

# Universal and meaningful connectivity: at work

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# Context

- For connectivity to be **universal** and **meaningful**, everyone should be able to use the Internet, everywhere.
- Includes places where people spend a lot of time **e.g. work**

→ UMC target: 100% of businesses use the Internet

- Internet use by businesses is **measured alongside other aspects ICT usage**



UNITED NATIONS  
UNCTAD



## Universality targets

of population aged 15+ uses the Internet

of households have Internet access

of businesses use the Internet

**100%** of schools are connected to the Internet

of population is covered by a mobile network of the latest technology<sup>1</sup>

of population aged 15+ owns a mobile phone

**>70%** of population aged 15+ has basic digital skills

**>50%** of population aged 15+ has intermediate digital skills

**Gender parity** is achieved for Internet use, mobile phone ownership and use, and digital skills<sup>2</sup>



## Technology targets

**100%** of fixed-broadband subscriptions are 10 Mb/s or faster<sup>3</sup>

**20 Mb/s** Minimum download speed at every school

**50 kb/s** Minimum download speed available per student<sup>4</sup>

**200 GB** Minimum data allowance for every school



## Affordability targets

Entry-level broadband subscription costs less than 2% of gross national income per capita

**2%** Entry-level broadband subscription costs less than 2% of average income of the bottom 40% of population

# Measuring business ICT usage

- **Business ICT usage surveys (or survey modules)** are widely used to investigate *what* digital technologies businesses are using and the *intensity* of use.
  - *Important tool for understanding how businesses are adapting to the digital age and what policy support may be needed.*
- Surveys conducted by **National Statistical Organisations**
- **Core indicators**
  - Established through the **Partnership on measuring ICT for development**
  - Adopted by **countries** through the UN Statistical commission
- **UNCTAD Manual for the production of statistics on the digital economy** is a practical guide to support countries in designing and implementing business ICT surveys in a way that achieves international comparability



## Core indicators

Manual  
for the Production of Statistics  
on the Digital Economy  
2020



Proportion of businesses:

B1: using computers

**B3: using Internet**

B5: with a web presence

B6: with an Intranet

B7: receiving orders over the Internet

B8: placing orders over the Internet

B10: with a LAN

B11: with an extranet

Proportion of businesses using the Internet:

B9: by type of access (narrowband, fixed/mobile broadband)

B12: by type of (online) activity

Proportion of persons employed

B2: routinely using computers

B4: routinely using the Internet

+ *proposed* indicators on mobile use

<https://unctad.org/publication/manual-production-statistics-digital-economy-2020>

# Internet use in business: Detailed indicator specification

- Relevant concepts
- Model question
- Recommended disaggregations and classifications
- Policy relevance of each indicator



## Indicator code and name:

**B3: Proportion of businesses using the Internet**

### Definition of concepts:

The proportion of businesses using the Internet is calculated by dividing the number of in-scope businesses using the Internet by the total number of in-scope businesses.

### Clarifications and methodological issues:

The Internet is a world-wide public computer network. It provides access to a number of communication services including the World Wide Web and carries email, news, entertainment and data files, irrespective of the device used (not assumed to be only via a computer, it may also be by mobile phone, games machine, digital TV etc.). Access can be via a fixed or mobile network.

### Model question:

Did your business use the Internet during <reference period>? Yes/No.

### Disaggregation and classifications:

By industry (using ISIC Rev.4) at section level (A to U)

By size of enterprise:

- TOTAL
- 0–9 employees (micro-businesses)
- 10–49 (small businesses)
- 50–249 (medium-sized businesses)
- 250 or more (large businesses)

Optionally, enterprises can be classified as located in urban or rural areas.

