Community survey on ICT usage and e-commerce in enterprises 2021

Company name:.....

Bulstat ID: | | | | | | | | | |

Contact details of the person, who fills in the questionnaire:

Name, surname:.....

Email:.....

Phone:.....

Module A: Access and use of the internet

A1. How many persons employed have access to the internet for business purposes?

E.g. via personal computers, portable computers, tablets, other portable devices such as smartphones.

(Number)

If your enterprise does not have internet access fill '0' and the survey ends.

Use of a fixes line connection to the internet for business purposes

A2. Does your enterprise use any type of fixed line connection to the internet?

E.g. ADSL, SDSL, VDSL, fiber optics technology (FTTP), cable technology, etc.

Yes ☐ **No** ☐ → **Go to A4**

A3. What is the maximum contracted download speed of the fastest fixed line internet connection of your enterprise?

Tick only one.

a) less than 30 Mbps	☐
b) at least 30 but less than 99 Mbps	☐
c) at least 100 but less than 499 Mbps	☐
d) at least 500 Mbps but less than 999 Mbps	☐
e) at least 1000 Mbps	☐

Use of a mobile connection to the internet for business purposes

A mobile connection to the internet means the usage of portable devices connecting to the internet through mobile telephone networks for business purposes. Enterprises provide portable devices and pay for all or at least up to a limit, the subscription and the use costs.

A4.	Does your enterprise provide portable devices that allow a mobile connection to the internet using mobile telephone networks, for business purposes? *E.g. via laptop, tablet or other portable devices such as smartphones.*	**Yes** ☐	**No** ☐ → **Go to A6**
A5.	How many persons employed use a portable device provided by the enterprise, that allows internet connection via mobile telephone networks, for business purposes? *E.g. via laptop, tablet or other portable devices such as smartphones.*	☐☐☐ ***(Number)***	

Use of a website

A6.	Does your enterprise have a website?	**Yes** ☐	**No** ☐ → **Go to A8**

A7.	Does the website have any of the following:	**Yes**	**No**
	a) Description of goods or services, price information	☐	☐
	b) Online ordering or reservation or booking, e.g. shopping cart	☐	☐
	c) Possibility for visitors to customise or design online goods or services	☐	☐
	d) Tracking or status of orders placed	☐	☐
	e) Personalised content on the website for regular/recurrent visitors	☐	☐
	f) Links or references to the enterprise's social media profiles	☐	☐

Use of social media

Enterprises using social media are considered those that have a user profile, an account or a user licence depending on the requirements and the type of the social media.

A8.	Does your enterprise use any of the following social media:	**Yes**	**No**
	a) Social networks *(e.g. Facebook, LinkedIn, Xing, Yammer, etc.)*	☐	☐
	b) Enterprise's blog or microblogs *(e.g. Twitter, etc.)*	☐	☐
	c) Multimedia content sharing websites or apps *(e.g. YouTube, Instagram, Flickr, SlideShare, Pinterest, Snapchat, etc.)*	☐	☐
	d) Wiki based knowledge sharing tools	☐	☐

Module B: e-commerce sales

In e-commerce sales of goods or services, the order is placed via web sites, apps or EDI-type messages by methods specifically designed for the purpose of receiving orders.
The payment may be done online or offline.
e-Commerce does not include orders written in e-mail.

Please report web and EDI-type sales separately. They are defined by the method of placing the order:

- *WEB sales: the customer places the order on a website or through an app;*
- *EDI type sales: an EDI-type order message is created from the business system of the customer.*

Web sales of goods or services

Web sales cover orders, bookings and reservations placed by your customers via:

- *your enterprise's websites or apps:*
  - ✓ *online store (webshop);*
  - ✓ *web forms;*
  - ✓ *extranet (webshop or web forms);*
  - ✓ *booking/reservation applications for services;*
  - ✓ *apps for mobile devices or computers.*
- *e-commerce marketplace websites or apps (used by several enterprises for trading goods or services) (e.g. eBay, Amazon, Booking.com, Alibaba, eMag, etc.).*

Orders written in e-mail are not counted as web sales.

B1. During 2020, did your enterprise have web sales of goods or services via:

	Yes	**No**
a) your enterprise's websites or apps *(including extranets)*	☐	☐
b) e-commerce marketplace websites or apps used by several enterprises for trading goods or services *(e.g. Booking.com, eBay, Amazon, Alibaba, eMAG, etc.)*	☐	☐

If both B1 a) and B1 b) = 'No' then go to B10.

