A. Access to and use of internet

1. Indicate an estimate of the percentage of the total number (i) of persons employed who have access to the internet for business purposes.

Include employees who have access to the internet, but never use the internet and/or employees that at least sometimes use a computer, mobile phone, or similar, that allows internet access. iii

_____ **Share of employees (%)**

iii
Note that employees do not actually need to use the internet.

A1. Use of a fixed line connection to the internet for business purposes

What is a fixed line connection to the internet?
A connection at your workplace (or on the premises) to the internet that goes via, for example a

- **fixed line** telephone network, e.g. DSL, ADSL, VDSL, or SDSL
- cable television network
- public wireless networks, e.g. public Wi-Fi, hotspots

Wireless networks (such as Wi-Fi) are regarded as fixed connections, **assuming they are connected to a fixed connection.**

2. Does your enterprise use any type of *fixed line* connection to the internet?

☐ Yes

☐ No

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

If you have fixed line connections at multiple addresses, select the speed of the fastest connection.

The contracted download speed may be specified on your **invoice.**

- ☐ 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 but less than 1 Gbit/s
- ☐ At least 1 Gbit/s

A2. Use of a website

4. Does your enterprise have a website?

If your enterprise is part of a group of enterprises that has a website and information about your enterprise is available on that website, please state this in your answer.

Does **not** include social media accounts.

- ☐ Yes
- ☐ No

5. Does the website have any of the following functions? If your enterprise has multiple websites, is the function available on **any** of them?

Include websites of your group or chain, provided that information on the enterprise is available on the website.

This does **not** include a link to the function on an external website, regardless of whether the customer leaves your website or not.

		Yes	No
a)	Description of goods and/or services, price information	☐	☐
b)	Ability to order or make a booking **directly on the website** via e.g. shopping cart, buy button or booking system *Does **not** include manually written e-mails.*	☐	☐
c)	Functions for narrowing a search on the website iii iii Does **not** include traditional search function or the customer clicking their way to the right page via the website menus.	☐	☐
d)	Function for the customer to track their order	☐	☐
e)	The website recognises customers via their **login** and **personalises** the content to the customer ***Note:** Only answer Yes if **both** login and personalisation are used on the website.*	☐	☐
f)	A chat service for customer support (a chatbot, virtual agent or a person responding to customer questions)	☐	☐
g)	Advertisement of open job positions or the ability to search for open job positions on the website	☐	☐
h)	Function for displaying website content in at least two different languages iii iii Also include multilingual websites within a single domain (e.g. ".com") or multiple domains in different languages (e.g. ".se", ".uk", etc.)	☐	☐

A3. Use of mobile applications

6. Does your enterprise have a mobile app for customers?

For example, for a loyalty programme, e-commerce, customer support, etc.

☐ Yes

☐ No

A4. Use of social media

7. Does your enterprise use any of the following social media?

Include social media used by the enterprise, group of enterprise or franchise.

Answer **No** if the enterprise only uses social media for a **paid advertising**.

	Yes	**No**
a) Social networks e.g. Facebook, Linkedln, Tripadvisor	☐	☐
b) Enterprise's blog or microblogs e.g. Twitter, Yammer, intranetblogs	☐	☐
c) Multimedia content sharing websites or apps [iii] E.g. Instagram, Youtube, Pinterest, poddradio or podd-tv	☐	☐

[iii] Refers to internal or external websites for the exchange of presentations, documents, or professional videos.

B. e-Commerce sales

e-commerce sales means:

- Customers order / book **directly on a website, app, or EDI types of messages** using methods specifically designed to receive orders. Payment does not have to be made online.
- **Internal handling** of orders does not need to be automated.

Do not include orders / bookings received via manually written e-mail, telephone, text message or via messages on social media.

