

Module A: Use of computers and computer networks

A1 Did your enterprise use computers in January 2009?

- 1 Yes. → **A2**
- 2 No. → **Module I**

A2 Estimate the percentage (%) of persons employed who used computers at least once a week, in January 2009?

%

Divide the number of persons employed who used computers at least once a week by the number of all persons employed in your enterprise and then multiply the number by 100.

A3 In January 2009, was your enterprise using an internal computer network (LAN) that connects computers?

- 1 Yes. → **A4**
- 2 No. → **A5**

Local area network is composed of at least two connected computers on the basis of the usage of telecommunication systems. It enables local exchange of information and the usage of other hardware (e.g. common printer).

A4 In January 2009, did your enterprise use an internal computer network that works on the wireless connection (wireless LAN) and that connects computers?

- 1 Yes.
- 2 No.

A5 In January 2009, was your enterprise using an internal website - INTRANET?

- 1 Yes.
- 2 No.

INTRANET (not Internet) is a closed network that uses Internet technology for communication between the employees.

A6 In January 2009, did your enterprise have an EXTRANET (a website or an extension of the Intranet with access restricted to business partners)?

- 1 Yes.
- 2 No.

EXTRANET is a closed network that uses Internet technology for the communication with partners and employees. It can be an extension of the Intranet that gives external users (business partners, customers) partial access to the Intranet. It can also be a private part of the website of the enterprises to which access is restricted by a password.

A7 In January 2009, did your enterprise use third party free or open source operating systems that allow access to the source code of the program and its modification (e.g. Linux)?

- 1 Yes.
- 2 No.

• **Consider** open source operating systems that were developed outside the enterprise.

• **Don't consider** operating systems developed within the enterprise.

Module B: Use of the Internet

B1 Did your enterprise have access to the Internet in January 2009?

- 1 Yes. → **B2**
 2 No. → **Module C**

B2 Estimate the percentage (%) of the number of persons employed who used computers with access to the World Wide Web at least once a week, during January 2009?

%

Divide the number of persons employed who used computers with access to the World Wide Web at least once a week by the number of all persons employed and then multiply the number by 100.

B3 In January 2009, was your enterprise using the following connections to the Internet ...

- a) modem? 1 Yes. 2 No.

Dial-up access over normal telephone line and NOT device that modulates data from analogue to digital signals and back again for transport via telecommunications lines.

- b) ISDN? 1 Yes. 2 No.

It counts only if the enterprise has ISDN without ADSL.

- c) DSL (ADSL, VDSL, xDSL)? 1 Yes. 2 No.

- d) other broadband connection? 1 Yes. 2 No.

Access via cable, leased lines, fixed wireless connection.

- e) wireless connection? 1 Yes. 2 No. → **B4**

Access via mobile phone (GPRS, UMTS), WiMax, 3G modem (USB, wireless data card).

- f) wireless connection via broadband? 1 Yes. 2 No.

E.g. UMTS, EDGE, CDMA2000, WiMax, HSDPA.

B4 In January 2009, did your enterprise use the Internet for ...

- a) banking and financial services? 1 Yes. 2 No.

- b) training and education of employees? 1 Yes. 2 No.

B5 Did your enterprise use the websites of public authorities during 2008?

- 1 Yes. → **B6**
 2 No. → **B7**

E.g. visiting the websites of municipalities, ministries, AJPES, DURS, SURS, CURS, web portal e-VEM, e-Davki.

B6 Did your enterprise use the websites of public authorities during 2008 for ...

a) obtaining information? 1 Yes. 2 No.

b) obtaining forms? 1 Yes. 2 No.

E.g. the form for reporting VAT is printed from the government website (DURS), filled out and sent to DURS by regular post.

c) returning filled in forms? 1 Yes. 2 No.

E.g. electronic sending of customs declaration to CURS, profit tax to DURS. With the action we trigger the procedure via the Internet for a service which is then conducted in a traditional way; (e.g. we get the decision on tax in paper form).

d) conducting full electronic case handling? 1 Yes. 2 No.

E.g. electronic reporting of VAT to DURS, yearly results to AJPES. The whole service including payment is made in an electronic way.

e) submitting a proposal in an electronic tender system (e-procurement)? 1 Yes. 2 No.

E.g. over the government portal **e-Government**.

B7 Did your enterprise have a website or a home page in January 2009?

1 Yes.

2 No.

B8

B10

A presentation on the website of the enterprise's parent enterprise included; e.g. international cooperation.

B8 Write down the address of your website:

www.

B9 In January 2009, did your website provide ...

a) a privacy policy statement, a privacy seal or certification related to website safety? 1 Yes. 2 No.

