

# ICT usage in enterprises 2023

2023eng-1.2-49-ga635675

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### **Toelichting vragen**

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- Most of the questions in this survey are about the *current* situation in your enterprise.
  - Some questions are about the year 2022. This is indicated in the question.
  - The questions are generally best answered by an ICT manager.
  - However, the 'E-commerce' and 'Invoices' modules might be best completed by a finance officer.
  - If a percentage (%) needs to be filled in, an estimate will suffice.
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### **Toelichting kleuren**

- All questions and modules shown in the color of this line, are submitted only to the large companies (10 or more employees). The small businesses (2–10 employees) can skip these questions.

## A. Access and use of the internet

A.1. What was the total number of persons employed\* in your enterprise as of December 31, 2022?

Number:

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\*Employed persons

- *Do count*
    - Employees and directors who are on own enterprise payroll
    - Employees who are on the payroll of another enterprise, but are employed by your enterprise and are therefore your employees (contracted personnel)
    - Employed owners, partners, members of partnerships, associates and cooperating family members
    - Temporary employees
    - Hired self-employed workers
  - *Do not count*
    - Loaned personnel (employees who are on the payroll, but work at another other enterprise or institution).
    - Personnel working outside the Netherlands.
- 

A.2. What percentage of persons employed have access to the internet for business purposes?

*Including both fixed internet connection and mobile internet through smartphones and tablets.*

Percentage (%):

### Remote access to enterprise ICT systems

A.3. Does one or more of your employees who works outside of the enterprise's facility have remote access to:

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| a) E-mail system of the enterprise  | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Documents of the enterprise (e.g. files, spreadsheets, presentations, charts, photos, etc.)                      | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Business applications or software of the enterprise (e.g. Customer Management software, database software, etc.) | <input type="checkbox"/> | <input type="checkbox"/> |

*Please exclude applications intended for internal communication, e.g. Skype, Teams and Zoom*

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Filters of question:

- If Yes in question A.3b) or question A.3c) → go to question A.4
  - Otherwise → go to question A.5.
- 

A.4. What percentage of the employed persons have outside the enterprise's premises remote access to enterprise documents or software?

*via a computer or a mobile phone*

Percentage (%):

### Fixed internet connection

A.5. Does your enterprise use a fixed internet connection\*?

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\*For example, ADSL, cable, fiber optics, SDLS, VDSL or other high-quality DSL connections.

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- Yes  
 No → Ga naar vraag naar A.7

A.6. What is the maximum download speed of your fastest fixed internet connection\*?

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\*This is the speed according to your internet subscription or contract.

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- less than 30 Mbit/s  
 at least 30 but less than 100 Mbit/s  
 at least 100 but less than 500 Mbit/s  
 at least 500 Mbit/s but less than 1 Gbit/s  
 at least 1 Gbit/s

### Use of a website

A.7. Does your enterprise have a website?

- Yes  
 No → Ga naar vraag naar A.10

A.8. What is the domain name (URL) of your enterprise's website?

*In case of multiple websites, please enter the website with the most visitors.*

A.9. Does your website have any of the following items?

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| a) Description of goods/services or price lists   | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Feature to order, book or reserve online   | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Possibility for clients to customize or design online products i.e. goods or services                    | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Tracking the status of an order  | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Personalized information for regular visitors  | <input type="checkbox"/> | <input type="checkbox"/> |
| f) Possibility of chat service for customer support e.g. virtuele chatbot or a person replying to customers | <input type="checkbox"/> | <input type="checkbox"/> |
| g) Advertisement of open job positions or online job application  | <input type="checkbox"/> | <input type="checkbox"/> |
| h) Content available in at least two languages  | <input type="checkbox"/> | <input type="checkbox"/> |

### Use of mobile apps

A.10. Does your enterprise have a mobile app for clients?

*e.g. for loyalty program, e-commerce, customer support.*

- Yes  
 No

### Use of social media

A.11. Does your enterprise use the following social media?