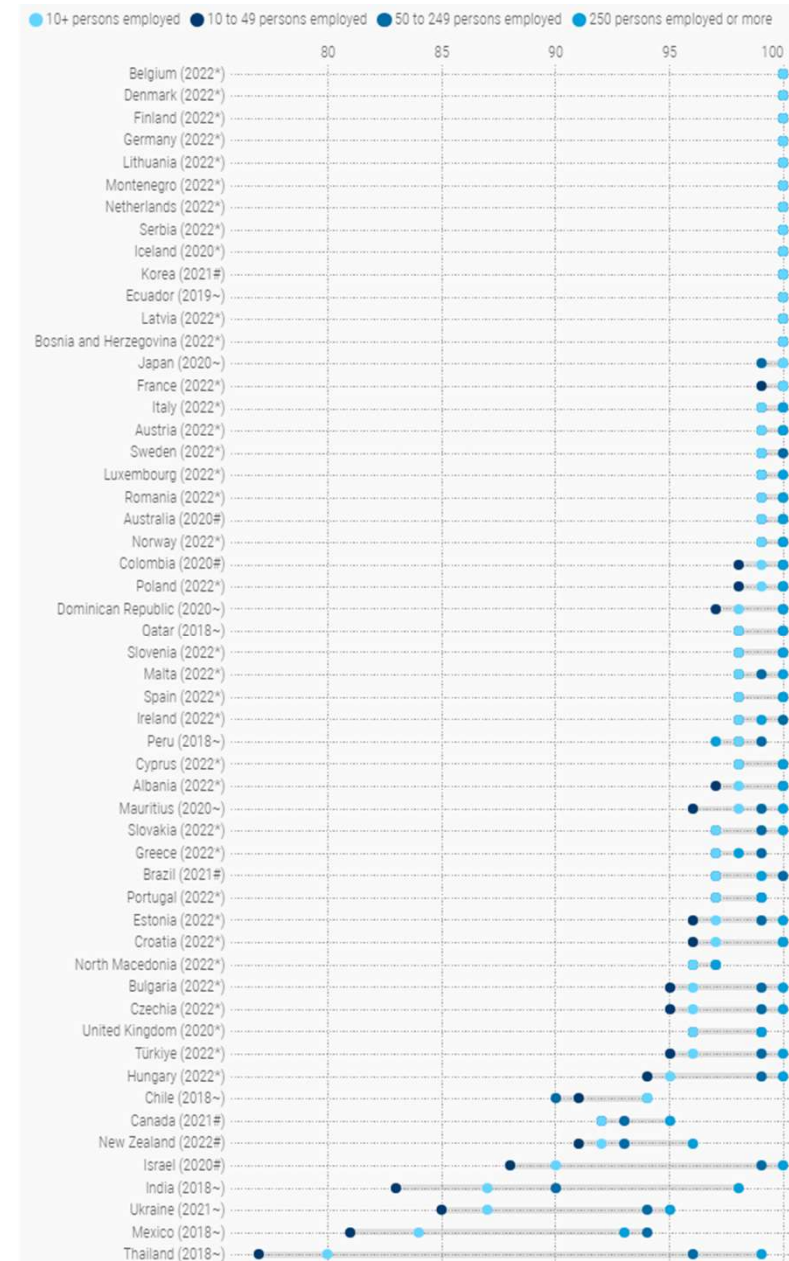
### Policy relevance:

Knowing the extent to which businesses in different sectors and of different sizes use the Internet is important for policymaking aimed at fostering more inclusive e-commerce and a more inclusive digital economy and to assess the effectiveness of policy measures seeking to increase Internet use by enterprises.

# (Almost) all businesses use the Internet

Percentage of businesses that use the Internet, 2022 or latest

- In 13 of the 54 countries with statistics available, all businesses use the Internet.
- In four-out-of-five of these countries >95% of businesses use the Internet.
- In general, small businesses (<50 persons employed) have lower Internet use than larger firms.



\* Enterprises where persons employed have access to the Internet; excludes financial sector (Source: Eurostat).  
 # Businesses with a broadband connection - includes both fixed and mobile (Source: OECD).  
 ~ Businesses using the Internet (Source: UNCTAD)

