

# **INFORMATION SOCIETY IN FIGURES**

**2021**

**CZECHIA AND EU**

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## INTRODUCTION

One year on, the Czech Statistical Office has issued again its flagship publication on digital society titled **Information Society in Figures 2021**.

This summary publication strives to bring to readers information, in an easy to comprehend form, on trends about the development in usage of modern **information and communication technologies (ICT)** in the main areas of our society in the **Czech Republic** and in **Member States of the European Union** by means set of tables and figures outputs.

The publication consists of **seven chapters** as follows:

- A. **ICT Infrastructure** contains basic data on the number of voice and data subscriptions in fixed and mobile networks.
- B. **Households and ICT** provides information on households' access to computers and the internet broken down by type of the household measured. This information is added with data on households using devices of Internet of Things.
- C. **Persons and ICT** includes basic information on internet users with focus on type of devices used to access the internet by different categories of persons. This basic information is supplemented with data on selected activities carried out by persons over the internet for travel related or entertainment purposes, information on internet banking and online purchases. Furthermore, information on persons performing internet security activities is also included here.
- D. **Enterprises and ICT** provides an overview on deployment, ways, and rate of use of the internet, websites and other information systems by enterprises. The information is added with detailed data on social networks, e-Commerce and also on the use of paid cloud computing services, Big Data analysis, 3D printing, robotics and interconnected devices or systems of Internet of Things.
- E. **Government and ICT** gives information on usage of selected eGovernment services as the Czech POINT and Data Boxes. The chapter includes data on electronic submissions of tax forms. It also includes information how persons use the internet in relation with the government authorities and public institutions.
- F. **ICT in Education and Digital Skills** gives an overview on ICT equipment of schools. This chapter includes detailed data on the 15-year-old students accessing selected ICTs at home and at school. Furthermore, information on the ICT use by pupils and students and data on computer (digital) skills of people are also included here.
- G. **Health and ICT** gives information on ICT equipment of physicians and overview of offered on-line services on their websites. Furthermore, information on the search of health-related information on the internet and the use of on-line services of health establishments by persons are also included here.

The data are **broken down** by various criteria, as type of the household, sex, age, and educational attainment for individuals, or economic activity and size for enterprises. Thus, readers may learn, how is the Internet use structured by age or educational attainment in individuals, or by income for households.

In figures, the **publication uses the Czech decimal comma**, instead of the English decimal point, as decimal separator for internal reasons.

Detailed information on the CZSO surveys can be found at:

[https://www.czso.cz/csu/czso/information\\_technologies](https://www.czso.cz/csu/czso/information_technologies)

Prague, April 2021

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## A ICT Infrastructure

The **telecommunications and internet infrastructure** is the cornerstone of majority of information technologies and thus the information society as a whole, as well. Data on the state and trends in the infrastructure of electronic communications in Czechia and the Member States of the European Union in the chapter have been collected from the **telecommunication and internet services providers**, on the contrary to majority of other chapters.

The **Reference Period** is as at 31 December of the reference year, unless otherwise stated.

Information in the chapter applies to services provided in retail only, that means services provided to **end users**.

### Definitions (sorted alphabetically)

- A **subscriber** (or customer) to publicly accessible services of electronic communications shall mean individual or legal entity, which has concluded a contract on the use of such services with a provider and has an access to the public switched telephone network or public mobile telephone network within the contracted services.
- **Domain (internet domain and/or domain name)** shall mean a definite identifier of a computer or a computer network connected to the internet. The domains shall be registered by domain name registrars, which are authorised to administer Top Level Domains.
- **Fixed wired access** to the internet includes connections over following technologies and networks: i) digital subscriber line xDSL (ADSL, VDSL, FTTC) using fixed telephone networks, ii) cable modem using coaxial cable television networks (CATV) and iii) optical fibre networks (FTTH/B).
- **Fixed wireless access (FWA)** to the internet is the description of fixed wireless access by means of a radio connection both in licensed (including fixed LTE) and non-licensed (fixed Wi-Fi) frequency bands. The end-point device is at a fixed place, located in a building, dwelling etc. Sometimes this alternative is also called Wireless Local Loop (WLL).
- **SIM cards** are **prepaid** ones, in which case the customer does not conclude any contract with the provider and buys a credit, which the provider deducts payments for services provided from; and **post-paid** ones in which case customers have a contract concluded with the provider and pay for contracted services by monthly invoice.
- The **number of fixed broadband subscriptions** is measured on the basis of so-called access points (**active connections**) at which services are provided in a fixed point via **fixed wired** or **wireless access**.
- The **number of mobile broadband subscriptions using cellular phone** is measured by the number of data SIM cards with activated voice and data services together, which are provided based on the contract allows the access to mobile broadband in cellular phone.
- The **number of subscriptions of voice services in a fixed telephone network** is measured as the number of the **public switched telephone network (PSTN) lines** and the number of **phone numbers** used for voice services by means of the **IP telephone** (VoIP technology).
- The **number of subscriptions of voice services in a mobile network** is measured by the number of **active SIM cards**, which were used at least once in the recent three months for voice services.

Data for the **Czechia** are taken from data sources of the Czech Telecommunication Office, except for the number of registered domains (source: cz.nic). Further information can be found at [www.ctu.cz](http://www.ctu.cz) and [www.nic.cz](http://www.nic.cz)

**International comparisons** were worked out by the CZSO using public data from the International Telecommunication Union, European Commission and OECD.

**Further information on this theme can be found at** (in Czech language only): [https://www.czso.cz/csu/czso/telekomunikacni\\_a\\_internetova\\_infrastruktura](https://www.czso.cz/csu/czso/telekomunikacni_a_internetova_infrastruktura)

## A ICT infrastructure

Tab. A1 Fixed telephone voice subscriptions in Czechia

	Thousand		
	2010	2015	2019
<b>Total</b>	<b>2 334</b>	<b>1 896</b>	<b>1 491</b>
<b>Subscriber type</b>			
Household - residential subscriptions	1 289	831	577
Organization - business subscriptions	1 044	1 065	914
<b>Network technology and subscriber type</b>			
<b>Switched network - analogue PSTN lines</b>	<b>1 871</b>	<b>994</b>	<b>602</b>
Household - residential lines	989	523	275
Organization - business lines	882	471	327
<b>Internet network - VoIP lines</b>	<b>462</b>	<b>902</b>	<b>888</b>
Household - residential lines	300	309	302
Organization - business lines	162	594	587

Figure A1 Fixed telephone voice subscriptions (PSTN only)

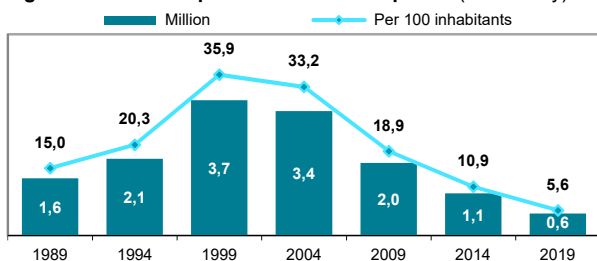


Figure A2 Analogue PSTN lines by subscriber type (million)

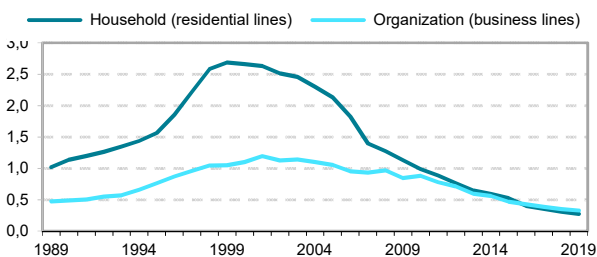
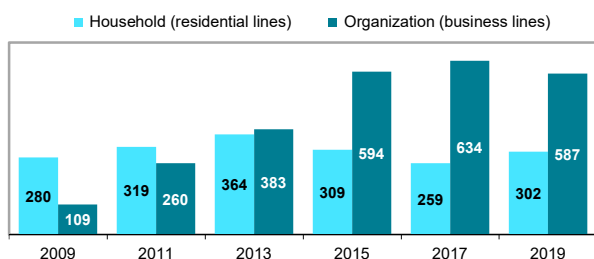


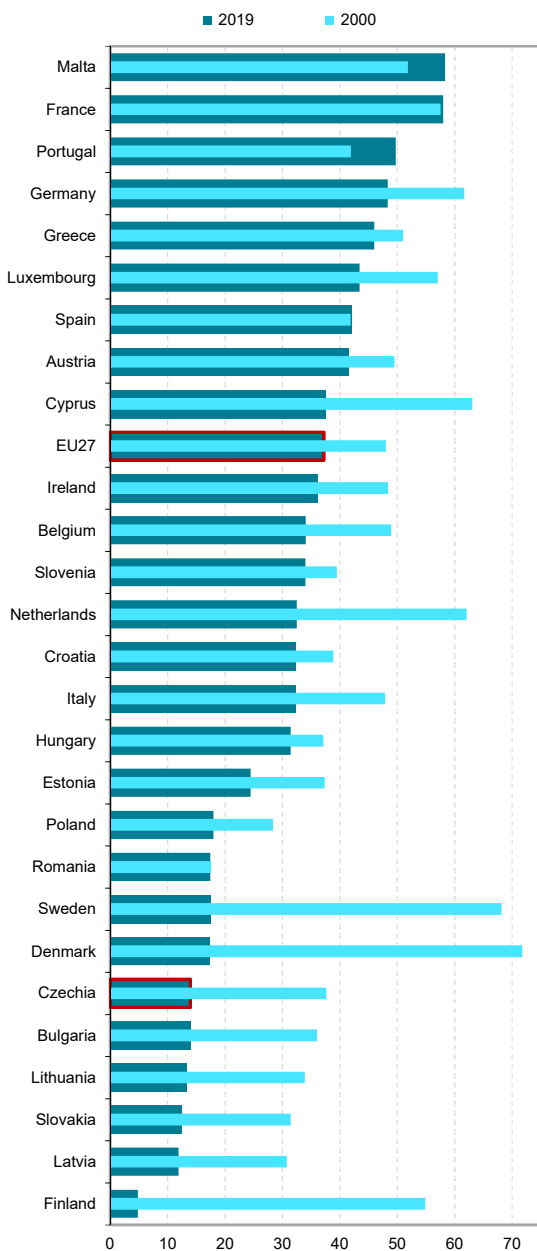
Figure A3 VoIP lines by subscriber type (thousand)



Source: CZSO calculations based on Czech Telecommunication Office data

## A ICT infrastructure

**Figure A4 Fixed telephone voice subscriptions in EU countries (per 100 inhabitants)**



Source: International Telecommunication Union

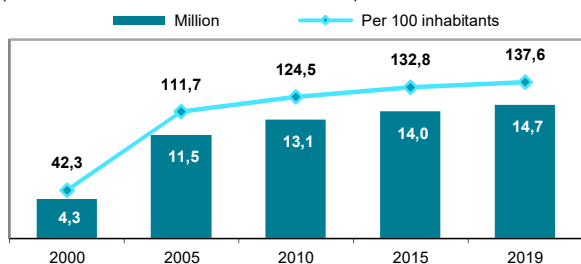
## A ICT infrastructure

**Table A2 Mobile telephone voice subscriptions in Czechia**

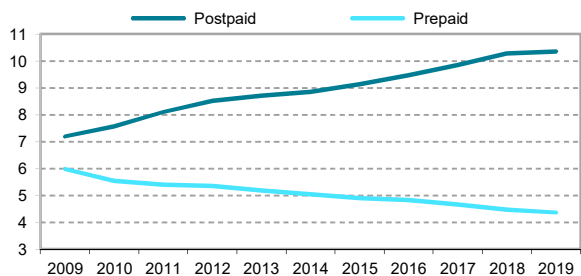
	Thousand		
	2010	2015	2019
<b>Total - active SIM cards used for voice services</b>	<b>13 113</b>	<b>14 017</b>	<b>14 712</b>
<b>Subscriber type</b>			
Individual - residential subscriptions	.	9 222	9 045
Organization - business subscriptions	.	4 795	5 667
<b>Subscription type</b>			
Prepaid	5 538	4 893	4 362
Postpaid	7 575	9 124	10 349

**Figure A5 Mobile telephone voice subscriptions**

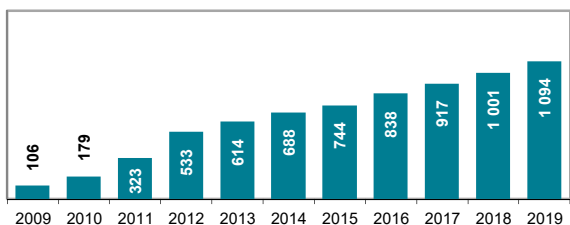
(active SIM cards used for voice services)



**Figure A6 Active SIM cards by subscription type (million)**



**Figure A7 M2M subscriptions\*\* (thousand)**

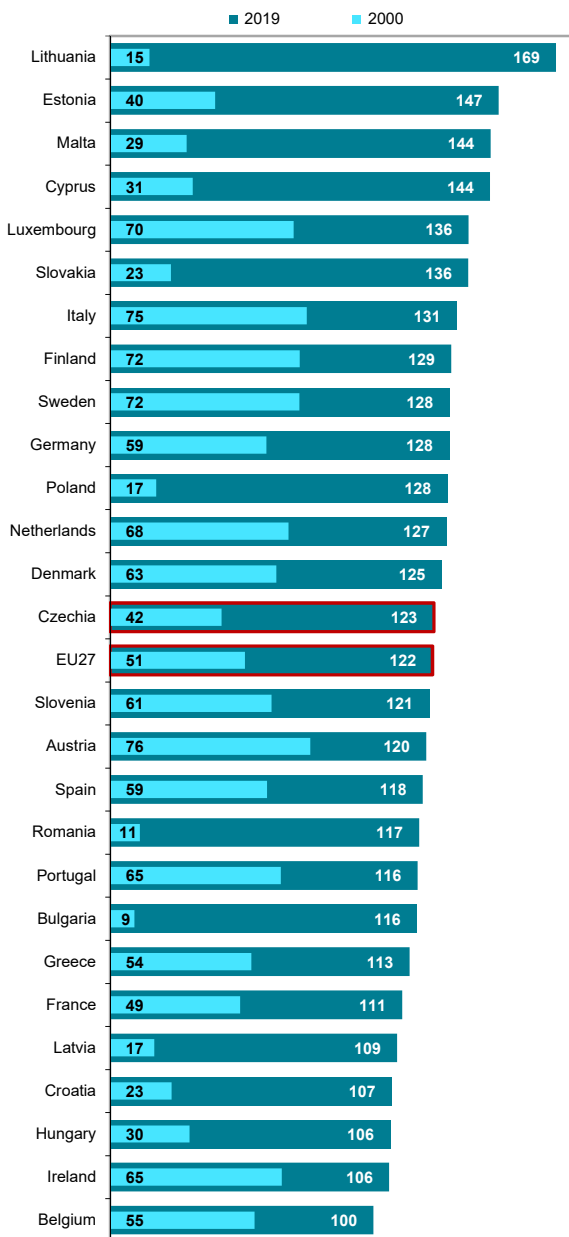


\*\* Machine-to-Machine (M2M) includes SIM cards designed exclusively for wireless communication between machines, devices and systems without human intervention.

Source: CZSO calculations based on Czech Telecommunication Office data

## A ICT infrastructure

**Figure A8 Mobile telephone voice subscriptions in EU countries (per 100 inhabitants)**



Source: CZSO calculations based on ITU data

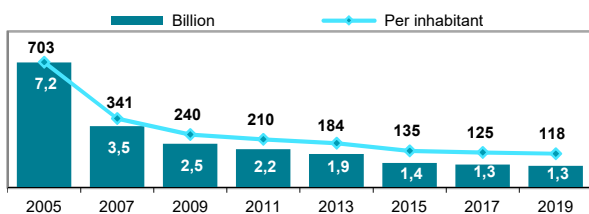
## A ICT infrastructure

**Table A3 Fixed telephone traffic in Czechia**

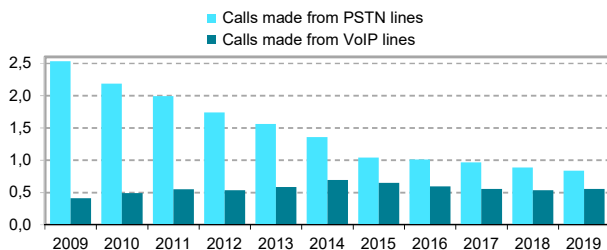
Outgoing calls from the fixed network in million minutes

	2010	2015	2019
<b>Total</b>	<b>2 676</b>	<b>1 689</b>	<b>1 389</b>
<b>Subscriber type</b>			
Household - calls made from residential lines	.	.	651
Organization - calls made from business lines	.	.	738
<b>Technology</b>			
Switched network - calls made from PSTN lines	2 185	1 041	835
Internet network - calls made from VoIP lines	490	648	554
<b>Destination</b>			
<b>Domestic calls, total</b>	<b>2 310</b>	<b>1 422</b>	<b>1 262</b>
Fixed-to-Fixed	1 898	1 007	595
Fixed-to-Mobile	412	415	666
<b>International calls (fixed-to-international)</b>	<b>160</b>	<b>110</b>	<b>77</b>

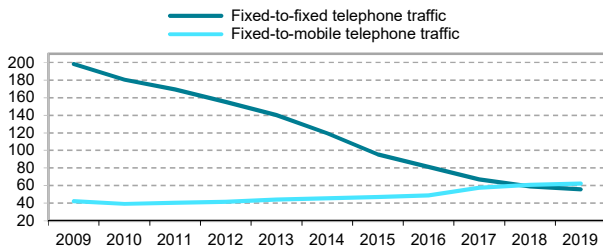
**Figure A9 Domestic fixed telephone traffic (minutes)**



**Figure A10 Fixed telephone traffic by technology**  
(outgoing calls in billion minutes)



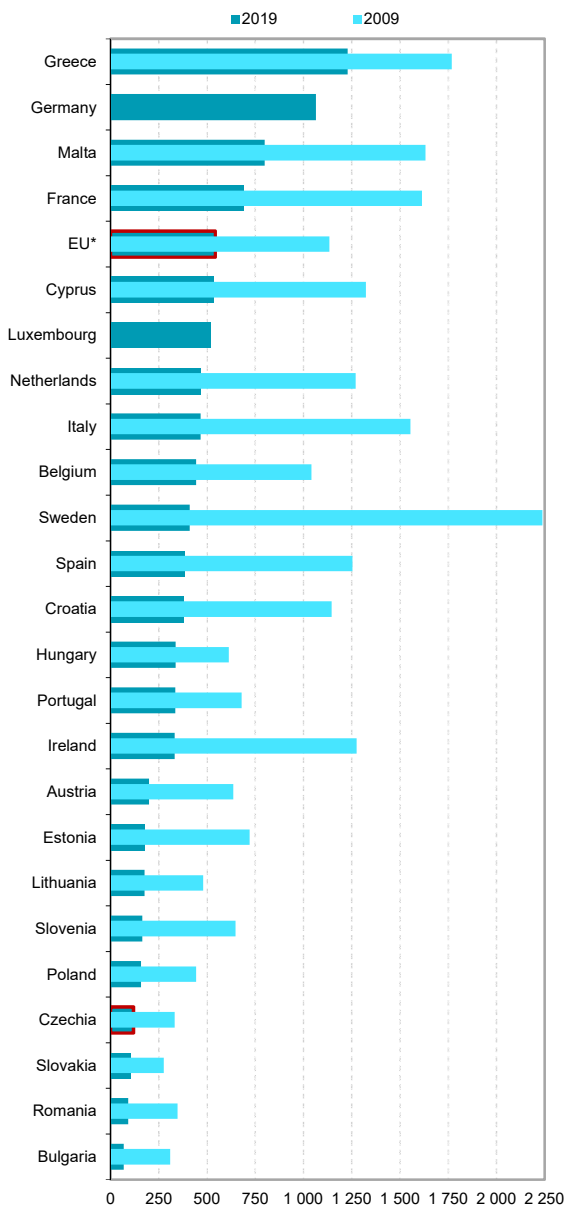
**Figure A11 Domestic fixed telephone traffic by network**  
(outgoing called minutes per one inhabitant)



Source: CZSO calculations based on Czech Telecommunication Office data

## A ICT infrastructure

**Figure A12 Domestic fixed telephone traffic in EU countries**  
(outgoing called minutes per one inhabitant)



\* The EU average excludes Denmark, Finland and Latvia.

