

**SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES**

**2025**

**Statistics Norway**

**Module A: Access and use of the internet**

(Scope: all enterprises)

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

(including fixed line, fixed wireless and mobile telephone network connection)

(Filter question)

please indicate an estimate of the percentage of the total number of persons employed who have access to the internet for business purposes

 %

If the value=0, go to F1

**Use of a fixed connection to the internet for business purposes**

**A2. Does your enterprise use any type of fixed connection to the internet?** (e.g. ADSL, SDSL, VDSL, fiber optics technology (FTTP), cable technology, fixed wireless)

(Filter question)

Yes

No   
->go to **A4**

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

*(additional categories at national level can be added, if needed)*

*(Tick only one)*

a) less than 30 Mbit/s	<input type="checkbox"/>
b) at least 30 but less than 100 Mbit/s	<input type="checkbox"/>
c) at least 100 Mbit/s but less than 500 Mbit/s	<input type="checkbox"/>
d) at least 500 Mbit/s but less than 1 Gbit/s	<input type="checkbox"/>
e) at least 1 Gbit/s	<input type="checkbox"/>

## Web presence

### Use of a website

<b>A4. Does your enterprise have a website?</b> <i>If your enterprise is present on the website of the e.g. enterprise group or franchisor, you are also considered to have a website.</i> (Filter question)	Yes <input type="checkbox"/>	No <input type="checkbox"/> ->go to <b>A6</b>
<b>A5. Does the website have any of the following?</b>	Yes	No
a) Description of goods or services or price information	<input type="checkbox"/>	<input type="checkbox"/>
b) Online ordering or reservation or booking, e.g. shopping cart	<input type="checkbox"/>	<input type="checkbox"/>
c) Possibility for visitors to customise or design online goods or services	<input type="checkbox"/>	<input type="checkbox"/>
d) Tracking or status of orders placed	<input type="checkbox"/>	<input type="checkbox"/>
e) Personalised content on the website for regular/recurrent visitors	<input type="checkbox"/>	<input type="checkbox"/>
f) A chat service for customer support (a chatbot, virtual agent or a person replying to customers in real-time)	<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 Please, consider a multilingual website within a single domain (e.g. ".com") or multiple domains of your enterprise in different languages (e.g. ".es", ".uk").	<input type="checkbox"/>	<input type="checkbox"/>

### Use of social media

<b>A6. Does your enterprise use any social media (i.e. have a user profile or an account)?</b> (e.g. Facebook, Instagram, X (formerly Twitter), Snapchat, YouTube, LinkedIn, TikTok, Xing, Viadeo)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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## Module B: e-Commerce sales

(Scope: enterprises with access to the internet, i.e. if A1>0)

In e-commerce sales of goods or services, the order is placed via websites, apps or EDI-type messages (EDI: Electronic Data interchange) by methods specifically designed for the purpose of receiving orders.

The payment may be done online or offline.

e-Commerce **does not include** orders written in e-mail.

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

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

### Web sales of goods or services

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

- your enterprise's **websites or apps**:
  - online store (webshop);
  - web forms;
  - extranet (webshop or web forms) ;
  - booking/reservation applications for services;
  - apps for mobile devices or computers;
- **e-commerce marketplace websites or apps** (used by several enterprises for trading goods or services).

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

<b>B1.</b>	<b>During 2024, did your enterprise have web sales of goods or services via:</b>	Yes	No
	<b>a) your enterprise's websites or apps?</b> (including extranets)	<input type="checkbox"/>	<input type="checkbox"/>
	<b>b) e-commerce marketplace websites or apps used by several enterprises for trading goods or services?</b> (e.g. e-Bookers, Booking, hotels.com, eBay, Amazon, Amazon Business, Alibaba, Rakuten, TimoCom)	<input type="checkbox"/>	<input type="checkbox"/>

**If both B1 a) and B1 b) = "No" then go to B9**

<b>B2.</b>	<b>What was the value of your web sales?</b> (please refer to the provided definition of web sales)			
	<table border="1" style="width: 100%;"> <tr> <td style="width: 70%;"><b>What percentage of total turnover was generated by web sales of goods or services, in 2024?</b> <i>If you cannot provide the exact percentage an approximation will suffice.</i></td> <td style="width: 30%; text-align: center;">□ □ □ , □ %</td> </tr> <tr> <td style="height: 40px;"></td> <td></td> </tr> </table>	<b>What percentage of total turnover was generated by web sales of goods or services, in 2024?</b> <i>If you cannot provide the exact percentage an approximation will suffice.</i>	□ □ □ , □ %	
<b>What percentage of total turnover was generated by web sales of goods or services, in 2024?</b> <i>If you cannot provide the exact percentage an approximation will suffice.</i>	□ □ □ , □ %			

