

USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2012

HOUSEHOLDS/INDIVIDUALS ENTERPRISES



Belgrade, 2012.

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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 financial and insurance activities. This undertaking was primarily meant to test methodologies and instruments and prepare for implementation similar, regular surveys related to households and the economy.

In the previous five years, 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 2012 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 preceding the telephone interview were taken to be the reference period, which was, for most of the questions asked to enterprises, January 2012, while selected ones referred to the entire 2011.

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 absent one).

The survey for enterprises was carried out on a sample stratified by size and activities, by telephone. It covered 1200 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 that it will be the basis for its further development.



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- 1.31. Which of the following goods/services did you order (for private purposes) over the Internet in the last 12 months?
- 1.32. Did you use any of the following portable computers for accessing the Internet away from home or work in the last three months?
- 1.33. Did you use any of the following handheld devices for accessing the Internet away from home or work in the last three months?
- 1.34. What are the reasons for not having accessed the Internet via a portable computer or handheld computer in the last three months?

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- 2.1. Does your enterprise use computers?
- 2.2. Enterprises by the percentage of employees using a computer at least once a week
- 2.3. Did your enterprise use during the year Linux open source operating system?
- 2.4. Did your enterprise use ERP software package for sharing information about sale and/or purchase with other internal business functions (e.g. finance, planning, marketing, etc.) in January 2012?
- 2.5. Did your enterprise employ IT (ICT) specialist/s in January 2012?
- 2.6. Did your enterprise recruit or try to recruit IT (ICT) specialist/s in 2011?
- 2.7. Did your enterprise have access to the Internet?
- 2.8. Enterprises by the percentage of persons who use the Internet at least once a week
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- 2.13. Did your enterprise use the Internet for the following administrative procedures?
- 2.14. Does your enterprise have a website?
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- 2.17. Did your enterprise receive orders over the Internet?
- 2.18. Percentage of the total turnover in 2011 resulting from orders received over the Internet



USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2012

HOUSEHOLDS/INDIVIDUALS ENTERPRISES



1.1. METHODOLOGY

Survey period	The survey was carried from 12 March to 24 March 2012
Type of survey	Telephone interview
Sample size	2400 households2400 individuals
Target population	 For households: all households with at least one member aged between 16 and 74 For individuals: all individuals aged between 16 and 74
Sample type	Two-stage, stratified sample
Geographic scope	Territory of the Republic of Serbia (excl. AP Kosovo and Metohia)

1.2. SAMPLE

The survey on ICT usage in households was conducted on a representative sample of 2400 households on the territory of the Republic of Serbia. The response rate was 98.8% (2371 households).

Households

		Income		F	Region		Type house			
Sample (households)	Up to 300 euros	300 - 600 euros	More than 600 euros	Central Serbia	Vojvodina	Belgrade	Urban	Rural	Total	
Number	1373	717	281	1192	654	525	1397	974	2371	
%	57.9	30.2	11.9	50.3	27.6	22.1	58.9	41.1	100	

The same sample was used both for households and individuals aged from 16 to 74 who reside on the territory of the Republic of Serbia. The response rate was 98.8% (2371 individuals).

Individuals

			Ą	ge			S	ex	Education			Employment situation				
Sample (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women	Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total
Number	193	278	362	415	523	600	933	1438	625	1207	539	765	636	53	917	2371
%	8.1	11.7	15.3	17.5	22.1	25.3	39.4	60.6	26.4	50.9	22.7	32.3	26.8	2.2	38.7	100



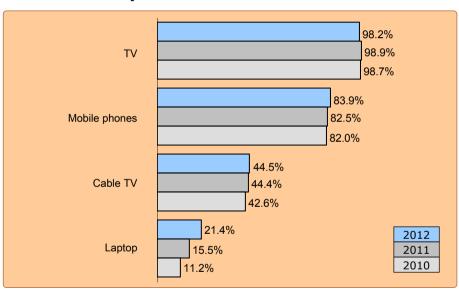
1.3. MAIN FINDINGS

1.3.1. Devices in households

Households were offered to give more than one answer to the question relative to the devices available in households. The survey shows that 98.2% of households have a TV set and 44.5% cable TV.

83.9% of households have a mobile phone

21.4% of households have a laptop, which is an increase of 5.9% and 10.2% in relation to 2011 and 2010 respectively.



Graph 1.1. Devices available in households

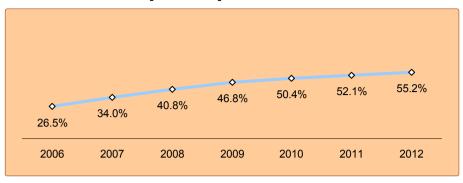
1.3.2. Computers in households

The main findings of the survey show that 55.2% of households in the Republic of Serbia have a computer, which is an increase of 3.1%, 4.8% and 8.4% in relation to 2011, 2010 and 2009 respectively. The percentage of computers in households varies as to the territory: in Belgrade it amounts to 66.2%, in Vojvodina 56.3%, and in Central Serbia 49.5%.

55.2% of households have a computer

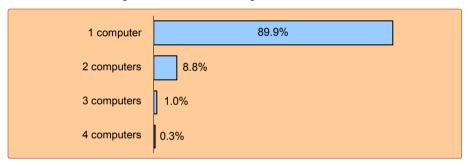
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Graph 1.2. Computers in households



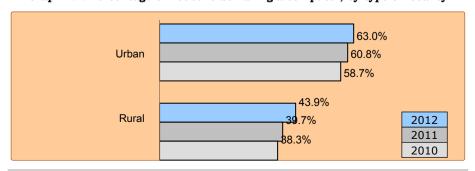
Most of the households have one computer (89.9%), while just a few households (8.8%) have two computers.

Graph 1.3. Number of computers in households



The differences are also visible when comparing the availability of computers in urban and rural areas of Serbia: 63% versus 43.9%. In relation to 2011, this gap has decreased, which is backed by growth rates of computer availability in urban and rural parts of Serbia. The growth rate in the urban part of Serbia is 2.2%, and in the rural ones it amounts to 4.2%, when compared to 2011.

Graph 1.4. Percentage of households having a computer, by type of locality





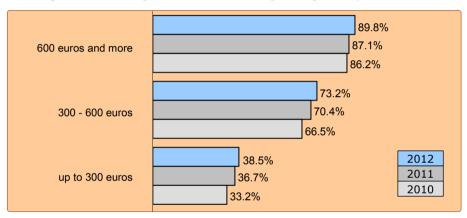
However, the structure of households by monthly income is expressive of the greatest gap as to the availability of computers in households. Computers are mostly available in households with a monthly income of more than 600 euros (89.8%) then in households with an income up to 300 euros (38.5%).

When comparing with data for 2011, growth rates in certain income classes for 2012 indicate that the above mentioned gap diminished slightly in 2012.

While growth rates for households with an income under 600 euros, in relation to 2011, amount to, 2.8% (for the income size 300-600 euros) and to 1.8% for households with an income under 300 euros, growth rates for households with an income more than 600 euros are 1.7%.

38.5% of households with an income up to 300 euros have a computer

Graph 1.5. Percentage of households having a computer, by income level

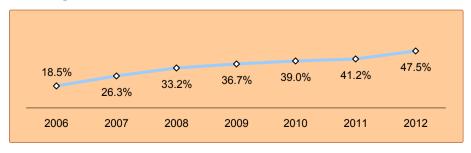


1.3.3. Internet in households

In the Republic of Serbia 47.5% of households have an Internet connection, which is an increase of 6.3%, 8.5% and 10.8% when compared to 2011, 2010 and 2009 respectively.

47.5% of households have an Internet connection

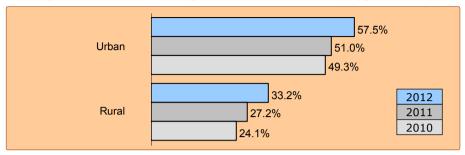
Graph 1.6. Does the household have accecc to the Internet at home?



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The highest percentage of Internet connection was observed in Belgrade (42%), in Vojvodina (49.3%), and in Central Serbia (40.6%).

Graph 1.7. Households having an Internet connection, by type of locality



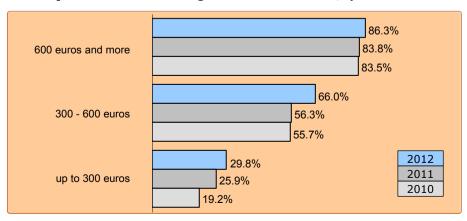
There are also considerable differences as to the percentage of Internet connection in urban and rural parts of Serbia: 57.5% versus 33.2%. When compared to 2011, the results indicate that the gap grew slightly. The growth rate in the urban part of Serbia is 6.5% and in the rural part 6.0%.

In the same way as in computer availability in households, a large gap as regard the Internet connection appears when observing the structure of households according to their monthly income level. The internet connection is mostly used by households which monthly income exceeds 600 euros (86.3%), while only 29.8% of households with an income under 300 euros are connected to the Internet.

29.8% households with an income up to 300 euros have an Internet connection

The data for 2011 indicate that the gap in 2012, as regard the Internet connection availability according to income level, diminished. This is clearly expressive from the growth rates in certain income classes for 2012 in relation to the previous year. While the growth rate for households with an income of 600 euros, when compared to 2011, is 2.5%, i.e. 9.7% for households with an income from 300 to 600 euros the rate for households having an income up to 300 euros amounts to 3.9%.

Graph 1.8. Households having an Internet connection, by income level

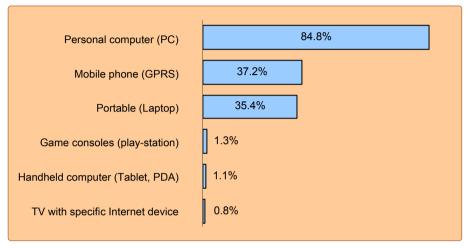




As regard the devices used to access the Internet, 84.8% of households used a personal computer, 35.4% a laptop and 37.2% a mobile phone.

The results of the survey indicate that the number of households that access the Internet via a mobile phone increased by 21.5% in relation to 2011, but the number of households accessing the Internet via a personal computer decreased by 3.9%.

Graph 1.9. Devices used to access the Internet



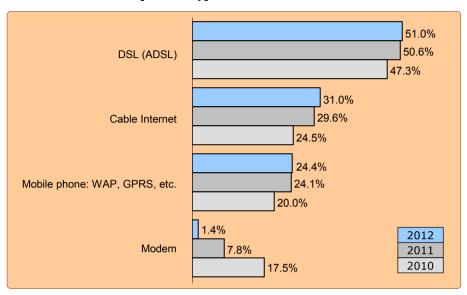
As for types of connection, households were given the possibility to give several answers. The results indicate that of the total number of households that have an Internet connection, 51% of them have DSL (ADSL), 31% cable Internet, 24.4% WAP and GPRS, and 1.4% a modem connection

51% of households having an Internet connection use DSL (ADSL)

Based on the results of the survey a decrease of 6.4% and 16.1% in relation to 2011 and 2010 respectively was observed in the use of a modem connection. This is primarily due to the use of a broadband connection

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Graph 1.10. Type of Internet connection



38% of households in Serbia have a broadband Internet connection

The broadband Internet connection, besides providing faster access, changes the entire way of using the Internet since it allows quicker download of information compared to the classic dialup modem connection. Accordingly, from 2005, the percentage of households having this type of Internet connection is taken to be one of the main indicators of ICT development in the European Union. In Serbia 38% of households have a broadband connection, which is an increase of 7% and 10.4% in relation to 2011 and 2010. The type of Internet connection is most used in Belgrade (50.4%), in Vojvodina (37.6%), and the least in Central Serbia (32.4%).

Graph 1.11. Broadband Internet connection in households

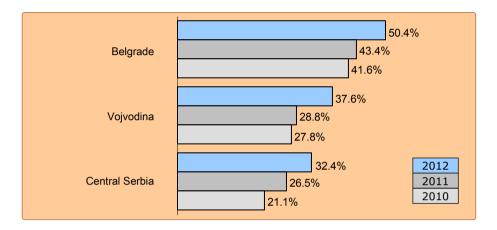


The broadband Internet connection is mostly used in households with a monthly income of more than 600 euros (72.3%), while the share of households with an income less than 300 euros is only 22.4%.



Large differences are also observed when comparing the use of this type of Internet connection in the rural and urban parts of Serbia: 48.3% versus 23.1%.

Graph 1.12. Broadband Internet connection in households, by territory



1.3.4. Individuals: use of computers

In the Republic of Serbia, 55% of individuals used a computer in the last three months, 2% more than three months ago, and 4.1% more than one year ago. There are even 38.9% of individuals who have never used a computer. The number of computer users increased by 1.2%, 4.8% and 5.8% in relation to 2011, 2010 and 2009 respectively.

The number of computer users increased by 1.2% in relation to 2011

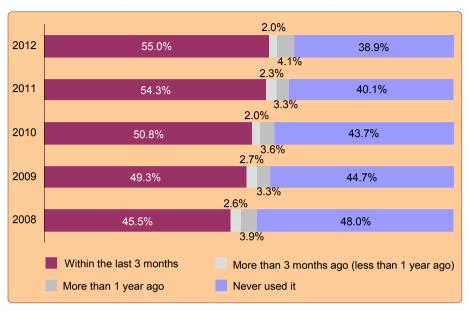
When compared with 2011, the number of individuals who used a computer in the last three months increased by 50 000.

More than 3 100 000 of individuals used a computer in the last three months

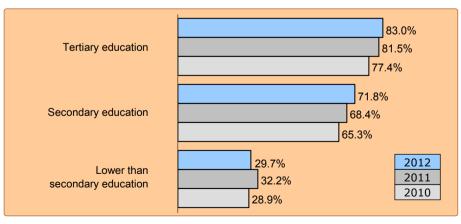
The percentage of computer users (in the last three months), according to educational level:

- 83% of individuals with tertiary education;
- 71.8% of individuals with secondary education;
- 29.7% of individuals with lower than secondary education.

Graph 1.13. When did you last use a computer?



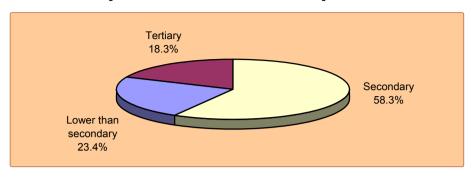
Graph 1.14. Percentage of computer users (in the last three months), by educational level



Among computer users, 58.3% have secondary educational level, 23.4% lower than secondary educational level, and 18.3% tertiary educational level.



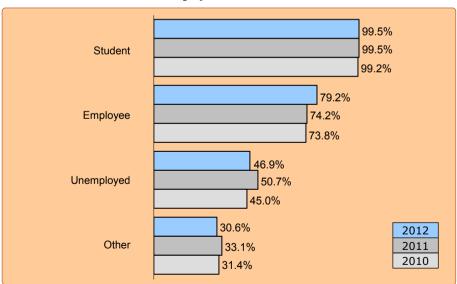
Graph 1.15. Educational structure of computer users



The percentage of computer users (in the last three months), according to employment situation:

- 99.5% of students;
- 79.2% of employees;
- 46.9% of unemployed persons;
- 30.6% of others (retired, on compulsory military service, etc.).

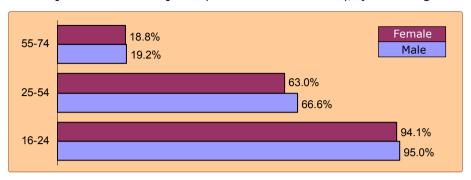
Graph 1.16. Percentage of computer users (in the last three months), by employement situation



The analysis of the respondents by sex indicates that in the last three months 56.9% of men and 53.1% of women used a computer.

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Graph 1.17. Use of computers (in the last three months), by sex and age

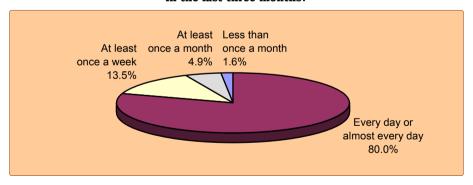


According to the answers to the question about the average frequency of use of computers in the last three months, 80% of respondents used a computer every day or almost every day, 13.5% at least once a week, 4.9% at least once a month, and 1.6% less than once a month.

More than 2 500 000 of persons use a computer every day or almost every day

When compared with 2011, the number of persons who used a computer every day or almost every day increased by some 10 000.

Graph 1.18. How often, on average, did you use a computer in the last three months?



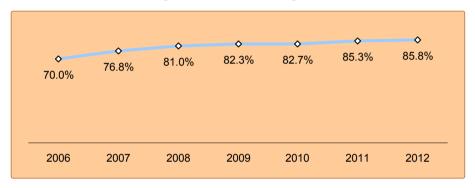


1.3.5. Individuals: use of mobile phones

The survey indicates that 85.8% of persons use a mobile phone, while in 2011 the percentage was 85.3%.

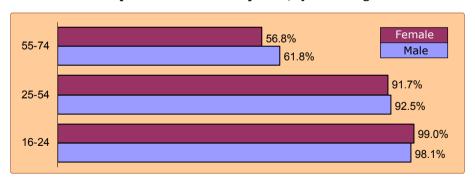
More than 4 860 000 persons use a mobile phone

Graph 1.19. Use of mobile phones



When compared with 2011, the number of persons who used a mobile phone increased by some $60\ 000$.

Graph 1.20. Use of mobile phones, by sex and age



1.3.6. Individuals: use of the Internet

In Serbia, 48.4% of persons used the Internet in the last three months, 1.6% of respondents used the Internet more than 3 months ago, and 1.6% more than one year ago. There were 48.4% of respondents that never used the Internet.

The number of Internet users increased by 4.6%, 5.7% and 8% in relation with 2011, 2010, 2009.

The number of Internet users increased by 4.6%, when compared with 2011

1.6% 2012 48.4% 48.4% 1.6% 2.2% 2011 42 2% 53.0% 2.7% 2.7% 2010 54.1% 40.9% 2.3% 3.6% 2009 38.1% 56.4% 1.9% 2.8% 2008 35.6% 59.2% 2.4% Within the last 3 months More than 3 months ago (less than 1 year ago) More than 1 year ago Never used it

Graph 1.21. When did you last use the Internet?

More than 2 700 000 persons used the Internet in the last three months

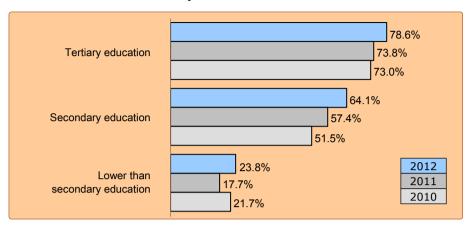
When compared with 2011, the number of persons who used the Internet in the last three months increased by some $300\,000$.

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

- 78.6% of persons with tertiary education;
- 64.1% of persons with secondary education;
- 23.8% of persons with lower than secondary education.

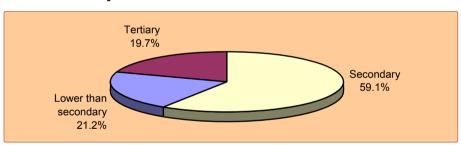


Graph 1.22. Percentage of Internet users (in the last three months), by educational level



Among Internet users, 59.1% attained secondary educational level, 21.2% of users attained lower than secondary educational level, and 19.7% tertiary.

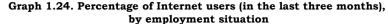
Graph 1.23. Educational structure of Internet users

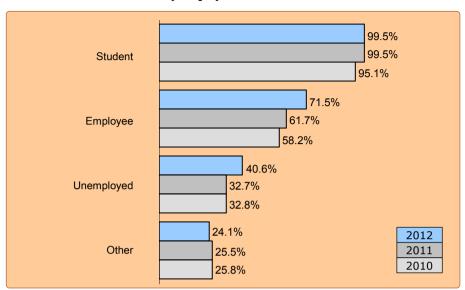


The percentage of Internet users (in the last three months), by employment situation:

- 99.5% of students;
- 71.5% of employees;
- 40.6% of unemployed;
- 24.1% of others (retirement, compulsory military service ...).

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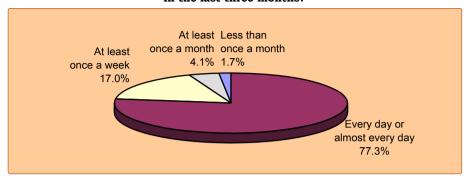
According to answers concerning the average frequency of Internet use in the last three months, 77.3% of respondents said having used it every day or almost every day.

More than 2 100 000 persons use the Internet every day or almost every day

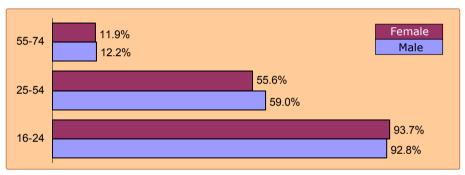
Compared to 2011, the number of persons who used the Internet every day or almost every day increased by some 200 000.



Graph 1.25. How often, on average, did you use the Internet in the last three months?



Graph 1.26. Use of the Internet (in the last 3 months), by sex and age

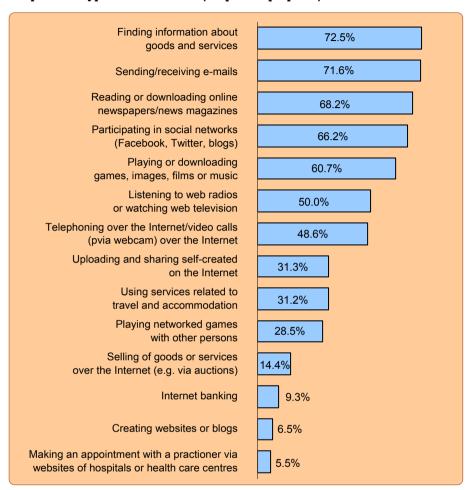


The analysis of respondents by sex indicates that 50.4% of men and 46.6% of women used the Internet in the last three months.

The respondents used the Internet most for finding information about goods and services (72.5%) and participating in social networks such as Facebook and Twitter (66.2%).

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Graph 1.27. Types of Internet use (for private purposes) in the last three months



92.1% of Internet population aged 16 to 24 have an account on social networks (Facebook, Twitter)



1.3.7. e-government

The survey indicates that 30.9% of respondents among Internet users use the Internet instead of personal contacts or visits to public authorities.

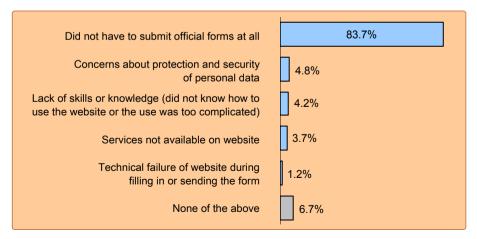
More than 840 000 persons interact electronically with public authorities

Graph 1.28. For which of the following public authorities' services did you use the Internet?



The survey indicates that 92.6% of respondents used the Internet in the last three months to obtain information from public institutions' sites, 57.7% to download official forms and 38.8% to send filled in forms.

Graph 1.29. Reasons for not having sent filled in forms to public authorities over the Internet



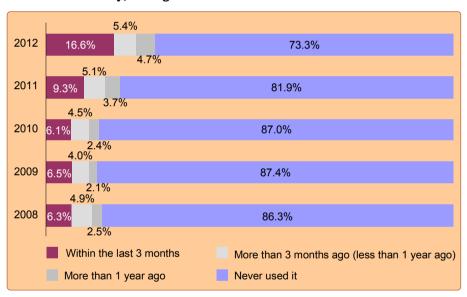
1.3.8. e-commerce

As regard the period when Internet users bought/ordered goods or services via the Internet, 16.6% of users bought/ordered goods/services in the last three months, 5.4% did it more than three months ago, and 4.7% more than a year ago.

73.3% of Internet users have never bought/ordered goods or services over the Internet.