Source: CZSO calculations based on ITU data

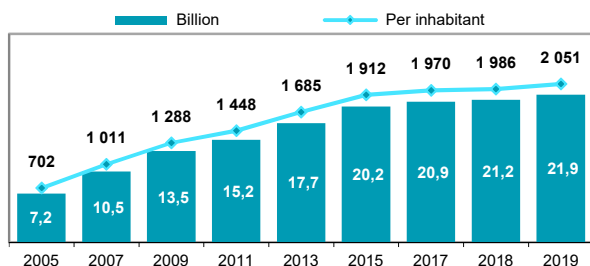
## A ICT infrastructure

**Table A4 Mobile telephone traffic in Czechia**

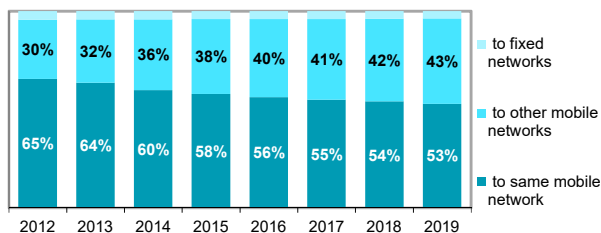
Outgoing calls from the mobile network in million minutes

	2010	2015	2019
<b>Total</b>	<b>15 104</b>	<b>20 634</b>	<b>22 284</b>
<b>Subscriber type</b>			
Individual - calls from residential subscript.	.	11 550	12 293
Organization - calls from business subscript.	.	9 084	9 991
<b>Destination</b>			
<b>Domestic outgoing calls, total</b>	<b>14 669</b>	<b>20 176</b>	<b>21 931</b>
to same mobile network	9 389	11 660	11 595
to other mobile networks	4 501	7 694	9 501
to fixed networks	779	822	836
<b>International calls (incl. outbound roaming)</b>	<b>435</b>	<b>760</b>	<b>1 622</b>

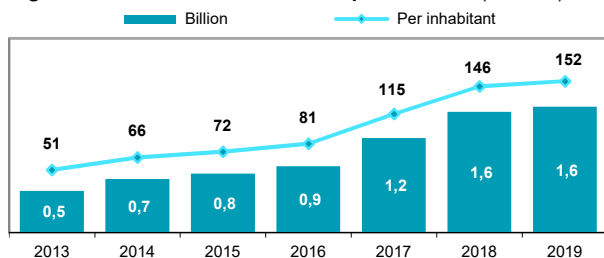
**Figure A13 Domestic mobile telephone traffic (minutes)**



**Figure A14 Domestic mobile telephone traffic by destination**



**Figure A15 International mobile telephone traffic (minutes)**

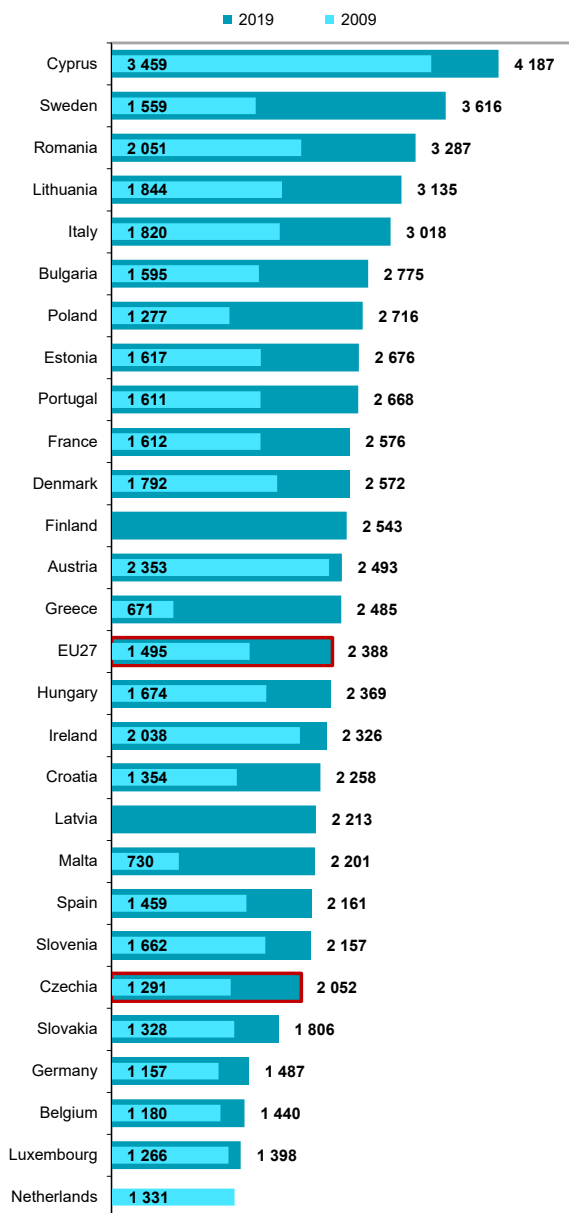


Source: CZSO calculations based on Czech Telecommunication Office data



## A ICT infrastructure

**Figure A16 Domestic mobile telephone traffic in EU countries**  
(outgoing called minutes per one inhabitant)



Source: CZSO calculations based on ITU data

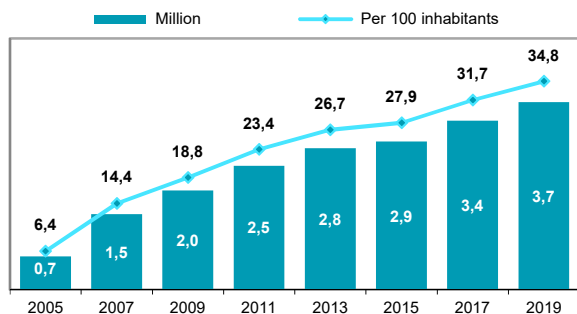
## A ICT infrastructure

**Table A5 Fixed broadband subscriptions in Czechia**

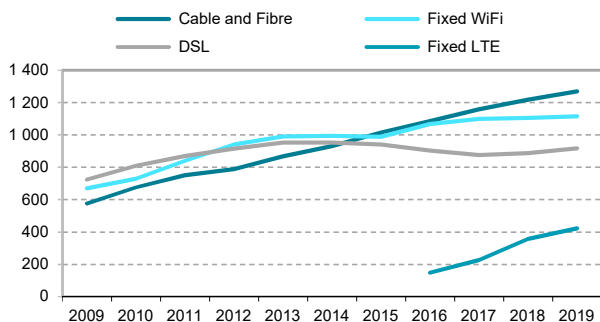
	Thousand		
	2017	2018	2019
<b>Total</b>	<b>3 361</b>	<b>3 570</b>	<b>3 726</b>
<b>Connection speed*</b>			
< 30 Mbit/s	1 654	1 472	1 550
≥ 30 < 100 Mbit/s	736	916	1 101
≥ 100 Mbit/s	743	823	1 075
<b>Subscriber type*</b>			
Household - residential customers	2 649	2 727	3 094
Organization - business customers	485	485	632
<b>Access and technology type</b>			
<b>Wired fixed access, total</b>	<b>2 035</b>	<b>2 107</b>	<b>2 188</b>
DSL	876	888	918
Cable and Fibre	1 159	1 219	1 270
<b>Wireless fixed access, total</b>	<b>1 326</b>	<b>1 463</b>	<b>1 538</b>
Fixed WiFi	1 099	1 105	1 115
Fixed LTE	227	358	423

\* excludes fixed LTE data for the years 2017 and 2018

**Figure A17 Fixed broadband subscriptions**



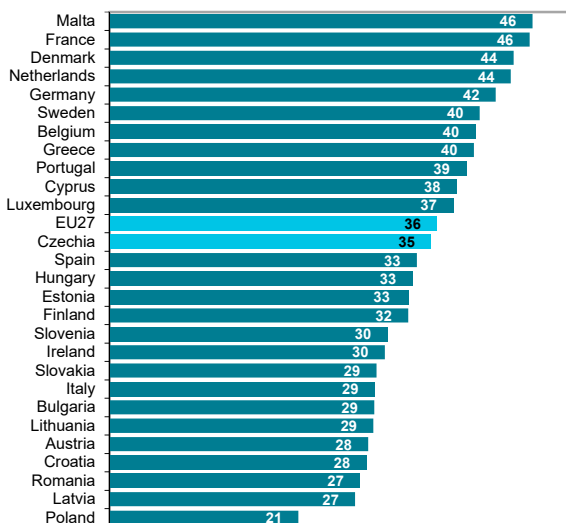
**Figure A18 Fixed broadband subscriptions by technology (thousand)**



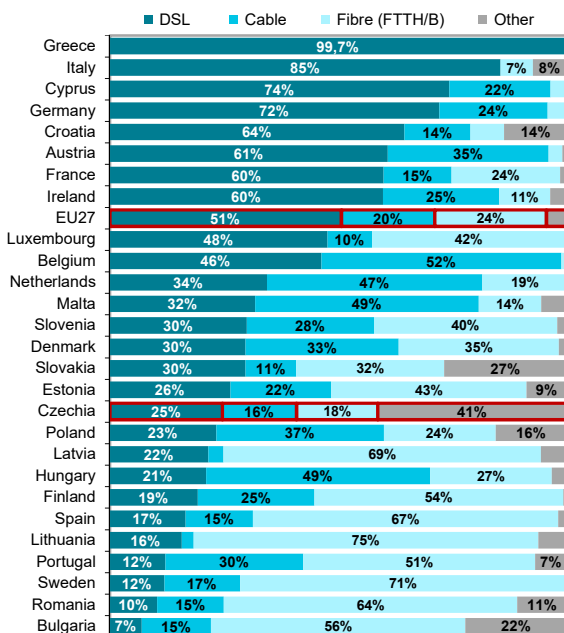
Source: CZSO calculations based on Czech Telecommunication Office data

## A ICT infrastructure

**Figure A19 Fixed broadband subscriptions in EU countries; 2019 (per 100 inhabitants)**



**Figure A20 Fixed broadband subscriptions in EU countries by technology; 2019**



Source: International Telecommunication Union

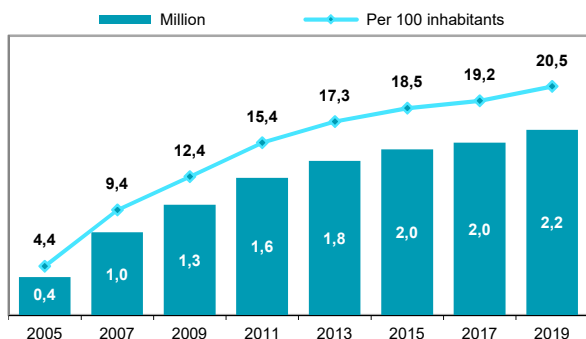
## A ICT infrastructure

**Table A6 Wired fixed broadband subscriptions in Czechia**

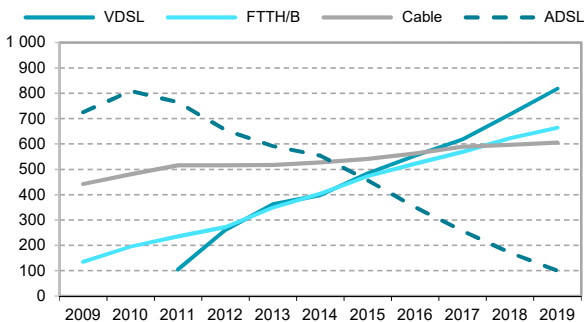
thousands

	2017	2018	2019
<b>Total</b>	<b>2 035</b>	<b>2 107</b>	<b>2 188</b>
<b>Speed</b> (advertised download speed)			
< 30 Mbit/s	879	772	662
≥ 30 < 100 Mbit/s	430	541	583
≥ 100 Mbit/s	726	794	943
<b>Subscriber type</b>			
Household - residential subscriptions	1 715	1 777	1 849
Organization - business subscriptions	319	330	340
<b>Network and technology type</b>			
<b>Fixed telephone network, total</b>	<b>876</b>	<b>888</b>	<b>918</b>
ADSL	257	172	100
VDSL	619	717	818
<b>Optical network, total</b>	<b>570</b>	<b>622</b>	<b>664</b>
FTTH	133	154	188
FTTB	437	469	476
<b>Cable network (CATV)</b>	<b>589</b>	<b>597</b>	<b>606</b>

**Figure A21 Wired fixed broadband subscriptions**



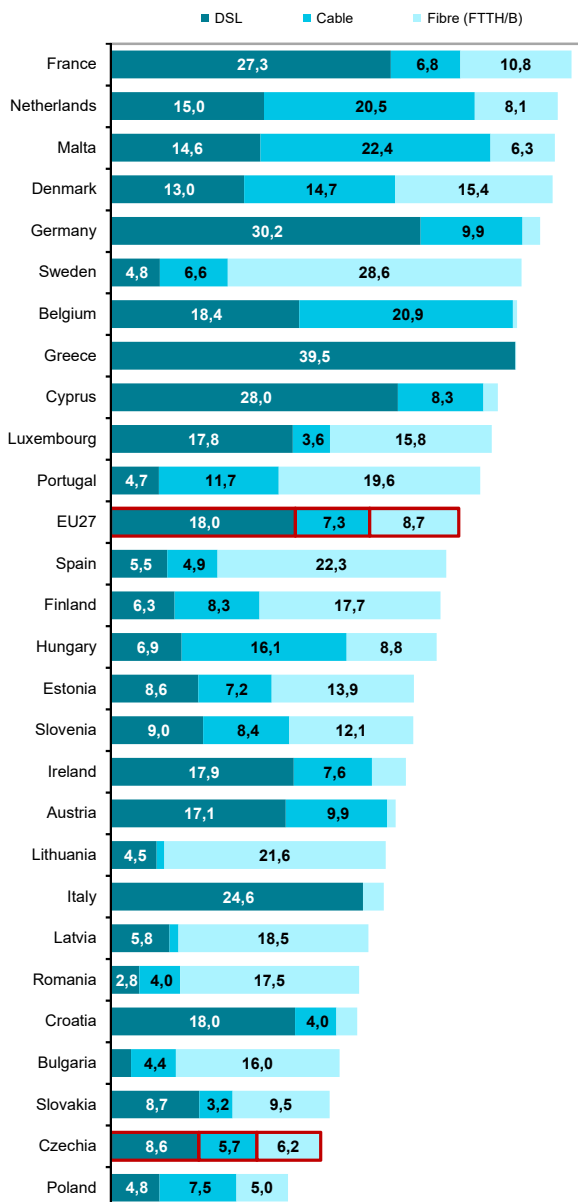
**Figure A22 Wired fixed broadband subscriptions by technology (thousand)**



Source: CZSO calculations based on Czech Telecommunication Office data

## A ICT infrastructure

**Figure A23 Wired fixed broadband subscriptions in EU countries by technology; 2019 (per 100 inhabitants)**



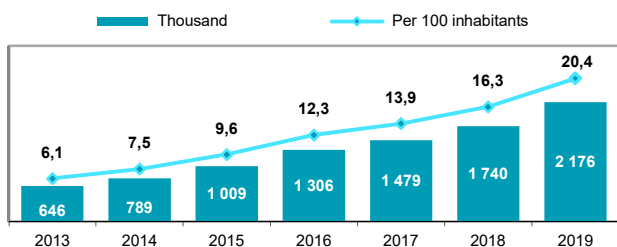
Source: International Telecommunication Union

## A ICT infrastructure

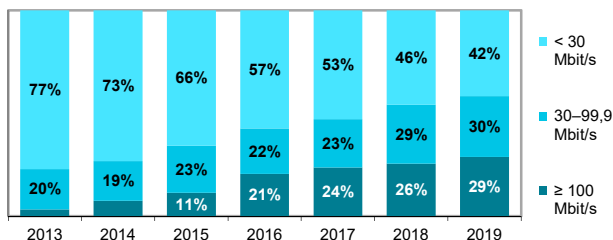
**Table A7 Fixed broadband subscriptions in Czechia by advertised download connection speed; 2019**

	Thousand		
	< 30 Mbit/s	30–99,9 Mbit/s	≥ 100 Mbit/s
<b>Total</b>	<b>1 550</b>	<b>1 101</b>	<b>1 075</b>
<b>Wired fixed access, total</b>	<b>662</b>	<b>583</b>	<b>943</b>
DSL	580	282	56
Cable (CATV)	17	52	537
Fibre (FTTH/B)	64	249	351
<b>Wireless fixed access, total</b>	<b>888</b>	<b>518</b>	<b>132</b>
Fixed WiFi	536	452	127
Fixed LTE	352	66	5

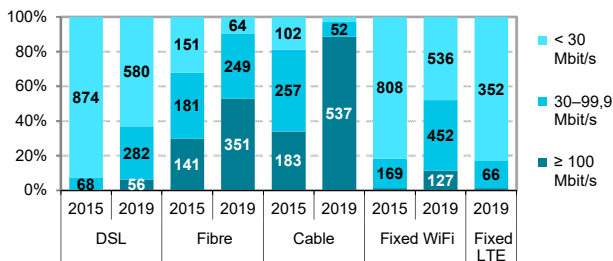
**Figure A24 Fixed broadband subscriptions with advertised download connection speed equal to or above 30 Mbit/s**



**Figure A25 Fixed broadband subscriptions by advertised download connection speed**



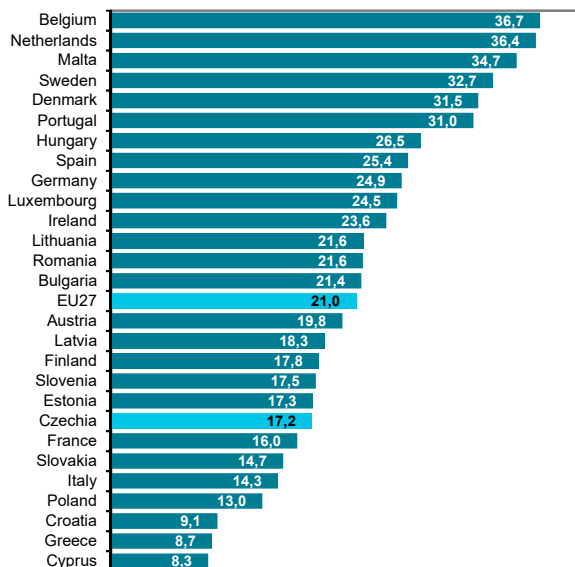
**Figure A26 Fixed broadband subscriptions by technology and advertised download connection speed (thousands; %)**



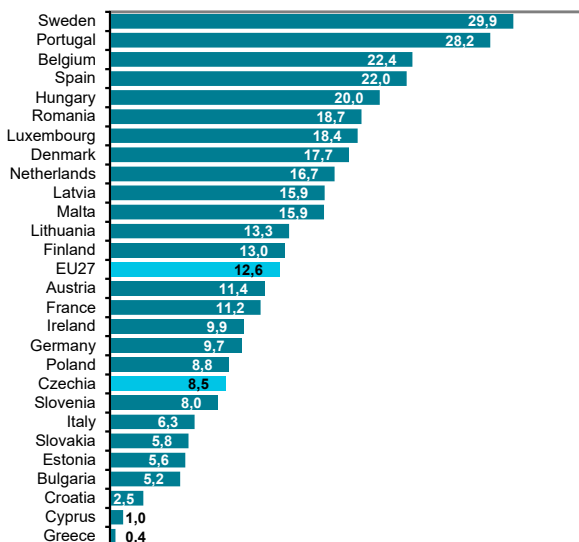
Source: CZSO calculations based on Czech Telecommunication Office data

## A ICT infrastructure

**Figure A27 Fixed broadband subscriptions in EU countries with download speed 30 Mbit/s and more; June 2019**  
(per 100 inhabitants)



**Figure A28 Fixed broadband subscriptions in EU countries with download speed 100 Mbit/s and more; June 2019**  
(per 100 inhabitants)



Source: CZSO calculations based on European Commission data

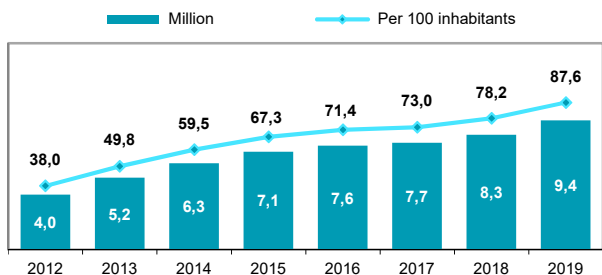
## A ICT infrastructure

**Table A8 Mobile voice and data broadband subscriptions in Czechia**

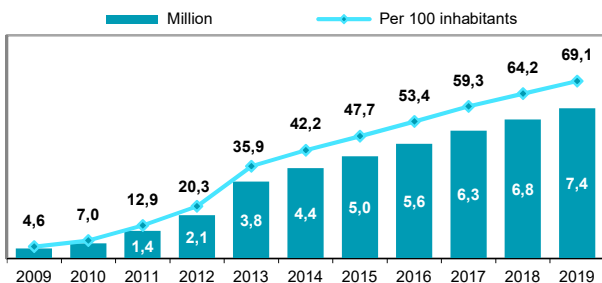
	Thousand		
	2017	2018	2019
<b>Total - active SIM cards used for voice and data services*</b>	<b>7 748</b>	<b>8 333</b>	<b>9 372</b>
Ad-hoc access (prepaid and pay-per use)	1 461	1 494	1 981
Permanent access (monthly plans/tariffs)	6 288	6 839	7 391

\* Refers to subscriptions that allow access to the open Internet and in which data services are contracted together with voice services (mobile voice and data plans) or as an add-on package to a voice plan. These are typically smartphone-based subscriptions with voice & data services used in the same terminal.

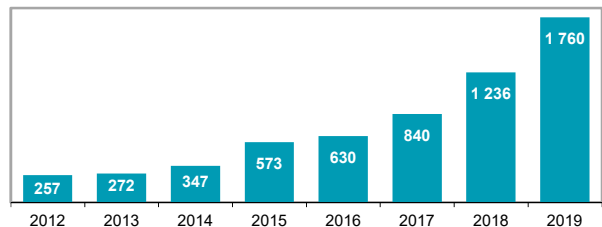
**Figure A29 Mobile voice and data broadband subscriptions**



**Figure A30 Mobile voice and data broadband subscriptions with permanent access (monthly plans/tariffs)**



**Figure A31 Average monthly mobile data consumption (MB per active SIM card with data services)**

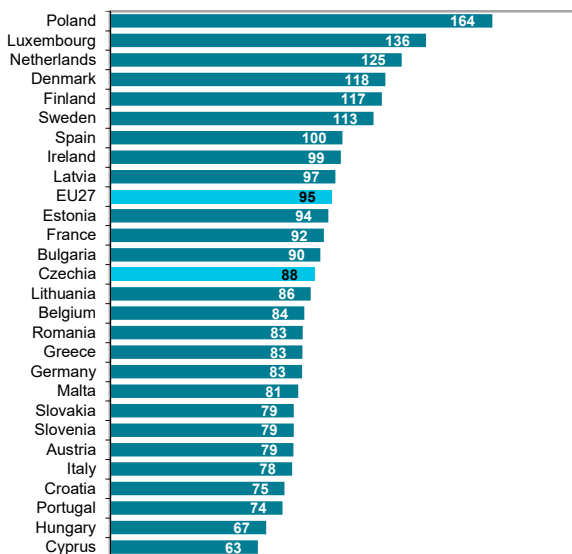


Source: CZSO calculations based on Czech Telecommunication Office data

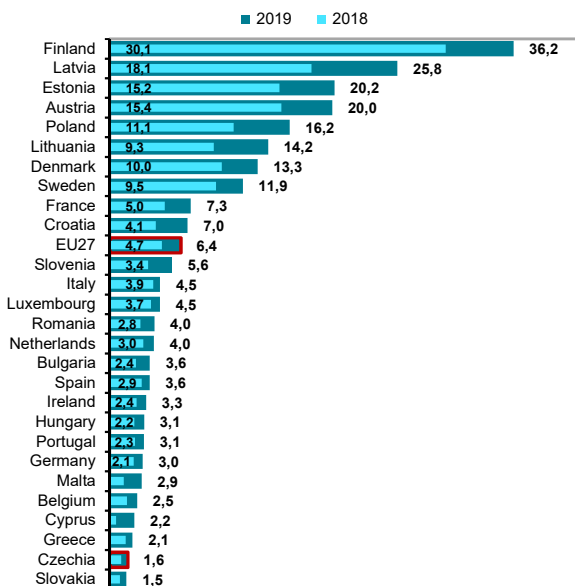


## A ICT infrastructure

**Figure A32 Mobile voice and data broadband subscriptions in EU countries; 2019 (per 100 inhabitants)**



**Figure A33 Monthly mobile broadband internet traffic in EU countries (GB per 1 inhabitant)**



Source: International Telecommunication Union

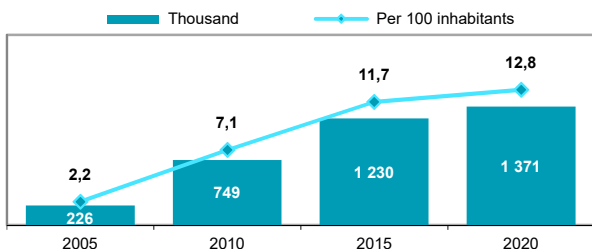
## A ICT infrastructure

**Table A9 Domains under Top Level Domain .CZ in Czechia**

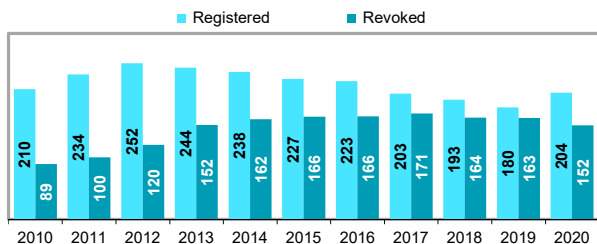
	Thousand		
	2018	2019	2020
<b>Total</b>	<b>1 323</b>	<b>1 329</b>	<b>1 371</b>
<b>Domain type*</b>			
domains protected by DNSSEC	723	787	829
domains using IPv6 or IPv6+IPv4 protocol	412	422	447
<b>Registrant's country</b>			
Czechia	1 227	1 234	1 273
Slovakia	22,7	23,5	24,4
Germany	15,8	16,0	14,9
United States of America	8,9	9,4	10,1
other countries	48,1	46,4	49,0

\* Further information can be found at: [www.dnssec.cz](http://www.dnssec.cz) or [www.nic.cz/ipv6](http://www.nic.cz/ipv6).

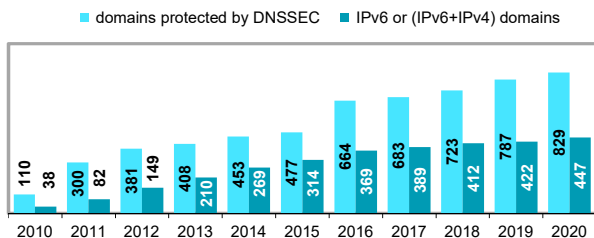
**Figure A34 Domains under Top Level Domain .CZ**



**Figure A35 Registered and revoked .CZ domains (thousand)**



**Figure A36 Domains .CZ protected by DNSSEC and using IPv6 protocol (thousand)**



Source: CZSO calculations based on CZ.NIC data

## B Households and ICT

The Czech Statistical Office (CZSO) has been monitoring data on penetration of selected information and communication technologies in Czech households by means of a separate annual statistical survey named **Sample Survey on the ICT Use in Households and by Individuals**. The first (pilot) survey was carried out in 2002.

