|
| (Esther electronically or not), was the relevant information about it shared electronically or automatically with the software used for the following functions?             |  |   |     | YES | NO |               |
|  | a)   | Management of inventory levels of the enterprise    | se  |     |    |               |
|  | b)   | Sending orders to your accounting function          |     |     |    |               |
|  | c)   | Your production or services management              |     |     |    |               |
|  | d)   | Your distribution management                        |     |     |    |               |
|  |  | y 2009, when your enterprise sent a sale order      |     |     |    |               |
| (either electronically or otherwise), was the relevant information<br>about it shared electronically or automatically with the software<br>used for the following functions? |  |   |     | YES | NO |               |
|  | a)   | a) Management of inventory levels of the enterprise |     |     |    |               |
|  | b)   | Sending orders to your accounting function          |     |     |    |               |
| E3: In January 2009, did your enterprise have in use an YES<br>ERP software package to share information on sales and/or   |  |   |     | S   | NO | DON'T<br>KNOW |
| purchases with other internal functional areas (e.g. finances, planning, marketing, etc.?  |  |   |     |     |    |               |
| E4 : In January 2009, did your enterprise use any software   |  |   |     |     |    |               |
| application for managing information about customers (so-called CRM) that allows to:   |  |   |     | YES | NO |               |
|  | <ul> <li>Capture, store and make available to other<br/>business functions the information about its clients</li> </ul>  |   | nts |     |    |               |
|  | <ul> <li>Make analysis of the information about customers<br/>for marketing purposes (setting prices, make sales<br/>promotion, choose distribution channels, etc.)</li> </ul> |   |     |     |    |               |

### **MODULE 2.F: e-commerce**

| E-COMMERCE:   |  |          |               |  |  |
|---|--|----------|---------------|--|--|
| e-commerce means a business communication or transfer of goods and services (purchase<br>and sale) via networks or computers, as well as transfer of capital by using digital<br>communication (ICT). |  |          |               |  |  |
|   | e-commerce may be done via websites or automated data exchange between enterprises, but it excludes normal e-mail that are typed manually. |          |               |  |  |
| Orde  | ers received over the Internet (sales)   |          |               |  |  |
|   | Did your enterprise receive orders over the Internet (excluding  | YES      | NO            |  |  |
| e-m   | ail orders) in January 2008?   |          | □<br>go to F6 |  |  |
|   | Please indicate the percentage of orders received in one of following ways in 2008.  |          |               |  |  |
|   | a) Via website   |          | %             |  |  |
|   | b) Via electronically exchanged data (XML, EDIFACT, etc.)  | %        |               |  |  |
|   | Please indicate an estimate of the percentage of the part of over resulted from received orders over the Internet in 2008.                 | <u> </u> |               |  |  |
|   | Please indicate the percentage of electronic sales (compared ectronic sales in 2008) in:   |          |               |  |  |
|   | a) Republic of Serbia  |          | %             |  |  |
|   | b) EU countries  | <u> </u> |               |  |  |
|   | c) Rest of the world   | %        |               |  |  |
|   | TOTAL  | 100%     |               |  |  |
| <b>F5</b> : Did your enterprise use a secure protocol, such as SSL or TLS, for the reception or orders over the Internet?   |  | YES      | NO            |  |  |
|   |  |          |               |  |  |
| Orders placed over the Internet (purchases)   |  |          |               |  |  |
| F6: Did your enterprise order goods/services over the Internet in January 2008 (excluding manually typed e-mails)?  |  | YES      | NO            |  |  |
|   |  |          | □<br>go to G1 |  |  |

| com   | Please in<br>pared to th<br>answer o                           |                                 |  |    |  |
|---|--|---------------------------------|--|----|--|
|   | a)   | Less than 1%                    |  |    |  |
|   | b)   | 1% and over, and less than 5%   |  |    |  |
|   | c)   | 5% and over, and less than 10%  |  |    |  |
|   | d)   | 10% and over, and less than 25% |  |    |  |
|   | e)   | 25% and over                    |  |    |  |
| F8: In 2008, was your enterprise regularly sending e-orders via |  |                                 |  |    |  |
|   | computer networks to suppliers located in the following areas? |                                 |  | NO |  |
|   | a) Republic of Serbia  |                                 |  |    |  |
|   | b) EU countries  |                                 |  |    |  |
|   | c) Rest of the world   |                                 |  |    |  |

### MODULE 2.G: Use of technologies for the radio-frequencies identification (RFID)

Radio-frequency identification (RFID) means:

 automatic identification method for storage and remote retrieval of data using FRID tags and transponders

• RFID tag is a device that may be used or incorporated in and product or object and that transmits information via radio waves.