If all choices 'No' → Ga naar vraag naar A.13

	Yes	No
a) Social networks (e.g. Facebook, LinkedIn, Yammer)	<input type="checkbox"/>	<input type="checkbox"/>
b) Enterprise's blog or microblogs (e.g. Twitter)	<input type="checkbox"/>	<input type="checkbox"/>
c) Multimedia content sharing websites or apps (e.g. YouTube, Flickr, Pinterest, Instagram)	<input type="checkbox"/>	<input type="checkbox"/>

Enterprises using social media have a user profile, an account or a user licence depending on the requirements and the type of the social media it is used.

A.12. Does your enterprise use the above mentioned social media for one or more of the following purposes:

	Yes	No
a) To develop the enterprise's image or for the marketing of products (e.g. advertising or launching products)	<input type="checkbox"/>	<input type="checkbox"/>
b) To obtain or respond to customer opinions, reviews, questions	<input type="checkbox"/>	<input type="checkbox"/>
c) To involve customers in the development or innovation of goods or services	<input type="checkbox"/>	<input type="checkbox"/>
d) To collaborate with business partners or other organizations	<input type="checkbox"/>	<input type="checkbox"/>
e) To recruit employees	<input type="checkbox"/>	<input type="checkbox"/>
f) To exchange views, opinions or knowledge within the enterprise	<input type="checkbox"/>	<input type="checkbox"/>

**Advertising on the Internet**

A.13. Does your enterprise pay to advertise on the internet?

*e.g. adverts on search engines, on social media, on other websites or apps*

- Yes  
 No → Ga naar module B

A.14. Does your enterprise pay to advertise on the Internet using any of the following targeted advertising methods?

	Yes	No
a) Based on keywords searched by internet users	<input type="checkbox"/>	<input type="checkbox"/>
b) Based on tracking previous activities or profiles of internet users	<input type="checkbox"/>	<input type="checkbox"/>
c) Based on the geolocation of internet users	<input type="checkbox"/>	<input type="checkbox"/>
d) Based on any other methods of targeted advertising on the Internet	<input type="checkbox"/>	<input type="checkbox"/>

## B. Data utilisation, sharing, analytics and trading

### Use of business software

#### B.1. Does your enterprise use the following business software?

If all choices 'No' → Ga naar vraag naar B.3

	Yes	No
<b>a) Enterprise Resource Planning (ERP) software</b> – Enterprise Resource Planning (ERP) software is used to support business processes by sharing information across different departments (e.g. accounting, planning, manufacturing, marketing).	<input type="checkbox"/>	<input type="checkbox"/>
<b>b) Customer Relationship Management (CRM) software</b> – Customer Relationship Management (CRM) software is used to manage information about customers.	<input type="checkbox"/>	<input type="checkbox"/>
<b>c) Business Intelligence (BI) software</b> – BI-software 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.	<input type="checkbox"/>	<input type="checkbox"/>

#### B.2. Enter the name or names of the ERP, CRM or BI software packages your enterprise uses.

Think of software such as SAP, Exact, Airtable. But also software developed in-house, etc.

If you do not know, please skip this question.

### Data-sharing

#### B.3. Does your enterprise share data\* electronically with suppliers or customers within the supply chain?

e.g. via websites or apps, EDI-systems, real-time sensors of tracking.

- Yes  
 No

##### • Data-sharing\*

- These data may be exchanged via websites, networks or other means of electronic data transfer, *excluding e-mails not suitable for automated processing or manually typed.*
- Some of the examples of data exchange: information on inventory levels, progress of deliveries, progress in service provision, demand forecasts, products availability, customer requirements, e-commerce data, information regarding production or maintenance.

### Data-analytics

B.4. Does your enterprise perform data analytics by own employees?

Please, include both data analysis on internal and external data sources.

• Data-analytics

- Data analytics refers to the use of technologies, techniques or software tools for analysing (own or acquired) data to extract patterns, trends and insights to make conclusions, predictions and better decision-making with the aim of improving or optimizing performance.
- Data may be extracted from your own enterprise' data source or from external sources (e.g. suppliers, customers, government).

Yes

No

B.5. Does your enterprise perform data analytics on data from the following sources?

Consider both internal as well as external data sources.