The survey applies the method of personal interviews with the use of personal computer in a sample of around 10 000 individuals aged 16+ years in approx. 6 000 households. The survey has been carried out in accord with the **Regulation (EC) No 2019/1700** of the European Parliament and of the Council. This allows obtaining of internationally comparable data within the EU Member States.

### Notes

The **Reference Period** is the 2<sup>nd</sup> quarter of the monitored year for the Czech Republic.

**Income quartiles:** Households were divided into four groups (quartiles) by household net income.

### Comparability of the CZSO and Eurostat Data:

Data published by Eurostat for Czech households slightly differ from data published by the CZSO. This difference is due to the fact that Eurostat includes solely households with at least one person aged 16–74 years. The CZSO publishes data for all households.

**International data and comparisons** of certain indicators are taken from the Eurostat database for digital economy and society, data of which are every year updated in January. Detail information can be found at: <https://ec.europa.eu/eurostat/web/digital-economy-and-society/overview>

### Definitions (sorted alphabetically)

- **Households of persons older than 65+ years** shall mean households in which merely persons aged 65+ years live.
- **Households of persons up to 40 years (no children)** shall mean households in which merely persons aged up to 40 years, who have no child, live.
- **Households with a computer** involve households, which at the time of the survey stated, that at least one of the household members used a computer at home (desktop, laptop, or tablet). *Type of its ownership is not relevant. It could be own one, company one, or borrowed one.*
- **Households with children up to 15 years** shall mean households with at least one child younger than 16 years of age.
- **Households with the internet** shall mean households, which at the time of survey stated, that at least one of the household members used the internet at home, no matter what type is the device used or the way of connection. The internet could be used on a computer, a tablet, a mobile phone, a smart TV, a game console, etc.
- **Smart household appliances** include e.g. smart coffee makers, refrigerators, ovens, vacuum cleaners, washing machines, dryers, but also smart garden equipment such as smart lawn mowers.
- **Smart devices for energy management** include e.g. smart thermostats, consumption meters, lights, electrical outlets, garden irrigation systems, windows or window blinds.
- **Smart home security devices** include, for example, smart home alarms, smoke detectors, security cameras, locks.
- **The Internet of Things (IoT)** refers to devices that are wirelessly connected to other devices and are able to communicate with each other. Users of the IoT devices control them most often via mobile applications or via web interface.

Detailed information on methodology and data from the survey, including international comparison, can be found at [https://www.czso.cz/csu/czso/domacnosti\\_a\\_jednotlivci](https://www.czso.cz/csu/czso/domacnosti_a_jednotlivci) (in Czech language only).

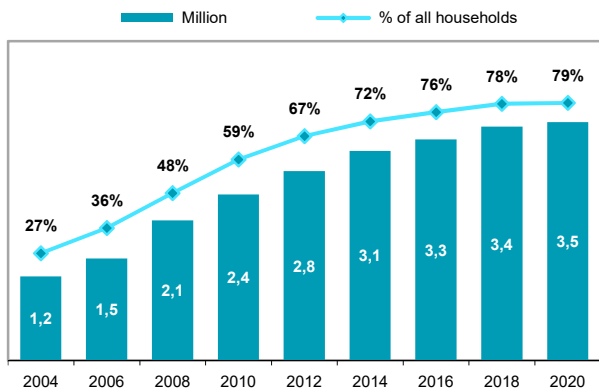
## B Households and ICT

**Table B1 Households in Czechia with a computer**

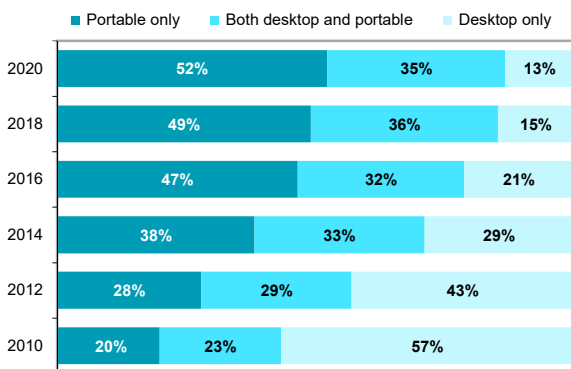
	Percentage		
	2010	2015	2020
<b>Households (HHs), total</b>	<b>59,2</b>	<b>73,1</b>	<b>78,7</b>
HHs with children up to 15 years	84,6	93,8	95,8
HHs of persons up to 40 years (no children)	.	93,0	94,2
HHs of persons older than 65 years	.	24,9	39,9
Other households without children	.	76,8	85,7
<b>Household income group</b>			
The lowest income group (first quartile)	21,2	34,3	44,0
Second quartile income group	46,8	57,2	77,2
Third quartile income group	74,8	85,7	94,1
The highest income group (fourth quartile)	91,8	96,7	99,3

as a percentage of all households of a given type in a given year

**Figure B1 Households with a computer**



**Figure B2 Households having a computer by type of computer used by their members at home**



as a percentage of households with a computer in a given year

Source: Czech Statistical Office, ICT use survey in households

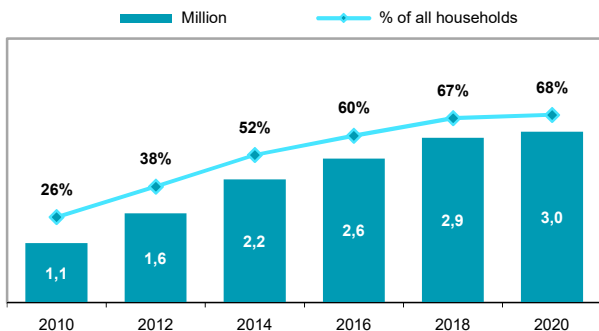
## B Households and ICT

**Table B2 Type of computer used at home by members of households in Czechia; 2020**

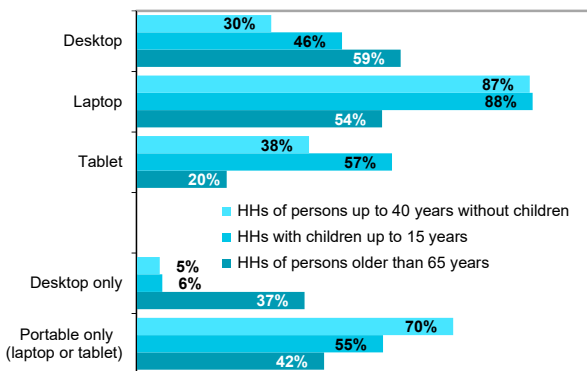
	Percentage		
	Desktop	Laptop	Tablet
<b>Households (HHs), total</b>	<b>37,5</b>	<b>63,3</b>	<b>32,0</b>
HHs with children up to 15 years	43,5	84,0	54,3
HHs of persons up to 40 years (no children)	28,2	82,0	36,0
HHs of persons older than 65 years	23,3	21,7	8,0
Other households without children	43,7	69,0	30,2
<b>Household income group</b>			
The lowest income group (first quartile)	17,0	27,8	10,1
Second quartile income group	32,1	55,5	24,6
Third quartile income group	46,5	80,0	39,9
The highest income group (fourth quartile)	54,6	89,9	53,4

as a percentage of all households of a given type

**Figure B3 Households with a laptop or a tablet**



**Figure B4 Selected households having a computer by type of computer used by their members at home; 2020**



as a percentage of all households of a given type with a computer

Source: Czech Statistical Office, ICT use survey in households

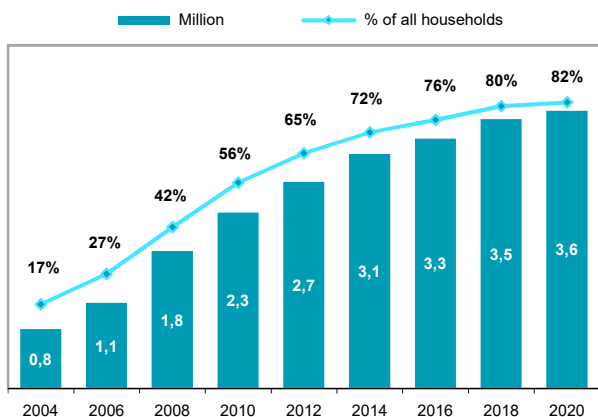
## B Households and ICT

**Table B3 Households in Czechia with internet access**

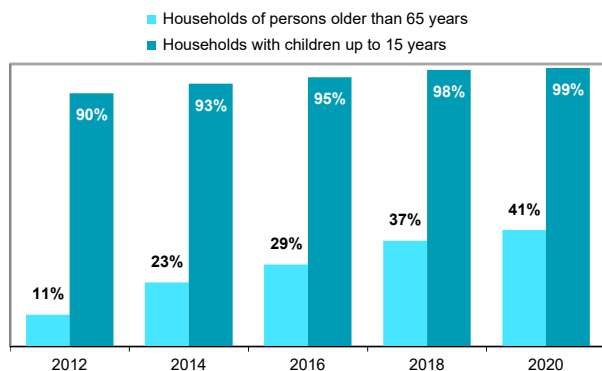
	Percentage		
	2010	2015	2020
<b>Households (HHs), total</b>	<b>56,0</b>	<b>73,1</b>	<b>81,7</b>
HHs with children up to 15 years	79,8	93,6	98,5
HHs of persons up to 40 years (no children)	.	94,7	97,8
HHs of persons older than 65 years	.	24,2	41,3
Other households without children	.	77,0	89,7
<b>Household income group</b>			
The lowest income group (first quartile)	18,8	33,8	50,3
Second quartile income group	42,0	57,2	80,5
Third quartile income group	71,7	85,8	96,6
The highest income group (fourth quartile)	89,1	96,8	99,2

as a percentage of all households of a given type in a given year

**Figure B5 Households with internet access**



**Figure B6 Selected households with internet access**

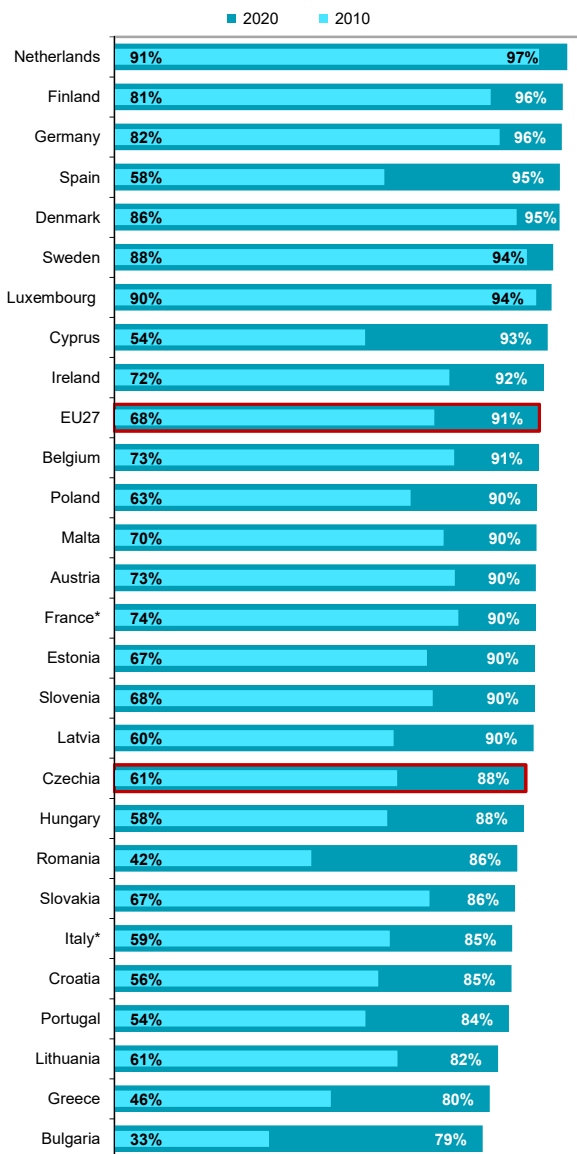


as a percentage of all households of a given type in a given year

Source: Czech Statistical Office, ICT use survey in households

## B Households and ICT

**Figure B7 Households in EU countries with internet access**



as a percentage of all households in a given country where at least one member is younger than 75 years

\* data for 2019

Source: Eurostat

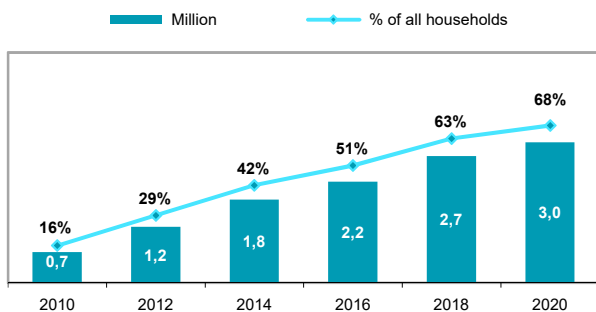
## B Households and ICT

**Table B4 Households in Czechia using a WiFi router\***

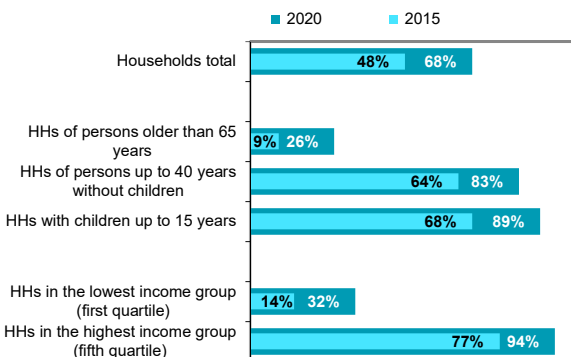
	Percentage		
	2010	2015	2020
<b>Households (HHs), total</b>	<b>16,2</b>	<b>47,7</b>	<b>68,3</b>
HHs with children up to 15 years	22,9	68,4	89,2
HHs of persons up to 40 years (no children)	.	64,1	82,8
HHs of persons older than 65 years	.	8,8	25,9
Other households without children	.	48,2	75,2
<b>Household income group</b>			
The lowest income group (first quartile)	3,7	13,5	32,3
Second quartile income group	9,4	28,7	63,0
Third quartile income group	18,8	53,4	84,1
The highest income group (fourth quartile)	32,0	76,8	93,8

as a percentage of all households of a given type in a given year

**Figure B8 Households using a WiFi router\***



**Figure B9 Households using a WiFi router\* by type of household**



as a percentage of all households of a given type in a given year

\* A WiFi router is a device that enables to distribute the internet signal inside the household's premises, i.e. it enables wireless connection of more devices at the same time and from different places within the reach of household's WiFi network.

Source: Czech Statistical Office, ICT use survey in households



## B Households and ICT

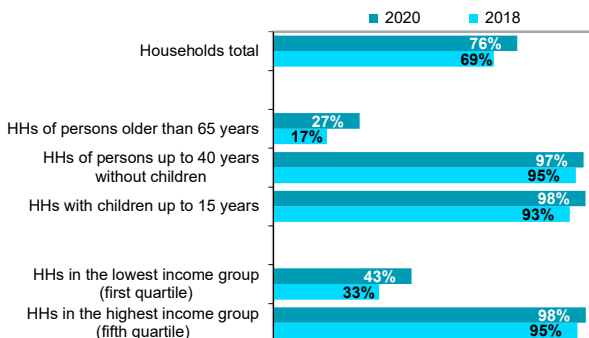
**Table B5 Households in Czechia with a mobile telephone; 2020**

Percentage

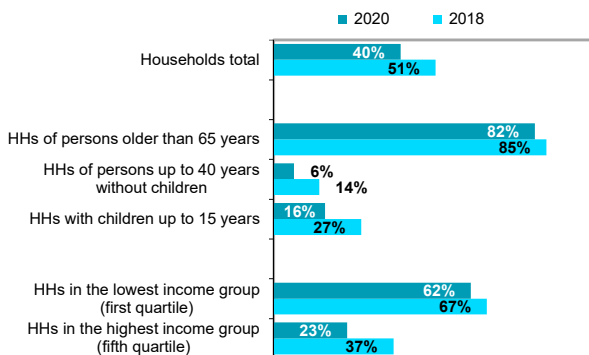
	Total	Smart-phone	Mobile phone without operating system
<b>Households (HHs), total</b>	<b>99,5</b>	<b>76,4</b>	<b>39,7</b>
HHs with children up to 15 years	99,9	97,8	16,1
HHs of persons up to 40 years (no children)	100,0	97,2	6,4
HHs of persons older than 65 years	98,2	27,1	81,6
Other households without children	99,8	85,3	38,9
<b>Household income group</b>			
The lowest income group (first quartile)	98,1	43,3	61,6
Second quartile income group	99,8	70,7	46,5
Third quartile income group	100,0	93,4	27,5
The highest income group (fourth quartile)	100,0	97,9	23,0

as a percentage of all households of a given type in a given year

**Figure B10 Households with a smartphone**



**Figure B11 Households with a mobile phone without operating system**



as a percentage of all households of a given type in a given year

Source: Czech Statistical Office, ICT use survey in households

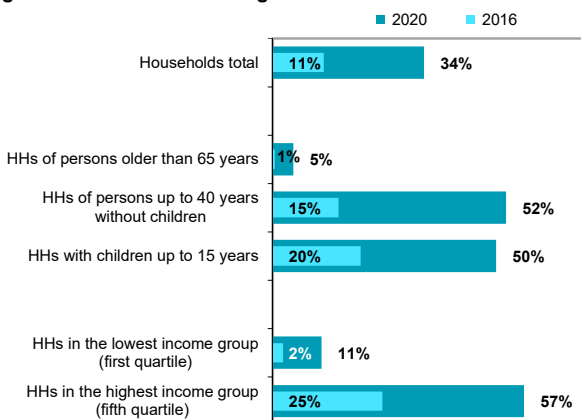
## B Households and ICT

**Table B6 Households in Czechia using a Smart TV**

	Percentage	
	2016	2020
<b>Households (HHs), total</b>	<b>11,5</b>	<b>34,0</b>
HHs with children up to 15 years	19,8	50,2
HHs of persons up to 40 years (no children)	14,8	52,5
HHs of persons older than 65 years	0,5	4,7
Other households without children	10,4	35,9
<b>Household income group</b>		
The lowest income group (first quartile)	2,4	11,0
Second quartile income group	6,8	24,3
Third quartile income group	14,5	44,3
The highest income group (fourth quartile)	24,7	56,5

as a percentage of all households of a given type

**Figure B12 Households using a Smart TV**



as a percentage of all households of a given type in a given year

**Table B7 Households in Czechia using selected devices of Internet of Things; 2020**

	%		
	Security devices	Energy management devices	Household appliances
<b>Households (HHs), total</b>	<b>5,1</b>	<b>3,4</b>	<b>2,6</b>
HHs with children up to 15 years	7,6	5,0	4,6
HHs of persons up to 40 years (no children)	6,8	5,9	4,3
HHs of persons older than 65 years	0,8	0,7	0,3
Other households without children	5,6	3,3	2,1
<b>Household income group</b>			
The lowest income group (first quartile)	1,2	0,3	0,3
Second quartile income group	2,0	0,9	1,0
Third quartile income group	6,5	4,8	2,2
The highest income group (fourth quartile)	10,8	7,7	6,7

as a percentage of all households of a given type

Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

The Czech Statistical Office (CZSO) has been collecting detailed information on individuals using selected information and communication technologies (ICT) by means of a separate annual statistical survey named **Sample Survey on the ICT Use in Households and by Individuals**. The first pilot survey was carried out in 2002.

The survey has been carried out in accord with the **Regulation (EC) No 2019/1700** of the European Parliament and of the Council. This allows obtaining of internationally comparable data within the EU Member States.

The survey applies the method of **personal interviews** with the use of personal computer (Computer Assisted Personal Interviewing – CAPI) in a sample of around 10 000 individuals aged 16+ years living in **private households** on the territory of the Czech Republic. This means the survey does not cover individuals living in collective households (penitentiaries, social care establishments, retirement homes, etc.).

The survey results are grossed up to the whole population aged 16+ years. The data found are available broken by a wide spectrum of demographic and social characteristics as, for instance, sex, age, educational attainment, economic activity, income group, region, and residential municipality size.

### Notes

The **reference period** is last 3 months prior to the survey interviews.

**Educational attainment** is published for the aged 25–64 years in graphs and tables. The population of the aged 16–24 years include numerous persons with still unfinished education process in the time of the survey. Therefore their educational attainment is rather determined by their age than educational aspirations. Similarly, the highest educational attainment of persons over 65 is mainly influenced by the time when persons received this education. Among people over 65, there is a significantly higher share of people with basic education than among younger people.

For the purposes of this publication, the highest educational attainment is divided into basic education, secondary education without A–level exam, secondary education with A–level exam together with higher vocational education, and tertiary (i.e. university) education.

### Comparability of data published by the CZSO and Eurostat

Data published by Eurostat for the Czech Republic individuals slightly differ from data published by the CZSO. This difference is due to the fact that Eurostat includes solely individuals aged 16 to 74 years. On the other hand, the CZSO provides data for the whole population aged 16+ years.

**International data and comparisons** of certain indicators are taken from the Eurostat database for digital economy and society, data of which are every year updated in January. Detailed information can be found at: <https://ec.europa.eu/eurostat/web/digital-economy-and-society/overview>.

### Definitions (sorted alphabetically)

- A **purchase over the internet** shall mean ordering of any goods or services on a website or by means of an application for private purposes. Goods or services ordered this way may not be paid over the internet, they could be paid in cash on delivery, or while delivered in person.
- A **social network** shall mean a service enabling to unite, communicate, and share information with other users thereof. Logging in and the use of own profile to browse through contributions of other users, communication with the users, and sharing of own contributions, etc., are considered the participation in social networks.
- An **individual using the internet on the mobile phone** is a person who gave that he/she had used a mobile phone to access internet services at least once in the last three months prior the survey interviews. It does not matter if the phone was private or employer's

one and also it does not matter what type of connection was used to access the internet (mobile networks, WiFi, etc.).

- **Cookies** - cookies can be used to find out which pages the user has visited. It is also possible to monitor what goods or services the user searched for on the internet. When accessing websites that contain advertisements, the advertisements are then targeted to products that the user has previously searched for.
- **Foreign sellers** include sellers from other EU and non-EU countries.
- **Seeking information on travel and accommodation** includes searching for information in this field both in the form of browsing via an internet browser, and direct visits to selected web pages. Examples of information on travel may include information on available flights, bus or railway connections, accommodation, car renting, or travel insurance.
- The broadband **wireless internet connection (WiFi)** shall mean the internet connection through a local wireless network, secured or not. Typical examples include household wireless networks, local wireless networks of cafes, hospitals, airports, transport means, schools, etc. The WiFi connection is usually for free, it may be paid in certain cases as at the airports, for instance, or with limited access time.
- The **internet connection by means of mobile data**, that is a paid data tariff of a mobile network operator, shall mean a connection of a mobile phone to the internet through a mobile telephone network. The user utilises a paid internet connection from a provider/operator of the mobile phone services. The user can be connected to the internet on location where there is the signal of the contracted mobile telephone network.
- The **internet banking** is operated by means of an internet portal enabling remote control and administration of bank accounts through the internet. The portal shall enable, for instance, checking the account remainder, setting up of a payment or permanent payments, setting up limits of cash withdrawing from ATMs, etc. The internet banking can also be accessible through a mobile phone by means of an application of so-called mobile banking.
- **Using the internet** means performing any activity on the internet, such as browsing websites or downloading files.
- **Watching videos on the internet (total)** includes watching movies and programs on the websites of regular TV stations, on video-sharing sites (e.g. YouTube) and on internet TV sites (both paid and free).

