

Questionnaire for the Community Survey on ICT Usage and E-commerce in Enterprises 2022

Explanatory notes:

Due to the focus of the whole survey, this questionnaire should be filled in by a decision maker with major responsibility for ICT-related issues in the enterprise (the ICT manager or a senior professional in the ICT department). In smaller enterprises, the respondent should be someone at the level of managing director or the owner. In any case the respondent should not be someone with responsibilities only in accounting.

Reference period:

If not written otherwise, the reference period is **the current situation (month) in 2023**. In sections D079 and D080 relate your answers to **the whole year 2022** (the reference period is indicated in the wording of the particular question). Thank you for your understanding.

Purpose of the survey:

The results of the survey are the primary basis for assessing the level of the success of the state information policy of the Czech Republic. They provide a comprehensive view of the use of information and communication technologies in enterprises. They are a key data source for the general public, other businesses and international organizations.

Please during the filling in this questionnaire take into consideration the enterprise and its situation (company identification number), which is obliged to this statistical survey.

Disclaimer: References to third-party brands, products and trademarks (e.g. specific app names, social media brand names, marketplaces brand names, cloud computing services product names or cloud computer services providers) are for the sake of clarification and are not intended to promote the use of such products.

Please insert:

Enterprise's identification number:

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Enterprise's name and address:

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The questionnaire was filled by:

Name:

Telephone:

E-mail address:

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Module A: Internet

Part D067 ACCESS AND USE OF THE INTERNET

Row No.		YES	NO
1	<p>Does your enterprise use any type of <u>fixed connection</u> to the internet? (e.g. ADSL, SDSL, VDSL, fiber optics technology (FTTP), cable technology, fixed wireless)</p> <p>Please <u>exclude</u> internet connection via mobile telephone networks</p>		

if No, go to the row no. 3

2	<p>What is the maximum contracted download speed of the fastest fixed internet connection of your enterprise? (Tick only one option)</p>	less than 30 Mbit/s	
		at least 30 but less than 100 Mbit/s	
		at least 100 Mbit/s but less than 500 Mbit/s	
		at least 500 Mbit/s but less than 1 Gbit/s	
		at least 1 Gbit/s	

		YES	NO
3	<p>Does your enterprise have internet connection via mobile telephone networks? (the enterprise provides portable devices to persons employed and pays the costs associated with them, e.g. for the subscription and the costs of use fully or at least up to a limit).</p>		

If you ticked No on the row no. 1 AND No on the row no. 3, this is the end of the questionnaire for you

Part D066 PERSONS EMPLOYED ACCESSING THE INTERNET

Row No.		
1	<p>How many persons employed have access to the internet for business purposes: (Including fixed line and mobile connection and the usage of any kind of enterprises' ICT device)</p> <p><i>Please insert the total number of persons (qualified estimate will be suffice):</i></p>	
2	<p>How many persons employed use any kind of portable computer, tablet or mobile phone/smartphone provided by the enterprise, that allows internet connection via mobile telephone networks for business purposes:</p> <p><i>Please insert the total number of persons (qualified estimate will be suffice):</i></p>	

Module B: Websites and Social media

Part D069 USE OF A WEBSITE

Row No.		YES	NO
1	Does your enterprise have a website? (your enterprise can influence its contents; it could be also the case when parent or affiliate enterprise has a website and your enterprise can (partly) update its contents)		

if No, go to the part D144

2	In what language is the content of your enterprise's website available? (tick all options that apply)	in Czech language	
		in English language	
		in German language	
		in another language	

Does the website have any of the following possibilities for visitors/customers? (tick the answer on each row)		YES	NO
3	description of goods or services or price information		
4	possibility for visitors to customise, design or configure online goods or services according to their requirements		
5	online ordering or reservation or booking (e.g. shopping cart)		
6	tracking or status of orders placed		
7	personalised content on the website for regular/recurrent visitors		
8	advertisement of open job positions or online job application		

Part D144 USE OF MOBILE APPS

Row No.		YES	NO
1	Does your enterprise have a mobile app for clients (e.g. for loyalty program, e-commerce, customer support)? <i>This does not include mobile applications used exclusively for the internal needs of your enterprise.</i>		

if No, go to the part D071

2	If Yes, is it possible to make an online ordering or reservation of goods or services in this mobile application?		
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Part D071 ONLINE WEB CHAT SERVICE

Row No.		YES	NO
1	Does your enterprise provide customer support in the form of online web chat service on its website, mobile application or social networks?		

if No, go to the part D081

If Yes who replies/answers questions asked: (tick the answer on each row)		YES	NO
2	a person (eg. human operator)		
3	a chatbot* / virtual agent		

* A chatbot is a program designed to communicate with customers. Chatbots communicate on the basis of a database with pre-programmed communication scenarios, where they can find, for example, FAQ from customers, or they communicate thanks to the use of artificial intelligence and the ability to understand human speech, when they can react to the context of the situation when communicating with a person.