	Yes	No
<b>a) Data analytics on data from transaction records such as sale details, payments records</b> <i>e.g. from Enterprise Resource Planning system (ERP), own webshop</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b) Data analytics on data about customers such as customer purchasing information, location, preferences, customer reviews, searches</b> <i>e.g. from Customer Relationship Management system (CRM) or own website</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c) Data analytics on data from social media, incl. from your enterprise's own social media profiles such as personal information (e.g. Facebook of LinkedIn), comments (e.g. Twitter of Booking), video (e.g. Youtube), audio, images (e.g.zoals Pinterest)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d) Data analytics on web data</b> <i>e.g. search engine trends, web scraping* data (*Use of computer program for extracting data from websites.)</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>e) Data analytics on location data from the use of portable devices or vehicles</b> <i>e.g. portable devices using mobile telephone networks, wireless connections or GPS.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>f) Data analytics on data from 'smart' devices or sensors</b> <i>e.g. Machine to Machine (M2M) communications, sensors installed in machinery, manufacturing sensors, smart meters, Radio frequency identification (RFID) tags. A Radio Frequency identification-RFID tag is a device that can be applied to or incorporated into a product or an object and transmits data via radio waves.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>g) Data analytics on government authorities' open data</b> <i>e.g. enterprise public records, weather conditions, topographic conditions; transport data, housing data, buildings data</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>h) Data analytics on satellite data</b> <i>e.g. satellite imagery, navigation signals, position signals or communications outside Internet coverage via satellites. Please, include data acquired from enterprise's own infrastructure or from externally provided service (e.g. AWS Ground Station).</i>	<input type="checkbox"/>	<input type="checkbox"/>

B.6. Does an external enterprise or organisation perform data analytics for your enterprise?

Please include data analytics based on data from internal and external sources.

Yes

No

Data trading

B.7. During 2022, did your enterprise *sell* (access to) any of its own data?

*e.g. data about your enterprise's customers' preferences, data from your enterprise's smart devices or sensors.*

Yes

No

B.8. During 2022, did your enterprise *purchase* (access to) any data?

*e.g. data about other enterprise's customers' preferences, data from other enterprise's smart devices or sensors.*

Yes

No



## C. Cloud computing services

### Description cloud computing services

- *Cloud computing or the cloud* refers to ICT services that are used over the Internet. Customers are for instance allowed to access software, computing power and storage capacity of other servers over the Internet instead of locally on their own servers or computers.
- Cloud computing services have all of the following characteristics:
  - services are delivered from servers of the services providers;
  - users can easily expand or reduce their services (e.g. increase or decrease the amount of storage capacity);
  - users have access to services on-demand, after installation and without the intervention of the service provider;
  - users pay for the services.
- A connection via VPN (Virtual Private Network) may be included to a cloud service.

### C.1. Does your enterprise use paid services from *the cloud*?

Please, exclude free of charge cloud computing services.

- Yes  
 No → Ga naar module D

### C.2. Does your enterprise use the following paid cloud computing services?

Please, exclude free of charge cloud computing services.

	Yes	No
<b>a)</b> E-mail (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Office software e.g. word processors, spreadsheets (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Accounting or financial management software applications (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Enterprise Resource Planning (ERP) software applications (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>e)</b> Customer Relationship Management (CRM) software applications (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>f)</b> Security software applications e.g. antivirus program, network access control (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>g)</b> Hosting the enterprise's database(s) (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>h)</b> Storage of files (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>i)</b> Computing power to run software (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<b>j)</b> Computing platform providing a hosted environment for application development, testing or deployment (e.g. reusable software modules, application programming interfaces <i>APIs</i> ) (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>

## D. Artificial Intelligence

Artificial intelligence (AI) refers to systems that exhibit intelligent behavior by analyzing their environment and - with a degree of independence - taking actions to achieve certain goals. AI uses technologies such as *textmining*, *computer vision*, *machine learning* and *deep learning*.