Detailed information on methodology of the survey can be found in the CZSO publication **ICT Use in Households and by Individuals in 2020, code 062004-20**, accessible for free on the CZSO website at <https://www.czso.cz/csu/czso/vyuzivani-informacnich-a-komunikacnich-technologie-v-domacnostech-a-mezi-jednotlivci-2020>

(in the Czech language only).

**Further information on the theme can be found at** [https://www.czso.cz/csu/czso/domacnosti\\_a\\_jednotlivci](https://www.czso.cz/csu/czso/domacnosti_a_jednotlivci) (in the Czech language only)

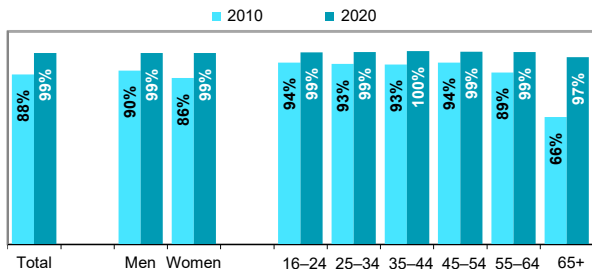
## C Persons and ICT

**Table C1 Persons in Czechia using a mobile phone; 2020**

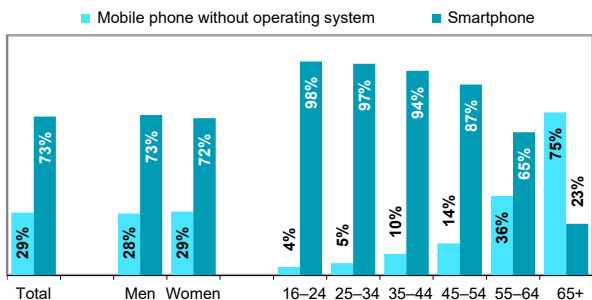
	Percentage		
	Total	Smart-phone	Mobile phone without operating system
<b>Total (aged 16+)</b>	<b>98,8</b>	<b>72,6</b>	<b>28,6</b>
Men	98,7	73,3	28,0
Women	98,9	71,9	29,0
<b>Age group (years)</b>			
16–24	99,0	97,9	3,6
25–34	99,3	96,9	5,4
35–44	99,8	93,5	9,5
45–54	99,5	87,3	14,5
55–64	99,3	65,4	36,2
65+	96,7	23,4	74,6
<b>Education attainment (aged 25–64)</b>			
Primary	95,0	62,0	34,8
Secondary without A-level examination	99,6	80,0	22,0
Secondary with A-level examination	99,8	91,5	11,4
Tertiary	99,9	94,1	8,8

as a percentage of all persons in a given socio-demographic group

**Figure C1 Mobile phone users by gender and age**



**Figure C2 Mobile phones used by persons; 2020**



as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

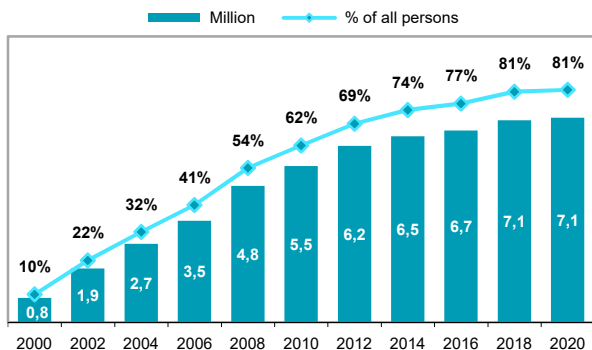
## C Persons and ICT

**Table C2 Persons in Czechia using the internet**

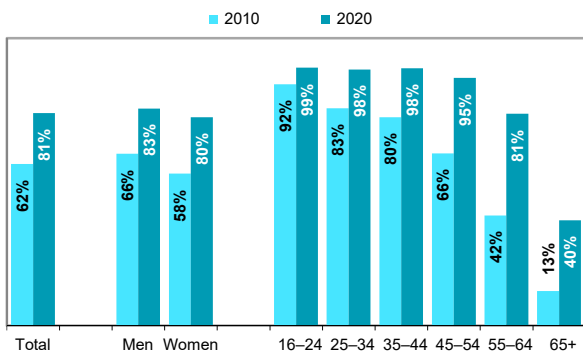
	Percentage		
	2010	2015	2020
<b>Total (aged 16+)</b>	<b>61,8</b>	<b>75,7</b>	<b>81,3</b>
Men	65,8	77,9	83,1
Women	58,1	73,5	79,7
<b>Age group (years)</b>			
16–24	92,3	97,0	98,6
25–34	83,1	95,4	97,9
35–44	79,7	93,9	98,4
45–54	65,8	86,7	94,7
55–64	42,1	68,0	81,0
65+	13,2	28,4	40,3
<b>Education attainment (aged 25–64)</b>			
Primary	25,0	49,2	69,2
Secondary without A-level examination	54,2	78,1	88,9
Secondary with A-level examination	83,6	95,0	97,8
Tertiary	95,8	99,4	99,3

as a percentage of all persons in a given socio-demographic group

**Figure C3 Persons aged 16+ using the internet**



**Figure C4 Internet users by gender and age**

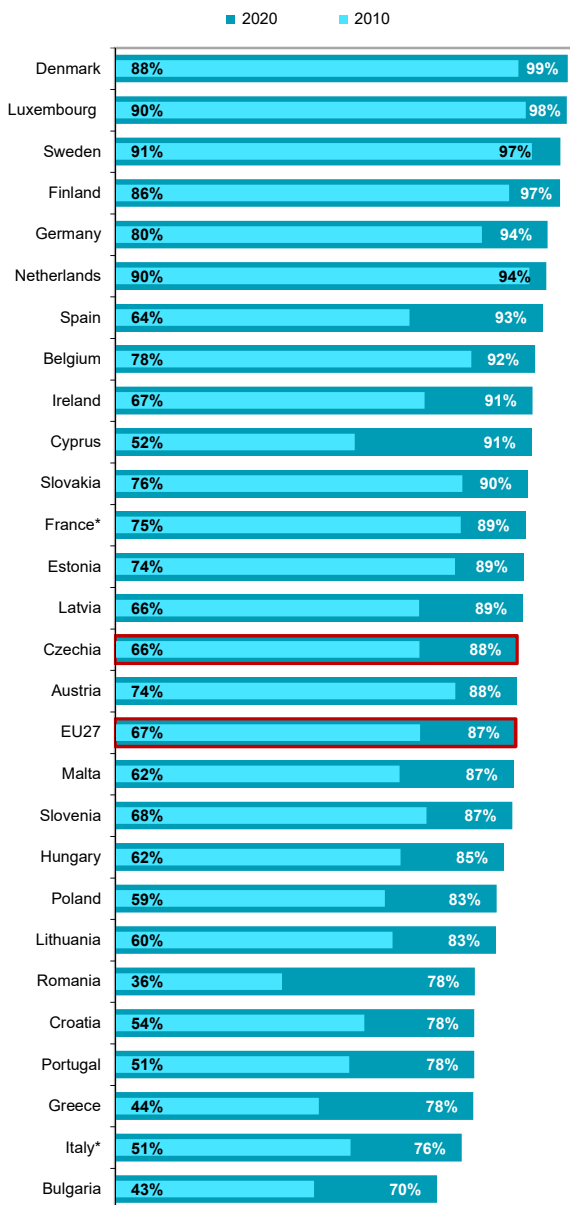


as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C5 Persons aged 16–74 years in EU countries using the internet**



\* data for 2019

Source: Eurostat

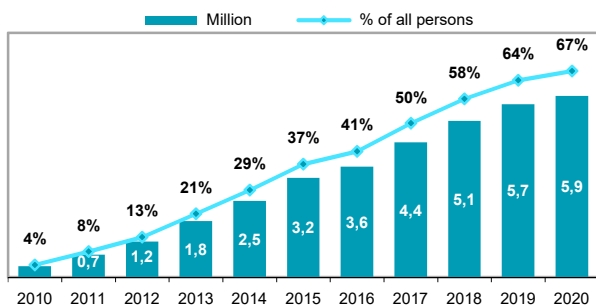
## C Persons and ICT

**Tab. C3 Persons in Czechia using a mobile phone to access the internet**

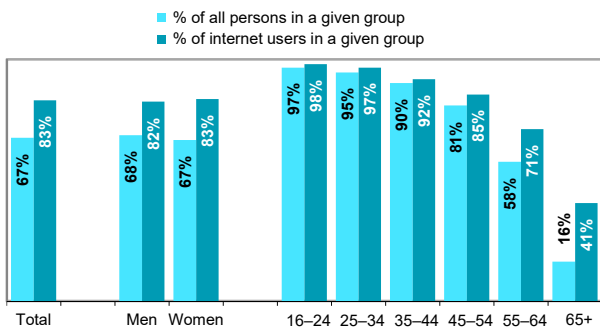
	Percentage		
	2010	2015	2020
<b>Total (aged 16+)</b>	<b>4,0</b>	<b>37,0</b>	<b>67,5</b>
Men	5,4	41,7	68,5
Women	2,7	32,5	66,6
<b>Age group (years)</b>			
16–24	9,7	77,1	96,5
25–34	6,2	68,0	94,5
35–44	5,2	48,6	90,2
45–54	2,7	28,1	80,9
55–64	0,9	14,2	57,5
65+	0,4	3,1	16,3
<b>Education attainment (aged 25–64)</b>			
Primary	.	15,5	52,1
Secondary without A-level examination	1,5	27,9	72,7
Secondary with A-level examination	5,4	43,4	87,1
Tertiary	8,9	68,3	93,1

as a percentage of all persons in a given socio-demographic group

**Figure C6 Persons aged 16+ using a mobile phone to access the internet**



**Figure C7 Use of a mobile phone to access the internet by gender and age; 2020**

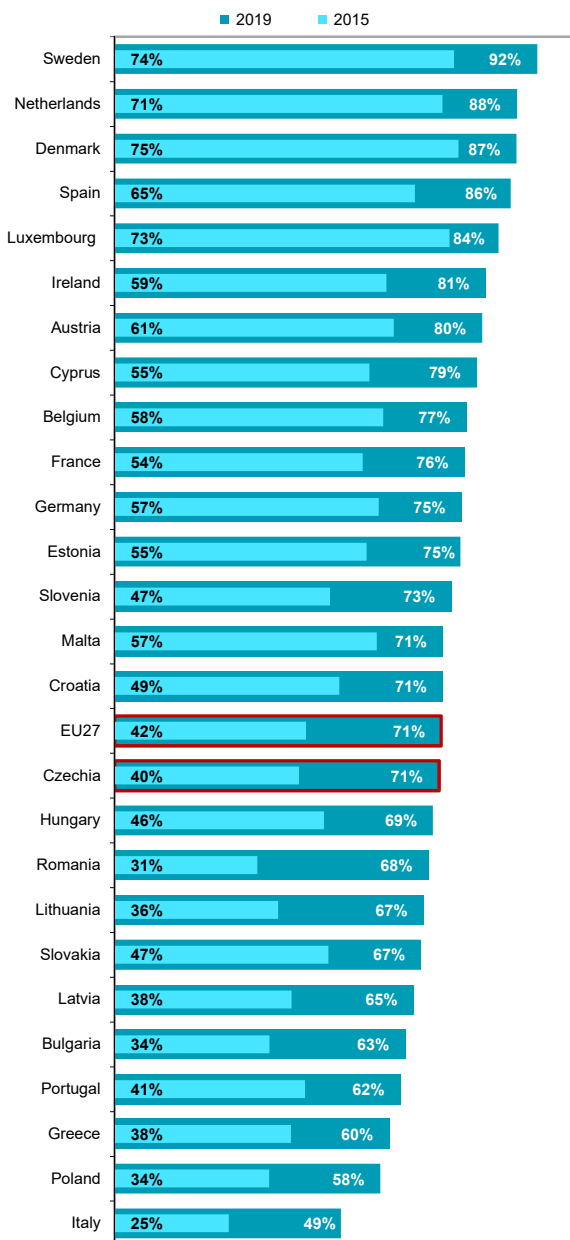


Source: Czech Statistical Office, ICT use survey in households



## C Persons and ICT

Figure C8 Persons aged 16–74 years in EU countries using a mobile phone to access the internet



Source: Eurostat

## C Persons and ICT

**Table C4 Type of network used by persons in Czechia to access the internet on a mobile phone; 2020**

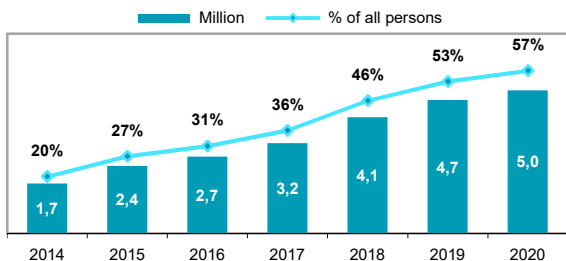
	Percentage		
	Mobile (e.g. LTE)*	Wireless (WiFi)**	WiFi only
<b>Total (aged 16+)</b>	<b>57,0</b>	<b>64,9</b>	<b>10,5</b>
Men	58,8	65,9	9,7
Women	55,2	64,0	11,3
<b>Age group (years)</b>			
16–24	83,7	93,8	12,8
25–34	85,4	92,0	9,2
35–44	77,7	87,1	12,5
45–54	67,4	77,8	13,5
55–64	44,4	54,2	13,1
65+	11,2	15,0	5,1
<b>Education attainment (aged 25–64)</b>			
Primary	43,8	41,6	8,3
Secondary without A-level examination	58,5	69,4	14,2
Secondary with A-level examination	75,6	84,1	11,5
Tertiary	82,2	92,5	10,9

\* Mobile network stands here for the use of both prepaid and postpaid mostly tariff data and voice subscription from the mobile phone operators.

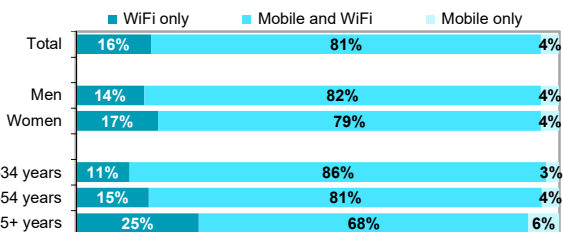
\*\* WiFi network stands here for the use of a local wireless network. It includes household wireless network by using a router, public or commercial WiFi hotspots of cafés, hospitals, airports, transport means, schools, etc.

as a percentage of all persons in a given socio-demographic group

**Figure C9 Persons aged 16+ using a mobile network (e.g. LTE) to access the internet on a mobile phone**



**Figure C10 Internet use on a mobile phone by gender, age and by type of network; 2020**

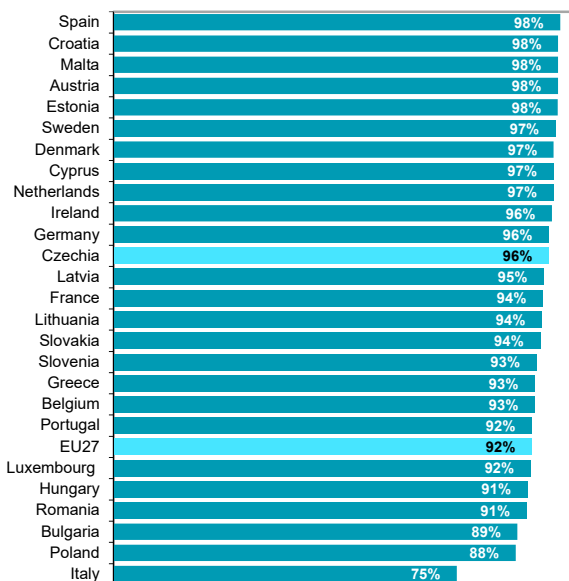


as a percentage of persons who use the internet on mobile phones

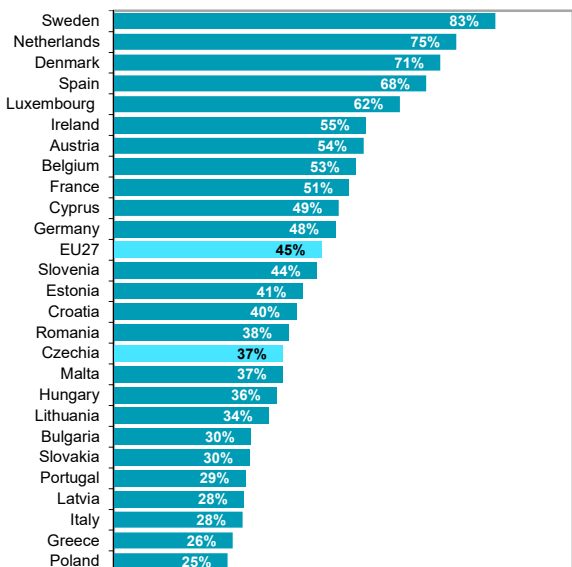
Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C11 Persons aged 16–29 years in EU countries using a mobile phone to access the internet; 2019**



**Figure C12 Persons aged 55–74 years in EU countries using a mobile phone to access the internet; 2019**



Source: Eurostat

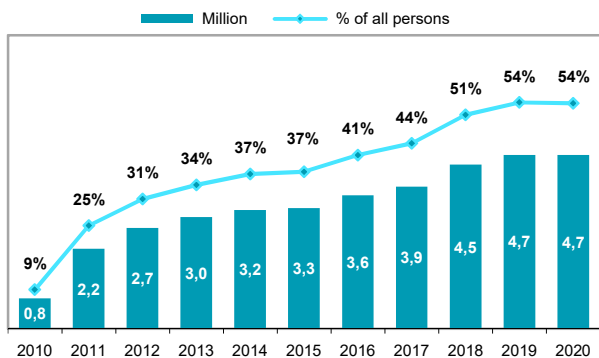
## C Persons and ICT

**Table C5 Persons in Czechia using social networks**

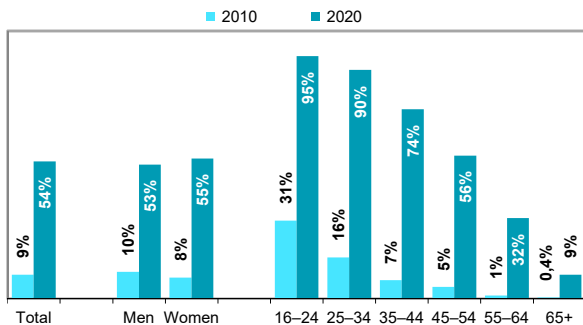
	Percentage		
	2010	2015	2020
<b>Total (aged 16+)</b>	<b>9,4</b>	<b>37,4</b>	<b>53,8</b>
Men	10,5	37,6	52,6
Women	8,3	37,3	55,0
<b>Age group (years)</b>			
16–24	30,6	88,7	95,1
25–34	16,2	72,3	89,8
35–44	7,2	46,9	74,3
45–54	4,5	23,9	56,1
55–64	1,2	10,1	31,5
65+	0,4	3,3	9,4
<b>Education attainment (aged 25–64)</b>			
Primary	2,6	15,8	41,8
Secondary without A-level examination	4,0	30,2	55,6
Secondary with A-level examination	10,3	43,9	68,3
Tertiary	13,7	55,3	73,5

as a percentage of all persons in a given socio-demographic group

**Figure C13 Persons aged 16+ using social networks**



**Figure C14 Use of social networks by gender and age**

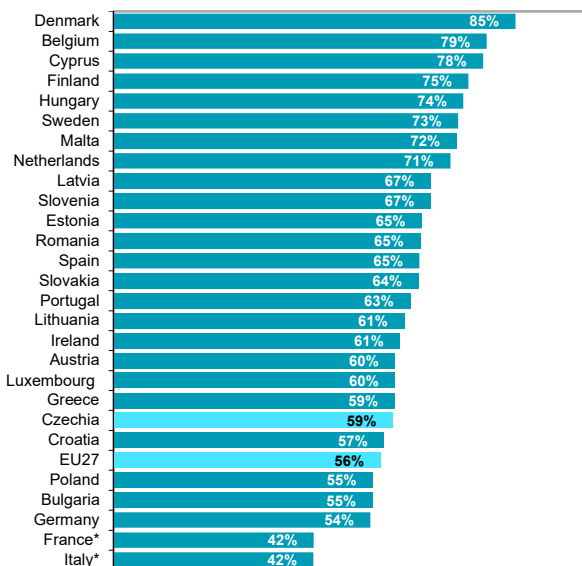


as a percentage of all persons in a given socio-demographic group

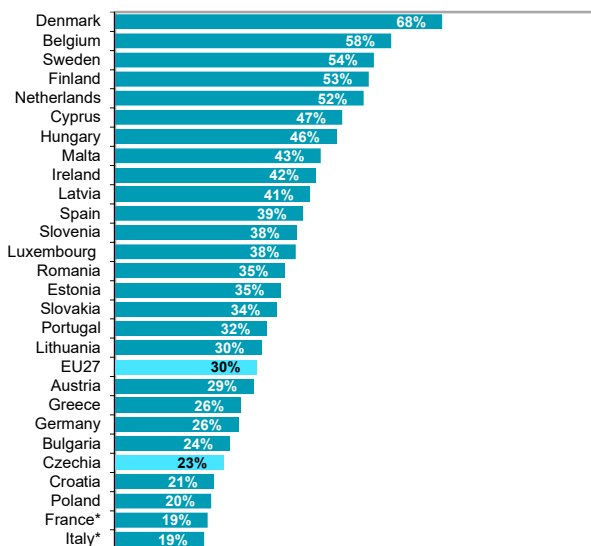
Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C15 Persons aged 16–74 years in EU countries using social networks; 2020**



