





# USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE REPUBLIC OF SERBIA, 2021

Households/Individuals Enterprises



Usage of information and communication technologies in the Republic of Serbia, 2021

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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, plays the most important part in production, the economy and all other spheres in the life of individuals and 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 organisations dealing with financial and insurance activities. This undertaking was primarily meant to test and prepare the methodologies and instruments for the implementation of similar regular surveys related to households and the economy.

In the previous fifteen 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 carried out on the territory of the Republic of Serbia also in 2021 based on EUROSTAT methodology. Data for the Republic of Serbia excluded those for AP Kosovo and Metohija.

As for households and individuals, the three months preceeding the telephone interview were taken to be the reference period. For most of the questions asked to enterprises, reference period was January 2021, while selected ones referred to the entire 2020.

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 2800 households and 2800 individuals. The interview was conducted by telephone, and indirect answers were allowed (giving answers instead of the absent person).

The survey for enterprises was carried out on a sample stratified by size classes and activities, through telephone interview. The sample covered 1 573 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, which will serve as the basis for further development.

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# HOUSEHOLDS/INDIVIDUALS



# **1.1.** Methodology

Survey period	The survey was carried out from 15th February 2021 to 28th February 2021.
Type of survey	Telephone interview
Sample size	<ul><li>2 800 households</li><li>2 800 individuals</li></ul>
Target population	<ul> <li>For households: the target population is made of all households with at least one member aged between 16 and 74</li> <li>For individuals: the target population is made of all individuals aged between 16 and 74</li> </ul>
Type of sample	Two-stage, stratified sample
Geographical scope	Territory of the Republic of Serbia (without AP Kosovo and Metohija)

## **1.2.** Sample

The survey on ICT usage in households was conducted on a representative sample of  $2\,800$  households on the territory of the Republic of Serbia. The response rate was 89.8% ( $2\,513$  households).

#### Households

		Income			Reg	gion			e of ehold	
Sample (households)	Up to 300 euro	300–600 euro	More than 600 euro	Beoogradski	Vojvodine	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Urban	Other	Total
Number	721	801	619	619	704	662	528	1586	927	2513
%	33.7	37.4	28.9	24.6	28.1	26.3	21.0	63.1	36.9	100.0

The same sample was used both for households and individiuals aged between 16 to 74 living on the territory of the Republic of Serbia. The sample included 2 800 individuals. The response rate was 89.8% (2 513 persons).

#### Individuals

			,	Age			S	ex	Ed	ucatioi level	nal	Emį	oloym	ent st	atus	
Sample (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women	Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total
Number	113	164	239	405	545	1047	938	1575	332	1462	719	709	382	56	1366	2513
%	4.5	6.5	9.5	16.1	21.7	41.7	37.3	62.7	13.2	58.2	28.6	28.2	15.2	2.2	54.4	100.0

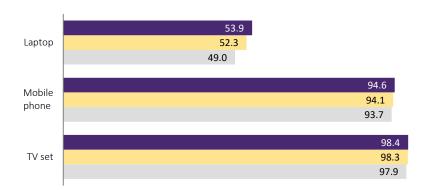
### 1.3. Main findings

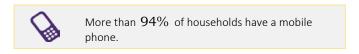
#### 1.3.1. Devices available in households

Households were offered to give more than one answer to the question related to the devices available in households. The survey shows that 98.4% of households have a TV set, and 94.6% a mobile phone.

There are 53.9% of households that have a laptop, which is an increase of 1.6% in relation to 2020, and 4.9% in relation to 2019.

Chart 1.1. Devices available in households (%)



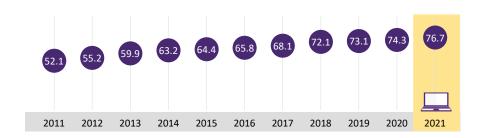




### 1.3.2. Computers in households

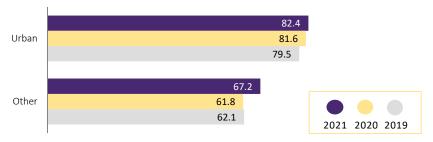
The main findings of the survey show that 76.7% of households in the Republic of Serbia have a computer, which is an increase of 2.4% and 3.6% in relation to 2020 and 2019, respectively. The percentage of computers in households varies depending on the territory: in Belgrade it amounts to 94.7%, in Vojvodina 72.2%, in Šumadija i Zapadna Srbija 69.1% and in Južna i Istočna Srbija 70.9%.

Chart 1.2. Computers in households (%)



The difference are visible when comparing the availability of computers in urban and other parts of Serbia: 82.4% versus 67.2%. In relation to 2020, this gap has slightly decreased, which is backed by growth rates of computer availability in urban and other parts of Serbia. The growth rate in the urban parts of Serbia is 0.8%, while it amounts to 5.4% in the other parts of Serbia, when compared to 2020.

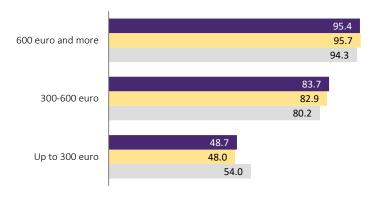
Chart 1.3. Percentage of households having a computer, by type of settlement (%)



The structure of households by monthly income is expressive of the gap as to the availability of computers in households. Computers are mostly available in households with a monthly income of more than 600 euro (95.4%), while households with an income up to 300 euro account for 48.7%.

When looking at the data for 2020, growth rates in certain categories of income for 2021 to the previous year indicate that the gap as to the availability of computers in households, by income level, decreased in 2021. As for households with an income of more than 600 euro the decrease was 0.3%, while households with in an income from 300 to 600 euro saw an increase of 0.8% in relation to 2020. Households with an income of less than 300 euro recorded an increase of 0.7%.

Chart 1.4. Percentage of households having a computer, by income level (%)





More than 48% of households with an income up to 300 euro have a computer.



#### 1.3.3. The Internet in households

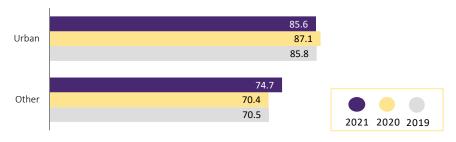
In the Republic of Serbia 81.5% of households have an Internet connection, which is an increase of 0.5% and 1.4%, when compared to 2020 and 2019, respectively.

Chart 1.5. Does the household have access to the Internet at home? (%)



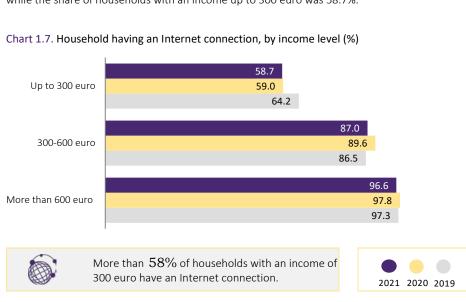
The highest percentage of Internet connection availability was observed in Belgrade, amounting to 92.9%. In Vojvodina it is 77.8%, in Šumadija i Zapadna Srbija 79.2% and in Južna i Istočna Srbija 76.1%.

Chart 1.6. Households having an Internet connection, by type of settlement (%)



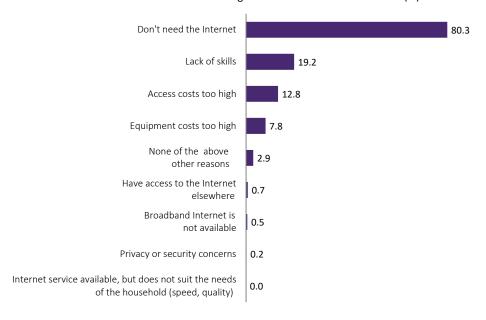
There are also considerable difference as to the percentage of Internet connection in urban and other settlements of Serbia: 85.6% versus 74.7%. When compared to 2020, urban settlements of Serbia saw a decrease of 1.5%, and in rural parts the growth rate was 4.3%.

As in computer availability in households, there is a large gap as regard Internet connection. When looking at the structure of households according to their monthly income level, Internet connection was mostly used by households which monthly income exceeded 600 euro (96.6%), while the share of households with an income up to 300 euro was 58.7%.



When asked about the reason why households do not have the Internet connection at home 80.3% said not needing the Internet was the reason, 7.8% indicated that equipment costs were too high, while 19.2% of households mentioned the lack of skills.

Chart 1.8. Reasons of households for not having an Internet connection at home (%)



Households were offered several answers to the question related to the type of connection used to access the Internet. The obtained results show that of the total number of households having an Internet connection, 91.7% have fixed broadband connection and 73.3% mobile broadband Internet connection.



More than 91% of households having the Internet have fixed broadband connection.

Chart 1.9. Type of 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 from the Internet. Accordingly, from 2005 the percentage of households having this type of Internet connection is taken to be one of the main indicators of ICT usage development in the European Union. In Serbia, 81.4% of households have a broadband connection, which is an increase of 0.6% and 1.8% in relation to 2020 and 2019, respectively. This type of Internet connection is most used in Belgrade 92.9%, in Vojvodina 77.8%, in Šumadija and Zapadna Srbija 79.2% and in Južna and Istočna Srbija 75.7%.

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Chart 1.10. Broadband Internet connection in households (%)

Broadband Internet connection is mostly available in households having a monthly income of more than 600 euro (96.6%), while the share of those with an income of up to 300 euro is only 58.7%

Large differences are also observed when comparing the use of this type of Internet connection in urban and other settlements of Serbia: 85.6% versus 74.5%.

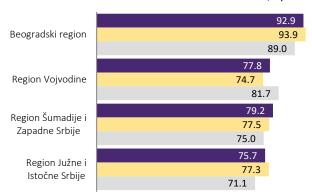


Chart 1.11. Broadband Internet connection in households, by territory (%)



### 1.3.4. Individuals: use of computers



More than 74% of persons have used a computer in the last three months.

In the Republic of Serbia, 74.8% of individuals have used a computer in the last three months, 2.1% more than three months ago, 5.5% more than one year ago, and 17.6% have never used a computer. The number of computer users increased by 2.1%, 4.1% and 5.2% compared to 2020, 2019 and 2018, respectively.



The number of users increased by more than 2% compared to 2020.

The share of computer users (in the last three months), by educatonal level:

- 90.1% of persons with tertiary educational level;
- 85.1% of persons with secondary educational level;
- 47.6% of persons with educational level lower than secondary.

Chart 1.12. When did you last use a computer? (%)

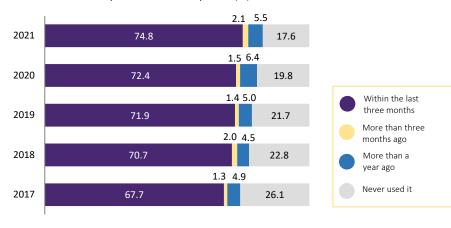
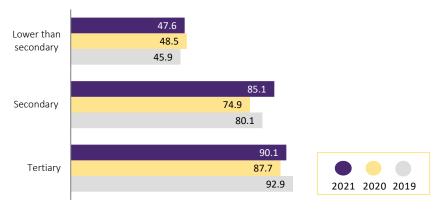
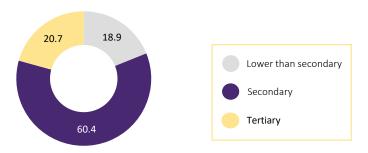


Chart 1.13. Share of computer users (in the last three months), by educational level (%)



Among computer users, 60.4% have secondary educational level, 18.9% lower than secondary level, and 20.7% tertiary educational level.

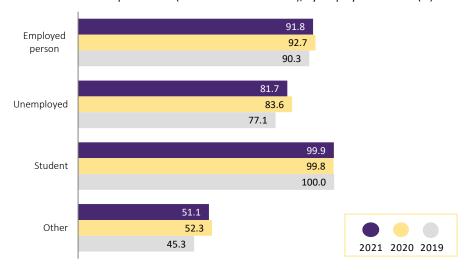
Chart 1.14. Educational structure of computer users (%)



The share of computer users (in the last three months), by employment status:

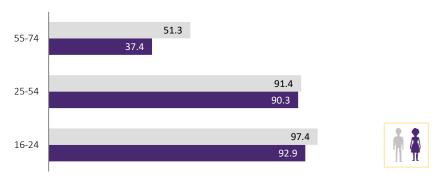
- 99.9% of strudents;
- 91.8% of employed persons;
- 81.7% of unemployed persons;
- 51.1% of others (retired persons, persons serving military service...).

Chart 1.15. Share of computer users (in the last three months), by employment status (%)



The analysis of the respondents by sex indicates that in the last three months 78.8% of men and 70.9% of women have used a computer.

Chart 1.16. Use of computers (in the last three months), by sex and age (%)

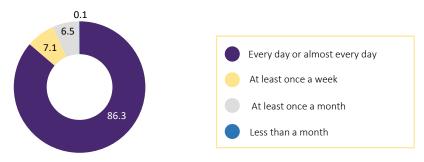


When asked how often, on average, the respondents have used a computer in the last three months, 86.3% said having used a computer every day or almost every day, 7.1% at least once a week, 6.5% at least once a month, and 0.1% less than once a month.



More than 64% of persons used a computer every day or almost every day.

Chart 1.17. How often, on average, have you used a computer in the last three month? (%)



### 1.3.5. Individuals: use of mobile phones

The survey indicates that 95.5% of persons use a mobile phone, while in 2020 this percentage was 94.1%.

Chart 1.18. Use of mobile phones (%)

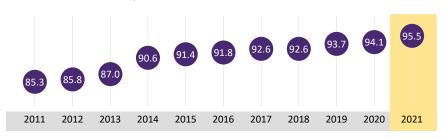


Chart 1.19. Use of mobile phones, by sex and age (%)





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

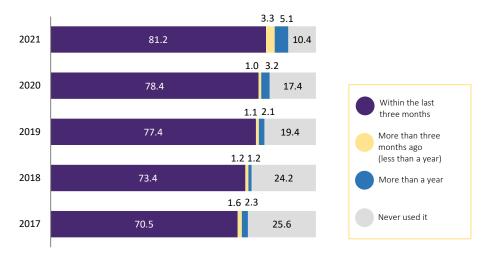
In Serbia, 81.2% of persons have used the Internet in the last three months, 3.3% of respondents used the Internet more than three months ago, and 5.1% more than one year ago. There were 10.4% of respondents that had never used the Internet.

The number of Internet users increased by 7.0%, 9.0% and 13.8% compared to 2020, 2019 and 2018, respectively.



The number of Internet users increased by 7% compared to 2020.

Chart 1.20. When did you last use the Internet? (%)



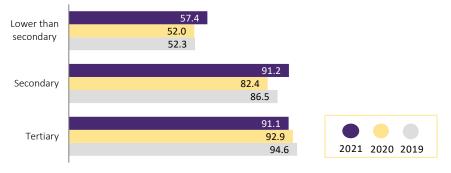


More than 81% of persons have used the Internet in the last three months.

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

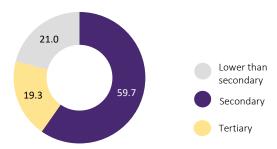
- 91.1% of persons with tertiary educational level;
- 91.2% of persons with secondary educational level;
- 57.4% of persons with lower than secondary educational level.

Chart 1.21. Share of Internet users (in the last three months), by educational level (%)



Among Internet users, 59.7% have secondary educational level, 21.0% lower than secondary educational level, and 19.3% tertiary educational level.

Chart 1.22. Educational structure of Internet users (%)



The share of Internet users (in the last three months), by employment status:

- 99.9% of students;
- 97.2% of employed persons;
- 90.1% of unemployed persons;
- 57.8% of others (retired persons, persons serving military service...).

Chart 1.23. Share of Internet users (in the last three months), by employment status (%)



More than 74% of persons use the Internet every day or almost every day.

2021 2020 2019

When asked how often, on average, they have used the Internet in the last three months, 92.3% of respondents said: every day or almost every day.

Chart 1.24. How often, on average, have you used the Internet in the last three months? (%)

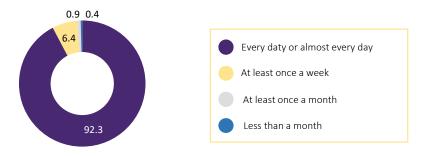


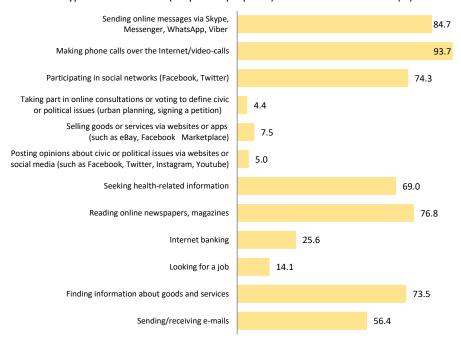
Chart 1.25. Use of the Internet (in the last three months), by sex and age (%)



The analysis of respondents by sex indicates that in the last three months 83.6% of men and 78.8% of women have used the Internet.

In the last three months the respondents have used the Internet mostly for sending online messages via *WhatsApp, Viber, Skype, Messenger* (84.7%), as well as for telephoning via the Internet/video-calls (93.7%).

Chart 1.26. Types of Internet use (for private purposes) in the last three months (%)







More than 74% of the Internet population has an account on social networks (Facebook, Twitter).

#### 1.3.7. E-government

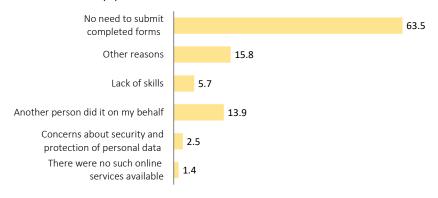
The survey indicates that 40.0% of Internet users use the Internet instead of personal contacts or visiting public institutions or public authorities.

Chart 1.27. For which of the following public authorities' services did you use the Internet? (%)



The suvey indicates that 37.0% of Internet population used the Internet for obtaining information from public authorities' websites, and 26.0% for downloading official forms.

Chart 1.28. Reasons for not having submitted completed forms to public authorities over the Intenet (%)



#### 1.3.8. E-commerce

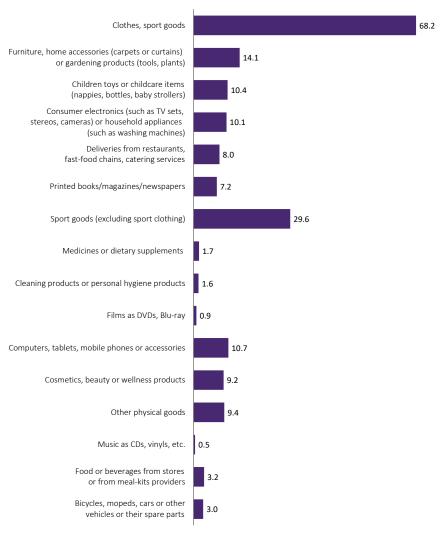
As regard the period when Internet users have bought/ordered goods or services via the Internet, 42.3% of users have bought/ordered goods/services in the last three months, 10.6% did it more than three months ago, and 8.2% more than a year ago.

Percentage of Internet users that have never bought/ordered goods or services over the Internet was 39%.

Chart 1.29. When did you last buy/order goods or services over the Internet (for private purposes)? (%)



Chart 1.30. Which of the following goods or services have you ordered (for private purposes) over the Internet in the last three months? (%)



The largest number of users buy/order clothes and sports goods over the Internet (68.2%) and household goods (29.6%).

Chart 1.31. How often have you bought/ordered goods or services over the Internet for private purposes in the last three months? (%)

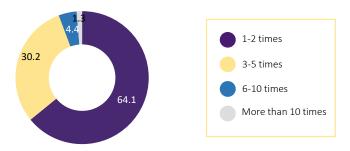
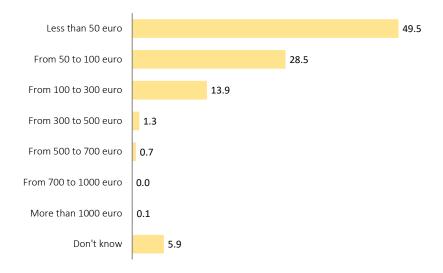


Chart 1.32. How much have you spent when buying/ordering goods or services over the Internet for private purposes in the last three months? (%)









# **PRESENTATION IN TABLES**



# 1.4. Survey findings

MODULE 1.A: Access to information and communication technologies

%

		Income			R	egion		, ,	oe of sehold	
Answer (households)	Up to 300 euro	300–600 euro	More than 600 euro	Beogradski	Vojvodine	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Urban	Other	Total
A1_N: Devices available in house	holds (tic	k all tha	t apply)							
Desktop computer	48.7	83.7	95.4	94.7	72.2	69.1	70.9	82.4	67.2	76.7
Laptop	28.7	58.9	72.5	79.5	44.2	48.1	43.9	58.1	46.8	53.9
TV	98.8	98.0	98.7	98.4	98.6	99.8	96.4	98.3	98.4	98.4
Mobile phone	87.2	97.4	99.8	96.5	94.5	94.8	92.1	96.3	91.8	94.6
A1: Do you or anyone in your hou	usehold h	ave acce	ess to th	e Inter	net at	home?				
Yes	58.7	87.0	96.6	92.9	77.8	79.2	76.1	85.6	74.7	81.5
No	41.3	13.0	3.4	7,1	22.2	20.8	23.9	14.4	25.3	18.5
A2: Type of Internet connection (	tick all th	at apply	') <sup>1)</sup>							
Fixed broadband Internet connection	83.1	91.9	96.3	94.9	93.8	87.3	89.9	94.8	85.7	91.7
Mobile broadband Internet connection	65.6	72.9	76.8	76.7	71.6	73.3	70.7	73.4	73.0	73.3

 $<sup>^{1)}\</sup>mbox{The data refer to households that answered "Yes" in question A1.$ 

# MODULE 1.A: Access to information and communication technologies

		Income			R	egion			oe of sehold	
Answer (households)	Up to 300 euro	300–600 euro	More than 600 euro	Beogradski	Vojvodine	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Urban	Other	Total
A3: What are the reasons for not l	naving a	ccess to	the Inte	rnet a	t hom	e (tick al	I that ap	ply) <sup>1)</sup>		
Have access to the Internet elsewhere	0.8	0.7	0.0	0.0	0.4	1.7	0.0	1.0	0.3	0.7
Don't need the Internet	78.4	80.2	85.8	71.2	82.9	82.2	78.4	80.8	79.7	80.3
Equipment costs too high	7.5	10.1	8.3	11.9	8.4	4.5	9.2	10.8	5.0	7.8
Access costs too high	10.6	14.3	37.6	28.8	11.1	12.9	8.5	14.5	11.2	12.8
Lack of skills	19.7	23.7	24.3	20.0	26.4	12.0	17.8	15.4	22.9	19.2
Privacy or security concerns	0.4	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.5	0.2
Broadband Internet not available	0.8	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.0	0.5
Internet service available, but does not suit the needs of our household (quality, speed)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
None of the above, other reasons	3.5	2.0	0.0	0.0	0.9	4.7	4.8	2.3	3.6	2.9

<sup>1)</sup> The data refer to households that answered "No" in question A1.

# $\label{eq:module} \mbox{MODULE B\_N: Use of computers}$

			Ag	ge			S	Sex
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women
					B1_N	I: When v	was the	last time
Within the last three months	95.2	96.9	93.2	82.6	55.7	31.4	78.8	70.9
More than three months ago (less than a year)	1.4	3.1	1.2	3.4	3.1	0.0	2.0	2.1
More than a year ago	3.4	0.0	4.6	7.1	7.4	9.6	5.3	5.7
Never used it	0.0	0.0	1.0	6.9	33.8	59.0	13.9	21.3
				B2_N:	: How oft	en, on av	/erage,	have you
Every day or almost every day	94.1	98.6	86.7	86.5	74.5	53.4	87.0	85.5
At least once a week	3.6	1.1	9.6	10.5	9.8	10.1	7.1	7.2
At least once a month	2.2	0.3	3.7	3.0	15.5	35.4	6.0	7.1
Less than once a month	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.2

 $<sup>^{1)}</sup>$  The data refer to individuals who answered "Within the last three months" in question B1\_N.