More than 600 000 persons bought or ordered goods/services over the Internet in the last 12 months

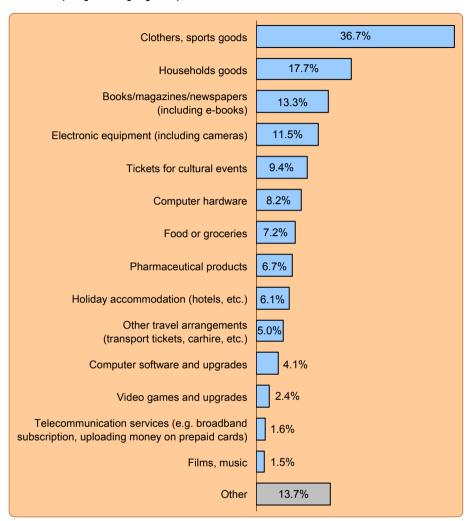
Graph 1.30. When did you last (for private purposes) buy/order goods or services over the Internet?



Compared to 2011, the number of persons who bought or ordered goods/services over the Internet increased by some 220 000.



Graph 1.31. Which of the following goods/services did you order (for private purposes) over the Internet in the last 12 months?

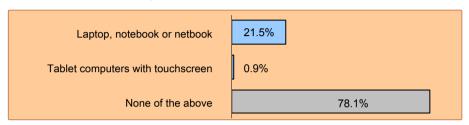


Most of Internet users bought/ordered clothes and sport goods (36.7%) and household goods (17.7%).

1.3.9. Use of mobile Internet

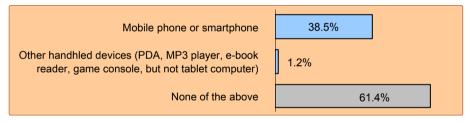
The survey indicates that 21.5% of the Internet population used a laptop to access the Internet, while 0.9% used tablet computers for the same purpose.

Graph 1.32. Did you use any of the following portable computers for accessing the Internet away from home or work in the last three months?



Most of the respondents used portable computers for private purposes (70.4%) while 29.6% used them only for professional use.

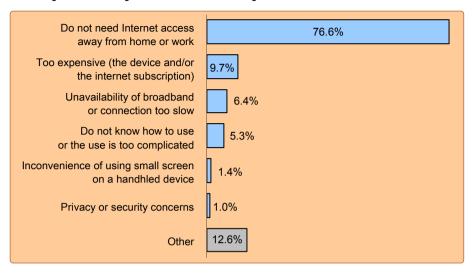
Graph 1.33. Did you use any of the following handheld devices for accessing the Internet away from home or work in the last three months?



When asked about the reason for not having accessed the Internet via a portable computer or handheld device away from home most of the respondents said not having the need for Internet away from home or work.



Graph 1.34. What are the reasons for not having accessed the Internet via a portable computer or handheld computer in the last three months?



1.4. SURVEY RESULTS

MODULE 1.A: Access to information and communication technologies

in percentages

In percentag									
		Income			Region		Type of household		
Answer (households)	Up to 300 euros	300 - 600 euros	More than 600 euros	Central Serbia	Vojvodina	Belgrade	Urban	Rural	Total
A1: Devices available in households (all that apply)									
TV	97,5	99,1	99,7	97,8	98,4	99,0	99,1	97,0	98,2
Mobile phone (GPRS)	75,3	94,6	98,7	80,3	85,1	90,4	87,1	79,4	83,9
Personal computer (PC)	38,5	73,2	89,8	49,5	56,3	66,2	63,0	43,9	55,2
Cable TV	32,6	57,5	69,1	34,1	40,9	71,7	62,5	18,7	44,5
Laptop	10,3	30,9	50,6	18,1	18,4	32,2	27,8	12,1	21,4
None of the above	0,8	0,0	0,0	0,8	0,2	0,0	0,1	1,0	0,5
A2: Do you or anyone in	your 1	nouseh	old ha	ve acc	ess to	the In	ternet	t at ho	me?
Yes	29,8	66,0	86,3	40,6	49,3	60,5	57,5	33,2	47,5
No	69,4	32,4	13,7	58,7	49,0	39,1	41,5	65,9	51,5
Don't know	0,8	1,6	0,0	0,8	1,8	0,4	1,0	0,9	1,0
A3: Devices u	ised to	acces	s the l	intern	et (all	that a	pply) ¹⁾		
Personal computer (PC)	84,0	84,9	86,1	85,7	87,0	81,4	84,4	85,8	84,8
Mobile phone (GPRS)	30,4	36,5	50,0	37,7	35,3	38,5	36,9	38,1	37,2
Portable computer (Laptop)	23,9	36,7	52,2	33,2	28,6	45,5	39,5	25,3	35,4
Game console (play-station)	1,2	1,4	1,5	1,4	2,3	0,3	1,3	1,4	1,3
Handheld computer (Tablet, PDA)	0,0	0,4	4,1	0,5	0,8	2,1	1,3	0,3	1,1
TV with specific Internet device	0,2	0,7	2,0	0,8	0,8	0,9	0,8	0,7	0,8
1)									

¹⁾ The data refer only to households with answer "Yes" in question A2.

MODULE 1.A: Access to information and communication technologies

in percentages

									itages
		Income			Region	ı	Typ hous		
Answer (households)	Up to 300 euros	300 - 600 euros	More than 600 euros	Central Serbia	Vojvodina	Belgrade	Urban	Rural	Total
A4: Type of Internet connection (all that apply) 1)									
DSL(ADSL)	52,2	49,1	52,7	55,4	51,0	44,4	50,3	52,7	51,0
Cable Internet	25,7	34,0	33,7	25,7	27,9	41,9	35,7	19,0	31,0
Mobile phone network (2G or GPRS) over mobile phone or laptop	18,8	24,2	33,9	25,8	21,6	25,0	24,3	24,5	24,4
Wireless connection (satellite Internet, public WiFi)	13,5	12,3	15,7	12,4	13,9	14,5	11,8	17,7	13,5
Mobile phone network (3G network) via a handset (mobile phone, tablet)	11,2	9,7	12,7	9,4	12,9	11,1	10,5	11,8	10,9
Mobile phone betwork (3G network) via USB connection	3,0	5,1	4,1	4,7	5,2	2,2	3,6	5,6	4,1
Dial-up access over telephone line or ISDN	1,3	1,8	0,7	1,6	1,3	1,2	0,8	2,8	1,4
A5: Reasons fo	or not	_			ie Inte	rnet a	t home	e	
		(all tl	ıat apı	oly) ²⁾					
Don't need the Internet	55,0	54,3	58,1	51,4	58,4	61,6	57,6	52,7	55,0
Equipment costs too high	31,0	18,7	16,0	28,0	34,0	20,3	28,6	27,9	28,2
Lack of skills	23,7	24,9	20,1	23,8	23,2	25,1	26,3	21,6	23,8
Access costs too high	25,1	15,4	9,1	23,5	27,1	13,6	23,5	22,1	22,8
Physical disability	5,0	6,6	0,0	6,6	2,0	5,4	7,0	3,5	5,2
Have access to the Internet elsewhere	2,5	8,9	22,2	4,5	5,0	2,8	5,7	3,2	4,4
Broadband Internet is not available	3,8	5,8	3,8	6,6	0,7	1,6	0,7	7,4	4,2
Privacy or security concerns	0,3	0,0	0,0	0,5	0,0	0,0	0,0	0,5	0,3
None of the above; other reasons	6,2	8,2	13,9	5,7	8,3	8,3	5,8	7,8	6,8

¹⁾ The data refer to households with "Yes" in question A2.



 $^{^{\}rm 2)}$ The data refer to households with "No" in question A.

MODULE 1.B: Use of computer

			Sex					
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women
B1: When did you last								
Within the last 3 months	95,5	77,6	69,8	46,8	25,0	9,3	56,9	53,1
More than 3 months ago (less than a year)	1,1	3,4	2,3	3,2	1,2	0,2	1,8	2,2
More than 1 year ago	1,0	3,8	3,9	5,7	6,0	2,8	3,9	4,2
Never used it	2,4	15,2	24,0	44,3	67,7	87,8	37,4	40,4
			B2:	How	often o	n ave	rage di	id you
Every day or almost every day	85,2	81,9	77,4	75,9	73,1	78,8	83,7	76,2
At least once a week	11,2	10,3	15,3	16,4	20,1	13,0	9,8	17,3
At least once a month	3,1	6,5	4,1	5,7	5,3	8,2	4,7	5,1
Less than once a month	0,5	1,3	3,3	2,0	1,6	0,0	1,9	1,4

¹⁾ The data refer to individuals who answered "Within the last 3 months" in question B1.

and mobile phones

in percentages

III percentages												
		tion	nt situa	ployme	Em	n	ducatio	E				
Answer (individuals)	Total	Other	Student	Unemployed	Employee	Tertiary	Secondary	Lower than secondary				
						iter?	compu	use a				
Within the last 3 months	55,0	30,6	99,5	46,9	79,2	83,0	71,8	29,7				
More than 3 months ago (less than a year)	2,0	1,2	3,0	2,5	2,0	1,5	3,0	1,1				
More than 1 year ago	4,1	4,3	0,0	5,5	2,5	3,2	5,8	2,5				
Never used it	38,9	63,9	0,0	45,0	16,2	12,4	19,4	66,6				
		? 1)	onths	st 3 m	the la	ıter in	compu	use a				
Every day or almost every day	80,0	83,0	86,6	71,2	84,2	90,5	78,7	75,0				
At least once a week	13,5	14,5	8,9	18,4	10,4	8,1	14,3	15,7				
At least once a month	4,9	2,0	4,5	7,0	4,4	1,3	5,0	7,5				
Less than once a month	1,6	0,5	0,0	3,4	1,0	0,2	2,0	1,8				



MODULE 1.B: Use of computer

			Ą	ge			Sex		
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women	
	B3: Which of the following computer-related								
Copying or moving files or folders	83,3	70,2	57,5	48,5	36,9	39,7	64,0	61,6	
Using copy or paste tools to duplicate or move information within documents	82,1	71,4	54,8	51,5	43,0	48,8	65,6	61,5	
Using basic arithemtic formulas in spreadsheet	62,9	52,7	46,4	41,1	24,7	20,4	50,7	45,7	
Compressing (zipping) files	56,9	51,5	35,0	27,2	15,9	10,3	44,8	36,3	
Connecting and installing new devices (e.g. modem)	60,7	47,7	30,1	21,7	11,2	5,1	45,7	30,0	
Writing a computer programme using specialised programming languages	22,3	15,0	8,7	5,5	3,7	0,6	14,8	9,8	
Transferring files btween computer and other devices (mobile telephone, mp3 player)	77,1	64,5	43,8	28,9	14,9	6,8	54,4	46,9	
Modifying parameters or software application	21,1	19,2	12,4	8,9	3,5	1,5	17,8	11,1	
Creating electronic presentations (slides, including sound or video)	42,1	23,0	17,0	12,2	4,7	1,3	23,4	20,6	
Installing a new or replacing an old operating system	35,2	29,7	20,1	12,1	6,1	1,3	30,1	15,6	
None of the above	9,8	21,4	33,2	39,5	48,8	38,1	24,9	30,0	
	B4: Did you use a mobile phone o								
Yes	99,1	97,8	92,8	85,6	66,7	47,0	84,3	81,4	
No	0,9	2,2	7,2	14,4	33,3	53,0	15,7	18,6	
	В5:	Did yo	u use	a mobi	ile pho	ne or	smart _]	phone	
Yes	23,1	61,5	52,7	43,3	19,1	10,4	46,9	32,5	
No	76,9	38,5	47,3	56,7	80,9	89,6	53,1	67,5	

²⁾ The data refer to individuals who answered "Never used it" in question B1.

³⁾ The data refer to individuals who answered "Yes" in question B4.

and mobile phones

in percentages

	in percentages											
E	ducatio	n	Em	ployme	nt situa	tion						
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	Answer (individuals)				
activi	ties ha	ve you	u ever	carrie	d out?	(all th	at app	oly) ²⁾				
49,8	62,9	80,0	68,5	51,3	90,7	61,0	62,8	Copying or moving files or folders				
54,8	61,7	81,9	69,2	50,1	90,7	67,1	63,6	Using copy or paste tools to duplicate or move information within documents				
30,8	48,6	70,6	54,7	37,7	76,6	41,7	48,2	Using basic arithemtic formulas in spreadsheet				
29,4	40,8	55,0	45,3	33,8	74,7	28,2	40,6	Compressing (zipping) files				
34,7	37,1	44,6	39,3	31,9	68,7	34,9	37,9	Connecting and installing new devices (e.g. modem)				
11,4	11,9	14,7	12,1	9,9	24,8	13,2	12,3	Writing a computer programme using specialised programming languages				
42,7	51,3	59,1	54,5	43,2	90,0	40,3	50,6	Transferring files btween computer and other devices (mobile telephone, mp3 player)				
8,7	15,1	20,0	18,5	7,1	30,7	12,6	14,4	Modifying parameters or software application				
16,4	21,5	31,5	21,9	15,5	63,9	20,1	22,0	Creating electronic presentations (slides, including sound or video)				
17,0	23,4	29,5	25,6	19,5	42,7	15,0	22,9	Installing a new or replacing an old operating system				
34,4	28,6	14,1	22,5	38,3	7,7	25,1	27,4	None of the above				
smart	phone	in the	last 3	mont	hs?							
67,4	94,2	95,6	96,3	82,3	98,6	64,5	85,8	Yes				
32,6	5,8	4,4	3,7	17,7	1,4	35,5	14,2	No				
for pr	ofessio	nal pu	ırpose	s in th	e last	3 mon	ths? ³⁾					
20,0	47,0	62,4	70,3	27,4	22,8	9,6	39,6	Yes				
80,0	53,0	37,6	29,7	72,6	77,2	90,4	60,4	No				



MODULE 1.C: Use of

				Sex						
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women		
C1: When did you last										
Within the last 3 months	93,2	73,9	59,7	38,1	16,8	4,4	50,4	46,6		
More than 3 months ago (less than a year)	0,8	1,4	1,6	3,9	1,3	0,3	1,6	1,6		
More than 1 year ago	0,5	2,8	2,3	1,1	1,4	8,0	2,1	1,1		
Never used it	5,4	22,0	36,4	56,9	80,5	94,5	45,9	50,7		
		C	2: On a	averag	e, how	often	did yo	ou use		
Every day or almost every day	84,4	78,3	75,2	73,9	61,8	48,3	82,9	71,4		
At least once a week	12,5	15,7	18,4	19,3	27,7	41,4	13,2	20,8		
At least once a month	2,6	4,7	5,0	4,2	4,5	2,5	2,5	5,7		
Less than a month	0,5	1,3	1,4	2,7	6,0	7,8	1,3	2,1		

Less than a month 0.5 1.3 1.4 2.7 6.0 7.8 1.3 1.4 The data refer to individuals who answered "Within the last 3 months" in question C1.

the Internet

the I	nteri	net						in percentages
E	ducatio	n	Em	ployme	nt situa	tion		
Lower than secondary	Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	Answer (individuals)
use th	e Inte	rnet?						
23,8	64,1	78,6	71,5	40,6	99,5	24,1	48,4	Within the last 3 months
1,1	2,3	1,4	1,6	2,4	0,0	0,8	1,6	More than 3 months ago (less than a year)
8,0	2,3	1,6	1,7	2,0	0,0	1,0	1,6	More than 1 year ago
74,4	31,4	18,4	25,3	55,1	1,5	74,0	48,4	Never used it
the In	ternet	in the	e last 3	3 mont	t hs? 1)			
75,9	75,1	85,3	79,9	70,2	89,8	77,9	77,3	Every day or almost every day
21,1	17,3	11,4	15,1	21,2	5,8	19,8	17,0	At least once a week
2,2	5,4	2,0	3,4	6,4	4,5	0,6	4,1	At least once a month
8,0	2,1	1,3	1,6	2,2	0,0	1,7	1,7	Less than a month



MODULE 1.C: Use of

			Ą	ge			S	ex
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women
C	3: For	which	of the	follow	ing ac	tivitie	s di yo	u use
Finding information about goods and services	60,2	80,7	80,0	72,6	68,5	46,2	72,2	72,7
Sending/receiving e-mails	73,4	74,0	74,6	68,2	53,3	59,6	71,7	71,5
Reading or downloading online newspapers/news magazines	64,8	77,2	66,4	63,6	59,9	63,4	69,2	67,0
Participating in socila networks (Facebook, Twitter, blogs)	92,1	72,5	62,4	39,8	23,6	13,0	64,6	67,8
Playing or downloading games, images, video or music	82,3	65,8	50,2	40,0	31,9	26,5	63,0	58,4
Listening to web radios or watching web television	56,5	56,1	52,1	38,5	18,8	23,0	53,8	46,1
Telephoning over the Internet/video calls (via webcam) over the Internet	51,8	53,3	43,4	41,7	44,4	62,3	50,5	46,7
Uploading and sharing self-created content	44,2	34,0	28,1	18,5	7,5	2,7	30,6	32,0
Using services related to travel and accommodation	23,1	40,9	31,5	32,4	19,4	34,1	29,7	32,7
Playing networked games with other persons	46,0	26,8	24,8	12,2	13,1	2,0	30,9	25,9
Selling goods or services via the Internet (e.g. auctions)	10,0	17,4	20,4	11,5	7,4	10,2	19,7	8,9
Internet banking	0,9	13,4	13,9	10,7	9,3	12,8	9,8	8,9
Creating websites and blogs	10,8	4,6	6,1	5,0	1,4	0,0	7,7	5,2
Making an appointment with a practiotioner via websites of hospitals or health care centres	5,7	7,1	4,8	4,0	4,3	2,1	5,4	5,7

¹⁾ The data refer to individuals who answered "Within the last 3 months" in question C1.

the Internet

in percentages

in percentages														
		tion	nt situa	ployme	Em	n	ducatio	Е						
Answer (individuals)	Total	Other	Student	Unemployed	Employee	Tertiary	Secondary	Lower than secondary						
poses? ¹⁾	e pur	privat	hs for	3 mont	e last 3	in the	ternet	the In						
Finding information about goods and services	72,5	61,1	76,7	61,9	82,0	80,4	75,9	55,4						
Sending/receiving e-mails	71,6	63,5	85,3	63,8	76,9	86,4	71,8	57,4						
Reading or downloading online newspapers/news magazines	68,2	65,9	69,4	60,8	73,5	75,9	69,4	57,5						
Participating in socila networks (Facebook, Twitter, blogs)	66,2	73,5	93,0	65,9	60,1	50,7	68,1	75,3						
Playing or downloading games, images, video or music	60,7	72,3	86,6	61,8	52,7	52,2	59,7	71,5						
Listening to web radios or watching web television	50,0	46,3	58,8	49,6	49,8	48,5	49,5	52,8						
Telephoning over the Internet/video calls (via webcam) over the Internet	48,6	55,5	58,0	43,8	48,5	49,4	48,9	47,0						
Uploading and sharing self-created content	31,3	38,9	57,9	25,6	28,7	23,8	33,8	31,1						
Using services related to travel and accommodation	31,2	16,9	49,2	18,5	40,7	45,9	34,1	9,2						
Playing networked games with other persons	28,5	39,1	38,6	27,9	24,4	16,9	27,2	42,8						
Selling goods or services via the Internet (e.g. auctions)	14,4	6,2	19,0	12,5	17,1	15,0	17,0	6,6						
Internet banking	9,3	3,0	5,1	3,9	15,4	20,4	9,0	0,0						
Creating websites and blogs	6,5	3,1	17,3	7,4	4,9	6,5	6,2	7,0						
Making an appointment with a practiotioner via websites of hospitals or health care centres	5,5	1,6	7,3	5,7	6,2	7,5	5,8	2,8						



MODULE 1.D: Mobile use

			A	ge			Sex		
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women	
D1: Did you use any of the following portable									
Laptop, notebook or netbook	27,9	25,8	16,2	14,1	12,4	6,4	26,5	16,4	
Tablet computer with touch screen	0,5	2,3	0,1	0,4	0,6	0,0	1,6	0,3	
None of the above	72,1	73,1	83,6	85,9	87,6	93,6	73,0	83,5	
D2: Which of the follow	ing ne	tworks	did y	ou use	to co	nnect 1	the po	rtable	
Molbile phone network, using USB key or SIM card	30,6	30,5	28,4	30,8	31,8	42,2	30,2	30,5	
Wireless network (WiFi)	73,4	75,7	85,4	77,3	80,4	57,8	77,1	75,8	
D3: On ave	rage, h	ow oft	en did	you a	ccess	the Int	ternet	using	
Every day or almost every day	17,7	28,3	41,6	50,1	19,6	0,0	29,4	26,1	
At least once a week (but not every day)	32,3	25,7	15,2	14,4	27,6	34,2	23,8	28,4	
Less than once a week	50,0	46,0	43,2	35,6	52,8	65,8	46,8	45,4	
D4: Did you us	e any o	of the	follow	ing haı	ndheld	devic	es to a	ccess	
Mobile phone or smartphone	57,6	47,4	28,3	16,6	5,2	4,2	44,3	32,4	
Other handheld devices (PDA, MP3 player, e-book reader, game console, but not tablet computer)	2,3	0,9	1,2	0,5	0,0	0,0	1,8	0,6	
None of the above	42,4	52,6	71,1	83,4	94,8	95,8	55,4	67,6	
player, e-book reader, game console, but not tablet computer)	42,4	52,6	71,1	83,4	94,8	95,8	·		

¹⁾ The data refer to individuals who answered "None of the above in question D1.

of the Internet

of 1	the Ir	terne	t					in percentages
	Educa	tion	Em	ployme	nt situa	tion		
Lower than	secondary Secondary	Tertiary	Employee	Unemployed	Student	Other	Total	Answer (individuals)
to a	ccess	n the last 3 months?						
17,	1 22,4	23,7	22,0	17,4	41,7	18,0	21,5	Laptop, notebook or netbook
0,7	0,7	1,9	1,6	0,5	0,0	0,3	0,9	Tablet computer with touch screen
82,	9 77,3	75,6	77,3	82,6	58,3	82,0	78,1	None of the above
con	puter	k in the last 3 months? 1)						
32,	4 28,7	33,3	29,9	30,6	21,5	45,6	30,3	Molbile phone network, using USB key or SIM card
67,	6 79,1	76,6	80,7	72,6	82,8	56,5	76,6	Wireless network (WiFi)
a po	ortable	compu	ter awa	y fron	n home	e or wo	ork in 1	the last 3 months? ¹⁾
18,	5 26,6	39,9	36,0	14,0	20,4	38,0	28,2	Every day or almost every day
15,	7 28,7	23,9	22,9	20,7	40,5	28,4	25,5	At least once a week (but not every day)
65,	8 44,7	36,2	41,1	65,3	39,2	33,6	46,3	Less than once a week
the	Intern	et away	from 1	home	or worl	k in th	e last	3 months?
45,	4 38,1	32,2	37,1	34,9	55,6	42,2	38,5	Mobile phone or smartphone
1,8	3 1,1	1,1	0,9	1,4	1,9	1,6	1,2	Other handheld devices (PDA, MP3 player, e-book reader, game console, but not tablet computer)
54,	6 61,7	67,8	62,9	64,7	44,4	57,8	61,4	None of the above



MODULE 1.D: Mobile use

			A	ge			S	ex	
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women	
D5: Which of the following	ng netv	vorks	did yo	u use 1	to con	nect th	e han	dheld	
Mobile phone network (GPRS, 2G)	32,8	29,5	34,0	53,2	45,7	0,0	31,5	35,2	
Mobile phone (3G) broadband connection	42,8	50,4	33,5	40,1	42,1	100,0	46,7	40,0	
Wireless network (WiFi)	33,1	33,5	42,0	24,5	55,5	0,0	34,9	33,4	
D6: On aver	rage, h	ow oft	en did	you a	ccess	the Int	ernet	using	
Every day or almost every day	34,7	35,1	43,6	41,2	39,5	0,0	34,4	39,8	
At least once a week (but not every day)	36,2	28,2	42,4	24,3	24,4	100,0	34,8	31,9	
Less than once a week	29,2	36,7	14,1	34,5	36,1	0,0	30,7	28,3	
D7: For which of	f the fo	ollowir	ıg acti	vities	did yo	u use t	he Int	ernet	
Participating in social networks (Facebook, Twitter, etc)	76,2	55,0	41,5	31,0	14,9	100,0	55,3	66,3	
Reading or downloading online news, newspapers, news magazines	43,5	61,1	52,5	43,3	51,7	100,0	55,2	45,7	
Sending/receiving e-mails	46,3	44,6	37,3	61,7	78,6	100,0	39,5	54,1	
Playing or downloading games, images, video or music	33,9	28,3	14,9	15,4	26,0	100,0	26,3	29,7	
Reading or downloading online books or e-books	10,0	6,7	3,5	25,3	12,4	100,0	7,0	11,6	
Other	3,2	12,9	11,5	16,4	0,0	0,0	9,3	7,8	
Using podcast service to automatically receive audio or video files	11,2	6,4	4,5	8,2	0,0	0,0	6,4	10,7	
D8: Did yo	u use	Intern	et app	licatio	ns on	a hand	held d	levice	
Yes	28,7	28,2	24,7	49,6	51,9	64,4	38,8	16,1	
No	71,3	71,4	74,1	50,4	48,1	0,0	60,9	83,5	
Don't know	0,0	0,4	1,2	0,0	0,0	35,6	0,3	0,5	
D9: Did you use a portable con	npute	or ha	ndhelo	devic	e to a	ccess t	he Int	ernet	
Yes	13,4	31,4	49,3	48,2	47,5	80,9	35,3	21,9	
No	86,6	68,6	50,7	51,8	52,5	19,1	64,7	78,1	