**Question B3 should be answered only if both B1 a) and B1 b) = "Yes"**

**B3.** **What was the percentage breakdown of the value of web sales in 2024 for the following:**  
 (Please refer to value of web sales you reported in B2.)  
*If you cannot provide the exact percentages an approximation will suffice.*

<b>a) via your enterprise's websites or apps?</b> (including extranets)	□ □ □ %
<b>b) via e-commerce marketplace websites or apps used by several enterprises for trading goods or services?</b> (e.g. e-Bookers, Booking, hotels.com, eBay, Amazon, Amazon Business, Alibaba, Rakuten, TimoCom)	□ □ □ %
<b>TOTAL</b>	<b>1 0 0 %</b>

**B4.** **What was the percentage breakdown of the value of web sales in 2024 by type of customer:**  
 (Please refer to value of web sales you reported in B2.)  
*If you cannot provide the exact percentages an approximation will suffice.*

a) Sales to private consumers ( <b>B2C</b> )	□ □ □ %
b) Sales to other enterprises ( <b>B2B</b> ) and Sales to public sector ( <b>B2G</b> )	□ □ □ %
<b>TOTAL</b>	<b>1 0 0 %</b>

**B5.** **What was the percentage breakdown of the value of web sales in 2024 by type of products:**  
 (Please refer to value of web sales you reported in B2.)

a) <b>Physical goods</b>	□ □ □ %
b) <b>Digital goods or services (digitally delivered)</b> (e.g. software or other digital content as downloads or as a streaming services (e.g. software licences, e-books, e-newspapers, apps, online courses/webinars)	□ □ □ %
c) <b>Services not digitally delivered</b> (e.g. accommodation, travel, maintenance or repair services)	□ □ □ %
<b>TOTAL</b>	<b>1 0 0 %</b>

<b>B6.</b>	<b>During 2024, did your enterprise have web sales to customers located in the following geographic areas?</b>	<b>Yes</b>	<b>No</b>
	a) Own country	<input type="checkbox"/>	<input type="checkbox"/>
	b) EU countries	<input type="checkbox"/>	<input type="checkbox"/>
	c) Rest of the world	<input type="checkbox"/>	<input type="checkbox"/>

**The following question (B7) should only be answered if at least two of the above possible responses in question B6 a) , b) or c) are answered with "Yes", otherwise go to B8.**

<b>B7.</b>	<b>What was the percentage breakdown of the value of web sales in 2024 to customers located in the following geographic areas?</b> (Please refer to value of web sales you reported in B2) <i>If you cannot provide the exact percentages an approximation will suffice.</i>	
	a) Own country	<input type="text"/> <input type="text"/> <input type="text"/> %
	b) EU countries	<input type="text"/> <input type="text"/> <input type="text"/> %
	c) Rest of the world	<input type="text"/> <input type="text"/> <input type="text"/> %
	<b>TOTAL</b>	<b>1 0 0 %</b>

**The following question (B8) should only be answered if B6b) =Yes otherwise go to B9.**

<b>B8.</b>	<b>Regarding web sales <u>to the EU countries</u>: did your enterprise experience any of the following difficulties during 2024?</b>	<b>Yes</b>	<b>No</b>
	a) High costs of delivering or returning products when selling to other EU countries	<input type="checkbox"/>	<input type="checkbox"/>
	b) Difficulties related to resolving complaints or disputes when selling to other EU countries	<input type="checkbox"/>	<input type="checkbox"/>
	c) Adapting product labelling for sales to other EU countries	<input type="checkbox"/>	<input type="checkbox"/>
	d) Lack of knowledge of foreign languages for communicating with customers in other EU countries	<input type="checkbox"/>	<input type="checkbox"/>
	e) Restrictions from your business partners to sell to certain EU countries	<input type="checkbox"/>	<input type="checkbox"/>
	f) Difficulties related to the VAT system in other EU countries (e.g. uncertainty regarding VAT treatment in different countries)	<input type="checkbox"/>	<input type="checkbox"/>

## EDI-type sales

**EDI-type sales** cover **orders placed** by customers via EDI-type messages (EDI: Electronic Data interchange) meaning:

- in an **agreed or standard format** suitable for automated processing;
- EDI-type order message created from the **business system** of the customer;
- including orders transmitted via EDI-service provider;
- including automatic system generated **demand driven orders**;
- including orders received directly into your **ERP** system.