Part D081 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.

Does your enterprise <u>use</u> any of the following social media? <i>(tick the answer on each row)</i>		YES	NO
1	enterprise has a profile on Facebook or LinkedIn		
2	enterprise has an account on Twitter or another blog		
3	enterprise has an account on Instagram, YouTube, Flickr and similar multimedia content sharing websites or apps		

If you ticked No on rows no. 1 to 3, go to the part D145, otherwise go to the row no.4

Does your enterprise use any of the above mentioned social media to: <i>(tick the answer on each row)</i>		YES	NO
4	enterprise's presentation, develop the enterprise's image		
5	market products (e.g. advertising or launching products), promotion of goods or services		
6	obtain or respond to customer opinions, reviews, questions		
7	involve customers in development or innovation of goods or services		
8	collaborate with business partners (e.g. suppliers) or other organisations (e.g. public authorities, non-governmental organisations)		
9	recruit employees		
10	exchange views, opinions or knowledge within the enterprise		

Part D145 PAY TO ADVERTISE ON THE INTERNET

Row No.		YES	NO
1	Does your enterprise <u>pay to advertise on the internet</u> ? (e.g. adverts on search engines, on social media, on other websites or mobile apps)		

if No, go to the Module C, part D079

Does your enterprise pay to advertise on the internet using any of the following targeted advertising methods? <i>(tick the answer on each row)</i>		YES	NO
2	based on content or keywords searched by internet users <i>(it also includes situations where enterprises pay for their ads to be preferentially displayed (at the top) in search engines, in social network banners, etc.)</i>		
3	based on the tracking of internet users' past activities or profile <i>(it includes the use of cookies that are used to display advertising content that corresponds to the users' previous Internet activity)</i>		
4	based on the geolocation of internet users <i>(it can only be set for a specific area, e.g. at a certain distance from the enterprises' premises. If the user clicks on it, he will learn details, address, opening hours, etc.)</i>		
5	any other method of targeted advertising on the internet not specified above (e.g. in the form of paid advertising articles, videos, paid cooperation with YouTubers)		

Module C: Electronic commerce

Part D079 WEB E-COMMERCE SALES

Web sales are sales made via an online store (web shop, e-commerce marketplace), via web forms on a website or extranet, or via apps.

e-Commerce transactions exclude orders made by manually typed e-mail messages!

Did your enterprise sold materials, goods or services electronically in the following ways during 2022? <i>(tick the answer on each row)</i>		YES	NO
1	via your enterprise's websites or mobile apps		
2	via an e-commerce marketplace websites or apps		

If you ticked No on rows no. 1 to 2, go to the part D080

3	What percentage of total turnover was generated by web sales of goods or services, in 2022? (indicate an estimate of the percentage of the monetary values, excluding VAT) <i>Please insert the percentage with one decimal place (qualified estimate of the percentage will be suffice):</i>	____, _ %
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What was the percentage breakdown of the value of web sales in 2022 for the following:		
4	sales via your enterprise's website or mobile apps <i>Please insert the percentage with no decimal places:</i>	___ %
5	sales via an e-commerce marketplace website or apps used by several enterprises for trading products <i>Please insert the percentage with no decimal places:</i>	___ %

What was the percentage breakdown of the value of web sales in 2022 by type of customer:		
6	sales to private customers (B2C) <i>Please insert the percentage with no decimal places:</i>	___ %
7	sales to other enterprises (B2B) and sales to public sector (B2G) <i>Please insert the percentage with no decimal places:</i>	___ %

Part D080 EDI-TYPE SALES

Sales through electronic data exchange (hereinafter EDI) most often take place between companies, often directly through applications in information systems such as ERP or SCM. EDI-type sales are sales made via EDI-type messages, i.e. in an agreed or standard format suitable for automated processing (e.g. EDI, XML, UBL). Electronic business documents (orders and invoices) are exchanged between two systems (sellers' and customers'), which enables their immediate control and subsequent processing in real time.

e-Commerce transactions exclude orders made by manually typed e-mail messages!

Row No.		YES	NO
1	During 2022, did your enterprise realized at least one EDI-type sale of goods or services?		

if No, go to the Module D, part D082

2	What percentage of total turnover was generated by EDI-type sales of goods or services, in 2022? (indicate an estimate of the percentage of the monetary values, excluding VAT) <i>Please insert the percentage with one decimal place (qualified estimate of the percentage will be suffice):</i>	____, _ %
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Module D: 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;
- are paid for, either per user, by capacity used, or they are pre-paid.