- Artificial intelligence systems can be purely software-based, e.g.:
  - business virtual assistants (*chatbots*) based on natural language processing;
  - speech and face recognition systems based on computer vision or speech recognition systems;
  - machine translation software;
  - data analysis based on e.g. machine learning;
- or embedded in devices, e.g.:
  - autonomous robots for warehouse automation systems or production assembly operations;
  - autonomous drones for production surveillance or package handling, etc.

### D.1. Which of the following AI technologies does your enterprise use?

If seven times 'No' → Ga naar vraag naar D.4

	Yes	No
<b>a)</b> Technologies performing analysis of written language ( <i>e.g. textmining</i> )	<input type="checkbox"/>	<input type="checkbox"/>
<b>b)</b> Technologies converting spoken language into machine-readable format ( <i>speech recognition</i> )	<input type="checkbox"/>	<input type="checkbox"/>
<b>c)</b> Technologies generating spoken or written language ( <i>natural language generation</i> )	<input type="checkbox"/>	<input type="checkbox"/>
<b>d)</b> Technologies identifying objects or people based on images (image recognition, image processing)	<input type="checkbox"/>	<input type="checkbox"/>
<b>e)</b> <i>Machine-learning</i> ( <i>e.g. deep-learning</i> methodologies) for data analysis	<input type="checkbox"/>	<input type="checkbox"/>
<b>f)</b> Technologies automating different workflows or assisting in decision-making ( <i>e.g. Artificial intelligence-based software for robotic process automation</i> )	<input type="checkbox"/>	<input type="checkbox"/>
<b>g)</b> Technologies enabling physical movement of machines through autonomous decisions based on environmental observation ( <i>e.g. autonomous robots, self-driving vehicles, autonomous drones</i> )	<input type="checkbox"/>	<input type="checkbox"/>

D.2. Does your enterprise use Artificial Intelligence software or systems for any of the following purposes?

	Yes	No
<b>a) Use of AI for marketing or sales</b>		
– chatbots based on natural language processing for customer support	<input type="checkbox"/>	<input type="checkbox"/>
– customer profiling, price optimization, personalized marketing offers, market analysis based on machine learning		
<b>b) Use of AI for production processes</b>		
– predictive maintenance based on machine learning		
– tools to classify products or detect defects in products based on computer vision	<input type="checkbox"/>	<input type="checkbox"/>
– autonomous drones for production supervision, security or inspection tasks		
– assembly works performed by, for example, autonomous robots		
<b>c) Use of AI for organisation of business administration processes or management</b>		
– business virtual assistants based on machine learning or natural language processing		
– voice to text conversion using speech recognition for document drafting	<input type="checkbox"/>	<input type="checkbox"/>
– automated planning or scheduling based on machine learning		
– machine translation		
<b>d) Use of AI for logistics</b>		
– autonomous robots for pick-and-pack solutions in warehouses		
– route optimization based on machine learning	<input type="checkbox"/>	<input type="checkbox"/>
– autonomous robots for parcel shipping, tracking, distribution and sorting		
– autonomous drones for parcel delivery, etc		
<b>e) Use of AI for ICT security</b>		
– face recognition based on computer vision for authentication of ICT users	<input type="checkbox"/>	<input type="checkbox"/>
– detection and prevention of cyber-attacks based on e.g. machine learning		
<b>f) Use of AI for accounting, controlling or finance management</b>		
– machine learning to analyse data that helps to make financial decisions	<input type="checkbox"/>	<input type="checkbox"/>
– invoice processing based on machine learning		
– machine learning or natural language processing for bookkeeping documents		
<b>g) Use of AI for research and development (R&amp;D) or innovation activity (excluding research on AI)</b>		
– analysis of data for conducting research, solving research problems, developing a new or significantly improved product/service based on machine learning	<input type="checkbox"/>	<input type="checkbox"/>

D.3. How did you enterprise acquire the Artificial Intelligence software or systems that it uses?

\*Own employees including those employed in parent or affiliate enterprise

	Yes	No
<b>a) Software and systems were developed by own employees*</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b) Commercial software or systems were modified by own employees*</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c) Open-source software or systems were modified by own employees*</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d) Commercial software or turnkey systems were purchased (including examples where it was already incorporated into a purchased item or system)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>e) External providers were contracted to develop or modify them</b>	<input type="checkbox"/>	<input type="checkbox"/>

D.4. Has your enterprise ever considered using any of the Artificial Intelligence technologies?