• RFID system has an aerial and receiver, the latter reading the radio-frequency and transmitting information to the device for signal processing.

| G1: Does your enterprise use RFID devices? |    |   | YES | NO       |
|--|----|---|-----|----------|
|  |    |   |     | go to H1 |
| G2: What are the purposes for using RFID?  |    |   |     |          |
|  |    |   | YES | NO       |
|  | a) | Identification of product (e.g. to prevent<br>counterfeiting, theft control)      |     |          |
|  | b) | Monitoring and control of industrial production                                   |     |          |
|  | c) | Supply chain and inventory tracking and tracing                                   |     |          |
|  | d) | Management of information about services and<br>maintenance, management of assets |     |          |
|  | e) | Payment applications (e.g. pay tolls, passengers transport)                       |     |          |
|  | f) | Identification of individuals or access control                                   |     |          |



### MODULE 2.H: Security of information systems in enterprises

| H1: Does your enterprise have regulations on information security?  |   |   | YES | NO |  |  |
|---|---|---|-----|----|--|--|
|   |   |   |     |    |  |  |
|   |   |   | YES | NO |  |  |
|   | H2: Does your enterprise check the employees' awareness of the information security measures? |   |     |    |  |  |
| H3: Were the following resources requiring alternative resolutions identified in your enterprises:  |   |   |     |    |  |  |
|   |   | (tick all that apply)   |     |    |  |  |
|   | a) Human resources  |   |     |    |  |  |
|   | b)  | Hardware  |     |    |  |  |
|   | c)  | Software  |     |    |  |  |
|   | d)  | Not identified  |     |    |  |  |
|   |   |   | YES | NO |  |  |
| H4  | H4: Are users of information systems identified in your enterprise?                           |   |     |    |  |  |
| H5: Are copying or taking away of data prevented in your enterprise (including the software) on mobile media (e.g. DVD, CD, diskettes, etc.)? |   |   | YES | NO |  |  |
|   |   |   |     |    |  |  |
| H6: Has your enterprise encountered the following problems:<br>(tick all that apply)  |   |   |     |    |  |  |
|   | a)  | Accidental damage to information system and<br>information          |     |    |  |  |
|   | b)  | Intentional damage to hardware and information (inside and outside) |     |    |  |  |
|   | c)  | Abuse of power  | C   |    |  |  |
|   | d)  | None of the mentioned   | Γ   | ]  |  |  |

# ICT GLOSSARY

### 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 ha ndles. A bit is express ed as 1 or 0 in binar y presentation, or as true, i.e. false in logic presentation. A group of 8 bits makes 1 bite.

### Broadband:

A communication system the ag ent (carrier) of which (e.g. optical cable) forw ards 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 o r methodology that helps managing information about our clients' needs and habits and developing tighter rela tionships with them. CRM c ontains several technological components, but in organizationa I terms, CRM represents a set o f processes for collecting necessary infor mation on customers, sales, ma rketing efficiency, cu stomers' reactions and market trends. C RM helps mana ging technologies and human re sources 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 anon ymous FTP is a popular w ay of ob taining free of charge software of public property.

### Dial-up connection:

Use of a telephone network for the purpose of connecting to an other 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 n etworks based on protocols and via other computer networks. Goods and services are ordered over those net goods or services can be carried out on/outside 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 attach ments, between computers located inside or outside an orga nization. This comprises electronic mails over the Internet or other computer networks.

#### Extranet:

A secure extension of Intranet en abling 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 technolog y used in sy stems of electronic b usiness for checking the signatory's authenticity, securing the integrity of transmitted information and the irrevocability of t he electronic signature in the message or document. Theref ore, alike the signature in sta ndard business, the electronic signature is used in electronic business. Besides, the latter secures electronically si gned messages, which is not the case w ith personal signatures.

### ERP (Enterprise Resource Planning):

ERP is a softw are system that monitors all the aspects of business operations of a compan y. The implemented ERP s ystem is able to integ rate business oper ations of different company functions (e.g. accountancy, sale s, production, etc.) in one entit y. One obtains t his 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 hard ware and software keeping the system secure. It is usually used to prevent any unauthorized access to the intern al local netw ork from t he outsi de. Fire wall 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.stat.gov.rs

### 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 w hich 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) . Ea ch connected LAN units is a llowed to communicate with other networks, if needed.

### Network:

A group of computers or other devices, such as printers, scanners, etc., being con nected to the communication link, w hich enables all the devices to interact. It can be of small range, linked w ith cables, wireless, permanently, temp orary 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 p rogram, which, by being started-up and installed, damages or e rases data in a computer.

### Wide Area Network (WAN):

A communication net work that I inks geographically remote com puters, printe rs and othe r devices.

### Window:

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

CIP – Каталогизација у публикацији Народна библиотека Србије, Београд

314:[007:004(497.11)

UPOTREBA informaciono-komunikacionih tehnologija u Republici Srbiji : [Elektronski izvor] : domaćinstva, pojedinci, preduzeća / priredili Dragan Vukmirović, Kristina Pavlović, Vladimir Šutić. - CD-ROM izd. -Elektronski časopis. - 2008- . - Beograd (Milana Rakića 5) : Republički zavod za statistiku Srbije, 2008-. - Optički disk (CD-ROM) - 12 cm

Godišnje ISSN 1820-9149 = Upotreba informaciono-komunikacionih tehnologija u Republici Srbiji (CD-ROM) COBISS.SR-ID 150812940