Please report **web sales in section B1 and EDI sales in section B2**. They are defined by the way the customer places the order:

- Web sales: the customer places the order on a **website or via an app**;
- EDI types of orders: an EDI order is created in **the customer's business system and orders are made by companies to companies (B2B).**

B1. Web sales of goods or services

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

- enterprise's websites or apps:
  - online store (webbshop);
  - 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) E.g. Amazon, Booking, Bookatable, Bokadirekt, Foodora.

Obs. web sales also refers to digital bookings of appointments for e.g. haircut, car service, restaurant table.

Do *not* include orders / bookings received via manually sent e-mail, telephone, text message or via messages on social media.

8. During 2021, did your enterprise have web sales of goods or services via:

		Yes	No
a)	enterprise's own website / app or joint website / app in your enterprise group, franchise or company chain	☐	☐
b)	an e-commerce site where several enterprises sell, e.g. Amazon, Booking, Bookatable, Bokadirekt, Foodora	☐	☐

9. What *percentage of total turnover* was generated by web sales iii of goods or services, in 2022?

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

_____ **% of enterprise´s total turnover**

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

- enterprise's websites or apps e.g. online store (webbshop), web forms, extranet
- e-commerce marketplace websites or apps (used by several enterprises for trading goods or services) E.g. Amazon, Booking, Bookatable, Bokadirekt, Foodora.

10. What was the percentage breakdown of the value of *web sales* in 2022 for the following:

Answer based on the answer to question 13. If exact information is missing, an estimate is sufficient.

a)	enterprise's **own** website / app or **joint** website / app in your enterprise group, franchise or company chain	_____ %
b)	an e-commerce site where **several enterprises sell**, e.g. Amazon, Booking, Bookatable, Bokadirekt, Foodora	_____ %
N.B. the total sum of (a) and (b) should add upp to 100 %		_____ %

11. What was the percentage breakdown of the value of web sales in 2021 by type of customer:

Answer based on the answer to question 9. If exact information is missing, an estimate is sufficient.

a)	sales to private consumers **(B2C)**	_____ %
b)	sales to other enterprises **(B2B)** and Sales to public sector **(B2G)**	_____ %
N.B. the total sum of (a) and (b) should add upp to 100 %		_____ %

B2 EDI-type sales

What is meant by sales via messages in EDI format? (EDI=Electronic Data Interchange)

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

- Orders are sent from customers' business systems in an agreed format or standard formats suitable for automated processing.
- The order is a file in a format that a computer can process with special software. Examples of EDI format: EDIFACT and of XML format: UBL.
- The file is processed fully or partially automatically. Files in XML format can also processed manually. Include files that went directly into the business system.

N.B. customers can ev. send the orders through another company, which technically adapts the orders so that you can receive them.

12. During 2022, did your enterprise have EDI-type sales of goods or services?

☐ Yes

☐ No

13. What percentage of total turnover was generated by EDI-type sales of goods or services, in 2022?

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

_____ **% of enterprise´s total turnover**

C. Data utilisation, sharing, analytics and trading

C1 Software

14. Does your enterprise use the following software

	Yes	No
a) **Business system (e.g. Enterprise Resource Planning, ERP)** Software used to share information between different functions of an enterprise, e.g.: - accounting - planning - production - marketing ERP software can be **off-the-shelf software**, software customised to the needs of the enterprise, or **self-created** software.	☐	☐
b) **Customer Relationship Management (CRM) software** CRM manages **information about customers** and facilitates communication with the customer and helps track customer purchasing habits, interests, etc.	☐	☐
c) **Business intelligence (BI) software**, e.g. Microsoft Power BI, SAP BusinessObjects, SAS, Tableau, etc. - BI software analyses the enterprise's data and provides decision-making and planning support. - BI software can obtain data from one or more systems and external sources, if applicable. - The findings are often presented graphically (diagrams, graphs, charts, etc.).	☐	☐

C2 Data sharing

15. Does your enterprise share data electronically with suppliers or customers linked to SCM?

What is SCM? (SCM = Supply Chain Management)

Supply Chain Management can be defined as the design, planning, execution, control and monitoring of supply chain activities with the aim of creating net value, building a competitive infrastructure, leveraging logistics, synchronising supply with demand, and measuring performance.

