

Information technology in enterprises

Questionnaire code: 13572023

Submitted in: 19.03.2023, data about 2022

Period:

Periodicity: Annual

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Statistics Estonia guarantees the full protection of data submitted.

Economic unit

Registry code:
Name:

E-mail:
Phone:

Postal address

County:
City / Rural municipality:
Village / Town / City district:
Secondary address unit:

Street:
Building:
Apartment:
Postal code:

Economic activity in the sample

Completed by

Personal ID code:
Firstname and surname:

E-mail:
Phone:

Completed on (date):

Signature:

A. USE OF THE INTERNET

		Answer
		1
A1. Number of persons employed who use the internet for business purposes (including fixed line and mobile connection).	101	
IF YOU ANSWERED "0" TO QUESTION A1, GO TO QUESTION G1	x0	Routing
USE OF A FIXED CONNECTION TO THE INTERNET FOR BUSINESS PURPOSES	x1	
A2. Does your enterprise have a fixed line connection to the internet?	102	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION A2, GO TO QUESTION A4	x2	Routing
A3. What is the maximum contracted download speed of the internet connection of your enterprise?	103	01 - Less than 30 Mbit/s 02 - At least 30, but less than 100 Mbit/s 03 - At least 100, but less than 500 Mbit/s 04 - At least 500, but less than 1 Gbit/s 05 - At least 1 Gbit/s
WEBSITE	x3	
USE OF A WEBSITE	x4	
A4. Does your enterprise have a website?	104	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION A4, GO TO QUESTION A6	x5	Routing
A5. Does the website have any of the following?	105	
a) Description of goods or services, price information	105_A	
b) Online ordering, reservation or booking (e.g. shopping cart)	105_B	
c) Possibility for visitors to customise or design online goods or services	105_C	

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d) Tracking or status of orders placed	105_D	
e) Personalised content on the website for regular/recurrent visitors	105_E	
f) A chat service for customer support (a chat box, chatbot, virtual agent or a person replying to customers)	105_F	
g) Information on job vacancies or the possibility to apply for a job through an online application	105_G	
h) Content of the website is available in two or more languages	105_H	
i) The website does not contain the listed information	105_I	
USE OF MOBILE APPS	x6	
A6. Does the enterprise have a mobile app for its customers?	106	1 - Yes 2 - No
USE OF SOCIAL MEDIA	x7	
A7. Does your enterprise use any of the following social media?	107	
a) Social networks (e.g. Facebook, LinkedIn)	107_A	1 - Yes 2 - No
b) Enterprise's blog or microblogs (e.g. Twitter)	107_B	1 - Yes 2 - No
c) Multimedia content sharing websites or apps (e.g. YouTube, Flickr, Picasa, SlideShare, Instagram, Pinterest, Snapchat)	107_C	1 - Yes 2 - No

B. E-COMMERCE

E-commerce is the sale or purchase of goods or services by electronic means, especially via the internet and other computer networks, whereas the payment and delivery of the goods or services do not have to be conducted online. E-commerce transactions are conducted either via the web or via electronic data exchange (EDI).