B2. What was the value of your web sales in 2020:

a) value of your web sales (in thousands leva, excluding VAT)
(If the value is less than one thousand leva, please enter "1).

(Thousands leva)

OR

b) percentage of the total turnover* generated by web sales

** Turnover includes gross sales revenue, incl. renevue tax, excluding VAT and revenue from sales of raw materials (code 15500 + code 15420 of the Annual Activity Report)*

_ _ _ %

If B1a) = 'Yes', go to B6.
If B1b) = 'Yes', go to B4.
If both B1a) and B1b) = 'Yes' then go to B3.

B3. What was the percentage breakdown of the value of web sales in 2020 for the following:

a) via your enterprise's websites or apps *(including extranets)*	**_ _ _ %**
b) via e-commerce marketplace websites or apps used by several enterprises for trading goods or services *(e.g. Booking.com, eBay, Amazon, Alibaba, eMAG, etc.)*	**_ _ _ %**
Total:	**1 0 0%**

B4. Via how many e-commerce marketplaces did you have web sales during 2020? Via one ☐ Via two ☐ Via more than two ☐

If B4 = 'one' then go to B6.

B5. Did more than half of your turnover from e-commerce marketplaces in 2020 come from only one e-commerce marketplace? **Yes** ☐ **No** ☐

B6.	What was the percentage breakdown of the value of web sales in 2020 by type of customer:	
	a) Sales to private consumers	**_ _ _ %**
	b) Sales to other enterprises and sales to public sector	**_ _ _ %**
	Total:	**1 0 0%**

B7.	During 2020, did your enterprise have web sales to customers located in the following geographic areas:	**Yes**	**No**
	a) Bulgaria	☐	☐
	b) Other EU countries*	☐	☐
	c) Rest of the world	☐	☐

If only one answered 'Yes' in B7 go to the instruction before B9.

B8.	What was the percentage breakdown of the value of web sales in 2020 to customers located in the following geographic areas:	
	a) Bulgaria	**_ _ _ %**
	b) Other EU countries*	**_ _ _ %**
	c) Rest of the world	**_ _ _ %**
	Total:	**1 0 0%**

If B7b) answered with 'Yes', go to B9, otherwise go to B10.

B9.	Regarding web sales to other EU countries*: did your enterprise experience any of the following difficulties during 2020:	**Да**	**Не**
	a) High costs of delivering or returning products when selling to other EU countries*	☐	☐
	b) Difficulties related to resolving complaints and disputes when selling to other EU countries*	☐	☐
	c) Adapting product labelling for sales to other EU countries *	☐	☐
	d) Lack of knowledge of foreign languages for communicating with customers in other 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)*	☐	☐

** EU countries: Austia, Belgium, Croatia, Cyprus, Czezh Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Larvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain and Sweden.*

EDI-type sales

EDI-type sales cover orders placed by your customers via EDI-type messages (EDI: Electronic Data interchange) in an agreed or standard format suitable for automated processing meaning:

- *EDI-type order message created from the business system of the customer;*
- *including orders transmitted via EDI-service provider;*
- *including automatic system generated demand driven orders;*
- *including orders received directly into your ERP system.*

Examples of EDI - EDIFACT, EANCOM, UBL, XML, eXite, ECOD.

B10.	During 2020, did your enterprise have EDI-type sales of goods or services?	**Yes** ☐	**No** ☐ → **Go to C1**

B11. What was the value of your EDI-type sales in 2020:

a) value of your EDI-type sales of goods or services (in thousands leva, excluding VAT)
(If the value is less than one thousand leva, please enter "1).

(Thousands leva)

OR

b) percentage of the total turnover* generated by EDI-type sales of goods or services

** Turnover includes gross sales revenue, incl. renevue tax, excluding VAT and revenue from sales of raw materials (code 15500 + code 15420 of the Annual Activity Report)*

– – – **%**

B12. During 2020, did your enterprise sell via EDI-type messages to customers located in the following geographic areas:

	Yes	**No**
a) Bulgaria	☐	☐
b) Other EU countries*	☐	☐
c) Rest of the world	☐	☐

** EU countries: Austia, Belgium, Croatia, Cyprus, Czezh Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Larvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain and Sweden.*

Module C: Sharing of information electronically within the enterprise

C1. Does your enterprise use ERP software (Enterprise Resource Planning)?