Data can be shared via websites, networks or other means that allow data to be shared electronically, such as EDI systems, sensors or other real-time tracking.

Other examples of data that can be shared electronically are:

- 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.

Do *not* include e-mails not suitable for automated processing or manually written e-mails.

☐ Yes

☐ No

C3 Data analytics

Data analytics refers to the use of software, technologies or techniques in order to:
- analyse data to extract patterns and trends
- gain insights that can be used to draw conclusions
- make predictions and better-informed decisions with the aim of improving the efficiency of operations.

16. Does your enterprise perform data analytics by own employees?

Include also employees of your group or chain that performed data analytics. The data can come from both the enterprise's **own operations** and/or from **external sources** (e.g. from suppliers, customers or government authorities).

☐ Yes

☐ No

17. Does your enterprise perform data analytics on data from any of the following sources?

Include also employees of your group or chain that performed data analytics. The data can come from both the enterprise's **own operations** and/or from **external sources** (e.g. from suppliers, customers or government authorities).

	Yes	No
a) Data analytics on **transaction data** [iii] (e.g. from ERP or own webshop) *Include data generated both offline and online.*	☐	☐
b) Data analytics on **customer data**, such as purchase history, reviews, search history (from e.g. Customer Relationship Management (CRM) system or own website)	☐	☐
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	☐	☐
d) Data analytics on data generated from **public websites** (e.g. search engine searches/trends, web scraping [iii], customer feedback from social channels)	☐	☐
e) Data analytics on **location data** from vehicles or portable devices (e.g. via GPS, mobile telephone networks or wireless networks)	☐	☐
f) Data analytics on data from **smart devices or sensors** [iii] (e.g. Machine-to-Machine (M2M) communications, sensors for machinery or manufacturing, smart meters, Radio Frequency Identification (RFID) tags [iii])	☐	☐
g) Data analytics on open data from **government authorities** (e.g. enterprise public records, weather conditions, topographic conditions, transport data, housing data, buildings data)	☐	☐
h) Data analytics on **satellite data**, e.g. satellite imagery, navigation signals or position signals (includes data from external services, such as AWS Ground Station) ***Exclude location data via GPS** from vehicles or portable devices*.	☐	☐

[iii] Transaction data refers to data generated from daily transactions. Transaction data can be generated by e.g. invoices, payment orders, delivery receipts, etc. Examples of data that can be generated from these include:
- time points of transactions
- price
- payment methods

[iii]
Use of computer program to extract large quantities of data from websites in a short amount of time.

[iii] Electronic devices connected to other devices or to a network that function interactively and independently to some extent. Sensor data can be generated by smart electricity meters, car sensors and electrical appliances.

[iii]
A Radio Frequency Identification (RFID) tag is a device that can be applied to or integrated into a product or object and transmits data via radio waves.

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

Include analytics on data from both **internal and external** sources.

Examples of external enterprises includes another enterprise, university or institution. Reasons for purchasing the service externally may include that the enterprise has decided against investing in the infrastructure, skills or software required to perform the analytics internally.

- ☐ Yes
- ☐ No

C4 Data trading

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

E.g. data about **your** customers or data from **your** smart devices or sensors.

- ☐ Yes
- ☐ No

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

E.g. data about **other** enterprise's customers or data from **other** enterprise's smart devices or sensors.

- ☐ Yes
- ☐ No

D. Use of cloud computing services

What is meant by cloud computing services?

Cloud computing refers to **ICT services** that are used **over the internet** to access software, computing power, storage capacity etc.;

where the services have all of the following characteristics:

- are delivered from **servers** of service providers;
- can be easily **scaled** up or down (e.g. number of users or change of storage capacity) ;
- can be used **on-demand by the user,** at least after the initial set up (without human interaction with the service provider) ;
- are **paid** for, either per user, by capacity used, or they are pre-paid.