Edu	cational l	evel	E	mployme	ent statu	s		
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
you used	d a comp	uter?						
47.6	85.1	90.1	91.8	81.7	99.9	51.1	74.8	Within the last three months
1.7	2.7	0.7	2.0	2.3	0.0	2.2	2.1	More than three months ago (less than a year)
8.7	4.6	2.7	1.8	7.3	0.0	8.5	5.5	More than a year ago
42.0	7.6	6.5	4.4	8.8	0.1	38.2	17.6	Never used it
used a co	omputer	in the la	st three	months?	<b>)</b> 1)			
74.2	87.9	92.6	91.7	90.1	100.0	69.4	86.3	Every day or almost every day
11.9	6.7	4.1	6.0	8.0	0.0	10.0	7.1	At least once a week
13.5	5.4	3.3	2.3	1.8	0.0	20.3	6.5	At least once a month
0.4	0.0	0.0	0.0	0.1	0.0	0.3	0.1	Less than once a month

MODULE B: Use of the Internet

			Ą	ge			9	ex
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women
						B1: W	/hen dic	d you last
Within the last three months	98.1	97.0	97.4	94.7	70.4	33.9	83.6	78.8
More than three months ago (less than a year)	0.0	0.0	2.0	1.5	9.8	4.9	2.9	3.6
More than a year ago	1.9	3.0	0.6	0.8	5.8	18.2	4.7	5.5
Never used it	0.0	0.0	0.0	3.0	14.1	42.9	8.7	12.1
				B2:	How oft	ten, on av	verage,	have you
Every day or almost every day	98.4	97.0	94.3	93.8	84.2	75.0	92.5	92.2
At least once a week	1.6	3.0	4.0	5.9	14.1	17.6	6.1	6.7
At least once a month	0.0	0.0	0.6	0.3	1.0	7.1	1.4	0.3
Less than once a month	0.0	0.0	1.2	0.0	0.7	0.3	0.0	0.8
					B2.1	: Did you	use the	Internet
Yes	98.3	99.0	95.7	95.5	88.5	86.2	94.8	95.5
No	1.7	1.0	4.3	4.5	11.5	13.8	5.2	4.5
		B3: H	ave you	used any	of the fo	ollowing	levices	to access
Desktop computer	55.4	51.7	46.6	52.9	41.5	32.9	52.8	43.9
Laptop	37.8	42.6	30.6	35.0	27.1	23.5	36.6	31.0
Tablet	14.5	10.6	10.9	8.2	9.1	8.2	11.6	9.1
Mobile phone or smart phone	98.5	97.8	95.2	94.8	95.3	92.4	94.5	97.4
Other devices (smart TV, smart speakers, game consoles, e-book reader, smart watch)	12.6	12.0	7.8	7.5	6.6	3.9	10.8	6.7

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

<sup>&</sup>lt;sup>2)</sup> The data refer to individuals who answered "Every day or almost every day" in question B2.

Edu	cational le	evel	E	mployme	ent status	5		
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
use the I	nternet?							
57.4	91.2	91.1	97.2	90.1	99.9	57.8	81.2	Within the last three months
4.4	2.3	4.4	1.9	2.9	0.1	5.3	3.3	More than three months ago (less than a year)
11.7	2.3	2.5	0.3	3.1	0.0	11.6	5.1	More than a year ago
26.4	4.2	2.0	0.6	3.9	0.0	25.3	10.4	Never used it
used the	Internet	in the la	st three	months <sup>2</sup>	? <sup>1)</sup>			
88.8	92.9	94.6	96.0	92.0	100.0	85.2	92.3	Every day or almost every day
7.9	6.3	5.2	3.7	6.6	0.0	11.9	6.4	At least once a week
1.5	0.8	0.3	0.3	0.4	0.0	2.4	0.9	At least once a month
1.8	0.0	0.0	0.0	1.0	0.0	0.5	0.4	Less than once a month
several t	imes dur	ing the d	ay?²)					
93.0	95.2	97.3	95.7	97.2	99.2	90.8	95.2	Yes
7.0	4.8	2.7	4.3	2.8	0.8	9.2	4.8	No
the Inter	net in th	e last thr	ee mont	:hs? 1)				
32.1	50.7	58.9	54.6	44.0	70.6	38.0	48.4	Desktop computer
19.3	32.2	54.8	40.5	23.7	61.7	27.5	33.8	Laptop
8.6	9.7	14.2	12.1	7.2	21.1	8.2	10.3	Tablet
95.8	95.8	96.7	96.3	95.3	100.0	95.2	95.9	Mobile phone or smart phone
4.2	9.0	13.2	11.9	6.3	21.1	3.5	8.8	Other devices (smart TV, smart speakers, game consoles, e-book reader, smart watch)

MODULE B: Use of the Internet

	Age						Sex	
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women
B4: For which of the following activities have you								
Sending/receiving e-mails	61.0	71.2	63.3	52.9	42.7	25.5	56.8	56.0
Making calls over the Internet/video calls	97.9	97.7	93.5	90.8	90.3	90.1	94.3	93.0
Participating in social networks (Facebook, Twitter)	96.2	92.3	76.3	66.5	55.7	37.8	74.0	74.6
Sending online messages via WhatsApp, Viber, Skype, Messenger	97.8	93.7	87.9	79.9	74.1	60.4	84.8	84.6
Reading online newspapers, magazines	55.9	79.4	82.2	82.4	80.5	71.0	75.6	78.0
Seeking health-related information	55.7	74.7	73.4	71.8	71.2	53.7	62.5	75.7
Finding information about goods and services	63.5	86.0	76.6	78.5	67.6	48.1	73.3	73.6
Expressing opinions about civic or political issues via websites or social media (such as Facebook, Twitter, Instagram, You tube)	7.4	7.9	4.2	4.5	2.1	2.3	4.5	5.5
Taking part in online consultations or voting to define civic or political issues (urban planning, signing a petition)	5.7	8.3	3.5	3.6	2.1	1.1	3.8	5.0
Looking for a job or sending a job application	13.1	25.5	20.5	9.4	3.6	1.4	14.6	13.6
Looking for a job or sending a job application online (such as <i>eBay, Facebook, Marketplace</i> )	4.3	12.3	9.4	8.3	3.2	1.8	9.5	5.4
Internet banking	20.3	31.3	32.7	24.8	20.1	12.2	23.4	27.8

 $<sup>^{1)}</sup>$  The data refer to individuals that answered "Within the last three months" in question B1.

							ı	
Edu	cational le	evel	E	mployme	ent statu	s		
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
used the	Internet	for priva	ate purpo	oses in t	he last tl	nree moi	nths?¹) (t	ick all that apply)
26.7	58.2	83.4	68.6	54.7	84.3	32.8	56.4	Sending/receiving e-mails
92.1	93.6	95.8	96.0	90.3	95.5	93.2	93.7	Making calls over the Internet/video calls
64.5	76.6	77.8	76.8	75.8	98.3	63.2	74.3	Participating in social networks (Facebook, Twitter)
77.8	85.9	88.4	87.3	83.6	93.5	79.7	84.7	Sending online messages via WhatsApp, Viber, Skype, Messenger
60.0	79.9	85.6	84.0	77.6	63.5	67.8	76.8	Reading online newspapers, magazines
52.7	71.7	78.5	76.2	64.7	73.3	61.2	69.0	Seeking health-related information
50.2	78.2	84.3	83.1	72.6	81.5	57.5	73.5	Finding information about goods and services
2.0	4.7	9.0	6.2	3.8	9.6	3.3	5.0	Expressing opinions about civic or political issues via websites or social media (such as Facebook, Twitter, Instagram, You tube)
0.0	4.1	10.0	5.7	2.7	12.2	2.4	4.4	Taking part in online consultations or voting to define civic or political issues (urban planning, signing a petition)
7.5	14.4	20.3	11.5	23.7	29.2	4.6	14.1	Looking for a job or sending a job application
3.8	7.8	10.4	11.0	6.6	10.4	2.1	7.5	Looking for a job or sending a job application online (such as <i>eBay,</i> <i>Facebook, Marketplace</i> )
8.7	22.9	52.1	39.1	15.7	38.9	11.6	25.6	Internet banking

# MODULE B: Use of the Internet

	Age								
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women	

### B5: Which of the following learning activities have you performed over the Internet

Doing an online course	18.9	11.1	7.4	4.2	3.6	0.8	5.9	10.3
Finding online learning materials (audio-visual materials, online learning software, electronic textbooks)	64.4	37.5	18.6	21.4	9.4	6.5	25.2	29.3

<sup>&</sup>lt;sup>1)</sup> The data refer to individuals who answered "Within the last three months" in question B1.

Edu	cational l	evel	Employment status					
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)

### for educational, private or professional purposes in the last three months?1)

Doing an online cour	8.1	5.1	34.5	4.8	8.2	17.4	6.6	3.8
Finding online learning materials (audi visual materials, online learnii software, electronic textbooks.	Findi 27.2	23.7	77.8	17.1	28.7	41.6	25.3	19.4

MODULE C: Use of e-government

			Aį	ge			Sex			
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women		
		C1: Which of the following public auth								
Obtaining information from websites or apps	32.6	44.8	42.4	39.4	27.4	26.4	38.9	35.1		
Downloading/printing official forms	19.0	36.7	27.8	28.7	18.5	17.5	26.3	25.7		
Submitting completed forms online	18.4	26.1	22.5	22.6	15.6	12.3	20.1	21.2		
	C2:	What we	ere the re	easons fo	r not sub	mitting o	complet	ed forms		
No need to submit completed forms	75.0	64.2	71.7	60.7	51.7	53.5	62.3	64.7		
There were no such online services available	0.7	5.1	0.0	1.2	0.6	0.7	1.9	0.9		
Lack of skills	0.8	3.6	2.0	4.9	13.8	12.0	4.4	7.0		
Concerns about security and protection of personal data	1.6	4.7	1.5	2.1	3.6	1.0	2.4	2.7		
Another person did it on my behalf	6.7	9.0	7.8	16.8	24.6	21.6	13.4	14.5		
Other reasons	15.1	14.1	17.0	18.5	13.8	15.6	18.0	13.5		

<sup>1)</sup> The data refer to individuals who answered "Within the last three months" or "More than three months ago (less than a year)" in question B1.

 $<sup>^{2)}</sup>$  The data refer to individuals who answered "Submitting completed forms" in question C1 ".

		s	ent statu	Employme	E	evel	ıcational l	Edu
Одговор (лица)	Total	Other	Student	Unemployed	Employed	Tertiary	Secondary	Lower than secondary
es?¹) (tick all that apply)	e purpos	or privat	nonths f	last 12 m	et in the	ne Interne	u used th	have yo
Obtaining information from websites or apps	37.0	25.5	54.4	28.9	47.9	64.3	36.1	15.2
Downloading/printing official forms	26.0	14.3	34.8	17.5	38.5	51.4	25.1	5.8
Submitting completed forms online	20.6	9.2	32.1	11.9	32.7	44.5	18.3	5.5
st 12 months? <sup>2)</sup>	in the la	purpose:	private	rnet, for	the Inte	ties over	c authori	to public
No need to submit completed forms	63.5	61.6	73.2	59.5	67.3	59.1	62.1	69.0
There were no such online services available	1.4	0.5	1.9	2.5	1.1	4.1	1.4	0.0
Lack of skills	5.7	9.5	2.6	3.6	4.5	9.4	4.2	7.2
Concerns about security and protection of personal data	2.5	2.2	2.4	2.1	3.3	4.1	2.6	1.6
Another person did it on my behalf	13.9	17.2	8.7	15.3	10.4	16.5	15.2	9.5
Other reasons	15.8	13.3	11.5	18.9	16.1	13.0	16.6	15.4

MODULE D: E-commerce<sup>1)</sup>

				Sex				
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women
				D	1: When	did you	last buy	or order
Within the last three months	54.4	50,.1	53.1	39.4	24.4	18.1	39.4	45.2
More than three months ago (less than a year)	18.0	17.0	9.4	7.1	6.2	4.7	10.2	11.1
More than a year ago	5.3	11.1	6.1	9.3	9.1	6.8	10.0	6.3
Never	22.3	21.9	31.5	44.2	60.2	70.4	40.4	37.5
	D2: Wh	nat types	of goods	and serv	rices have	e you ord	lered/b	ought via
Clothes, sport goods	74.6	69.0	72.5	70.0	44.3	54.2	61.0	74.6
Sport goods (excluding sport clothing)	23.5	29.3	37.7	33.0	17.6	14.7	33.7	26.0
Children toys or childcare items (nappies, bottles, baby strollers)	0.0	19.6	12.3	9.2	6.3	9.6	9.1	11.6
Furniture, home accessories (carpets or curtains) or gardening products	5.4	11.6	19.5	11.9	20.5	27.1	14.8	13.6
Music as CDs, vinyls, etc.	0.0	0.0	1.7	0.0	0.0	1.0	0.7	0.3
Films as DVDs, Blu-ray	1.5	0.0	1.7	0.7	0.0	0.0	0.9	0.8
Printed books/magazines/newspapers	10.3	4.6	6.8	8.3	7.3	3.7	7.0	7.3
Computers, tablets, mobile phones or accessories	11.9	15.8	6.7	8.0	12.8	11.9	16.0	5.9
Consumer electronic (TV sets, stereos, cameras) or household appliances (such as washing machines)	6.6	11.5	9.9	7.5	15.2	21.2	14.0	6.7
Medicines or dietary supplements	0.0	0.8	0.0	4.0	4.0	11.3	1.3	2.0
Deliveries from restaurants, fast-food chains, catering services	12.6	5.5	9.7	6.8	4.2	2.5	9.2	6.9
Food or beverages from stores or from meat-kits providers	5.7	1.7	1.8	4.1	4.0	4.6	2.8	3.6
Cosmetics, beauty or wellness products	7.3	12.1	9.1	8.0	10.7	3.6	5.3	12.7
Cleaning products or personal hygiene products	0.0	1.0	1.4	1.2	6.4	2.9	0.9	2.2
Bicycles, mopeds or other vehicles or spare parts	1.8	5.3	2.0	2.4	3.5	3.8	3.7	2.3
Other physical goods	6.3	9.2	9.2	10.9	13.4	9.4	11.9	7.2

<sup>&</sup>lt;sup>1)</sup> The data refer to individuals who answered "Within the last three months" or "More than three months ago (less than a year)" in question B1.

<sup>&</sup>lt;sup>2)</sup> The data refer to individuals who answered "Within the last three months" in question D1.

			nt status	mployme	E	vel	cational le	Educ
Answer (individuals)	Total	Other	Student	Unemployed	Employed	Tertiary	Secondary	Lower than secondary
		oses? 1)	ate purp	for priv	Internet	over the	services	goods or
Within the last three months	42.3	27.6	66.8	40.8	49.7	50.0	44.7	28.9
More than three months ago (less than a year)	10.6	10.0	12.4	10.3	11.0	14.4	10.2	8.4
More than a year ago	8.2	7.7	14.8	7.7	7.8	9.5	8.3	6.5
Never	39.0	54.7	6.1	41.2	31.5	26.1	36.8	56.2
all that apply) <sup>2)</sup>	hs? (tick	ee mont	last thre	es in the	e purpos	or private	or apps fo	website o
Clothes, sport goods	68.2	54.7	89.2	69.8	68.3	64.1	68.2	74.9
Sport goods (excluding sport clothing)	29.6	20.0	26.3	27.8	35.0	31.4	33.8	9.5
Children toys or childcare items (nappies, bottles, baby strollers)	10.4	3.7	0.0	11.8	14.3	10.8	12.4	1.6
Furniture, home accessories (carpets or curtains) or gardening products	14.1	14.3	5.4	19.5	12.8	19.5	12.3	13.4
Music as CDs, vinyls, etc.	0.5	0.2	0.0	0.0	1.0	0.0	0.8	0.0
Films as DVDs, Blu-ray	0.9	0.0	2.8	0.0	1.3	0.0	1.4	0.0
Printed books/magazines/newspapers	7.2	4.8	18.7	3.5	7.8	10.7	7.5	0.0
Computers, tablets, mobile phones or accessories	10.7	13.4	7.0	4.5	13.8	14.6	9.8	8.2
Consumer electronic (TV sets, stereos, cameras) or household appliances (such as washing machines)	10.1	15.3	0.0	10.9	9.7	14.2	9.3	7.0
Medicines or dietary supplements	1.7	3.1	0.0	1.1	1.8	3.7	1.2	0.8
Deliveries from restaurants, fast-food chains, catering services	8.0	4.7	15.4	3.7	10.1	12.1	7.3	4.3
Food or beverages from stores or from meat-kits providers	3.2	3.5	6.1	2.0	3.3	3.9	3.4	1.6
Cosmetics, beauty or wellness products	9.2	2.3	21.5	6.3	11.1	12.8	9.4	2.9
Cleaning products or personal hygiene products	1.6	3.7	0.0	1.4	1.2	2.0	1.1	2.7
Bicycles, mopeds or other vehicles or spare parts	3.0	4.4	1.5	2.9	2.8	2.0	4.0	0.0
Other physical goods	9.4	11.5	5.2	7.7	10.4	8.2	11.0	4.6

# MODULE D: E-commerce<sup>1)</sup>

			Ag	ge			Sex		
Answer (individuals	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women	
		D3: Fro	n whom	have you	ı bought	the ment	tioned g	oods via	
National sellers	99.3	96.3	99.3	98,.0	98,.0	99.6	97.5	98.9	
Sellers in EU countries	7.2	9.2	4.0	4.5	8.5	6.3	7.2	5.6	
Sellers from the rest of the world	12.3	9.9	6.8	8.2	6.3	4.4	11.3	6.2	
Country of sellers is not known	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	D4: Di	id you bu	y any of	the ment	ioned go	ods from	private	persons	
Yes	31.2	41.1	31.0	39.8	36.5	17.8	40.3	30.3	
No	68.8	58.9	69.0	60.2	63.5	82.2	59.7	69.7	
D5: Have you bought or subscr	ibed to a	ny of the	followin	g via a w	ebsite or	app for p	orivate p	ourposes	
Music as a streaming service or downloads	7.6	3.5	0.9	3.1	0.7	1.3	3.7	2.6	
Films or series as a streaming service or downloads	17.5	11.2	3.3	2.6	2.7	3.1	8.4	6.5	
E-books, online magazines or online newspapers	6.7	2.3	3.8	2.0	1.0	2.3	2.7	3.9	
Games online as downloads for smart phones, tablets, computers or consoles	15.7	7.5	5.4	3.6	1.1	4.0	10.0	4.2	
Computer or other software as downloads, including upgrades	2.7	1.8	3.7	0.0	0.0	1.3	3.7	0.4	
Apps related to health or fitness (excluding free apps)	3.0	1.0	1.4	0.0	0.7	1.1	1.4	1.3	
Other apps (related learning languages, travelling, weather), excluding free apps	3.0	0.6	1.2	1.0	3.0	0.4	2.9	0.2	
Didn't buy or subscribe to any of the above	64.4	83.2	88.6	88.7	92.5	91.7	81.4	85.5	
D6	: Have yo	ou bough	or subs	cribed to	any of th	ne followi	ng via a	website	
Tickets for sport events	3.4	0.0	2.1	2.7	0.0	1.2	2.8	3.0	
Tickets for cultural or other events	3.3	0.0	1.5	3.3	0.4	0.9	2.3	1.1	
Subscription to the Internet or mobile phone connections	3.9	4.7	2.3	3.7	6.4	3.6	2.3	5.2	

<sup>&</sup>lt;sup>1)</sup> The data refer to individuals who answered "Within the last three months" or "More than three months ago (less than a year)" in question B1.

The data refer to individuals who answered "Yes" to any of the options in question D2.

<sup>&</sup>lt;sup>3)</sup> The data refer to individuals who answered "Within the last three months" in question D1.

		;	ent status	Employm	E	evel	cational le	Educ
Answer (individuals)	Total	Other	Student	Unemployed	Employed	Tertiary	Secondary	Lower than secondary
				onths) <sup>2)</sup>	three mo	the last	of app in	website o
National sellers	98.3	99.9	100.0	99.0	96.9	94.8	99.2	100.0
Sellers in EU countries	6.4	2.2	7.9	2.9	9.6	15.2	4.6	0.0
Sellers from the rest of the world	8.6	6.4	13.2	5.7	10.2	14.2	7.1	6.3
Country of sellers is not known	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		ce)? <sup>2)</sup>	1arketpla	ebook, N	Вау, Ғас	pp (on el	site or a	via a web
Yes	35.0	24.7	40.7	27.0	42.3	37.7	36.6	24.4
No	65.0	75.3	59.3	73.0	57.7	62.3	63.4	75.6
	3)	at apply	tick all th	ntent? (	media co	ths multir	t 3 mont	in the las
Music as a streaming service or downloads	3.1	4.9	6.1	1.1	2.9	3.9	3.0	2.4
Films or series as a streaming service or downloads	7.4	6.2	25.3	3.3	6.6	10.0	5.1	13.1
E-books, online magazines or online newspapers	3.3	2.5	11.5	2.6	2.4	3.8	3.9	0.0
Games online as downloads for smart phones, tablets, computers or consoles	6.9	10.2	19.5	3.9	4.8	6.5	7.1	6.9
Computer or other software as downloads, including upgrades	2.0	1.4	6.8	1.8	1.3	3.3	1.9	0.0
Apps related to health or fitness (excluding free apps)	1.3	3.8	0.6	0.6	0.8	2.6	1.0	0.0
Other apps (related learning languages, travelling, weather), excluding free apps	1.5	3.5	0.6	0.2	1.7	3.6	1.1	0.0
Didn't buy or subscribe to any of the above	83.6	81.6	60.6	92.7	83.8	75.9	86.8	82.0
nly) <sup>3)</sup>	I that ap	? (tick a	e months	last thre	s in the	purpose	r private	or app fo
Tickets for sport events	1.7	0.2	6.5	0.0	2.3	0.7	2.0	2.4
Tickets for cultural or other events	1.7	0.8	4.3	1.0	1.9	2.7	1.1	2.5
Subscription to the Internet or mobile phone connections	3.8	4.4	2.3	2.0	4.9	5.2	3.1	4.8

MODULE D: E-commerce<sup>1)</sup>

			Αį	ge			S	Sex	
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women	
Subscription to electricity, water or heating supply, waste disposal or similar services	0.9	1.6	1.9	4.1	2.8	6.2	1.8	2,.7	
Household services (such as cleaning, baby sitting, repair work, gardening) (also when bought from private persons, e.g. Facebook Marketplace)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Didn't buy or subscribe to any of the above	91.7	93.7	95.2	87.7	91.4	91.5	92.0	92.6	
	D8: Have you bought any transport service via a website								
Enterprises for transport by bus, train, taxi (e.g. UBER)	7.7	2.5	5.4	7.5	4.0	7.2	7.4	3.8	
A private person	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Never bought any transport service	92.3	97.5	94.6	92.5	96.0	92.8	92.6	96.2	
		D9	: Did you	ı rent acc	commoda	ation via	a websi	te or app	
Enterprises such as hotels or travel agencies	4.8	6.8	4.7	5.9	3.0	4.9	7.3	3.4	
A private person (such as Airbnb)	4.7	1.9	2.3	0.5	0.0	0.0	2.2	1.8	
Didn't rent accommodation via a website or app	93.1	91.3	93.0	93.7	97.0	95.1	91.0	95.2	
		D11: I	How mar	ıy times l	nave you	bought g	oods o	r services	
1-2 times	64.4	54.0	69.4	65.6	67.4	67.6	65.8	62.6	
3-5 times	30.1	36.9	27.2	28.1	28.3	28.1	28.6	31.6	
6-10 times	4.0	6.3	2.8	5.4	3.9	3.0	5.2	3.8	
More than 10 times	1.5	2.8	0.6	0.8	0.4	1.3	0.4	2.0	

<sup>1)</sup> The data refer to individuals who answered "Within the last three months" or "More than three months ago (less than a year)" in question B1

<sup>&</sup>lt;sup>2)</sup> The data refer to individuals who answered "Within the last three months" in question D1.