**Figure C16 Persons aged 55–74 years in EU countries using social networks; 2020**



\* data for 2019

Source: Eurostat

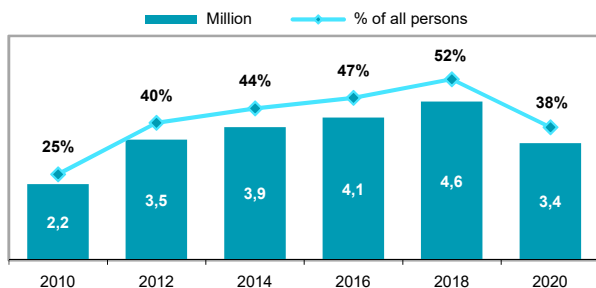
## C Persons and ICT

**Table C6 Persons in Czechia using the internet for selected activities related to travelling; 2020**

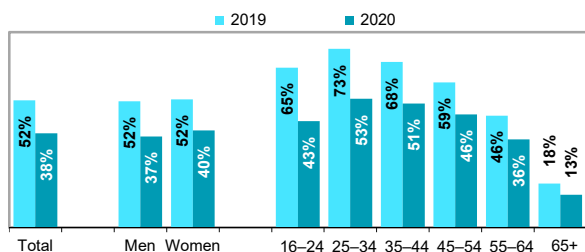
	Percentage		
	Looking for info about travelling	Purchasing accommodation	Purchasing travel tickets
<b>Total (aged 16+)</b>	<b>38,5</b>	<b>9,8</b>	<b>6,7</b>
Men	37,2	10,3	6,5
Women	39,7	9,2	6,9
<b>Age group (years)</b>			
16–24	43,4	10,9	19,2
25–34	52,7	15,9	13,0
35–44	50,7	12,8	6,2
45–54	46,2	13,1	5,3
55–64	36,0	7,3	3,4
65+	13,4	1,9	1,0
<b>Education attainment (aged 25–64)</b>			
Primary	15,1	1,8	0,7
Secondary without A-level examination	37,3	8,0	3,1
Secondary with A-level examination	50,2	13,4	7,5
Tertiary	63,3	19,9	13,5

as a percentage of all persons in a given socio-demographic group

**Figure C17 Persons aged 16+ using the internet for searching information about travelling**



**Figure C18 Internet use for searching information about travelling by gender and age**

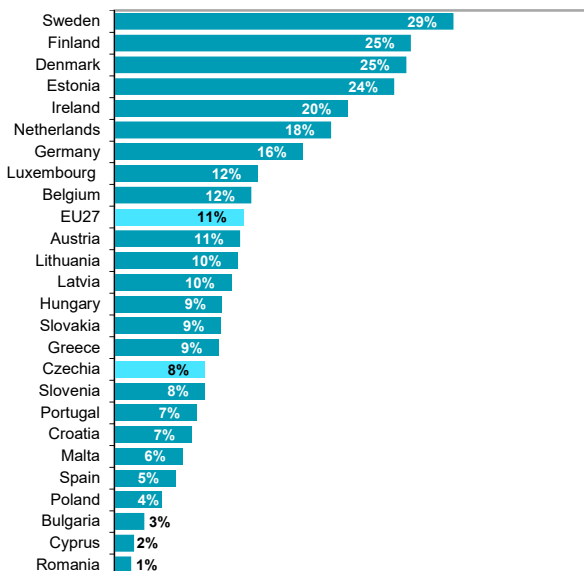


as a percentage of all persons in a given socio-demographic group

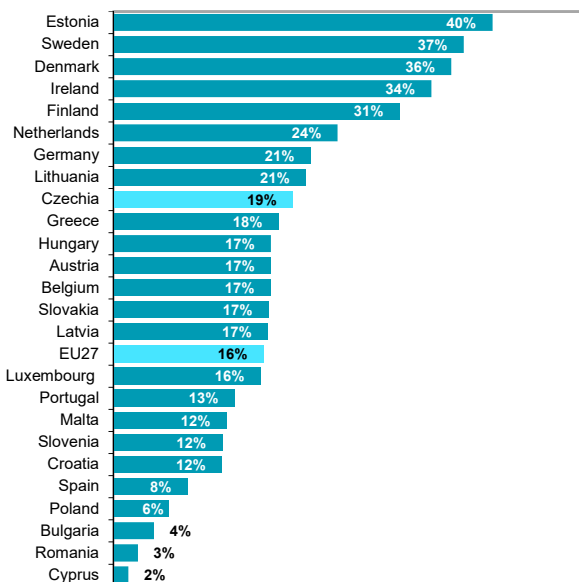
Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C19 Persons aged 16–74 years in EU countries purchasing travel tickets over the internet; 2020**



**Figure C20 Persons aged 16–29 years in EU countries purchasing travel tickets over the internet; 2020**



Source: Eurostat

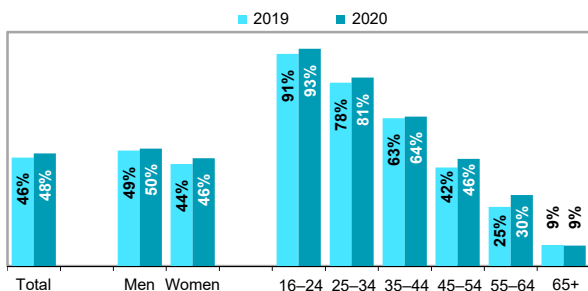
## C Persons and ICT

**Table C7 Persons in Czechia using the internet for selected entertainment activities; 2020**

	Percentage		
	Reading news sites	Listening to music	Playing games
<b>Total (aged 16+)</b>	<b>73,6</b>	<b>48,0</b>	<b>19,6</b>
Men	75,4	50,2	25,9
Women	71,8	46,0	13,6
<b>Age group (years)</b>			
16–24	81,6	92,8	61,8
25–34	90,6	80,5	34,0
35–44	90,3	63,8	25,2
45–54	87,3	45,7	11,3
55–64	74,0	30,3	7,0
65+	35,5	8,8	2,4
<b>Education attainment (aged 25–64)</b>			
Primary	59,7	33,0	17,4
Secondary without A-level examination	80,4	45,9	19,2
Secondary with A-level examination	89,9	60,3	19,8
Tertiary	94,6	67,8	19,9

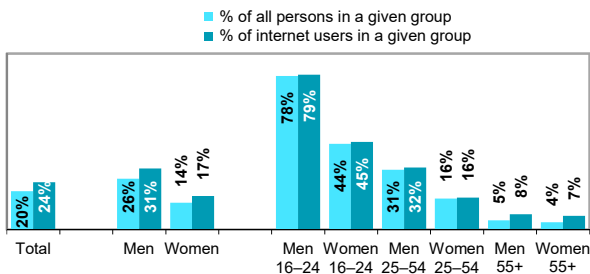
as a percentage of all persons in a given socio-demographic group

**Figure C21 Listening to music on the internet by gender and age**



as a percentage of all persons in a given socio-demographic group

**Figure C22 Playing games on the internet by gender and age; 2020**

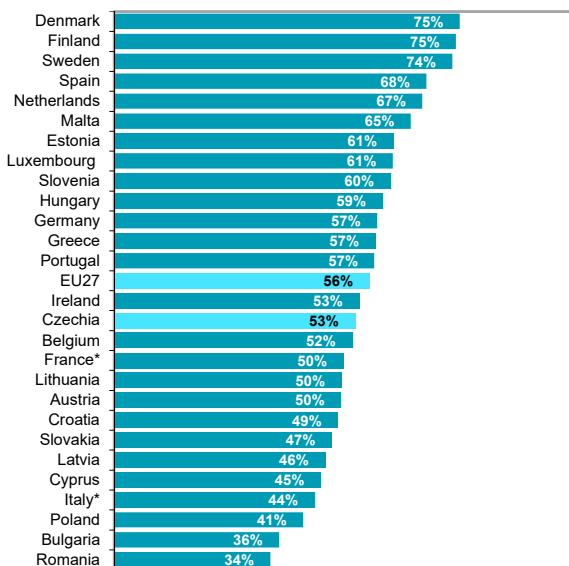


Source: Czech Statistical Office, ICT use survey in households

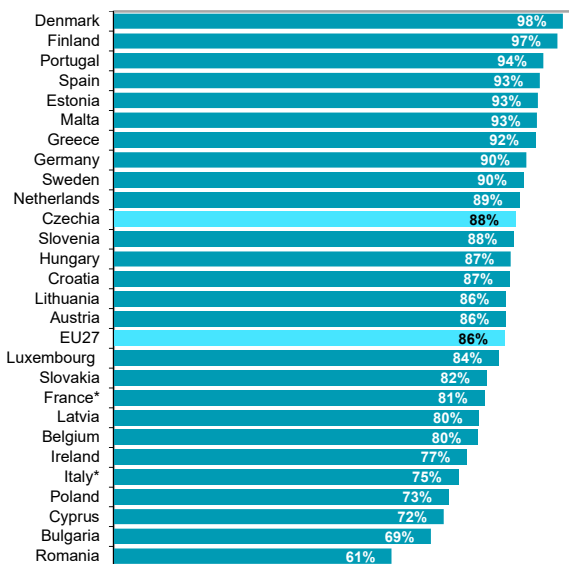


## C Persons and ICT

**Figure C23 Persons aged 16–74 years in EU countries listening to music on the internet; 2020**



**Figure C24 Persons aged 16–29 years in EU countries listening to music on the internet; 2020**



\* data for 2019

Source: Eurostat

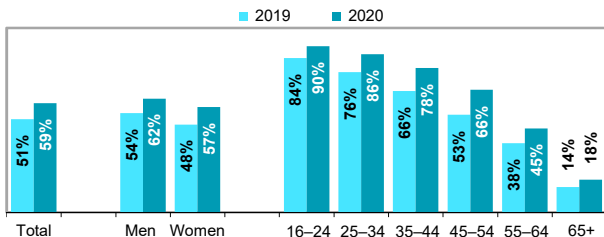
## C Persons and ICT

**Table C8 Persons in Czechia using the internet for watching TV programmes, movies or videos; 2020**

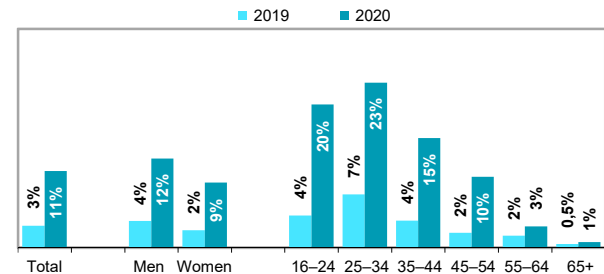
		Percentage	
	Total	Video content via YouTube or similar sharing sites	Video on Demand via Netflix or similar sites
<b>Total (aged 16+)</b>	<b>59,2</b>	<b>52,6</b>	<b>10,5</b>
Men	61,5	54,8	12,2
Women	57,0	50,4	8,9
<b>Age group (years)</b>			
16–24	90,0	88,1	19,6
25–34	85,6	80,8	22,6
35–44	78,2	71,4	15,0
45–54	66,4	56,6	9,7
55–64	45,4	36,3	2,9
65+	17,6	11,8	0,8
<b>Education (aged 25–64)</b>			
Primary	43,0	37,2	6,3
Secondary without A-level exam.	60,1	54,1	6,7
Secondary with A-level exam.	74,2	65,3	13,5
Tertiary	82,9	74,4	22,1

as a percentage of all persons in a given socio-demographic group

**Figure C25 Watching video content from YouTube and similar sharing services/sites by gender and age**



**Figure C26 Watching Video on Demand via Netflix and similar commercial services/sites by gender and age**

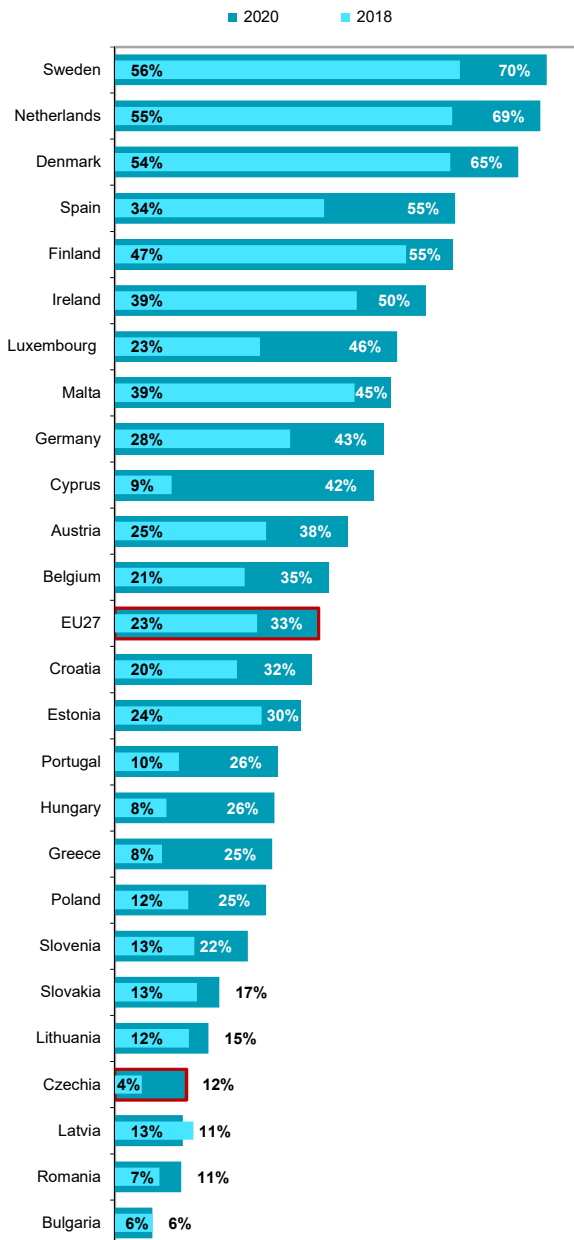


as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C27 Persons aged 16–74 years in EU countries watching Video on Demand from Netflix and similiar sites**



Source: Eurostat

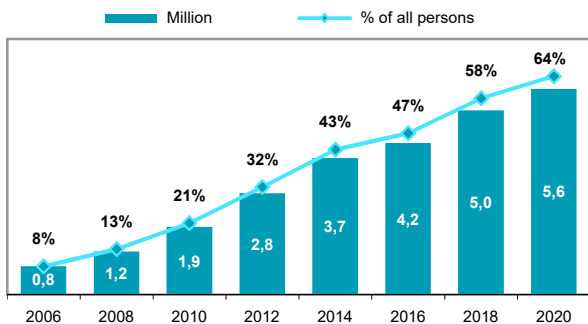
## C Persons and ICT

**Table C9 Persons in Czechia using internet banking**

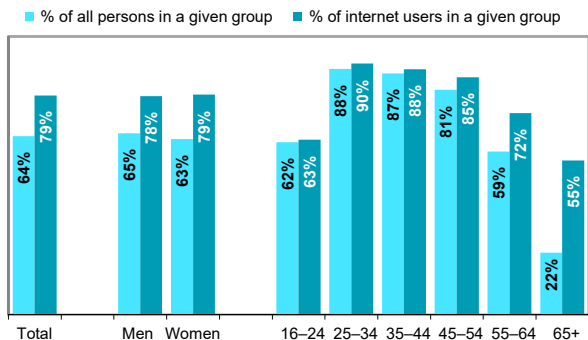
	Percentage		
	2010	2015	2020
<b>Total (aged 16+)</b>	<b>21,1</b>	<b>44,9</b>	<b>64,1</b>
Men	24,4	47,0	65,2
Women	18,1	43,0	63,1
<b>Age group (years)</b>			
16–24	17,7	36,1	62,0
25–34	36,6	68,4	88,3
35–44	32,7	68,5	86,7
45–54	24,4	54,8	80,8
55–64	10,9	33,4	58,6
65+	2,7	10,2	22,3
<b>Education attainment (aged 25–64)</b>			
Primary	4,5	22,0	42,0
Secondary without A-level examination	14,2	51,4	69,3
Secondary with A-level examination	34,7	75,5	86,4
Tertiary	53,4	88,6	92,4

as a percentage of all persons in a given socio-demographic group

**Figure C28 Persons aged 16+ using internet banking**



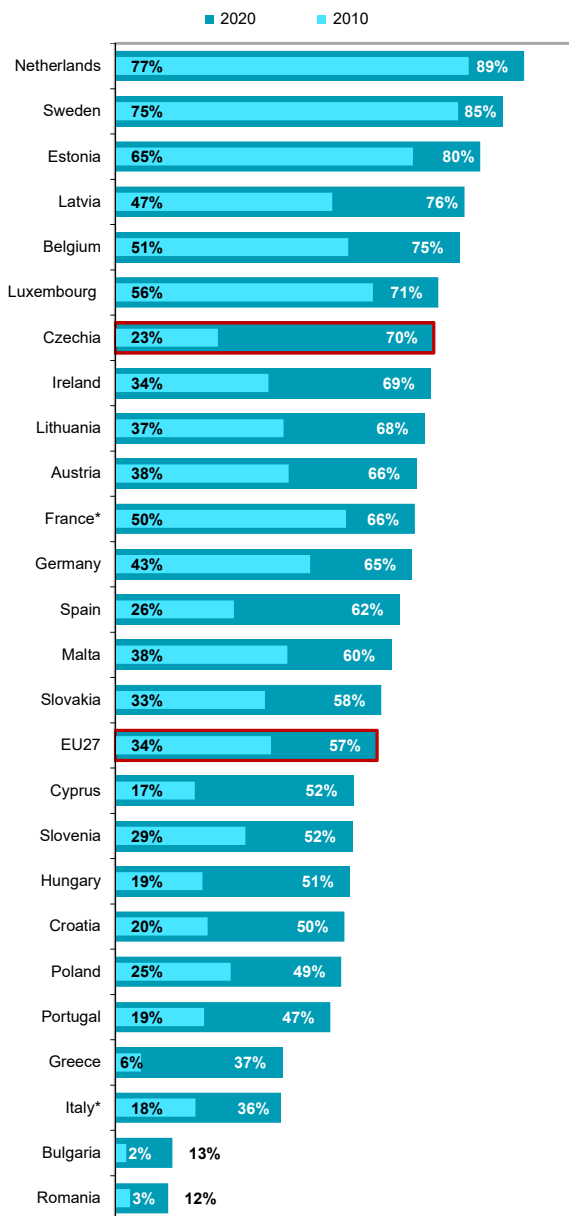
**Figure C29 Internet banking use by gender and age; 2020**



Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C30 Persons aged 16–74 years in EU countries using internet banking**



\* data for 2019

Source: Eurostat

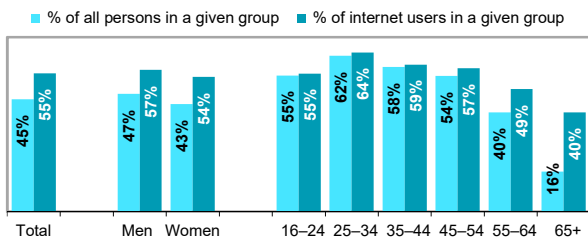
## C Persons and ICT

**Table C10 Persons in Czechia performing selected internet security activities; 2020**

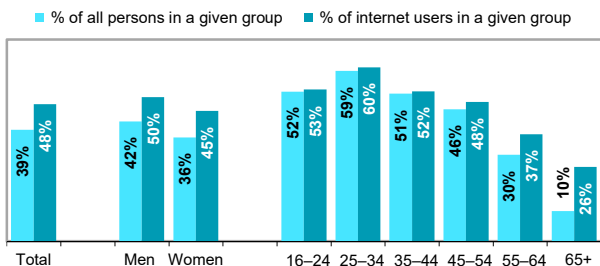
	Percentage		
	Refusing the use of personal data for advertising purposes	Limitation of access to geographical location	Change of cookies settings
<b>Total (aged 16+)</b>	<b>45,1</b>	<b>38,7</b>	<b>21,9</b>
Men	47,2	41,5	26,0
Women	43,1	36,0	18,1
<b>Age group (years)</b>			
16–24	54,6	51,9	32,7
25–34	62,5	59,0	37,1
35–44	58,0	51,1	29,4
45–54	54,4	45,7	23,0
55–64	39,8	30,0	16,0
65+	16,0	10,4	4,5
<b>Education (aged 25–64)</b>			
Primary	33,7	20,7	9,9
Secondary without A-level exam	43,3	33,0	16,3
Secondary with A-level exam.	58,3	51,3	29,2
Tertiary	68,5	67,3	42,1

as a percentage of all persons in a given socio-demographic group

**Figure C31 Persons aged 16+ who refused allowing the use of provided personal data for advertising purposes; 2020**



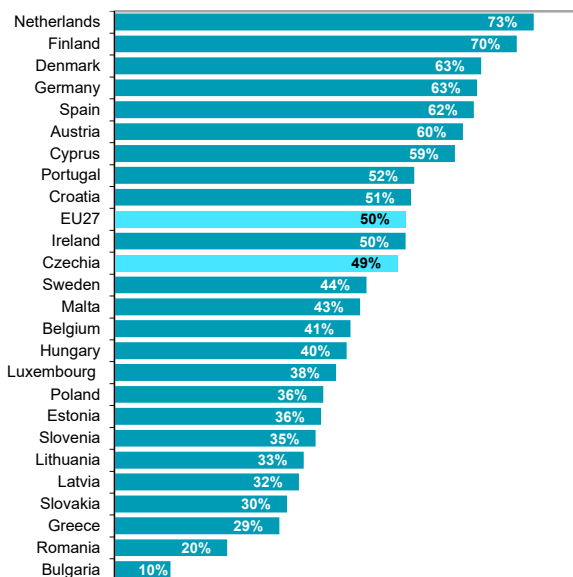
**Figure C32 Persons aged 16+ who limited access to their geographical location; 2020**



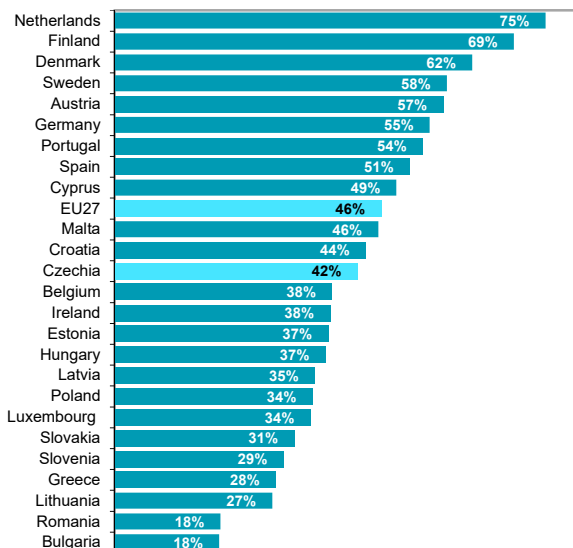
Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C33 Persons aged 16–74 years in EU countries who refused allowing the use of provided personal data over the internet for advertising purposes; 2020**



**Figure C34 Persons aged 16–74 years in EU countries who limited access to their geographical location; 2020**



Source: Eurostat

## C Persons and ICT

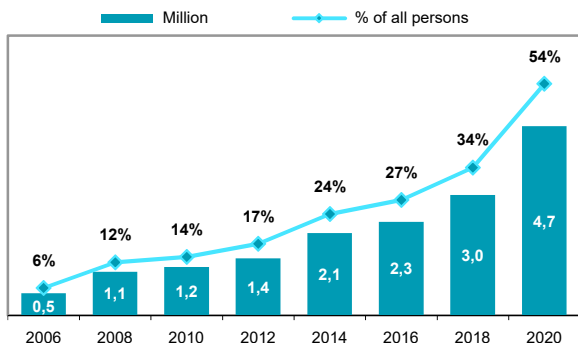
**Table C11 Persons in Czechia purchasing over the internet**

%

	2010	2015	2020
<b>Total (aged 16+)</b>	<b>13,6</b>	<b>24,3</b>	<b>53,8</b>
Men	15,0	23,5	53,1
Women	12,4	25,0	54,4
<b>Age group (years)</b>			
16–24	21,4	36,3	73,1
25–34	24,0	41,9	82,0
35–44	18,2	34,2	71,3
45–54	11,5	22,4	61,3
55–64	5,4	13,9	42,9
65+	1,8	3,8	14,9
<b>Education attainment (aged 25–64)</b>			
Primary	3,2	5,7	35,1
Secondary without A-level examination	8,0	18,1	50,8
Secondary with A-level examination	20,5	34,0	71,7
Tertiary	29,0	46,3	82,7

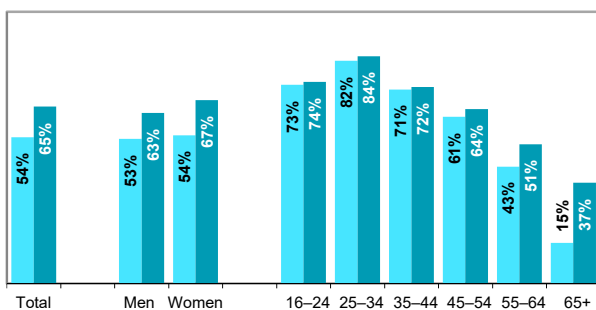
as a percentage of all persons in a given socio-demographic group