Examples of EDI: EDIFACT, XML/EDI (e.g. UBL, Rosettanet,).

**B9. During 2024, did your enterprise have EDI-type sales of goods or services?**

(Filter question)

Yes

No   
-> go to **C1**

**B10. What was the value of your EDI-type sales?**

(please refer to the provided definition of EDI-type sales)

**What percentage of total turnover was generated by EDI-type sales of goods or services, in 2024?**

*If you cannot provide the exact percentage an approximation will suffice.*

□ □ □, □ %

**Web purchases**

In web purchases of goods or services, the purchase is made via websites or apps.

Web purchases cover orders of goods or services placed by your enterprise via websites or apps in:

- another enterprise's own online store (webshop)
- web forms on another enterprise's websites
- another enterprise's extranet (webshop or web forms)
- apps for mobile devices or computers
- time reservation applications in another enterprise's website to book services
- e-commerce marketplace website or apps used by several enterprises for trading goods or services.

Purchases made via e-mail are not counted as web purchases.

The payment may be done online or offline.

Please **do not report** EDI-type messages (EDI: Electronic Data Interchange) which means messages in an agreed or standard format suitable for automated processing (e.g. EDI (e.g. EDIFACT), XML (e.g. UBL)).

<b>B11. During 2024, did your enterprise buy any goods or services via websites or apps (including e-commerce marketplaces websites or apps)?</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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**If B11 = "No" then go to C1**

<b>B12.</b>	<p><b>What was the value of your web purchases?</b> (Please refer to the provided definition of web purchases.)</p>	
	<p><b>What percentage of the total value of purchases was generated by web purchases of goods and services, in 2024?</b></p> <p>Purchases of goods or services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods for which the consumption is registered as consumption of fixed capital.</p> <p><i>If you cannot provide the exact percentage an approximation will suffice.</i></p>	□ □ □ , □ %

**B13. What was the percentage breakdown of the value of web purchases in 2024 by type of product:**  
 (Please refer to value of web purchase you reported in B12.)  
*If you cannot provide the exact percentages an approximation will suffice.*

a) Physical goods	□ □ □ %
b) Digital goods or services (digitally delivered) (e.g. software or other digital content as downloads or as a streaming services (e.g. software licences, e-books, e-newspapers, apps, online courses/webinars)	□ □ □ %
c) Services non-digitally delivered (e.g. accommodation, trips, transportation services, maintenance or repair services)	□ □ □ %
<b>TOTAL</b>	<b>1 0 0 %</b>

**B14. During 2024, did your enterprise make any web purchases from sellers located in the following geographic areas?**

	Yes	No
a) Own country	<input type="checkbox"/>	<input type="checkbox"/>
b) EU countries	<input type="checkbox"/>	<input type="checkbox"/>
c) Rest of the world	<input type="checkbox"/>	<input type="checkbox"/>

**B15. What was the percentage breakdown of the value of web purchases in 2024 from sellers located in the following geographic areas?**  
 (Please refer to value of web purchases you reported in B12.)  
*If you cannot provide the exact percentages an approximation will suffice.*

a) Own country	□ □ □ %
b) EU countries	□ □ □ %
c) Rest of the world	□ □ □ %
<b>TOTAL</b>	<b>1 0 0 %</b>



## Module C: Data utilisation and analytics

(Scope: enterprises with access to the internet, i.e. if A1>0)

### Use of business software

C1. Does your enterprise use the following business software?	Yes	No
<p><b>a) Enterprise Resource Planning (ERP) software</b></p> <p>Software used to manage resources by sharing information among different functional areas (e.g. accounting, planning, production, marketing,). ERP software can be off-the-shelf software, customised to the needs of the enterprise or self-created software.</p>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>b) Customer Relationship Management (CRM) software</b></p> <p>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>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>c) Business Intelligence (BI) software</b></p> <p>BI software accesses and analyses data (e.g. from data warehouses, data lakes) from internal IT systems and/or external sources and presents analytical findings in reports, summaries, dashboards, graphs, charts or maps, to provide users with detailed insights for decision-making or strategic planning.</p>	<input type="checkbox"/>	<input type="checkbox"/>

### Data analytics

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

<p><b>C2. Does your enterprise perform data analytics by own employees?</b> Please, consider internal and external data sources.</p>	<p><b>Yes</b></p> <input type="checkbox"/>	<p><b>No</b></p> <input type="checkbox"/>
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If Yes to question C2, then go to question C3, otherwise go to question C4.