Edu	cational le	evel	E	mployme	ent status			
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
0.0	1.5	5.9	4.2	0.0	1.7	0.9	2.3	Subscription to electricity, water or heating supply, waste disposal or similar services
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Household services (such as cleaning, baby sitting, repair work, gardening) (also when bought from private persons, e.g. Facebook Marketplace)
90.4	93.8	89.5	89.3	97.0	91.2	94.0	92.3	Didn't buy or subscribe to any of the above
for priva	te purpo:	ses in the	last thre	e montl	ns from?	(tick all	that app	(y) <sup>2)</sup>
9.2	3.2	9.4	8.0	1.9	12.4	0.5	5.5	Enterprises for transport by bus, train, taxi (e.g. <i>UBER</i> )
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A private person
90.8	96.8	90.6	92.0	98.1	87.6	99.5	94.5	Never bought any transport service
for priva	te purpo:	ses in the	last thre	e montl	hs from 2			Trever bought unit transport service
4,.9	3.7				13 11 0111:	(tick all	that app	, ,
	3.7	9.7	6.9	3.6	9.9	(tick all	that app 5.3	, ,
0.0	2.3	9.7	6.9 3.0	3.6		•		(y) <sup>2)</sup> Enterprises such as hotels or travel
95.1					9.9	1.1	5.3	(y) <sup>2)</sup> Enterprises such as hotels or travel agencies
	2.3 94.8	2.6 87.7	3.0 90.7	96.2	9.9 6.0 86.8	1.1	5.3	Enterprises such as hotels or travel agencies A private person (such as <i>Airbnb</i> ) Didn't rent accommodation via a
95.1	2.3 94.8	2.6 87.7	3.0 90.7	96.2	9.9 6.0 86.8	1.1	5.3	Enterprises such as hotels or travel agencies A private person (such as <i>Airbnb</i> ) Didn't rent accommodation via a
95.1	2.3 94.8 te purpo:	2.6 87.7 ses in the	3.0 90.7	96.2 ee montl	9.9 6.0 86.8	1.1 0.0 98.9	5.3 2.0 93.2	Enterprises such as hotels or travel agencies A private person (such as <i>Airbnb</i> ) Didn't rent accommodation via a website or app
95.1 for priva 74.7	2.3 94.8 te purpo:	2.6 87.7 ses in the	3.0 90.7 e last three	0.2 96.2 ee month 70.9	9.9 6.0 86.8 ns? <sup>2)</sup> 74.1	1.1 0.0 98.9	5.3 2.0 93.2	Enterprises such as hotels or travel agencies A private person (such as Airbnb) Didn't rent accommodation via a website or app

MODULE D: E-commerce

			A	ge			S	ex
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women
		D	12: How	much mo	ney have	e you spe	nt on p	urchases
Less than 50 euro	55.4	42.6	48.2	55.2	48.6	44.3	45.1	53.4
From 50 to 100 euro	23.8	24.1	35.6	26.0	27.2	41.7	26.9	29.9
From 100 to 300 euro	12.2	24.0	10.7	9.9	12.5	9.6	18.3	10.1
From 300 to 500 euro	1.3	1.3	0.6	2.3	1.2	2.7	1.0	1.7
From 500 to 700 euro	0.0	1.0	0.4	0.5	3.1	0.4	0.8	0.7
From 700 to 1000 euro	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.1
More than 1000 euro	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.1
Don't know	7.4	7.0	4.5	5.6	6.9	1.3	8.0	4.1
D13: Have you encou	ıntered	any of th	ne follow	ing probl	ems whe	n buying	via a w	ebsite or
Website was difficult to use or worked unsatisfactorily (complicated, confusing)	0.0	5.0	0.0	2.7	0.4	0.0	1.1	2.2
Difficulties in finding information concerning guarantees or other legal rights	0.0	7.6	0.0	0.3	0.4	1.2	1.7	2.0
Speed or delivery slower than indicated	10.5	10.6	7.5	6.4	7.1	5.4	7.7	9.1
Final costs higher than indicated (e.g. unexpected transaction fees)	0.0	0.0	0.0	0.7	0.0	1.8	0.4	0.0
Wrong or damaged goods/services delivered	5.0	8.1	2.3	4.6	6.7	9.1	4.7	5.6
Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.)	0.0	1.8	1.2	0.3	0.0	0.4	0.9	0.7
Complaints and redress were difficult or no satisfactory response after complaint	0.0	1.8	0.0	0.9	0.0	0.9	0.8	0.4
Foreign retailer did not sell in my country	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	4.7	1.7	1.5	1.2	2.4	1.5	1.7	2.6
	1/	1.7	1.5	1.2	۷.٦	1.3	1.7	

<sup>1)</sup> The data refer to individuals who answered "Within the last three months" in question D1.

82.7

I have not encountered any problem

48 www.stat.gov.rs

78.1

88.5

86.4

84.4

82.6

85.6

82.8

								/8
Edu	cational le	evel	E	mploym	ent status			
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
for privat	te purpo:	ses in the	last thre	ee mont	hs? (tick	all that a	pply)1)	
65.3	49.5	39.1	46.7	54.8	53.6	46.8	49.5	Less than 50 euro
16.3	29.5	33.7	29.9	24.2	26.0	32.3	28.5	From 50 to 100 euro
16.8	12.2	16.8	14.6	13.1	11.0	14.8	13.9	From 100 to 300 euro
0.0	1.6	1.5	1.7	1.8	0.0	0.5	1.3	From 300 to 500 euro
0.0	0.4	2.3	1.5	0.0	0.0	0.2	0.7	From 500 to 700 euro
0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	From 700 to 1000 euro
0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1	More than 1000 euro
1.6	6.8	6.2	5.3	6.1	9.4	5.4	5.9	Don't know
app for p	rivate pu	ırposes ir	n the last	three n	nonths? (	tick all tl	nat apply	/) <sup>1)</sup>
8.4	0.6	0.2	1.6	3.4	0.0	0.0	1.7	Website was difficult to use or worked unsatisfactorily (complicated, confusing)
6.0	1.3	0.4	1.1	5.0	0.0	0.0	1.8	Difficulties in finding information concerning guarantees or other legal rights
7.2	8.0	10.3	9.6	7.8	7.1	7.0	8.4	Speed or delivery slower than indicated
0.0	0.3	0.0	0.0	0.5	0.0	0.3	0.2	Final costs higher than indicated (e.g. unexpected transaction fees)
16.4	3.1	3.6	4.9	5.3	6.9	4.8	5.2	Wrong or damaged goods/services delivered
0.0	1.2	0.3	0.5	2.2	0.0	0.1	0.8	Problems with fraud encountered (e.g. no goods/services received at all, misuse of credit card details, etc.)
0.0	0.8	0.4	1.0	0.0	0.0	0.8	0.6	Complaints and redress were difficult or no satisfactory response after complaint
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Foreign retailer did not sell in my country
0.0	2.0	3.9	2.3	1.8	2.7	2.1	2.2	Other
76.6	86.1	83.8	84.1	82.4	86.0	85.7	84.1	I have not encountered any problem

### MODULE D: E-commerce<sup>1)</sup>

		Sex						
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women

### D14: Have you carried out any of the following activities via a website or app

Buy insurance policies, including travel insurance, also as a package with another service, e.g. with plane ticket	0.0	0.0	0.2	1.3	0.3	0.5	0.6	0.1
Take a loan, mortgage or credit from banks or other financial providers	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0
Buy or sell shares, bonds, units of funds or other financial assets	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.1
I have not carried out any of the above	100.0	100.0	99.8	98.3	99.7	99.2	99.3	99.8

### D15: What were the reasons for not buying/ordering goods or services for private purposes

Prefer to shop in person, like to see product, loyalty to shops, force of habit	45.3	34.6	47.4	36.3	49.1	38.8	38.6	45.8
Difficulties of ordering online (concerns about sufficiency of skills)	0.0	0.0	0.7	0.6	3.3	3.9	1.1	1.6
Concerns about costs of delivery of goods	1.5	2.5	0.0	3.7	0.0	0.5	2.1	0.7
Concerns about reliability or speed of delivery	0.0	0.0	0.0	2.0	0.3	2.2	1.1	0.3
Payment security or privacy concerns	0.0	1.2	0.0	3.0	0.7	1.5	1.4	0.9
Concerns about returning goods, complaints/reimbursement	1.7	1.2	1.7	2.2	1.2	0.6	1.3	1.7
Foreign retailer did not sell in the Republic of Serbia	0.0	1.7	0.0	0.6	0.1	0.9	0.1	1.0
There was no need to buy online in the last 3 months	3.9	4.7	0.6	2.8	2.9	2.5	3.3	2.2
Other	25.5	42.9	37.8	36.0	25.9	28.5	35.4	31.3

<sup>&</sup>lt;sup>1)</sup> The data refer to individuals who answered "Within the last three months" or "More than three months ago (less than a year)" in question B1.

<sup>&</sup>lt;sup>2)</sup> The data refer to individuals who answered "Within the last three months" in question B1.

<sup>&</sup>lt;sup>3)</sup> The data refer to individuals who answered "More than three months ago (less than a year)", "More than a year ago" or Never" in question D1 or "Within the last three months" in question B1.

Educ	cational le	evel	Eı	mployme	nt status			
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
for privat	e purpos	ses in the	last thre	e month	s? (tick a	all that a	apply) <sup>2)</sup>	
0.7	0.2	0.5	0.8	0.0	0.0	0.3	0.4	Buy insurance policies, including travel insurance, also as a package with another service, e.g. with plane ticket
0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.1	Take a loan, mortgage or credit from banks or other financial providers
0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	Buy or sell shares, bonds, units of funds or other financial assets
99.3	99.8	99.0	99.0	100.0	100.0	99.7	99.5	I have not carried out any of the above
over the	Internet	in the las	st three m	nonths?	(tick all t	hat app	ly) <sup>3)</sup>	
49.6	39.2	39.6	38.1	48.3	27.4	42.3	42.0	Prefer to shop in person, like to see product, loyalty to shops, force of habit
2.5	1.1	0.1	1.0	0.1	0.0	2.8	1.3	Difficulties of ordering online (concerns about sufficiency of skills)
0.0	2.3	1.0	1.7	2.2	0.0	0.8	1.5	Concerns about costs of delivery of goods
0.0	1.2	0.4	1.1	0.2	0.0	0.9	0.7	Concerns about reliability or speed of delivery
1.5	0.8	1.8	2.5	0.2	0.0	0.7	1.2	Payment security or privacy concerns
0.0	2.4	0.7	2.4	0.9	0.0	1.2	1.5	Concerns about returning goods, complaints/reimbursement
0.0	0.7	0.7	1.3	0.0	0.0	0.3	0.5	Foreign retailer did not sell in the Republic of Serbia
1.5	3.4	2.8	2.1	1.9	5.1	4.1	2.8	There was no need to buy online in the last 3 months
								idot o mioritino

# MODULE E: E-skills1)

				Sex						
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women		
		Е	1: Which	of the fo	llowing	activities	have yo	u carried		
Copying or moving files (e.g. documents, data images, videos) between devices (e.g. via e-mails, <i>Messenger</i> , <i>WhatsApp</i> , <i>USB</i> , cable) or on the cloud	99.3	97.8	87.3	69.6	37.8	18.1	78.2	71.2		
Downloading or installing software or apps	92.9	77.8	63.6	52.3	34.5	19.3	64.5	56.6		
Changing settings or software, app or device (e.g. adjusting software, colour, contrast)	68.3	42.1	44.2	29.9	17.9	8.6	39.3	36.0		
		E2: W	hich of t	he follow	ing activ	ities have	e you ca	rried out		
Using word processing software	99.4	95.2	63.0	42.0	29.0	18.0	64.2	59.1		
Creating files (e.g. documents, images, video) incorporating several elements, e.g. text, image, table, table, chart, animation	63.7	36.5	29.5	24.8	11.7	7.3	30.1	30.9		
Using spreadsheet	50.5	42.4	28.7	21.8	14.1	6.6	30.9	27.6		
Using advanced features of spreadsheet software (functions, formulas, macros) <sup>2)</sup>	34.5	35.6	31.4	33.9	38.1	36.5	33.5	35.3		
Editing photos, video or audio files	52.5	33.4	17.4	18.0	12.7	9.1	24.0	24.8		
Writing code in a programming language	5.3	3.5	1.5	0.7	0.9	0.5	3.1	1.1		
E3: Have you seen information or content (e.g. videos, images) that you considered untrue or doubtful										
Yes	56.3	70.6	64.8	65.0	56.1	49.9	64.4	60.2		

Age

43.7

29.4

35.2

35.0

43.9

50.1

35.6

39.8

 $<sup>^{1)}</sup>$  The data refer to individuals who answered "Within the last three months" in question B1".

<sup>&</sup>lt;sup>2)</sup> The data refer to individuals who answered "Yes" in question E2c).

		5	ent status	Employme	E	evel	cational le	Educ	
Answer (individuals)	Total	Other	Student	Unemployed	Employed	Tertiary	Secondary	Lower than secondary	
	out in the last three months? (tick all that apply)								
Copying or moving files (e.g. document data images, videos) between device (e.g. via e-mails, <i>Messenger</i> , <i>WhatsAp</i> , <i>USB</i> , cable) or on the clou	74.8	50.2	100.0	80.1	83.1	84.3	76.7	60.6	
Downloading or installing software of app	60.6	44.6	98.2	58.2	66.7	74.1	60.7	47.8	
Changing settings or software, app of device (e.g. adjusting software, colou contras	37.7	26.4	71.5	33.9	42.4	48.4	36.2	32.3	
						months?	t three r	in the las	
Using word processing softwar	61,7	42.5	100.0	55.7	72.3	79.6	62.2	43.9	
Creating files (e.g. documents, image video) incorporating several element e.g. text, image, table, table, char animatic	30.5	19.9	70.4	16.6	40.6	54.1	25.4	23.3	
Using spreadshee	29.3	17.1	61.3	15.9	41.2	53.0	26.1	16.4	
Using advanced features of spreadshees of two software (functions, formulas, macros)	34.3	31.2	28.6	35.8	36.1	38.1	35.1	19.5	
Editing photos, video or audio file	24.4	20.5	40.3	20.5	27.1	38.0	21.6	20.0	
Vriting code in a programming languag	2.1	1.8	3.9	0.0	3.5	5.2	1.9	0.0	
be, Twitter) in the last three months?	am, You	, Instragi	acebook	ias (e.g. F	cial med	sites or so	et news s	on Intern	
Ye	62.3	52.2	78.2	61.9	66.8	75.1	64.9	43.2	
N	37.7	47.8	21.8	38.1	33.2	24.9	35.1	56.8	

## MODULE E: E-skills<sup>1)</sup>

				Age			Sex		
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women	
E4: Have you checked the	truthfu	ılness o	of inform	ation or	content y	ou found	d on the	Internet	
Yes	39.8	29.0	21.2	22.4	22.4	18.1	28.4	22.6	
No	60.2	71.0	78.8	77.6	77.6	81.9	71.6	77.4	
	E5: Hov	w did y	ou check	the trut	hfulness	of inform	nation o	r content	
Checking the source or finding other information on the Internet (e.g. other news sites, Wikipedia)	93.4	84.8	88.5	79.0	82.8	78.9	84.3	87.6	
Following or participating in discussion on the Internet regarding the information	27.4	17.3	9.5	19.0	13.1	28.6	23.2	11.0	
Discussing the information offline with other persons or using sources not on the Internet	14.6	18.8	32.1	25.5	24.0	42.1	26.5	19.0	
		E6: Wh	ny did you	u not che	ck the tr	uthfulne	ss of info	ormation	
You already knew that information, content or source was not reliable	63.2	81.0	59.3	60.2	56.2	58.4	62.6	65.4	
Lack of skills or knowledge (e.g. did not know how to check information on the Internet or it was too complicated to do)	2.2	4.0	2.6	7.6	14.3	22.7	3.9	10.1	
Other reasons	34.6	19.8	40.0	36.1	32.2	25.1	34.6	29.7	

 $<sup>^{1)}</sup>$  The data refer to individuals who answered "Within the last three months" in question B1.

 $<sup>^{2)}\,\</sup>mbox{The data refer to individuals who answered "Yes" in question E3.$ 

<sup>3)</sup> The data refer to individuals who answered "Yes" in question E4.

<sup>&</sup>lt;sup>4)</sup> The data refer to individuals who answered "No" in question E4.

		5	ent status	mployme	E	evel	cational l	Edu			
Answer (individuals)	Total	Other	Student	Unemployed	Employed	Tertiary	Secondary	Lower than secondary			
	news sites or social medias in the last three months? <sup>2)</sup>										
Yes	25.6	17.3	47.3	25.1	26.4	30.5	24.6	22.2			
No	74.4	82.7	52.7	74.9	73.6	69.5	75.4	77.8			
						ernet?³)	n the Inte	found or			
Checking the source or finding other information on the Internet (e.g. other news sites, Wikipedia)	85.7	79.5	84.6	85.8	88.0	85.7	84.3	92.3			
Following or participating in discussion on the Internet regarding the information	18.1	31.1	8.3	15.9	18.2	20.7	15.4	24.8			
Discussing the information offline with other persons or using sources not on the Internet	23.4	24.7	22.6	25.2	22.1	27.7	23.9	11.1			
				4)	nternet?	on the Ir	nt found	or conte			
You already knew that information, content or source was not reliable	64.0	57.1	77.1	58.3	69.8	69.7	64.1	55.5			
Lack of skills or knowledge (e.g. did not know how to check information on the Internet or it was too complicated to do)	7.0	15.8	4.3	7.1	2.3	1.7	5.0	22.5			
Other reasons	32.2	30.8	18.6	40.6	29.4	30.2	32.6	33.3			

MODULE F: Privacy and protection of personal data<sup>1)</sup>

			A	ıge			Sex		
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women	
F1: Have you carried out any of the fo	llowing	to mana	ige acces	s to your	persona	ıl data (e.	g. name	e, date of	
Read privacy policy statements before providing personal data	41.6	41.9	34.3	27.4	21.4	14.5	30.7	33.3	
Restricted or refused access to your geographical location	53.9	54.4	35.3	26.9	20.0	10.5	34.8	36.9	
Restricting access to profile or content on social network sites or shared online storage	54.9	45.9	32.6	25.1	15.8	7.0	27.2	37.8	
Refused allowing the use of personal data for advertising purposes	35.8	38.4	27.4	21.8	12.9	8.9	23.2	28.9	
Checked that the website where you provided personal data was secure (e.g. https website, safety logo or certificate)	7.2	12.2	6.5	5.9	4.0	3.8	7.8	6.2	
Asked the administrator of website or search engine to access data they hold about you to update or delete it	0.0	0.4	0.0	0.7	2.4	0.1	0.9	0.3	
Never carried out any of the above	32.4	29.2	44.7	53.5	67.3	78.4	48.5	46.8	
F2:	Did yo	u know t	hat cook	ies can b	e used to	trace pe	eople m	ovement	
Yes	61.1	64.9	61.8	50.4	38.8	25.2	60.3	47.0	
No	38.9	35.1	38.2	49.6	61.2	74.8	39.7	53.0	
F3:	Have y	ou chang	ed the se	ettings of	your Int	ernet bro	owser to	prevent	
Yes	23.0	25.0	24.1	21.4	12.1	9.9	25.8	15.4	
No	77.0	75.0	75.9	78.6	87.9	90.1	74.2	84.6	

 $<sup>^{1\!)}</sup>$  The data refer to individuals who answered "Within the last three months" in question B1.

Edu	cational le	evel	E	mployme	ent status	;		
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)
birth, ide	entity car	d numbe	er, credit	card nu	mber, ph	notos, ge	eographic	cal location) on the Internet?
21.2	33.0	40.5	33.3	34.7	59.3	20.7	32,.0	Read privacy policy statements before providing personal data
14.2	38.6	50.8	41.2	32.9	67.8	23.0	35.8	Restricted or refused access to your geographical location
18.6	32.6	46.9	37.6	26.5	72.0	21.2	32.4	Restricting access to profile or content on social network sites or shared online storage
12.1	26.1	40.9	32.2	21.3	57.7	13.9	26.0	Refused allowing the use of personal data for advertising purposes
0.0	7.9	11.6	11.3	3.0	12.3	3.2	7.0	Checked that the website where you provided personal data was secure (e.g. https website, safety logo or certificate)
1.1	0.0	1.9	0.8	1.0	0.0	0.0	0.6	Asked the administrator of website or search engine to access data they hold about you to update or delete it
71.9	44.7	30.5	42.0	47.2	16.1	64.4	47.7	Never carried out any of the above
on the In	iternet, c	reate pr	ofile of e	ach user	and ser	vice the	m tailore	d ads?
35.2	54.1	73.0	64.6	51.4	87.7	31.3	53.7	Yes
64.8	45.9	27.0	35.4	48.6	12.3	68.7	46.3	No
or limit c	ookies o	n any of	your dev	ices?				
12.5	19.3	33.7	29.0	15.6	37.4	9.0	20.7	Yes
87.5	80.7	66.3	71.0	84.4	62.6	91.0	79.3	No

# MODULE F: Privacy and protection of personal data1)

			A	ge			(	Sex
Answer (individuals)	16–24	25–34	35–44	45–54	55–64	65–74	Men	Women

# F5: Do you use software that limit the ability to track your activities

Yes	11.4	11.3	7.5	11.7	4.9	5.5	12.7	5.4
No	88.6	88.7	92.5	88.3	95.1	94.5	87.3	94.6

 $<sup>^{1)}</sup>$  The data refer to individuals who answered "Within the last three months" in question B1.

Edu	cational l	evel	Er	nployme	nt situati	on			
Lower than secondary	Secondary	Tertiary	Employed	Unemployed	Student	Other	Total	Answer (individuals)	
on the Internet on any of your devices?									

6.2	8.3	14.8	12.3	7.7	10.9	5.2	9.1	Yes
93.8	91.7	85.2	87.7	92.3	89.1	94.8	90.9	No







# **QUESTIONNAIRE**





#### Statistical Office of the Republic of Serbia



Data in this questionnaire are considered official secret and are to be used for statistical purposes only (Law on Official Statistics, "Official Gazette of the RS", number 104/09)

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

MODULE A: ACCESS TO INFORMATION AND COMMUNICATION TECHNOLOGIES

### A1 N Do you or anyone in your household have access to the following devices at home? (tick all that apply) a) Desktop computer b) Laptop (notebook) c) Tablet d) TV e) Radio-receiver (including mobile phone, car radio...) f) Mobile phone g) None of the above $\rightarrow$ Go to A1 A1 Do you or anyone in your household have access to the Internet at home? (by any device) (tick only one) a) Yes $\rightarrow$ Go to A2 b) No $\rightarrow$ Go to A3 c) Don't know $\rightarrow$ Go to B1 N A2 What type of Internet do you use at home? (tick all that apply) a) Broadband connection - ADSL (DSL) b) Broadband connection - cable Internet c) Mobile broadband connection (3G мрежа) via a device d) Mobile broadband connection (3G network) via a card (integrated in the computer) or USB key -> Go to B1 N А3 What are the reasons for not having access to the Internet at home? (tick all that apply) a) Have access to the Internet elsewhere b) Don't need the Internet c) Equipment costs too high d) Access costs too high (Internet subscription, telephone) e) Lack of skills f) Privacy or security concerns g) Broadband Internet not available h) Internet service available, but does not suit the needs of our household (quality, speed) i) None of the above: other reasons -> Go to B1 N

### MODULE B \_N: USE OF COMPUTERS

B1_N	When was the last time you used a computer (at home, at work or at any other place) (desktop, laptop, notebook, excluding smartphones)	?				
(tick or	ly one)					
a) With	in the last three months	→ Go to B2_N				
b) Mor	e than three months ago (less than a year)	→ Go to B1				
c) More	e than a year ago	→ Go to B1				
d) Never used it $\rightarrow$ Go to B						
B2_N	How often, on average, have you used a computer in the last 3 months?					
(tick or	ly one)					
a) Ever	y day or almost every day					
b) At le	ast once a week					
c) At le	ast once a month					
d) Less	than once a month					
	-> Go to B1	·				
	MODULE B: USE OF THE INTERNET					

B1	When did you last use the Internet?							
	(using desktop, laptop, mobile phone, smartphone)							
(tick on	y one)							
a) Withi	n the last three months	$\rightarrow$ Go to B2						
b) More	than three months ago (less than a year ago)	$\rightarrow$ Go to C1						
c) More	than a year ago	$\rightarrow$ Go to G1						
d) Neve	r used it	$\rightarrow$ Go to G1						
B2	How often, on average, have you used the Internet in the last 3 months?							
(tick on	y one)							
a) Every	day or almost every day	$\rightarrow$ Go to B2.1						
b) At lea	ast once a week	→ Go to B3						
c) At lea	st once month	→ Go to B3						
d) Less t	han once a month	→ Go to B3						
B2.1	Do you use the Internet several times during the day?							
(tick on	y one)							
a) Yes	a) Yes							
b) No	b) No							
	-> Go to B3							

В3	Have you used any of the following devices to access the Internet in the last 3 months?		
(tick all tl	nat apply)		
a) Deskto	p computer		
b) Laptor			
c) Tablet			
d) Mobile	e phone or smart phone		
e) Other	devices (smart TV, smart speakers, game consoles, e-book reader, smart watch)		
	-> Go to B4		
B4	Which of the following activities have you used the Internet (including via apps) for private months?	e pur	poses in the last 3
(tick all tl	nat apply)		
Commun	ication		
a) Sendin	g/receiving e-mails		
b) Making	g calls over the internet /video calls (webcams)		
(using	apps, such as Skype, Messenger, WhatsApp, FaceTime, Viber, Snapchat)		
	pating in social networks (creating user profile, posting messages or other contributions to pok, Twitter, Instagram, Snapchat, etc.)		
d) Sendir	g online messages via Skype, Messenger, WhatsApp, Viber, Snapchat		
Access to	information		
e) Readir	g online newspapers, magazines		
f) Seekin	g health-related information (such as injuries, diseases, nutrition, health improvement, etc.)		
g) Findin	g information about goods and services		
Civic and	political participation		
	ssing opinions about civic or political issues via websites or social media (such as <i>Facebook, r, Instagram, Youtube</i> )		
	part in online consultations or voting to define civic or political issues (urban planning, g a petition)		
Professio	nal life		
j) Looking	g for a job or sending a job application		
Other on	line services		
	goods or services via websites or apps (such as eBay, Facebook htplace)		
l) Interne	t banking (including mobile banking)		
	-> Go to B5		
B5	Which of the following learning activities have you performed over the Internet for educat professional purposes in the last 3 months?	ional	, private or
	(for persons who answered "Yes" in question B1a)		
(tick all t	nat apply)		
a) Doing	an online course		
	g online learning materials (audio-visual materials, online learning software, electronic oks, learning apps)		
	-> Go to C1		

Г	MODII	П Е	<b>с</b> , і	IICE	$\cap$	$\sim$	/EDNIN	M = N + T

C1

(for persons who have used the Internet in the last 12 months – who answered "Yes" in question B1a or B1b)

In the last 12 months, have you used public authorities or public services over the Internet, for private purposes, for

CI	the following activities?							
(tick all	(tick all that apply)							
a) Obta	ining information from websites or apps							
b) Dow	nloading/printing official forms							
c) Subm	itting completed forms online							
d) I hav	e not used public authorities' services							

If the answer is "No" to C1c) -> go to C2; otherwise, go to D1

What were the reasons for not submitting completed forms to public authorities over the Internet, for private purposes, in the last 12 months?