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

The main providers of cloud services include Google (e.g. paid Gmail for e-mail, Google Docs, Google Cloud SQL, Google Drive - Google Drive) and Microsoft (e.g. Microsoft Outlook, Office 365, Microsoft SQL Azure Database, OneDrive).

Part D082 USE OF CLOUD COMPUTING SERVICES

Row No.		YES	NO
1	Does your enterprise <u>buy</u> any cloud computing services used over the internet?		

if No, go to the Module E,
part D075

If Yes, does your enterprise <u>buy</u> any of the following cloud computing services used over the internet? <i>(tick the answer on each row)</i>		YES	NO
2	E-mail (as a cloud computing service)		
3	Office software (as a cloud computing service)		
4	Hosting the enterprise's database(s) (as a cloud computing service)		
5	Storage of files (as a cloud computing service)		
6	Finance or accounting software applications (as a cloud computing service)		
7	Enterprise Resource Planning (ERP) software applications (as a cloud computing service)		
8	Customer Relationship Management (CRM) software applications (as a cloud computing service)		
9	Security software applications (e.g. antivirus program, network access control) (as a cloud computing service)		
10	Computing power to run the enterprise's own software (e.g. processor performance, operating memory, hard disk space or operating system) (as a cloud computing service)		
11	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: Electronic information sharing, corporate information systems and electronic invoicing

Part D075 USE OF SELECTED INFORMATION SYSTEMS AND APPLICATIONS

Row No.		YES	NO
1	<p>Does your enterprise share information and data electronically with suppliers or customers within the supply chain? (e.g. orders, invoices, information regarding production or maintenance, products availability, progress of deliveries, information on inventory levels, etc.)</p> <p>This data may be exchanged via websites, networks or other means of electronic data transfer, <u>excluding e-mails not suitable for automated processing or manually typed.</u></p>		
<p>Does your enterprise use the following business software or apps? (tick the answer on each row)</p>		YES	NO
2	<p>Enterprise Resource Planning (ERP) 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.</p>		
3	<p>Customer Relationship Management (CRM) software for managing information about customers (e.g. relations or transactions) CRM facilitates communication with the customer and helps track customer interests, purchasing habits.</p>		
4	<p>Supply Chain Management (SCM) for electronic information sharing within the supply chain SCM is often part of or an extension of an ERP system.</p>		
5	<p>Business Intelligence (BI) software that accesses and analyses data (e.g. from data warehouses, data lakes) from internal IT systems and external sources and presents analytical findings in reports, summaries, dashboards, graphs, charts and maps, to provide users with detailed insights for decision-making and strategic planning</p>		

Part D095 ELECTRONIC INVOICING

There are invoices in paper form and electronic form. Invoices in electronic form are of two types:

- E-invoices in a standard structure suitable for automated processing, excluding the transmission of PDF files. They are exchanged either directly or via service operators or via an electronic banking system.
- Invoices in electronic form not suitable for automated processing, including the transmission of PDF files

Does your enterprise send the following types of invoices? (tick the answer on each row)		YES	NO
1	<p>so-called e-Invoices in electronic form, in a standard structure suitable for automated processing (e.g. EDI, XML, ISDOC, UBL, etc.) . <u>Exclude the transmission of PDF files</u></p>		
2	<p>Invoices in electronic form not suitable for automated processing (e.g. emails, JPEG or PDF format)</p>		
3	<p>Paper invoices</p>		
4	<p>If Yes on the row no. 1 Out of all invoices your enterprise sent (in electronic or paper form) what percentage were e-invoices in a standard structure suitable for automated processing?</p> <p style="text-align: center;"><i>Please insert the percentage with no decimal places: (if you cannot provide the exact percentage an approximation will suffice)</i></p>	<p>___ %</p>	

Module F: Advanced data analysis (Data analytics)

Part D146 PERFORMING ADVANCED DATA ANALYSIS (DATA ANALYTICS)

Advanced data analysis (data analytics) most often involves obtaining information from Big Data, the storage and processing of which exceeds the possibilities of ordinary means of corporate information technology. Special programs such as Business Intelligence tools, SQL, Tableau, Python, SAS, Apache Spark, Excel VBA, etc. are used for advanced data analysis.