# Not all personnel use the Internet at work

Percentage of persons employed using the Internet for business purposes

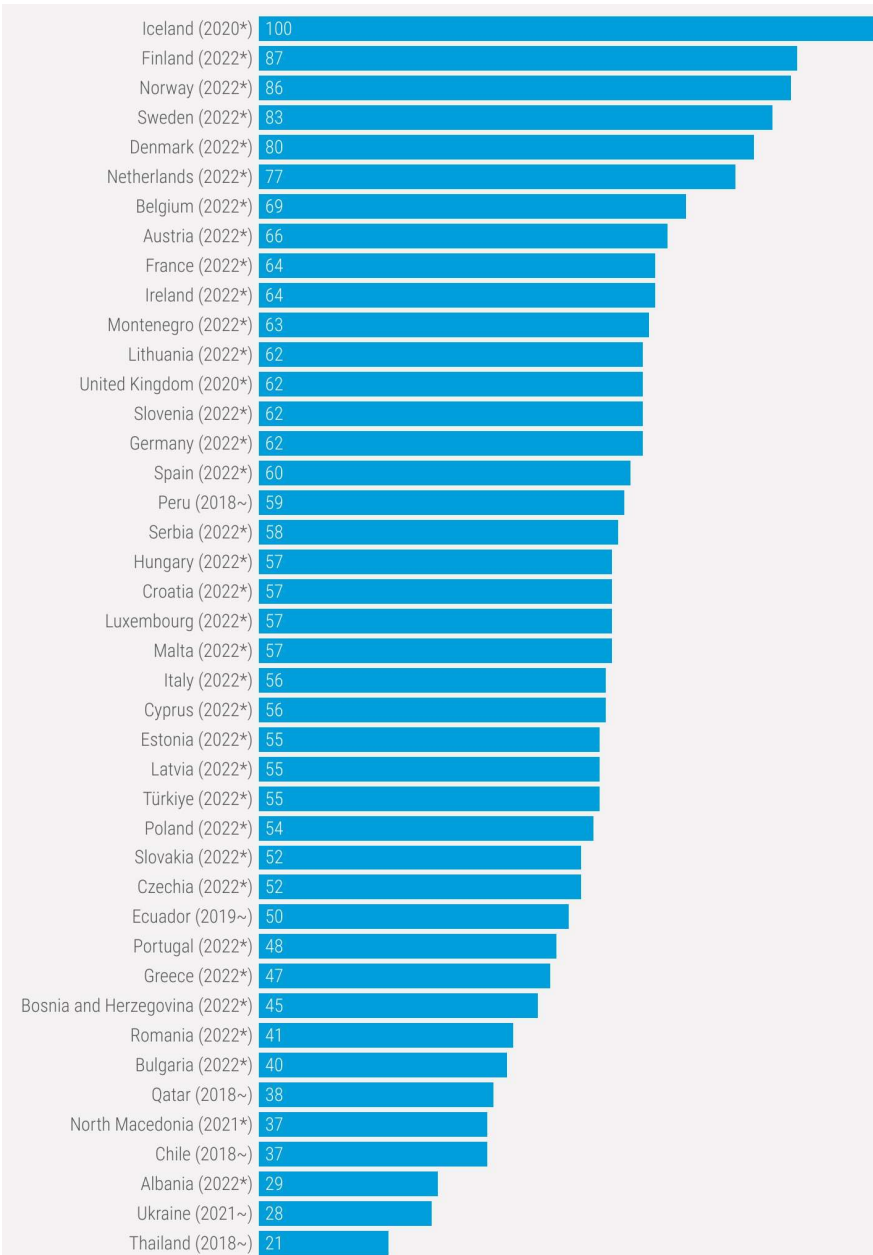
Although the vast majority of businesses have an Internet connection...