²⁾ Data refer to individuals who did not answer "None of the above" in question D4.

of the Internet

in percentages

in percentages												
		tion	nt situa	ployme	Em	on	ducatio	E				
Answer (individuals)	Total	Other	Student	Unemployed	Employee	Tertiary	Secondary	Lower than secondary				
the last 3 months? 2)	work i	ne or v	m hor	way fro	rnet av	e Inte	to th	device				
Mobile phone network (GPRS, 2G)	33,0	37,0	17,3	38,7	32,0	38,2	32,2	31,7				
Mobile phone (3G) broadband connection	43,9	31,2	64,6	36,6	47,4	39,4	48,4	36,2				
Wireless network (WiFi)	34,3	38,7	24,4	31,8	37,1	38,3	29,5	43,1				
e last 3 months? ²⁾	in the	r work	ome o	from h	away	device	dheld	a han				
Every day or almost every day	36,6	37,2	46,8	28,1	39,5	44,8	37,9	28,2				
At least once a week (but not every day)	33,6	41,3	29,8	41,6	27,1	23,1	34,1	39,4				
Less than once a week	29,7	21,6	23,4	30,2	33,4	32,0	28,0	32,3				
via handheld device in the last 3 months for private purposes? ²⁾												
Participating in social networks (Facebook, Twitter, etc)	59,8	82,0	81,9	55,0	50,9	36,9	62,1	69,6				
Reading or downloading online news, newspapers, news magazines	51,3	46,5	60,5	40,9	57,1	56,7	52,8	44,0				
Sending/receiving e-mails	45,6	50,4	60,3	34,4	47,7	57,4	45,1	38,9				
Playing or downloading games, images, video or music	27,7	38,9	28,0	26,7	25,0	16,8	27,8	34,7				
Reading or downloading online books or e-books	8,9	19,5	13,3	6,4	6,2	8,5	7,4	12,5				
Other	8,7	0,0	3,3	10,3	11,6	15,1	8,9	4,1				
Using podcast service to automatically receive audio or video files	8,1	6,4	15,5	8,7	6,5	1,9	10,8	5,9				
the last 3 months? $^{2)}$	ı are iı	ere you	ut whe	on abo	rmati	he info	ting t	exploi				
Yes	29,4	30,9	30,1	22,1	33,5	43,6	29,5	19,7				
No	70,2	68,7	69,9	77,4	66,1	55,2	70,1	80,3				
Don't know	0,4	0,3	0,0	0,5	0,4	1,1	0,3	0,0				
k in the last 3 months?					_	_		_				
Yes No	29,6 70,4	7,0 93.0	21,0 79.0	18,7 81,3	41,4 58.6	53,9 46,1	29,1 70.9	4,7 95,3				
INO	70,4	73,0	17,0	01,3	30,0	40, 1	10,9	70,0				



MODULE 1.D: Mobile use

				WIOD'	ODE .	1.1.	TODIIC	usc	
			A	ge			S	ex	
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women	
D10: Did you encounter, in the last 3 months, any of the following problem									
Other	55,6	63,0	55,6	46,6	49,8	80,9	54,4	61,9	
Frequent difficulties with mobile phone network signal	33,5	27,5	25,5	33,4	35,9	19,1	31,3	28,4	
Unexpected high bills (e.g. moving outside local tariff area)	9,3	12,7	16,6	21,6	10,9	0,0	16,6	6,9	
Incovenience of using small screen or entering text on handheld device	10,5	10,6	19,2	15,1	4,5	0,0	13,1	10,7	
Difficulties in setting or changing parameters for Internet access	10,8	4,2	11,5	14,3	4,9	19,1	9,7	7,4	
Difficulties in obtaining information about cost of accessing the Internet	6,0	2,6	6,4	5,4	0,0	0,0	7,0	1,5	
D11: What are the reaso	ons for	not a	ccessiı	ng the	Intern	et wit	h a po	rtable	
Do not need the Internet access away from home or work	68,0	74,8	79,5	82,5	77,2	75,4	72,5	79,9	
Other	18,7	14,3	10,7	8,9	9,1	18,8	12,6	12,7	
Too expensive (device and/or the Internet subscription)	11,1	10,6	8,5	9,4	10,0	0,0	10,1	9,3	
Unavailability of broadban or connection too slow	3,4	11,8	5,6	5,0	5,6	0,0	8,7	4,5	
Do not know how to use or the use is too complicated	0,0	1,3	6,6	8,0	14,7	8,6	6,1	4,7	
Inconvenience of using small screen on a handheld device	2,7	0,0	0,5	2,3	2,4	2,3	1,9	1,0	
Privacy or security concerns	3,9	0,0	1,0	0,0	0,0	0,0	2,0	0,1	

²⁾ The data refer to individuals who did not answered "None of the above" in question D4.

³⁾ The data refer to individuals that answered "None of the above in questions D1 and D4.

of the Internet

in percentages

in percentages								V- V
		tion	nt situa	ployme	Em	n	ducatio	E
Answer (individuals)	Total	Other	Student	Unemployed	Employee	Tertiary	Secondary	Lower than secondary
ice in the last 3 months? 2)	ld dev	andhe	er or h	omput	able co	a prot	using	when
Other	57,5	50,9	58,5	57,5	59,0	50,9	58,6	60,1
Frequent difficulties with mobile phone network signal	30,1	40,5	31,4	29,0	27,7	33,7	27,8	33,1
Unexpected high bills (e.g. moving outside local tariff area)	12,5	9,0	10,2	10,9	15,1	12,1	12,3	13,4
Incovenience of using small screen or entering text on handheld device	12,1	8,1	13,3	12,4	12,7	17,8	12,9	5,2
Difficulties in setting or changing parameters for Internet access	8,7	12,5	10,9	7,5	8,0	9,4	8,0	10,2
Difficulties in obtaining information about cost of accessing the Internet	4,7	7,8	3,0	5,4	3,8	3,6	4,4	6,3
work in the last 3 months? 3)	me or	om ho	way fr	evice a	held d	r hand	uter o	comp
Do not need the Internet access away from home or work	76,6	72,7	70,3	79,0	76,5	79,6	74,9	78,2
Other	12,6	13,1	16,2	12,0	12,6	12,6	12,9	11,8
Too expensive (device and/or the Internet subscription)	9,7	11,7	0,0	10,8	9,3	9,6	9,3	10,7
Unavailability of broadban or connection too slow	6,4	4,7	13,6	7,6	5,2	3,4	8,8	2,6
Do not know how to use or the use is too complicated	5,3	4,1	0,0	6,0	5,7	6,0	5,0	5,7
Inconvenience of using small screen on a handheld device	1,4	4,3	0,0	0,4	1,5	2,2	1,6	0,0
Privacy or security concerns	1,0	5,6	0,0	0,0	0,5	0,4	0,3	3,5



MODULE 1.E: Use

			Sex					
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women
E1: Did you use in the	last 1	2 mon	ths the	e servi	ces of	public	autho	rities
Obtaining information from public authorities' websites	89,6	95,3	93,1	92,4	83,3	100,0	92,0	93,2
Downloading official forms	56,7	54,1	65,1	51,1	63,6	66,8	59,6	55,7
Sending filled in forms	49,8	33,2	41,0	34,6	39,3	41,6	45,8	31,5
E2: What were the	e reasc	ons for	not se	ending	filled	in for	ns to p	oublic
Did not have to sbumit offical forms at all	81,7	86,8	86,2	80,3	69,2	66,4	77,4	88,9
Services not available on website	11,2	1,6	2,4	2,8	5,8	12,1	6,3	1,6
Technical failure of website during filling in or sending the form	0,0	0,0	3,5	0,0	5,5	0,0	2,0	0,6
Lack of skills of knowledge (do not know how to use website or the use was too complicated)	0,0	2,4	4,7	11,2	7,0	0,0	5,8	2,9
Concerns about protection and security of personal data	1,2	6,7	6,6	0,0	6,4	0,0	7,5	2,5
None of the above	6,0	6,8	3,7	9,1	12,0	21,5	7,9	5,7

¹⁾ The data refer to individuals who answered "In the last 3 months" or "Three months ago (less than 1 year)" in question C1.

²⁾ the data refer to individuals who did not answered "Sending filled forms" in question D1.

of e-government¹⁾

n percentages

e-g	over	nme	11					in percentages
Edi	ucatio	n	Em	ployme	nt situa	tion		
secondary	Secondary	Tertiary	Employee	Unemploye	Student	Other	Total	Answer (individuals)
r th	e Int	ernet,	for pri	ivate p	urpose	es, for	the fo	llowing activities:
6	94,3	92,2	91,6	93,4	94,3	97,6	92,6	Obtaining information from public authorities' websites
3	54,6	68,9	62,0	52,0	62,6	33,1	57,7	Downloading official forms
2	36,3	43,4	36,3	46,7	40,2	23,5	38,8	Sending filled in forms
hori	ities (over tl	ne Inte	rnet i	n the l	ast 12	mont	hs: ²⁾ (all that apply)
,0	84,2	79,9	86,0	78,5	88,3	76,4	83,7	Did not have to sbumit offical forms at all
)	4,3	3,0	2,7	7,4	0,0	3,9	3,7	Services not available on website
)	0,8	2,3	1,4	1,4	0,0	0,0	1,2	Technical failure of website during filling in or sending the form
)	4,7	3,9	4,5	4,0	0,0	6,4	4,2	Lack of skills of knowledge (do not know how to use website or the use was too complicated)
)	4,9	5,3	5,2	6,5	0,0	0,0	4,8	Concerns about protection and security of personal data
)	6,4	8,2	5,4	6,5	11,7	13,3	6,7	None of the above
	Ed Secondary	Education Approximate Interpretation 6 94,3 3 54,6 2 36,3 horities (1) 4,3 0 0,8 4,7 1 4,9	Education Are purposed by Part of the Internet, 6 94,3 92,2 3 54,6 68,9 2 36,3 43,4 horities over the 1,0 84,2 79,9 1 4,3 3,0 1 0,8 2,3 2 4,7 3,9 2 4,9 5,3	r the Internet, for pri 6 94,3 92,2 91,6 3 54,6 68,9 62,0 2 36,3 43,4 36,3 horities over the Internet, on the internet over the internet	Education Employme Are purple of the Internet, for private p 6 94,3 92,2 91,6 93,4 3 54,6 68,9 62,0 52,0 2 36,3 43,4 36,3 46,7 horities over the Internet in 0 84,2 79,9 86,0 78,5 0 4,3 3,0 2,7 7,4 0 0,8 2,3 1,4 1,4 0 4,7 3,9 4,5 4,0 0 4,9 5,3 5,2 6,5	Education Employment situal Arguer Purpose 1 the Internet, for private purpose 1 54,6 68,9 62,0 52,0 62,6 2 36,3 43,4 36,3 46,7 40,2 1 the Internet in	Education Employment situation Are proposed by Late and	Education Employment situation Part Part Part Part Part Part



MODULE 1.F: Use

					MC	DUL	E 1.F	Use
			A	ge			Se	∋x
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women
		F1: W	7hen d	id you	last b	uy or o	order g	oods
Within the last 3 months	15,7	21,7	13,6	15,0	14,2	3,3	18,6	14,5
More than 3 months ago (less tha a year)	5,2	7,9	5,3	3,4	1,2	3,3	5,9	4,8
More than 1 year ago)	3,7	4,6	7,5	3,8	2,7	3,8	5,9	3,5
Never bought or ordered	75,3	65,7	73,6	77,8	81,9	89,6	69,6	77,2
F2: What ty	pes of	goods	or serv	vices d	lid you	ı buy o	r orde	r over
Clothes, sports goods	58,1	34,8	29,7	21,4	10,4	0,0	30,0	45,5
Household goods	13,4	22,0	16,1	14,9	16,8	50,0	17,0	18,5
Books/magazines/newspapers (including e-books)	10,6	11,5	22,2	13,6	4,1	35,9	13,6	12,9
Electronic equipment (incl. cameras)	11,7	8,1	18,3	12,8	9,2	0,0	16,2	5,4
Tickets for cultural events	7,9	10,9	11,2	8,4	0,0	17,9	8,4	10,7
Computer hardware	5,4	8,0	14,6	6,0	7,3	0,0	14,5	0,0
Food or groceries	2,9	7,8	6,6	0,0	44,3	0,0	6,8	7,6
Pharmaceutical products	4,6	7,4	5,8	12,2	2,9	0,0	2,4	12,4
Holiday accommodation (hotel)	4,9	7,7	4,7	7,8	0,0	0,0	5,5	6,8
Other travel arrangement (transport tickets, carhire, etc.)	5,0	4,7	8,7	1,5	0,0	32,1	3,8	6,6
Computer software and upgrades	0,0	4,6	9,4	3,4	4,1	0,0	6,2	1,4
Video games and upgrades	2,8	2,2	2,8	3,0	0,0	0,0	2,7	2,1
Telecommunication services (broadband subscriptions, uploading money on prepaid phone cards, etc.)	2,4	0,0	3,8	2,5	0,0	0,0	2,6	0,3
Films, music	3,5	0,0	1,7	2,2	0,0	0,0	2,0	0,7
Share purchases, insurance policies and other financial services	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Other	11,3	14,4	3,9	30,1	15,8	17,9	15,4	11,6
1)								

¹⁾ The data refer to individuals who did not answer "Never used it" in question C1.

in percentage					1)	nerce	comr	of e-	
		tion	nt situa	ployme	Em	on	ducatio	Е	
Answer (individuals)	Total	Other	Student	Unemployed	Employee	Tertiary	Secondary	Lower than secondary	
	t?	nterne	r the Iı	se ove	vate u	for pri	vices i	or ser	
Within the last 3 month	16,6	11,4	25,6	11,4	20,3	19,7	17,8	10,5	
More than 3 months at (less tha a yea	5,4	1,0	14,1	4,3	6,0	6,9	6,2	2,0	
More than 1 year ag	4,7	3,4	1,9	4,7	5,5	7,7	4,1	3,8	
Never bought or order	73,3	84,3	58,4	79,6	68,1	65,8	71,9	83,7	
? (all that apply)	the Internet for private use in the last 12 months? (all that apply)								
Clothes, sports good	36,7	56,8	47,5	29,1	34,7	19,3	41,1	46,0	
Household good	17,7	29,9	9,0	15,8	18,9	17,4	18,0	16,1	
Books/magazines/newspape (including e-book	13,3	7,0	19,4	13,7	12,5	24,2	11,0	4,8	
Electronic equipme (incl. camera	11,5	0,0	9,6	12,3	13,1	14,3	12,7	0,0	
Tickets for cultural even	9,4	1,0	11,0	8,7	10,4	10,4	10,8	0,0	
Computer hardwa	8,2	0,0	5,6	6,8	10,6	8,8	8,6	5,2	
Food or groceri	7,2	1,9	10,7	10,2	5,7	6,1	5,9	15,7	
Pharmaceutical produc	6,7	0,0	4,5	6,8	8,1	7,5	7,8	0,0	
Holiday accommodation (hotel.	6,1	0,0	9,6	8,7	4,9	7,5	6,7	0,0	
Other travel arrangement (transpo	5,0	1,7	9,8	7,6	3,2	5,4	5,8	0,0	
Computer software and upgrad	4,1	0,0	0,0	2,7	6,2	4,4	4,8	0,0	
Video games and upgrad	2,4	2,6	0,0	3,7	2,5	3,1	1,6	5,7	
Telecommunication service (broadband subscription uploading money on prepaid photo cards, etc.	1,6	0,0	0,0	2,6	1,8	4,4	0,9	0,0	
Films, mus	1,5	12,2	0,0	0,0	1,1	1,2	0,5	7,2	
Share purchases, insurant policies and other financial service	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	



12,6 13,3 15,5 12,4

15,1

15,1

17,5 13,7

Other

MODULE 1.F: Use

		Age						ex
Answer (individuals)	16 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	Men	Women
F3: Did	you b	uy or o	oder go	ods o	r servi	ces for	priva	te use
Yes	20,9	10,3	17,6	12,0	3,2	0,0	17,6	9,6
No	79,1	89,7	82,4	88,0	96,8	100,0	82,4	90,4
F4: Wh	at type	es of g	oods o	r servi	ces di	d you 1	buy or	order
Digital content (downloaded/accessed from website or web application), e.g. films, music, e-books	13,8	0,0	10,7	0,0	0,0	0,0	10,7	0,0
Physical goods (e.g. electronics, clothes, toys, food, books, CD/DVD)	77,9	81,4	89,3	58,8	100,0	0,0	75,6	89,5
Services (tickets for cultural events, transport services)	8,2	18,6	0,0	41,2	0,0	0,0	13,7	10,5
F5: From who	m did ;	you bu	y/ord	er good	is or s	ervice	s for p	rivate
From national sellers	95,0	93,4	91,5	89,3	96,9	67,9	91,2	95,4
From sellers from EU countries	5,4	5,2	13,4	10,7	3,1	32,1	8,3	6,3
From sellers from the rest of the world	2,9	0,7	6,8	5,3	0,0	0,0	4,3	1,2
Country of origin of sellers is not known	2,5	2,3	5,0	0,0	0,0	0,0	3,7	0,8

¹⁾ The data refer to individuals who did not answer "Never used it" in question C1.

Major findings Survey results Methodology Sample Questionnaire

in percentages					1)	nerce	comn	of e-	
		tion	nt situa	ployme	Em	n	ducatio	Е	
Answer (individuals)	Total	Other	Student	Unemployed	Employee	Tertiary	Secondary	Lower than secondary	
last 12 months?	n the	evice i	held d	a hand	using a	ernet 1	he Int	over t	
Yes	14,1	41,9	21,8	13,2	9,1	11,9	12,3	28,0	
No	85,9	58,1	78,2	86,8	90,9	88,1	87,7	72,0	
he last 12 months?	ce in t	for private purposes using a handheld device							
Digital content (downloaded/accessed from website or web application), e.g. films, music, e-books	7,6	0,0	25,7	11,0	0,0	0,0	13,5	0,0	
Physical goods (e.g. electronics, clothes, toys, food, books, CD/DVD)	79,6	100,0	59,0	65,8	87,6	76,7	71,9	100,0	
Services (tickets for cultural events, transport services)	12,7	0,0	15,3	23,2	12,4	23,3	14,6	0,0	
: (all that apply)	onths	t 12 m	he las	et in t	Intern	er the	ses ov	purpo	
From national sellers	93,0	96,2	95,1	93,8	91,7	87,3	93,7	100,0	
From sellers from EU countries	7,5	3,8	5,6	8,7	7,8	15,0	6,2	0,0	
From sellers from the rest of the world	2,9	5,0	5,6	1,5	2,7	6,6	2,2	0,0	
Country of origin of sellers is not	2.4	0.0	4.9	0.0	3.2	0.0	3.8	0.0	



0,0

3,8

0,0

3,2

0,0

4,9

0,0

2,4

known

1.5. QUESTIONNAIRE

ICT USAGE IN HOUSEHOLDS AND BY INDIVIDUALS

MODULE 1.A: ACCESS TO INFORMATION AND COMMUNICATION TECHNOLOGIES

A	Do you or anyone in your household have access to the following devices at home?							
	(tick al	I that apply)						
	a)	Personal computer (PC)						
	a1) total number of computers in your household units							
	b)	Laptop						
		b1) total number of laptops in your household		uni	ts			
	c)	TV						
		c1) Satellite TV						
		c2) Cable TV						
	c3) Digital TV							
	c4) Total number of TV receivers in your household units							
	d)	Radio-receiver (including walkman, mobile pho	ne, car radio	os)				
		d1) total number of radio receivers in your hou	sehold	uni	ts			
	e)	Mobile phone						
	f)	None of the above						
	-> go to	A2						
A2	Do you or anyone in your household have access to the Internet <u>at home</u> , regardless of whether it is used?							
	(tick o	nly one)			-			
	a) Yes -> go to A3							
	b)	No		-> go	to A5			
	c)	Don't know		-> idi	na B1			

 Methodology
 Sample
 Major findings
 Survey results
 Questionnaire

A	3 Whice	ch of the following devices do you use to access the Internet at home?	
	(tick a	II that apply)	
	a)	Personal computer (PC)	
	b)	Portable computer (laptop)	
	c)	Other	
		c1) Mobile phone (GPRS, etc.)	
		c2) Handheld computer (Tablet, PDA)	
	d)	TV with specific Internet device	
	e)	Game console (play-station)	
	f)	Don't know	
	-> go to) A4	
A	4 Wha	at types of Internet connections do you use at home?	
	(tick a	Il that apply)	
	Broadb	and wireless connection	
	a)	DSL (ADSL)	
	b)	Cable Internet (optical cable, PLC)	
	c)	Wireless connection (satellite Internet, public WiFi)	
	Mobile	broadband connection	İ
	d)	Mobile phone network (3G network) via a handset (mobile phone, tablet)	
	e)	Mobile phone network (3G network) via USB connection	
	Other, I	narrowband connection	
	f)	Dial-up access over telephone line or ISDN	
	g)	Mobile phone network (2G or GPRS) over mobile phone or laptop	
	-> go	to B1	



Α	.5	Wha	t are the reasons for not having access to the Internet at home?
	(1	tick al	I that apply)
		a)	Have access to Internet elsewhere
		b)	Don't need Internet (because not usefull, not interesting)
		c)	Equipment costs too high
		d)	Access costs too high (telephone, ADSL subscription)
		e)	Lack of skills
		f)	Privacy or security concerns
		g)	Broadband Internet is not available
		h)	Physical disability
		i)	None of the above; other reasons
	-2	> go t	o B1

MODULE 1.B: USE OF COMPUTERS AND MOBILE PHONES

Е	31	Whe	en did you last use a computer?					
	(tic	k on	ly one)					
		a)	Within the last 3 months		-> go to B2			
		b)	More than 3 months ago (less than a year)		-> go to B3			
		c)	More than 1 year ago		-> go to B3			
		d)	Never used it		-> go to B4			
Е	B2 How often on average did you use a computer in the last 3 months?							
	(tic	k on	ly one)					
		a)	Every day or almost every day					
		b)	At least once a week					
		c)	At least once a month					
	d) Less than once a month							
	->	go to	B3					
Е	33	Whi	ch of the following computer-related activities have	ve yo	ou ever carried out:			
	(tic	k all	that apply)					
		a)	Copying or moving files or folders					
		b)	Using copy or paste tools to duplicate or move documents	infor	mation within			
		c)	Using basic arithmetic formulas in a spreadshe	et				
		d)	Compressing (zipping) files					
		e)	Connecting and installing new devices (e.g. a r	node	em)			
		f)	Writing a computer program using specialised planguages	prog	ramming			
	g) Transferring files between computer and other devices (mobile telephone, mp3 player)							
	h) Modifying parameters of software application							
	i) Creating electronic presentations (slides, including sound or i video)							
		j)	Installing a new or replacing an old operating sy	/ster	n			
		k)	None of the above					
	->	go to	B4		<u> </u>			