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

21. Does your enterprise buy any cloud computing services used over the internet?

Exclude free of charge services.

☐ Yes

☐ No

22. Does your enterprise buy any of the following cloud computing services used over the internet?

Exkludera gratis tjänster.

		Yes	No
a)	E-mail (as a cloud computing service)	☐	☐
b)	Office software (e.g. word processors, spreadsheets etc.)(as a cloud computing service)	☐	☐
c)	Finance or accounting software applications (as a cloud computing service)	☐	☐
d)	Enterprise Resource Planning (ERP) software applications (as a cloud computing service)	☐	☐
e)	Customer Relationship Management (CRM) software applications (as a cloud computing service)	☐	☐
f)	Security software applications (e.g. antivirus program, network access control) (as a cloud computing service)	☐	☐
g)	Hosting the enterprise’s database(s) (as a cloud computing service)	☐	☐
h)	Storage of files (as a cloud computing service)	☐	☐
i)	Computing power to run the enterprise's own software (as a cloud computing service)	☐	☐
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)	☐	☐

E. Artificiell intelligens

What is meant by Artificial Intelligence?

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 and/or use data to predict, recommend or decide, with varying levels of autonomy, the best action to achieve specific goals.

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

- chatbots and business virtual assistants based on natural language processing;
- face recognition systems based on computer vision or speech recognition systems;
- machine translation software;
- data analysis based on machine learning, etc. ;

or embedded in devices, e.g.:

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

23. Does the enterprise use any of the following Artificial Intelligence technologies?

	Yes	No
a) Technologies performing analysis of written language (text mining)	☐	☐
b) Technologies converting spoken language into machine-readable format (speech recognition)	☐	☐
c) Technologies generating written or spoken language (natural language generation)	☐	☐
d) Technologies identifying objects or persons based on images (image recognition, image processing)	☐	☐
e) Machine learning (e.g. deep learning) for data analysis	☐	☐
f) Technologies automating different workflows or assisting in decision making (Artificial Intelligence based software robotic process automation)	☐	☐
g) Technologies enabling physical movement of machines via autonomous decisions based on observation of surroundings (autonomous robots, self-driving vehicles, autonomous drones)	☐	☐

24. Does your enterprise use AI-based software or systems for any of the following purposes?

	Yes	No
a) for marketing or sales iii iii • customer profiling, price optimisation, personalised marketing offers, market analysis based on machine learning • chatbots based on natural language processing for customer support • autonomous robots for orders processing	☐	☐
b) for production or service processes iii iii • predictive maintenance based on machine learning • tools to classify products or find defects in products based on computer vision • autonomous drones for production surveillance, security or inspection tasks • assembly works performed by autonomous robots	☐	☐
c) for organisation of business administration processes iii iii • business virtual assistants based on machine learning and/or natural language processing • data analysis or strategic decision-making, e.g. risk assessment based on machine learning • planning or business forecasting based on machine learning • human resources management based on machine learning or natural language processing, e.g. pre-selection screening of candidates, employee profiling or job performance analysis	☐	☐
d) for logistics iii iii • autonomous robots for pick-and-pack solutions in warehouses • route optimisation based on machine learning • autonomous robots for parcel shipping, tracking, distribution and sorting • autonomous drones for parcel deliveries	☐	☐
e) for IT security iii iii • facial recognition based on computer vision for authentication of ICT users • detection and prevention of cyberattacks based on machine learning	☐	☐
f) for accounting, controlling or finance management iii iii • machine learning to analyse data as an aid in financial decision-making • invoice processing based on machine learning • machine learning or natural language processing for bookkeeping	☐	☐
g) for research and development (R&D) or innovation activity iii iii • analysis of data for conducting research, solving research-related problems, developing a new or improved product/service based on machine learning	☐	☐