<b>C3. Does your enterprise perform data analytics on data from the following sources?</b>	<b>Yes</b>	<b>No</b>
a) Data analytics on data from transaction records such as sale details, payments records (e.g. from Enterprise Resource Planning system (ERP), own webshop)	<input type="checkbox"/>	<input type="checkbox"/>
b) Data analytics on data about customers such as customer purchasing information, location, preferences, customer reviews, searches (e.g. from Customer Relationship Management system (CRM) or own website)	<input type="checkbox"/>	<input type="checkbox"/>
c) Data analytics on data from social media, incl. from your enterprise's own social media profiles (e.g. personal information, comments, video, audio, images)	<input type="checkbox"/>	<input type="checkbox"/>
d) Data analytics on web data (e.g. search engine trends, web scraping* data)  *use of computer program for extracting data from websites	<input type="checkbox"/>	<input type="checkbox"/>
e) Data analytics on location data from the use of portable devices or vehicles (e.g. portable devices using mobile telephone networks, wireless connections or GPS)	<input type="checkbox"/>	<input type="checkbox"/>
f) Data analytics on data from smart devices or sensors (e.g. Machine to Machine (M2M) communications, sensors installed in machinery, manufacturing sensors, smart meters, Radio frequency identification (RFID <sup>1</sup> ) tags)	<input type="checkbox"/>	<input type="checkbox"/>
g) Data analytics on government authorities' open data (e.g. enterprise public records, weather conditions, topographic conditions, transport data, housing data, buildings data)	<input type="checkbox"/>	<input type="checkbox"/>
h) Data analytics on satellite data (e.g. satellite imagery, navigation signals, position signals)  Please, include data acquired from enterprise's own infrastructure or from externally provided service (e.g. AWS Ground Station) and exclude location data from the use of portable devices or vehicles using GPS.	<input type="checkbox"/>	<input type="checkbox"/>
<b>C4. Does an external enterprise or organisation perform data analytics for your enterprise?</b> <i>Please include data analytics based on data from internal and external sources.</i>	<b>Yes</b> <input type="checkbox"/>	<b>No</b> <input type="checkbox"/>

<sup>1</sup> 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.

<b>Module D: Use of cloud computing services</b>		
<i>(Scope: enterprises with access to the internet, i.e. if A1&gt;0)</i>		
<p><b>Cloud computing</b> refers to <b>ICT services</b> that are used <b>over the internet</b> to access software, computing power, storage capacity etc.;</p> <p><b>where the services have all of the following characteristics:</b></p> <ul style="list-style-type: none"> <li>• are delivered from <b>servers</b> of service providers;</li> <li>• can be easily <b>scaled</b> up or down (e.g. number of users or change of storage capacity) ;</li> <li>• can be used <b>on-demand by the user</b>, at least after the initial set up (without human interaction with the service provider) ;</li> <li>• are <b>paid</b> for, either per user, by capacity used, or they are pre-paid.</li> </ul> <p>Cloud computing may include connections via Virtual Private Networks (VPN).</p>		
<p><b>D1. Does your enterprise use any paid cloud computing services?</b>            (Please refer to the definition of cloud computing above, exclude free of charge services.)            (Filter question)</p>	<p><b>Yes</b> <input type="checkbox"/></p>	<p><b>No</b> <input type="checkbox"/>            -&gt; go to <b>E1</b></p>
<p><b>D2. Does your enterprise use any of the following paid cloud computing services?</b>            (Please refer to the definition of cloud computing above, exclude free of charge services.)</p>	<p><b>Yes</b></p>	<p><b>No</b></p>
a) E-mail (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
b) Office software (e.g. word processors, spreadsheets) (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
c) Finance or accounting software applications (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
d) Enterprise Resource Planning (ERP) software applications (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
e) Customer Relationship Management (CRM) software applications (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
f) Security software applications (e.g. antivirus program, network access control) (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
g) Hosting the enterprise's database(s) (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
h) Storage of files (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
i) Computing power to run the enterprise's own software (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
j) Computing platform providing a hosted environment for application development, testing or deployment (e.g. reusable software modules, application programming interfaces (APIs)) (as a cloud computing service)	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>D3. What was the total cost of the cloud computing services purchased by the enterprise in 2024?</b>  <i>Please include only the cost paid to the cloud computing service provider or seller.</i>  <i>If your enterprise has started purchasing cloud computing services in 2025, then write the value 0.</i></p>	<p>(National currency, excluding VAT)</p> <p>_____</p>	