Ŀ	Did you use a mobile phone or smart phone in the last 3 months?								
	(tick only one)								
	a) Yes	-> go to B5							
	b) No	-> go to C1							
Е	Did you use a mobile phone or smart phone for professional purposes (to perform work-related tasks) in the last 3 months?								
	(tick only one)								
	a) Yes -> go to C1								
	b) No	-> go to C1							

MODULE 1.C: USE OF THE INTERNET

When did you last use the Internet (via desktop, laptop, mobile phone, smart phone)?		, mobile phone, smart		
	(tio	ck on	ly one)	
		e)	Within the last 3 months	-> go to C2
		f)	More than 3 months ago (less than a year)	-> go to E1
		g)	More than 1 year ago	-> go to F1
		a)	Never used it	-> go to G1
On average, how often did you use the Internet in the last 3 months?				
	(tic	ck on	ly one)	
		a)	Every day or almost every day	
		b)	At least once a week	
		c)	At least once a month	
		d)	Less than once a month	
	->	go t	o C3	

		which of the fall suite activities did you use the Internet in the last 2 months for	
C3	For which of the following activities did you use the Internet in the last 3 months for private purposes?		
(t	ick all	that apply)	
Co	mmur	nication	
	a)	Sending/receiving e-mails	
	b)	Telephoning over the Internet /video calls (via webcam) over the Internet	
	c)	Sending messages to chat sites, blogs, online discussion forum	
Ac	cess t	o information	
	d)	Reading or downloading online newspapers/news magazines	
	e)	Finding information about goods and services	
Us	e of e	ntertainment	
	f)	Listening to web radios or watching web television	
	g)	Playing or downloading games, images, films or music	
	h)	Playing networked games with other persons	
Cr	eativit	y	
	i)	Uploading and sharing self-created content (text, photos, music, software, etc)	
	j)	Creating websites and blogs	
e-l	health		
		king an appointment with a practitioner via websites of hospitals or lth care centres	
Ot	her on	line services	
	k)	Using services related to travel and accommodation	
	l)	Selling goods or services via the Internet (e.g. auctions)	
	m)	Internet banking	
->	go to	D1	



MODULE 1.D: MOBILE USE OF THE INTERNET

D1	Did you use any of the following portable computers t from home or work in the last 3 months?	o access the Internet away
(tio	k all that apply)	
	a) Laptop, notebook or netbook	-> go to D2
	b) Tablet computer with touch screen	-> go to D2
	c) None of the above	-> go to D4
D2	Which of the following networks did you use to conne Internet away from home or work in the last 3 months	
(tio	k all that apply)	
	Mobile phone network, using USB key or SIM card	-> go to D3
	b) Wireless network (WiFi)	-> go to D3
D3	On average, how often did you access the Internet us from home or work in the last 3 months?	ing a portable computer away
(tio	k only one)	
	a) Every day or almost every day	
	b) At least once a week (but not every day)	
	c) Less than once week	
^	go to D4	
D4	Did you use any of the following handheld devices to home or work in the last 3 months?	access the Internet away from
(tio	k all that apply)	
	a) Mobile phone or smart phone	
con	b) Other handheld devices (PDA, MP3 player, e-bosole, but not tablet computer)	ok reader, game
	c) None of the above	
If	»Yes« to <u>D4c</u> and <u>D1c</u> ; -> go to D11	
If .	Yes« to <u>D4c</u> and <u>D1a</u> and/or <u>D1b</u> ; -> go to D9; othe	rwise -> go to D5

Method	ology	Sample	Major findings	Survey regulte	Questionnaire
Metriou	ology	Sample	wajor iiridirigs	Survey results	Questionnaire
D5		th of the following networks net away from home or wor			vice to the
(t	ick all	that apply)			
	a)	Mobile phone network (GF	PRS, 2G)		
	b)	Mobile phone (3G) broadb	and connection		
	c)	Wireless network (WiFi)			
7	ogo to	D6			
D6		verage, how often did you a home or work in the last 3		et using a handheld de	vice away
(t	ick on	y one)			
	a)	Every day or almost every	day		
	b)	At least once a week (but	not every day)		
	c)	Less than once a week			
7	ogo to	D7			
D7	For the l	which of the following activit ast 3 months for private pur	ies did you use th poses?	e Internet via a handhe	eld device in
(t	ick all	that apply)			
	a)	Sending/receiving e-mails			
	b)	Reading or downloading o	nline news, news	papers, news magazin	es
	c)	Reading or downloading of	nline books or e-b	oooks	
	d)	Playing or downloading ga	mes, images, vid	eo or music	
	e)	Using podcast service to a	utomatically rece	ive audio or video files	
	f)	Participating in social networks messages or contributions			
	g)	Other			
->	ogo to	D8			
_D8		ou use Internet application t where you are (e.g. GPS)			formation

(tick only one)

a)	Yes	
b)	No	
c)	Don't know	

-> go to D9



Did you use a portable computer or handheld device to access the Internet for professional purposes (to perform work related tasks) away from home or work last 3 months?			ne		
(tick only one)					
	Yes				
	No				
	->	go to	D10		
Did you encounter, in the last 3 months, any of the following problems when using portable computer or handheld device away from home or work to access the Internet?				sing a	
	(tio	ck all	that apply)		
		a)	Difficulty in obtaining information about cost of accessing the Internet		
		b)	Unexpected high bills (e.g. moving outside local tariff area or roaming to foreign services)		
		c)	Frequent difficulties with mobile phone network signal (unavailability of broadband or low speed, at least once a week)		
		d)	Difficulties in setting or changing parameters for Internet access (switching from mobile to WiFi, activation of location aware application or activation of Internet access)		
		e)	Incovenience of using small screen or entering text on handheld		
		f)	Other		
	->	go to	D11	-	
D	11		at are the reasons for not accesssing the Internet with a portable computer dheld device away from home or work in the last 3 months?	or	
	(tio	ck all	that apply)		
		a)	Do not need the Internet accesss away from home or work		
		b)	Do not know how to use or the use is too complicated		
		c)	Incovenience of using small screen on a handheld device		
		d)	Too expensive (device and/or the Internet subscription)		
		e)	Unavailability of broadband or connection too slow		
		f)	Privacy or security concerns		
		g)	Other		
	->	go	to E1		

MODULE 1.E: USE OF e-GOVERNMENT

E	1	Did you use in the last 12 months the services of public authorities over the Internet, for private purposes, for the following activities:			
	((tick a	ill that apply)		
		a)	Obtaining information from public authorities' websites		
		b)	Downloading official forms		
		c)	Sending filled in forms		
	->	· If » I	No « to E1 c) -> go to E2; otherwise, go to F1		
E	What were the reasons for not sending filled in forms to public authorities over the Internet in the last 12 months:				
	(tick a	all that apply)		
		a)	Did not have to submit official forms at all		
		b)	Services not available on website		
		c)	Technical failure of website during filling-in or sending the form		
		d)	Lack of skills or knowledge (do not know how to use website or the use was too complicated)		
		e)	Concerns about protection and security of personal data		
		f)	None of the above, other		
	-	-> go	to F1		



MODULE 1.F: USE OF e-COMMERCE

Glossary

F1		en did you last buy or order goods or services for pr luding manually-typed e-mails, SMS, MMS)	ivate use over the Internet:	
fc	or resp	oondents who » DID NOT « answer » Never used it	« in question C1	
	a)	Within the last 3 months	-> go to F2	
	b)	More than 3 months ago (less than a year)	-> go to F2	
	c)	More than 1 year ago	-> go to G1	
	d)	Never bought or ordered	-> go to G1	
What types of goods or services did you buy or order over the Internet for private use in the last 12 months:				
(t	ick all	that apply)		
	a)	Food or groceries		
	b)	Household goods (furniture, toys, etc.)		
	c)	Pharmaceutical products		
	d)	Films, music		
	e)	Books/magazines/newspapers (including e-books	3)	
	f)	e-learning material		
	g)	Clothes, sports goods		
	h)	Video games and upgrades		
	i)	Computer software and upgrades		
	j)	Computer hardware		
	k)	Electronic equipment (incl. cameras)		
	I)	Telecommunication services (e.g. broadband subuploading money on prepaid phone cards, etc.)	oscriptions, fixed line,	
	m)	Share purchases, insurance policies and other fin	ancial services	
	n)	Holiday accommodation (hotel)		
	0)	Other travel arrangement (transport tickets, carhir etc.)	re,	
	p)	Tickets for cultural events		
	q)	Other		
->	ogo to	F3		

F	Did you buy or order goods or services for private use over the Internet using a handheld device in the last 12 months (connected to web browser or web application, excluding SMS, MMS and manually-typed e-mails?						
	(ti	ck or	nly one)				
		a)	Yes		-> go t	to F4	
		b)	No		-> go t	to F5	
F	- 4		at types of goods or services did you buy or order dheld device in the last 12 months?	r for	private purposes usir	ng a	
	(ti	ck all	that apply)				
		a)	Digital content (downlodaded/accessed from w application), e.g. films, music, e-books, e-news applications for mobile phones or other handhe	spape	ers, games, paid		
		b)	Physical goods (e.g. electronics, clothes, toys, CDs/DVDs)	food	, books,		
		c)	Services (tickets for cultural events, transport s etc.)	servio	es, insurance,		
	->	go to	o F5		-		
F	From whom did you buy or order goods or services for private purposes over the Internet in the last 12 months?						
	(ti	ck all	that apply)				
		a)	From national sellers				
		b)	From sellers from EU countries				
		c)	From sellers from the rest of the work				
		d)	Country of origin of sellers is not known				
	->	ao to	n G1				



G8

MODULE 1.G: MAIN INFORMATION ON THE RESPONDENT G1 Age G2 Sex a) Man b) Woman G3 Educational level a) Lower than secondary education b) Secondary education c) Tertiary education G4 Employment situation a) Employee b) Unemployed c) Student d) Other not in the labour force (retired, in compulsory military service) G5 Municipality G6 Settlement code | G7 Number of household members

Of which, number of children aged under 18

G9 Household income (average net monthly income)

a) Up to 300 eurosb) From 300 to 600 eurosc) More than 600 euros

USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2012

ENTERPRISES



2.1. METHODOLOGY

Survey period	The survey was carried out from 17 April to 4 May 2012
Type of survey	Telephone interview
Sample size	• 1200 enterprises
Target respondent ¹⁾	 Enterprises with 10 and more employees Section C: Manufacturing Sections D and E: Electricity, gas and steam, water supply, sewerage and waste management Section F: Construction Section G: Wholesale and retail trade; repair of motor vehicles and motorcycles Section H: Transport and storage Section I: Accommodation and food service activities Section J: Information and communication Sections L and M: Real estate activities; Professional, scientific and technical activities Section N and Division 95: Administrative and support activities; Repair of computers Financial and insurance activities
Sample type	Stratified sample
Geographic scope	Territory of the Republic of Serbia (excl. AP Kosovo and Metohija)

¹⁾ Since 2011, the Classification of Activities has been in use according to the Regulation of the Classification of Activities ("Official Gazette of the RS", No 54/10). This classification is harmonised with NACE rev.2.

2.2. SAMPLE

The survey on ICT usage in enterprises was carried out on a representative sample of 1200 enterprises on the territory of the Republic of Serbia. The response rate was 96.7% (1160 enterprises).

			Veličina			Region		
	Uzorak (preduzeća)	malo (10-49)	srednje (50-249)	veliko (250+)	centralna Srbija	Vojvodina	Beograd	Ukupno
	Prerađivačka industrija	128	115	137	183	107	90	380
	Snabdevanje električnom energijom, gasom, parom i vodom; Upravljanje otpadnim vodama	28	29	30	44	28	15	87
	Građevinarstvo	38	29	33	39	24	37	100
	Trgovina na veliko i malo	49	44	24	56	24	37	117
nost	Saobraćaj i skladištenje	36	23	27	29	23	34	86
)elatnost	Usluge smeštaja i ishrane	43	29	4	28	23	25	76
_	Informisanje i komunikacije	53	25	8	39	12	35	86
	Banke i osiguravajuća društva	9	4	22	3	5	27	35
	Poslovanje nekretninama; Stručne, naučne i tehničke delatnosti	60	43	7	40	25	45	110
	Administrativne i pomoćne uslužne delatnosti; Popravke kompjutera	32	25	26	22	16	45	83
Broj		476	366	318	483	287	390	1160
Procenat		41.0	31.6	27.4	41.6	24.8	33.6	100



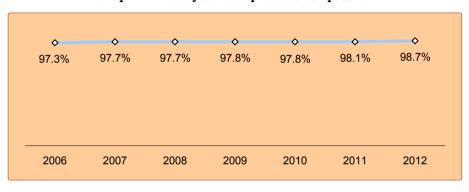
2.3. MAIN FINDINGS

2.3.1. Computers and computer networks in enterprises

The results of the survey indicate that 98.7% of enterprises on the territory of the Republic of Serbia use computers, which is an increase of 0.6% in relation to 2011. The use of computers is the biggest in large enterprises (more than 250 employees) amounting to 99.8%. This percentage is to 98.3% in small enterprises (10 - 49 employees).

98.7% of enterprises use computers

Graph 2.1. Does your enterprise use computers?



The percentage of computer use in enterprises varies depending on the territory: in Belgrade it amounts to 99.4%, in Vojvodina to 95.8%, and in Central Serbia to 99.9%.

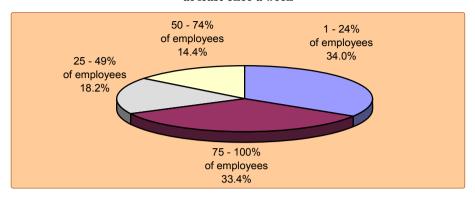
The use of computers in enterprises, by activities:

- Financial and insurance activities (100%)
- Transport and storage (100%)
- Electricity, gas and steam, water supply, sewerage and waste management (100%)
- Real estate activities; Professional, scientific and technical activities (100%)
- Administrative and support activities; Repair of computers (100%)
- Computers (100%)
- Information and communications (100%)
- Manufacturing (98.6%)
- Wholesale and retail trade (97.5%)
- Accommodation and food service activities (95.9%)

In 34% of enterprises $\frac{1}{4}$ of employees use a computer at least once a week, while in 33.4% of enterprises 75-100% of employees use a computer at least once a week.

Methodology Sample Major findings Survey results Questionnaire

Graph 2.2. Enterprises by the percentage of employees using a computer at least once a week



Graph 2.3. Did your enterprise use during the year Linux open source operating system?



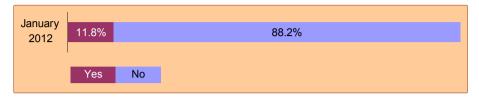
18.5% of enterprises used Linux "open source"operating system

ERP system (abbreviation of Enterprise Resource Planning), i.e. business information system, can be defined in a few words as a software system that integrates main business processes in an enterprise such as production, distribution, finance (i.e. accounting) in one whole. Thus obtained is a system that facilitates, on the one hand, the management of all human and material resources and, on the other hand, planning, development and monitoring of business processes and procedures.

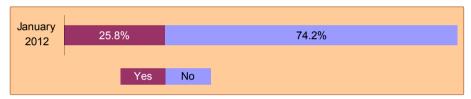


In January 2012, 11.8% of enterprises in the Republic of Serbia used ERP system. According to the analysis of enterprises by size indicates that of the total number of large enterprises 45.4% have in use ERP, which is available in 16.6% medium and 8.5% small enterprises.

Graph 2.4. Did your enterprise use ERP software package for sharing information about sale and/or purchase with other internal business functions (e.g. finance, planning, marketing, etc.) in January 2012?

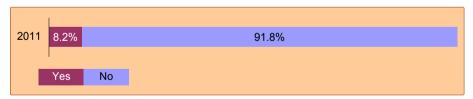


Graph 2.5. Did your enterprise employ IT (ICT) specialist/s in January 2012?



The results of the survey indicate that 25.8% of enterprises on the territory of the Republic of Serbia employed an ICT specialist in January 2012.

Graph 2.6. Did your enterprise recruit or try to recruit IT (ICT) specialist/s in 2011?



2.3.2. Internet in enterprises

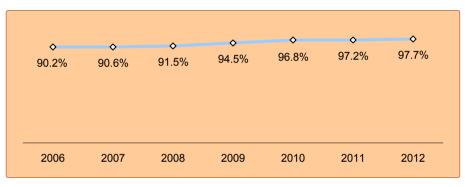
In the Republic of Serbia, there are 97.7% that have an Internet connection, which is an increase of 0.5%, 0.9% and 3.2% compared to 2011, 2010 and 2009 respectively.

The analysis of enterprises by size shows that of the total number of large enterprises, 100% of them are connected to the Internet. As for medium enterprises, 99% of them have an Internet connection. The situation is slightly different in small enterprises, where 97.3% of them have access to the Internet.

97.7% of enterprises have an Internet connection

The percentage of Internet use in enterprises varies depending on the territorial whole: in Belgrade it is 98.5%, in Vojvodina 94.3%, and in Central Serbia 99.4%.

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



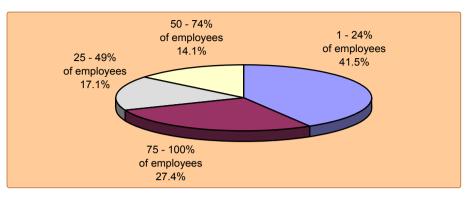
Use of the Internet in enterprises, by activities:

- Financial and insurance activities (100%)
- Information and communications (100%)
- Administrative and support activities; Repair of computers (99.6%)
- Real estate activities; Professional, scientific and technical activities (99.2%)
- Manufacturing (98.6%)
- Electricity, gas and steam, water supply, sewerage and waste management (98.4%)
- Construction (98%)
- Transport and storage (97.8%)
- Wholesale and retail trade (97%)
- Accommodation and food service activities (87.4%)

In 41.5% of enterprises ¼ of employees use the Internet at least once a week, while in 27.4% of enterprises 75-100% of employees use the Internet at least once a week.



Graph 2.8. Enterprises by the percentage of persons who use the Internet at least once a week

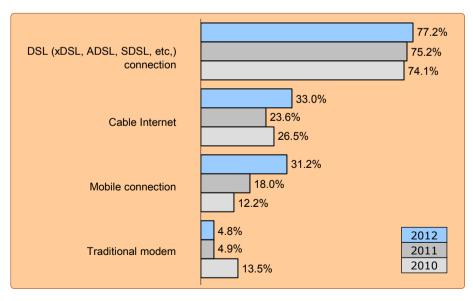


As regard the type of connection, enterprises were given the possibility to choose several answers among proposed ones.

The results indicate that of the total number of enterprises having an Internet connection, 777.2% have DSL. 33% cable Internet, and 4.8% a modem connection.

77.2% of enterprise have a DSL (xDSL, ADSL) Internet connection

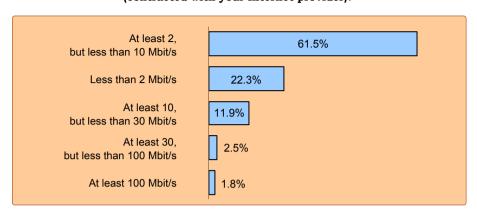
Graph 2.9. Does your enterprise have one of the following external connection to the Internet?



The data indicate a decrease in modem connection by 0.1% and increase of DSL by 2% in relation to 2011.

Methodology Sample Major findings Survey results Questionnaire

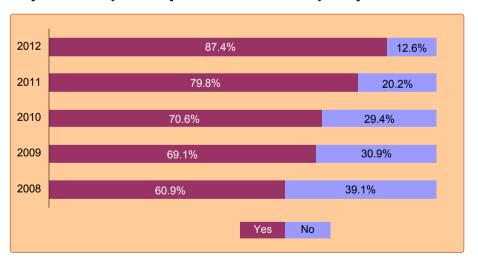
Graph 2.10. What is the maximum download speed of the Internet connection (contracted with your Internet provider)?



2.3.3. e-government

Of the total number of enterprises that have an Internet connection, 87.4% of enterprises interact electronically with public authorities, which is an increase of 7.6% and 16.8% in relation to 2011, 2010 respectively. There are 12.6% of enterprises that do not use this possibility.

Graph 2.11. Does your enterprise interact electronically with public authorities?





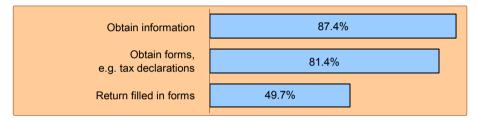
87.4% of enterprises having an Internet connection interact electronically with public authorities

The analysis of enterprises by sections of activities indicates that enterprises engaged in "Electricity, gas and steam, water supply, sewerage and waste management"are those that interact the most with public authorities via the Internet (95.4%).

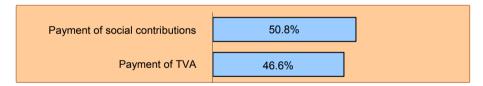
The most frequent answers as to the purposes for which the enterprises interact with public authorities via the Internet are as follows:

- "To obtain information" (87.4%)
- "To download forms" (81.4%)
- "To return filled in forms" (49.7%)

Graph 2.12. Does your enterprise interact with public authorities over the Internet for the following purposes?



Graph 2.13. Did your enterprise use the Internet for the following administrative procedures?



2.3.4. Website

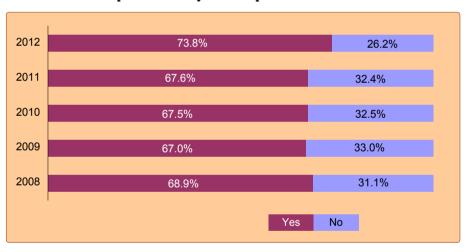
There are 73.8% of enterprises with an Internet connection that have a Website, while this percentage is 67.6% and 67.5% for 2011 and 2010 respectively.

When observing the structure of enterprises by size classes, the following results are obtained:

- 89.3% of large enterprises have a website
- 84.1% of medium enterprises have a website
- 70.3% of small enterprises have a website

73.8% of enterprises having an Internet connection have a website

There are differences depending on the territory. In Belgrade there are 85.9% of enterprises that have a Website, in Vojvodina 75.4%, and in Central Serbia 59%.



Graph 2.14. Does your enterprise have a website?

Website available in enterprises by activities:

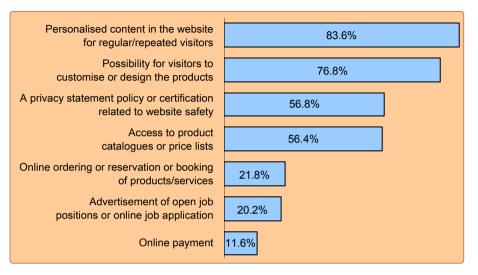
- Financial and insurance activities (100%)
- Information and communications (93.1%)
- Manufacturing (83.9%)
- Accommodation and food service activities (78.2%)
- Real estate activities; Professional, scientific and technical activities (77.3%)
- Wholesale and retail activities (68.2%)
- Administrative and support activities: Repair of computers (67.3%)
- Construction (63.7%)
- Electricity, gas and steam, water supply, sewerage and waste management (57.8%)
- Transport and storage (52.4%)



Enterprises having a Website provide mostly the following facilities:

- Personalised content in the Website for regular/repeated visitors (83.6%)
- Possibility for visitors to customise or design the products (76.8%)
- Access to product catalogues and pricelists (56.4%)

Graph 2.15. Does your enterprise provide over its website the following facilities?



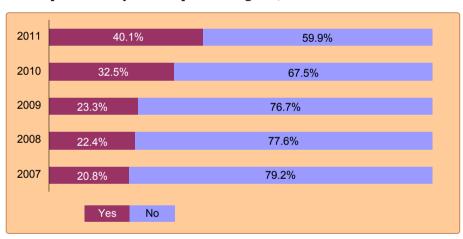
2.3.5. e-commerce

In 2011, 40.1% of enterprises having an Internet connection in the Republic of Serbia ordered goods/services over the Internet, which is an increase of 7.6% in relation to 2010 and of 16.8% compared to 2009.

When observing the structure of enterprises by size classes, the following results are obtained:

- 57.3% of large enterprises ordered goods/services over the Internet
- 59.1% of medium enterprises ordered goods/services over the Internet
- 38.2% of small enterprises ordered goods/services over the Internet

40.1% of enterprises having an Internet connection ordered, during 2011, goods/services over the Internet



Graph 2.16. Did your enterprise order goods/services over the Internet?