		Answer
		1
WEB-BASED SALES	x3	
B1. In the previous year, did your enterprise receive orders for goods or services placed via the following channels?	201	
a) Enterprise's website or app (including extranet)	201_A	1 - Yes 2 - No
b) E-commerce marketplace websites, e.g. Alibaba.com, Amazon, Booking.com, eBay, Etsy, ThomasNet, etc.	201_B	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO BOTH OPTIONS (a) AND (b) UNDER QUESTION B1, GO TO QUESTION B5.	x5	Routing
PLEASE ANSWER EITHER TO B1a OR B1b OR BOTH.	x6	Routing
B2a) Please estimate the value of the turnover from web sales (in euros, excluding VAT) in 2022.	202_A	
B2b) Please estimate what percentage of the TOTAL TURNOVER was generated by orders placed over the web in 2022 (enter number without % symbol).	202_B	
ANSWER THE QUESTIONS BELOW ONLY IF YOU ANSWERED "YES" TO BOTH OPTIONS (a) AND (b) UNDER QUESTION B1	x11	Routing
B3. Please estimate what was the percentage breakdown of the value of WEB SALES in the previous year for the following (write number without % symbol) ...	203	
a) via your enterprise's website or app (including extranet)	203_A	
b) via e-commerce marketplace websites, e.g. Alibaba.com, Amazon, Booking.com, eBay, Mts, ThomasNet, etc.	203_B	
TOTAL 100%	203_C	sum of rows 203_A and 203_B
B4. Please estimate what was the percentage breakdown of the value of WEB SALES in the previous year by type of customer (write number without % symbol) ...	204	
a) sales to private consumers (B2C)	204_A	
b) sales to other enterprises (B2B) and sales to the public sector (B2G)	204_B	
TOTAL 100%	204_C	sum of rows 204_A and 204_B
EDI-TYPE SALES	x7	
B5. In the previous year, did your enterprise receive EDI-type orders?	205	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION B5, GO TO QUESTION C1	x9	Routing
PLEASE REPLY EITHER TO B6a OR B6b OR BOTH.	x10	Routing
B6a) Please estimate what was the turnover in euros (VAT excluded) of EDI-type sales of goods or services in the previous year.	206_A	
B6b) Please estimate what percentage of the TOTAL TURNOVER was generated by EDI-type sales of goods or services in the previous year.	206_B	

C: Data utilisation, sharing, analytics, and trading

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		Answer
		1
C1. Does your enterprise use the following business software?	301	
a) Enterprise Resource Planning (ERP) software.	301_A	1 - Yes 2 - No
b) Customer Relationship Management (CRM) software.	301_B	1 - Yes 2 - No
c) Business Intelligence (BI) software.	301_C	1 - Yes 2 - No
Data sharing	x2	
C2. Does your enterprise share data electronically with suppliers or customers in the supply chain (e.g. through websites or applications, EDI systems, real-time sensors or tracking)?	302	1 - Yes 2 - No
Data analytics	x3	
C3. Does your enterprise have staff performing data analytics?	303	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION C3, GO TO QUESTION C5.	x5	Routing
C4. Does your enterprise apply data analytics on data from the following sources?	304	
a) Transactional data	304_A	1 - Yes 2 - No
b) Customer data	304_B	1 - Yes 2 - No
c) Social media data, including the enterprise's own social media profiles	304_C	1 - Yes 2 - No
d) Web data	304_D	1 - Yes 2 - No
e) Location data of portable devices or vehicles	304_E	1 - Yes 2 - No
f) Data from smart devices or sensors	304_F	1 - Yes 2 - No
g) Open data from public authorities	304_G	1 - Yes 2 - No
h) Satellite data	304_H	1 - Yes 2 - No
RESPONSE TO QUESTION C5 IS ONLY REQUIRED FROM ENTERPRISES THAT HAVE NOT PERFORMED DATA ANALYTICS BY OWN EMPLOYEES, I.E. IF ANSWER TO QUESTION C3 WAS "NO".	x6	Routing
C5. Did an external enterprise or organisation perform data analytics for your enterprise last year?	305	1 - Yes 2 - No

D. CLOUD COMPUTING SERVICES (click on the table heading for more information)

Cloud computing services are services provided via the internet (incl. VPN) for software access, data hosting, etc. The ordered cloud computing services can be used in computers with internet access. The user interface for most services is a web browser; in some cases a special user interface is installed.

Characteristics of cloud computing services:

- 1) they are delivered from the servers of service providers;
- 2) they can be easily scaled up or down (e.g. the number of users or storage capacity);
- 3) they are used on-demand by the user, without human interaction with the service provider;
- 4) they are paid for, either per user, by capacity used, or are pre-paid.