## Module E: Artificial Intelligence

(Scope: enterprises with access to the internet, i.e. if A1>0)

Artificial intelligence refers to systems that use technologies such as: **text mining, computer vision, speech recognition, natural language generation, machine learning, deep learning** to gather, use and/or produce data, for example to make predictions, recommendations, or decisions, with varying levels of autonomy.

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

- systems that create content (generative AI);
- chatbots and business virtual assistants based on natural language processing;
- face recognition systems based on computer vision or speech recognition systems;
- data analysis based on machine learning;

or **embedded in devices**, e.g.:

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

E1. Does your enterprise use any of the following Artificial Intelligence (AI) technologies?	Yes	No
a) AI technologies performing analysis of written language (e.g. text mining)	<input type="checkbox"/>	<input type="checkbox"/>
b) AI Technologies converting spoken language into machine-readable format (speech recognition)	<input type="checkbox"/>	<input type="checkbox"/>
c) AI Technologies generating written, spoken language or programming codes (natural language generation, speech synthesis)	<input type="checkbox"/>	<input type="checkbox"/>
d) AI Technologies generating pictures, videos, sound/audio	<input type="checkbox"/>	<input type="checkbox"/>
e) AI Technologies identifying objects or persons based on images or videos (image recognition, image processing)	<input type="checkbox"/>	<input type="checkbox"/>
f) Machine learning (e.g. deep learning) for data analysis	<input type="checkbox"/>	<input type="checkbox"/>
g) AI Technologies automating different workflows or assisting in decision making (e.g. <b>AI based</b> software robotic process automation)	<input type="checkbox"/>	<input type="checkbox"/>
h) AI Technologies enabling physical movement of machines via autonomous decisions based on observation of surroundings (autonomous robots, self-driving vehicles, autonomous drones)	<input type="checkbox"/>	<input type="checkbox"/>

If E1 a) to h) = "No" then go to E4 (if optional included) else go to F1.

E2.	Does your enterprise use Artificial Intelligence software or systems for any of the following purposes?	Yes	No
	<p>a) <b>Use of AI for marketing or sales</b>                      some of the examples may be:</p> <ul style="list-style-type: none"> <li>• customer profiling, price optimisation, personalised marketing offers, market analysis based on machine learning</li> <li>• chatbots based on natural language processing for customer support</li> <li>• autonomous robots for orders processing</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
	<p>b) <b>Use of AI for production or service processes</b>                      some of the examples may be:</p> <ul style="list-style-type: none"> <li>• predictive maintenance or process optimization based on machine learning</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

<ul style="list-style-type: none"> <li>tools to classify products or find defects in products based on computer vision</li> <li>autonomous drones for production surveillance, security or inspection tasks</li> <li>assembly works performed by autonomous robots</li> </ul>		
<p><b>c) Use of AI for organisation of business administration processes or management</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>business virtual assistants based on machine learning and/or natural language processing, e.g. for document drafting</li> <li>data analysis or strategic decision making based on machine learning, e.g. risk assessment, based on machine learning</li> <li>planning or business forecasting based on machine learning</li> <li>human resources management based on machine learning or natural language processing, e.g. candidates pre-selection screening, employee profiling or performance analysis</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>d) Use of AI for logistics</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>autonomous robots for pick-and-pack solutions in warehouses for parcel shipping, tracing, distribution or sorting</li> <li>route optimization based on machine learning</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>e) Use of AI for ICT security</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>face recognition based on computer vision for authentication of ICT users</li> <li>detection and prevention of cyber-attacks based on machine learning</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>f) Use of AI for accounting, controlling or finance management</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>machine learning to analyse data that helps to make financial decisions</li> <li>invoice processing based on machine learning</li> <li>machine learning or natural language processing for bookkeeping documents</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>g) Use of AI for research and development (R&amp;D) or innovation activity (excluding research on AI)</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>analysis of data for conducting research, solving research problems, developing a new or significantly improved product/service based on machine learning</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