Row No.		YES	NO
1	<p>Does your enterprise perform advanced data analysis (data analytics) by own employees? <i>Please, consider internal data sources (e.g. from accounting, from production lines) and external data sources (e.g. from suppliers, customers, public institutions).</i></p>		

if No, go to the row no. 10

If Yes, does your enterprise perform advanced data analysis (data analytics) on data from the following sources? (tick the answer on each row)		YES	NO
2	data from transaction records such as sale details, payments records (e.g. from ERP system, own webshop)		
3	data about customers such as customer purchasing information, location, preferences, customer reviews, searches (e.g. from CRM system or own website)		
4	data from social media, incl. from your enterprise's own social media profiles (e.g. comments, video, audio, images)		
5	web data (e.g. price trends among competitors, occurrence of keywords, comments about the company on the web) obtained using web scraping or web analytics		
6	location data from the use of portable devices or vehicles (e.g. portable devices using mobile telephone networks, wireless connections or GPS)		
7	data from smart devices or sensors (e.g. Machine to Machine (M2M) communications, sensors installed in machinery, manufacturing sensors, smart meters, RFID tags)		
8	Data analytics on government authorities' open data (e.g. real estate register, business or trade register)		
9	<p>satellite data (e.g. satellite imagery, navigation signals, position signals. It includes publicly available data, e.g. data collected by the European Space Agency (ESA) or NASA or commercial data)</p> <p><i>It does not include location data using GPS - indicate this on the row no. 6</i></p>		
		YES	NO
10	<p>Does an external enterprise or organisation perform advanced data analysis (data analytics) for your enterprise? <i>Please, consider your enterprises' internal data sources and external data sources (e.g. from suppliers, customers, public institutions).</i></p>		

Module G: Artificial Intelligence

Part D143 ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) are machines, programs and systems created to perform tasks efficiently and facilitate human work. Artificial intelligence allows machines to make decisions on their own and has the potential to learn further. It is used, for example, to simplify administration and communication, to improve products and entire production processes, to predict the development of events or to make strategic decisions in management.

Artificial intelligence systems can be purely software-based (e.g. chatbots, machine translation, computer image recognition) or they can be part of machines (e.g. autonomous robots or drones).

Does your enterprise use any of the following Artificial Intelligence technologies? <i>(tick the answer on each row)</i>		YES	NO
1	Machine learning (e.g. deep learning) for data analysis		
2	AI technologies performing analysis of written language (e.g. text mining)		
3	AI Technologies converting spoken language into machine-readable format (speech recognition)		
4	AI Technologies generating written or spoken language (natural language generation, speech synthesis)		
5	AI Technologies identifying objects or persons based on images or videos (image recognition, image processing)		
6	AI Technologies automating different workflows or assisting in decision making (e.g. AI based software robotic process automation)		
7	AI Technologies enabling physical movement of machines via autonomous decisions based on observation of surroundings (autonomous robots, selfdriving vehicles, autonomous drones)		

If you ticked No on the rows no. 1 to 7, this is the end of the questionnaire for you

Does your enterprise use Artificial Intelligence software or systems for any of the following purposes? <i>(tick the answer on each row)</i>		YES	NO
8	for marketing or sales e.g. for customer support using intelligent chatbots; for evaluating previous purchases and estimating future sales; for customer segmentation and optimization of offers and prices; for creating individual business offers		
9	for production processes e.g. using robotics in production processes; predictive maintenance or process optimization based on machine learning and early detection of potential problems; the use of computer vision to search for manufacturing defects		
10	for organisation of business administration processes e.g. using virtual voice assistants (Siri, Alexa, Google Assistant); using speech recognition and natural language generation technology to convert spoken word into the text; using machine translation using neural networks		
11	for management e.g. use of machine learning for investment or other strategic decision-making, for the creation of business forecasts or risk assessment		
12	for human resources management e.g. use of machine learning to sort CVs according to HR requirements, for pre-selection of suitable job applicants; evaluation of employees according to their performance		
13	for logistics, storage e.g. using an autonomous robotic warehouse system; using autonomous robots for parcel shipping, tracing, distribution or sorting; route optimization based on machine learning		
14	for ICT security e.g. face recognition based on computer vision for authentication of ICT users; detection and prevention of cyber-attacks or spam e-mails based on machine learning		
15	for accounting, controlling or finance management e.g. Use of machine learning to analyse data that helps to make financial decisions; invoice processing based on machine learning; machine learning or natural language processing for bookkeeping documents		
16	for research and development (R&D) or innovation activity e.g. analysis of data for conducting research, solving research problems, developing a new or significantly improved product/service based on machine learning <i>Please exclude if your enterprise carries out research and development in the field of artificial intelligence</i>		

How did you enterprise acquire the Artificial Intelligence software or systems that it uses? <i>(tick the answer on each row)</i>		YES	NO
17	They were developed by own employees (including those employed in parent or affiliate enterprise)		
18	Commercial software or systems were modified by own employees (including those employed in parent or affiliate enterprise)		
19	Commercial software or systems ready to use were purchased (including examples where it was already incorporated in a purchased item or system)		
20	Open-source software or systems were modified by own employees (including those employed in parent or affiliate enterprise)		
21	External providers were contracted to develop or modify them		
22	They were developed in collaboration with another companies, universities or public research institutions		