A privacy certification or seal assures the visitors of the website security and data encryption. The privacy policy statement is a statement about the privacy, the purpose and security of private information collected via the website.

b) access to product catalogues or price lists? 1 Yes. 2 No.

c) possibility for visitors to customise or design the products? 1 Yes. 2 No.

The users can choose different possible characteristics of the product (colour, shape, etc.) or candefine the service and see online on the website the impact of their choice (on price). The website can also include the online visualisation of the product or service on the basics of options selected.

d) online ordering or reservation or booking (e.g. shopping cart)? 1 Yes. 2 No.

e) online payment? 1 Yes. 2 No.

- f) order tracking available on line? 1 Yes. 2 No.
- g) personalised content on the website for regular/repeated visitors? 1 Yes. 2 No.
- h) advertisement of open job positions or online job application? 1 Yes. 2 No.

B10 In January 2009, did your enterprise use a digital signature and encryption methods in your sent messages that assure the authenticity and integrity of the message?

- 1 Yes.
- 2 No.

E.g. while using **e-banking** you also use a digital signature (examples of digital signatures: SIGEN-CA, AC NLB; HALCOM-CA; POŠTA CA).

Module C: Automated Data Exchange with ICT systems outside the enterprise

Automated data exchange between the enterprise and other ICT systems outside the enterprise is used for the exchange of messages (e.g. orders, invoices, payment transactions or description of goods) via the Internet or other computer networks in an agreed format which allows its automatic processing (e.g. XML, EDIFACT, etc.).
Manually typed individual messages are excluded.

C1 In January 2009, was your enterprise using automated data exchange with ICT systems outside the enterprise?

- 1 Yes.
- 2 No.

C2
Module D

E.g. sending or receiving orders via EDI (Electronic Data Interchange); sending or receiving e-invoices; import of payment instructions from prepared data files by using other programs in for example NLB Proklik, import of data files in the system eDavki in XML form.

C2 In January 2009, did your enterprise use automated data exchange for...

- a) sending orders to suppliers? 1 Yes. 2 No.

E.g. sending orders via EDI (Electronic Data Interchange).

- b) receiving e-invoice in a digital format, which allows it sautomatic processing? 1 Yes. 2 No.

Invoices received in PDF format or sent by e-mail should not be considered!

- c) receiving orders from customers? 1 Yes. 2 No.

E.g. receiving orders via EDI (Electronic Data Interchange).

- d) sending e-invoices in a digital format, which allows its automatic processing? 1 Yes. 2 No.

Invoices sent in PDF format or sent by e-mail should not be considered!

- e) sending or receiving product information (e.g. catalogues, price lists, etc.)? 1 Yes. 2 No.

- f) sending or receiving transport documents (e.g. consignment notes)? 1 Yes. 2 No.

g) sending payment instructions to financial institutions? 1 Yes. 2 No.

For example the connection of information system (SAP, Navision, Pantheon) with electronic bank. The import of payment instructions from prepared data files by using other programs in for example NLB Proklik where the identification is carried out via smart card.

h) sending or receiving data to/from public authorities (e.g. tax returns, statistical data, AJPES, etc.)? 1 Yes. 2 No.

For example reporting the data to DURS via web portal eDavki with the import of data from information system of the enterprises in XML format.

Module D: Sharing electronically information on the supply chain management

Sharing electronically information on the supply chain management means:

- exchange of information with suppliers and/or customers in order to coordinate the availability and delivery of products or services to the final consumer;
- information on demand forecasts, inventories, production, distribution or product development can be shared via the Internet or other computer networks (definition Module C) between enterprises. The exchange of information can be from you to your suppliers/customers or the other way around.
- Exclude manually written e-mail messages.

D1 In January 2009, did your enterprise regularly share electronically information on the supply chain management with your suppliers or customers?

- 1 Yes. 2 No.

D2
Module E

Sharing electronically information on supplies, deliveries with customers or suppliers via websites or automated data exchange (e.g. XML, EDIFACT).

D2 In January 2009, did your enterprise regularly share electronically with your suppliers information about...

a) inventory levels, production plans or demand forecasts? 1 Yes. 2 No.

b) progress of deliveries (i.e. distribution of raw materials or finished products)? 1 Yes. 2 No.

D3 In January 2009, did your enterprise regularly share electronically with your customers information about...

a) inventory levels, production plans or demand forecasts? 1 Yes. 2 No.

b) progress of deliveries (i.e. distribution of raw materials or finished products)? 1 Yes. 2 No.

D4 In January 2009, did your enterprise use for the electronic exchange of the information ...

a) websites (yours, those of your business partners or web portals)? 1 Yes. 2 No.

b) automated data exchange (XML, EDIFACT, etc.)? 1 Yes. 2 No.