(tick all that apply)

a) No need to submit completed forms (whether online or in hard copies)

If the answer is "Yes" to a) -> go to question D1; otherwise, go to b-f in question C2

b) There were no such online services available (did not exist)

c) Lack of skills (don't know how to use website or it was too complicated to use)

d) Concerns about security and protection of personal data

e) Another person did it on my behalf

f) Other reasons

-> Go to D1

#### MODULE D: e-COMMERCE

D1	When did you last buy or order goods or services over the Internet for private purposes? (via website or apps from any device: desktop computer, laptop, mobile phone, smart phone)								
(for per	rsons who have used the Internet in the last 12 months – who answered "Yes" in question B1a or	r B1b	)						
(tick or	(tick only one)								
a) With	in the last three months		$\rightarrow$ Go to D2						
b) Mor	e than three months ago (less than a year)		$\rightarrow$ Go to D14						
c) More		$\rightarrow$ Go to D14							
d) Neve	er -		$\rightarrow$ Go to D14						
D2	What types of goods or services have you bought via website or apps for private purposes in Including online purchase from enterprises or private persons and including used goods.	the	last 3 months?						
(tick all	that apply)								
a) Cloth	nes (including sport clothing), shoes or accessories (such as bags, jewellery)								
b) Spor	t goods (excluding sport clothing)								
c) Child	ren toys or childcare items (nappies, bottles, baby strollers)								
d) Furn	d) Furniture, home accessories (carpets or curtains) or gardening products (tools, plants)								
e) Mus	e) Music as CDs, vinyls, etc.								
f) Films	f) Films as DVDs, Blu-ray								
g) Print	g) Printed books, magazines or newspapers								

h) Com	puters, tablets, mobile phones or accessories		
i) Consi machin	umer electronics (such as TV sets, stereos, cameras) or household appliances (such as washing es)		
j) Medi	cines or dietary supplements such as vitamins (online renewal of prescriptions is not included)		
k) Deliv	veries from restaurants, fast-food chains, catering services		
I) Food	or beverages from stores or from meal-kits providers		
m) Cos	metics, beauty or wellness products		
	ning products or personal hygiene products (such as toothbrushes, handkerchiefs, washing ents, cleaning cloths)		
o) Bicyo	cles, mopeds, cars or other vehicles or their spare parts		
p) Othe	er physical goods		
	-> If the answer is "Yes" to any options in question D2, go to D3; otherwise, go to	D5	
D3	From whom have you bought the mentioned goods via a website or app in the last 3 month including online purchase from enterprises or private persons.	ıs?	
(for per	rsons who answered "Yes" to any options in question D2)		
(tick all	that apply)		
a) Natio	onal sellers		
b) Selle	r from EU countries		
c) Selle	rs from the rest of the world		
d) Cour	ntry of sellers is not known		
	-> Go to D4		
D4	Did you buy any of the mentioned goods from private persons via a website or app (on eBay, Facebook Marketplace)?		
(for per	(for persons who answered "Yes" to any option in question D2)		
(tick or	lly one)		
a) Yes			
b) No			
	-> Go to D5		
D5	Have you bought or subscribed to any of the following via a website or app for private purp months?	oses i	in the last 3
(for per	(for persons who answered "Within the last three months" in question D1)		
(tick all that apply)			
a) Mus	ic as a streaming service or downloads		
b) Film:	s or series as a streaming service or downloads		
c) E-bo	oks, online magazines or online newspapers		
d) Gam	es online as downloads for smart phones, tablets, computers or consoles		
e) Computer or other software as downloads, including upgrades			
f) Apps related to health or fitness (excluding free apps)			
g) Othe	er apps (related to learning languages, travelling, weather) (excluding free apps)		
h) Didn	't buy or subscribe to any of the above		
	-> Go to D6		

D6	Have you bought any of the following via a website or app for private purposes in the last 3	mon	ths?	
(for per	sons who answered "Within the last three months" in question D1)			
(tick all	that apply)			
a) Ticke	ets for sports events			
b) Ticke	ets for cultural or other events (cinemas, concerts, fairs)			
c) Subso	cription to the Internet or mobile phone connections			
d) Subs	cription to electricity, water or heating supply, waste disposal or similar services			
	sehold services (such as cleaning, babysitting, repair work, gardening) (also when bought from persons, e.g. Facebook Marketplace)			
f) Didn'	t buy or subscribe to any of the above			
	-> Go to D7			
D7	Did you buy any of the mentioned household services from private persons via a website or Marketplace)?	арр	(e.g. Facebook	
(for per	rsons who answered "Yes" in question D6e)			
(tick on	ly one)			
a) Yes				
b) No				
	-> Go to D8			
D8	Have you bought any transport service via a website or app for private purposes in the last	3 moi	nths from:	
(for persons who answered "Within the last 3 months" in question D1)				
(tick all that apply)				
a) Enter	rprises for transport by bus, train, taxi (e.g. UBER)			
b) A pri	vate person			
c) Neve	r bought any service			
	-> Go to D9			
Didyou rent accommodation via a website or app for private purposes in the last 3 months from:				
(for persons who answered "Withing the last three months" in question D1)				
(tick all that apply)				
a) Enter	rprises such as hotels or travel agencies			
b) A pri	vate person (such as Airbnb)			
c) Didn'	t rent accommodation via a website or app			
	-> Go to D11			
D11	How many times have you bought goods or services over the Internet for private purposes i	n the	last 3 months?	
(for per	sons who answered "Within the last three months" in question D1)			
(tick only one)				
a) 1–2 t	a) 1–2 times			
b) 3-5 t	imes			
c) 6-10				
d) More	a than 10 times			

-> Go to D12

D12	How much money have you spent on purchases via a website or app for private purposes in	the I	ast 3 months?
(for per	sons who answered "Within the last three months" in question D1)		
(tick on	ly one)		
a) Less	than 50 euro		
b) From	50 to 100 euro		
c) From	100 to 300 euro		
d) From	300 to 500 euro		
e) From	500 to 700 euro		
f) From	700 to 1000 euro		
g) More	than 1000 euro		
h) Don'	t know		
	-> Go to D13		
D13	Have you encountered any of the following problems when buying via a website or app in t	he las	st 3 months?
(for per	sons who answered "Within the last three months" in question D1)		
(tick co	rresponding answers from a-i, otherwise, tick j)		
a) Web	site was difficult to use or worked unsatisfactorily		
(too	complicated, confusing, poorly functioning technically, etc.)		
b) Diffic	culties in finding information concerning guarantees or other legal rights		
c) Spee	d of delivery slower than indicated		
d) Final	costs higher than indicated (e.g. unexpected transaction fees or unjustified guarantee fees)		
e) Wro	ng or damaged goods/services delivered		
f) Probl details,	ems with fraud encountered (e.g. no goods/services received at all, misuse of credit card etc.)		
g) Com	plaints and redress were difficult or no satisfactory response after complaint		
h) Fore	gn retailer did not sell in my country		
i) Other			
j) I have	not encountered any problem		
	-> Go to D14		
D14	Have you carried out any of the following activities via a website or app for private purpose	s in t	he last 3 months?
(for perso	ons who answered "Within the last three months" in question B1, otherwise, go to D15)		
(tick all	that apply)		
	nsurance policies, including travel insurance, also as a package with another service, e.g. with eticket		
b) Take	a loan, mortgage or credit from banks or other financial providers		
c) Buy c	or sell shares, bonds, units of funds or other financial assets		
d) I hav	e not carried out any of the above		
	-> Go to D15		

D15	What were the reasons for not buying/ordering goods or services for private purposes over three months?	er the	Internet in the la	ast
(for pe	ersons who answered "Yes" in question D1 b), c) or d) and who answered "Yes" in question B1a	1)		
(tick a	l that apply)			
a) Pref	er to shop in person, like to see product, loyalty to shops, force of habit			
b) Diff	culties of ordering online (concerns about sufficiency of skills)			
c) Con	cerns about costs of delivery of goods			
d) Con	cerns about reliability or speed of delivery			
e) Payı	ment security or privacy concerns			
f) Cond	erns about returning goods, complaints/reimbursement			
g) Fore	eign retailer did not sell in the Republic of Serbia			
h) The	re was no need to buy online in the last 3 months			
i) Othe	r			
	-> Go to D1			
	MODULE E: E-SKILLS			
(f	or persons who used the Internet in the last 3 months – who answered "Yes" in question B1a)			
E1	Which of the following activities have you carried out in the last 3 months?			
(tick a	ll that apply)			
	ying or moving files (e.g. documents, data images, videos) between devices (e.g. via e-mails, nger, WhatsApp, USB, cable) or on the cloud.			
b) Dov	vnloading or installing software or apps			
	nging settings of software, app or device (e.g. adjusting software, contrast, text size, r/menu)			
	-> Go to E2			
E2	Which of the following activities have you carried out in the last 3 months?			
(tick a	l that apply)			
a) Usir	g word processing software			
	ating files (e.g. documents, images, video) incorporating several elements, e.g. text, image, chart, animation, sound			
c) Usir	g spreadsheet software			
	If the answer is "Yes" to c)-> Go to c1)			
c1) l	Using advanced features of spreadsheet software (functions, formulas, macros, Visual Basic)			
d) Edit	ing photos, video or audio files			
e) Wri	ting code in a programming language			
	-> Go to E3			
E3	Have you seen information or content (e.g. videos, images) that you considered untrue or d sites or social medias (e.g. Facebook, Instagram, YouTube, Twitter) in the last 3 months?	oubtf	ul on Internet ne	ws
(tick o	nly one)			
a) Yes				
c) No				

-> If the answer is "Yes" -> go to E4; if the answer is "No" -> go to F1

E4	Have you checked the truthfulness of information or content you found on Internet news sit last 3 months?	tes or social medias in the
(for p	ersons who answered "Yes" in question E3)	
(tick c	nly one)	
a) Yes		
b) No		
	-> If the answer is "Yes" -> go to E5; if the answer is "No" -> go to E6	
E5	How did you check the truthfulness of information or content found on the Internet?	
(for p	ersons who answered "Yes" in question E4)	
(tick a	ll that apply)	
a) Che Wikip	cking the source or finding other information on the Internet (e.g. other news sites, edia)	
b) Fol	owing or participating in discussion on the Internet regarding the information	
c) Disc	sussing the information offline with other persons or using sources not on the Internet	
	-> Go to F1	
E6	Why did you not check the truthfulness of information or content found on the Internet?	
(for p	ersons who answered "No" in question E4)	
(tick a	ll that apply)	
	already knew that information, content or source was not reliable	
	k of skills or knowledge (e.g. did not know how to check information on the Internet or it was mplicated to do)	
c) Oth	er reasons	
	-> Go to F1	
	MODULE F: PRIVACY AND PROTECTION OF PERSONAL DATA	
	(for persons who have used the Internet in the last 3 months – who answered "Yes" in question	n B1a)
F1	Have you carried out any of the following to manage access to your personal data (e.g. identity card number, contact details, credit card number, photos, geographical location last 3 months?	
(tick a	ll that apply)	
a) Rea	d privacy policy statements before providing personal data	
b) Res	tricted or refused access to your geographical location	
c) Res	tricting access to profile or content on social network sites or shared online storage	
d) Ref	used allowing the use of personal data for advertising purposes	
	cked that the website where you provided personal data was secure (e.g. https website, ty logo or certificate)	
	ed the administrator of website or search engine to access data they hold about you to ate or delete it	
g) Nev	er carried out any of the above	
	-> Go to F2	
F2	Did you know that cookies can be used to trace people movement on the Internet, create preservice them tailored ads?	rofile of each user and
(tick c	nly one)	
a) Yes		
b) No		
	-> Go to F3	

F3	Have you changed the settings in your Internet browser to prevent or limit cookies on any of you	ou devices?
(tick	only one)	
a) Ye	is and the second secon	
b) N		
	-> Go to F5	
F5	Do you use software that limits the ability to track your activities on the Internet on any of you	r devices?
(tick	only one)	
a) Ye	S .	
b) N		
	-> Go to G1	
	MODULE G: RESPONDENT'S BACKGROUND INFORMATION	
G1	Year of birth	-> Go to G2
G2	Respondent's sex	
a) M	ale	
b) Fe	male	
	-> Go to G3	
G3	Country of birth	-> Go to G4
G4	Citizenship	-> Go to G5
G5	Education	
(tick	only one)	
a) W	ithout school	
b) 1-	4 grades of primary school	
c) 5–	8 grades of primary school	
d) Se	condary vocational school, grammar school	
e) Sp	ecialisation after secondary school, school for highly qualified workers	
f) Hi	gh school	
	culty / higher school / academy	
	aster's degree	
1) DO	ctoral degree	
CC	-> Go to G6	
G6	Employment situation	
	only one)	\ Ca ta C7
	nployed	→ Go to G7
b) Unemployed		→ Go to G12
c) Retired $\rightarrow$ Go to (		→ Go to G12
d) Other not in the labour force $\rightarrow$ Go to $\odot$		→ Go to G12
e) Student $\rightarrow$ Go to		→ Go to G12
f) Ho	usewife	→ Go to G12
g) Pe	rsons serving military service	→ Go to G12
h) O	ther	→ Go to G12

G7	Respondent's status in employment		
a) Se	elf-employed with employees		
b) Se	elf-employed without employees		
c) En	nployee		
	mployed in family business (unpaid work)		
	-> Go to G8		
G8	Full-time or part-time job?		
(tick	(this question is for persons who answered in question G6, Employed) only one)		
	only one)		
	art-time		
~,	-> Go to G9		
G9 Type of employment contract? (this question is for persons who answered who answered in question G7, Employee)			
(tick	only one)		
a) Co	ontract for indefinite duration		
b) Co	ontract for definite duration		
	-> Go to G11		
G11	Occupation? (select from the list of occupation of ISCO 08)		$\rightarrow$ Go to G12
G12	Region of residence (NUTS1 classification)		$\rightarrow$ Go to G16
G16	Total number of household members		$\rightarrow$ Go to G17
G17	Of which children aged under 16		$\rightarrow$ Go to G18
G18	Household income (average net monthly income)		
(tick	only one)		
a) U	o to 30000		
	om 30000 to 50000		
	om 50000 to 70000		
	om 70000 to 90000		
e) M	ore than 90000		End of the
G19	Duration of the interview (in minutes)		interview







# **ENTERPRISES**



# **2.1.** Methodology

Survey period	The survey was carried out from 15th March to 31st March 2021.
Type of survey	Telephone interview
Sample size	• 1573 enterprises
	<ul><li>Enterprises with 10 and more employees</li><li>Section C: Manufacturing</li></ul>
	Sections D and E: Electricity, gas, steam and air conditioning supply; Water supply and sewerage
	Section F: Construction
	Section G: Wholesale and retail trade; repair of motor vehicles and motorcycles
Target population <sup>1)</sup>	Section H: Transportation and storage
	Section I: Accommodation and food service activities
	Section J: Information and communications
	Sections L and M: Real estate activities; Professional, scientific and technical activities
	Sections N and division 95: Administrative and support service activities; Repair of computers
	Banks and insurance companies
Type of sample	Stratified sample
Geographical scope	Territory of the Republic of Serbia (without AP Kosovo and Metohija)

<sup>&</sup>lt;sup>1)</sup> Since 2011, the Classification of Activities has been in use according to the Regulation on the Classification of Activities, ("Official Journal of the RS", No 54/2010). 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  $1\,573$  enterprises on the territory of the Republic of Serbia. The response rate was 82.6% ( $1\,300$  enterprises).

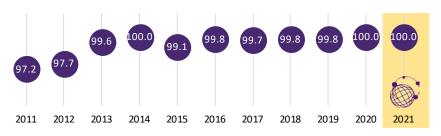
			Size class	5		Reg	gion		
	Sample (enterprises)	Small (10-49)	Medium(50-249)	Large (250+)	Beogradski	Vojvodina	Šumadija i Zapadna Srbija	Južna i Istočna Srbija	Total
	Manufacturing	192	184	116	118	131	152	91	492
	Electricity, gas, steam and air conditioning; Water supply and sewerage	17	17	29	14	19	18	12	63
	Construction	24	22	22	21	17	16	14	68
	Wholesale and retail trade	89	66	34	55	47	44	43	189
Ϊţ	Transportation and storage	21	24	19	19	19	13	13	64
Activity	Accommodation and food service activities	60	61	3	50	31	27	16	124
	Information and communications	69	37	9	57	14	22	22	115
	Real estate activities; Professional, scientific and technical services	42	34	6	33	19	18	12	82
	Administrative and support service activities; Repair of computers	52	34	17	59	18	17	9	103
Numb	er	566	479	255	426	315	327	232	1300
Percer	ntage	43.5	36.8	19.6	32.8	24.2	25.2	17.8	100.0

## 2.3. Main findings

## 2.3.1. Internet in enterprises

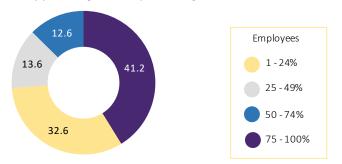
In the Republic of Serbia, 100% of enterprises have an internet connection.

Chart 2.1. Does your enterprise have access to the Internet? (%)



In 32.6% of enterprises from 1 to 24% of employees use the Internet, while in 41.2% of enterprises from 75% to 100% of employees use the Internet.

Chart 2.2. Enterprises by percentage of enterprises using the Internet (%)





100% of enterprises have a fixed broadband Internet connection.

Chart 2.3. Broadband Internet connection in enterprises (%)

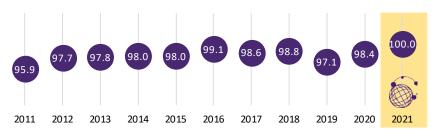
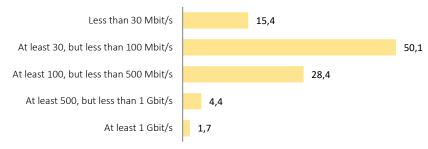


Chart 2.4. What is the maximum contracted download speed of the Internet connection in your enterprises? (defined by the contract with the internet provider) (%)



#### 2.3.2. Use of a mobile Internet for business purposes

On the territory of the Republic of Serbia 80.7% of enterprises use a mobile Internet connection via portable devices (smart phone, laptop, tablet...).

Chart 2.5. Does your enterprise provide mobile devices that allow a mobile connection to the Internet using mobile telephone networks for business purposes? (%)



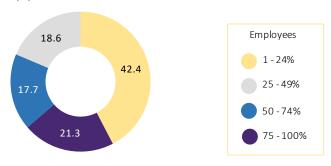


More than 78% of small enterprises provide mobile devices that allow a mobile Internet connection using mobile telephone networks.

The analysis of enterprises by size indicates that 89.2% of large enterprises use a mobile broadband Internet connection, using mobile telephone devices.

In 42.4% of enterprises from 1 to 24% of employees use portable devices for business purposes, while in 21.3% of enterprises from 75 to 100% of employees use mobile devices for business purposes.

Chart 2.6. Enterprises by the percentage of employees using mobile devices for business purposes (%)



#### 2.3.3. Website

There are 84.5% of enterprises have a website, making an increase of 0.1% to 2020 and increase of 0.9% to 2019.

When looking at the structure of enterprises by size class, the following results are obtained:

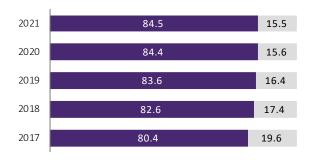
- 96.6% of large enterprises have a website;
- 94.1% of medium enterprises have a website;
- 81.6% of small enterprises have a website.

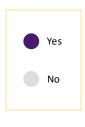


More than 84% of enterprises have a website.

There are differences also by territory. In Belgrade, there are 88.4% of enterprises that have a website, in Vojvodina 84.0%, in Region Šumadije i Zapadne Srbije 78.2% and in Region Južne i Istočne Srbije 84.3%.

Chart 2.7. Does your enterprise have a website? (%)





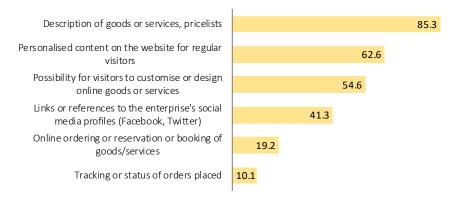
Website available in enterprises, by activity:

- Information and communications (100.0%)
- Administrative and support service activities; Repair of computers (96.9%);
- Real estate activities; Professional, scientific and technical activities (84.2%);
- Manufacturing (89.0%);
- Accommodation and food service activities (95.2%);
- Wholesale and retail trade (86.2%);
- Construction (67.5%);
- Electricity, gas, steam and air conditioning supply; Water supply and sewerage (92.3%);
- Transportation and storage (58.2%).

Using website, enterprises provide mostly the following:

- Personalised content on the website for regular visitors (62.6%);
- Description of goods and services, pricelist (85.3%);
- Possibility for visitors to customise or design online goods or services (54.6%).

Chart 2.8. Does the website of your enterprise provide any of the following services? (%)



#### 2.3.4. E-commerce

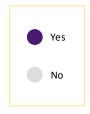
During 2020, 27.1% of enterprises in the Republic of Serbia sold goods/services over the Internet.



More than 27% of enterprises sold goods/services over the Internet.

Chart 2.9. Does your enterprise sell goods/services over the Internet? (%)





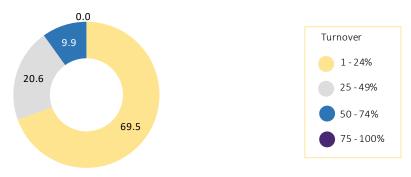
Looking at the structure of enterprises by size class, the obtained results are as follows:

- 26.4% of large enterprises sold goods/services over the Internet;
- 26.3% of medium enterprises sold goods/services over the Internet;
- 27.3% of small enterprises sold goods/services over the Internet.

To the question about the percentage of the total turnover from the sale of goods/services over the Internet the enterprises gave the following answers:

- "Less than 25%" (69.5% of enterprises)
- "More than 25% and less than 50%" (20.6% of enterprises)
- "More than 50% and less than 75%" (9.9 % of enterprises)
- "75 % and more" (0.0% of enterprises).

Chart 2.10. Percentage of the total turnover in 2020 from sales of goods/services over the Internet (%)



### 2.3.5. Use of cloud computing service

Cloud computing services are paid over the Internet by 28.9% of enterprises.

Cloud computing services are ICT services that can be accessed via the Internet to use software, storage capacities, etc. The services have the following characteristics:

- they are on servers of service providers;
- they can be used on-demand by the user;
- they are paid by way of use, storage capacity.



Chart 2.11. Does your enterprise buy cloud computing services over the Internet? (%)



#### 2.3.6. Covid-19 impact

During 2020, 30.1% of enterprises in the Republic of Serbia increased the number of employees who have remote access to enterprise's e-mail, while 25.4% of enterprises increased the number of employees having remote access to enterprise's ICT system. The number of enterprises that increased the volume of online meetings, using Skype, Zoom or Teams, was 37.7%.

Chart 2.12. During 2020, by reasons of Covid-19 pandemic did your enterprise (%)



Chart 2.13 . To what extent did Covid-19 pandemic influence the increase of online meetings via Skype, Zoom or Teams? (%)





During 2020, more than 9% of subjects started or increased Internet sales of goods/services due to Covid-19 pandemic.