		Answer
		1
D1. Has your enterprise bought cloud computing services?	401	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION D1, GO TO QUESTION E1	x3	Routing
D2. Which of the following cloud computing services has your enterprise BOUGHT?	402	
a) E-mail as a cloud computing service, e.g. Gmail, Outlook.com, etc.	402_A	1 - Yes 2 - No
b) Office software (e.g. word processors, spreadsheets, etc.) as a cloud computing service, e.g. G Suite (Google), Office 365, etc.	402_B	1 - Yes 2 - No
c) Finance or accounting software applications as a cloud computing service, e.g. Merit, Standard Books, Smart Accounts, Dynamics, Directo, etc.	402_C	1 - Yes 2 - No
d) Enterprise Resource Planning (ERP) software applications as a cloud computing service, e.g. MRPeasy, SAP BusinessByDesign, Erply, Microsoft Dynamics AX.	402_D	1 - Yes 2 - No
e) Customer Relationship Management (CRM) software applications as a cloud computing service, e.g. Microsoft Dynamics CRM, Oracle Siebel CRM, Pipedrive, Scorio CRM.	402_E	1 - Yes 2 - No
f) Security software applications as a cloud computing service, e.g. antivirus programs, network access controls, e.g. Avast CloudCare, Panda Cloud Antivirus, AVG CloudCare.	402_F	1 - Yes 2 - No
g) Hosting the enterprise's databases as a cloud computing service, e.g. Microsoft SQL.	402_G	

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		1 - Yes 2 - No
h) Storage of files in a cloud, e.g. Microsoft OneDrive, Amazon S3, Google Drive, Dropbox, etc.	402_H	1 - Yes 2 - No
i) Computing power to run the enterprise's own software as a cloud computing service, e.g. renting virtual server disk space from a service provider.	402_I	1 - Yes 2 - No
j) Computing platform providing a hosted environment for application development, testing or deployment as a cloud computing service, e.g. Microsoft Azure.	402_J	1 - Yes 2 - No

E. USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN THE ENTERPRISE (click on the table heading for more information)

Artificial Intelligence (AI) is a technological system that can imitate natural human intellect and the ability to think. AI can independently solve tasks, learn, and make decisions.

AI systems can be purely software-based (without the use of hardware), but they can also be embedded in devices.

		Answer
		1
E1. Does your enterprise use any of the following Artificial Intelligence technologies?	501	
a) Text mining, analysis of written text for detecting patterns in the text and highlighting information on the basis of NLP (natural language processing) and machine learning principles.	501_A	1 - Yes 2 - No
b) Speech recognition, which converts spoken language into machine-readable format.	501_B	1 - Yes 2 - No
c) Data into text/story, where human-readable texts/stories are generated automatically from structured data.	501_C	1 - Yes 2 - No
d) Image recognition, identifying objects or persons based on photographs or images.	501_D	1 - Yes 2 - No
e) Machine learning (e.g. deep learning) for automatic data analysis in a specific field.	501_E	1 - Yes 2 - No
f) AI-based robotic process automation (RPA) used in the office for automating workflows and assisting in decision-making.	501_F	1 - Yes 2 - No
g) Self-propelled robotic machine equipped with artificial intelligence, capable of autonomously observing the surroundings and making decisions based on this information.	501_G	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO ALL OPTIONS UNDER QUESTION E1, GO TO QUESTION E4.	x3	Routing
E2. Does your enterprise use Artificial Intelligence software or systems for any of the following purposes?	502	
a) Marketing or sales	502_A	1 - Yes 2 - No
b) Production processes	502_B	1 - Yes 2 - No
c) Organisation of business administration processes	502_C	1 - Yes 2 - No
d) Logistics	502_D	1 - Yes 2 - No
e) ICT security	502_E	1 - Yes 2 - No
f) Accounting, controlling or finance management	502_F	1 - Yes 2 - No
g) Research and development (R&D) or innovation activity (excluding research on AI)	502_G	1 - Yes 2 - No
E3. How did your enterprise acquire the Artificial Intelligence software or systems that it uses?	503	
a) They were developed by own employees (including those employed in parent or affiliate enterprise)	503_A	1 - Yes 2 - No
b) Commercial software or systems were modified by own employees (including those employed in parent or affiliate enterprise)	503_B	1 - Yes 2 - No
c) Open-source software or systems were modified by own employees (including those employed in parent or affiliate enterprise)	503_C	1 - Yes 2 - No
d) Commercial software or systems ready to use were purchased (including those already incorporated in a purchased item or system)	503_D	1 - Yes 2 - No
e) External providers were contracted to develop or modify them	503_E	1 - Yes 2 - No
ANSWER THE FOLLOWING QUESTIONS ONLY IF YOU ANSWERED "NO" TO ALL OPTIONS UNDER QUESTION E1.	x4	Routing
E4. Has your enterprise ever considered using any of the Artificial Intelligence technologies listed in question E1?	504	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION E4, GO TO QUESTION F1.	x5	Routing
E5. What are the reasons for your enterprise not to use any of the Artificial Intelligence technologies listed in question E1?	505	
a) The costs are too high	505_A	1 - Yes 2 - No
b) There is a lack of relevant expertise in the enterprise	505_B	1 - Yes