...there is wide variation in the share of persons employed who use the Internet



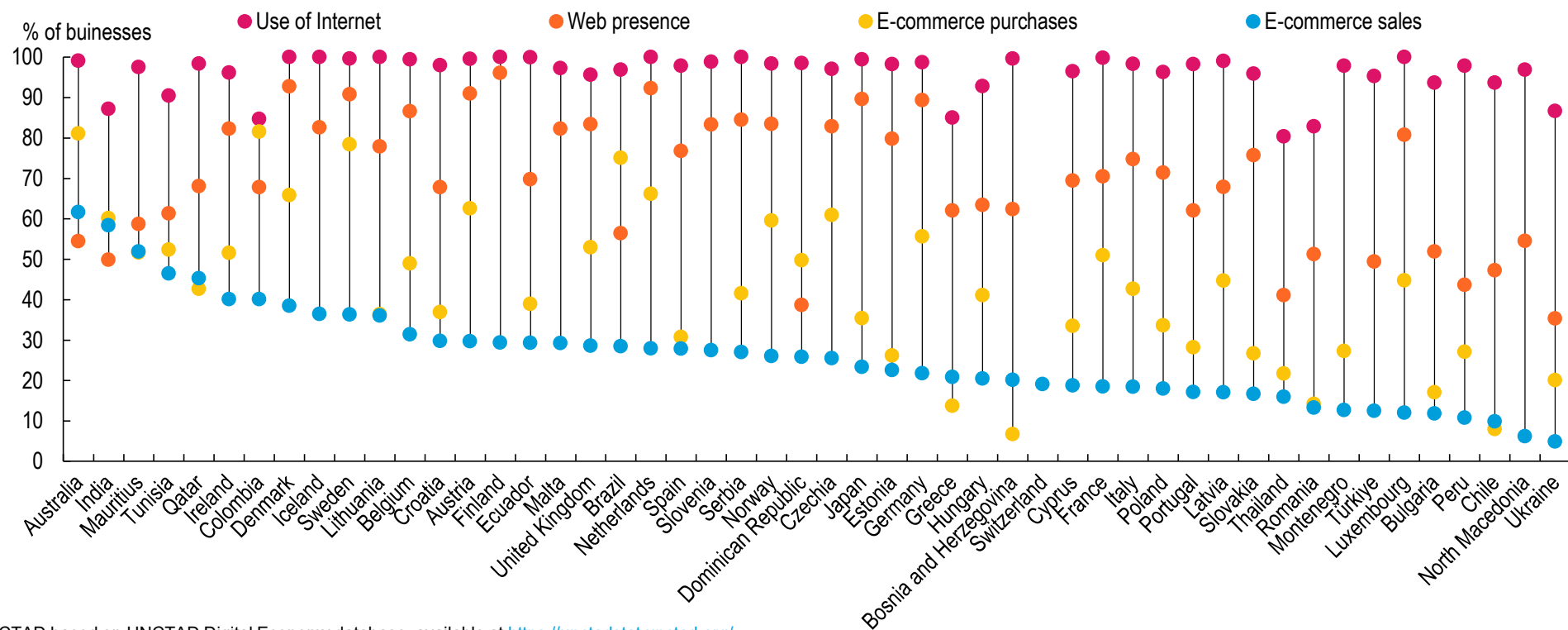
\* Persons employed have access to the Internet for business purposes, percentage of total employment; excludes financial sector (Source: Eurostat).

~ Proportion of persons employed routinely using the Internet (Source: UNCTAD)