An 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. Examples are SAP, bgERP, Microsoft Dynamics 365, Tonegan ERP, EnterpriseOne, NetSuite ERP, Atlantis ERP, Soft1 ERP, etc.

Yes ☐ **No** ☐

C2. Does your enterprise use CRM software (Customer Relationship Management) 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 purposes *(e.g. setting prices, sales promotion, choosing distribution channels, etc.)*	☐	☐

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.; where the services have all of the following characteristics:

- *are delivered from servers of service providers;*
- *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 for, either per user, by capacity used, or they are pre-paid.*

Cloud computing may include connections via Virtual Private Networks (VPN).

D1. Does your enterprise buy any cloud computing services used over the internet?
Please refer to the definition of cloud computing above, exclude free of charge services.

Yes ☐ **No** ☐ → **Go to E1**

D2. Does your enterprise buy any of the following cloud computing services used over the internet:
Please refer to the definition of cloud computing above, exclude free of charge services.

	Yes	**No**
a) E-mail *(as a cloud computing service)*	☐	☐
b) Office software *(e.g. word processors, spreadsheets etc.)* *(as a cloud computing service)*	☐	☐

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		Yes	No
	c) Finance or accounting software applications *(as a cloud computing service)*	☐	☐
	d) Enterprise Resource Planning (ERP) software applications *(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 control)* *(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)*	☐	☐
	j) Computing platform providing a hosted environment for application development, testing or deployment *(e.g. reusable software modules, application programming interfaces (APIs))* *(as a cloud computing service)*	☐	☐

Module E: Internet of things

The Internet of Things (IoT) refers to interconnected devices or systems, often called "smart" devices or systems. They collect and exchange data and can be monitored or remotely controlled via the internet.
Examples are:
- *"smart"-meters, -thermostats, -lamps (lights), -alarm systems, -smoke detectors, -door locks, -cameras;*
- *sensors, RFID tags connected to a base station that allows them to be managed via the internet.*

Please exclude plain detection and sensors (e.g. motion, sound, temperature, smoke, etc.) and RFID tags that cannot be monitored or remotely controlled via the internet).

Internet of Things may include various types of network connections via WAN, WiFi, LAN, Bluetooth, ZigBee, Virtual Private Networks (VPN) etc.

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 systems that can be monitored or remotely controlled via the internet (internet of things) for any of the following:	**Yes**	**No**
	a) for energy consumption management *(e.g. "smart"-meters, -thermostats, -lamps (lights))*	☐	☐
	b) for premises' security *(e.g. "smart" -alarm systems, -smoke detectors, -door locks, -security cameras)*	☐	☐
	c)) for production processes (*e.g. sensors or RFID tags that are monitored/controlled via the internet and used to monitor or automate the process)*	☐	☐
	d) for logistics management *(e.g. sensors monitored/controlled via the internet for tracking products or vehicles in warehouse management)*	☐	☐
	e) for condition-based maintenance *(e.g. sensors monitored/controlled via the internet to monitor maintenance needs of machines or vehicles)*	☐	☐
	f) for customer service (*e.g. "smart" cameras or sensors monitored/controlled via the internet to monitor customers' activities or offer them a personalised shopping experience)*	☐	☐
	g) for other purposes	☐	☐

Module F: Artificial intelligence

Artificial intelligence refers to systems that use technologies such as: text mining, computer vision, speech recognition, natural language generation, machine learning, deep learning to gather and/or use data to predict, recommend or decide, with varying levels of autonomy, the best action to achieve specific goals.