Remark for DVZ: Display questions D.4 (and eventually D.5) only to those respondents who answered No by question D.1.

- Yes  
 No

D.5. What are the reasons for your enterprise not to use any of the Artificial Intelligence technologies?

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| <b>a)</b> Costs seem too high  | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>b)</b> Lack of relevant expertise in the enterprise   | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>c)</b> Incompatibility with existing equipment, software or systems   | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>d)</b> Difficulties with availability or quality of data needed   | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>e)</b> Concerns about data protection and privacy violations  | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>f)</b> Lack of clarity about the legal consequences (e.g. liability in case of damage caused by the use of Artificial Intelligence) | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>g)</b> Ethical considerations   | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>h)</b> Artificial Intelligence technologies are not useful for the enterprise   | <input type="checkbox"/> | <input type="checkbox"/> |

## **E. ICT security**

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The following questions are about IT security. In this questionnaire we mean all measures, controls and procedures that a enterprise applies with regard to ICT systems, with the aim of guaranteeing the integrity, authenticity, availability and confidentiality of data (data) and systems.

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## ICT security measures

E.1. Does your enterprise use the following ICT security measures?

	Yes	No
<b>a) Antivirus software</b> <i>Free and/or paid</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b) Policy for strong passwords</b> <i>Passwords that have at least eight mixed characters, that must be changed after a certain period or in response to, for example, an ICT security incident and that are sent and stored encrypted.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c) Identification and authentication of users via biometric methods</b> <i>Authentication via e.g. fingerprint, voice or face</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>d) Authentication of users via at least two authentication methods (i.e. two-factor authentication)</b> <i>For example by using a password in combination with a software or hardware token via an app or SMS or an USB security key</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>e) Encryption techniques of data, documents or e-mails</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>f) Data backup to a separate location</b> <i>Backup in another physical location or in the cloud</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>g) Network access control</b> <i>Management of user access rights to the (internal) corporate network</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>h) Virtual Private Network (VPN) when using the internet outside the enterprise</b> <i>A VPN ensures that all internet traffic between the user and the VPN server is encrypted.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>i) Saving log files to analyze ICT incidents afterwards</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>j) Methods for assessing ICT security in your enterprise, such as having the security measures checked by third parties, or performing tests</b> <i>For example, penetration testing (pen test), red teaming, 'ethical hacking', testing backup systems or sending simulated ICT security incidents such as fake phishing e-mails. Such tests are performed to safely detect vulnerabilities in IT systems.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>k) Risk assessment</b> <i>Periodically assess the probability that your enterprise will be affected by an incident, and what the possible consequences are.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<b>l) Advanced ICT security tracking and detection system that can detect suspicious activity on the enterprise's ICT system</b> <i>Not standard anti-virus software, but systems such as Next Generation Intrusion Prevention System (NGIPS), Next Generation Firewall (NGFW) or Intrusion Detection System (IDS)</i>	<input type="checkbox"/>	<input type="checkbox"/>

E.2. Does your enterprise use the following methods to increase awareness among its own staff of their ICT security obligations?

	Yes	No
<b>a) Voluntary training or internally available information (e.g. intranet)</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>b) Mandatory training or course, or mandatory viewing of documents or videos</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>c) Through a contract (e.g. the employment contract)</b>	<input type="checkbox"/>	<input type="checkbox"/>

E.3. Does your enterprise have documents\* about ICT security measures, procedures or practices?

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\*Documents on ICT security and data confidentiality may relate to training staff in correct ICT use, ICT security measures, evaluating ICT security measures, plans to update ICT security documents, etc.

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Yes

No → Ga naar vraag naar E.5

E.4. When did your enterprise last check and update documents\* about ICT security measures, procedures or practices?

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\*If these documents have never been updated, please indicate when these documents were created.