# **PRESENTATION IN TABLES**



## 2.4. Survey results

#### Module 1.A: Use of the Internet

#### A1: Percentage of employed persons using the Internet for business purposes

AI. I creentage of employ	yeu persons e	131116 (11	C IIIICI	iict ioi	Dusinic	JJ Pui	poses	%
				Enter	orises			
		Size class						
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
1-24%	32.7	32.2	31.9	27.9	36.4	32.9	39.8	32.6
25-49%	12.7	15.5	21.5	9.4	13.4	21.0	13.9	13.6
50-74%	12.0	14.5	16.1	13.4	11.6	13.5	10.5	12.6
75–100%	42.5	37 9	30.6	49 3	38 7	32.6	35.8	41 2

0/

%

# A2: Does your enterprise use any kind of fixed broadband Internet connection (e.g. ADSL, SDSL, FTTP, cable Internet, public Wi-Fi)?

Size class Region Šumadije i Zapadne Srbije Južne i Istočne Srbije **Fotal** Enterprises Beoogradski Vojovidne Medium (50–249) Small (10–49) Large (250+) YES Manufacturing 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Electricity, gas, steam and air conditioning supply; Water supply 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 and sewerage Construction 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Wholesale and retail trade 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Transportation and storage 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Accommodation and food service 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 activities Information and communications 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 Real estate activities; Professional, 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 scientific and technical activities Administrative and support service 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 activities; Repair of computers Total 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0

				Enterp	rises			
		Size class						
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Less than 30 Mbit/s	16.0	14.8	3.9	11.1	14.2	23,.7	16.3	15.4
At least 30, but less than 100 Mbit/s	51.4	45.2	45.9	43.7	50.6	56.2	58.4	50.1
At least 100, but less than 500 Mbit/s	27.5	30.7	36.5	35.0	29.2	18.1	24.7	28.5
At least 500, but less than 1 Gbit/s	4.4	3.7	8.4	7.1	4.6	1.6	0.3	4.4
At least 1 Gbit/s	0.6	5.6	5.3	3.1	1.5	0.3	0.3	1.7

# A4: Does your enterprise provide mobile devices that allow a mobile connection to the Internet using mobile telephone networks for business purposes?

%

			Size class			Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
YES									
	Manufacturing	75.2	92.3	87.5	87.8	77.3	83.5	66.1	80.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	86.1	80.5	81.9	98.2	80.3	78.1	85.2	83.3
	Construction	85.6	100.0	94.5	100.0	79.8	79.8	80.4	88.4
	Wholesale and retail trade	73.2	92.8	93.4	86.3	65.1	76.3	63.7	76.4
Activity	Transportation and storage	85.8	85.4	93.8	100.0	92.3	65.2	82.8	86.0
Act	Accommodation and food service activities	63.9	88.5	66.7	67.8	59.1	70.5	74.8	67.1
	Information and communications	85.3	91.0	95.0	89.9	69.1	92.1	92.3	86.6
	Real estate activities; Professional, scientific and technical activities	88.6	71.5	100.0	85.1	92.9	82.2	83.9	86.3
	Administrative and support service activities; Repair of computers	82.2	75.9	83.4	87.4	81.4	26.2	98.0	80.9
Total		78.2	89.3	89.2	87.7	76.3	77.8	72.4	80.7

 $<sup>^{1)}\</sup>mbox{The}$  results refer only to enterprises that answered "Yes" in question A2.

purposes								%	
		Enterprises							
	:	Size class							
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total	
1-24%	38.8	52.0	59.2	38.9	43.8	46.5	44.7	42.4	
25-49%	19.2	17.4	13.8	12.2	24.6	22.0	24.2	18.6	
50-74%	18.8	14.6	12.9	16.9	18.7	18.1	17.8	17.7	
75–100%	23.2	16.0	14.1	31.9	12.8	13.4	13.3	21.3	

#### A6: Does your enterprise have a website?

%

			Size clas	s		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
YES									
	Manufacturing	86.3	96.0	92.7	95.7	89.8	82.1	91.7	89.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	84.2	100.0	100.0	81.3	100.0	91.3	88.7	92.3
	Construction	60.7	93.4	100.0	55.8	80.1	76.5	68.0	67.5
	Wholesale and retail trade	86.2	84.0	100.0	98.8	76.9	74.5	78.8	86.2
Activity	Transportation and storage	49.7	92.7	100.0	49.9	64.3	48.8	82.8	58.2
Act	Accommodation and food service activities	94.4	100.0	100.0	100.0	87.7	88.9	91.4	95.2
	Information and communications	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Real estate activities; Professional, scientific and technical services	81.2	99.1	100.0	82.4	86.7	98.3	68.0	84.2
	Administrative and support service activities; Repair of computers	96.8	96.5	98.2	97.8	100.0	82.9	98.0	96.9
Total		81.6	94.1	96.6	88.4	84.0	78.2	84.3	84.5

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question A4.

			Size clas	s		Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Desc	ription of goods or services, pricelis	t							
	Manufacturing	88.0	85.7	90.5	85.0	93.4	82.1	91.1	87.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	100.0	100.0	85.8	95.0	98.1	100.0	100.0	98.6
	Construction	100.0	93.0	72.8	92.9	99.1	99.6	100.0	97.2
_	Wholesale and retail trade	85.6	89.4	73.9	85.6	68.7	99.4	99.7	85.8
Activity	Transportation and storage	76.9	88.8	80.2	95.9	97.1	23.5	97.7	80.1
Act	Accommodation and food service activities	90.2	100.0	100.0	89.8	96.7	87.5	100.0	91.6
	Information and communications	73.9	76.6	90.0	66.9	84.0	96.1	95.3	74.9
	Real estate activities; Professional, scientific and technical activities	71.4	73.5	20.0	71.6	50.2	97.3	75.0	70.7
	Administrative and support service activities; Repair of computers	78.2	81.1	66.6	79.4	58.9	96.4	100.0	77.8
Total		85.1	87.2	79.7	82.8	83.5	86.6	95.2	85.3
Onlin	e ordering or reservation or bookir	ng of goo	ds/servi	ces					
	Manufacturing	14.5	18.4	27.1	15.5	25.4	9.8	12.9	16.3
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	3.1	7.4	10.8	1.9	-	-	2.2
	Construction	-	14.5	-	-	4.8	4.7	7.7	3.5
_	Wholesale and retail trade	20.3	37.8	53.9	13.9	32.4	28.9	41.2	23.5
Activity	Transportation and storage	9.2	17.2	48.4	29.5	13.3	2.9	4.1	13.3
Act	Accommodation and food service activities	49.6	81.8	66.7	52.9	45.4	60.0	71.6	54.1
	Information and communications	24.0	28.3	40.0	33.2	-	14.1	28.6	25.3
	Real estate activities; Professional, scientific and technical activities	11.2	16.2	10.0	3.7	16.3	39.8	21.7	12.0
	Administrative and support service activities; Repair of computers	21.5	16.0	2.7	22.3	6.8	14.7	27.8	18.6
Total		17.7	23.0	26.4	18.3	21.5	16.7	21.9	19.2

 $<sup>^{1)}\,\</sup>mbox{The}$  results refer only to enterprises that answered "Yes" in question A6.

A7: Does the website of your enterprise provide any of the following services (your enterprise as Internet service provider)?<sup>1)</sup> (continued)

% Size class Region otal Južne i Istočne Enterprises Zapadne Srbij Beoogradski /ojovidne Šumadije i 10-49) Possibility for visitors to customize or design online goods or services Manufacturing 52.4 56.9 50.6 51.9 71.7 27.7 71.0 53.5 Electricity, gas, steam and air conditioning supply; Water supply 13.2 46.1 40.3 55.4 18.8 46.4 13.8 30.9 and sewerage Construction 52.4 48.3 48.0 29.6 54.8 9.7 68.8 71.1 Wholesale and retail trade 72.5 47.4 42.7 66.1 54.0 83.1 84.6 68.4 Transportation and 40.2 46.7 38.5 82.4 10.4 0.7 95.9 41.8 communications Accommodation and food service 54.5 100.0 70.1 54.3 56.2 65.8 21.1 44.2 activities Information and communications 48.7 42.2 58.8 29.5 27.0 48.7 85.0 34.0 Real estate activities; Professional, 50.1 40.9 48 6 513 40.9 35.5 47.5 scientific and technical services Administrative and support service 51.7 46.6 31.2 43.9 50.7 34.9 43.7 50.5 activities; Repair of computers Total 56.3 50.3 45.0 59.3 47.7 45.1 68.8 54.6 Tracking or status of orders placed Manufacturing 9.0 10.9 13.3 6.6 14.1 7.4 11.4 9.8 Electricity, gas, steam and air conditioning supply; Water supply 6.3 8.8 0.8 11.4 3.7 and sewerage Construction 2.9 4.9 2.3 9.0 7.7 Wholesale and retail trade 13.2 22.7 36.7 7.6 20.7 20.3 30.0 15.1 Transportation and storage 9.2 16.1 16.7 37.3 3.0 0.7 4.5 11.4 Accommodation and food service

Information and communications

Real estate activities; Professional,

scientific and technical activities

Administrative and support service

activities; Repair of computers

activities

Total

88 www.stat.gov.rs

11.0

2.8

8.4

2.8

8.9

36.0

14.4

11.9

7.7

13.4

5.0

2.7

13.8

18.7

6.3

13.0

2.0

8.9

11.8

1.3

4.0

1.1

11.3

3.7

1.8

5.8

8.5

6.7

5.9

24.7

14.1

14.4

4.8

8.9

3.8

10.1

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question A6.

	(your enterprise as internet	JCI VIC	c prov	ucij.	(COTICI	iiucuj			
			Size clas	SS		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Perso	onalised content on the website for	regular	visitors						
	Manufacturing	71.5	67.2	55.1	66.1	69.8	80.5	52.9	69.4
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	34.7	93.2	74.5	94.2	39.3	81.0	71.7	65.4
	Construction	38.8	55.3	49.4	52.3	40.3	20.2	71.1	43.2
	Wholesale and retail trade	60.5	55.5	74.8	46.7	76.9	62.1	84.9	60.2
Activity	Transportation and communications	87.8	84.7	70.8	97.2	68.2	91.2	97.7	86.1
Act	Accommodation and food service activities	83.1	81.2	100.0	86.5	97.6	74.5	38.0	82.9
	Information and communications	65.7	70.7	90.0	67.9	87.5	62.4	28.1	67.4
	Real estate activities; Professional, scientific and technical activities	39.2	57.2	85.0	30.2	65.4	56.4	75.3	43.3
	Administrative and support service activities; Repair of computers	43.0	46.8	41.5	45.6	49.6	28.9	27.8	43.7
Total		61.7	65.9	61.6	56.0	67.9	67.8	65.1	62.6
Links	or references to the enterprise's so	cial me	dia prof	iles <i>(Facel</i>	book, Tı	vitter)			
	Manufacturing	43.0	45.3	49.2	35.0	48.6	41.2	55.0	44.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	20.9	16.7	44.9	15.8	23.1	34.7	1.5	21.3
	Construction	14.5	38.3	18.2	10.8	34.9	9.9	36.6	20.4
	Wholesale and retail trade	37.6	69.3	80.1	42.3	54.7	22.4	53.7	42.9
Activity	Transportation and storage	5.5	33.0	70.3	17.4	10.4	8.8	33.3	16.0
Act	Accommodation and food service activities	67.1	76.0	66.7	83.4	19.0	61.5	79.1	68.3
	Information and communications	62.7	76.5	62.5	67.3	65.1	64.1	50.5	65.2
	Real estate activities; Professional, scientific and technical activities	36.8	58.8	70.0	39.7	35.9	54.4	48.7	41.3
	Administrative and support service activities; Repair of computers	31.3	36.8	28.0	32.8	32.9	27.6	30.9	32.2
Total		38.5	49.2	51.7	42.5	42.4	33.6	48.3	41.3

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question A6.

			Size cla	SS		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Socia	l networks ( <i>Facebook, Linkedin, Xin</i> g	g, Yamr	ner)						
	Manufacturing	42.4	49.4	57.2	41.9	49.7	38.1	55.4	45.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	29.9	26.6	54.6	21.6	41.3	42.4	2.6	30.7
	Construction	14.4	31.1	20.7	6.0	28.0	24.2	24.9	17.5
	Wholesale and retail trade	50.2	70.7	76.4	51.8	72.1	38.1	47.4	53.6
Activity	Transportation and storage	21.8	36.0	80.2	21.3	22.9	25.3	44.8	25.9
Act	Accommodation and food service activities	75.6	85.5	66.7	86.8	53.2	71.0	75.6	76.9
	Information and communications	68.5	80.0	50.0	78.5	40.5	68.0	68.9	70.0
	Real estate activities; Professional, scientific and technical activities	50.0	78.1	70.0	61.6	31.9	67.1	35.8	54.6
	Administrative and support service activities; Repair of computers	51.1	35.0	48.0	38.4	82.9	37.0	30.3	47.3
Total		44.2	53.3	57.8	48.3	50.4	38.7	46.2	46.4
Enter	prise's blog (Twitter)								
	Manufacturing	5.1	7.9	5.8	3.8	7.4	3.0	11.9	5.8
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	6.3	-	0.8	1.0	-	0.6
	Construction	-	1.9	2.6	-	-	0.3	2.6	0.4
_	Wholesale and retail trade	3.3	9.5	18.3	4.8	8.9	0.2	1.3	4.5
Activity	Transportation and storage	-	9.8	19.3	6.0	-	-	3.4	2.2
Act	Accommodation and food service activities	12.4	22.0	33.3	13.2	21.8	8.9	7.3	13.7
	Information and communications	19.4	29.4	5.0	18.1	28.6	15.6	28.6	20.7
	Real estate activities; Professional, scientific and technical activities	15.0	28.3	40.0	23.6	13.1	0.9	-	17.4
	Administrative and support service activities; Repair of computers	2.6	9.6	30.5	9.5	-	5.6	2.0	6.5
Total		5.5	10.4	12.7	8.8	7.5	2.1	6.4	6.7

			Size clas	SS		Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Multi	imedia content sharing sites (Youtub	oe, Flick	r, Picass	a)					
	Manufacturing	12.6	23.0	23.3	15.6	18.6	11.2	19.9	15.7
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	5.3	-	19.9	2.3	1.5	11.7	-	4.4
	Construction	-	15.8	8.5	-	7.8	3.9	2.6	3.0
>	Wholesale and retail trade	10.4	29.3	31.2	19.8	15.4	4.3	1.8	13.5
Activity	Transportation and storage	-	13.5	29.7	7.4	1.9	0.3	1.9	3.1
AC	Accommodation and food service activities	12.9	21.5	66.7	12.5	10.5	16.8	30.2	14.2
	Information and communications	26.5	40.4	17.5	24.7	28.6	50.0	37.5	28.7
	Real estate activities; Professional, scientific and technical activities	16.1	33.1	40.0	17.6	27.3	18.9	7.2	19.1
	Administrative and support service activities; Repair of computers	2.1	18.1	15.0	6.6	7.9	5.9	5.1	6.7
Total		10.0	22.5	23.3	14.5	14.6	9.0	10.9	12.9
Wikip	pedia								
	Manufacturing	1.6	3.2	18.0	4.0	5.6	0.7	0.7	2.9
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	3.1	10.3	8.8	1.2	-	2.6	2.3
	Construction	5.7	1.9	-	-	19.9	-	2.6	4.8
_	Wholesale and retail trade	2.6	6.9	11.6	2.0	7.6	0.2	5.2	3.4
Activity	Transportation and storage	-	3.6	3.1	-	1.9	0.3	-	0.7
Act	Accommodation and food service activities	0.6	3.4	-	0.5	2.9	1.1	-	1.0
	Information and communications	9.2	10.3	-	2.6	37.1	-	8.9	9.1
	Real estate activities; Professional, scientific and technical activities	6.1	11.2	-	10.2		0.9	4.5	6.7
	Administrative and support service activities; Repair of computers	1.8	9.8	5.0	5.3	-	5.9	-	3.8
Total		2.9	5.1	11.1	3.4	7.2	0.6	2.5	3.6

713.	burning 2020, and your enterp	71130 11	ici cust	- 1110.					70
			Size cla	ss		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Num	ber of employees having remote ac	cess to	the ente	rprise's e	-mail?				
	Manufacturing	18.2	44.3	61.0	36.3	19.0	32.0	17.1	27.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	23.0	32.5	59.0	35.1	28.3	41.4	13.5	30.2
	Construction	4.7	34.0	50.6	10.2	1.4	12.2	29.5	11.1
_	Wholesale and retail trade	37.5	46.3	69.4	60.0	38.8	10.9	13.1	39.4
Activity	Transportation and storage	10.6	41.4	55.7	21.3	22.3	10.1	9.0	17.0
Act	Accommodation and food service activities	6.6	31.2	66.7	7.3	8.0	15.9	22.7	10.0
	Information and communications	52.3	34.2	35.0	48.7	42.4	34.0	73.3	48.5
	Real estate activities; Professional, scientific and technical activities	46.7	64.7	90.0	56.7	54.0	18.0	31.3	50.1
	Administrative and support service activities; Repair of computers	25.1	27.4	48.0	27.6	32.5	9.6	36.4	27.6
Total		25.7	42.2	59.7	40.1	26.5	21.7	20.0	30.1
Num mail?	ber of employees having remote ac	cess to	the ente	erprise's IO	CT syster	n beside	es the en	terprise'	s e-
	Manufacturing	14.3	34.4	50.4	28.9	11.4	28.3	13.5	21.3
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	12.3	19.8	41.9	31.0	19.7	22.3	-	18.1
	Construction	4.7	38.6	40.9	9.6	5.0	12.2	29.5	11.6
	Wholesale and retail trade	32.1	47.6	57.5	57.5	26.5	9.2	12.0	34.8
Activity	Transportation and storage	10.6	29.1	55.2	20.6	22.3	3.6	8.6	15.0
Act	Accommodation and food service activities	4.3	26.3	66.7	6.4	5.4	14.8	6.1	7.5
	Information and communications	50.0	39.7	37.5	47.2	56.2	26.0	55.7	47.7
	Real estate activities; Professional, scientific and technical activities	41.3	54.8	75.0	54.8	38.6	7.2	19.0	43.9
	Administrative and support service activities; Repair of computers	10.8	18.5	40.4	18.8	-	7.7	36.4	15.0
Total		21.5	36.5	49.9	36.9	18.8	17.6	15.9	25.4

	_	:	Size class	5		Reg	ion		
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Numl	ber of online meetings on Skype, Zoo	от, Теа	ms						
	Manufacturing	24.1	56.3	85.1	37.2	39.0	30.8	35.4	35.4
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	5.3	37.6	61.6	33.3	11.0	23.0	40.5	24.0
	Construction	16.1	53.4	56.8	26.9	8.5	28.1	33.3	23.8
_	Wholesale and retail trade	36.1	56.1	65.0	62.1	35.0	8.3	17.4	39.5
Activity	Transportation and storage	9.1	48.5	70.8	39.2	10.4	7.5	5.2	17.4
Act	Accommodation and food service activities	6.9	50.7	66.7	11.8	8.4	21.0	15.9	12.9
	Information and communications	81.6	89.9	82.5	88.0	86.2	60.0	63.0	83.1
	Real estate activities; Professional, scientific and technical activities	66.2	92.5	100.0	78.7	70.5	29.5	66.7	70.7
	Administrative and support service activities; Repair of computers	29.4	32.5	88.5	38.9	24.7	34.4	36.4	35.2
Total		31.1	56.8	78.0	51.0	33.2	23.0	30.0	37.7

A10. How much did the changes caused by Covid-19 pandemic impact<sup>1)</sup>

A10: How much did the changes caused by Covid-19 pandemic impact <sup>1)</sup>									
			Size clas	S		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Remo	ote access to the enterprise's e-mai	l - Comp	letely						
	Manufacturing	40.2	41.8	42.6	51.1	44.6	36.7	18.1	41.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	48.6	30.6	50.0	29.2	2.4	90.4	27.4
	Construction	-	19.1	31.0	36.8	-	-	-	14.3
>	Wholesale and retail trade	41.7	41.8	46.7	48.8	24.1	56.6	15.3	41.9
Activity	Transportation and storage		34.2	42.1	9.9	17.2	35.7	20.8	17.7
Act	Accommodation and food service activities	54.7	39.4	100.0	49.4		86.1	45.0	49.8
	Information and communications	35.7	54.6	50.0	42.4	17.8	70.6	28.3	38.4
	Real estate activities; Professional, scientific and technical activities	10.2	31.6	33.3	7.8	31.9	11.1	53.6	15.0
	Administrative and support service activities; Repair of computers	44.1	41.6	63.4	25.7	96.7	80.7	33.3	46.4
Total		32.7	39.1	43.6	37.8	32.7	36.1	23.2	35.2
Remo	ote access to the enterprise's e-mai	l - Partia	lly						
	Manufacturing	40.6	40.9	52.7	36,.3	54.1	31.5	80.4	42.3
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	100.0	30.6	69.4	50.0	41.6	97.6	9.6	63.1
	Construction	100.0	61.7	45.4	32.8	48.4	100.0	100.0	72.4
_	Wholesale and retail trade	36.6	39.4	50.1	27.9	56.9	43.4	72.4	37.6
Activity	Transportation and storage	57.4	40.4	57.9	31.5	74.2	32.2	58.3	50.7
Act	Accommodation and food service activities	35.4	50.6		44.0	55.8	13.9	55.0	40.6
	Information and communications	49.4	37.6	50.0	38.0	75.9	29.4	71.7	47.9
	Real estate activities; Professional, scientific and technical activities	73.2	68.4	61.1	77.8	67.3	19.4	46.4	71.9
	Administrative and support service activities; Repair of computers	36.7	32.0	36.6	45.0	3.3	19.3	66.7	35.7
Total		48.0	44.5	51.8	41.5	56.8	40.6	73.5	47.4

 $<sup>^{1)}\,\</sup>mbox{The}$  results refer only to enterprises that answered "Yes" in question A9a.

			Size class	5		Regi	on		
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Remo	ote access to the enterprise's ICT s	ystem b	esides th	ne e-mai	l - Comple	tely			
	Manufacturing	52,9	44,1	48,8	65,1	51,7	42,8	17,0	48,9
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	100,0	49,9	52,5	64,2	92,2	43,5	-	67,0
	Construction	-	30,1	21,9	32,5	14,1	29,7	-	19,6
_	Wholesale and retail trade	47,4	39,5	48,2	50,2	29,0	65,6	25,9	46,0
Activity	Transportation and storage	-	53,7	54,7	13,7	17,2	100,0	43,5	23,1
Act	Accommodation and food service activities	64,9	58,0	100,0	63,0	29,9	85,1	33,3	63,0
	Information and communications	37,3	64,7	46,7	46,9	18,2	85,1	37,2	41,6
	Real estate activities; Professional, scientific and technical activities	9,6	33,1	40,0	6,5	38,4	27,6	88,2	14,9
	Administrative and support service activities; Repair of computers	18,6	57,1	75,4	42,1	-	76,1	33,3	42,2
Total		37,3	42,9	49,8	41,1	34,7	48,3	24,4	39,7
Remo	ote access to the enterprise's ICT s	ystem b	esides e	-mail - P	artially				
	Manufacturing	29.5	43.0	48.8	30.8	46.1	29.5	80.9	37.4
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	50.1	40.5	35.8	3.9	56.5	-	31.5
	Construction	100.0	41.1	70.8	39.4	7.5	70.3	100.0	63.0
	Wholesale and retail trade	52.3	52.3	48.0	47.7	70.2	34.4	69.9	52.2
Activity	Transportation and storage	57.4	33.8	45.3	25.7	74.2	-	56.5	48.6
Act	Accommodation and food service activities	35.1	34.1	-	29.4	70.1	14.9	66.7	33.3
	Information and communications	62.7	31.9	53.3	53.1	79.4	14.9	62.8	57.9
	Real estate activities; Professional, scientific and technical activities	75.7	65.2	60.0	78.6	61.6	72.4	-	73.3
	Administrative and support service activities; Repair of computers	81.4	42.9	24.6	57.9	-	23.9	66.7	57.8
Total		55.1	46.4	47.5	51.5	61.3	33.6	73.5	52.2

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question A9b.