Artificial intelligence systems can be purely software based, e.g.:

- *chatbots and business virtual assistants based on natural language processing;*
- *face recognition systems based on computer vision or speech recognition systems;*
- *machine translation software;*
- *data analysis based on machine learning, etc.;*

or embedded in devices, e.g.:

- *autonomous robots for warehouse automation or production assembly works;*
- *autonomous drones for production surveillance or parcel handling, etc.*

F1. Does your enterprise use any of the following Artificial intelligence technologies:	**Yes**	**No**
a) Technologies 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 recognition, image processing)*	☐	☐
e) Machine learning *(e.g. deep learning)* for data analysis	☐	☐
f) Technologies automating different workflows or assisting in decision making *(Artificial Intelligence based software robotic process automation)*	☐	☐
g) Technologies enabling physical movement of machines via autonomous decisions based on observation of surroundings (*autonomous robots, self-driving vehicles, autonomous drones)*	☐	☐
If F1 a) to g) = 'No' then go to F4.		
F2. Does your enterprise use Artificial Intelligence software or systems for any of the following purposes:	**Yes**	**No**
a) for marketing or sales *e.g.* – *chatbots based on natural language processing for customer support;* – *customer profiling, price optimisation, personalised marketing offers, market analysis based on machine learning, etc.*	☐	☐
b) for production processes *e.g.* – *predictive maintenance based on machine learning;* – *tools to classify products or find defects in products based on computer vision;* – *autonomous drones for production surveillance, security or inspection;* – *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;* – *sales or business forecasting based on machine learning;* – *risk assessment based on machine learning, etc.*	☐	☐
e) for logistics *e.g.* – *autonomous robots for pick-and-pack solutions in warehouses;* – *route optimization based on machine learning;* – *autonomous robots for parcel shipping, tracing, distribution and sorting;* – *autonomous drones for parcel delivery, etc.*	☐	☐

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		Yes	No
	f) for ICT security *e.g.* – *face recognition based on computer vision for authentication of ICT users;* – *detection and prevention of cyber-attacks based on machine learning, etc.*	☐	☐
	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.*	☐	☐

F3.	How did you enterprise acquire the Artificial Intelligence software or systems that it uses?	**Yes**	**No**
	a) They were developed by own employees *(including those employed in parent or affiliate enterprise)*	☐	☐
	b) Commercial software or systems were modified by own employees *(including those employed in parent or affiliate enterprise)*	☐	☐
	c) Open-source software or systems were modified by own employees *(including those employed in parent or affiliate enterprise)*	☐	☐
	d) Commercial software or systems ready to use were purchased *(including examples where it was already incorporated in a purchased item or system)*	☐	☐
	e) External providers were contracted to develop or modify them	☐	☐

Go to X1.

F4.	Has your enterprise ever considered using any of the Artificial Intelligence technologies listed in question F1?	**Yes** ☐	**No** ☐ → **Go to X1**

F5.	What are the reasons for your enterprise not to use any of the Artificial Intelligence technologies listed in question F1?	**Yes**	**No**
	a) The costs seem too high	☐	☐
	b) There is a lack of relevant expertise in the enterprise	☐	☐
	c) Incompatibility with existing equipment, software or systems	☐	☐
	d) Difficulties with availability or quality of the necessary data	☐	☐
	e) Concerns regarding violation of data protection and privacy	☐	☐
	f) Lack of clarity about the legal consequences *(e.g. liability in case of damage caused by the use of Artificial Intelligence)*	☐	☐
	g) Ethical considerations	☐	☐
	h) Artificial Intelligence technologies are not useful for the enterprise	☐	☐

Module X: COVID-19 impact

X1.	During 2020, did your enterprise:	**Yes**	**No**	**Not applicable**
	a) increase the percentage of persons employed having remote access to the e-mail system of the enterprise?	☐	☐	☐
	b) increase the percentage of persons employed having remote access the ICT systems of the enterprise other than e-mail?	☐	☐	☐
	c) increase the number of remote meetings conducted by the enterprise *(e.g. via Skype, Zoom, MS Teams, Meet, etc.)?*	☐	☐	☐

X2.	To what degree were these changes due to the COVID-19 pandemic?	**Fully**	**Partly**	**Not at all**
	If X1a) = 'Yes': a) in the remote access to the e-mail system of the enterprise	☐	☐	☐
	If X1b) = 'Yes': b) in the remote access the ICT systems of the enterprise other than e-mail	☐	☐	☐
	If X1c) = 'Yes': c) in the number of remote meetings conducted by the enterprise	☐	☐	☐
X3.	During 2020, due to the Covid-19 pandemic did your enterprise start or increased efforts to sell goods or services via internet *(via website or apps, marketplaces or EDI-type messages)*		**Yes** ☐	**No** ☐

Thank you for your cooperation!