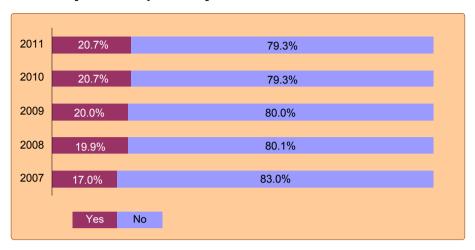
The results of the survey indicate that only 20.7% of enterprises having an Internet connection received, during 2011, orders (excluding manually-typed e-mails) over the Internet.

20.7% of enterprises having an Internet connection received orders vis the Internet during 2011



Introduction Households/individuals Enterprises Glossary

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



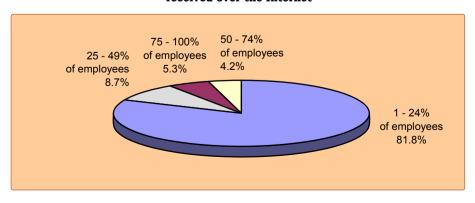
When observing the structure of enterprises by size classes, the following results are obtained:

- 23.8% of large enterprises received orders over the Internet
- 27.6% of medium enterprises received orders over the Internet
- 18% of small enterprises received orders over the Internet

To the question about the percentage of the total turnover resulting from orders received over the Internet, the enterprises gave the following answers:

- "Less than 24%"(81.8% of enterprises)
- "More than 24%, and less than 50%" (8.7% of enterprises)
- "More than 50%, and less than 75%" (4.2 % of enterprises)
- "75% and more" (5.3% of enterprises)

Graph 2.18. Percentage of the total turnover in 2011 resulting from orders received over the Internet



2.4. SURVEY RESULTS

MODULE 2.A: Main information on ICT system¹⁾

A1: Did your enterprise use computers?

in percentages

			S	ize clas	ss		Territory	· /	
		Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES							
		Manufacturing	97,9	100,0	100,0	100,0	96,2	98,6	98,6
		Electricity, gas and steam, water supply, sewerage and waste management	100,0	100,0	100,0	100,0	100,0	100,0	100,0
		Construction	100,0	100,0	100,0	100,0	100,0	100,0	100,0
		Wholesale and retail trade; repair of motor vehicles and motorcycles	97,2	98,8	100,0	99,5	90,4	100,0	97,5
	Activity	Transportation and storage	100,0	100,0	100,0	100,0	100,0	100,0	100,0
	Act	Accommodation and food service activities	94,9	100,0	100,0	100,0	94,1	94,5	95,9
		Information and communication	100,0	100,0	100,0	100,0	100,0	100,0	100,0
		Financial and insurance activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0
		Real estate activities; Professional, scientific and technical activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0
		Administrative and support activities; Repair of computers	100,0	100,0	100,0	100,0	100,0	100,0	100,0
•	Total		98,3	99,8	100,0	99,9	95,8	99,4	98,7

A2: Percentage of persons employed who used computers (at least once a week)

in percentages

			Eı	nterpris	es		
	S	ize clas	ss				
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
1- 24%	33,2	37,1	33,7	40,7	35,2	27,2	34,0
25- 49%	17,5	19,3	25,3	22,9	22,2	11,5	18,2
50-74%	14,3	14,5	14,8	17,4	12,2	13,1	14,4
75-100%	34,9	29,1	26,2	19,0	30,3	48,2	33,4

¹⁾ The results in tables A2 - A4 refer only to enterprises that gave positive answer to question A1.

A3: Did your enterprise employ IT (ICT) specialist/s in January 2012?

	in percentages								
		S	ize clas	ss	-	Territory	/		
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total	
		YES							
	Manufacturing	7,3	32,7	79,6	17,4	21,2	16,6	18,3	
	Electricity, gas and steam, water supply, sewerage and waste management	7,1	36,8	84,9	30,0	30,7	28,6	30,0	
	Construction	7,6	36,9	78,9	9,6	5,8	29,2	16,3	
t	Wholesale and retail trade; repair of motor vehicles and motorcycles	17,8	64,1	95,5	14,5	32,5	29,3	25,5	
ţ	Transportation and storage	26,8	49,3	93,5	24,8	22,4	53,8	33,5	
Delatnost	Accommodation and food service activities	36,1	46,9	50,0	24,8	45,5	43,6	38,5	
	Information and communication	64,0	76,3	100,0	53,7	26,3	86,4	67,0	
	Financial and insurance activities	77,8	75,0	95,5	100,0	100,0	85,2	88,6	
	Real estate activities; Professional, scientific and technical activities	27,0	82,2	70,8	20,9	34,8	38,5	34,7	
	Administrative and support activities; Repair of computers	7,2	19,9	49,4	16,5	24,2	8,9	13,7	
Tota	I	17,6	44,9	82,2	18,4	24,7	33,0	25,8	



A4: Did your enterprise recruit or try to recruit IT (ICT) specialists in 2011?

	•	Ū		•		ir	n perce	ntages
		S	ize clas	ss	-	Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	10,9	7,6	15,3	6,7	14,4	44,9	11,1
	Electricity, gas and steam, water supply, sewerage and waste management	7,8	9,9	20,5	0,0	9,7	46,4	10,0
	Construction	1,7	4,9	8,0	0,0	11,6	63,5	5,1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	3,0	4,5	5,4	0,0	18,1	93,9	4,5
Activity	Transportation and storage	3,2	6,3	15,5	2,6	24,4	48,5	8,1
Act	Accommodation and food service activities	3,7		2,8	0,0	12,4		2,5
	Information and communication	11,9	7,0	29,6	13,9	54,5	52,9	20,8
	Financial and insurance activities	33,3	60,0	33,3	11,1	25,0	50,0	37,1
	Real estate activities; Professional, scientific and technical activities	7,5	14,5	4,7	4,2	22,2	58,3	6,9
	Administrative and support activities; Repair of computers	8,8	19,7	6,6	6,2	14,4	28,0	9,9
Tota	I	7,1	7,1	9,9	3,4	16,6	52,9	8,2

A5: Did your enterprise have hard-to-fill vacancies for jobs requiring IT (ICT) specialists (the candidate did not meet competition requirement) in $2011?^{1)}$

	In percentages								
			S	ize clas	ss	-	Territory	/	
		Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
			YES						
		Manufacturing	50,9	13,3	20,2	34,5	23,9	30,1	30,9
		Electricity, gas and steam, water supply, sewerage and waste management	0,0	20,5	22,9	32,6	0,0	33,3	22,0
		Construction	0,0	36,3	11,5	18,9	0,0	31,8	21,9
		Wholesale and retail trade; repair of motor vehicles and motorcycles	0,0	27,6	2,4	21,9	44,4	2,0	15,0
	Activity	Transportation and storage	0,0	50,0	0,0	0,0	36,0	14,5	19,6
	Act	Accommodation and food service activities	0,0	42,4	0,0	100,0	0,0	0,0	42,4
		Information and communication	46,0	20,7	33,3	100,0	0,0	30,8	35,6
		Financial and insurance activities	100,0	0,0	45,5	0,0	33,3	55,6	46,2
		Real estate activities; Professional, scientific and technical activities	20,2	9,2	0,0	50,0	9,8	0,0	14,2
		Administrative and support activities; Repair of computers	0,0	0,0	12,8	21,2	0,0	0,0	3,4
Т	otal		41,7	21,4	14,9	36,4	20,5	21,7	25,5

¹⁾ The results relate only to enterprises than gave positive answer to question A4.



A6: Did your enteprise provide training to personnel to develop or upgrade IT skills in 2011?

in percentages Size class Territory /ojvodina Total **3elgrade** Medium Enterprises Central Serbia Training for IT/ICT specialists 9.9 Manufacturing 4.6 10.3 24.7 6.8 5.6 7.3 Electricity, gas and steam, water supply, sewerage and waste 0.0 7.7 31.0 10.6 3.0 4.8 7.4 management Construction 2.0 10.7 17.9 6.3 1.9 4.5 4.4 Wholesale and retail trade: repair of 0.0 23.8 12.3 2.3 2.4 4.6 3.4 motor vehicles and motorcycles Transportation and communication 7.9 17.6 26.9 6.7 3.5 20.8 10.3 Accommodation and food service 1.6 22.1 0.0 3.4 6.7 6.0 5.3 activities Information and communication 9.6 47.8 41.2 10.1 5.9 22.3 16.1 Financial and insurance activities 33,3 63,0 62,9 44,4 50,0 72,7 0,08 Real estate activities; Professional, 10.8 5,3 46,6 29,2 9,0 19,5 8,9 scientific and technical activities Administrative and support activities: 4.0 4.8 3.6 1.9 0.0 6.4 4.1 Repair of computers Total 3.2 16.7 24 4 5.9 5,0 8.7 6.8 Training for other personnel employed Manufacturing 0.8 23.9 38,8 14,9 11,0 15.0 13,9 Electricity, gas and steam, water supply, sewerage and waste 19.2 46.2 17.6 14.6 15.8 3.6 11.3 management 9.4 Construction 4.6 24.2 29.6 8.4 10.2 9.6 Wholesale and retail trade; repair of 8,5 54,7 14,1 29,2 7,8 14,6 16,2 motor vehicles and motorcycles Transportation and communication 15.8 42.0 35,5 9.1 24.1 31.3 20.8 Accommodation and food service 55.3 33.3 14.2 39.1 25.3 16.9 6.7 activities Information and communication 25,5 64,7 41,2 15,9 17,1 43,0 31,6 Financial and insurance activities 44.4 50.0 68.2 33.3 0.08 59.3 60.0 Real estate activities: Professional. 15.1 50.4 16.7 17.1 25.1 18.7 19.6 scientific and technical activities Administrative and support activities: 23.1 11.6 0.0 9.1 46.1 11.2 18.7 Repair of computers Total 10.4 34.2 34.0 13.9 18.8 16.2 16.0

Methodology Sample Major findings Survey results Questionnaire

MODULE 2.B: Access and use of the Internet¹⁾

B1: Did your enterprise have access to the Internet?

in percentages

		S	ize clas	s		Territory	/ /	
Enterprises		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	97,9	100,0	100,0	100,0	96,2	98,6	98,6
	Electricity, gas and steam, water supply, sewerage and waste management	96,4	100,0	100,0	97,0	100,0	100,0	98,4
	Construction	97,4	100,0	100,0	100,0	92,8	100,0	98,0
	Wholesale and retail trade; repair of motor vehicles and motorcycles	97,2	95,2	100,0	99,5	90,4	98,9	97,0
Activity	Transportation and storage	97,3	100,0	100,0	100,0	92,6	100,0	97,8
Act	Accommodation and food service activities	84,2	100,0	100,0	94,8	88,2	83,4	87,4
	Information and communication	100,0	100,0	100,0	100,0	100,0	100,0	100,0
	Financial and insurance activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0
	Real estate activities; Professional, scientific and technical activities	99,1	100,0	100,0	95,5	100,0	100,0	99,2
	Administrative and support activities; Repair of computers	100,0	98,0	100,0	97,9	100,0	100,0	99,6
Tota	al	97,3	99,0	100,0	99,4	94,3	98,5	97,7

B3: What was the maximum speed of the Internet connection in your enterprise in January 2012?

	por contageo								
		Enterprises							
	S	Size class Region							
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
Less than 2 Mbit/s	24,3	17,8	8,3	26,7	21,6	18,5	22,3		
At least 2, but less than 10 Mbit/s	61,8	62,7	52,9	64,5	64,3	57,0	61,5		
At least 10, but less than 30 Mbit/s	11,0	12,8	23,2	6,1	11,7	17,5	11,9		
At least 30, but less than 100 Mbit/s	2,1	3,0	5,3	1,9	1,7	3,5	2,5		
At least 100 Mbit/s	0,8	1,8							
1)									

¹⁾ The results in tables B2 - B12 relate only to enterprises that gave positive answer to question B1.



B2: Did your enterprise have the following types of external connection to the Internet in January?

Glossarv

in percentages Size class Territory /ojvodina Total **3elgrade Enterprises** Medium Central Serbia DSL (xDSL, ADSL, SDSL, etc.) connection Manufacturing 75.8 72.5 66.0 78.9 70.4 70.2 74.3 Electricity, gas and steam, water supply, sewerage and waste 77,8 95.9 70.4 93.8 81.0 53.6 84.3 management Construction 79.2 89.3 68.2 87.9 84.5 71.9 80.6 Wholesale and retail trade: repair of 8.08 80.9 76.2 82.8 97.3 71.1 80.7 motor vehicles and motorcycles Transportation and storage 79.4 72.3 72.8 90.0 65.0 77.9 77.4 Accommodation and food service 58,6 73.0 100.0 81,9 53,4 54,1 62.5 activities 71.7 45.5 35.3 83.9 83.7 66.6 Information and communication 53.6 Financial and insurance activities 55.6 50.0 81.8 66,7 60.0 74.1 71.4 Real estate activities; Professional, 84.4 49.8 37,5 99,2 84,7 71.9 79.2 scientific and technical activities Administrative and support activities: 85.5 68,9 81.6 78.1 58,4 77.3 87.2 Repair of computers Total 75.5 67.5 83.1 81.2 69.4 77.2 78.3 Other fixed Internet connection - broadband Internet (cable Internet) Manufacturing 34.6 39.7 44.8 32.9 38.5 40.8 36.5 Electricity, gas and steam, water supply, sewerage and waste 25.9 19.2 69.1 19.5 32.0 59.5 28.7 management Construction 20.8 31.8 33.8 12.4 25.0 31.8 23.4 Wholesale and retail trade; repair of 28.2 22,1 64,0 70,8 21,0 20,3 37,0 motor vehicles and motorcycles Transportation and storage 4,8 16,9 11,4 37,4 36,6 20,7 27,1 Accommodation and food service 35.2 0.0 19.6 42.8 54.2 41.6 67.4 activities 51.7 57.8 Information and communication 51.6 87.0 82.4 40.4 66.6 Financial and insurance activities 66,7 100,0 95,5 100,0 100,0 85,2 88,6 Real estate activities: Professional. 41.5 32.8 29.5 44.9 66.0 62.5 52.4 scientific and technical activities Administrative and support activities; 27.3 24.7 28.6 27.1 52.1 17.2 26.9 Repair of computers 25.6 Total 28.8 45.5 51.3 30.8 41.1 33.0

B2: Did your enterprise have the following types of external connection to the Internet in January?

in percentages									
		S	lize clas	ss		Territor	y		
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total	
	Dial-up access over tele	phone	line o	r ISDN	conne	ction			
	Manufacturing	9,3	11,8	8,6	14,3	7,9	3,8	9,9	
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	18,5	9,7	15,8	0,0	4,2	9,2	
	Construction	0,0	22,2	8,8	3,6	3,3	6,3	4,6	
_	Wholesale and retail trade; repair of motor vehicles and motorcycles	0,0	3,8	4,4	0,0	0,2	1,2	0,6	
Activity	Transportation and storage	2,9	4,4	9,7	0,0	8,6	3,5	3,5	
Act	Accommodation and food service activities	6,2	2,6	0,0	1,9	7,2	6,6	5,3	
	Information and communication	5,2	5,3	17,6	6,0	0,0	7,7	5,7	
	Financial and insurance activities	66,7	50,0	36,4	33,3	60,0	44,4	45,7	
	Real estate activities; Professional, scientific and technical activities	0,3	5,7	0,0	1,4	1,2	0,8	1,0	
	Administrative and support activities; Repair of computers	18,8	0,0	14,9	24,4	3,0	16,2	14,7	
Tota	al	4,0	10,2	10,0	7,9	4,3	3,9	4,8	
	Mobile broadband connec	tion v	ia 3G r	nodem	of 3G	device	Э		
	Manufacturing	11,3	16,1	28,9	12,6	14,3	14,5	13,6	
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	24,9	44,6	13,7	12,5	41,1	16,8	
	Construction	0,0	38,9	22,9	3,4	9,2	10,5	7,7	
_	Wholesale and retail trade; repair of motor vehicles and motorcycles	2,7	45,6	35,5	10,7	5,9	8,9	8,8	
Activity	Transportation and storage	40,4	18,4	12,9	25,4	38,9	45,0	35,6	
Aci	Accommodation and food service activities	35,2	45,3	0,0	36,5	14,4	44,6	36,8	
	Information and communication	47,8	40,9	17,6	16,5	20,1	65,8	45,7	
	Financial and insurance activities	33,3	50,0	68,2	33,3	80,0	55,6	57,1	
	Real estate activities; Professional, scientific and technical activities	15,1	28,7	0,0	4,8	13,0	20,9	16,7	
	Administrative and support activities; Repair of computers	5,8	6,8	20,6	9,1	3,0	8,4	7,3	
Tota	al	11,7	27,2	29,7	12,6	13,0	19,5	15,4	



B2: Did your enterprise have the following types of external connection to the Internet in January?

		S	ize clas	ss		Territor	, y			
	Enterprises		Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
	Other mobile connection (e.g. and	etion (e.g. analogue mobile phone, GSM, GPRS, EDGE)								
	Manufacturing	23,1	15,4	41,3	22,8	17,3	27,2	22,4		
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	37,0	37,7	18,5	17,8	41,1	21,1		
	Construction	2,8	45,6	26,0	6,8	11,4	16,6	11,9		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	25,4	45,6	48,4	12,2	68,8	18,8	28,3		
A C+ivity	Transportation and storage	60,6	14,1	36,9	54,6	50,5	50,7	52,1		
*	Accommodation and food service activities	43,3	30,6	25,0	27,1	23,2	52,7	40,1		
	Information and communication	46,5	47,9	35,3	32,6	37,2	55,1	46,2		
	Financial and insurance activities	66,7	50,0	54,5	66,7	60,0	55,6	57,1		
	Real estate activities; Professional, scientific and technical activities	21,3	44,4	25,0	19,6	24,8	25,3	24,2		
	Administrative and support activities; Repair of computers	13,0	10,1	44,7	28,4	15,5	11,2	15,3		
То	tal	24,9	28,9	40,2	20,7	34,0	26,6	26,3		

B4: Percentage of persons employed who used the Internet

in percentages

	in percentages								
			Eı	nterpris	es				
	S	Size class Region							
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
1- 24%	40,3	44,9	47,2	53,9	41,2	30,4	41,5		
25- 49%	16,6	17,9	21,6	20,0	21,4	11,7	17,1		
50-74%	14,5	13,0	10,7	11,8	17,8	13,7	14,1		
75-100%	28,6	24,2	20,5	14,2	19,5	44,2	27,4		

B5: Did your enterprise have a Website/Home page?

III percenta								
		S	ize clas	ss		Territory	/	
	Enterprises		Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
YES								
	Manufacturing	81,7	88,5	90,2	78,9	90,3	86,0	83,9
	Electricity, gas and steam, water supply, sewerage and waste management	55,4	49,5	92,9	43,3	70,1	86,9	57,8
	Construction	59,4	77,8	77,8	49,0	50,3	84,7	63,7
₹	Wholesale and retail trade; repair of motor vehicles and motorcycles	64,4	89,6	91,5	33,4	67,7	91,5	68,2
Activity	Transportation and storage	43,8	82,1	89,2	32,2	52,2	72,7	52,4
Ă	Accommodation and storage	75,9	86,8	75,0	62,0	91,7	82,8	78,2
	Information and communication	92,5	94,7	100,0	85,6	100,0	93,5	93,1
	Financial and insurance activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0
	Real estate activities; Professional, scientific and technical activities	74,9	91,0	100,0	64,0	76,3	81,0	77,3
	Administrative and support activities; Repair of computers	65,4	69,1	78,0	72,4	71,8	64,1	67,3
Total			84,1	89,3	59,0	75,4	85,9	73,8



B6: Did the website of your enterprise have any of the following facilities in January 2012?

Glossary

in percentages								
		S	ize clas	SS		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Online ordering or reserva	tion o	booki	ng of g	goods/	service	es	
	Manufacturing	18,3	16,9	8,0	20,4	15,4	13,9	17,2
	Electricity, gas and steam, water supply, sewerage and waste management	13,5	24,3	5,9	29,4	1,6	14,4	15,6
	Construction	4,5	15,9	0,0	5,1	20,9	2,3	6,7
> -	Wholesale and retail trade; repair of motor vehicles and motorcycles	28,9	34,1	73,4	13,0	53,4	27,2	31,1
Activity	Transportation and storage	29,1	12,8	41,7	31,2	38,1	16,9	26,5
Act	Accommodation and food service activities	31,4	59,9	44,4	53,9	30,7	35,6	38,4
	Information and communication	25,8	27,2	42,9	10,6	17,1	36,2	26,5
	Financial and insurance activities	11,1	0,0	50,0	0,0	20,0	40,7	34,3
	Real estate activities; Professional, scientific and technical activities	15,4	10,8	29,2	21,9	16,7	13,0	14,9
	Administrative and support activities; Repair of computers	30,9	44,6	5,3	25,4	26,4	35,2	31,2
Tota	l	21,5	22,8	22,4	19,3	26,4	20,8	21,8
	Privacy statement policy or o	ertific	ation 1	elated	to wel	site s	afety	
	Manufacturing	45,6	56,0	78,9	53,5	35,0	63,8	50,6
	Electricity, gas and steam, water supply, sewerage and waste management	40,1	55,8	47,2	46,1	52,2	38,3	47,3
	Construction	17,2	65,7	83,8	34,0	56,2	19,0	30,6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	67,1	73,7	100,0	50,7	78,4	69,8	69,1
Activity	Transportation and storage	78,9	60,1	92,8	82,8	75,4	73,0	75,9
Act	Accommodation and food service activities	100,0	72,6	100,0	82,2	91,8	100,0	94,2
	Information and communication	56,0	60,1	100,0	25,6	25,3	79,0	58,0
	Financial and insurance activities	33,3	75,0	72,7	33,3	60,0	66,7	62,9
	Real estate activities; Professional, scientific and technical activities	46,6	37,8	87,5	35,8	31,7	51,3	45,9
	Administrative and support activities; Repair of computers	60,3	90,2	85,5	48,6	78,5	72,6	69,2
Tota		53,7	61,0	81,3	51,1	52,1	62,8	56,8

B6: Did the website of your enterprise have any of the following facilities in January 2012?

in percentages								
		S	ize clas	ss	-	Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Access to product	catalo	gues a	nd pric	e lists			
	Manufacturing	38,7	78,5	65,8	60,9	46,2	39,2	50,8
	Electricity, gas and steam, water supply, sewerage and waste management	33,4	54,0	27,8	36,3	53,1	19,2	39,9
	Construction	30,6	63,2	51,9	59,2	66,3	19,2	39,3
_	Wholesale and retail trade; repair of motor vehicles and motorcycles	70,8	87,4	89,1	75,3	81,1	71,1	74,0
Activity	Transportation and storage	14,8	43,2	72,6	58,2	22,8	17,0	27,5
Aci	Accommodation and food service activities	68,0	71,9	100,0	91,6	88,3	52,7	69,5
	Information and communication	65,5	70,1	71,4	48,2	47,6	80,5	66,3
	Financial and insurance activities	33,3	75,0	68,2	66,7	60,0	59,3	60,0
	Real estate activities; Professional, scientific and technical activities	48,3	54,6	41,7	44,9	46,5	50,8	49,2
	Administrative and support activities; Repair of computers	68,7	41,7	14,4	80,3	69,8	44,2	57,4
Tota		51,0	73,2	62,3	61,9	57,0	52,6	56,4
	Onli	ne pay	ment					
	Manufacturing	5,4	21,5	10,1	12,2	9,1	6,6	9,8
	Electricity, gas and steam, water supply, sewerage and waste management	20,1	16,0	7,4	15,9	14,2	19,2	15,9
	Construction	0,0	8,3	5,6	3,8	0,0	2,3	2,2
_	Wholesale and retail trade; repair of motor vehicles and motorcycles	21,9	13,2	10,9	9,4	53,4	10,5	20,1
Activit)	Transportation and storage	7,4	3,8	14,3	4,5	18,2	0,9	7,1
Aci	Accommodation and food service activities	5,6	3,1	44,4	14,4	7,9	1,4	5,7
	Information and communication	7,7	17,7	28,6	0,0	14,6	11,6	9,8
	Financial and insurance activities	0,0	50,0	59,1	33,3	20,0	48,1	42,9
	Real estate activities; Professional, scientific and technical activities	4,8	9,7	0,0	8,7	14,0	2,6	5,5
	Administrative and support activities; Repair of computers	11,8	6,9	0,0	19,8	0,0	10,0	9,5
Total		10,3	15,6	12,6	10,6	20,0	7,5	11,6



B6: Did the website of your enterprise have any of the following facilities in January 2012?