<b>E3.</b>	<b>How did your enterprise acquire the Artificial Intelligence software or systems that it uses?</b>	<b>Yes</b>	<b>No</b>
	a) They were developed by own employees (including those employed in parent or affiliate enterprise)	<input type="checkbox"/>	<input type="checkbox"/>
	b) Commercial software or systems were modified by own employees (including those employed in parent or affiliate enterprise)	<input type="checkbox"/>	<input type="checkbox"/>
	c) Open-source software or systems were modified by own employees (including those employed in parent or affiliate enterprise)	<input type="checkbox"/>	<input type="checkbox"/>
	d) Commercial software or systems ready to use were purchased (including examples where it was already incorporated in a purchased item or system)	<input type="checkbox"/>	<input type="checkbox"/>
	e) External providers were contracted to develop or modify them	<input type="checkbox"/>	<input type="checkbox"/>

**Question E4 is presented only to respondents who answered 'No' to E1a)-h) i.e. enterprises that did not use any of the Artificial Intelligence technologies listed in question E1.**

<p><b>E4. Has your enterprise ever considered using any of the Artificial Intelligence technologies listed in question E1?</b></p> <p><i>(Filter question)</i></p>	<p><b>Yes</b> <input type="checkbox"/></p>	<p><b>No</b> <input type="checkbox"/> -&gt; go to <b>F1</b></p>
<p><b>E5. What are the reasons for your enterprise not to use any of the Artificial Intelligence technologies listed in question E1?</b></p>	<p><b>Yes</b></p>	<p><b>No</b></p>
<p>a) The costs seem too high</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>b) There is a lack of relevant expertise in the enterprise</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>c) Incompatibility with existing equipment, software or systems</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>d) Difficulties with availability or quality of the necessary data</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>e) Concerns regarding violation of data protection and privacy</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>f) Lack of clarity about the legal consequences (e.g. liability in case of damage caused by the use of Artificial Intelligence)</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>g) Ethical considerations</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>
<p>h) Artificial Intelligence technologies are not useful for the enterprise</p>	<p><input type="checkbox"/></p>	<p><input type="checkbox"/></p>

## Module F: ICT and the environment

(Scope: all enterprises)

<p><b>F1. Does your enterprise use ICT systems or solutions to reduce the energy consumption of the enterprise?</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>• automated system enhancing energy efficiency of machinery</li> <li>• smart thermostat to monitor, control and optimize energy consumption</li> <li>• smart lighting systems</li> <li>• remote monitoring or control system to manage energy consumption</li> <li>• systems to detect anomalous consumption, voltage peaks or other non-conformities</li> </ul> <p><i>Please do not take into account settings in the ICT equipment, e.g. sleep mode, turning the screen brightness down.</i></p>	<p>Yes</p> <p><input type="checkbox"/></p>	<p>No</p> <p><input type="checkbox"/></p>
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<p><b>F2. Does your enterprise use ICT systems or solutions to reduce the materials used (including consumables) or to enhance the use of recycled materials?</b></p> <p>some of the examples may be:</p> <ul style="list-style-type: none"> <li>• computer-aided design optimising material use</li> <li>• 3D printing for material efficiency</li> <li>• automatic sorting for better separation and recyclability of waste</li> <li>• monitoring systems supporting predictive maintenance of assets</li> <li>• flow sensor to reduce water consumption</li> <li>• ERP systems for minimizing overstocking and reduce material waste</li> </ul> <p><i>Please do not take into account paper consumption, e.g. amount of paper used for printing and copying.</i></p>	<p>Yes</p> <p><input type="checkbox"/></p>	<p>No</p> <p><input type="checkbox"/></p>
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**If F1 and/or F2 = "Yes" then go to F3 and/or F4 (if optional included) else go to G1. If F1 and F2 = "No" then go to F4 (if optional included) else go to G1.**