# Its not just about having the Internet but also what the business does with it

**Businesses Internet usage, 2021 or latest**  
In order of share of businesses making e-commerce sales



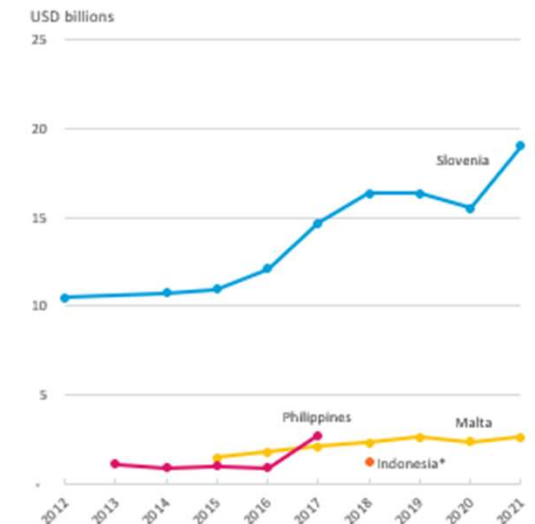
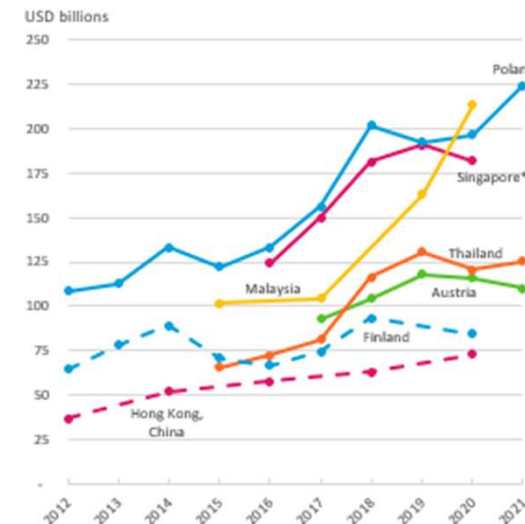
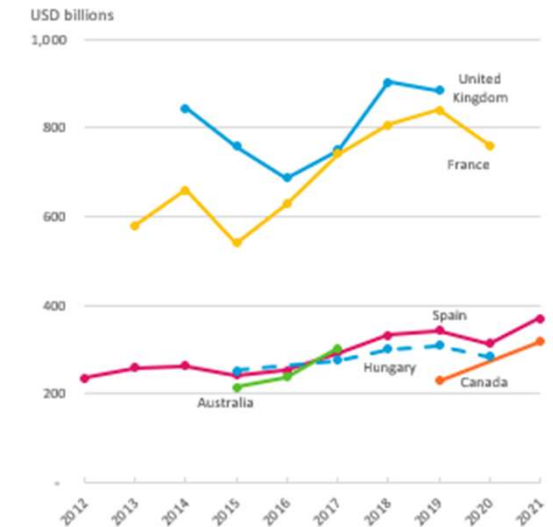
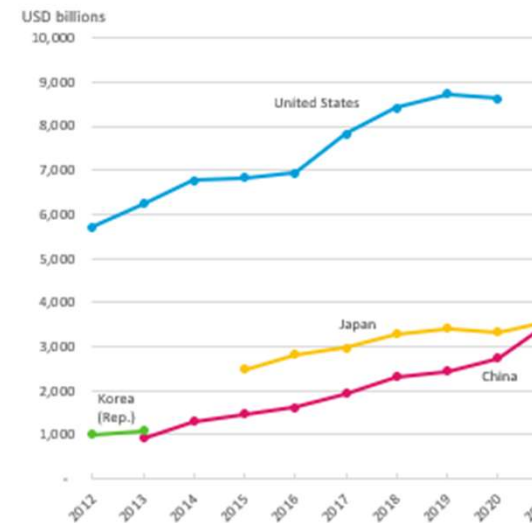
Source: UNCTAD based on UNCTAD Digital Economy database, available at <https://unctadstat.unctad.org/>

Note: Businesses with 10+ persons employed. For each country and variable, if 2021 not available the latest available observation (2018 or later) is used. For e-commerce sales and web presence, the most common reporting year is 2021. For internet use it's 2019, for e-commerce purchases it's 2018. Data for India represents manufacturing only and the year 2018.

# Business e-commerce sales

USD billions, current prices, 2012-2021

- Various National Statistics organisations have published estimates of the value of business e-commerce sales.
- The sources, measurement approaches, industry/firm size coverage, etc. used vary in ways that are likely to impact comparability.
- Only a small number of countries have published figures!
- UNCTAD's 195 member states have mandated to convene a Task Group (of interested IOs and countries) to discuss issues and develop statistical guidelines on measuring business e-commerce value.



Source: UNCTAD (2023), "Measuring the value of e-commerce", based on national sources.

Note: Sales by businesses only. Figures in national currency converted to USD using UNCTAD annual exchange rates (<https://unctadstat.unctad.org/>). The comparability of the series presented is limited. For most economies, the underlying source is a business ICT usage/e-commerce survey or other business survey (e.g., business activity survey). The series for Japan is based on a somewhat different approach, see box in section 3.5. \* Singapore: services only, Indonesia: based on a "profiling survey" sampling businesses in 3,504 of over 800,000 census blocks across 34 of 37 provinces; as such these figures are not representative of all business e-commerce. For Australia, the reporting year ends in June of the year shown.



# Data availability is an issue

- Several international organisations compile publicly available databases of business ICT indicators:
    - Eurostat (covering EU countries)
    - OECD (covering OECD members)
    - UNCTAD (covering UNCTAD members -195 countries)
  - Business ICT usage indicators are **widely available** for EU countries, OECD countries, and partner countries
  - By contrast, **availability for developing countries remains poor** (especially for the least developed countries)
- Much of the most detailed and widely referenced analysis is based on the Eurostat and OECD databases - because these have consistent country coverage, long time-series, etc.
- To make sure non-EU/OECD countries are represented and accounted for in international analyses and policy discussions it is crucial that:
    - Business ICT usage surveys are **implemented more widely** across countries and **regularly over time**.
    - Results are shared through the *UNCTAD collection of official statistics on ICT use by enterprises and on the ICT sector*.