Module E: Automatic sharing of information within the enterprise

Automatic sharing of information within the enterprise:

- usage of one single software application to support the different functions of the enterprise (e.g. SAP).
- data linking between the software applications that support the different functions of the enterprise.
- usage of a common database or data warehouse accessed by the software applications that support the different functions of the enterprise.
- automated data exchange between different software systems (definition Module C).

E1 In January 2009, when your enterprise received a sales order (either electronically or not), was the relevant information about the sale shared electronically and automatically with the software used for...

- a) your management of inventory levels? 1 Yes. 2 No.
- b) your accounting? 1 Yes. 2 No.
- c) your production or services management? 1 Yes. 2 No.
- d) your distribution management (logistic and transport)? 1 Yes. 2 No.

E2 In January 2009, when your enterprise sent a purchase order (either electronically or not), was the relevant information about the purchase shared electronically and automatically with the software used for...

- a) your management of inventory levels? 1 Yes. 2 No.
- b) your accounting? 1 Yes. 2 No.

E3 In January 2009, was your enterprise using an ERP software package to share information on sales and/or purchases with other internal functional areas (e.g. finance, planning, marketing, etc.)?

ERP - Enterprise Resource Planning (e.g. Enterprise, SAP, Navision, Pantheon) is a software application that integrates and stores data from different business functions. ERP integrates different enterprise departments, majority of business process, e.g. planning, procurement, sales, marketing, customer relationship, finance and human resources.

- 1 Yes. 2 No. 3 Don't know.

E4 In January 2009, was your enterprise using any CRM software application for managing information about clients? Were you using CRM for...

CRM - Customer Relationship Management (e.g. Navision, SAP, Birokrat, Pantheon, Microsoft Dynamics) enables access to key information regarding customers.

- a) capturing, storing and making available to other business functions the information about its clients? 1 Yes. 2 No.
- b) analyzing information about clients for marketing purposes (e.g. setting prices, choosing advertisement)? 1 Yes. 2 No.

Module F: E-Commerce via the Internet - websites

E-Commerce via the Internet means: ordering/selling over websites, e.g. e-forms, e-shops.
Payment and delivery does not necessarily have to be done via the Internet or computer networks.
Ordering/selling over ordinary e-mail is not included.

Purchases

F1 Did your enterprise order products/services via the Internet - websites during 2008?

Exclude orders sent via e-mail.

- 1 Yes. → **F2**
 2 No. → **F4**

F2 What was the value of purchases (excluding VAT) via the Internet - websites in 2008?

a) Value of purchases via the Internet in 2008:

→ **F3**

Don't know. → Go to **F2b**

If you can not estimate the value of purchases in EUR (a), please estimate the percentage (%) of purchases via the Internet - websites.

b) Estimated percentage of purchases via the Internet - websites in relation to total purchases in 2008:

F3 What percentage (%) of purchases via the Internet - websites in 2009 was placed in ...

- a) own country;
b) other EU countries;
c) rest of the world?

100%

Sales

F4 Did your enterprise receive orders via the Internet - websites during 2008 ?

Exclude orders received via e-mail.

- 1 Yes. → **F5**
 2 No. → **Module G**

F5 What was the value of received orders (excluding VAT) via the Internet - websites in 2008?

a) Value of received orders via the Internet in 2008:

→ **F6**

Don't know. → Go to **F5b**

If you can not estimate the value of received orders in EUR (a), please estimate the percentage (%) of received orders via the Internet.

b) Estimated percentage of received orders via the Internet - websites in relation to total turnover in 2008:

F6 What percentage (%) of sales via the Internet - websites in 2008 was received from ...

a) own country;

b) other EU countries;

c) rest of the world?

100%

Module G: E-commerce via Electronic Data Interchange

EDI - Electronic Data Interchange. EDI is used for the electronic interchange of data, documents and orders inside the enterprise (e.g. branches) and between the enterprises. Data interchange flows automatically between the computer systems and partners. Data are exchanged in standard and encrypted form; e.g. EDIFACT standard.

Purchases

G1 Did your enterprise order products/services via EDI during 2008?

1 Yes. → **G2**

2 No. → **G5**

G2 What was the value of purchases (excluding VAT) via EDI in 2008?

a) Value of purchases via EDI in 2008: → **G3**

Don't know. → Go to **G2b**

If you can not estimate the value of purchases in EUR (a), please estimate the percentage (%) of purchases via EDI.

b) Estimated percentage of purchases via EDI in relation to total purchases in 2008:

G3 What percentage (%) of purchases via EDI in 2008 was placed via ...

a) the Internet (e.g. XML, X400)?

b) other closed networks?

100%

Transactions are carried out between a group of enterprises which have access to that closed network.

G4 What percentage (%) of purchases via EDI in 2008 was placed in ...

a) own country;

b) other EU countries;

c) rest of the world?

100%

Sales

G5 Did your enterprise receive orders via EDI during 2008?