Glossary

		January 2012? in percentages									
ì			c	Size clas	·c		Territory	-	ntages		
		Enterprises		- 0					Fotal		
			Small (10-49)	Medium (50-249	Large (250+)	Central Serbia	Vojvodina	Belgrade	-		
		Possibility for visitors to	custon	nise of	design	the p	roduct	s			
		Manufacturing	83,5	74,4	85,8	78,7	82,7	84,1	81,3		
		Electricity, gas and steam, water supply, sewerage and waste management	86,7	34,7	70,1	60,8	56,8	84,9	63,8		
		Construction	63,1	76,2	69,2	86,7	84,4	49,9	66,4		
	>	Wholesale and retail trade; repair of motor vehicles and motorcycles	88,8	80,0	89,5	68,8	99,7	88,1	87,4		
	Activity	Transportation and storage	79,3	78,6	56,1	92,2	88,5	62,5	76,9		
	Aci	Accommodation and food service activities	66,4	77,6	100,0	82,5	68,8	64,3	69,7		
		Information and communication	68,6	79,2	14,3	45,3	20,1	96,1	68,2		
		Financial and insurance activities	88,9	100,0	81,8	100,0	80,0	85,2	85,7		
		Real estate activities; Professional, scientific and technical activities	42,6	76,2	41,7	57,2	49,5	45,5	47,9		
		Administrative and support activities; Repair of computers	88,2	69,3	53,4	74,6	94,1	76,8	80,5		
	Total		77,6	74,4	76,5	75,5	80,2	75,9	76,8		
		Personalised content in the	website	e for re	gular/	repeat	ed visi	tors			
		Manufacturing	80,4	84,6	83,7	78,6	89,3	78,2	81,7		
		Electricity, gas and steam, water supply, sewerage and waste management	100,0	81,6	65,1	77,7	97,1	78,1	85,7		
		Construction	100,0	97,1	60,4	94,4	98,0	97,9	97,0		
		Wholesale and retail trade; repair of motor vehicles and motorcycles	89,5	95,6	93,7	86,0	68,2	99,9	90,6		
	Activity	Transportation and storage	28,5	70,7	69,5	48,8	48,5	37,8	43,6		
	Act	Accommodation and food service activities	47,4	96,9	100,0	83,8	52,6	56,4	61,3		
		Information and communication	74,3	83,3	71,4	89,7	81,3	67,9	75,5		
		Financial and insurance activities	88,9	100,0	68,2	100,0	80,0	74,1	77,1		
		Real estate activities; Professional, scientific and technical activities	89,0	92,3	83,3	91,3	92,7	88,1	89,4		
		Administrative and support activities; Repair of computers	82,1	85,1	52,7	72,1	92,0	76,6	79,4		
	Total		82,8	88,1	77,6	81,0	82,0	86,1	83,6		

Methodology Sample Major findings Survey results Questionnaire

B6: Did the website of your enterprise have any of the following facilities in January 2012?

In percentage							ntages	
		S	ize clas	ss		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Advertisement of open job	positio	ns or o	online	job ap	plicati	on	
	Manufacturing	17,2	22,7	37,6	18,9	22,2	19,3	20,0
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	8,1	15,1	6,4	3,6	7,9	5,7
	Construction	0,0	36,8	11,3	9,9	13,6	7,0	9,1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	14,3	51,8	45,7	22,1	26,9	19,2	21,4
ivity	Transportation and storage	26,9	38,3	38,2	73,0	4,7	28,1	30,8
Activity	Accommodation and food service activities	20,7	29,5	0,0	49,5	9,8	15,3	22,5
	Information and communication	18,9	56,7	14,3	14,0	8,9	33,7	23,9
	Financial and insurance activities	22,2	50,0	68,2	33,3	60,0	55,6	54,3
	Real estate activities; Professional, scientific and technical activities	15,8	51,1	41,7	9,7	27,0	22,9	21,7
	Administrative and support activities; Repair of computers	15,2	35,6	35,9	21,0	0,0	31,1	21,6
Total		15,0	33,9	34,9	20,3	20,1	20,1	20,2



B7: During 2011, did your enterprise use public authorities' services over the Internet to:

Glossary

in percentages								
		S	Size clas	ss		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Obtair	ı infor	mation	1				
	Manufacturing	91,7	80,3	83,8	83,2	93,3	92,7	88,4
	Electricity, gas and steam, water supply, sewerage and waste management	100,0	92,6	94,7	96,1	94,7	100,0	96,1
	Construction	100,0	74,1	80,2	91,3	96,7	95,4	94,4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	87,5	92,9	98,4	94,5	57,2	100,0	88,4
11:10	Transportation and storage	73,7	89,9	84,6	65,1	80,9	86,8	76,8
<	Accommodation and food service activities	63,2	97,1	41,7	68,4	49,7	77,3	69,6
	Information and communication	83,9	87,9	100,0	97,2	96,3	76,2	85,0
	Financial and insurance activities	77,8	100,0	90,9	66,7	100,0	88,9	88,6
	Real estate activities; Professional, scientific and technical activities	90,3	89,1	81,0	94,6	86,7	89,8	90,1
	Administrative and support activities; Repair of computers	68,2	70,4	80,2	64,1	84,2	65,9	69,7
To	tal	88,2	84,5	86,4	86,3	81,7	92,0	87,4
	Obtain forms,	e.g. ta	ax decl	aration	ıs			
	Manufacturing	77,2	84,0	85,3	79,4	76,3	82,9	79,4
	Electricity, gas and steam, water supply, sewerage and waste management	92,5	70,5	87,5	74,7	88,2	100,0	82,2
	Construction	83,2	71,7	78,3	94,4	86,6	66,0	80,9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	81,6	90,4	100,0	79,6	89,3	82,2	83,0
4	Transportation and storage Accommodation and food service	81,6	93,9	85,1	70,2	91,8	92,6	83,7
<	Accommodation and food service activities	74,5	87,3	41,7	79,1	78,4	74,2	76,5
	Information and communication	77,9	94,5	100,0	76,9	78,3	83,2	80,9
	Financial and insurance activities	100,0	75,0	95,5	33,3	100,0	100,0	94,3
	Real estate activities; Professional, scientific and technical activities	86,9	92,3	66,7	93,9	71,8	90,0	87,3
	Administrative and support activities; Repair of computers	75,7	58,9	75,0	64,7	83,2	71,2	72,3
To	tal	80,6	83,5	86,2	80,3	82,5	81,7	81,4

Methodology Sample Major findings Survey results Questionnaire

B7: During 2011, did your enterprise use public authorities' services over the Internet to:

in percentages Size class Territory Vojvodina Total Selgrade **Enterprises** Medium Return filled in forms, e.g. sending of statistical information to public authorities Manufacturing 51.7 68.6 76.7 54.2 63.7 56.3 57.4 Electricity, gas and steam, water supply, sewerage and waste 44.4 66.5 60.3 59.3 44.8 58.1 81.3 management Construction 33.3 49.9 63.4 47.7 32.7 32.8 37.8 Wholesale and retail trade; repair of 23.5 61.2 100.0 27.0 54.6 18.4 29.1 motor vehicles and motorcycles Transportation and storage 64,2 66.1 67,4 50,2 88.6 59.8 64.6 Accommodation and food service 43,8 48.0 41,7 63,2 32,2 37,6 44.6 activities Information and communication 72,9 62.2 87,5 79,6 81.6 65.4 72,3 Financial and insurance activities 77,8 50,0 86,4 33,3 100,0 81,5 80,08 Real estate activities; Professional, 81.6 66.8 66.7 78,5 80.5 80.3 0.08 scientific and technical activities Administrative and support activities: 63,5 43.8 62,8 69,7 79,6 49.7 59,6

Treat administrative procedures completely electronically (e.g. declaration, registration, request for licenses) without the need for paper work (including payment, if required)

45.0

63.1

77.5

48.8

8.06

43.6

49.7

•			-	•			
Manufacturing	43,3	48,5	63,1	42,7	48,5	48,5	45,8
Electricity, gas and steam, water supply, sewerage and waste management	18,6	28,3	57,5	30,1	20,8	29,3	26,9
Construction	0,0	42,4	63,6	7,7	9,5	13,3	10,4
Wholesale and retail trade; repair of motor vehicles and motorcycles	12,2	37,8	98,2	12,6	40,0	8,7	16,7
Transportation and storage	39,7	14,3	55,2	31,9	47,7	32,6	36,6
Accommodation and food service activities	49,4	17,5	25,0	40,7	36,0	46,5	42,8
Information and communication	65,0	47,4	62,5	54,6	81,6	59,5	63,6
Financial and insurance activities	44,4	75,0	63,6	33,3	100,0	55,6	60,0
Real estate activities; Professional, scientific and technical activities	75,3	34,8	47,6	80,4	75,5	66,9	70,7
Administrative and support activities; Repair of computers	51,5	33,5	47,6	37,5	74,6	41,7	47,5
	32,2	40,5	65,0	31,9	44,1	32,5	35,1
	Electricity, gas and steam, water supply, sewerage and waste management Construction Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Administrative and support activities;	Electricity, gas and steam, water supply, sewerage and waste management Construction Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Repair of computers 18,6 12,2 14,4 49,4 49,4 75,3 51,5	Electricity, gas and steam, water supply, sewerage and waste management Construction Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Repair of computers 18,6 28,3 37,8 12,2 37,8 14,3 49,4 17,5 49,4 75,0 75,3 34,8 34,8	Electricity, gas and steam, water supply, sewerage and waste management Construction Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Repair of computers 18,6 28,3 57,5 12,2 37,8 98,2 17,5 25,0 49,4 17,5 25,0 63,6 75,3 34,8 47,6 47,6	Electricity, gas and steam, water supply, sewerage and waste management Construction Ond 42,4 63,6 7,7 Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Repair of computers 18,6 28,3 57,5 30,1 30,1 12,2 37,8 98,2 12,6 12,6 11,3 55,2 31,9 49,4 17,5 25,0 40,7 49,4 17,5 25,0 40,7 49,4 75,0 63,6 33,3 Real estate activities; Professional, scientific and technical activities Administrative and support activities; Repair of computers	Electricity, gas and steam, water supply, sewerage and waste management Construction Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Repair of computers 18,6 28,3 57,5 30,1 20,8 40,0 77,7 9,5 40,0 41,3 55,2 31,9 47,7 47,7 40,0	Electricity, gas and steam, water supply, sewerage and waste management Construction O,0 42,4 63,6 7,7 9,5 13,3 Wholesale and retail trade; repair of motor vehicles and motorcycles Transportation and storage Accommodation and food service activities Information and communication Financial and insurance activities Real estate activities; Professional, scientific and technical activities; Repair of computers 18,6 28,3 57,5 30,1 20,8 29,3 30,1 20,8 29,3 30,1 20,8 29,3 30,1 20,8 29,3 40,0 8,7



Repair of computers

Total

B7: During 2011, did your enterprise use public authorities' services over the Internet to:

Glossary

	Internet to: in percentages									
		c	size clas					ntages		
			oize cias	.5		Territory	/	_		
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
		Pay VA	т							
	Manufacturing	49,8	55,2	66,4	49,7	53,9	54,5	52,1		
	Electricity, gas and steam, water supply, sewerage and waste management	44,5	38,0	68,3	35,6	42,1	91,1	44,7		
	Construction	36,4	44,3	54,9	36,0	37,1	41,6	38,6		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	39,3	61,8	96,8	30,4	20,0	61,3	42,5		
Activity	Transportation and storage	39,5	29,6	53,5	29,9	43,3	45,1	38,7		
Act	Accommodation and food service activities	34,8	52,6	25,0	26,1	51,7	40,7	38,2		
	Information and communication	38,3	58,2	87,5	28,8	44,5	48,6	43,4		
	Financial and insurance activities	44,4	75,0	68,2	33,3	100,0	59,3	62,9		
	Real estate activities; Professional, scientific and technical activities	60,4	66,0	66,7	40,2	76,7	62,3	61,1		
	Administrative and support activities; Repair of computers	53,3	35,6	56,8	46,5	78,2	41,3	49,9		
Total		44,1	52,5	67,0	39,9	43,6	54,7	46,6		
	Pay soci	al cont	ributio	ons						
	Manufacturing	53,9	58,1	64,7	54,1	53,7	60,3	55,6		
	Electricity, gas and steam, water supply, sewerage and waste management	51,8	37,0	66,1	32,7	49,6	95,8	47,1		
	Construction	36,4	54,4	62,1	36,1	40,7	43,8	40,5		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	44,4	64,6	93,1	37,2	32,1	61,5	47,2		
Activity	Transportation and storage	52,1	58,7	53,5	44,3	56,2	60,2	53,2		
Aci	Accommodation and food service activities	42,6	56,4	25,0	25,7	66,1	49,0	44,9		
	Information and communication	49,4	55,0	87,5	30,0	42,4	62,9	51,7		
	Financial and insurance activities	44,4	75,0	68,2	33,3	100,0	59,3	62,9		
	Real estate activities; Professional, scientific and technical activities	60,7	69,6	66,7	41,7	76,7	63,0	61,8		
	Administrative and support activities; Repair of computers	47,6	35,6	60,5	39,6	62,0	43,1	46,3		

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48,6

56,9 66,7

44,4

48,1

50,8

58,5

Total

B8: During 2011, did your enterprise use the Internet to access tender documents in electronic public procurement systems?

in percentages								
		S	Size clas	ss		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	19,7	41,0	46,9	22,2	25,4	34,0	26,1
	Electricity, gas and steam, water supply, sewerage and waste management	59,5	51,9	89,2	68,3	38,4	78,7	59,4
	Construction	33,5	75,5	76,1	63,1	49,3	23,0	43,4
	Wholesale and retail trade; repair of motor vehicles and motor cycles	24,1	47,7	43,8	17,3	27,4	32,5	26,6
Activity	Transportation and storage	30,8	53,4	52,7	28,3	41,4	39,3	36,0
Act	Accommodation and food service activities	25,6	17,8	0,0	28,4	17,8	23,1	23,7
	Information and communication	29,7	49,9	46,2	39,7	34,8	30,1	33,2
	Financial and insurance activities	22,2	0,0	35,0	0,0	33,3	29,6	27,3
	Real estate activities; Professional, scientifi and technical activities	31,0	65,8	81,0	65,2	44,0	25,7	35,4
	Administrative and support activities; Repair of computers	44,8	50,7	74,7	56,1	73,0	36,7	48,6
Tota		26,3	48,5	55,6	30,4	32,8	31,3	31,4



Glossary

	in electronic public procurement systems? in percentages									
		S	Size clas	SS		Territory				
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
	In the R	epublic	of Se	rbia						
	Manufacturing	21,1	28,3	36,1	20,7	27,1	24,9	23,6		
	Electricity, gas and steam, water supply; sewerage and waste management	59,5	46,9	65,1	65,9	33,2	68,2	54,9		
	Construction	33,5	51,4	42,9	58,3	34,4	21,4	37,1		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	24,1	23,6	10,2	15,3	24,5	29,5	23,9		
ivity	Transportation and storage	27,4	37,9	29,8	26,4	22,8	37,5	29,2		
Activity	Accommodation and food service activities	25,6	25,6	0,0	27,8	17,8	26,2	25,1		
	Information and communication	25,0	46,6	30,8	32,3	26,2	27,7	28,5		
	Financial and insurance activities	22,2	0,0	25,0	0,0	0,0	25,9	21,2		
	Real estate activities; Professional, scientific and technical activities	15,0	36,6	58,3	44,4	34,8	5,2	17,8		
	Administrative and support activities; Repair of computers	36,4	41,2	36,8	52,4	58,5	24,6	37,4		
Tota	I	24,7	33,1	36,1	27,4	28,2	24,9	26,6		
	In E	U cour	itries							
	Manufacturing	4,7	13,0	7,6	7,8	6,7	5,2	6,8		
	Electricity, gas and steam, water supply; sewerage and waste management	0,0	4,0	0,0	3,2	0,0	0,0	1,7		
	Construction	0,0	4,2	0,0	0,0	0,0	2,0	0,8		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	0,0	7,7	0,0	0,0	1,8	1,1	0,9		
Activity	Transportation and storage	19,9	19,6	0,0	0,0	29,3	29,3	18,8		
Act	Accommodation and food service activities	0,0	8,3	0,0	0,0	0,0	3,4	1,7		
	Information and communication	7,7	46,4	15,4	0,0	17,5	16,7	12,7		
	Financial and insurance activities	0,0	0,0	0,0	0,0	0,0	0,0	0,0		
	Real estate activities; Professional, scientific and technical activities	0,0	16,8	15,0	0,7	0,0	2,6	1,8		
	Administrative and support activities; Repair of computers	3,6	0,0	0,0	13,8	0,0	0,0	2,6		
_										

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2,9

Total

11,1

4,0

3,7

5,4

4,5

4,5

B10: Did the persons employed in your enterprise have the possibility to use protable devices to access the Internet for business use?

in percenta								
		S	ize clas	ss	-	Territory	/	
	Enterprises		Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	45,4	63,5	81,7	48,2	50,7	60,9	52,1
	Electricity, steam and gas, water supply, sewerage and waste management	44,5	63,1	83,4	51,0	54,4	95,8	57,8
	Construction	53,9	82,9	95,4	56,0	61,3	65,6	61,3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	63,5	83,8	94,7	53,2	55,5	81,0	66,6
Activity	Transportation and storage	65,2	79,8	81,0	56,3	83,3	69,4	68,3
Act	Accommodation and food service activities	50,2	77,5	58,3	48,9	49,8	62,9	56,2
	Information and communication	73,9	94,0	100,0	69,5	25,5	100,0	77,6
	Financial and insurance services	77,8	75,0	90,9	66,7	100,0	85,2	85,7
	Real estate activities; Professional, scientific and technical activities	71,8	92,2	58,3	65,2	55,0	82,1	74,4
	Administrative and support activities; Repair of computers	51,6	49,3	61,3	59,6	74,5	41,2	52,1
Tota	l	57,4	73,0	83,7	52,3	55,6	73,6	61,6

B12: Percentage of persons employed who used protable devices to access the Internet for business use?

		Enterprises						
	S	Size class Region						
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total	
1- 24%	74,5	85,8	89,2	81,1	87,7	71,1	77,9	
25- 49%	14,5	5,5	4,8	8,1	5,4	17,5	11,9	
50-74%	7,6	6,5	2,7	9,1	5,8	6,4	7,1	
75-100%	3,4	2,1	3,3	1,7	1,0	5,0	3,1	



B11: Did persons employed in your enterprise use any of the following portable devices to access the Internet for business use?

Glossary

in percentages										
Enterprises		Size class								
		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
	Portable computers (laptop,	laptop, notebook, tablet PC, netbook, etc.)								
	Manufacturing	96,7	100,0	100,0	97,0	100,0	97,7	98,0		
	Electricity, gas and steam, water supply, sewerage and waste management	100,0	100,0	96,5	98,6	100,0	100,0	99,3		
	Construction	100,0	100,0	100,0	100,0	100,0	100,0	100,0		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	100,0	100,0	100,0	100,0	100,0	100,0	100,0		
Activity	Transportation and storage	95,1	94,6	100,0	88,3	97,1	100,0	95,3		
Acti	Accommodation and food service activities	74,4	100,0	100,0	87,7	86,5	78,9	82,5		
	Information and communication	100,0	100,0	100,0	100,0	100,0	100,0	100,0		
	Financial and insurance activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0		
	Real estate activities; Professional, scientific and technical activities	98,4	100,0	100,0	100,0	90,3	100,0	98,7		
	Administrative and support activities; Repair of computers	90,4	90,2	100,0	100,0	94,3	85,6	91,4		
Tota	I	97,7	99,5	99,7	97,6	98,6	98,5	98,2		
Other protable devices like Smartphone, PDA										
	Manufacturing	26,2	42,6	60,2	40,9	28,6	30,2	34,4		
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	28,7	56,6	22,1	24,2	29,8	24,4		
	Construction	5,3	31,9	45,6	10,2	5,9	23,8	15,0		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	4,3	68,5	88,2	22,6	13,1	14,5	16,2		
Activity	Transportation and storage	60,6	49,3	44,4	25,9	59,9	81,2	57,3		
	Accommodation and food service activities	47,6	40,1	100,0	28,5	67,3	48,6	46,2		
	Information and communication	56,3	61,5	50,0	50,6	68,0	57,6	56,9		
	Financial and insurance activities	85,7	100,0	95,0	100,0	100,0	91,3	93,3		
	Real estate activities; Professional, scientific and technical activities	31,2	50,3	50,0	40,0	47,3	31,1	34,6		
	Administrative and support activities; Repair of computers	33,8	76,4	64,1	10,4	36,2	67,0	45,1		
Total		21,5	48,6	62,1	30,6	27,7	30,8	30,0		

B13: Did the persons employed in your enteprise use portable devices to:

in percentages										
			Size class			Territory				
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
	Access publicly availabl	able information on the Internet?								
	Manufacturing	87,7	76,8	97,1	80,5	92,3	86,1	85,4		
	Electricity, gas and steam, water supply, sewerage and waste management	100,0	90,3	84,9	91,9	96,3	88,3	92,6		
	Construction	91,2	89,8	92,5	89,7	87,4	94,0	90,9		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	95,7	89,3	100,0	81,6	96,8	100,0	94,8		
Activity	Transportation and storage	84,6	65,8	94,5	68,9	81,4	90,9	81,5		
Acti	Accommodation and food service activities	81,8	90,8	100,0	86,1	84,4	84,7	85,0		
	Information and communication	96,9	100,0	100,0	87,8	100,0	100,0	97,5		
	Financial and insurance activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0		
	Real estate activities; Professional, scientific and technical activities	96,3	82,7	100,0	98,6	76,4	96,5	94,0		
	Administrative and support activities; Repair of computers	92,2	72,3	94,2	89,6	94,3	84,5	88,7		
Total		92,5	83,3	95,8	83,1	91,2	95,0	90,6		
Access the e-mail system of the enterprise?										
	Manufacturing	88,6	91,4	96,0	92,1	84,5	92,9	90,2		
Activity	Real estate activities; Professional, scientific and technical activities	83,2	81,4	93,4	80,3	79,8	100,0	84,3		
	Construction	90,9	84,8	86,4	90,3	98,4	82,3	89,0		
	Wholesale and retail trade; repair of motor vehicles and motorcycles	100,0	98,3	100,0	98,9	100,0	100,0	99,7		
	Transportation and storage	95,1	86,3	100,0	83,3	97,1	100,0	93,8		
	Accommodation and food service activities	84,7	90,8	100,0	100,0	73,1	84,7	86,8		
	Information and communication	96,6	100,0	100,0	86,3	100,0	100,0	97,3		
	Financial and insurance activities	85,7	100,0	100,0	100,0	100,0	95,7	96,7		
	Real estate activities; Professional, scientific and technical activities	86,6	84,4	100,0	91,1	78,5	86,9	86,3		
	Administrative and support activities; Repair of computers	100,0	76,4	100,0	96,4	94,3	96,1	95,6		
Total		93,7	90,7	96,0	92,5	91,4	94,4	93,2		



B13: Did the persons employed in your enteprise use portable devices to:

Glossary

in percentages										
			Size class			Territory				
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
	Access or modify do	locuments of the enterprise?								
	Manufacturing	51,2	65,8	72,2	51,1	56,8	68,2	58,0		
	Electricity, gas and steam, water supply, sewerage and waste management	100,0	18,6	76,8	38,0	65,4	83,9	56,5		
	Construction	96,1	65,5	49,3	86,3	85,6	83,5	84,9		
>	Wholesale and retail trade; repair of motor vehicles and motorcycles	71,7	54,1	79,9	68,8	31,5	82,2	69,1		
tivit	Transportation and storage	50,0	43,3	46,1	47,3	57,2	40,8	48,6		
Ac	Accommodation and food service activities	41,7	43,3	100,0	83,9	26,9	33,9	43,4		
	Information and communication	66,6	69,7	87,5	42,8	79,7	74,1	68,2		
	Financial and insurance activities	28,6	100,0	85,0	50,0	80,0	73,9	73,3		
	Real estate activities; Professional, scientific and technical activities	72,1	51,2	100,0	73,8	52,7	71,0	68,9		
	Administrative and support activities; Repair of computers	59,8	76,5	68,0	46,0	79,3	61,2	63,9		
Total		67,1	57,4	70,6	60,3	54,3	73,2	65,1		
Access dedicated business software applications (for orders or sales management - ERP application)										
	Manufacturing	21,0	51,2	60,1	39,5	35,0	26,9	34,4		
	Electricity, gas and steam, water supply, sewerage and waste management	8,5	14,7	46,7	20,2	16,7	18,0	18,6		
	Construction	0,0	14,0	41,4	3,3	7,6	8,2	6,6		
_	Wholesale and retail trade; repair of motor vehicles and motorcycles	7,6	61,7	70,8	24,5	30,5	9,1	17,0		
Activity	Transportation and storage	23,6	33,6	31,4	20,7	15,0	39,7	25,9		
	Accommodation and food service activities	26,8	34,3	100,0	22,5	13,5	38,7	30,5		
	Information and communication	28,5	65,3	84,6	15,2	35,2	42,5	37,2		
	Financial and insurance activities	28,6	100,0	60,0	50,0	80,0	52,2	56,7		
	Real estate activities; Professional, scientific and technical activities	31,3	52,1	100,0	4,2	35,4	40,8	35,0		
	Administrative and support activities; Repair of computers	44,0	52,8	38,8	41,5	63,8	33,7	45,1		
Total		16,4	45,4	56,6	26,4	28,5	23,3	25,4		

B14: Did your enterprise encounter any of the following obstacles preventing the use of mobile Internet for business use?

	in percentages							
		S	lize clas	SS		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Problems of connectivity to th	e Inte	rnet vi	a mobi	le pho	ne net	works	
	Manufacturing	8,9	7,3	12,1	13,5	5,2	4,0	8,7
	Electricity, gas and steam, water supply, sewerage and waste management	3,8	8,4	14,5	9,9	1,0	12,5	7,2
	Construction	8,1	4,6	12,5	13,0	1,0	7,7	7,7
	Wholesale and retail trade; repair of motor vehicles and motor cycles	10,1	10,7	9,4	16,1	2,8	9,5	10,2
Activity	Transportation and storage	24,7	0,0	11,7	26,5	27,5	7,4	20,1
Act	Accommodation and food service activities	16,5	12,4	0,0	1,9	13,4	25,2	15,5
	Information and communication	6,1	15,1	11,8	9,7	3,0	8,6	7,6
	Financial and insurance activities	11,1	0,0	31,8	33,3	0,0	25,9	22,9
	Real estate activities; Professional, scientific and technical activities	0,7	6,0	16,7	1,6	0,0	2,0	1,6
	Administrative and support activities; Repair of computers	4,4	4,8	0,0	0,0	13,9	1,6	4,1
Tota		9,4	7,6	12,1	13,7	5,4	7,4	9,2
	High costs for subscr	iption	or use	of the	Inter	ıet		
	Manufacturing	14,5	11,5	13,5	20,1	8,4	7,8	13,7
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	7,5	18,5	8,9	2,0	0,0	5,5
	Construction	5,3	3,2	10,6	0,7	18,8	0,0	5,1
	Wholesale and retail trade; repair of motor vehicles and motor cycles	1,2	19,2	2,0	4,4	2,2	3,3	3,4
Activity	Transportation and storage	23,5	18,2	6,5	13,0	34,8	21,5	21,8
Act	Accommodation and food service activities	10,5	8,3	0,0	0,0	6,7	17,3	9,9
	Information and communication	7,1	25,8	0,0	13,3	3,0	10,4	9,5
	Financial and insurance activities	0,0	0,0	27,3	33,3	0,0	18,5	17,1
	Real estate activities; Professional, scientific and technical activities	8,7	10,7	0,0	10,1	1,2	10,6	8,9
	Administrative and support activities; Repair of computers	1,8	2,0	3,6	9,1	1,5	0,0	2,0
Tota		8,2	12,1	10,7	12,0	8,6	6,8	9,1



B14: Did your enterprise encounter any of the following obstacles preventing the use of mobile Internet for business use?

Glossary

		Ş	Size clas	ss		Territor	ı percei	itages
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Security related risks (disclosi	ıre, de	structi	on or	corrup	tion of	data)	
	Manufacturing	13,0	9,3	6,9	11,1	13,9	10,3	11,7
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	5,5	19,7	6,2	1,0	10,7	5,0
	Construction	5,3	9,6	5,0	4,3	17,8	0,0	6,1
>	Wholesale and retail trade; repair of motor vehicles and motor cycles	0,0	22,0	3,8	3,9	1,8	2,3	2,7
Activity	Transportation and storage	3,0	11,1	3,2	2,5	11,9	0,5	4,2
Ac	Accommodation and food service activities	4,4	8,3	0,0	0,0	0,0	10,3	5,1
	Information and communication	5,2	10,7	11,8	6,1	2,2	7,8	6,2
	Financial and insurance activities	44,4	25,0	31,8	33,3	40,0	33,3	34,3
	Real estate activities; Professional, scientific and technical activities	0,8	29,8	0,0	4,0	1,2	5,6	4,6
	Administrative and support activities; Repair of computers	4,0	0,0	7,7	0,0	1,5	5,5	3,6
Tota	l	5,2	12,4	8,4	7,0	8,6	5,2	6,7
		ical ob						
(e.g. when accessing enterprise's applications via the Internet)								
	Manufacturing	8,6	4,4	20,4	10,9	8,0	4,0	8,3
	Electricity, gas and steam, water supply, sewerage and waste 0,0 13,5 13,4 10,1 1,0 14,9 management				14,9	7,7		
	77 77 77 77		5,5	6,1				
Wholesale and retail trade; repair of motor vehicles and motor cycles		5,6	14,2	10,1	8,7	13,2	2,3	6,7
Activity	Transportation and storage	24,2	4,6	10,8	13,3	45,2	9,4	20,4
Aci	Accommodation and food service activities	17,4	0,0	0,0	17,6	6,7	14,1	13,8
	Information and communication	9,7	4,7	5,9	9,4	4,0	10,4	8,8
	Financial and insurance activities	11,1	25,0	18,2	33,3	0,0	18,5	17,1
	Real estate activities; Professional, scientific and technical activities	4,3	6,2	16,7	10,2	10,8	1,5	4,7
	Administrative and support activities; Repair of computers	10,7	9,6	4,2	6,9	27,9	3,9	9,8
Tota		8,2	7,4	14,3	10,5	11,1	4,5	8,3

B14: Did your enterprise encounter any of the following obstacles preventing the use of mobile Internet for business use?

	in percentages							
		S	size clas	SS		Territor	y	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Other obstacles (difficulti	ies to a	dapt t	o new	techno	ologies)	
	Manufacturing	5,0	3,5	17,9	7,3	5,1	2,6	5,5
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	23,3	9,5	13,2	6,3	17,3	11,4
	Construction	5,8	14,9	2,6	8,9	7,7	5,9	7,4
	Wholesale and retail trade; repair of motor vehicles and motor cycles	7,8	6,0	5,9	10,1	2,3	8,4	7,5
Activity	Transportation and storage	20,2	0,0	4,3	13,3	17,1	18,9	16,3
Act	Accommodation and food service activities	10,6	0,0	0,0	11,5	6,7	7,3	8,5
	Information and communication	2,3	5,6	5,9	8,7	1,1	1,3	2,9
	Financial and insurance activities	0,0	0,0	22,7	33,3	0,0	14,8	14,3
	Real estate activities; Professional, scientific and technical activities	0,8	6,4	0,0	5,6	0,0	0,8	1,5
	Administrative and support activities; Repair of computers	1,8	9,6	3,6	6,9	1,5	3,2	3,5
Tota	l	6,4	6,8	11,5	8,9	5,0	5,9	6,8
TI	ne enterprise did not have the ne	ed for	a mobi	le con	nectio	n to th	e Inter	net
	Manufacturing	67,7	79,9	64,2	70,0	73,4	68,2	70,5
	Electricity, gas and steam, water supply, sewerage and waste 100,0 63,4 72,4 83 management		83,1	83,2	61,3	80,4		
	Construction	100,0	47,1	97,7	94,8	95,5	82,3	90,0
	Wholesale and retail trade; repair of motor vehicles and motor cycles	81,3	52,2	96,1	72,9	53,4	93,5	77,9
Activity	Transportation and storage	34,8	56,5	100,0	52,4	24,2	43,4	41,5
Act	Accommodation and food service activities	49,8	66,3	100,0	61,1	59,7	48,1	54,2
	Information and communication	35,2	27,1	82,4	70,8	79,9	5,7	35,9
	Financial and insurance activities	44,4	25,0	13,6	33,3	20,0	22,2	22,9
	Real estate activities; Professional, scientific and technical activities	92,3	45,8	100,0	86,5	71,0	90,3	86,2
	Administrative and support activities; Repair of computers	100,0	93,9	92,9	93,5	97,0	100,0	98,1
Tota	I	74,9	64,9	75,9	73,3	67,8	76,1	73,0



MODULE 2.C: AUTOMATIC SHARE OF INFORMATION¹⁾

C1: In January 2012, did your enterprise use automatic share of information between enterprises and other ICT systems outside the enterpris?

						ir	perce	ntages
		S	Size clas	ss	-	Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	34.0	35,6	62,1	31,7	35,5	45,2	36,2
	Electricity, gas and steam, water supply, sewerage and waste management	35,6	35,2	54,9	34,5	42,4	40,4	37,9
	Construction	42.2	47,4	40,9	25,1	44.8	56,6	43,1
	Wholesale and retail trade; repair of motor vehicles and motorcycles	53,0	43,5	52,9	42,2	70,2	49,5	51,9
Activity	Transportation and storage	79.8	38,2	32.0	59.0	89,6	68,7	71,2
Act	Accommodation and food service activities	73,7	57,3	41,7	65,7	63,6	74,9	69,9
	Information and communication	76,7	51,1	50,0	33,2	51,2	95,4	73,0
	Financial and insurance activities	55,6	100,0	95,5	100,0	80,0	85.2	85,7
	Real estate activities; Professional, scientific and technical activities	45,2	38,4	29,2	43,4	29,7	48,9	44,3
	Administrative and support activities; Repair of computers	43,6	32,1	31,0	37,9	64,5	30,9	40,0
Tota	I	48,6	39,8	54,6	37,4	51,6	53,5	47,3

¹⁾ The results refer only to enterprises that answered YES in question A1.

C2: Was the automatic share of information used for the following purposes? 1)

	in percentages							
		S	ize clas	ss		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Sending payment instru	ıctions	to fin	ancial	institu	itions		
	Manufacturing	60,6	76,0	84,3	64,8	67,3	68,8	66,7
	Electricity, gas and steam, water supply, sewerage and waste management	60,1	56,5	41,1	41,9	61,8	81,0	55,3
	Construction	11,4	77,2	93,4	49,9	9,5	30,0	27,9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	45,9	73,6	83,1	41,7	80,7	31,3	48,9
Activity	Transportation and storage	89,6	54,6	100,0	84,8	97,5	77,3	87,4
Act	Accommodation and food service activities	93,9	43,1	100,0	68,3	97,5	91,7	85,7
	Information and communication	83,3	84,9	42,9	86,5	0,0	96,7	82,4
	Financial and insurance activities	80,0	75,0	61,9	66,7	75,0	65,2	66,7
	Real estate activities; Professional, scientific and technical activities	36,9	69,7	100,0	43,3	81,6	30,2	40,2
	Administrative and support activities; Repair of computers	59,5	78,8	59,6	94,3	76,1	38,8	62,7
Tota	I	55,5	71,9	77,7	58,7	69,5	52,6	59,0
	Sending or receiving product in	format	ion (e.	g. cata	logues	, price	lists	.)
	Manufacturing	71,8	87,2	86,9	81,2	71,9	76,2	77,1
	Electricity, gas and steam, water supply, sewerage and waste management	90,0	36,8	54,1	45,7	85,2	60,0	62,5
	Construction	87,8	100,0	93,4	98,6	67,6	100,0	90,4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	100,0	86,6	84,6	98,1	99,5	97,8	98,4
Activity	Transportation and storage	71,9	88,1	89,9	67,6	72,2	81,3	73,6
Acı	Accommodation and food service activities	80,0	86,6	100,0	83,3	89,4	77,6	81,3
	Information and communication	85,0	84,9	100,0	100,0	66,7	86,8	85,4
	Financial and insurance activities	80,0	50,0	66,7	33,3	100,0	65,2	66,7
	Real estate activities; Professional, scientific and technical activities	87,7	75,6	100,0	67,8	59,2	96,1	86,8
	Administrative and support activities; Repair of computers	85,8	100,0	50,0	80,4	97,7	77,2	85,4
Tota	I	86,5	84,9	81,6	83,9	82,6	89,4	86,0

¹⁾ The results refer only to enterprises that answered YES in question C1.



C2: Was the automatic share of information used for the following purposes? 1) in percentage:

	in percentages							
		S	Size clas	SS		Territory	y	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Sending or receiving transpor	t docu	ments	(e.g.co	nsign	ment n	otes)	
	Manufacturing	35,5	60,3	58,6	53,4	37,1	37,7	43,9
	Electricity, gas and steam, water supply, sewerage and waste management	19,9	0,0	10,3	2,1	11,4	46,3	10,6
	Construction	12,2	59,1	60,4	60,4	9,5	17,9	23,6
	Wholesale and retail trade; repair of motor vehicles and motorcycles	24,5	70,5	74,7	26,4	32,6	28,9	29,4
Activity	Transportation and storage	71,3	60,3	76,4	43,7	68,9	100,0	70,6
Act	Accommodation and food service activities	20,8	6,7	40,0	12,8	0,0	29,9	19,2
	Information and communication	26,0	45,4	100,0	20,3	0,0	37,7	29,7
	Financial and insurance activities	20,0	25,0	19,0	33,3	25,0	17,4	20,0
	Real estate activities; Professional, scientific and technical activities	6,0	43,0	100,0	15,1	22,4	6,3	9,8
	Administrative and support activities; Repair of computers	35,4	29,9	11,5	19,6	43,2	29,1	32,7
Tota	•	29,3	53,4	53,2	37,5	33,4	32,2	34,0
	Sending or receiving d		_	-		ities		
	(e.g. tax returns Manufacturing	64,4	77,1	аата, е 70,3	64,3	71,9	69,6	68,1
	Electricity, gas and steam, water supply, sewerage and waste management	40,2	61,7	54,4	64,6	39,5	32,8	51,2
	Construction	12,2	67,5	93,5	22,5	37,1	20,7	25,9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	40,8	83,6	100,0	27,3	83,9	29,3	45,4
Activity	Transportation and storage	67,3	37,5	89,9	53,7	71,5	74,1	66,3
Act	Accommodation and food service activities	48,7	38,2	100,0	54,9	47,2	43,7	47,8
	Information and communication	74,5	65,2	57,1	91,4	100,0	69,2	73,3
	Financial and insurance activities	80,0	75,0	85,7	66,7	100,0	82,6	83,3
	Real estate activities; Professional, scientific and technical activities	62,5	80,9	100,0	55,6	23,3	75,7	64,6
	Administrative and support activities; Repair of computers	52,5	70,1	75,0	60,7	97,7	21,7	57,1
Tota		50,0	72,2	76,7	49,5	70,1	48,2	54,6

¹⁾ The results refern only to enteprises that answered YES in question C1.

MODULE 4.D: ELECTRONIC SHARE OF INFORMATION IN THE CHAIN OF SUPPLY MANAGEMENT¹⁾

D1: Did your enterprise regularly share electronically information in the chain of supply management with its suppliers or customers, in January 2012?

in percentages

		S	ize clas	ss		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	50,7	65,7	86,6	56,0	51,4	63,6	56,7
	Electricity, gas and steam, water supply, sewerage and waste management	21,4	66,6	53,8	45,0	38,1	60,2	44,5
	Construction	37,4	74,6	89,2	37,9	37,4	60,4	46,6
.≥	Wholesale and retail trade; repair of motor vehicles and motorcycles	73,9	84,2	96,1	55,9	86,9	83,3	75,6
Activity	Transportation and storage	85,7	44,0	72,2	76,1	74,4	85,8	78,8
∢	Accommodation and food service activities	70,2	57,0	100,0	57,8	58,5	77,7	67,9
	Information and communication	80,4	78,0	57,1	46,9	67,8	96,2	79,3
	Real estate activities; Professiona, scientific and technical activities	69,8	63,8	100,0	66,9	67,1	70,7	69,4
	Administrative and support activities; Repair of computers	66,3	61,6	87,7	64,4	81,5	62,9	67,3
Tot	al	62,7	69,0	83,8	55,3	62,6	74,6	64,8

¹⁾ The results refer only to enterprises that answered YES in question A1.



D2: Did your enterprise regularly share electronically information with its suppliers, in January 2012? $^{1)}$

in percentage

Glossary

							iii perc	ciitage
		S	ize clas	ss		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	90,3	98,2	99,3	92,9	98,0	90,2	93,4
	Electricity, gas and steam, water supply, sewerage and waste management	100,0	100,0	94,5	100,0	97,3	100,0	99,2
	Construction	100,0	100,0	100,0	100,0	100,0	100,0	100,0
ity	Wholesale and retail trade; repair of motor vehicles and motorcycles	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Activity	Transportation and storage	96,3	79,2	95,5	91,3	96,9	97,0	94,9
∢	Accommodation and food service activities	100,0	100,0	100,0	100,0	100,0	100,0	100,0
	Information and communication	87,9	100,0	100,0	80,0	78,5	94,6	89,8
	Real estate activities; Professional, scientific and technical activities	67,8	100,0	100,0	84,5	83,9	65,4	71,7
	Administrative and support activities; Repair of computers	100,0	92,2	100,0	100,0	100,0	97,5	98,6
Tota		93,4	98,4	99,1	95,0	97,2	93,2	94,7

¹⁾ The results refer only to enterprises that answered YES in question D1.

D3: Did your enterprise regularly share electronically information with its customers, in January 2012? 1)

in percentages

						- 11	i perce	ilayes
		S	ize clas	ss				
Enterprises		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	86,8	98,2	99,3	91,0	98,0	85,8	91,3
	Electricity, gas and steam, water supply, sewerage and waste management	83,3	89,6	87,4	78,0	100,0	100,0	87,9
	Construction	100,0	94,4	97,2	100,0	100,0	96,3	98,1
ιţ	Wholesale and retail trade; repair of motor vehicles and motorcycles	64,7	96,8	97,6	78,8	62,6	69,7	69,9
Activity	Transportation and storage	100,0	100,0	94,3	100,0	100,0	99,3	99,7
∢	Accommodation and food service activities	87,7	93,0	75,0	96,9	97,3	81,8	88,3
	Information and communication	88,88	100,0	100,0	86,2	56,9	100,0	90,6
	Real estate activities; Professional, scientific and technical activities	74,3	100,0	100,0	93,6	67,8	76,2	77,4
	Administrative and support activities; Repair of computers	94,4	92,2	95,1	77,8	100,0	96,4	94,1
Tota		79,6	96,7	97,2	88,88	82,1	81,7	83,9

¹⁾ The results refer only to enterprises that answered YES in question D1.



MODULE 2.E: Automatic share of information within the enterprise¹⁾

E1: In January 2012, when your enterprise received a sales order (either electronically or not), was the relevant information about it shared electronically or automatically with the software used for the following functions?

in percentages

							perce	uguu
		S	ize clas	S		Territory	/	
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
Management of inventory levels								
	Manufacturing	23,4	41,2	58,2	31,7	27,8	29,3	30,0
	Electricity, gas and steam, water supply, sewerage and waste management	10,6	4,0	20,6	3,9	15,3	14,9	9,1
	Construction	12,5	21,2	38,1	11,8	25,9	10,7	15,3
	Wholesale and retail trade; repair of motor vehicles and motorcycles	30,7	67,6	94,5	21,6	53,4	38,2	36,7
Activity	Transportation and storage	11,6	28,9	36,7	4,1	24,0	20,0	15,5
Act	Accommodation and food service activities	20,6	23,7	16,7	16,4	48,6	13,4	21,1
	Information and communication	39,3	54,5	58,8	11,6	23,4	63,1	42,4
	Financial and insurance activities	22,2	50,0	61,9	0,0	100,0	48,1	50,0
	Real estate activities; Professional, scientific and technical activities	17,5	21,3	33,3	20,2	25,3	15,1	18,1
	Administrative and support activities; Repair of computers	20,9	6,8	19,0	17,8	44,8	7,7	18,0
Tot	al	23,7	38,7	53,3	22,4	34,4	28,7	27,9

¹⁾ The results refer only to enterprises that gave positive answer to question A1.

E1: In January 2012, when your enterprise received a sales order (either electronically or not), was the relevant information about it shared electronically or automatically with the software used for the following functions?

in percentages Size class Territory Vojvodina Total Belgrade Enterprises Medium 50-249) Central Serbia Keeping accounting records Manufacturing 36.5 56.6 58.2 46.4 37.0 42.5 42.8 Electricity, gas and steam, water supply, sewerage and waste 9.9 14.3 0.0 55.0 15.3 25.6 13.7 management 19.3 Construction 15.1 32.0 39.0 13.1 30.9 16.4 Wholesale and retail trade; repair of 27.0 71.0 94.5 31.3 62.3 21.5 33.9 motor vehicles and motorcycles 31,8 32.0 Transportation and storage 31.8 25.2 56.1 32.1 32.1 Accommodation and food service 32,0 27.5 16,7 30,0 37,7 28,7 30.8 activities Information and communication 60,4 64.8 58,8 48,3 59,8 66,5 60.9 Financial and insurance activities 33.3 50.0 76,2 33,3 100,0 59,3 61,8 Real estate activities; Professional, 56.5 59.2 52.4 68.7 53.4 53.8 56.8 scientific and technical activities Administrative and support activities; 40.5 17.4 19.0 54.1 44.8 23.7 34.0 Repair of computers Total 37,2 32,9 37,2 33,0 49.1 58.6 43,7 Management of production and services Manufacturing 14.8 41.1 58.0 23.1 26,2 23.1 23.9 Electricity, gas and steam, water supply, sewerage and waste 7,2 0.0 38,2 8,7 5,9 13,0 8.3 management 12.1 Construction 7.9 24.6 36.5 6.1 18.7 12.4 Wholesale and retail trade; repair of 72.1 94.5 16,8 55.2 12.2 23.6 15.1 motor vehicles and motorcycles Transportation and storage 27,9 35.6 48.8 22,5 33.8 35.4 30.0 Accommodation and food service 27.3 40.0 16.7 45.4 30.5 19.2 29.6 activities Information and communication 33.6 51.7 50.0 40.4 39.9 33.9 36.5 Financial and insurance activities 44,4 50,0 61,9 33,3 100,0 51,9 55,9 Real estate activities; Professional, 23,4 34,9 52,4 45,8 26,5 17,6 25,0

38,6

17,5

11,6

41.1

23,2

55.6

39,6

21.4

44,8

33.9

24,4

18.8



Total

scientific and technical activities
Administrative and support activities;

Repair of computers

31.8

23.6

E1: In January 2012, when your enterprise received a sales order (either electronically or not), was the relevant information about it shared electronically or automatically with the software used for the following functions?