**Figure C35 Persons aged 16+ purchasing over the internet**



**Figure C36 Online purchases by gender and age; 2020**

■ % of all persons in a given group ■ % of internet users in a given group

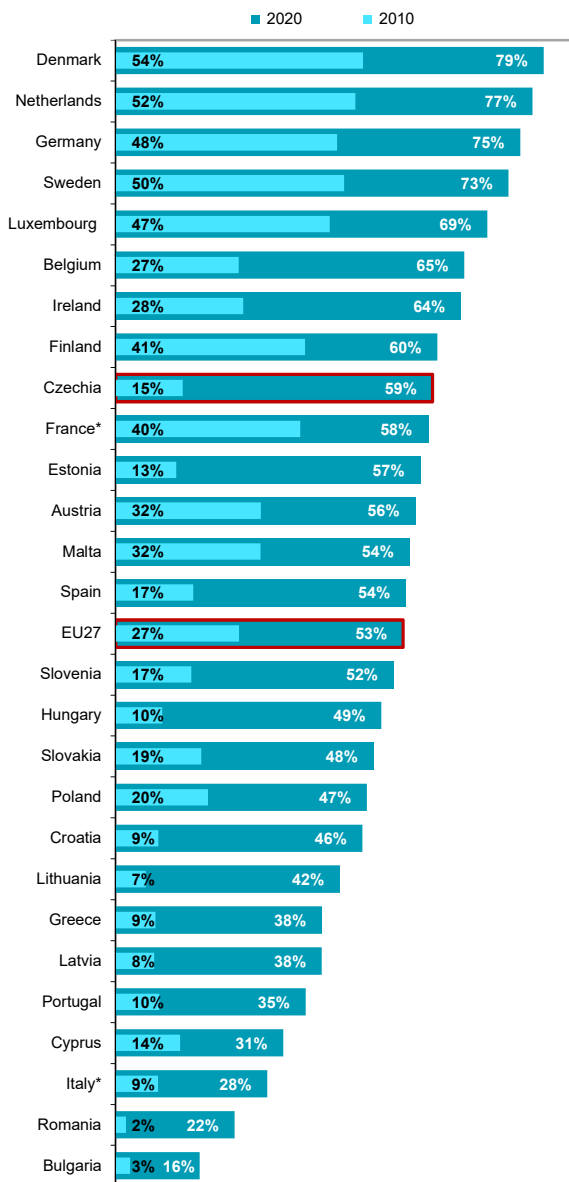


Source: Czech Statistical Office, ICT use survey in households



## C Persons and ICT

**Figure C37 Persons aged 16–74 in EU countries purchasing over the internet**



\* data for 2019

Source: Eurostat

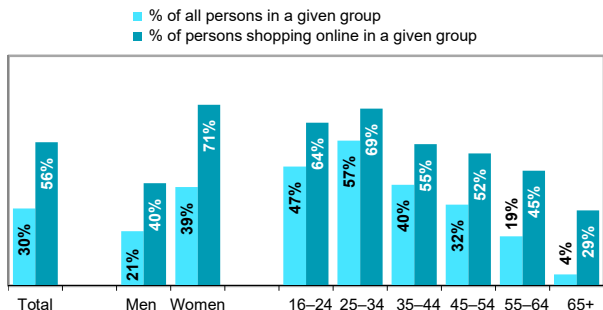
## C Persons and ICT

**Table C12 Persons in Czechia who purchased over the internet selected goods; 2020**

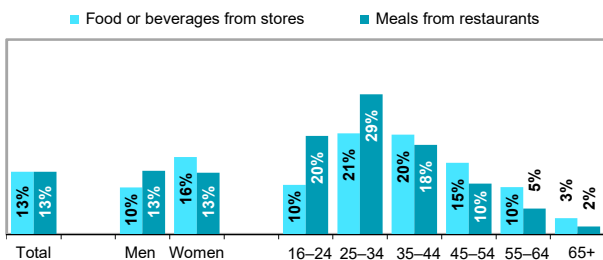
		Clothes, shoes	Food or beverages	Meals from restaurants
%				
<b>Total (aged 16+)</b>		<b>30,2</b>	<b>12,8</b>	<b>12,8</b>
Men		21,3	9,6	13,0
Women		38,6	15,8	12,6
<b>Age group (years)</b>				
16–24		46,6	10,1	20,2
25–34		56,7	20,7	28,7
35–44		39,5	20,4	18,3
45–54		31,8	14,7	10,4
55–64		19,3	9,7	5,3
65+		4,4	3,3	1,6
<b>Education attainment (aged 25–64)</b>				
Primary		20,6	4,6	5,2
Secondary without A-level examination		24,2	10,0	8,9
Secondary with A-level examination		43,9	18,6	16,0
Tertiary		49,2	26,3	28,4

as a percentage of all persons in a given socio-demographic group

**Figure C38 Online purchases of clothes, shoes or accessories by gender and age; 2020**



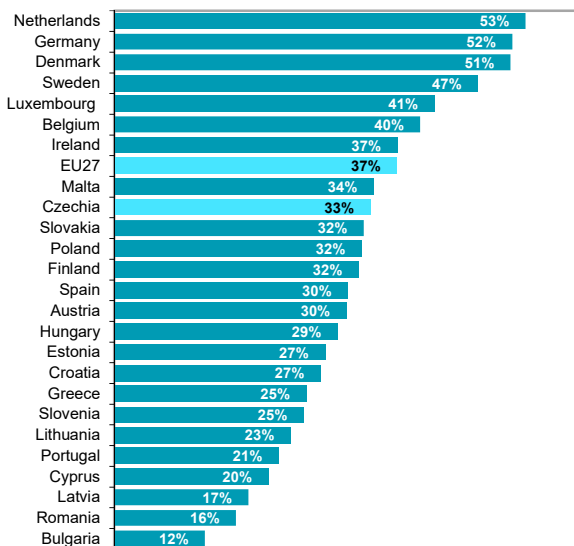
**Figure C39 Online purchases of food, beverages or meals by gender and age; 2020**



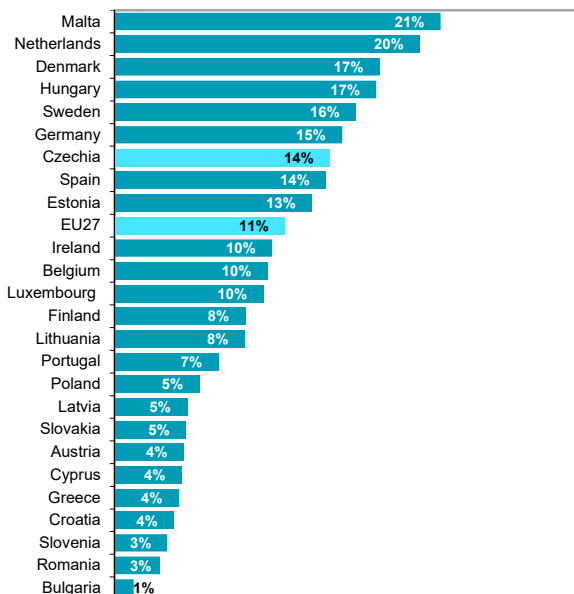
Source: Czech Statistical Office, ICT use survey in households

## C Persons and ICT

**Figure C40 Persons aged 16–74 years in EU countries purchasing clothes, shoes or accessories online; 2020**



**Figure C41 Persons aged 16–74 years in EU countries purchasing food or beverages from stores online; 2020**



Source: Eurostat

## C Persons and ICT

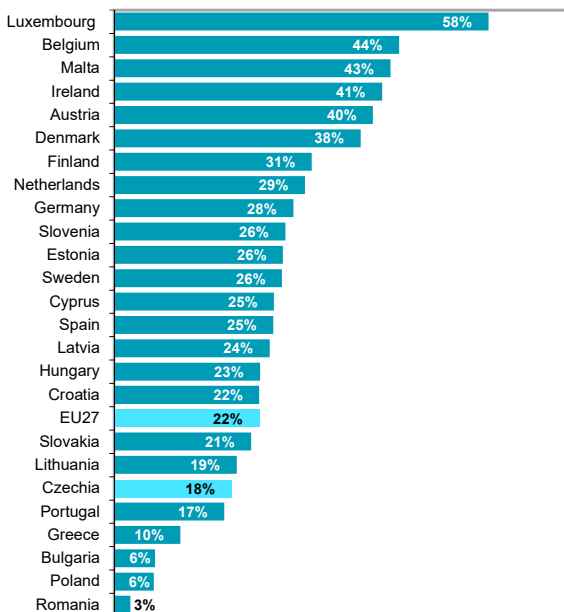
**Table C13 Persons in Czechia purchasing over the internet by country of origin of the seller; 2020**

%

	National sellers	Foreign sellers	
		from other EU countries	from countries out of EU
<b>Total (aged 16+)</b>	<b>45,7</b>	<b>12,2</b>	<b>8,1</b>
Men	45,1	11,4	7,6
Women	46,3	13,0	8,6
<b>Age group (years)</b>			
16–24	52,3	22,0	15,8
25–34	72,3	23,8	17,0
35–44	61,7	15,6	10,6
45–54	52,5	12,6	6,6
55–64	37,3	6,7	3,9
65+	13,2	1,0	0,9
<b>Education attainment (aged 25–64)</b>			
Primary	26,4	5,3	4,1
Secondary without A-level examination	41,8	9,1	6,9
Secondary with A-level examination	62,6	16,7	11,2
Tertiary	75,7	22,6	12,0

as a percentage of all persons in a given socio-demographic group

**Figure C42 Persons aged 16–74 years in EU countries purchasing over the internet from foreign sellers; 2020**



Source: Czech Statistical Office, ICT use survey in households; Eurostat

## D Enterprises and ICT

Data given in this chapter are based on results of the **Annual Statistical Survey on the ICT Use in Enterprises (ICT 5-01)**, which has been carried out by the Czech Statistical Office (CZSO) since 2002 when the first (pilot) survey was performed to obtain data for 2000 and 2001.

Since 2006, the survey has been conducted in accord with the **Regulation (EC) No 808/2004** of the European Parliament and of the Council of 21 April 2004 concerning Community statistics on the information society. This allows obtaining of internationally comparable data within the EU27 Member States.

The survey is every year conducted in the first quarter of the reference year in the sample of approximately **8 000 enterprises having 10+ employees** in selected economic activities. The results are then grossed up to the whole population of the measured enterprises, which is around 40 000 enterprises with 10+ employees.

The data obtained are available **broken** by prevailing economic activities by the CZ-NACE classification, by size of enterprises measured, and by their mutual combination.

### Notes

The reference period is, in case of majority of data on equipment or ICT use in enterprises, **current month** of a given year (in this issue it is **2020**) when the enterprise is filling the questionnaire. In case of indicators on e-commerce, use of big data analyses and 3D printing the reference period is the whole year (in this issue it is 2019 although the survey was carried out in 2020).

### Comparability of the CZSO and Eurostat Data

Since 2016 the data published by Eurostat and by the CZSO have been identical. Data for **international comparisons** are taken from the Eurostat database for digital economy and society, data of which are every year updated in January. Detailed information can be found at: <https://bit.ly/2SBKIs9>

### Definitions (sorted alphabetically)

- **3D printing** (additive production) is a process of making three-dimensional objects in a 3D printer. 3D objects are formed by laying down many thin layers of a material in succession from a three-dimensional digital model.
- **A configuration of goods or services** is a possibility for visitors of web pages to customise products or to design tailored products according to their wishes or requirements. E.g. choice of composition, materials used.
- **A CRM (Customer Relationship Management)** is based in an intensive use of IT to collect, integrate, process and analyse information related to the customers.
- **A service robot** is a machine that has a degree of autonomy that enables to operate in complex and dynamic environment. It may require interaction with persons, objects or other devices, excluding its use in industrial automation applications. Service robots are designed to fit their tasks, working in the air (e.g. drones), under water, or on land, using wheels or legs to achieve mobility, using arms and end effectors to physically interact and are often used in inspection and maintenance tasks.
- **A virtual server/computing power** is e.g. processor power, RAM, hard disk space, or the operating system.
- An **access to the internet total** includes any type of fixed internet connection (e.g. xDSL line, leased data line, fiber) or connection via mobile telephone networks (via a data tariff in a mobile phone).
- An **enterprise website** shall mean a web page(s) presenting the enterprise on the internet. The enterprise is expected to have control over the contents - it may be changed or modified by authorised persons only. Information on only enterprises' contacts published in internet databases or catalogues of enterprises are excluded.

- An **industrial robot** is an automatically controlled, reprogrammable, multipurpose manipulator which is programmable in three or more axes and which may be either fixed in place or mobile for use. Most existing industrial robots are based on the robot arm with a solid base and a series of links and joints with an end effector that carries out the task.
- **Big Data** shall mean extremely large data sets without any structure. They may be generated by people (e.g. by their activities in social networks) or by machines (from machine-to-machine communication, from production processes, etc.). Basic characteristics of big data are extremely huge volume, extreme variety (different format of complex data), and velocity - extreme speed at which data is generated. The basic method of the big data analysis is data mining or using advanced analytics algorithms (e.g. predictive analyses).
- **Big Data analysis** refers to the use of technologies, techniques or SW tools such as data or text mining, machine learning, etc. for analysing Big Data extracted from enterprise's or other data sources.
- **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, can be used on-demand by the user and are paid for (either per user, by capacity used or they are pre-paid).
- **Electronic commerce, e-commerce (purchase or sale)** shall mean placing or accepting electronic orders via the internet or other computer networks by means of websites or EDI regardless of the method of payment or delivery. *Purchases (sales) implemented on the basis of orders prepared from information obtained on the internet but placed in a traditional way (by phone, fax, or written order) or by e-mail are not included.*
- **Social media** shall mean on-line communication tools enabling the enterprises to create their own user profiles by means of which they can communicate with other users, share information or multimedia content. The most famous and most used type of social media is social networks. Other types of social media are enterprise blogs or microblogs, multimedia content sharing websites and also Wiki based knowledge-sharing tools.
- The **digital circuit (leased data line)**, shall mean a data line leased from telecommunication operators and serving enterprises needs to get connected to the internet. The enterprise leases a transmission line with guaranteed (contracted) transmission velocity and other parameters as transmission security and encrypting from the provider (telecommunication company or operator).
- The **electronic data interchange (EDI)** refers to the transmission of structured messages, as orders, invoices, etc., for instance, between two computer applications, information or database systems, implemented over the internet or other network using in advance agreed format of the data messages based on standards enabling their automatic processing (EDI, EDIFACT, XML, cXML, etc.). That means the EDI is always implemented without any manual typing, retyping, or copying of the messages.
- **The Internet of Things** refers to interconnected devices or systems, often called "smart" devices or systems. They collect and exchange data and can be monitored or remotely controlled via the internet. Examples of usage are smart thermostats, RFID or IP tags applied or incorporated into a product in order to track them. Another example is sensors for tracking the movement of vehicles or their maintenance needs

Detailed information on methodology of the survey can be found in the publication **Information and Communication Technologies in the Business Sphere in 2020** (code **062005-20**) accessible on the CZSO website at <https://bit.ly/3o0lZ7T> (in the Czech language only).

**Further information on the ICT use by enterprises can be found at:** [https://www.czso.cz/csu/czso/podnikatelsky\\_sektor](https://www.czso.cz/csu/czso/podnikatelsky_sektor) (in the Czech language only).

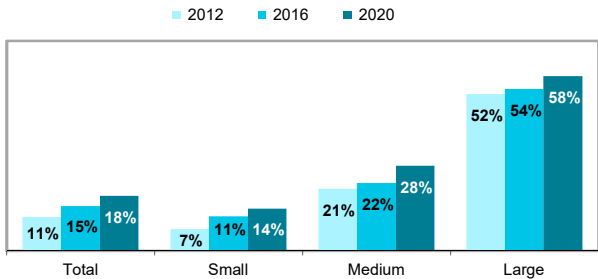
## D Enterprises and ICT

**Tab. D1 Enterprises in Czechia with internet access; 2020**

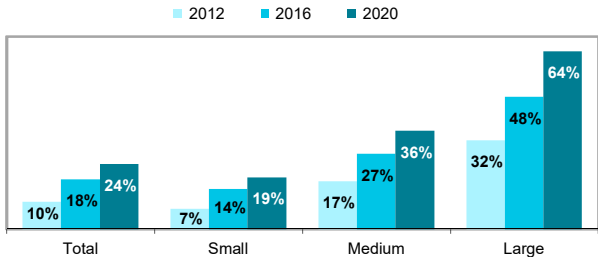
Percentage

	Total	of which by:	
		DSL	Fiber
<b>Total</b>	<b>98,6</b>	<b>54,3</b>	<b>23,5</b>
Small enterprises (10-49)	98,4	55,1	18,7
Medium enterprises (50-249)	99,3	49,8	35,7
Large enterprises (250+)	99,6	57,9	64,4
<b>Industry (10+ employees):</b>			
Manufacturing	99,2	52,5	19,8
Electricity, gas and water supply	99,9	56,4	31,2
Construction	98,1	52,3	17,2
Sale and repair of motor vehicles	99,5	46,2	20,1
Wholesale trade	100,0	52,1	28,0
Retail trade	99,9	77,8	19,6
Transport and storage	99,3	59,1	20,5
Accommodation	99,4	54,0	23,1
Food and beverage services	95,2	68,2	9,9
Travel agency and related activities	100,0	66,6	33,6
Media industries incl. publishing activities	100,0	43,2	46,8
Telecommunications	100,0	33,3	73,7
Computer programming and related act.	99,8	36,8	58,0
Professional, scientific and technical act.	98,5	43,4	35,1

**Figure D1 Enterprises with access to the internet via a leased line**



**Figure D2 Enterprises with access to the internet via a fiber connection**



as a percentage of all enterprises with 10+ employees in a given group

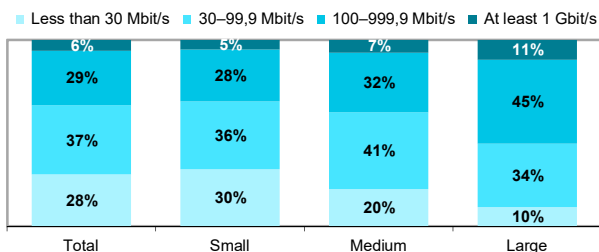
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

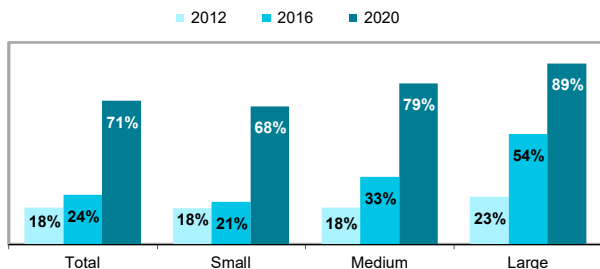
**Table D2 Contracted download speed of the fixed internet connection used by enterprises in Czechia; 2020**

	Percentage		
	Less than 30 Mbit/s	30–99,9 Mbit/s	At least 100 Mbit/s
<b>Total</b>	<b>27,3</b>	<b>36,5</b>	<b>34,5</b>
Small enterprises (10-49)	29,8	35,6	32,6
Medium enterprises (50-249)	19,9	40,9	38,5
Large enterprises (250+)	10,3	33,9	55,4
<b>Industry (10+ employees):</b>			
Manufacturing	31,0	39,0	29,0
Electricity, gas and water supply	39,0	38,7	22,1
Construction	24,3	34,0	38,7
Sale and repair of motor vehicles	28,2	41,9	29,4
Wholesale trade	29,2	42,5	28,3
Retail trade	26,1	32,8	41,0
Transport and storage	29,2	37,2	32,9
Accommodation	21,0	35,0	43,4
Food and beverage services	26,8	27,4	40,2
Travel agency and related activities	22,5	34,3	43,1
Media industries incl. publishing activities	11,2	34,0	54,8
Telecommunications	5,5	12,8	81,7
Computer programming and related act.	8,6	29,7	61,5
Professional, scientific and technical act.	24,4	33,4	40,7

**Figure D3 Contracted download speed of the fixed internet connection used by enterprises; 2020**



**Figure D4 Enterprises with a fixed broadband contracted download speed at least 30 Mbit/s**



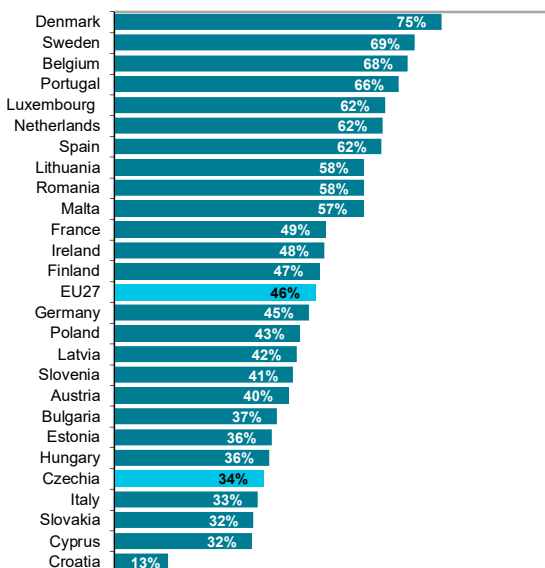
as a percentage of all enterprises with 10+ employees in a given group

Source: Czech Statistical Office, Survey on ICT usage in enterprises

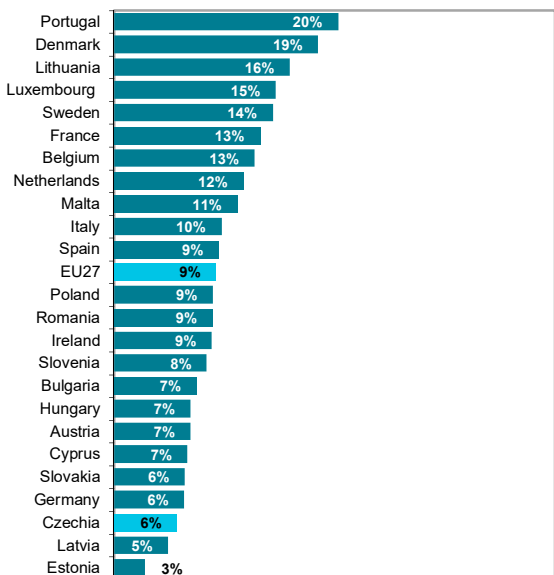


## D Enterprises and ICT

**Figure D5 Enterprises in EU countries with a fixed broadband contracted download speed at least 100 Mbit/s; 2020**



**Figure D6 Enterprises in EU countries with a fixed broadband contracted download speed at least 1 Gbit/s; 2020**



Source: Eurostat

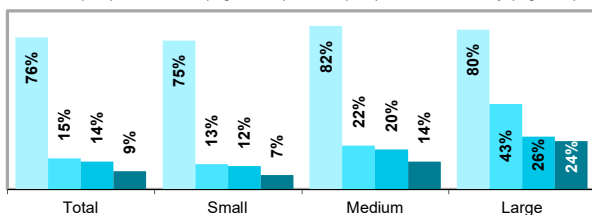
## D Enterprises and ICT

**Table D3 Enterprises in Czechia with a website**

	2010	Percentage	
		2020	customized for mobile devices
<b>Total</b>	<b>74,0</b>	<b>83,4</b>	<b>56,9</b>
Small enterprises (10-49)	70,2	81,3	54,5
Medium enterprises (50-249)	88,1	90,6	63,3
Large enterprises (250+)	92,2	93,4	74,7
<b>Industry (10+ employees):</b>			
Manufacturing	76,9	85,1	53,5
Electricity, gas and water supply	73,3	93,9	65,8
Construction	72,0	81,4	52,2
Sale and repair of motor vehicles	84,8	94,5	73,6
Wholesale trade	83,3	94,2	68,7
Retail trade	53,5	74,0	53,6
Transport and storage	66,4	60,8	36,0
Accommodation	88,9	97,1	79,6
Food and beverage services	56,9	80,6	59,4
Travel agency and related activities	96,9	98,4	77,8
Media industries incl. publishing activities	96,3	98,0	80,5
Telecommunications	99,1	96,5	72,8
Computer programming and related act.	95,0	94,0	81,5
Professional, scientific and technical act.	85,3	88,4	62,2