A10: How much did the changes caused by Covid-19 pandemic impact (continued) $^{1)}$ 

%

			Size clas	S		Reg	ion		
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Enter	prise's online meetings on <i>Skype, 2</i>	oom, T	eams - C	omplete	ly				
	Manufacturing	39.8	44.6	49.6	63.2	43.7	24.1	43.0	43.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	81.9	77.7	86.0	86.0	20.9	100.0	72.1
	Construction	55.5	49.5	46.2	73.5	58.5	1.2	70.5	52.5
	Wholesale and retail trade	72.9	75.9	59.1	77.0	57.5	58.0	97.2	73.0
Activity	Transportation and storage	50.0	56.2	55.9	64.6	21.4	47.7	35.7	53.6
Act	Accommodation and food service activities	79.3	60.8	100.0	87.2	-	94.7	12.8	70.3
	Information and communications	57.7	53.3	48.5	68.4	8.8	93.6	32.9	56.6
	Real estate activities; Professional, scientific and technical activities	45.9	45.8	65.0	43.3	44.1	91.1	52.7	46.3
	Administrative and support service activities; Repair of computers	27.8	65.9	40.1	33.3	32.0	86.1	33.3	38.1
Total		55.2	55.2	52.3	63.9	43.8	36.3	57.3	55.0
Enter	prise's online meetings on Skype, 2	oom, T	eams - P	artially					
	Manufacturing	54.8	42.7	40.2	30.7	55.6	53.3	51,2	48,1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	100.0	18.1	15.9	7.0	14.0	79.1	-	26.5
	Construction	44.5	50.5	53.8	26.5	41.5	98.8	29.5	47.5
_	Wholesale and retail trade	21.2	24.1	40.9	23.0	22.1	42.0	2.8	22.5
Activity	Transportation and storage	50.0	29.0	44.1	35.4	42.3	52.3	64.3	39.8
Act	Accommodation and food service activities	20.7	29.5	-	12.8	61.5	5.3	87.2	24.8
	Information and communications	38.9	46.7	51.5	31.6	76.8	6.4	67.1	40.8
	Real estate activities; Professional, scientific and technical activities	54.1	49.6	20.0	56.7	49.7	8.9	47.3	52.4
	Administrative and support service activities; Repair of computers	52.9	34.1	31.1	55.1	4.3	13.9	66.7	44.4
Total		40.5	38.4	38.0	34.6	44.8	51.3	40.3	39.7

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question A9c.

A11: During 2020, under the influence of Covid-19, did your enterprise begin or increase actions for Internet sale of goods or services (via website or app, resale website, EDI-type sale)?

			Size class	S		Region				
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total	
YES										
	Manufacturing	6.4	11.1	21.1	11.2	7.5	7.6	7.5	8.4	
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-	
	Construction	1.6	11.2	9.7	0.7	3.5	3.6	12.5	3.5	
	Wholesale and retail trade	13.0	24.4	52.6	8.8	23.5	19.8	16.2	15.5	
Activity	Transportation and storage	2.7	6.9	25.5	0,7	0.3	4.3	20.5	4.1	
Act	Accommodation and food service activities	11.6	31.4	33.3	15.6	8.3	14.2	19.6	14.2	
	Information and communications	12.3	13.1	5.0	14.0	-	18.1	17.8	12.2	
	Real estate activities; Professional, scientific and technical activities	4.5	3.2	-	-	11.7	14.3	4.5	4.3	
	Administrative and support service activities; Repair of computers	17.2	6.6	-	8.8	34.3	4.8	2.0	13.4	
Total		8.2	12.7	20.0	7.5	11.4	10.0	11.5	9.5	

## MODULE B: E-commerce

R1: During 2020, did your enterprise have web sales of goods or services:

B1: During 2020, did your enterprise have web sales of goods or services:											
			Size clas	is		Re	gion				
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total		
Via th	ne website or mobile app of your er	terpris	e?								
	Manufacturing	15.2	23.3	22.7	21.9	18.5	13.5	17.8	17.6		
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	5.9	2.9	-	0.8	-	12.2	2.8		
	Construction	7.4		9.7	11.7	0.3	3.6	15.1	7.7		
>	Wholesale and retail trade	24.2	28.9	47.6	17.7	32.3	21.7	44.9	25.4		
Activity	Transportation and storage	4.6	15.5	51.6	16.0	4.4	3.9	5.2	7.8		
Act	Accommodation and food service activities	64.8	64.5	33.3	82.2	45.2	47.8	21.6	64.6		
	Information and communications	46.8	53.6	87.5	44.2	58.9	55.7	61.0	49.3		
	Real estate activities; Professional, scientific and technical activities	12.3	11.8	-	2.5	24.9	39.1	14.8	12.0		
	Administrative and support service activities; Repair of computers	37.7	35.1	-	33.1	47.5	13.3	27.3	33.9		
Total		21.1	24.2	25.2	23.7	22.5	16.1	25.0	21.9		
Via e	-commerce websites or apps used b	y sever	al enter	orises on	market	place?					
	Manufacturing	0.1	4.9	4.3	2.0	1.9	1.5	0.2	1.5		
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	4.7	-	-	-	-	-	11.3	2.3		
	Construction	1.6	4.7	9.7	0.7	-	3.6	9.8	2.3		
_	Wholesale and retail trade	10.6	7.2	6.3	15.5	7.1	1.0	10.9	10.0		
ξ	Transportation and storage	11.5	7.3	13.0	1.4	3.8	34.1	-	10.9		
Activity	Accommodation and food service activities	30.2	11.0	33.3	22.8	31.1	37.4	34.9	27.7		
	Information and communications	13.7	2.0	-	8.0	24.6	4.0	14.5	11.2		
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-		
	Administrative and support service activities; Repair of computers	12.5	-	-	7.3	1.4	20.8	25.3	8.7		
Total		7.4	4.6	4.6	7.8	5.0	6.5	7.1	6.7		

		Enterprises								
	Size class				Region					
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total		
1-24%	64.2	89.2	81.5	62.5	67.3	81.4	79.8	69.5		
25-49%	24.3	6.6	13.0	28.8	10.4	18.4	16.5	20.6		
50-74%	11.5 4.2 5.6			8.7	22.3	0.2	3.7	9.9		
75–100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

# B3: What was the percentage of the value of web sales in 2020 for the following?

%

								70	
				Enter	orises				
		Size class	5		Re	gion			
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total	
Via your enterprise's website or mobile app									
1–24%	22.1	8.4	8.3	19.9	14.4	23.7	19.0	19.1	
25–49%	2.4	0.0	0.0	2.8	0.0	1.1	3.2	1.9	
50-74%	0.8	2.3	1.2	0.4	1.1	2.7	1.2	1.1	
75–100%	74.7	89.4	90.5	76.9	84.5	72.6	76.6	78.0	
Via e-commerce marketplace websit	es or apps	used by	several e	nterprise	es for tra	ading goo	ods		
1-24%	74.7	89.4	88.8	76.7	84.5	72.6	76.6	77.9	
25–49%	0.1	2.0	2.8	0.4	1.1	0.6	0.0	0.6	
50-74%	3.1	0.3	0.0	2.9	0.0	3.1	4.4	2.4	
75–100%	22.1	8.4	8.3	19.9	14.4	23.7	19.0	19.1	

 $<sup>^{\</sup>rm 1)}$  The results refer only to enterprises that answered "Yes" in question B1.

		Enterprises									
		Size class			Reg	gion					
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total			
Sale to end consumers (B2C)											
1-24%	23.9	22.0	26.5	30.7	16.1	15.2	25.6	23.6			
25–49%	1.3	2.6	2.8	2.9	0.8	0.0	0.8	1.6			
50-74%	14.4	11.1	6.5	8.6	28.1	12.4	4.4	13.5			
75–100%	60.4	64.3	64.2	57.8	55.0	72.4	69.2	61.2			
Sale to other enterprises (B2B, B2G)											
1-24%	60.4	64.3	64.2	57.8	55.0	72.4	69.2	61.2			
25–49%	3.3	3.3	1.5	2.3	4.5	5.2	1.4	3.2			
50-74%	12.4	9.9	7.8	9.0	24.4	7.1	3.8	11.8			
75–100%	23.9	22.4	26.5	30.9	16.1	15.2	25.6	23.7			

# B7: Did your enterprise have web sales to customers located in the following geographic areas?

%

		:	Size clas	s		Reg	ion		
Enterprises			Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Republic of	f Serbia								
	Manufacturing	9.6	95.3	100.0	100.0	100.0	100.0	88.2	98.2
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	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	100.0
_	Wholesale and retail trade	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
i,	Transportation and storage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Activity	Accommodation and food service activities	96.9	96.6	100.0	97.9	100.0	100.0	68.0	96.9
	Information and communications	88.8	100.0	100.0	89.1	100.0	93.3	78.7	91.1
	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 service activities; Repair of computers	88.9	100.0	-	100.0	66.9	100.0	100.0	91.1
Total		97.4	98.0	100.0	98.0	97.5	99.6	93.9	97.6
									-

Finterprises   Size class   Region   Fig.   Fig.										
Manufacturing				Size class	i		Reg	gion		
Manufacturing	Enterprises		Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Flectricity, gas, steam and air conditioning supply; Water supply and sewerage   -   100.0   -   100.0   -   0.8	EU cour	ntries								
Flectricity, gas, steam and air conditioning supply; Water supply and sewerage   -		Manufacturing	9.4	17.3	8.7	9.6	9.0	4,6	34,4	11.9
Wholesale and retail trade   5.7   1.2   13.3   12.5   -   -   1.0   5.3     Transportation and storage   -   19.0   39.6   8.5   30.4   0.9   28.6   7.2     Accommodation and food service activities   Information and communications   16.3   9.9   -   23.0   -   -   15.2   14.5     Real estate activities; Professional, scientific and technical activities   Administrative and support service activities; Repair of computers   14.6   10.5   -   7.0   33.1   12.2   -   13.7    Total   10.6   17.6   13.6   14.6   9.6   9.5   11.6   12.0    Rest of the world		conditioning supply; Water supply	-	-	100.0	-	100.0	-	-	5.2
Transportation and storage		Construction	-	4.8	-	-	100.0	-	-	0.8
Information and communications   16.3   9.9   - 23.0     15.2   14.5     Real estate activities; Professional, scientific and technical activities     Administrative and support service activities; Repair of computers   14.6   10.5   - 7.0   33.1   12.2   - 13.7     Total	S	Wholesale and retail trade	5.7	1.2	13.3	12.5	-	-	1.0	5.3
Information and communications   16.3   9.9   - 23.0     15.2   14.5     Real estate activities; Professional, scientific and technical activities     Administrative and support service activities; Repair of computers   14.6   10.5   - 7.0   33.1   12.2   - 13.7     Total	iţi	Transportation and storage	-	19.0	39.6	8.5	30.4	0.9	28.6	7.2
Real estate activities; Professional, scientific and technical activities   23.1   80.8   - 91.0   46.8   - 31.6     Administrative and support service activities; Repair of computers   14.6   10.5   - 7.0   33.1   12.2   - 13.7     Total	Activ		19.0	56.3	-	17.8	7.4	68.6	40.3	23.6
Scientific and technical activities		Information and communications	16.3	9.9	-	23.0	-	-	15.2	14.5
Total   14.6   10.5   - 7.0   33.1   12.2   - 13.7			23.1	80.8	-	91.0	46.8	-	-	31.6
Manufacturing   5.1   17.9   3.9   10.3   6.5   4.6   19.8   9.2			14.6	10.5	-	7.0	33.1	12.2	-	13.7
Manufacturing 5.1 17.9 3.9 10.3 6.5 4.6 19.8 9.2  Electricity, gas, steam and air conditioning supply; Water supply and sewerage  Construction - 4.8 100.0 0.8  Wholesale and retail trade 6.0 2.5 10.5 12.7 - 3.7 - 5.7  Transportation and storage - 19.0 17.1 4.2 30.4 0.9 - 5.0  Accommodation and food service activities  Information and communications 18.4 13.6 - 24.1 - 6.7 25.7 16.7  Real estate activities; Professional, scientific and technical activities  Administrative and support service activities; Repair of computers 2.4 10.5 - 6.3 - 6.1 - 4.0	Total		10.6	17.6	13.6	14.6	9.6	9.5	11.6	12.0
Electricity, gas, steam and air conditioning supply; Water supply and sewerage  Construction	Rest of	the world								
Construction		Manufacturing	5.1	17.9	3.9	10.3	6.5	4.6	19.8	9.2
Construction		conditioning supply; Water supply	-	-	-	-	-	-	-	-
Wholesale and retail trade 6.0 2.5 10.5 12.7 - 3.7 - 5.7 Transportation and storage - 19.0 17.1 4.2 30.4 0.9 - 5.0 Accommodation and food service activities 17.1 46.2 - 18.6 1.0 68.6 - 20.7 Information and communications 18.4 13.6 - 24.1 - 6.7 25.7 16.7 Real estate activities; Professional, scientific and technical activities Administrative and support service activities; Repair of computers 2.4 10.5 - 6.3 - 6.1 - 4.0				4.8	_		100.0	_	_	0.8
activities Information and communications Real estate activities; Professional, scientific and technical activities Administrative and support service activities; Repair of computers  18.4 13.6 24.1 13.6 24.1 25.7 16.7 25.7 16.7 25.7 16.7 25.7 16.7 25.7 16.7 25.7 25.7 25.7 25.7 25.7 25.7 25.7 25	_		6.0		10.5	12.7	-	3.7	-	
activities Information and communications Real estate activities; Professional, scientific and technical activities Administrative and support service activities; Repair of computers  18.4 13.6 24.1 13.6 24.1 25.7 16.7 25.7 16.7 25.7 16.7 25.7 16.7 25.7 16.7 25.7 25.7 25.7 25.7 25.7 25.7 25.7 25	vit,	Transportation and storage	-	19.0	17.1	4.2	30.4	0.9	-	5.0
Real estate activities; Professional, scientific and technical activities  Administrative and support service activities; Repair of computers  23.1 80.8 - 91.0 46.8 31.6  - 31.6  - 31.6	Acti	Accommodation and food service	17.1	46.2	-	18.6	1.0	68.6	-	20.7
scientific and technical activities  Administrative and support service activities; Repair of computers  2.4 10.5 - 6.3 - 6.1 - 4.0		Information and communications	18.4	13.6	-	24.1	-	6.7	25.7	16.7
activities; Repair of computers			23.1	80.8	-	91.0	46.8	-	-	31.6
Total 9.1 17.4 6.9 14.9 5.6 10.5 6.1 10.6			2.4	10.5	-	6.3	-	6.1	-	4.0
	Total		9.1	17.4	6.9	14.9	5.6	10.5	6.1	10.6

B8: What was the percentage of the turnover of web sales to customers located in the following geographic areas in 2020?

				Enter	prises			
		Size class						
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Republic of Serbia								
1-24%	4.0	5.2	0.8	5.7	2.5	0.4	6.4	4.1
25-49%	0.9	0.4	1.7	0.7	1.5	1.0	0.0	0.8
50-74%	1.2	4.7	5.2	1.9	1.7	1.8	3.0	2.0
75-100%	93.9	89.7	92.4	91.7	94.3	96.9	90.6	93.1
EU countries								
1-24%	94.8	92.6	93.2	93.4	94.4	98.5	91.8	94.3
25-49%	0.7	2.8	4.4	1.7	1.5	0.5	0.0	1.2
50-74%	2.5	2.0	2.5	2.9	1.6	1.0	3.9	2.4
75-100%	2.1	2.7	0.0	2.0	2.5	0.0	4.4	2.1
Rest of the world								
1-24%	98.4	97.5	98.3	97.2	100.0	98.7	98.0	98.3
25-49%	0.4	0.4	1.7	1.0	0.0	0.0	0.0	0.4
50-74%	0.7	1.7	0.0	1.3	0.0	0.9	0.9	0.8
75–100%	0.5	0.4	0.0	0.5	0.0	0.4	1.2	0.4

			Size class			Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
High	costs of delivering or returning pr	oducts v	vhen sell	ing to El	J countri	ies			
	Manufacturing	39.3	57.0	-	-	-	40.7	95.4	45.4
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	100.0	-	100.0	-	-	100.0
	Construction	-	-	-	-	-	-	-	
	Wholesale and retail trade	96.2	-	78.9	95.1	-	-	-	91.9
>	Transportation and storage	-	100.0	-	-	100.0	-	-	45.8
Activity	Accommodation and food service activities	-	-	-	-	-	-	-	
_	Information and communications	40.4	-	-	40.2	-	-	-	35.9
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	8.1	-	-	-	-	100.0	-	6.9
Total		31.3	24.5	27.0	34.8	8.7	9.4	58.2	29.3
Diffic	ulties related to resolving complai	ints and	disputes	when se	elling to	EU count	tries		
	Manufacturing			22.2			13.2		1.3
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	78.9	6.3	-	-	-	6.1
_	Transportation and storage	-	100.0	-	-	100.0	-	-	45.8
Activity	Accommodation and food service activities	-	4.7	-	2.9	-	-	-	1.4
∢	Information and communications	-	-	-	-	-	-	-	_
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total	-	-	7.1	27.0	2.5	7.5	1.7	-	3.1

 $<sup>^{\</sup>rm 1)}\, {\rm The}\ {\rm results}\ {\rm refer}\ {\rm only}\ {\rm to}\ {\rm enterprises}\ {\rm that}\ {\rm answered}\ {\rm "Yes"}\ {\rm in}\ {\rm question}\ {\rm B7b}.$ 

B9: Did your enterprise experience any of the following difficulties regarding web sales to EU countries during 2020? 1)

%

	web sales to EU countries di	iring 2	020? -/						%
			Size class	5		Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Adap	ting labeling when selling to EU cou	untries							
	Manufacturing	39.3	21.7	-	26.3	-	40.7	42.5	28.7
	Electricity, gas, steam and air								
	conditioning supply; Water supply	_	_	_	_	_	_	_	_
	and sewerage								
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	78.9	6.3	-	-	-	6.1
۸it	Transportation and storage	-	100.0	-	-	100.0	-	-	45,8
Activity	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	3.4	_	_	_	_	_	28.6	3.1
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		5.7	12.8	21.3	4.0	7.5	5.4	28.9	8.3
Lack	of knowledge of foreign languages	for com	municati	ing with	custome	ers in EU	countrie	S	
	Manufacturing	-	8.2	_	-	_	40.7	_	3.9
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	
_	Wholesale and retail trade	-	-	-	-	-	-	-	-
νiτ)	Transportation and storage	-	100.0	-	-	100.0	-	-	45.8
Activity	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	-	-	-	-	-	-	-	-
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		-	8.3	_	-	7.5	5.4	_	2.2

<sup>1)</sup> The results refer only to enterprises that anwered "Yes" in question B7b.

35.9

12.0

42.9

			Size class	5		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Toral
Restr	rictions from your business partners	to sell to	o certain	EU cour	ntries				
	Manufacturing	39.3	-	-	-	-	-	42.5	18.5
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
νiτ,	Transportation and storage	-	-	-	-	-	-	-	-
Activity	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	3.4	-	-	-	-	-	28.6	3.1
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		5.7	_	-	-	_	_	28.9	3.9
	culties related to the VAT system in rent countries)	EU count	tries (e.g	. uncerta	ainty re	garding \	VAT trea	tment in	
	Manufacturing	43.6	21.4	-	-	-	-	70.3	30.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	-	-	-	-	-	-	-	-
vit,	Transportation and storage	-	100.0	-	-	100.0	-	-	45.8
Activity	Accommodation and food service activities	-	-	-	-	-	-	-	-

Information and communications

Real estate activities; Professional, scientific and technical activities Administrative and support service activities; Repair of computers

Total

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12.6

40.4

12.5

40.2

8.9

7.5

 $<sup>^{1)}</sup>$  The results refer to enterprises that answered "Yes" in question B7b.

B10: During 2020, did your enterprise have EDI-type sales of goods or services?

								,,,
		Size class			Re	egion		
Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total

#### YES

	Manufacturing	1.4	3.3	6.9	2.6	3.0	1.1	2.4	2.2
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	0.4	9.7	0.7	0.3	-	-	0.4
	Wholesale and retail trade	0.3	3.2	19.9	1.7	0.5	1.0	0.5	1.1
Ę.	Transportation and storage	4.6	8.4	28.6	19.2	0.3	0.7	-	5.9
Activity	Accommodation and food service activities	6.9	4.5	-	0.4	22.6	12.2	-	6.5
	Information and communications	4.4	1.6	-	5.2	-	4.0	-	3.7
	Real estate activities; Professional, scientific and technical activities	2.8	0.9	-	0.2	11.7	-	-	2.5
	Administrative and support service activities; Repair of computers	6.6	3.7	-	8.8	-	-	-	5.4
Total		2.0	3.0	8.7	3.2	3.0	1.3	1.0	2.5

#### B11: What percentage was generated by EDI-type sales of goods or services during 2020?1)

%

%

		Enteprises										
		Size class										
	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total				
1-24%	54.6	87.2	85.9	52.6	81.1	79.6	86.6	66.1				
25–49%	33.1	10.4	9.4	45.2	1.0	5.6	0.0	24.8				
50-74%	12.3	2.4	4.7	2.2	17.9	14.8	13.4	9.1				
75–100%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question B10.

			Size class			Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Repu	blic of Serbia								
	Manufacturing	65.1	100.0	100.0	100.0	59.6	100.0	100.0	84.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	100.0	100.0	100.0	100.0	-	-	100 .0
>	Wholesale and retail trade	27.1	100.0	100.0	100.0	100.0	15.1	100.0	85 .1
Activity	Transportation and storage	100.0	100.0	100.0	100.0	100.0	100.0	-	100 .0
Act	Accommodation and food service activities	85.1	100.0	-	100.0	100.0	52.7	-	86 .5
	Information and communications	90.1	100.0	-	100.0	-	-	-	90 .9
	Real estate activities; Professional, scientific and technical activities	100.0	100.0	-	100.0	100.0	-	-	100 .0
	Administrative and support service activities; Repair of computers	100.0	100.0	-	100.0	-	-	-	100 .0
Total		86.8	100.0	100.0	100.0	86.8	62.4	100.0	91.5
EU co	ountries								
	Manufacturing	34,9	7,5	6,8	14,3	40,4	-	-	19 ,8
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	100,0	-	-	100,0	-	-	21 ,1
_	Wholesale and retail trade	-	13,8	-	8,3	-	-	-	5 ,5
Activity	Transportation and storage	-	-	-	-	-	-	-	-
Act	Accommodation and food service activities	28,6	69,2	-	100,0	-	100,0	-	32 ,2
	Information and communications	-	100,0	-	8,3	-	-	-	7 ,6
	Real estate activities; Professional, scientific and technical activities	100,0	100,0	-	100,0	100,0	-	-	100 ,0
	Administrative and support service activities; Repair of computers	15,2	-	-	12,9	-	-	-	12 ,9
Total		28,0	16,1	2,3	8,8	42,3	36,2	-	21,9

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question B10.

B12: During 2020, did your enterprise sell via EDI-type messages to customers located in the following geographic areas?<sup>1)</sup> (continued)

%

			Size class			Re	gion		
Enterprises		Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Rest	of the world								
	Manufacturing	34 .9	7.5	13.6	18.7	40.4	-	-	21.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	
_	Wholesale and retail trade	-	13.8	-	8.3	-	-	-	5.5
- İţ	Transportation and storage	-	-	-	-	-	-	-	-
Activity	Accommodation and food service activities	28.6	28.8	-	-	-	100.0	-	28.6
	Information and communications	9.9	100.0	-	8.3	-	100.0	-	16.7
	Real estate activities; Professional, scientific and technical activities	100.0	-	-	-	100.0	-	-	94.3
	Administrative and support service activities; Repair of computers	11.8	-	-	10.0	-	-	-	10.0
Total		28.5	10.0	4.7	6.8	41.2	41.9	-	21.2

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question B10.