<p><b>F3. Does your enterprise monitor and quantify the impact of using ICT systems or solutions on energy and/or material consumption?</b></p> <p>Quantify the impact of using ICT systems or solutions means calculating what energy or material savings/efficiency gains are due to the ICT systems or solutions used by the enterprise. This can be done, for example, by.:</p> <ul style="list-style-type: none"> <li>• comparing energy consumption with and without a given digital energy-saving solution</li> <li>• comparing the amount of production waste with and without a given computer-aided design optimising solution</li> <li>• looking at energy invoice and calculating the share of the energy savings attributed to ICT solutions.</li> </ul> <p><i>Please refer to ICT systems or solutions considered in questions F1 and/or F2.</i></p>	<p>Yes</p> <p><input type="checkbox"/></p>	<p>No</p> <p><input type="checkbox"/></p>
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<p><b>F4. What does your enterprise do with ICT equipment (e.g. computers, monitors, mobile phones) when it is no longer used?</b></p>	<p>Yes</p>	<p>No</p>
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a) It is disposed of in electronic waste collection/recycling (incl. leaving it to the retailer to dispose of)	<input type="checkbox"/>	<input type="checkbox"/>
b) It is kept in the enterprise (e.g. to be used as spare parts, fear of sensitive information being disclosed)	<input type="checkbox"/>	<input type="checkbox"/>
c) It is sold, returned to a leasing enterprise, or donated	<input type="checkbox"/>	<input type="checkbox"/>

## Module G: Use of government authorities' data

(Scope: all enterprises)

### G.1 Does your enterprise use any government authorities' data?

Answers: Yes/No

(Filter question. IF Yes-> Go to G4. IF No -> go to G2)

### G.2 Even if your enterprise does not use any andata from public enterprises, does your enterprise still has a need to use government authorities' data?

(Scope: G.1 = No)

Answers: Yes/No

(Filter question. IF Yes-> Go to G.3. IF No, end of the surveying)

### G.3 What are the reasons for your enterprise not to use government authorities' data?

(Scope: G.2 = Yes)

<b>There is no relevant data from government authorities that the enterprise has use for.</b>	Yes/No
<b>It is resource-intensive to the acquire the data (e.g. acquiring data access is time-consuming).</b>	Yes/No
<b>The available data from public government authority is insufficient or of poor quality, etc.</b>	Yes/No
<b>Your enterprise lacks relevant expertise, IT equipment or software to use public data (e.g. lacks expertise to carry out data analysis).</b>	Yes/No
<b>Other reasons</b>	Yes/No
<b>Your enterprise is not authorized to use public data.</b>	Yes/No

(End of the surveying)

If yes to G1:

### G.4 Does your enterprise acquire government authorities' data by using the following methods?

(Scope: If F.4.a or F.4.b. is ticked)

<b>a. Search via "data.norge.no"</b>	Yes	No
<b>b. Search via the government authorities' website</b>	Yes	No
<b>c. Search via the government authorities' data platforms or data base (e.g. Traport-portal, Diskos, Copernikus, GeoNorge, helsekatalog.no, etc)</b>	Yes	No
<b>d. From open sources online, using technology or tools. For example, web scraping, using specialized tools or scripts to automatically extract data from the internet that is freely available.</b> <i>Do not include direct searches of government agency websites, data sharing platforms or directories.</i>	Yes	No
<b>e. From externals</b>	Yes	No
<b>f. Other methods</b>	Yes	No



**If Yes to G.4.f**

**Please write other methods your enterprise has used to find data from government authorities in the comment field.:**

**G.5 Does your enterprise encountered any of the the following issues when using the government authorities' data?**

<b>a. Difficult to access the data, e.g. high level of demands are placed on the rights holders to gain access.</b>	<b>Yes</b>	<b>No</b>
<b>b. High cost to obtain the data (e.g. it takes a lot of time or money to obtain data)</b>	<b>Yes</b>	<b>No</b>
<b>c. The data or metadata is deficient, poor quality, inaccurate, etc.</b>	<b>Yes</b>	<b>No</b>
<b>d. The data format is not suitable for automated processing</b>	<b>Yes</b>	<b>No</b>
<b>e. Challenge related to sharing the data or dissemination of information generated from the data with third parties (e.g. requirements for data protection, information security, etc.)</b>	<b>Yes</b>	<b>No</b>
<b>f. Other issues.</b>	<b>Yes</b>	<b>No</b>

**G.6 Is your enterprise looking for any data from government authorities that is not already available, or if the existing data from government authorities does not meet your enterprise's needs?**

**Please write which data your enterprise needs/is looking for in the comment field.**