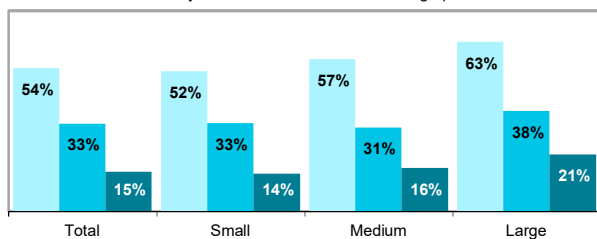
**Figure D7 Domains registered for enterprises' websites; 2020**

■ Czech (.CZ) ■ Generic (e.g. .COM) ■ EU (.EU) ■ Other country (e.g. .DE)



**Figure D8 Enterprises with selected websites facilities; 2020**

■ Product/price lists  
 ■ Online ordering/reservation system  
 ■ Possibility for visitors to customise or design products

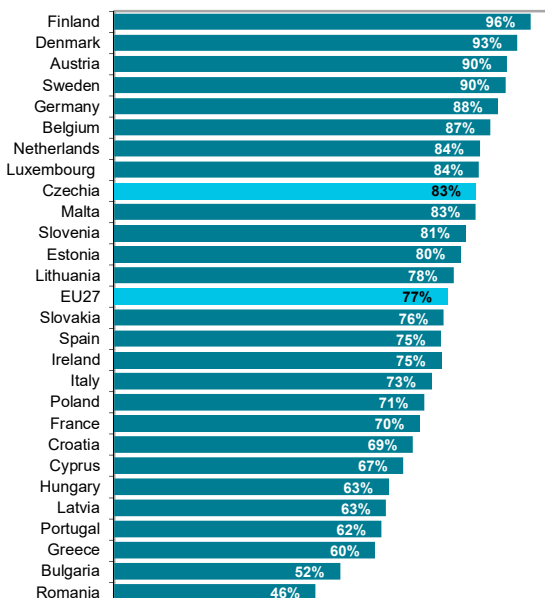


as a percentage of all enterprises with 10+ employees in a given group

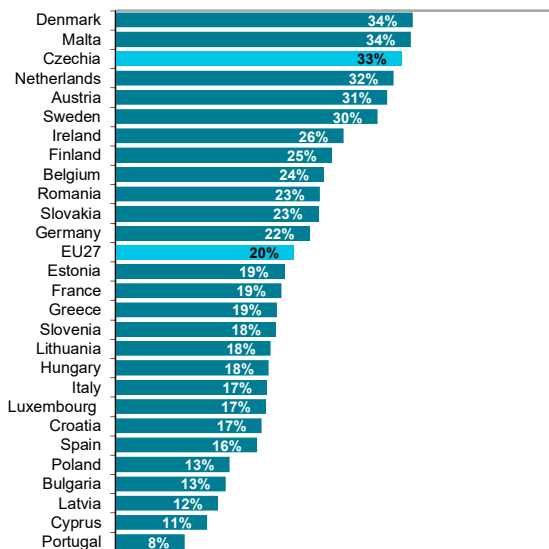
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

**Figure D9 Enterprises in EU countries with a website; 2020**



**Figure D10 Enterprises in EU countries having online ordering or reservation system on their websites; 2020**



Source: Eurostat

## D Enterprises and ICT

Tab.D4 Enterprises in Czechia making web sales; 2019

	Percentage	
	Total	> 10 % of their total turnover
<b>Total</b>	<b>23,2</b>	<b>15,2</b>
Small enterprises (10-49)	22,9	15,4
Medium enterprises (50-249)	23,3	13,9
Large enterprises (250+)	28,5	17,5
<b>Industry (10+ employees):</b>		
Manufacturing	16,4	9,3
Electricity, gas and water supply	20,3	6,3
Construction	9,0	4,9
Sale and repair of motor vehicles	36,1	21,5
Wholesale trade	43,1	27,6
Retail trade	44,9	29,8
Transport and storage	11,3	9,2
Accommodation	75,2	64,3
Food and beverage services	27,4	21,9
Travel agency and related activities	73,1	67,8
Media industries incl. publishing activities	61,5	43,5
Telecommunications	54,8	40,0
Computer programming and related act.	22,7	15,1
Professional, scientific and technical act.	15,5	10,2

Figure D11 Enterprises making web sales

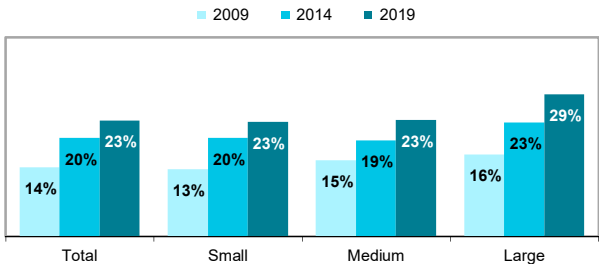
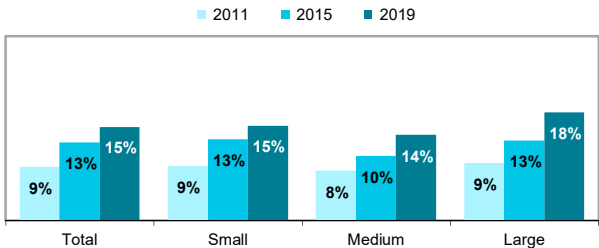


Figure D12 Enterprises where web sales making more than 10 % of their total turnover

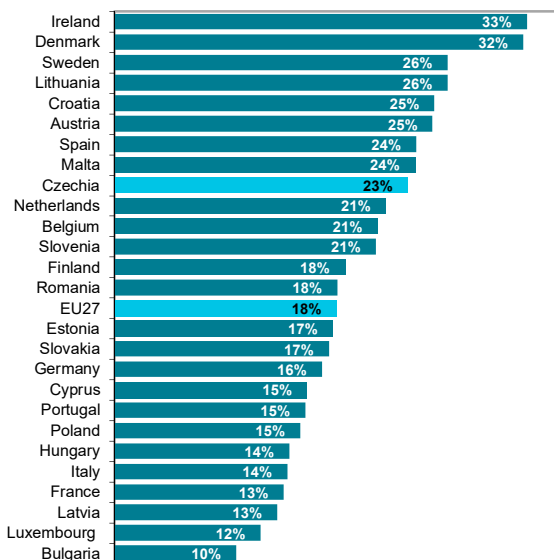


as a percentage of all enterprises with 10+ employees in a given group

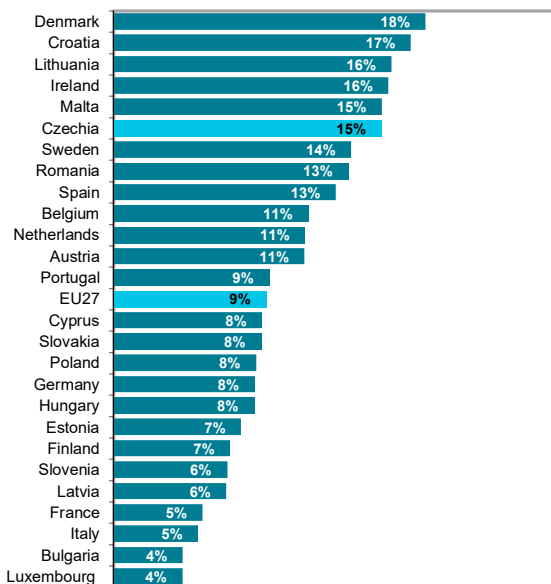
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

**Figure D13 Enterprises in EU countries making web sales; 2019**



**Figure D14 Enterprises in EU countries with web sales making more than 10 % of their total turnover; 2019**



Source: Eurostat

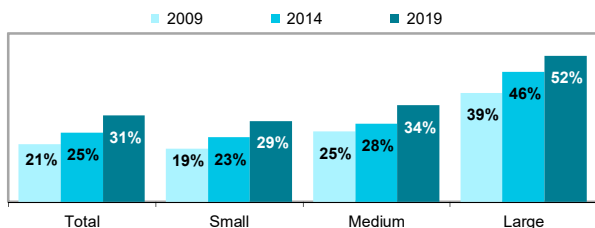
## D Enterprises and ICT

**Table D5 The enterprises' turnover generated from electronic sales in Czechia; 2019**

	Total	Percentage carried out via:	
		EDI-type sales	Web sales
<b>Total</b>	<b>29,8</b>	<b>21,9</b>	<b>7,9</b>
Small enterprises (10-49)	13,1	6,6	6,5
Medium enterprises (50-249)	22,4	15,1	7,3
Large enterprises (250+)	39,0	30,3	8,7
<b>Industry (10+ employees):</b>			
Manufacturing	33,7	28,8	4,9
Electricity, gas and water supply	43,9	39,4	4,4
Construction	6,6	4,8	1,8
Sale and repair of motor vehicles	25,0	15,1	9,9
Wholesale trade	28,3	15,5	12,8
Retail trade	19,1	3,7	15,4
Transport and storage	29,9	21,9	8,0
Accommodation	42,9	10,0	32,9
Food and beverage services	11,4	1,8	9,6
Travel agency and related activities	66,3	8,3	58,0
Media industries incl. publishing activities	34,7	7,1	27,6
Telecommunications	13,5	6,1	7,4
Computer programming and related act.	23,3	13,2	10,0
Professional, scientific and technical act.	6,2	3,4	2,8

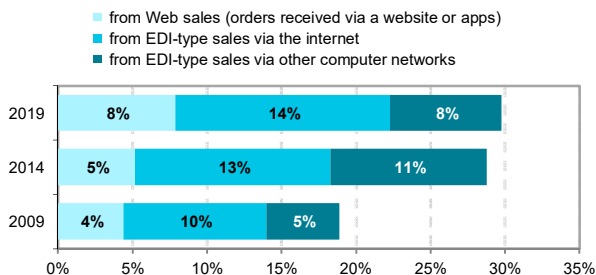
as a percentage of total enterprises' turnover in a given group

**Figure D15 Enterprises making e-sales over computer networks**



as a percentage of all enterprises with 10+ employees in a given group

**Figure D16 The enterprises' turnover generated from e-sales**

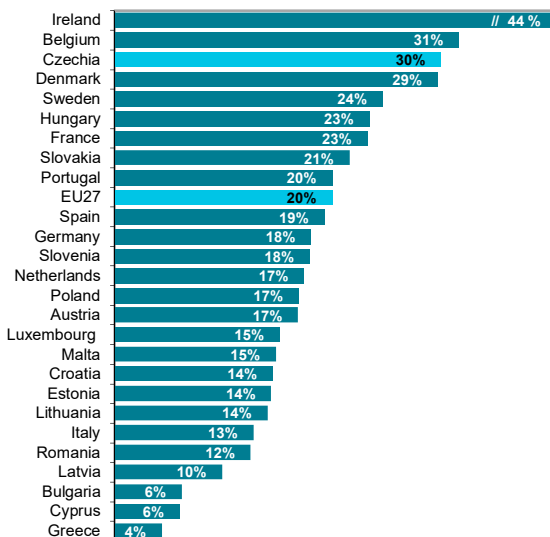


as a percentage of total enterprises' turnover in a given group

Source: Czech Statistical Office, Survey on ICT usage in enterprises

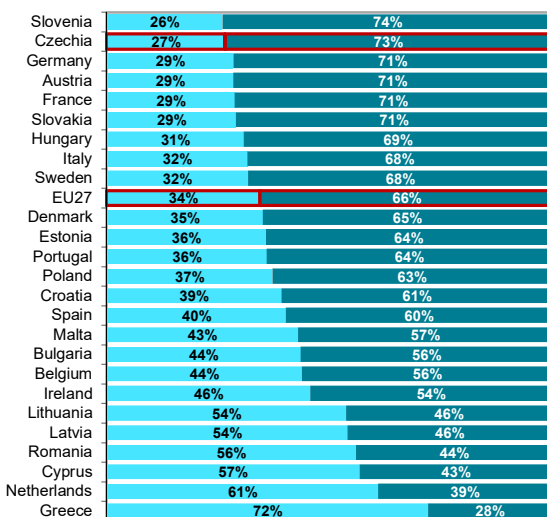
## D Enterprises and ICT

**Figure D17 The enterprises' turnover generated from electronic sales in EU countries; 2019**  
(as a % of total enterprises' turnover)



**Figure D18 The enterprises' turnover generated from electronic sales in EU countries by type of order; 2019**

- Orders received via a website or apps (Web sales)
- Automated orders received via EDI-type messages (EDI-type sales)



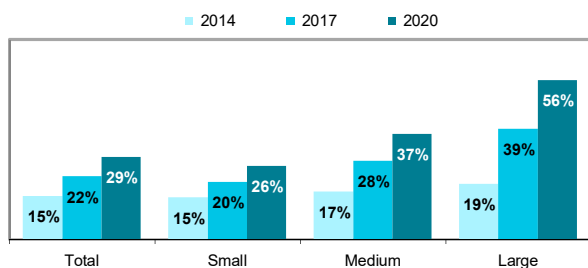
Source: Eurostat

## D Enterprises and ICT

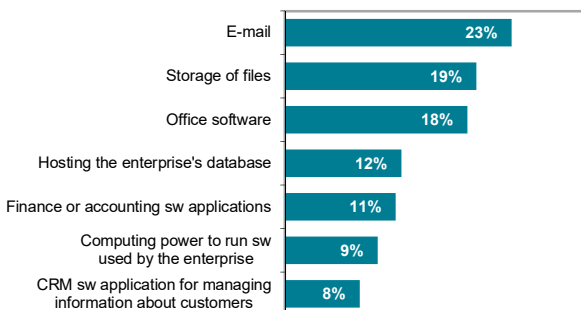
**Table D6 Enterprises in Czechia buying cloud computing services**

	Percentage		
	2014	2017	2020
<b>Total</b>	<b>15,2</b>	<b>22,0</b>	<b>28,8</b>
Small enterprises (10-49)	14,7	20,0	25,7
Medium enterprises (50-249)	16,6	27,5	36,9
Large enterprises (250+)	19,4	38,7	55,7
<b>Industry (10+ employees):</b>			
Manufacturing	13,2	19,1	26,5
Electricity, gas and water supply	13,5	24,6	31,1
Construction	13,9	17,0	17,8
Sale and repair of motor vehicles	18,1	22,9	29,7
Wholesale trade	18,5	28,4	38,7
Retail trade	17,3	23,1	27,6
Transport and storage	14,2	12,6	20,8
Accommodation	16,9	24,3	33,5
Food and beverage services	7,4	9,6	17,9
Travel agency and related activities	18,0	33,6	41,8
Media industries incl. publishing activities	29,9	44,0	48,5
Telecommunications	25,6	30,4	42,5
Computer programming and related act.	38,8	56,4	71,6
Professional, scientific and technical act.	16,3	30,9	38,6

**Figure D19 Enterprises buying cloud computing services**



**Figure D20 Cloud computing services bought by enterprises; 2020**



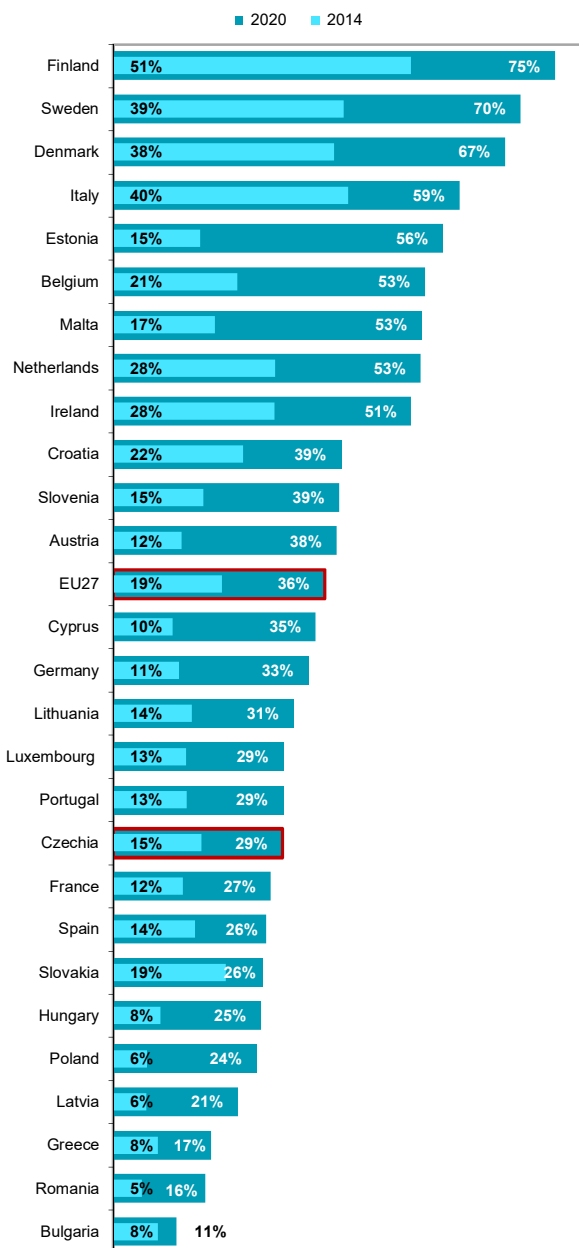
as a percentage of all enterprises with 10+ employees in a given group

Source: Czech Statistical Office, Survey on ICT usage in enterprises



## D Enterprises and ICT

Figure D21 Enterprises in EU countries buying cloud computing services



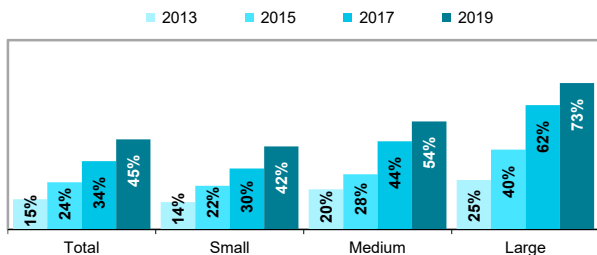
Source: Eurostat

## D Enterprises and ICT

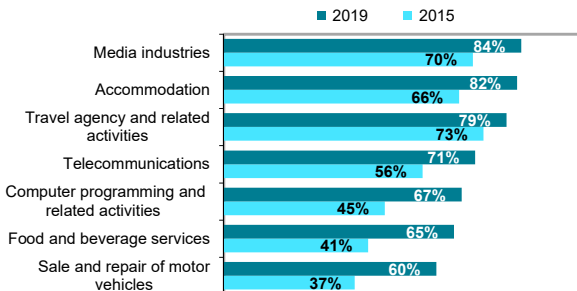
**Table D7 Enterprises in Czechia using social networks\***

	Percentage		
	2015	2017	2019
<b>Total</b>	<b>23,5</b>	<b>34,1</b>	<b>45,0</b>
Small enterprises (10-49)	21,7	30,4	41,5
Medium enterprises (50-249)	27,6	44,1	54,1
Large enterprises (250+)	39,9	62,3	73,3
<b>Industry (10+ employees):</b>			
Manufacturing	17,3	26,5	37,6
Electricity, gas and water supply	13,2	22,5	31,4
Construction	10,7	17,8	29,1
Sale and repair of motor vehicles	36,7	51,1	59,7
Wholesale trade	30,8	43,2	52,7
Retail trade	28,9	45,1	58,7
Transport and storage	13,2	23,9	39,2
Accommodation	66,1	78,5	82,4
Food and beverage services	40,5	52,3	64,6
Travel agency and related activities	72,9	.	79,4
Media industries incl. publishing activities	69,9	78,9	83,5
Telecommunications	55,8	69,4	70,6
Computer programming and related act.	45,2	62,1	66,7
Professional, scientific and technical act.	28,0	37,7	47,9

**Figure D22 Enterprises using social networks\***



**Figure D23 Industries with the highest shares of enterprises using social networks\***



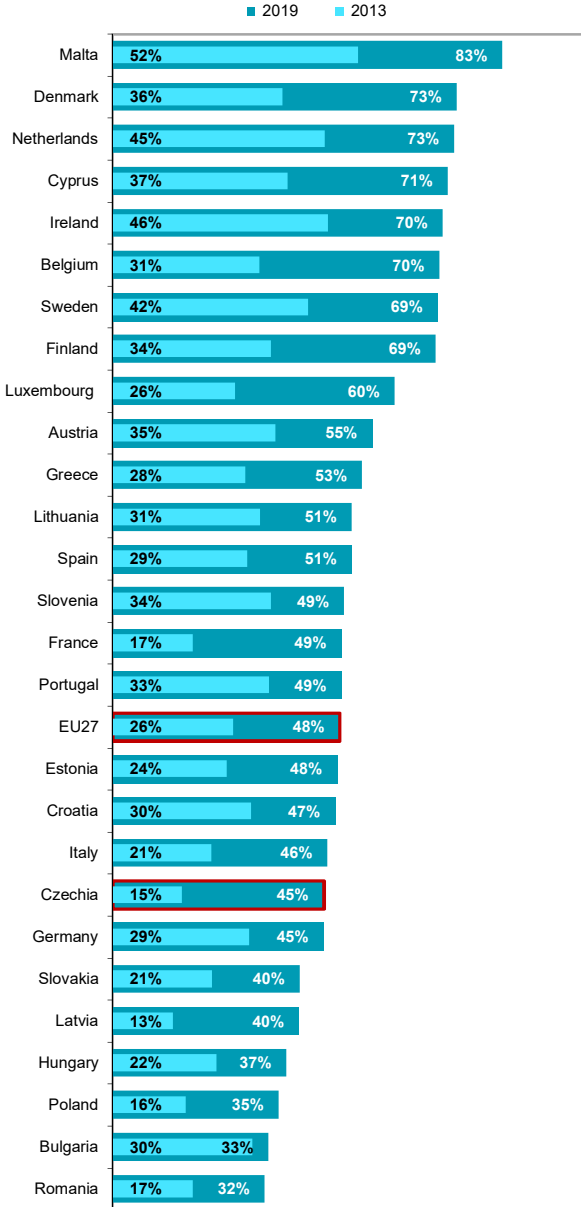
as a percentage of all enterprises with 10+ employees in a given group

\* Having an account on Facebook, LinkedIn or similiar social networks.

Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

Figure D24 Enterprises in EU countries using social networks\*



\* Having an account on Facebook, LinkedIn or similiar social networks.