		Size class Territory						
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Manageme	ent of d	listribu	ıtion				
	Manufacturing	13,8	38,0	53,3	24,2	20,1	20,9	22,2
	Electricity, gas and steam, water supply, sewerage and waste management	3,5	0,0	27,9	3,0	4,8	13,0	4,9
	Construction	5,3	22,2	36,5	4,8	11,5	12,4	9,7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	11,7	69,4	94,5	13,3	49,9	12,2	20,6
Activity	Transportation and storage	17,3	29,1	48,8	14,1	20,3	28,6	20,5
Act	Accommodation and food service activities	25,6	26,8	16,7	39,7	15,0	20,5	25,7
	Information and communication	33,7	42,3	21,4	27,2	39,9	35,4	34,3
	Financial and insurance activities	44,4	50,0	57,1	33,3	100,0	48,1	52,9
	Real estate activities; Professional, scientific and technical activities	19,3	15,8	52,4	34,7	19,6	14,5	19,2
	Administrative and support activities; Repair of computers	36,7	4,8	19,0	30,0	44,8	22,1	28,7
Tota	I	14,7	36,7	51,5	18,9	27,0	17,6	20,4

E2: In January 2012, when your enterprise sent a purchase order (either electronically or not), was the the relevant information about it shared electronically or automatically with the software used for the following functions?

in	percentages

		9	size clas	ss	Territory			
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
	Management	t of inv	entory	levels	3			
Manufacturing			42,9	55,9	30,9	28,7	24,8	28,7
	Electricity, gas and steam, water supply, sewerage and waste management	10,6	4,0	31,8	7,1	14,3	15,5	10,5
	Construction	15,1	25,6	36,5	11,8	33,1	12,4	18,0
>	Wholesale and retail trade; repair of motor vehicles and motorcycles	24,3	70,7	92,3	27,9	25,0	37,0	31,5
Activity	Transportation and storage	10,9	30,3	44,0	3,6	24,5	21,0	15,2
Aci	Accommodation and food service activities	20,4	23,7	16,7	21,2	21,7	20,5	21,0
	Information and communication	21,4	55,5	58,8	17,8	20,6	34,4	27,6
	Financial and insurance activities	11,1	50,0	57,1	0,0	75,0	44,4	44,1
	Real estate activities; Professional, scientific and technical activities	11,8	22,9	52,4	13,1	6,9	15,8	13,5
	Administrative and support activities; Repair of computers	38,6	4,8	23,2	37,4	44,8	22,8	30,4
Total		20,3	40,5	53,7	23,9	26,1	26,9	25,7
	Keeping a	ccount	ing rec	cords				
	Manufacturing	29,4	52,6	57,5	39,2	36,2	33,5	36,9
	Electricity, gas and steam, water supply, sewerage and waste management	14,3	0,0	47,8	9,2	15,3	19,9	12,5
	Construction	15,1	27,8	36,5	13,1	30,9	14,1	18,4
>	Wholesale and retail trade; repair of motor vehicles and motorcycles	21,5	66,2	94,5	29,1	43,6	20,4	28,3
Activity	Transportation and storage	20,2	35,6	52,5	12,5	32,1	29,2	23,9
Aci	Accommodation and food service activities	29,8	29,8	16,7	30,0	28,4	29,7	29,5
	Information and communication	52,2	63,0	58,8	66,9	75,5	42,2	53,9
	Financial and insurance activities	33,3	50,0	71,4	33,3	100,0	55,6	58,8
	Real estate activities; Professional, scientific and technical activities	53,8	52,0	52,4	69,5	41,1	52,4	53,6
	Administrative and support activities; Repair of computers	36,5	10,5	23,2	51,9	44,8	18,0	30,2
Total		27,7	45,8	57,2	32,8	37,9	28,4	32,4



Introduction

E3: In January 2012, did your enterprise have in use an ERP software package to shre information on sales and/or supplies between business functions (e.g. financing, planning, marketing, etc.)?

in percentages

Glossary

in percentages								
		S	Size clas	ss		Territory		
	Enterprises		Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	17,4	14,9	49,3	19,9	18,6	17,4	18,9
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	4,1	28,5	2,1	9,1	10,7	5,5
	Construction	2,6	7,7	31,7	1,2	12,4	2,6	4,9
	Wholesale and retail trade; repair of motor vehicles and motorcycles	0,9	33,8	86,2	4,4	6,7	8,7	6,9
Activity	Transportation and storage	8,7	4,4	21,1	7,5	0,5	18,0	8,6
Act	Accommodation and food service activities	8,9	13,2	0,0	8,9	9,6	10,3	9,7
	Information and communication	15,8	21,3	42,9	14,9	0,0	26,1	17,6
	Financial and insurance activities	55,6	25,0	66,7	33,3	75,0	59,3	58,8
	Real estate activities; Professional, scientific and technical activities	10,2	22,2	16,7	3,8	12,5	13,7	11,8
	Administrative and support activities; Repair of computers	12,9	0,0	3,6	0,0	29,4	4,8	9,5
Total		8,5	16,6	45,4	11,0	12,1	12,3	11,8

Methodology Sample Major findings Survey results Questionnaire

E4: In January 2012, did your enterprise have in use any software application for managing information about customers (so-called CRM) that allows to:

	in percentages									
		S	lize clas	SS		Territory	/			
	Enterprises	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total		
	Capture, store and make available to other business functions information about customers									
	Manufacturing	8,2	18,6	33,2	11,9	16,2	9,0	12,4		
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	6,0	27,5	3,5	8,4	11,3	6,1		
	Construction	0,0	8,4	18,8	1,3	0,3	4,8	2,4		
>	Wholesale and retail trade; repair of motor vehicles and motor cycles	0,0	20,7	54,5	2,5	6,3	3,1	3,6		
Activity	Transportation and storage	0,0	13,6	34,3	1,8	0,0	9,6	3,7		
Aci	Accommodation and food service activities	4,3	21,6	50,0	9,1	12,3	7,7	9,0		
	Information and communication	19,2	41,4	42,9	15,8	2,2	34,0	23,0		
	Financial and insurance activities	66,7	50,0	66,7	0,0	100,0	66,7	64,7		
	Real estate activities; Professional, scientific and technical activities	20,2	28,3	45,8	13,3	29,1	21,7	21,5		
	Administrative and support activities; Repair of computers	18,7	9,6	8,3	6,9	27,9	14,1	15,9		
Total			17,8	34,9	7,4	10,7	10,3	9,4		
Ana	lyse the information about custo			_				rices,		
	making sales promotion, c		_				•			
	Manufacturing	7,3	13,2	26,9	7,0	14,4	10,4	10,0		
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	0,0	19,8	3,5	1,0	2,4	2,5		
	Construction	0,0	8,8	14,2	0,7	0,3	4,9	2,2		
_	Wholesale and retail trade; repair of motor vehicles and motor cycles	0,0	17,1	53,8	5,0	1,0	3,1	3,2		
Activity	Transportation and storage	0,0	18,2	45,6	1,8	1,4	12,4	5,0		
Act	Accommodation and food service activities	4,3	21,2	16,7	14,2	12,3	3,2	8,3		
	Information and communication	12,9	41,4	42,9	19,6	16,8	17,3	17,7		
	Financial and insurance activities	22,2	25,0	61,9	0,0	50,0	51,9	47,1		
	Real estate activities; Professional, scientific and technical activities	13,0	22,3	45,8	15,5	19,5	12,9	14,5		
	Administrative and support activities; Repair of computers	19,4	9,6	8,3	21,2	27,9	10,5	16,4		
Tota		4,6	14,3	30,8	6,4	8,5	8,0	7,6		



MODULE 2.F: e-COMMERCE¹⁾

F1: In 2011, did your enterprise receive orders for products or services placed via a website (excluding manually types e-mails)?

in percentages

in percentages								
		S	ize clas	ss	-	Territory		
Enterprises		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
YES								
	Manufacturing	14,5	31,1	22,0	19,7	16,3	20,4	18,9
	Electricity, gas and steam, water supply, sewerage and waste management	0,0	6,2	14,3	2,2	6,3	9,1	4,4
	Construction	2,6	19,5	9,8	4,3	7,2	6,5	6,0
iţ	Wholesale and retail trade; repair of motor vehicles and motorcycles	12,4	22,8	45,3	5,5	44,9	4,9	14,4
Activity	Transportation and storage	17,3	25,2	17,2	1,3	32,9	27,4	18,5
Ā	Accommodation and food service activities	34,8	62,6	75,0	51,2	52,0	33,3	41,8
	Information and communication	39,3	49,8	57,1	25,6	31,3	51,1	41,3
	Real estate activities; Professional, scientific and technical activities	18,4	24,8	29,2	38,1	23,0	13,0	19,3
	Administrative and support activities; Repair of computers	31,0	30,0	7,1	43,4	32,1	22,5	28,5
Tota	al	18,0	27,6	23,8	14,7	25,6	15,5	20,7

F2: Percentage of the total turnover resulting from received orders that were placed via a website $^{2)}$

in percentages

	in percentages						
		Enterprises					
	Size class			Region			
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
1- 24%	84,2	77,6	73,2	85,9	89,0	70,4	81,8
25- 49%	7,9	10,9	6,0	8,1	8,2	9,7	8,7
50-74%	4,7	2,7	6,6	2,6	1,9	8,0	4,2
75-100%	3,2	8,8	14,3	3,4	0,9	11,9	5,3

¹⁾ The results refer only to enterprises that answered YES in question B1.

²⁾ The results refer only to enterprises that answered YES in question F1.

F3: In 2011, did your enterprise receive orders for products or services placed via EDI-type messages?

in percentages								
		S	ize clas	ss		Territory		
Enterprises		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		DA						
	Manufacturing	0,5	6,6	18,8	3,5	3,6	1,8	3,1
Activity	Electricity, gas and steam, water supply, sewerage and waste management	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	Construction	0,0	0,0	10,2	0,0	0,0	1,2	0,5
	Wholesale and retail trade; repair of motor vehicles and motorcycles	2,9	10,8	35,7	1,1	11,0	3,6	4,6
Ă	Transportation and storage	3,1	9,2	8,7	0,0	9,7	5,1	4,4
	Accommodation and food service activities	4,1	2,8	0,0	7,9	7,7	0,0	3,7
	Information and communication	7,4	12,6	28,6	0,0	2,2	14,3	8,7
	Real estate activities; Professional, scientific and technical activities	0,0	4,3	16,7	0,0	0,0	1,1	0,7
	Administrative and support activities; Repair of computers	7,6	5,0	0,0	13,8	0,0	6,5	6,4
Tota	ı	1,9	6,2	16,5	2,2	5,1	3,3	3,4

F4: Percentage of the total turnover resulting from received orders that were placed via EDI-type messages, in $2011?^{1)}$

in percentages

					"	i heice	iilayes
			E	nterprise	es		
	Size class			Region			
	Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
1- 24%	72,3	35,3	64,7	44,8	100,0	0,0	65,2
25- 49%	9,5	0,0	11,1	0,0	0,0	31,5	7,9
50-74%	18,2	35,2	0,0	47,0	0,0	47,3	20,2
75-100%	0,0	29,5	24,2	8,2	0,0	21,2	6,7

¹⁾ The results refer only to enterprises that answered YES in question F3.



F5: Ddid your enterprise place orders for products/services via the Internet, in 2011?

m percentages								
		S	Size clas	ss		Territory		
Enterprises		Small (10-49)	Medium (50-249)	Large (250+)	Central Serbia	Vojvodina	Belgrade	Total
		YES						
	Manufacturing	43,6	59,0	63,0	53,9	42,5	45,4	48,6
Activity	Electricity, gas and steam, water supply, sewerage and waste management	28,5	54,9	43,9	43,3	38,7	42,2	41,6
	Construction	26,5	50,1	48,6	34,0	29,3	31,6	31,7
	Wholesale and retail trade; repair of motor vehicles and motorcycles	40,4	59,6	61,2	50,0	72,8	42,2	51,7
Ă	Transportation and storage	36,8	52,2	56,6	54,0	54,9	59,7	56,0
	Accommodation and food service activities	36,0	58,2	41,7	48,7	46,2	33,8	40,7
	Information and communication	53,0	80,1	57,1	66,4	40,4	74,1	65,2
	Real estate activities; Professional, scientific and technical activities	44,5	82,0	66,7	43,4	50,6	63,8	58,0
	Administrative and support activities; Repair of computers	35,4	48,0	45,1	56,4	56,9	38,4	45,8
Tota		38,2	59,1	57,3	50,3	50,5	47,0	40,1

2.5. QUESTIONNAIRE

ICT USAGE IN ENTERPRISES

MODULE 2.A: SE OF COMPUTERS AND COMPUTER NETWORKS

	YES	NO	
A1 : Did your enterprise use computers in January 2012?		□ End	
A2: Please, indicate an estimate of the percentage of the total number of the persons employed who used computers at least once a week in January 2012.		%	
A3: Did your enterprise employ ICT/IT specialist/s in January	YES	NO	
2012? Definition ICT/IT specialist: capability to design, develop, install, operate, research and work on IT/ICT systems.			
Did your entermine requirit or trucks required IT ((CT) encoisticts	YES	NO	
A4: Did your enterprise recruit or try to recruit IT (ICT) specialists in January 2011?		Go to A6	
A5: Did your enterprise have hard-to-fill vacancies for jobs	YES	NO	
requiring IT (ICT) specialists (the candidate did not meet competition requirements) in January 2011?			
AC Did your enterroise provide training to percental to develop or	YES	NO	
A6: Did your enterprise provide training to personnel to develop or upgrade IT skills in January 2011?			
Training for IT/ICT specialists Tick No if your enterprise did not employ IT/ICT specialists during 2011.			
b) Training for other persons employed			

MODULE 2.B: ACCESS AND USE OF THE INTERNET

2	Distant		YES	NO		
2012	,	our enterprise have access to the Internet in January		Go to C1		
		our enterprise have the following types of external to the Internet in January 2012?	YES	NO		
	a)	DSL (xDSL, ADSL, SDSL, etc.) connection				
	b)	Other fixed broadband Internet connection (e.g. cable Internet, leased line – e.g. E1 or E3 at level 1 and ATM at level 2, Frame Relay, PLC)				
	c)	Dial-up access over telephone line or ISDN connection				
	d)	Mobile "broadband" connection via 3G modem or 3G device				
	e)	Other mobile connection (e.g. analogue mobile phone, GSM, GPRS, EDGE)				
your		was the maximum speed of the Internet connection in prise in January 2012 (contracted with an Internet				
	a)	Less than 2 Mbit/s				
	b)	At least 2, but less than 10 Mbit/s				
	c)	At least10, but less than 30 Mbit/s				
	d)	At least 30, but less than 100 Mbit/s				
	e)	At least 100 Mbit/s				
		e, indicate an estimate of the share of the total number of aployed who used the Internet in January 2012.		%		
20	D: 1		YES	NO		
B5 : 2012		our enterprise have a Website/Home Page, in January		Go to B7		



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B6 : Did the Webs	36 : Did the Website of your enterprise have any of the following						
	2012: (Your enterprise <u>as provider</u> of Internet	YES	NO				
goods/	ordering or reservation or booking of services						
	acy statement policy or certification related to e safety						
c) Access	s to product catalogues or price lists						
l '	payment						
e) Possib produc	illity for visitors to customise or design the						
,	nalised content in the website for r/repeated visitors						
g) Advert							
Public authorities' Internet services							
	both public services and administration – tax, customs, business rett, etc. Public authorities can be on local, regional or national level.	gistration, socia	security,				
ET: During January 2011, did your enterprise use public authorities' services over the Internet to: (excluding e-mails) YES NO							
a) obtain	information						
	forms, e.g. tax declarations						
informa	filled in forms, e.g. sending of statistical ation to public authorities						
registra	dministrative procedures completely electronically (ation, request for licenses) without the need for pap ent, if required)						
d1) I	Pay VAT						
d2)	Pay social contributions						
	Public electronic procurement						
authorities on national lev	curement refers to the use of the Internet by enterprises to offer well or to other EU countries. The e-procurement process is based on the availability of procurement notices and tender specifications) the	n a number of	stages from the				
line (electronically).	- e-tendering is the stage of an electronic public procurement process dealing with submission of tenders and proposals on line (electronically). - e-tendering excludes submission of bids by e-mails.						
R8 : During Janua	ry 2011, did your enterprise use the Internet to	YES	NO				
	uments in electronic public procurement	YES NO					

B9: During 2011, did your enterprise use the Internet to offer goods and services in public authorities' electronic public procurement systems?	YES	NO
a) In the Republic of Serbia		
b) In EU countries		
Use of mobile connection to the Internet for busin	ess use	
Enterprises in the scope of the following questions are those that provemployed portable devices that allow a mobile connection to the Inter-		
Portable devices that allow a connection to the Internet are: notebook smart phone or PDA phone.	, laptop, tab	let PC,
B10 : Did the persons employed in your enterprise have the possiblity to use portable devices to access the Internet for business use?	YES	NO
Tick »No« if the devices allowed Internet connection only via wireless networks and not via mobile telephone networks. (portable computers or other portable devices like Smartphone or PDA)		Go to B14
B11 : Did the persons employed in your enterprise use any of the following devices to access the Internet for business use?	YES	NO
Portable computers (laptop, notebook, tablet PC, netbook etc.)		
b) Other portable devices like Smartphone, PDA		
B12 : Please, indicate an estimate of the percentage of the total number of persons employed who used portable devices to access the Internet for business use? (portable computers or other portable devices like Smartphone or PDA)		%
B13 : Did the persons employed in your enterprise use portable devices to:	YES	NO
a) Access publicly available information on the Internet?		
b) To access the e-mail system of the enterprise?		
c) To access or modify documents of the enterprise?		
 d) To access dedicated business software applications (for orders or sales management – ERP application) 		



B14: Did your enterprise encounter any of the following obstacles preventing the use of mobile Internet for business use?					
			YES	NO	
	a)	Problems of connectivity to the Internet via mobile telephone networks			
	b)	High costs for subscription or use of the Internet			
	c)	Security related risks (disclosure, destruction or corruption of data)			
	d)	Technical obstacles (e.g. when accessing enterprise's applications via the Internet)			
	e)	Other obstacles (difficulties to adapt to new technologies)			
	f)	The enterprise did not have the need for a mobile connection to the Internet			

MODULE 2.C: AUTOMATIC SHARE OF INFORMATION <u>OUTSIDE</u> THE ENTERPRISE

Automatic share of information between enterprises and other ICT systems outside the enterprise refers to:				
- sending/receiving of messages (e.g. orders, invoices, payment transactions or production descriptions) via the Internet or other computer network in an agreed format which allows their automatic processing (e.g. XML, EDIFACT, etc.), excluding manually typed messages				
C1: In January 2012, did your enterprise use automatic share of information between enterprises and other ICT systems outside the enterprise?			YES	NO
				Go to D1
C2: Was the automatic share of information used for the following purposes?				
		YES	NO	
	a)	Sending payment instructions to financial institutions		
	b)	Sending or receiving product information (e.g. catalogues, price lists)		
	c)	Sending or receiving transport documents (e.g. consignment notes)		
	d)	Sending or receiving data to/from public authorities (e.g. tax returns, statistical data, etc.)		

MODULE 2.D: ELECTRONIC SHARE OF INFORMATION IN THE CHAIN OF SUPPLY MANAGEMENT

Electronic share of information in the chain of supply management means: - exchange of all types of information with suppliers and/or customers in order to coordinate the availability and delivery of products and services to the final consumer; - including information on demand forecasts, inventories, production, distribution or product development; - via computer networks, not only the Internet, but also via other computer connections between different enterprises. This information may exchanged via websites or other means of electronic data transfer (see definition in module C), but it excludes manually typed e-mail messages.			
D1 : Did your enterprise regularly share electronically information in	YES	NO	
the chain of supply management with its suppliers or customers, in January 2012?		Go to E1	
D2: Did your enterprise regularly share electronically information with its suppliers in language 20132	YES	NO	
with its <u>suppliers</u> , in January 2012? Information on: -inventory levels, production plans or demand forecasts -progress of delivery (i.e. distribution of raw materials or finished products)			
D3: Did your enterprise regularly share electronically information	YES	NO	
with <u>customers</u> , in January 2012? Information on: -inventory levels, production plans or demand forecasts -progress of delivery (i.e. distribution of raw materials or finished products)			



MODULE 2.E: AUTOMATIC SHARE OF INFORMATION $\underline{\text{WITHIN}}$ THE ENTERPRISE

Automatic share of information between different services of the enterprise refers to any of the following:				
- linkin - using enter	 using one single software application to support the different functions of the enterprise; linking data between software applications that support the different functions of the enterprise; using common databases or data storage accessed by the software applications that support the different functions of the enterprise; 			
- autor	natic share of information between different software systems (see the definition in mod	ule C).		
(eithe	In January 2012, when your enterprise received a sales order er electronically or not), was the relevant information about it ed electronically or automatically with the software used for the ving functions?	YES	NO	
	a) Management of inventory levels			
	b) Keeping accounting records			
	c) Management of production and services			
	d) Management of distribution			
(eithe	In January 2012, when your enterprise sent a purchase order er electronically or not), was the relevant information about it ed electronically or automatically with the software used for the ving functions?	YES	NO	
	a) Management of inventory levels			
	b) Keeping accounting records			
softw	In January 2012, did your enterprise have in use an ERP vare package to share information on sales and/or supplies	YES	NO	
betwo	een business functions (e.g. financing, planning, marketing,			
appli	In January 2012, did your enterprise have in use any software cation for managing information about customers (so-called l) that allows to:	YES	NO	
	 Capture, store and make available to other business functions information about customers? 			
	b) Analyse the information about customers for marketing purposes (setting prices, making sales promotion, choosing distribution channels, etc.)?			

MODULE 2.F: e-COMMERCE

e-COMMERCE:				
e-commerce refers to business communication and transfer of goods and services (purchase and sale) over computer networks, as well as to capital transfer, use of digital communication (ICT). e-commerce may be used via website or automatic share of information between enterprises, but excludes manually typed individual messages.				
e-sales				
Sales over the Internet				
F1 : In 2011, did your enterprise receive orders for products or	YES	NO		
services placed via a website (excluding manually typed e-mails)?		Go to F3		
F2: Please indicate the estimate of the percentage of the total turnover resulting from received orders that were placed via a website in 2011.	%			
EDI-type sales				
- EDI-type sales are sales made via EDI-type messages. EDI (Electronic Data Interchange) is used here as a generic concept for sending or receiving business information in an agreed standard fromat that allows their automatic processing (e.g. EDIFACT, UBL, XML).				
In 2014 did your automains associate and an forward water as	YES	NO		
In 2011, did your enterprise receive orders for products or services placed via EDI-type messages?		Go to F5		
F4: Please, indicate an estimate of the percentage of the total turnover resulting from received orders that were placed via EDI-type messages in 2011?	National currency			
Orders placed via the Internet				
Did companies also and as forest date/assissable	YES	NO		
F5: Did your enterprise place orders for products/services via the Internet in 2011?		□ End		



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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 co mmunication. The larger part of range serves for data sending to user and the speed extends up to 6 Mbps.

Bit (Binary Digit):

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

Broadband:

A communication system the agent (carrier) of which (e.g. optical cable) 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 relationships with them. CRM contains several technological components, but in organizational terms, CRM represents a set of processes for collecting necessary information on customers, sales, marketing efficiency, customers' reactions and market trends. CRM helps managing technologies and human resources in order to have a view of customers' behavior and value.

Downloading

Electronic transmission of information from a remote computer to your computer. Downloading of data files from 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 networks 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 the off-line ne twork. Orders re ceived by telephone, fax or e-mail do not fall into this category of e-commerce.

Digital goods or services:

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

E-mail:

Electronic transmission of messages, including text and 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. Therefore, alike the signature in staindard business, the electronic signature is used in electronic business. Besides, the latter secures electronically signed messages, which is not the case with personal signatures.

ERP (Enterprise Resource Planning):

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

Firewall:

A combination of hard ware and software keeping the system secure. It is usually used to prevent any unauthorized access to the internal local network from the outside. 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 which speed ranges up to 128 Kbps, which is several times faster than the analogous modem.

Local Area Network (LAN):

A local network that covers and connects a group of computers, printers and other units within a relatively limited location (e.g. building) . 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 e nables all the devices to interact. It can be of small range, linked w ith cables, wireless, permanently, temporary linked, ... The Internet is the largest network, the largest group of all interconnected world networks.

Server:

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

Virus:

A computer 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.