# MODULE C: Sharing of information electronically within the enterprise

# C1: Does your enterprise use ERP software?

~/	
/	v

			Size class	;		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
YES									
	Manufacturing	11.0	37.6	50.8	27.8	18.7	14.7	19.9	19.7
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	12.3	22.6	50.4	21.6	23.1	20.3	13.5	20.1
	Construction	-	22.7	53.9	7.5	5.7	3.9	1.2	5.5
_	Wholesale and retail trade	26.0	46.9	64.5	35.4	28.9	21.0	25.3	29.8
Activity	Transportation and storage	10.3	32.7	74.5	26.7	2.5	24.6	4.9	15.9
Acti	Accommodation and food service activities	21.0	29.3	66.7	15.4	15.5	44.3	44.2	22.3
	Information and communications	33.0	39.8	82.5	43.9	10.2	21.9	41.8	35.8
	Real estate activities; Professional, scientific and technical activities	29.5	32.6	40.0	31.2	30.6	31.7	14.5	30.1
	Administrative and support service activities; Repair of computers	13.7	22.1	43.1	25.9	9.8	1.9	-	18.1
Total		17.6	35.2	54.7	28.2	18.7	18.0	18.6	22.3

			Size class	i	Region				
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
The c	ollection, storing and making availa	able info	rmation	on custo	mers to	various	business	function	ıs
	Manufacturing	7.5	15.7	15.8	11.8	18.5	2.5	6.8	10.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	12.8	9.9	17.1	33.9	18.9	1.0	-	12.0
	Construction	-	4.7	-	-	-	3.6	-	0.8
_	Wholesale and retail trade	17.8	18.0	20.5	29.3	5.0	8.7	17.9	17.9
vit,	Transportation and storage	10.6	9.1	25.5	13.9	18.2	4.3	-	10.8
Activity	Accommodation and food service activities	12.1	17.1	-	13.1	5.2	26.8	2.0	12.7
	Information and communications	22.4	29.0	67.5	29.5	8.9	15.9	33.8	25.0
	Real estate activities; Professional, scientific and technical activities	11.9	24.8	10.0	14.3	2.4	30.5	14.8	13.8
	Administrative and support service activities; Repair of computers	11.8	9.5	17.6	17.9	1.1	6.7	-	11.8
Total		11.6	15.2	18.0	18.1	10.6	6.7	9.0	12.5
	nalysis of information on customer sing distribution channels)	rs for ma	rketing p	ourposes	(e.g. set	ting pric	ces, sales	s promot	ions,
	Manufacturing	6.7	13.2	12.2	9.9	13.8	3.2	8.0	8.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	7.0	-	10.2	4.1	9.9	1.0	-	4.3
	Construction	-	5.1	-	-	0.3	3.6	-	0.9
	Wholesale and retail trade	6.5	16.0	17.8	3.5	14.0	4.9	17.9	8.1
vit,	Transportation and storage	-	3.6	22.4	1.4	2.2	0.7	-	1.3
Activity	Accommodation and food service	9.5	11.6	66.7	15.0	7.0	1.1	_	10.0

9.5

7.9

3.6

2.8

5.1

activities

Total

Information and communications

scientific and technical activities

Administrative and support service

activities; Repair of computers

Real estate activities; Professional,

11.6

23.9

11.0

6.7

11.3

66.7

62.5

17.6

15.1

15.0

14.1

2.0

5.3

5.7

7.0

6.7

4.8

7.0

9.8

1.1

7.9

13.4

1.9

3.7

16.3

14.8

8.7

10.0

12.5

4.7

4.9

6.7

# MODULE D: Use of cloud computing services

# D1: Does your enterprise buy cloud computing services over the Internet?

D1. D003 your enterprise buy cloud computing services over the internet.											
			Size class	;		Region					
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total		
YES											
	Manufacturing	18.3	35.2	51.1	35.4	19.4	23.9	17.0	24,.3		
	Electricity, gas, steam and air										
	conditioning supply; Water supply and sewerage	12.3	19.8	43.4	23.4	22.0	23.0	1.3	18.3		
	Construction	7.2	42.4	30.1	9.1	5.4	31.1	15.1	14.0		
_	Wholesale and retail trade	26.4	50.2	62.2	43.4	29.7	9.1	20.0	30.5		
Activity	Transportation and storage	21.3	43.1	71.4	39.3	36.6	10.8	5.2	26.3		
Acti	Accommodation and food service activities	23.6	40.3	33.3	29.9	14.0	32.6	13.9	25.9		
	Information and communications	59.9	49.7	10.0	66.4	36.2	34.0	46.7	56.5		
	Real estate activities; Professional, scientific and technical activities	47.8	57.0	60.0	53.8	42.3	54.3	20.6	49.4		
	Administrative and support service activities; Repair of computers	22.9	33.4	53.0	32.0	12.7	28.5	36.4	27.8		
Total		25.0	40.6	50.7	39.2	24.2	22.0	17.5	28.9		

	ised over the internet:								70
			Size class	5		Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
E-ma	il (as a cloud computing service)								
	Manufacturing	53.7	75.9	83.9	70.4	68.8	56.3	66.7	65.2
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	56.7	100.0	84.2	90.0	96.5	62.3	100.0	82.4
	Construction	100.0	100.0	70.2	95.5	93.0	100.0	100.0	98.2
	Wholesale and retail trade	95.0	66.0	81.3	87.9	82.4	100.0	94.5	87.8
vit,	Transportation and storage	50.0	77.2	95.6	56.1	56.4	96.7	64.3	61.0
Activity	Accommodation and food service activities	95.7	76.7	-	94.4	85.2	82.3	100.0	91.3
	Information and communications	79.4	78.9	50.0	74.7	96.3	76.5	100.0	79.2
	Real estate activities; Professional, scientific and technical activities	61.9	68.2	91.7	46.8	99.0	100.0	89.1	63.6
	Administrative and support service activities; Repair of computers	89.3	95.3	94.9	93.5	69.0	100.0	94.4	91.8
Total		75.7	77.2	84.9	74.7	78.3	77.3	85.2	76.7
Office	e software – word processors and sp	oreadshe	ets (as a	cloud c	omputin	g service	e)		
	Manufacturing	40.3	64.8	74.0	46.7	87.3	32.9	57.9	53.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	43.3	-	36.1	17.5	7.0	37.7	100.0	21.9
	Construction	100.0	26.4	38.4	33.9	7.0	76.7	65.1	57.3
>	Wholesale and retail trade	18.7	72.8	88.4	20.7	50.2	78.0	58.2	34.1
Activity	Transportation and storage	42.8	57.2	67.9	82.9	1.7	100.0	28.6	48.7
Act	Accommodation and food service activities	23.9	57.2	-	18.8	90.1	41.5	14.7	30.6
	Information and communications	63.4	89.4	100.0	76.0	28.3	34.9	65.7	67.7
	Real estate activities; Professional, scientific and technical activities	38.9	65.4	66.7	46.8	66.7	3.7	17.4	44.1
	Administrative and support service activities; Repair of computers	59.4	47.3	85.6	57.6	91.5	16.8	94.4	60.5
Total		38.2	60.5	73.2	43.1	53.2	43.8	57.6	46.4

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

			Size class			Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Finan	ce or accounting software applicat	ions (as a	a cloud c	omputin	g servic	e)			
	Manufacturing	62.5	32.6	43.0	45.5	53,.2	55.8	36.8	49.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	43.3	50.1	35.8	45.0	3.5	87.9	100.0	44.8
	Construction	100.0	27.4	8.6	29.4	6.1	76.7	65.1	56.0
>	Wholesale and retail trade	51.7	21.4	32.0	39.3	64.8	-	49.5	44.0
Activity	Transportation and storage	21.4	12.6	27.0	33.8	0.8	39.8	-	19.5
Act	Accommodation and food service activities	39.3	51.0	-	56.9	23.1	2.7	26.5	41.5
	Information and communications	30.9	85.3	100.0	42.2	24.6	53.3	29.8	39.8
	Real estate activities; Professional, scientific and technical activities	41.3	26.3	-	37.1	61.0	1.6	78.3	37.9
	Administrative and support service activities; Repair of computers	25.5	39.1	18.7	26.5	22.5	10.3	61.1	28.0
Total		46.8	31.9	32.8	40.0	44.4	43.6	45.3	41.9
Enter	prise Resource Planning - ERP								
	Manufacturing	14.1	9.1	24.5	15.1	27.1	4.9	4.7	13.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	15.8	21.3	37.5	7.0	4.4	-	11.8
	Construction	-	11.0	18.4	-	7.0	12.7	-	7.0
_	Wholesale and retail trade	32.8	29.5	12.8	32.3	24.4	81.1	6.3	31.2
Σij	Transportation and storage	-	20.8	22.6	1.8	5.1	39.8	-	7.4
Activity	Accommodation and food service activities	4.3	18.9	-	5.9	-	17.7	-	7.3
	Information and communications	42.5	40.3	50.0	48.9	2.5	35.3	38.7	42.2
	Real estate activities; Professional, scientific and technical activities	3.6	25.3	-	4.7	5.7	24.7	-	7.3
	Administrative and support service activities; Repair of computers	18.2	24.6	18.7	20.0	-	59.8	-	20.0
Total		19.1	19.6	19.9	21.7	16.6	20.3	7.1	19.3

<sup>&</sup>lt;sup>1)</sup> The results refer only to enterprises that answered "Yes" in question D1.

			Size class			Re	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Custo	omer Relationship Management (CF	RM) softv	ware app	lications	s (as a clo	oud con	nputing	service)	
	Manufacturing	1.9	10.9	8.8	6.3	12.9	1,9	1.6	5.9
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	34.1	21.3	7.5	41.1	4.4	-	20.2
	Construction	-	12.0	-	-	6.1	11.6	-	6.4
>	Wholesale and retail trade	28.5	8.7	14.2	28.4	18.7	8.9	8.8	23.4
Activity	Transportation and storage	-	12.6	17.5	-	0.8	39.8	-	4.8
Act	Accommodation and food service activities	-	15.2	100.0	3.6	11.5	-	-	3.6
	Information and communications	20.1	31.5	50.0	25.9	2.5	11.8	19.7	22.0
	Real estate activities; Professional, scientific and technical activities	16.3	8.6	-	15.6	5.7	24.7	-	14.6
	Administrative and support service activities; Repair of computers	3.4	6.5	28.1	10.3	-	10.3	-	8.3
Total		14.4	12.2	13.5	17.2	12.0	8.9	5.0	13.8
Security software applications (e.g. antivirus program, network access control) (as a cloud compservice)						d computi	ng		
	Manufacturing	37.1	43.4	63.6	42.5	52.8	32.2	50.9	42.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	100.0	34.2	14.5	-	44.9	83.5	100.0	51.6
	Construction	-	26.4	38.0	29.4	20.9	12.7	-	16.3
_	Wholesale and retail trade	14.9	39.0	41.5	12.2	36.6	19.8	50.8	21.6

43.6

49.3

71.2

49.3

60.6

43.6

16.9

40.9

54.0

28.6

29.3

77.4

100.0

37.5

50.5

20.6

20.2

50.9

56.1

35.7

33.1

7.6

63.1

24.6

66.7

46.5

40.6

36.6

17.7

52.9

3.7

27.2

26.9

64.3

23.5

82.6

61.1

45.0

17.9

23.4

46.0

52.1

38.4

34.5

Transportation and storage

activities

Total

Accommodation and food service

Information and communications

Real estate activities; Professional,

scientific and technical activities
Administrative and support service

activities; Repair of computers

 $<sup>^{1)}</sup>$  The results refer only to enterprises who answered "Yes" in question D1.

			Size class			Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Hos	ting the enterprise's database(s) (a	s a cloud	comput	ing servi	ce)				
	Manufacturing	28.6	36.3	39.9	32.0	26.6	36.3	37.4	32.7
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	43.3	50.1	43.5	45.0	-	100.0	-	46.5
	Construction	-	27.4	8.6	-	72.1	12.7	17.5	15.0
_	Wholesale and retail trade	46.5	19.2	18.5	43.0	46.0	1.6	14.9	39.1
Activity	Transportation and storage	28.6	20.8	36.5	3.6	49.5	33.3	28.6	27.2
Act	Accommodation and food service activities	38.0	36.1	-	49.4	41.0	-	14.7	37.4
	Information and communications	71.2	56.1	100.0	75.4	28.3	64.7	68.3	68.9
	Real estate activities; Professional, scientific and technical activities	35.9	14.5	-	33.2	35.1	4.8	89.1	31.4
	Administrative and support service activities; Repair of computers	35.1	46.0	9.4	42.6	11.3	27.2	-	33.7
Tota	al	40.4	30.1	29.1	40.7	37.2	26.9	31.2	36.9
Sto	rage of files (as a cloud computing s	service)							
	Manufacturing	31.2	52.1	57.4	45.1	54.9	30.6	35.2	41.7
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	43.3	-	45.8	10.0	3.5	50.8	100.0	24.0
	Construction	-	27.4	18/4	29.4	13.1	12.7	-	15.6
_	Wholesale and retail trade	75.9	44.1	60.7	74.1	85.9	4.1	13.5	68.0
Ϋ́Ε,	Transportation and storage	50.0	21.0	40.9	35.6	49.7	36.6	28.6	41.6
Activity	Accommodation and food service activities	72.5	34.2	-	84.5	13.2	38.8	-	64.3
	Information and communications	68.7	58.3	100.0	74.8	24.6	76.5	49.5	67.3
	Real estate activities; Professional, scientific and technical activities	46.1	73.9	8.3	63.8	8.4	27.5	82.6	50.1
	Administrative and support service activities; Repair of computers	41.2	21.0	23.8	29.3	31.0	27.2	66.7	33.0
Tota	al	55.1	44.2	47.8	61.9	52.1	27.9	30.5	51.7

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

Size class

Region

			Size class			ej e			
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Comp	outing power to run the enterprise'	s own so	ftware (	as a clou	d comp	ıting ser	vice)		
	Manufacturing	6.5	14.4	20.9	20.0	10.9	2.7	7.3	11.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	15.8	30.3	47.5	-	12.1	-	13.7
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	14.2	19.4	14.9	5.3	44.3	1.6	17.4	15.4
Vit.	Transportation and storage	-	-	27.7	3.6	-	6.5	-	2.3
Activity	Accommodation and food service activities	3.7	19.0	-	9.3	6.6	-	-	6.8
	Information and communications	47.0	46.9	50.0	55.6	6.1	34.9	29.8	47.0
	Real estate activities; Professional, scientific and technical activities	27.1	25.3	-	37.0	5.7	1.6	-	26.2
	Administrative and support service activities; Repair of computers	25.5	17.5	18.7	30.3	-	10.3	-	22.3
Total		17.3	16.4	18.9	22.0	17.8	3.6	10.4	17.1
	outing platform providing a hosted byment (e.g. reusable software mod					•		or	
	Manufacturing	2.1	17.5	11.4	10.1	7.5	5.0	17.4	8.7
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	14.5	7.5	-	4.4	-	3.1
	Construction	-	11.0	-	-	-	11.6	-	5.8
_	Wholesale and retail trade	8.7	18.8	18.5	5.3	27.2	10.5	12.3	11.4
vit,	Transportation and storage	28.6	-	4.4	-	43.6	3.3	-	19.0
Activity	Accommodation and food service activities	-	10.4	-	3.2	-	-	-	2.1

Information and communications

Real estate activities; Professional,

scientific and technical activities

Administrative and support service

activities; Repair of computers

activities

Total

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34.1

14.4

3.4

11.9

35.1

10.2

3.9

14.7

50.0

18.7

12.3

37.6

18.0

7.2

12.3

2.5

5.7

17.7

58.4

1.6

10.3

7.4

33.7

12.7

34.4

13.4

6.1

12.6

<sup>&</sup>lt;sup>1)</sup> The results refer only to enterprises that answered "Yes" in question D1.

# MODULE E: Internet of things

E1: Does your enterprise use interconnected devices or systems that can be monitored or remotely controlled via the Internet (Internet of things)?

%

			Size class			Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
YES									
	Manufacturing	18.8	38.3	37.4	19.6	29.4	26.5	19.3	24.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	21.2	57.0	43.8	49.1	18.8	40.5	60.1	38.3
	Construction	-	40.0	22.6	8.5	8.2	8.2	2.6	7.6
	Wholesale and retail trade	17.0	37.9	39.1	32.7	11.0	8.6	13.9	20.3
vit,	Transportation and storage	27.6	22.1	55.2	20.7	38.5	0.7	73.9	27.5
Activity	Accommodation and food service activities	6.6	32.5	33.3	7.6	12.4	15.3	12.2	10.1
	Information and communications	11.1	32.9	82.5	21.9	0.9	15.7	17.0	17.2
	Real estate activities; Professional, scientific and technical activities	13.7	20.5	15.0	12.5	13.0	27.9	18.3	14.7
	Administrative and support service activities; Repair of computers	6.7	20.8	5.0	6.4	5.9	10.7	44.4	9.6
Total		14.9	35.7	35.3	19.7	19.4	17.6	23.1	19.6

E2: Does your enterprise use interconnected devices or systems that can be monitored or remotely controlled via the Internet (Internet of things)?<sup>1)</sup>

%

Size class Region Južne i Istočne Srbije Zapadne Srbije **Fotal** Enterprises **Beoogradski** Šumadije i Vojovidne (50-249)Medium Small For energy consumption management, e.g. "smart" devices such as thermostats, lamps (lights) Manufacturing 31.1 34.0 50.1 43.7 34.2 31.6 24.1 33.9 Electricity, gas, steam and air conditioning supply; Water supply 50.3 5.5 16.6 22.6 45.3 18.7 and sewerage Construction 44.0 21.2 23.2 43.2 Wholesale and retail trade 36.5 43.3 23.8 44.4 47.3 54.9 31.5 1.7 Transportation and storage 22.1 16.5 23.6 3.4 47.2 50.0 21.4 Accommodation and food service 54.7 48.5 100.0 38.9 24.2 87.0 100.0 52.7 Information and communications 3.0 58.1 66.7 35.2 27.8 31.5 Real estate activities; Professional, 56.8 46.5 83.4 44.9 53.7 scientific and technical activities Administrative and support service 40.3 17.7 20.5 17.3 50.0 27.8 activities; Repair of computers Total 37.5 31.1 41.1 45.9 31.9 35.6 13.1 35.6 For premises' security (e.g. "smart" -alarm systems, smoke detectors, door locks, security cameras)

	Manufacturing	37.5	92.7	94.3	72.7	68.3	41.4	97.8	63.3
	Electricity, gas, steam and air								
	conditioning supply; Water supply	27.4	72.3	91.1	77.4	56.1	57.2	61.0	62.1
	and sewerage								
	Construction	-	88.5	73.4	95.2	56.8	100.0	100.0	87.2
>	Wholesale and retail trade	2.0	99.3	83.0	17.6	33.5	90.2	72.9	30.4
<u>Ķ</u>	Transportation and storage	26.4	100.0	88.7	96.9	17.2	100.0	30.3	39.8
Activity	Accommodation and food service	28.6	100.0	100.0	82.5	24.2	65.2	33.3	59.5
	activities	20.0	100.0	100.0	02.3	2 1.2	03.2	55.5	
	Information and communications	7.5	72.2	100.0	44.9	100.0	49.2	20.9	43.6
	Real estate activities; Professional,	33.1	100.0	100.0	34.9	9.7	93.7	100.0	48.2
	scientific and technical activities	33.1	100.0	100.0	54.5	5.7	55.7	100.0	70.2
	Administrative and support service	36.5	82.3	_	41.0	100.0	82.7	50.0	56.5
	activities; Repair of computers	55.5	02.5		11.0	100.0	52.7	55.0	
Total		22.4	91.1	89.6	43.4	48.8	56.6	65.1	50.5

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question E1.

		Size class						
Enteperprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total

For production processes (e.g. sensors or RFID tags that are monitored/controlled via the Internet and used to monitor or to automate the process)

	Manufacturing	-	14.8	31.0	8.2	12.0	4.2	9.9	8.3
	Electricity, gas, steam and air								
	conditioning supply; Water supply	-	5.5	31.0	22.6	4.1	5.0	-	6.7
	and sewerage								
	Construction	-	-	11.4	-	-	4.0	-	1.0
_	Wholesale and retail trade	-	18.5	22.9	4.5	15.9	3.5	1.7	5.7
Activity	Transportation and storage	-	-	-	-	-	-	-	-
₽ct	Accommodation and food service			100.0	3.2				1.3
_	activities			100.0	3.2				1.3
	Information and communications	-	6.0	12.1	4.7	-	-	-	3.9
	Real estate activities; Professional,								
	scientific and technical activities	_	-	_	_	-	_	_	
	Administrative and support service								
	activities; Repair of computers								
Total		-	10.4	23.1	4.6	8.4	3.6	3.2	5.1

For logistics management (e.g. sensors monitored/controlled via the Internet for tracking products or vehicles in warehouse management)

	Manufacturing	19.9	17.4	22.5	23.0	4.5	33.9	13.4	19.2
	Electricity, gas, steam and air								
	conditioning supply; Water supply	25.2	11.9	27.8	7.1	48.0	23.9	-	17.1
	and sewerage								
	Construction	-	34.7	47.3	-	90.9	56.0	-	35.8
>	Wholesale and retail trade	0.4	44.1	17.0	6.7	15.9	32.2	33.7	12.3
Actiivity	Transportation and storage	61.4	51.1	17.9	25.8	42.2	-	98.0	57.4
Acti	Accommodation and food service	_	_	_	_	_	_	_	_
-	activities								
	Information and communications	42.3	-	12.1	24.0	-	24.6	17.4	23.3
	Real estate activities; Professional,	1.7	41.9	_	16.6	_	6.3	_	10.1
	scientific and technical activities	1.7	11.5		10.0		0.5		10.1
	Administrative and support service	_	6.3	_	_	_	27.6	_	3.0
	activities; Repair of computers								
Total		18.5	24.8	20.9	12.3	18.1	30.4	36.0	20.8

 $<sup>^{1)}\</sup>mbox{The}$  results refer only to enterprises that answered "Yes" in question E1.

%

		Size class			Reg	gion		
Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total

For condition-based maintenance (e.g. sensors monitored or controlled via the Internet to monitor maintenance needs of machines or vehicles)

	Manufacturing	21.3	22.1	24.3	7.7	33.0	24.3	4.5	21.8
	Electricity, gas, steam and air								
	conditioning supply; Water supply	-	-	7.7	-	-	2.5	-	0.8
	and sewerage								
	Construction	-	11.7	-	-	-	44.0	-	10.7
S	Wholesale and retail trade	1.2	1.9	6.8	0.6	-	12.4	1.7	1.6
Activities	Transportation and storage	38.6	15.9	22.6	64.0	47.0	50.0	-	34.7
Ę.	Accommodation and food service	15.4					27.7		0.7
⋖	activities	15.4	-	-	-	-	37.7	-	8.7
	Information and communications	3.0	-	-	-	-	-	17.4	1.5
	Real estate activities; Professional,								
	scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service	36.5						50.0	17.6
	activities; Repair of computers	50.5	-	-	-	-	-	50.0	17.0
Total		14.5	11.0	15.3	5.5	25.5	20.0	5.0	13.4

For customer service (e.g. "smart" cameras or sensors monitored or controlled via the Internet to monitor customers' activity or offer them a personalized shopping experience)

	Manufacturing	0.5	7.1	12.7	4.0	7.1	2.0	1.3	4.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	11.9	7.7	-	-	26.1	-	8.3
	Construction	-	11.7	-	-	-	44.0	-	10.7
_	Wholesale and retail trade	47.3	21.3	35.4	48.5	24.3	31.1	3.5	40.1
Activity	Transportation and storage	-	16.5	11.3	-	5.0	100.0	-	2.8
Acti	Accommodation and food service activities	-	17.8	100.0	20.6	-	-	-	8.8
	Information and communications	-	16.5	21.2	10.7	-	-	-	8.8
	Real estate activities; Professional, scientific and technical activities	-	4.6	-	-	-	-	12.2	1.0
	Administrative and support service activities; Repair of computers	-	-	100.0	10.9	-	-	-	4.5
Total		15.3	11.8	17.8	25.2	7.9	9.6	1.4	14.3

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question E1.

# E2: Does your enterprise use interconnected devices or systems that can be monitored or remotely controlled via the Internet (Internet of things)?<sup>1)</sup> (continued)

%

			Size class			Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
For o	ther purposes								
	Manufacturing	21.8	17.3	29.6	10.9	31.2	14.0	25.9	20.8
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	22.3	10.4	31.3	13.1	4.1	-	39,0	15.7
	Construction	-	-	26.6	4.8	-	-	-	2.3
	Wholesale and retail trade	98.0	32.3	29.5	86.7	92.1	27.6	35.0	78.2
Activity	Transportation and storage	22,1	86.7	41.5	29.2	58.6	-	-	31.7
Acti	Accommodation and food service activities	47.6	25.2	100.0	20.6	88.8	37.7	-	38.9
	Information and communications	89.5	41.0	72.7	71.7	100.0	50.8	72.2	70.4
	Real estate activities; Professional, scientific and technical activities	20.8	11.5	100.0	-	100.0	4.0	19.5	20.2
	Administrative and support service activities; Repair of computers	27.1	17.7	-	48.1	-	17.3	-	21.4
Total		49.5	21.8	36.0	52.8	47.6	14.3	20.6	39.1

<sup>1)</sup> The results refer only to enterprises that answered "Yes" in question E1.