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- In the last 12 months  
 Not in the last 12 months, but in the last 24 months  
 More than 24 months ago

E.5. In 2022, who performed ICT security-related matters within your enterprise (such as security testing, ICT security training, solving ICT security incidents)?

*Multiple answers possible. Do not consider updating pre-package software.*

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| <b>a) Own employees</b><br><i>Including those employed in parent, subsidiary or affiliate enterprises</i> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>b) External suppliers</b>  | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>c) Not Applicable</b>  | <input type="checkbox"/> | <input type="checkbox"/> |

**ICT security incidents due to external attacks**

E.6. How often did the following ICT security incidents occur in your enterprise due to an external attack in 2022?

- |   | Did not happen           | 1 or 2 times             | 3 or 4 times             | Happened more than 4 times |
|---|--------------------------|--------------------------|--------------------------|----------------------------|
| <b>a) Failure of IT services as a result of an external attack, for example DoS (<i>Denial of Service</i>) or <i>ransomware</i> attacks</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| <b>b) Destruction or corruption of data due to infection with malicious software or by unauthorized electronic access</b>                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |
| <b>c) Disclosure of confidential electronic data through burglary, pharming or phishing</b>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |

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If 'Did not happen with all answers' → go to E.9

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E.7. Did your enterprise incur any costs in 2022 due to ICT security incidents as a result of an external attack?

- |   | No costs                 | Costs                    |
|---|--------------------------|--------------------------|
| <b>a) Failure of IT services as a result of an external attack, for example DoS (<i>Denial of Service</i>) or <i>ransomware</i> attacks</b> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>b) Destruction or corruption of data due to infection with malicious software or by unauthorized electronic access</b>                   | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>c) Disclosure of confidential electronic data through burglary, pharming or phishing</b>   | <input type="checkbox"/> | <input type="checkbox"/> |

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If 'No costs' is entered for all answers → go to E.9

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E.8. How large were the costs of IT security incidents as a result of an external attack in 2022 for your enterprise as a percentage of total sales in 2022?

- less than 1% of total sales
  - at least 1% but less than 2% of total sales
  - at least 2% but less than 5% of total sales
  - at least 5% but less than 10% of total sales
  - at least 10% but less than 50% of total sales
  - at least 50% of total sales
- 
- 

### Ransomware

E.9. Has your enterprise suffered a ransomware attack in 2022?

*In a ransomware attack, your enterprise's files or IT systems are blocked by cyber criminals and are only released again after payment of a ransom.*

- Yes
- No → Ga naar vraag naar E.16

E.10. Has your enterprise paid cyber criminals to release your enterprise's IT systems or files?

- Yes
- No → Ga naar vraag naar E.13

E.11. What was the amount that your enterprise paid to make the ICT systems accessible again as a percentage of the total sales in 2022?

- less than 1% of total sales
- at least 1% but less than 2% of total sales
- at least 2% but less than 5% of total sales
- at least 5% but less than 10% of total sales
- at least 10% but less than 50% of total sales
- at least 50% of total sales

E.12. Has the payment of the ransom resulted in your enterprise's IT systems being (partially) decrypted again by cyber criminals?

- Yes
- No

E.13. Did your enterprise have other costs due to the ransomware attack?

*For example costs to replace blocked IT systems or costs due to the loss of files?*

- Yes
- No → Ga naar vraag naar E.15



E.14. How large were the other costs as a result of the ransomware attack as a percentage of the total sales in 2022?

*Exclude the costs of the ransomware attack, report only the associated damage costs.*

- less than 1% of total sales
- at least 1% but less than 2% of total sales
- at least 2% but less than 5% of total sales
- at least 5% but less than 10% of total sales
- at least 10% but less than 50% of total sales
- at least 50% of total sales

E.15. Has your enterprise requested the help of any of the following agencies?

- |                              | Yes                      | No                       |
|------------------------------|--------------------------|--------------------------|
| a) Cyber security enterprise | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Police                    | <input type="checkbox"/> | <input type="checkbox"/> |

**ICT security incidents with an internal cause**

E.16. How often did the following ICT security incidents occur in your enterprise in 2022 due to an internal malfunction or unintentional action by your own staff?