25. How did your enterprise acquire the Artificial Intelligence software or systems that it uses?

	Yes	No
a) They were developed by own employees (including those employed in parent or affiliate enterprise)	☐	☐
b) Commercial software or systems were modified by own employees (including those employed in parent or affiliate enterprise)	☐	☐
c) Open-source software or systems were modified by own employees (including those employed in parent or affiliate enterprise)	☐	☐
d) Commercial software or systems ready to use were purchased (including examples where it was already incorporated in a purchased item or system)	☐	☐
e) External providers were contracted to develop or modify them	☐	☐

26. Has your enterprise ever considered using any of the Artificial Intelligence technologies listed in question 23 (i)?

☐ Ja

☐ Nej

iii

- Text mining
- Speech recognition
- Natural language generation
- Image recognition, image processing
- Machine learning e.g. deep learning
- AI-based automation of different workflows or AI-based decision making
- Autonomous robots, self-driving vehicles, autonomous drones

Fråga 27. What are the reasons for your enterprise not to use any of the Artificial Intelligence technologies listed in question 23 iii?

	Yes	No
a) The costs seem too high	☐	☐
b) There is a lack of relevant expertise in the enterprise	☐	☐
c) Incompatibility with existing equipment, software or systems	☐	☐
d) Difficulties with availability or quality of the necessary data	☐	☐
e) Concerns regarding violation of data protection and privacy	☐	☐
f) Lack of clarity about the legal consequences (e.g. liability in case of damage caused by the use of Artificial Intelligence)	☐	☐
g) Ethical considerations	☐	☐
h) Artificial Intelligence technologies are not useful for the enterprise	☐	☐

iii

- Text mining
- Speech recognition
- Natural language generation
- Image recognition, image processing
- Machine learning e.g. deep learning
- AI-based automation of different workflows or AI-based decision making
- Autonomous robots, self-driving vehicles, autonomous drones

F. Invoicing

What types of invoices are there?

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

- **E-invoices in a standard structure** suitable for automated processing, **excluding the transmission of PDF files**. They are exchanged either directly or via service operators or via an electronic banking system, e.g. Kivra.

- **Invoices in electronic form** not suitable for automated processing, including the transmission of PDF files.

28. During 2022, did your enterprise send any of the following types of invoices:

Include also invoices sent via intermediaries, e.g. accountants, e-invoice service providers.

	Yes	No
a) Invoices in electronic form, in a standard structure suitable for automated processing (e-invoices)? (EDI (e.g. EDIFACT), XML (e.g. UBL) Excluding the transmission of PDF files	☐	☐
b) Invoices in electronic form not suitable for automated processing? (e.g. e-mails, JPEG or other format) Including the transmission of PDF files	☐	☐
c) Paper invoices	☐	☐

29. Concerning e-invoices: In 2022, out of all invoices your enterprise sent (in electronic or paper form) to private customers, other enterprises or public authorities, what percentage were e-invoices in a standard structure suitable for automated processing?

If exact information is missing, an estimate is sufficient.

_____%

G. ICT and the environment

30. Does your enterprise apply any measured to affect the following?

	Yes	No
a) Amount of paper used for printing and copying	☐	☐
b) Energy consumption of the ICT equipment	☐	☐

31. Does your enterprise consider environmental impact of ICT services, or ICT equipment when selecting them?

For example by evaluating the energy consumption of the ICT service/equipment etc.

☐ Yes

☐ No

32. What does your enterprise do with ICT equipment (e.g. computers, monitors, mobile phones) when it is no longer used?

	Yes	No
a) It is disposed of in electronic waste collection/recycling or returned to the retailer to dispose of	☐	☐
b) The ICT equipment is kept in the enterpriseis *For example in order to be used as spare parts or in fear of disclosing sensitive informatiuon.*	☐	☐
c) It is sold, returned to a leasing enterprise, or donated	☐	☐

X. Background information

X1. Main economic activity of the enterprise, during 2022

X2. Average number of employees and self-employed persons (persons employed), during 2022

X3. Total turnover (in monetary terms, excluding VAT), for 2022