# MODULE F: Artificial intelligence

# F1: Does your enterprise use any of the following Artificial Intelligence?

F1: Does your enterprise use any of the following Artificial Intelligence?												
			Size clas	S		R	egion					
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total			
Techr	nologies performing analysis of writ	ten lang	guage (te	ext minin	g)							
	Manufacturing	-	0.5	0.5	0.1	-	0.3	0.2	0.1			
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-			
	Construction	-	-	-	-	-	-	-	-			
	Wholesale and retail trade	-	-	-	-	-	-	-	-			
Activity	Transportation and storage	-	3.6	-	-	1.9	-	-	0.6			
Acti	Accommodation and food service activities	-	-	-	-	-	-	-	-			
	Information and communications	-	5.4	27.5	2.8	-	-	-	1.8			
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-				
	Administrative and support service activities; Repair of computers	-	-	5.0	0.7	-	-	-	0.4			
Total		-	0.7	1.9	0.3	0.2	0.1	0.1	0.2			

			Size class	5		Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Techr	nologies converting spoken languag	e into m	achine-re	eadable f	ormat (s	peech r	ecogniti	on)	
	Manufacturing	-	0.1	0.5	0.1	-	-	0.2	0.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	3.9	2.3	-	-	-	0.4
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	6.8	0.7	-	-	-	0.2
Act	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	0.4	10.8	27.5	4.3	-	4.0	-	3.1
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	5.2	0.7	-	-	-	0.4
Total		0.0	0.6	2.6	0.5	-	0.1	0.1	0.2
Techr	nologies generating written or spok	en langu	ıage (natı	ural langu	ıage ger	neration	)		
	Manufacturing	-	0.2	1.2	0.2	-	-	0.4	0.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	9.9	0.7	-	0.3	-	0.3
Act	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	1.9	6.8	27.5	4.6	1.3	4.0	-	3.6
	Real estate activities; Professional, scientific and technical activities	-	0.7	-	-	-	0.9	-	0.1
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		0.1	0.4	2.3	0.4	0.0	0.1	0.2	0.2

			Size class			Reg	gion		
	Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
Techr	nologies identifying objects or perso	ons base	d on ima	iges (ima	age reco	gnition,	image pı	ocessing	()
	Manufacturing	-	0.2	0.5	0.1	-	-	0.3	0.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	3.6	-	-	1.9	-	-	0.6
Act	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	1.5	8.3	5.0	4.1	-	-	1.8	2.8
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		0.1	0.7	0.4	0.3	0.2	-	0.2	0.2
Mach	ine learning (deep learning) for dat	a analys	is						
	Manufacturing	-	2.5	1.2	0.7	0.9	0.5	0.5	0.7
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	3.9	2.3	-	-	-	0.4
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	9.9	0.7	-	0.3	-	0.3
Act	Accommodation and food service activities	-	1.8	-	0.4	-	-	-	0.2
	Information and communications	2.4	10.8	-	3.8	-	8.0	7.1	3.8
	Real estate activities; Professional, scientific and technical activities	-	0.7	-	-		0.9	-	0.1
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		0.1	1.5	1.4	0.5	0.3	0.4	0.4	0.4

		Size class						
Enterprises	Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total

Technologies automating different workflows or assisting in decision-making (Artificial Intelligence-based software)

	Manufacturing	-	3.2	1.2	0.2	1.2	1.3	0.2	0.9
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	3.6	6.8	0.7	1.9	-	-	0.8
Acti	Accommodation and food service activities	-	1.8	-	0.4	-	-	-	0.2
	Information and communications	1.7	7.6	-	1.5	1.3	8.0	8.9	2.7
	Real estate activities; Professional, scientific and technical activities	-	0.7	-	-	-	0.9	-	0.1
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		0.1	1.9	1.0	0.2	0.6	0.7	0.4	0.5

Technologies enabling physical movement of machines via autonomous decisions based on observation or surroundings (autonomous robots, self-driving vehicles, autonomous drones)

as, steam and air supply; Water supply								
ge	_	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-
nd retail trade	-	-	-	-	-	-	-	-
on and storage	-	-	6.8	0.7	-	-	-	0.2
tion and food service	-	-	-	-	-	-	-	-
and communications	-	-	-	-	-	-	-	-
activities; Professional, d technical activities	-	-	-	-	-	-	-	-
ve and support service epair of computers	0.8	-	-	0.9	-	-	-	0.5
	0.0	0.7	0.6	0.2	0.4	-	0.1	0.2
	nd retail trade on and storage ition and food service and communications activities; Professional, d technical activities we and support service	nd retail trade - on and storage - tion and food service - and communications - activities; Professional, d technical activities ve and support service spair of computers 0.8	nd	nd	nd retail trade	nd retail trade	nd retail trade	nd retail trade

			Size class			Re	gion		
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
For m	narketing or sales								
	Manufacturing	-	9.7	37.5	-	-	38.7	-	11.9
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	-	-	-	-	-	-	-	
Activity	Transportation and storage	-	-	18.7	-	-	100.0	-	8.7
Act	Accommodation and food service activities	-	100.0	-	100.0	-	-	-	100.0
	Information and communications	26.6	-	-	11.0	-	33.3	-	12.6
	Real estate activities; Professional, scientific and technical activities	-	100.0	-	-	-	100.0	-	100.0
	Administrative and support service activities; Repair of computers	100.0	-	-	55.8	-	-	-	55.8
Total	Total		10.2	12.5	16.7	-	42.8	-	16.3
For p	roduction processes								
	Manufacturing	-	48.9	62.5	47.9	57.0	41.4	47,.8	50.0
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	18.7	-	-	100.0	-	8.7
Act	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	30.3	-	-	-	-	100.0	-	14.4
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		26.0	31.4	17.5	6.4	42.6	57.5	24.4	27.9

<sup>&</sup>lt;sup>1)</sup>The results refer only to enterprises that answered "Yes" in question F1.

			Size class	i		Reg	ion		
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
For o	rganization of business administrat	ion proc	esses						
	Manufacturing	-	37.3	62.5	14.2	43.0	58.6	-	39.3
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	100.0	100.0	-	-	-	100.0
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	100.0	40.6	50.0	100.0	-	-	72.5
Act	Accommodation and food service activities	-	-	-	-	-	-	-	
	Information and communications	-	19.0	15.4	10.2	-	-	20.0	9.5
	Real estate activities; Professional, scientific and technical activities	-	100.0	-	-	-	100.0	-	100.0
	Administrative and support service activities; Repair of computers	-	-	100.0	44.2	-	-	-	44.2
Total		-	38.5	49.0	20.0	52.5	42.5	9.8	32.2
For m	anagement of enterprises								
	Manufacturing	-	13.9	25.0	28.4	-	19.9	45.9	14.8
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	100.0	100.0	-	-	-	100.0
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
jŧ	Transportation and storage	-	-	59.4	50.0	-	100.0	-	27.5
Activity	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	61.0	36.1	84.6	70.6	-	33.3	-	55.0
	Real estate activities; Professional, scientific and technical activities	-	100.0	-	-	-	100.0	-	100.0
	Administrative and support service activities; Repair of computers	-	-	-	-	-	-	-	-
Total		52.3	18.9	55.2	53.2	-	30.7	23.5	32.1

 $<sup>^{1)}\</sup>mbox{The}$  results refer only to enterprises that answered "Yes" in question F1.

			Size class			Reg	ion		
	Enterprises		Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
For lo	ogistics, e.g. autonomous robots fo	r pick-a	nd-pack	solutions	in ware	housees	, etc.		
	Manufacturing	-	2.9	25.0	14.2	-	-	25.5	4.6
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	40.6	50.0	-	-	-	18.8
Act	Accommodation and food service activities	-	-	-	-	-	-	-	-
	Information and communications	18.8	-	-	-	-	-	80.0	9.0
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	100.0	-	-	55.8	-	-	-	55.8
Total	Total		1.8	15.9	12.7	-	-	52.1	10.2
For IC	CT security								
	Manufacturing	-	15.4	25.0	52.1	-	29.0	-	16,.1
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	18.7	-	-	100.0	-	8.7
Act	Accommodation and food service activities	-	100.0	-	100.0	-	-	-	100.0
	Information and communications	10.1	44.9	-	19.3	100.0	33.3	-	21.8
	Real estate activities; Professional, scientific and technical activities		-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	100.0	-	-	55.8	-	-	-	55.8
Total		22.8	22.8	10.0	28.7	4.9	31.7		20.6

 $<sup>^{1)}\</sup>mbox{The}$  results refer only to enterprises who answered "Yes" in question F1.

			Size class	;		Re	gion		
Enterprises		Small (10–49)	Medium (50–249)	Large (250+)	Beoogradski	Vojovidne	Šumadije i Zapadne Srbije	Južne i Istočne Srbije	Total
For h	For human resources managment or recruiting								
	Manufacturing	-	-	-	-	-	-	-	-
	Electricity, gas, steam and air conditioning supply; Water supply and sewerage	-	-	-	-	-	-	-	-
	Construction	-	-	-	-	-	-	-	-
_	Wholesale and retail trade	-	-	-	-	-	-	-	-
Activity	Transportation and storage	-	-	59.4	50.0	-	100.0	-	27.5
Act	Accommodation and food service activities	-	100.0	-	100.0	-	-	-	100.0
	Information and communications	-	5.9	-	-	-	-	20.0	2.2
	Real estate activities; Professional, scientific and technical activities	-	-	-	-	-	-	-	-
	Administrative and support service activities; Repair of computers	100.0	-	-	55.8	-	-	-	55.8
Total		14.2	3.8	15.9	14.2	-	4.1	9.8	8.0

<sup>&</sup>lt;sup>1)</sup>The results refer only to enteprises that answered "Yes" in question F1.







# **QUESTIONNAIRE**





# Statistical Office of the Republic of Serbia



Data in this questionnaire are considered official secret and are to be used for statistical purposes only (Law on Official Statistics, "Official Gazette of the RS", number 104/09)

## SURVEY ON ICT USAGE IN ENTERPRISES

MODULE A: ACCESS AND USE OF THE INTERNET							
A1	Please, indicate an estimate of the percentage of employees who use Internet for business purposes:						
Use of bro	Use of broadband Internet for business purposes						
A2	Does your enterprise use any of the following fixed broadband Internet connections?  (e.g. ADSL, SDSL, FTTP, cable Internet, public Wi-Fi)	Yes	No				
			→ Go to A4				
А3	What is the maximum contracted speed of the Internet speed in your enterprise? (tick only one)	Yes	No				
	a) Less than 30 Mbit/s						
	b) At least 30, but less than 100 Mbit/s						
	c) At least 100, but less than 500 Mbit/s						
	d) At least 500, but less than 1 Gbit/s						
	e) At least 1 Gbit/s						
Use of a m	nobile connection to the Internet for business purposes						
A4	Does your enterprise provide mobile devices that allow a mobile connection to the Internet using mobile telephone networks for business purposes? (via portable computers or other mobile devices such as smart phones)	Yes	No				
			→ Go to A6				
A5	Please, provide an estimate of the percentage of the persons employed who use mobile devices (provided by enterprises) for business purposes that allow Internet connection via a mobile telephone network (portable computer, tablet, smart phone):						

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A6	Does your enterprise have a website?		Yes	No
				→ Go to A8
A7	Does the website of your enterprise provide any of the following	services?	Yes	No
	a) Description of goods or services, pricelist			
	b) Online ordering or reservation or booking of goods/services			
	c) Possibility for visitors to customise or design online goods or ser	vices		
	d) Tracking or status of orders placed			
	e) Personalised content on the website for regular visitors			
	f) Links or references to the enterprise's social media profiles (Face	ebook, Twitter)		
Use of soc	ial media			
A8	Does your enterprise use any of the following social media?	Yes	No	
	a) Social networks (Facebook, LinkedIn, Xing, Yammer)			
	b) Enterprise's blog (Twitter)			
	c) Multimedia content sharing sites (Youtube, Flickr, Picassa)			
	d) Wikipedia			
Covid-19 i	mpact			
A9	During 2020, did your enterprise:		Yes	No
	a) increase the number of employees having remote access to the mail?	enterprise's e-		
	b) increase the number of employees having remote access to the system besides the enterprise's e-mail?	enterprise's ICT		
	c) Increase the number of online meetings on Skype, Zoom, Teams			
A10	How much did these changes caused by Covid-19 pandemic impact:	Completely	Partially	No impact
	a) Remote access to the enterprise's e-mail (for respondents who answered "Yes" in question A9a)?			
	b) Remote access to the enterprise's ICT system besides e-mails (for respondents who answered "Yes" in question A9b)?			
	c) online meetings of the enterprise on <i>Skype, Zoom, Teams</i> (for respondents who answered "Yes" in question A9c)?			
A11	During 2020, under the influence of Covid-19, did your enterprise increase actions for Internet sale of goods or services (via website websites of goods, EDI-type sales?	•	Yes	No

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## **MODULE B: E-COMMERCE**

E-commerce is the sale or purchase of goods or services conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders. The payment and the delivery of the goods or services do not have to be conducted online. E-commerce transactions exclude orders made by manually typed e-mail messages.

B1	During 2020, did your enterprise have web sales of goods or services:	Yes	No	
	a) Via the website or mobile app of your enterprise?     including extranet)			
	b) Via e-commerce websites or apps used by several enterprises on marketplaces? (Amazon, Alibaba, Limundo, Tehnomanija)			
If the	answer is "No" to B1a) and B1 b)-> go to B10			
B2	What was the percentage of the total turnover of web sales of goods or services in 2020?			
Question I	33 is for respondents who answered "Yes" to proposed answers in question B1 and to	a) and b)		
В3	What was the percentage of the value of web sales in 2020 for the following:	Total	100%	
	a) Via your enterprise's website or mobile app     (including extranet)			
	b) Via e-commerce marketplace websites or apps used by several enterprises for trading goods? (Amazon, Alibaba, Limundo, Tehnomanija)			
В6	What was the percentage of the value of web sales in 2020 by type of transaction:	Total <b>100</b> %		
	a) Sale to end consumers (B2C)			
	b) Sale to other enterprises (B2B) and sale to public sector (B2G)			
В7	Did your enterprise have web sales to customers located in the following geographic areas?	Yes	No	
	a) Republic of Serbia			
	b) EU countries			
	c) Rest of the world			
	nswer is "Yes" to at least two proposed answers in question B7 a), b) or c) -> go to que ise, go to question B9	stion B8;		
В8	What was the percentage of the turnover of web sales to customers located in the following geographic areas, in 2020?	Total 1	.00%	
	a) Republic of Serbia			
	b) EU countries			
	c) Rest of the world			
	If the answer is "Yes" in question B7 b) -> go to question B9; otherwise -> go to que	stion B10		

В9	Did your enterprise experience any of the following difficulties regarding web sales to EU countries during 2020?	Yes	No
	a) High costs of delivering or returning products when selling to EU countries		
	b) Difficulties related to resolving complaints and disputes when selling to EU countries		
	c) Adapting labeling when selling to EU countries		
	d) Lack of knowledge of foreign languages for communicating with customers in EU countries		
	e) Restrictions from your business partners to sell to certain EU countries		
	f) Difficulties related to the VAT system in EU countries (e.g. uncertainty regarding VAT treatment in different countries)		
EDI-type s	ales		
format suit	ales are sales via electronic data interchange. This type of sale means that an order is table for automated processing (e.g. <i>EDI-EDIFACT, XML-UBL</i> ); typed individual messages are excluded.	placed in an agr	eed or standard
B10	During 2020, did your enterprise have EDI-type sales of goods or services?	Yes	No
			$\rightarrow$ Go to C1
B11	What percentage was generated by EDI-type sales of goods or services during 2020?		
B12	During 2020, did your enterprise sell via EDI-type messages to customers located in the following geographic areas?	Yes	No
	a) Republic of Serbia		
	b) EU countries		
	c) Rest of the world		
	NACRUIT C. CLIARING OF INFORMATION FUECTRONICALLY WITHIN TH	E ENTERRALE	
	MODULE C: SHARING OF INFORMATION ELECTRONICALLY WITHIN TH		
ERP (Enter	prise Resource Planning) is a software used to manage resources by sharing informa-	tion among diffe	erent functional

ERP (Enterprise Resource Planning) is a software used to manage resources by sharing information among different functional areas (e.g. accounting, planning, production, marketing, etc.). ERP software can be off-the-shelf software, customised to the needs of the enterprise or self-created software.

C1	Does your enterprise use ERP software?	Yes	No
C2	Does your enterprise use CRM software to manage:	Yes	No
	a) the collection, storing and making available information on customers to various business functions		
	b) the analysis of information on customers for marketing purpose (e.g. setting prices, sales promotions, choosing distribution channels)		

#### MODULE D: USE OF CLOUD COMPUTING SERVICES

Cloud computing refers to ICT services that are used over the Internet to access software, computing power, storage capacity, etc. The services have the following characteristics:

- -are on servers of service provider;
- -can be easily scaled up or down (e.g. number of users or change of storage capacity)
- -can be used on-demand by the user, at least after the initial set up (without human interaction with the service provider);
- -are paid by way of use, capacity used or are pre-paid.

Cloud computing may include connections via virtual private networks (VPN).

D1	Does your enterprise buy cloud computing services used over the Internet?	Yes	No
			→ Go to E1
D2	Does your enterprise buy any of the following cloud computing services used over the Internet?	Yes	No
	a) E-mail (as a cloud computing service)		
	b) Office software – word processors and spreadsheets (as a cloud computing service)		
	c) Finance or accounting software applications (as a cloud computing service)		
	d) Enterprise Resource Planning – ERP (as a cloud computing service)		
	e) Customer Relationship Management (CRM) software applications (as a cloud computing service)		
f) Security software applications (e.g. antivirus program, network access cor (as a cloud computing service)			
	g) Hosting the enterprise's database(s) (as a cloud computing service)		
	h) Storage of files (as a cloud computing service)		
	i) Computing power to run the enterprise's own software (as a cloud computing service)		
	<ul> <li>j) Computing platform providing a hosted environment for application development, testing or deployment (e.g. reusable software modules, application programming interfaces)</li> </ul>		
	MODULE E: INTERNET OF THINGS		
E1	Does your enterprise use interconnected devices or systems that can be monitored or remotely controlled via the Internet? (Internet of Things)?	Yes	No
			-> Go to F1
E2	Does your enterprise use interconnected devices or system that can be monitored or remotely conrolled via the Internet for any of the following? (Internet of Things)?	Yes	No
(tick all that	apply)		
	<ul> <li>a) For energy consumption management, e.g. "smart" devices such as thermostats, lamps (lights)</li> </ul>		
	b) For premises' security (e.g. "smart"-alarm systems, smoke detectors, door locks, security cameras)		

	<ul> <li>c) For production processes (e.g. sensors or RFID tags that are monitored/controlled via the Internet and used to monitor or to automate the process)</li> </ul>		
	<ul> <li>d) For logistics management (e.g. sensors monitored/controlled via the Internet for tracking products or vehicles in warehouse management)</li> </ul>		
	e) For condition-based maintenance (e.g. sensors monitored or controlled via the Internet to monitor maintenance needs of machines or vehicles)		
	<ul> <li>f) For customer service (e.g. "smart" cameras or sensors monitored or controlled via the Internet to monitor customers' activity or offer them a personalised shopping experience)</li> </ul>		
	g) For other purposes		
	MODULE F: ARTIFICIAL INTELLIGENCE		
F1	Does your enterprise use any of the following Artificial Intelligence technologies?		No
	a) Tehnologies performing analysis of written language (text mining)		
	b) Technologies converting spoken language into machine-readable format (speech recognition)		
	c) Technologies generating written or spoken language (natural language generation)		
	d) Technologies identifying objects or persons based on images (image recongnition, image processing)		
	e) Machine learning (e.g. deep reading) for data analysis		
	f) Technologies automating different workflows or assisting in decision making (Artifical Intelligence based software)		
	<ul> <li>g) Technologies enabling physical movement of machines via autonomous decisions based on observation or surroundings (autonomous robots, self- driving vehicles, autonomous drones)</li> </ul>		
If the answe	er is "No" in question F1 a) –g) -> go to end interview; otherwise -> go to F2		
F2	Does your enterprise use artificial intelligence software or systems for any of the following purpose?	Yes	No
	<ul> <li>a) For marketing or sales, e.g. chatbot based on natural language processing for customer support, customer profiling, price optimisation, personolised marketing offers, market analysis based on machine learning, etc.</li> </ul>		
	b) For productin processes, e.g. predictive maintenance based on machine learning, tools to classify products to find defects or predicts based on computer vision, autonomous drones for production surveillance, security or inspection tasks, assembly works performed by autonomous robots, etc.		
	c) For organisation of business administration processes, e.g. business virtual assistants based on machine learning and/or natural language processing, voice to text conversion based on speech recognition for document drafting, automated planning or scheduling based on machine learning, machine translation, etc.		
	d) For management of enterprises, e.g. machine learning to analyse data and help make investment or other decision, sales or business forecasting based on machine learning, risk assessment based on machine learning, etc.		

<ul> <li>e) For logistics, e.g. autnomous robots for pick-and-pack solutions in warehouses, route optimisation based on machine learning, autonomous robots for parcel shippling, tracing, distribution and sorting, autonomous drones for parcel delivery, etc.</li> </ul>	
<ul> <li>f) for ICT security, e.g. face recognition based on computer vision for authentification of ICT users, detection and prevention of cyber-attacks based on machine learning, etc.</li> </ul>	
g) For human resources management or recruiting, e.g. candidates pre-selection screening, automation of recruiting based on machine learning, employee profiling or performance analysis based on machine learning, chatbots based on natural language processing for recruiting or supporting human resources management, etc.	
Name of the enterprise  Registration number of the enterprise	
negistration number of the enterprises	
Name and surname	
Telephone	
e-mail	







# **ICT GLOSSARY**



# Application:

An application is application software designed for specific purposes, e.g. entertainment, shopping, dowloaded and used on computers depending on their operating system.

# ADSL (Asymmetric Digital Subscriber Line):

A broadband digital transmission technology that uses the existing telephone line and provides for simultaneous data transmission and voice communication. The larger part of range serves for data transmission 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:

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

# B2B (Business-to-Bussiness):

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

# *B2C (Business-to-Customer):*

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

# Chatbots or virtual agent:

A virtual agent is a computer generated, animated, virtual agent with artificial intelligence that serves as an online customer service representative.

# Computer vision:

Computer vision tasks include methods for acquiring, processing, analyzing and understanding digital images, and extraction of high-dimensional data from the real world in order to produce numerical or symbolic information.

#### Cloud:

Cloud includes services that are accessed over the Internet in order to use software, data storage space, etc.

#### CRM (Customer Relationship Management):

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

#### Download:

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

# DSL (Digital Subscriber Line):

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

# EDI-type e-commerce:

EDI (electronic data interchange) is an e-business tool for exchanging different kinds of business messages. EDI is used as a generic term for sending or receiving business information in an agreed format suitable for automated processing (e.g. EDIFACT, XML, etc.), without manually-type individual messages. "EDI e-commerce" is limited to EDI messages placing an order.

# Digital goods or services:

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

#### E-mail

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

#### Extranet:

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

#### E-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.

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## Electronic (digital) signature:

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

# ERP (Enterprise Resource Planning):

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

#### Firewall:

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

#### Hardware:

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

#### Internet:

World computer network.

#### Internet address:

Address of one of the Internet resources. It typically reads for example: http://www.stat.gov.rs.

#### Internet of Things (IoT)

IoT refers to interconnected devices or systems, often called "smart" devices or "smart" systems. They collect and exchange data and can be monitored or remotely controlled over the Internet or through software on any kind of computers or smart phones.

#### 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.

#### 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). Every connected LAN unit is allowed to communicate with other networks, if needed.

#### Machine learning (e.g. deep learning):

Machine learning involves "training" a computer model to better perform an automated task, e.g. pattern recognition.

## Natural language generation (NLG):

Natural language generation is the ability for a computer program to convert data into natural language representation.

#### Network:

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

# Natural language processing (NLP):

Natural language processing is the ability for a computer program to understand human language as it is spoken.

#### Office software:

Office software is a generic type of software comprising a word processing package, spreadsheets, presentation software, etc.

#### Online payment:

Online payment is an integrated ordering-payment transaction.

## Web sale:

Web sale is sale performed through online shops, web patterns on a web location or extranet or through applications.

#### Robots-robotics:

Robots may be industrial or service robots. An industrial robot is automatically controlled, which may be fixed in a place or mobile for use in industrial automation.

A service robot is a machine that has a degree of autonomy and is able to operate in a complex and dynamic environment that may require interaction with persons, objects or other devices, excluding its use in industrial automation.

#### Robotic process automation (Artificial Intelligence based):

Robot process automation based on Artificial Intelligence refers to software that automates business processes based on Artificial Intelligence technologies.

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#### Social media:

In the context of ICT usage survey, the role of social media is to establish and maintain social relationships within and around the enterprise. Social media are applications based on Internet technologies that enable users to connect by creating personal information profiles, sharing interests and/or activities by exchanging ideas, connecting others to have access to their profiles and by creating a community of people with common interests.

#### Blog:

A blog is a web site being frequently updated. Update (entry or post) is usually short and readers can answer, share, comment or link the entry on the network. Blogs can be used within enterprises or to communicate with customers, business partners or other organizations.

#### Wiki:

Wiki is a website that enables creating and editing any number of interconnected web pages via a web browser.

#### Server:

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

#### Virus:

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

# Wide Area Network (WAN):

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

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