*Internal ICT security incidents are caused by internal malfunctions or by unintentional actions by your own staff; therefore not by an attack from outside.*

	Did not happen	1 or 2 times	3 or 4 times	Happened more than 4 times
a) Outage of ICT services as a result of ICT-related security incidents, such as a failure in hardware or software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Destruction or corruption of data as a result of ICT-related security incidents, such as a malfunction in hardware or software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disclosure of confidential electronic data by <i>unintentional</i> own personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

If you filled in 'Did not happen for all answers → go to E.19

---

E.17. Has your enterprise costs incurred due to ICT security incidents in 2022 as a result from internal incidents?

*Internal ICT security incidents are caused by internal malfunctions or by unintentional actions by its own staff; i.e. **not** by an external attack.*

	No costs	Costs
a) Failure of ICT services as a result of ICT-related security incidents, such as a malfunction of hardware or software	<input type="checkbox"/>	<input type="checkbox"/>
b) Destruction or corruption of data as a result of ICT-related security incidents, such as a malfunction of hardware or software	<input type="checkbox"/>	<input type="checkbox"/>
c) Disclosure of confidential electronic data by the unintentional actions of own personnel	<input type="checkbox"/>	<input type="checkbox"/>

---

If 'No costs' is entered for all answers → go to E.19

---

E.18. How large were the costs of the ICT security incidents as a result of an internal failure or due to unintentional actions of your own staff in 2022 for your enterprise as a percentage of the total turnover in 2022?

*Internal ICT security incidents are caused by internal malfunctions or by unintentional actions by our own personnel; i.e. **not** by an external attack.*

- less than 1% of total sales
- at least 1% but less than 2% of total sales
- at least 2% but less than 5% of total sales
- at least 5% but less than 10% of total sales
- at least 10% but less than 50% of total sales
- at least 50% of total sales

E.19. Is your enterprise insured against ICT security incidents?

- Yes
- No

### Digital Trust Center (DTC)

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The DTC is a government organization whose mission is to make companies in the Netherlands more resilient against cyber threats by means of:

- disclosure
  - promoting regional and industry-level partnerships between companies in the field of cybersecurity
- 

E.20. Are you familiar with the Digital Trust Center (DTC) and/or any of its associated partnerships in the field of cyber resilience?

- Yes
- No → Ga naar vraag naar E.22

E.21. Do you use the DTC website as a source of information to learn more about making your business more resilient to cyber threats?

- Yes
- No

E.22. Are you actively looking for cyber threat alerts?

- Yes
- No

## F. Invoices

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

- E-invoices suitable for automatic processing
  - E.g. Electronic Data Interchange (EDI), XML, UBL
  - They are exchanged either directly or via service providers companies, or via an electronic banking systems such as *Billing Service Providers*
- Invoices in electronic form *not* suitable for automated processing
  - E.g. Invoice in e-mail or as e-mail attachments in the form of a PDF file

### Sent invoices

F.1. In 2022, did your enterprise send any of the following types of invoices:

If item a is filled *No* → Ga naar module G

	Yes	No
a) E-invoice in a standard electronic format, <i>suitable</i> for automatic processing (e-invoices)? (e.g. EDI, XML, UBL)	<input type="checkbox"/>	<input type="checkbox"/>
b) Invoices in electronic form, <i>not suitable</i> for automated processing? (e.g. e-mail, PDF files)	<input type="checkbox"/>	<input type="checkbox"/>
c) Paper invoices?	<input type="checkbox"/>	<input type="checkbox"/>

F.2. In 2022, out of all invoices (*electronic and/or paper*) that your enterprise *sent* to consumers, other enterprises or governments, how large was the share of e-invoices?