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		2 - No
c) Incompatibility with existing equipment, software or systems	505_C	1 - Yes 2 - No
d) Difficulties with availability or quality of the necessary data	505_D	1 - Yes 2 - No
e) Concerns regarding violation of data protection and privacy	505_E	1 - Yes 2 - No
f) Lack of clarity about the legal consequences (e.g. liability in case of damage caused by the use of Artificial Intelligence)	505_F	1 - Yes 2 - No
g) Ethical considerations	505_G	1 - Yes 2 - No
h) Artificial Intelligence technologies are not useful for the enterprise	505_H	1 - Yes 2 - No

F. INVOICING (not to be filled in by financial and insurance enterprises, EMTAK K64000–K66999)

Invoices may be in paper or electronic form. E-invoices are electronic documents containing payment information. There are two types of e-invoices:

- 1) e-invoices in a standard structure suitable for automated processing, which are exchanged between partners either directly from the information system to information system, or via service operators (Finbite, Unifiedpost, Edisoft, Telema, E-arveldaja);
- 2) invoices in electronic form not suitable for automated processing (e.g. e-mail, pdf-file).

		Answer
		1
F1. In previous year, did your enterprise send any of the following types of invoices?	601	
a) Paper invoices	601_A	1 - Yes 2 - No
b) Invoices in electronic form not suitable for automated processing (e.g. e-mails, e-mail attachments in PDF, TIF, JPEG or other format)	601_B	1 - Yes 2 - No
c) E-invoices in a standard structure suitable for automated processing (e.g. EDI, UBL, XML)	601_C	1 - Yes 2 - No
IF YOU ANSWERED "NO" TO QUESTION F1 c), GO TO END OF THE QUESTIONNAIRE.	x3	Routing
F2. Please estimate, out of all invoices your enterprise sent in 2022, how many were e-invoices in a standard structure suitable for automated processing.	602	15 - Less than 10 percent 18 - From 10 to 24 percent 24 - From 25 to 49 percent 27 - From 50 to 74 percent 30 - 75 percent or over
G1. Please specify the reason why the enterprise's employees do not use the internet for work purposes.	603	1 - The company's activities are temporarily suspended, terminated 2 - The performance of tasks does not require the use of the Internet 3 - Other reason

G. TIME SPENT ON FILLING OUT THE QUESTIONNAIRE (incl. for preparing the data)

Please estimate how much time you spent on filling out the questionnaire (incl. time spent on reading the instructions, collecting and preparing data). Record the total time spent by all employees.

		Hours	Minutes
		1	2
Time spent	1		
For example, if it took 1.5 hours, i.e. 90 minutes, to fill in the questionnaire, enter 1 on the hours field and 30 on the minutes field.	x		

Contact person: Help desk (contact centre), Phone: 6259 300, E-mail: klienditugi@stat.ee, Postal address: Vabaduse plats 2, 71020 Viljandi

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COMMENT