- 1 Yes. → **G6**
- 2 No. → **G9**

G6 What was the value of received orders (excluding VAT) via EDI in 2008?

a) Value of received orders via EDI in 2008:

→ **G7**

Don't know. → Go to **G6b**

If you can not estimate the value of received orders in EUR (a), please estimate the percentage (%) of received orders via EDI.

b) Estimated percentage of received orders via EDI in relation to the total turnover in 2008:

G7 What percentage (%) of orders received via EDI in 2008 was placed via ...

a) the Internet (e.g. XML, X400)?

b) other closed networks?

100%

Transactions are carried out between a group of enterprises which have access to that closed network.

G8 What percentage (%) of orders via EDI in 2008 was received in ...

a) own country;

b) other EU countries;

c) rest of the world?

100%

Advantages and barriers to electronic sales

G9 Did your enterprise receive orders for products or services via computer networks (website or EDI), during 2008?

- 1 Yes. → **G10**
- 2 No. → **G13**

Exclude orders received via e-mail.

G10 Which of the following means of payment were accepted for sales via a website in January 2009?

a) Online payment, i.e. payment integrated in the ordering transaction.

1 Yes. 2 No.

E.g. Credit, debit card, direct debit authorisation, via 3rd party accounts.

b) Offline payment, i.e. payment process is not included in the order transaction.

1 Yes. 2 No.

E.g. Cash on delivery, bank transfer, cheque payment and other non-online payment.

G11 In January 2009, did your enterprise use a secure protocol (e.g. SSL, TLS) that encrypts and protects the transferred data for receiving orders via the Internet (websites or EDI)?

- 1 Yes.
 2 No.

• SSL-Secure Sockets Layer, TLS-Transport Layer Security are protocols for encoding, e.g. in communication they encode, protect the transfer of data.
 • By entering such a protected website a lock appears in the bottom right corner.

G12 Has the adoption of electronic sales (via websites or EDI) by your enterprise had favourable effects according to the following categories?

- | | | |
|---|--------------------------|--------------------------|
| a) Access to new markets, increasing sales potential. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| b) Lower transaction costs. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| c) Increased turnover. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| d) Other. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |

G13 Please indicate if any of the following problems or barriers to electronic sales are currently important to your enterprise.

- | | Yes, it is a barrier. | No, it is not a barrier. |
|---|--------------------------|--------------------------|
| a) Products or services not suitable for e-commerce. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| b) Customers do not want to buy via e-commerce. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| c) Security concerns (related to payments or transactions). | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| d) Problems related to logistics (shipping of goods or delivery of services). | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| e) Uncertainty about legal framework. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| f) Technical issues in implementing e-commerce. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| g) The need to reorganise business processes for e-commerce. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| h) Adverse experiences with electronic sales in past. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |
| i) Language problems related to international e-commerce. | <input type="checkbox"/> | <input type="checkbox"/> |
| | 1 Yes. | 2 No. |

Module H: Use of Radio Frequency Identification technologies

Radio Frequency Identification Technologies (RFID) means:

- an automatic identification method to store and remotely retrieve data using RFID tags or transponders.
- a RFID tag is a device that can be applied to or incorporated into a product or object and transmit data via radio waves (on the product we attach transponder that sends data via radio waves to the 'reader of the data').

H1 Does your enterprise make use of Radio Frequency Identification instruments?

- 1 Yes.
 2 No.

➔ **Module I**

For example the usage of RFID tags for managing records about inventories supplies, for identification of persons or for preventing theft and counterfeiting.

H2 For what purposes does your enterprise use RFID (Radio Frequency Identification)?

- | | | | | |
|--|--------------------------|--------|--------------------------|-------|
| a) Product identification (e.g. to prevent counterfeiting, theft control). | <input type="checkbox"/> | 1 Yes. | <input type="checkbox"/> | 2 No. |
| b) Monitoring and control of industrial production. | <input type="checkbox"/> | 1 Yes. | <input type="checkbox"/> | 2 No. |
| c) Supply chain and inventory tracking and tracing. | <input type="checkbox"/> | 1 Yes. | <input type="checkbox"/> | 2 No. |
| d) Service and maintenance information management, asset management. | <input type="checkbox"/> | | <input type="checkbox"/> | |
| For example the information about machines and their maintenance, furniture and other equipment. | | 1 Yes. | | 2 No. |
| e) Payment applications (e.g. highway tolls, passenger transport). | <input type="checkbox"/> | | <input type="checkbox"/> | |
| RFID is used for the beginning or triggermen of financial transactions. | | 1 Yes. | | 2 No. |
| f) Person identification or access control. | <input type="checkbox"/> | | <input type="checkbox"/> | |
| Don't include identification cards with magnetic record or bar code. | | 1 Yes. | | 2 No. |