*E-invoices are electronic invoices in a standard format and are suitable for automatic processing (e.g. EDI, XML, UBL).*

- less than 10%
- at least 10% but less than 25%
- at least 25% but less than 50%
- at least 50% but less than 75%
- at least 75%

## G. e-Commerce sales

- E-commerce is the purchase or sale of goods or services over computer networks using a method specifically designed for sending or receiving orders.
- An order written in e-mail does not count.
- The orders are placed through these methods, but payment does not have to be done online.
- E-commerce can take place via a website/app or via EDI (*Electronic Data Interchange*). EDI here means: sending or receiving information in an agreed format that allows automatic processing, e.g. EDIFACT, XML, UBL, XBRL

### Total turnover

G.1. What was the total turnover of the Dutch part of your enterprise in 2022, excluding VAT?

k€:

- This item concerns the total turnover, **regardless of** whether it was obtained via e-commerce or not.
- Please, specify in thousands. Enter € 23.568,- as k€ 24.

### Sales via website and apps

G.2. Did your enterprise receive orders for goods or services via a website or app in 2022?

This concerns sales via an online store (webshop), via web forms on a website or extranet, or via an *app*. **Include also:** orders that your enterprise has received via a website or app that does not belong to your enterprise, for example a platform such as booking.com, bol.com, marktplaats.nl, etc. Exclude written e-mails.

Yes

No → Ga naar module sectie **Sales via EDI**

G.3. What was the turnover that your enterprise achieved in 2022 with orders received via a website or app, excl. VAT?

k€:

- Please, specify in thousands. Enter € 23.568,- as k€ 24.

G.4. What percentage of the turnover achieved via a website or app in 2022 was connected to sales to:

a) Enterprises

b) Government organizations

c) Dutch consumers

d) Foreign consumers

The total of a to d must be 100%

## Sales via online platforms

---

- In this section, a distinction is made between the sales generated through your *own* website or app and the website or app of *another* enterprise, also referred to as *online platform*.
  - Online platforms connect providers of goods and services to (potential) customers and eventually support transactions.
  - Examples of online platforms are booking.com, bol.com, thuisbezorgd.nl, kieskeurig.nl, werkspot.nl, etc.
  - A website or app under your own management is therefore *not* seen as an online platform.
- 

G.5. What percentage of the turnover achieved in 2022 via a website or app was related to sales via:

a) Website or app of your *own* enterprise

b) A website or app of *another* enterprise, i.e. an online platform

*Examples are booking.com, bol.com, home thuisbezorgd.nl, kieskeurig.nl, werkspot.nl.*

If at **0%** entered → Ga naar module sectie **Sales via EDI**

---

The total of **a** and **b** must be 100%

---

G.6. On how many platforms did your enterprise receive orders or sell services in 2022?

- Via one  
 Via two  
 Via three or more
- 

If 'Via one' → go to section **Sales via EDI**

---

G.7. Did more than 75% of marketplace sales in 2022 come from just one platform?

- Ja  
 Nee
- 

G.8. Did your enterprise pay one or more online platform(s) in 2022 for the use of their intermediation services?

- Ja  
 Nee
- 

G.9. What amount did your enterprise pay to online platforms in 2022 for using their intermediation services?

k€:

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- Please, specify in thousands. Enter € 23.568,- as k€ 24.
- 

## Sales via EDI

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By EDI (Electronic Data Interchange) is meant here

- Send or receive information in an agreed format that allows automatic processing, for example EDIFACT, XML, UBL or XBRL.
  - Do *not* include purchases via written e-mails.
-

G.10. Has your enterprise received orders for goods or services via EDI in 2022?

Yes

No → Ga naar module H

G.11. What was the turnover that your enterprise achieved in 2022 with orders received via EDI, excl. VAT?

k€:

---

Please, specify in thousands. Enter € 3.568,- as k€ 4.

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## H. Contact details

### H.1. Salutation

- Mr.  
 Miss/Mrs.

### H.2. Name

### H.3. Contact details

a) E-mail:

b) Telephone number:

### H.4. Remarks

## Questionnaire overview

### Globaal aantal vragen

Categorie	Aantal
Modules	7
Alle vragen	154
Small businesses	122

### Aantal vragen per module

Module	Alle vragen	Small businesses
A Access and use of the internet	33	22
B Data utilisation, sharing, analytics and trading	17	0
C Cloud computing services	11	11
D Artificial Intelligence	28	28
E ICT security	46	46
F Invoices	4	4
G e-Commerce sales	15	11