The screenshot shows the UNCTADSTAT website interface. The header includes the UNCTAD logo and navigation tabs: ABOUT, DATA, COUNTRY PROFILES, and DATA EXPLORATION. Below the header, there are tabs for Reports, Table, and Chart, along with an Actions menu. The main content area displays the title "Core indicators on ICT use in business by enterprise size class, annual, 2003-2021" and a filter for "Other: ENTERPRISE SIZE All enterprises". The data table below shows the proportion of businesses using computers (B1), persons employed routinely using computers (B2), businesses using the Internet (B3), and persons employed routinely using the Internet (B4) for Egypt, Kenya, Mauritius, and Tunisia from 2015 to 2020.

YEAR		2015	2016	2017	2018	2019	2020
USE OF ICT		↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
ECONOMY							
B1: Proportion of businesses using computers	Egypt <a href="#">i</a>	..	79.9	..	..	..	..
	Kenya	92.0	..	..	..	..	..
	Mauritius	98.4	98.7	98.8	99.0	98.7	97.1
	Tunisia <a href="#">i</a>	..	..	88.0	..	..	..
B2: Proportion of persons employed routinely using computers	Egypt <a href="#">i</a>	..	26.7	..	..	..	..
	Kenya	28.6	..	..	..	..	..
	Mauritius	..	..	..	..	..	..
	Tunisia <a href="#">i</a>	..	..	41.0	..	..	..
B3: Proportion of businesses using the Internet	Egypt <a href="#">i</a>	..	59.9	..	..	..	..
	Kenya	90.1	..	..	..	..	..
	Mauritius	97.6	97.3	97.8	98.2	97.7	96.8
	Tunisia <a href="#">i</a>	..	..	85.0	..	..	..
B4: Proportion of persons employed routinely using the Internet	Egypt <a href="#">i</a>	..	19.1	..	..	..	..
	Kenya	25.3	..	..	..	..	..
	Mauritius	..	..	..	..	..	..
	Tunisia <a href="#">i</a>	..	..	37.0	..	..	..

# Make sure your country is represented

1. UNCTAD can provide **technical assistance** with implementing business ICT surveys (and with seeking funding)
2. Ensure your **indicators are submitted** to the UNCTAD Collection of official statistics on ICT use by enterprises and on the ICT sector
  - Invitations to participate in the UNCTAD ICT indicators collection are sent to:
    - UNSD list of senior national statistical contact points
    - National missions to the UN in Geneva
    - Participants in the UNCTAD Working Group on Measuring E-commerce and the Digital Economy (WG-ECDE)
  - In practice, invitations often get “stuck”
  - *Please help to make sure the invite reaches the right people in your country*

- **contact us at [emeasurement@unctad.org](mailto:emeasurement@unctad.org)** -



Reference Year: * 2023	Manage Notes			
ICT Usage Indicators by Enterprise Size	Edit metadata	Edit data	Submit	Messages
ICT Usage Indicators by Urban/Rural	Edit metadata	Edit data	Submit	Messages
ICT Usage Indicators by Economic Activity (ISIC Rev. 4)	Edit metadata	Edit data	Submit	Messages
ICT Usage Indicators by Economic Activity (ISIC Rev. 3.1)	Edit metadata	Edit data	Submit	Messages
ICT sector workforce and value added (ISIC Rev. 4)	Edit metadata	Edit data	Submit	Messages
ICT sector workforce and value added (ISIC Rev. 3.1)	Edit metadata	Edit data	Submit	Messages

# Take-aways

- The vast [majority of businesses have Internet access](#)
- Complementary indicators can give insights on how widely the Internet is used throughout the business and what it is used for.
- The “[core indicators on ICT for development](#)” provide an internationally adopted suite of relevant indicators for tracking ICT usage in business.
- Extensive guidance and model surveys are available in the [UNCTAD Manual for the production of statistics on the digital economy](#).
- It is important to [increase the representation of non-EU/OECD countries](#) in international databases of ICT indicators so that they can be better accounted for in international analyses and policy debates.