Source: Eurostat

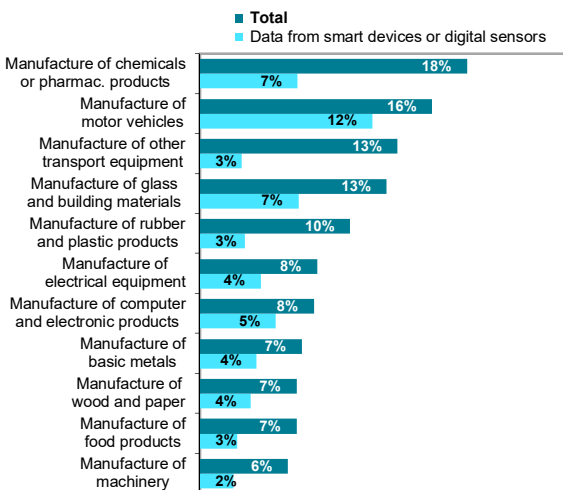
## D Enterprises and ICT

**Table D8 Enterprises in Czechia performing Big Data analysis; 2019**

		Percentage	
	Total	Geolocation data from the use of portable devices	Data generated from social medias
<b>Total</b>	<b>9,1</b>	<b>5,3</b>	<b>3,4</b>
Small enterprises (10-49)	7,4	4,4	2,8
Medium enterprises (50-249)	13,5	7,8	4,9
Large enterprises (250+)	24,8	12,2	8,3
<b>Industry (10+ employees):</b>			
Manufacturing	8,0	4,3	2,6
Electricity, gas and water supply	12,6	7,8	3,9
Construction	6,4	6,2	0,6
Sale and repair of motor vehicles	11,8	3,2	6,3
Wholesale trade	8,2	6,1	3,8
Retail trade	12,0	3,1	8,0
Transport and storage	15,1	14,9	1,1
Accommodation	8,1	.	5,7
Food and beverage services	2,7	0,9	2,0
Travel agency and related act.	11,1	.	10,2
Media industries	16,5	4,8	11,8
Telecommunications	11,7	8,3	4,4
Computer programming	27,0	9,8	10,5
Professional, S&T activities	9,0	3,4	5,3

as a percentage of all enterprises with 10+ employees in a given group

**Figure D25 Enterprises in Manufacturing performing Big Data analysis by industry; 2019**

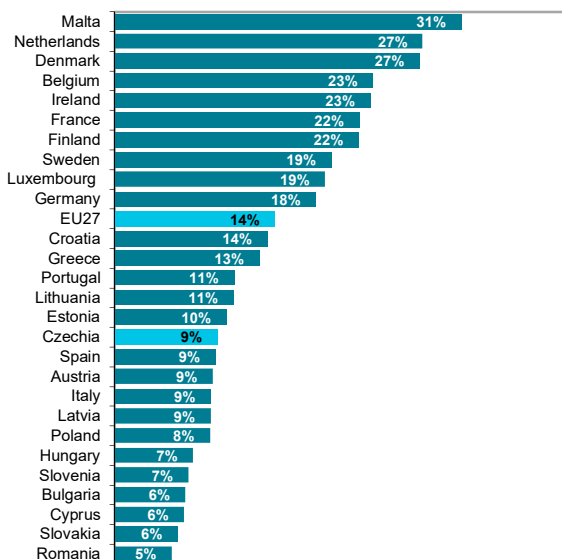


as a percentage of all enterprises with 10+ employees in a given industry group

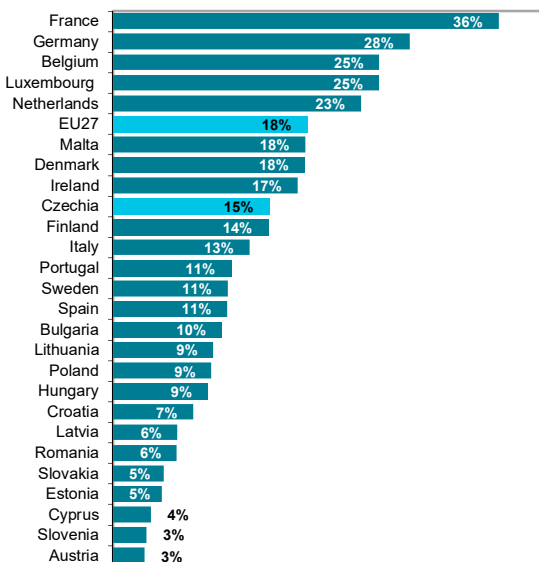
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

**Figure D26 Enterprises in EU countries performing Big Data analysis; 2019**



**Figure D27 Enterprises in Transport and storage industry in EU countries performing Big Data analysis on geolocation data from portable devices; 2019**



Source: Eurostat

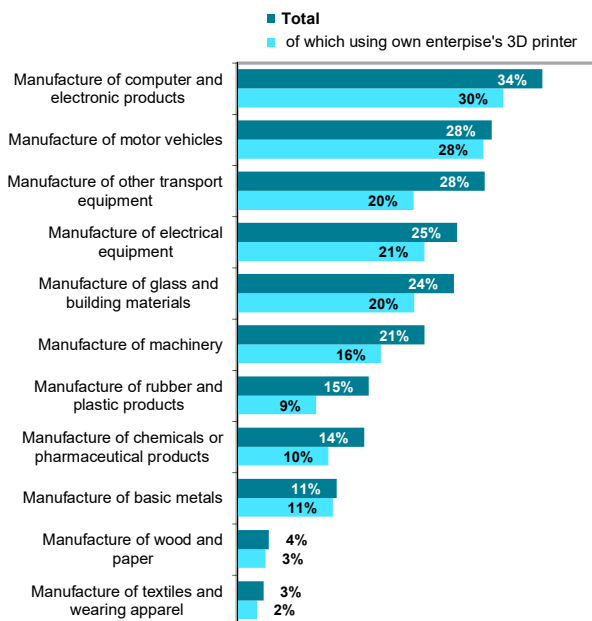
## D Enterprises and ICT

**Table D9 Enterprises in Czechia using 3D printing**

	Percentage	
	2017	2019
<b>Total</b>	<b>4,2</b>	<b>6,2</b>
Small enterprises (10-49)	3,2	4,3
Medium enterprises (50-249)	6,0	10,4
Large enterprises (250+)	17,5	25,8
<b>Industry (10+ employees):</b>		
Manufacturing	7,6	12,9
Electricity, gas and water supply	.	.
Construction	1,0	2,2
Sale and repair of motor vehicles	2,6	3,6
Wholesale trade	5,3	5,1
Retail trade	3,8	3,2
Transport and storage	1,4	0,5
Accommodation	0,1	0,6
Food and beverage services	0,6	0,4
Travel agency and related activities	.	.
Media industries including publishing activities	3,0	7,2
Telecommunications	7,8	10,0
Computer programming and related activities	7,3	15,5
Professional, scientific and technical activities	4,1	5,8

as a percentage of all enterprises with 10+ employees in a given group

**Figure D28 Enterprises in Manufacturing using 3D printing; 2019**

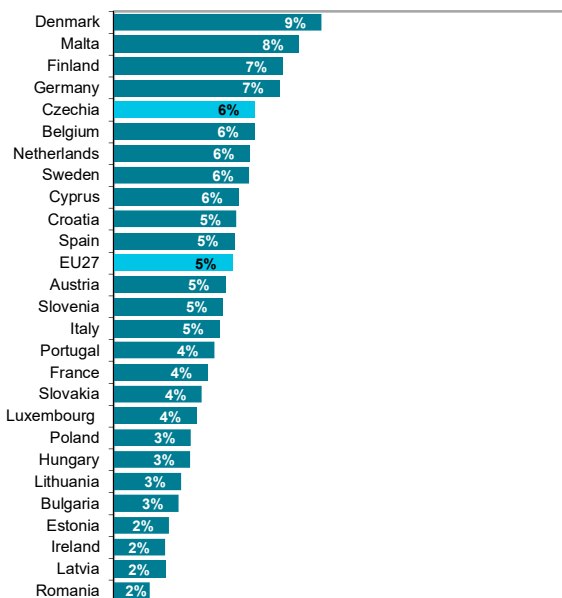


as a percentage of all enterprises with 10+ employees in a given industry group

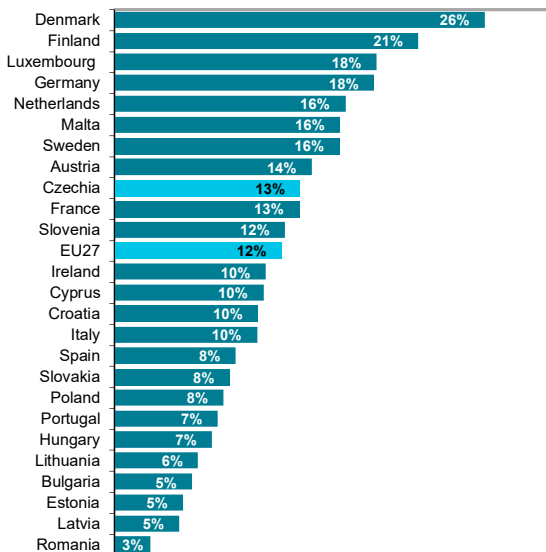
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

**Figure D29 Enterprises in EU countries using 3D printing; 2019**



**Figure D30 Enterprises in Manufacturing in EU countries using 3D printing; 2019**



Source: Eurostat

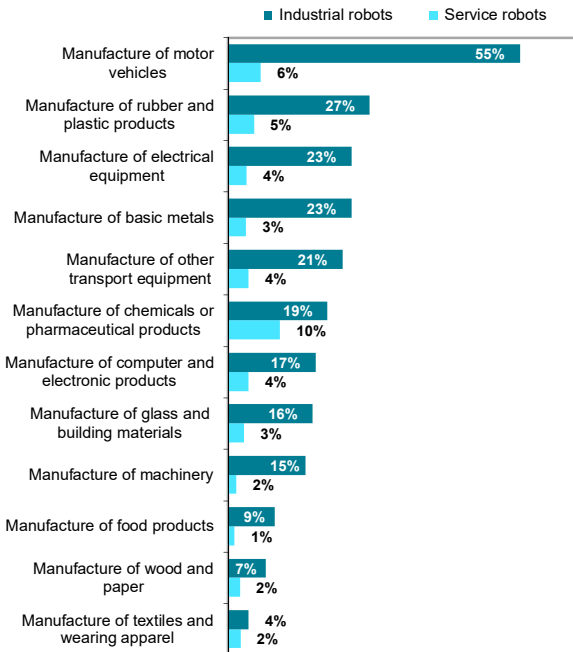
## D Enterprises and ICT

**Table D10 Enterprises in Manufacturing in Czechia using industrial robots**

	Percentage	
	2018	2020
<b>Total</b>	<b>15,6</b>	<b>17,5</b>
Small enterprises (10-49)	6,0	9,1
Medium enterprises (50-249)	30,5	27,2
Large enterprises (250+)	52,8	61,4
<b>Manufacturing industry (10+ employees):</b>		
Manuf. of food products	7,3	8,8
Manuf. of textiles and wearing apparel	0,8	3,9
Manuf. of wood and paper	8,1	7,1
Manuf. of chemicals or pharmaceutical products	7,6	18,7
Manuf. of rubber and plastics products	30,9	26,6
Manuf. of glass and building materials	12,1	15,9
Manuf. of basic metals	19,8	23,2
Manuf. of computer and electronic products	16,8	16,5
Manuf. of electrical equipment	18,5	23,2
Manuf. of machinery	15,5	14,6
Manuf. of motor vehicles	42,9	54,7
Manuf. of other transport equipment	19,5	21,5

as a percentage of all enterprises with 10+ employees in a given group

**Figure D31 Enterprises in Manufacturing using robotics; 2020**



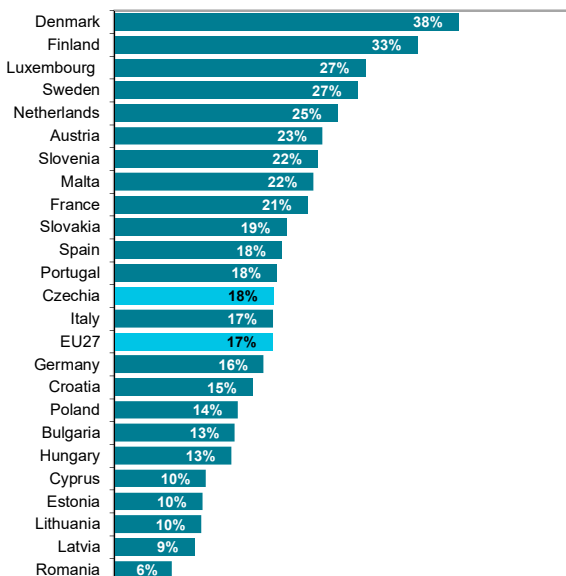
as a percentage of all enterprises with 10+ employees in a given industry group

Source: Czech Statistical Office, Survey on ICT usage in enterprises

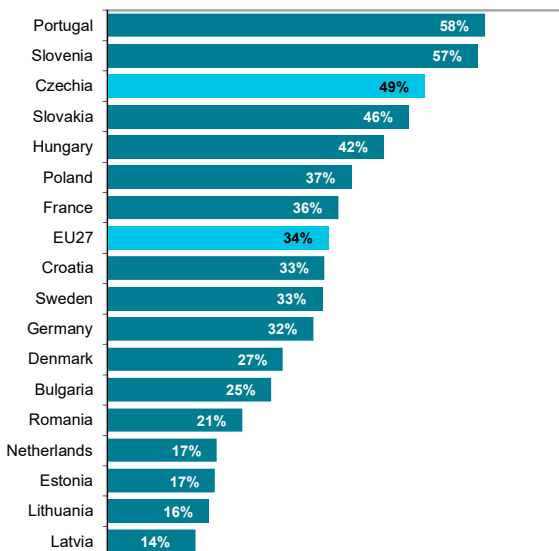


## D Enterprises and ICT

**Figure D32 Enterprises in Manufacturing in EU countries using industrial robots; 2020**



**Figure D33 Enterprises in Manufacture of motor vehicles and other transport equipment (NACE 29-30) in EU countries using industrial robots; 2020**



Source: Eurostat

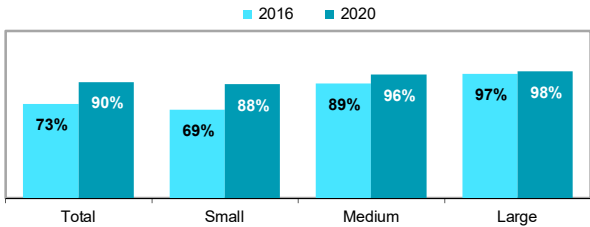
## D Enterprises and ICT

**Tab. D11 Enterprises in Czechia providing access to the internet and IT training for their employees; 2020**

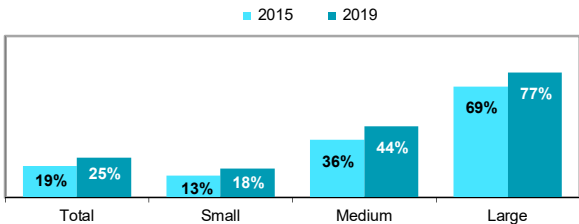
%

	Access to the internet for business purposes		IT training
	Total	via mobile networks	
<b>Total</b>	<b>98,4</b>	<b>90,1</b>	<b>24,7</b>
Small enterprises (10-49)	98,1	88,3	17,7
Medium enterprises (50-249)	99,2	95,9	44,0
Large enterprises (250+)	99,6	98,2	77,1
<b>Industry (10+ employees):</b>			
Manufacturing	99,1	91,1	27,6
Electricity, gas and water supply	99,7	95,4	33,6
Construction	98,1	89,7	17,4
Sale and repair of motor vehicles	99,5	94,9	21,8
Wholesale trade	100,0	95,5	31,0
Retail trade	99,3	78,3	15,3
Transport and storage	98,6	92,2	12,3
Accommodation	98,7	84,0	17,4
Food and beverage services	95,2	83,9	6,7
Travel agency and related act.	100,0	98,2	27,3
Media industries	100,0	91,0	48,8
Telecommunications	100,0	99,4	62,9
Computer programming	99,8	96,7	79,8
Professional, S&T activities	98,5	90,9	32,9

**Figure D34 Enterprises providing employees with smartphones or other portable devices with mobile internet connection for business purposes**



**Figure D35 Enterprises providing IT training for employees**

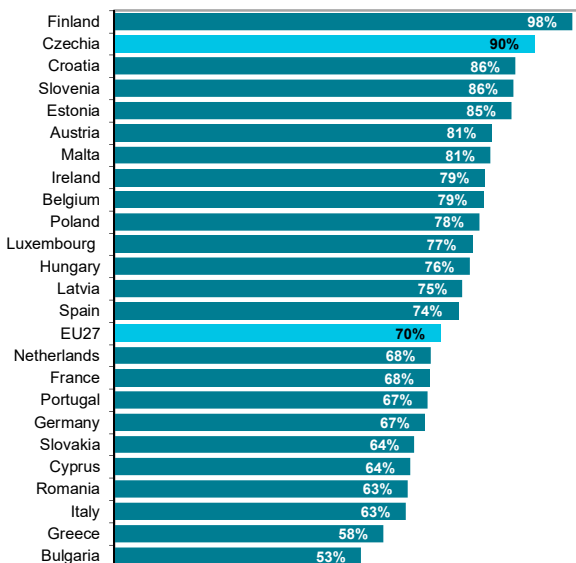


as a percentage of all enterprises with 10+ employees in a given group

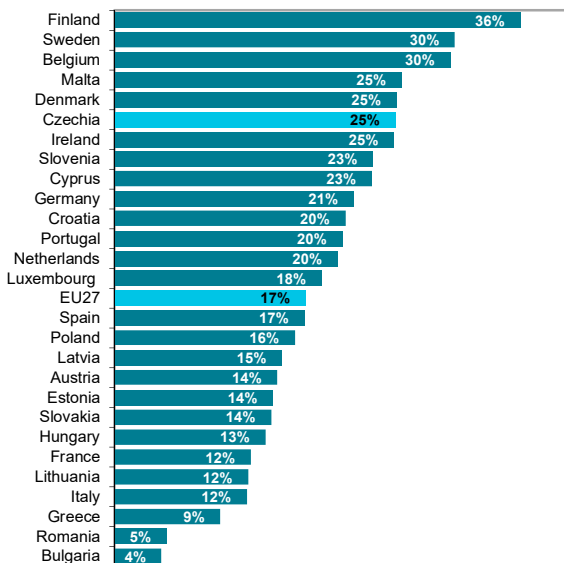
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

**Figure D36 Enterprises in EU countries providing employees with smartphones or other portable devices with mobile internet connection; 2020**



**Figure D37 Enterprises in EU countries providing IT training for employees; 2019**



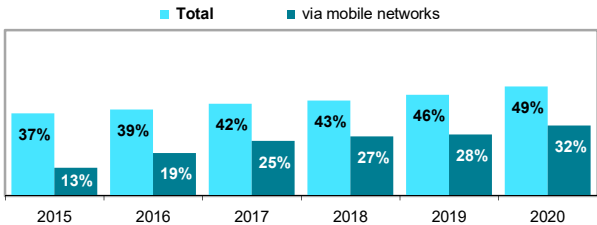
Source: Eurostat

## D Enterprises and ICT

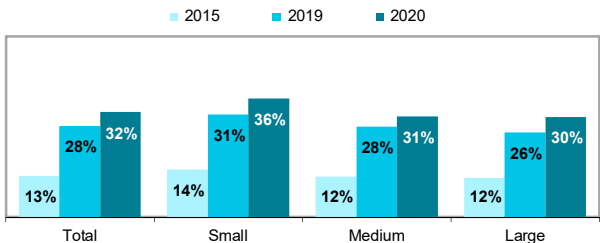
**Table D12 Employees of enterprises in Czechia using computers or other ICT devices with internet access provided for business purposes; 2020**

	Percentage	
	Total	Via mobile networks
<b>Total</b>	<b>49,4</b>	<b>31,8</b>
Small enterprises (10-49)	51,5	36,0
Medium enterprises (50-249)	47,6	30,5
Large enterprises (250+)	49,3	30,4
<b>Industry (10+ employees):</b>		
Manufacturing	43,0	23,9
Electricity, gas and water supply	59,5	37,5
Construction	50,8	38,7
Sale and repair of motor vehicles	71,4	41,6
Wholesale trade	72,0	51,9
Retail trade	42,5	21,0
Transport and storage	45,2	33,6
Accommodation	46,1	27,9
Food and beverage services	32,4	17,7
Travel agency and related activities	87,4	62,5
Media industries including publishing activities	91,2	65,3
Telecommunications	96,9	83,5
Computer programming and related activities	92,6	74,8
Professional, scientific and technical activities	83,2	64,4

**Figure D38 Employees of enterprises using computers or other ICT devices with internet access provided for business purpose**



**Figure D39 Employees of enterprises using smartphones or other portable devices with mobile internet connection provided for business purposes**

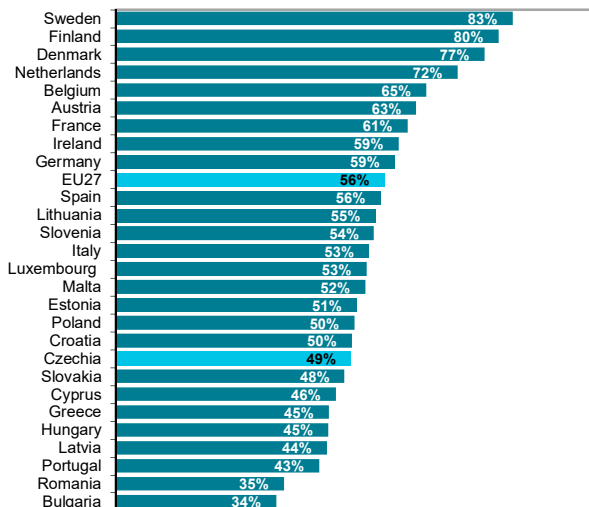


as a percentage of all employees in enterprises in a given group

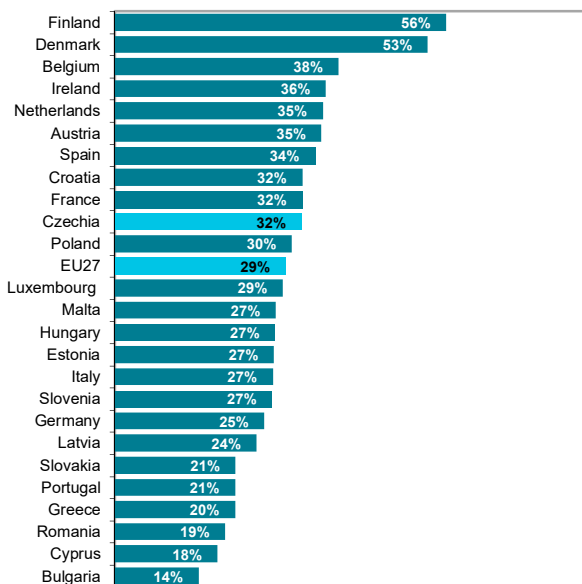
Source: Czech Statistical Office, Survey on ICT usage in enterprises

## D Enterprises and ICT

**Figure D40 Employees of enterprises in EU countries using computers or other ICT devices with internet access provided for business purposes; 2020**



**Figure D41 Employees of enterprises in EU countries using smartphones or other portable devices with mobile internet connection provided for business purposes; 2020**



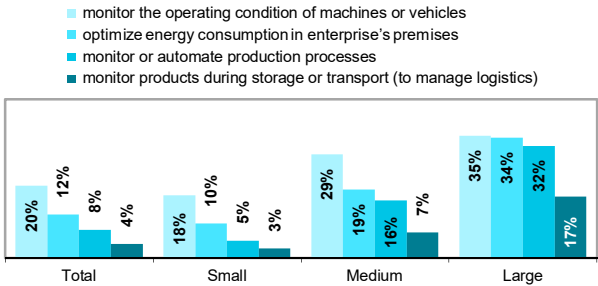
Source: Eurostat

## D Enterprises and ICT

**Table D13 Enterprises in Czechia using interconnected devices or systems that can be monitored or remotely controlled via the internet (Internet of Things); 2020**

	Percentage		
	Total	To monitor the operating condition of machines or vehicles	To optimize energy consumption in enterprise's premises
<b>Total</b>	<b>44,0</b>	<b>20,4</b>	<b>12,3</b>
Small enterprises (10-49)	40,0	17,7	9,7
Medium enterprises (50-249)	56,4	29,3	19,4
Large enterprises (250+)	67,4	34,5	34,0
<b>Industry (10+ employees):</b>			
Manufacturing	45,9	19,5	16,1
Electricity, gas and water supply	57,4	33,5	16,5
Construction	46,2	29,0	9,2
Sale and repair of motor vehicles	46,4	18,2	13,6
Wholesale trade	46,0	25,8	11,7
Retail trade	38,9	10,6	12,8
Transport and storage	58,2	45,5	10,5
Accommodation	39,9	2,6	21,5
Food and beverage services	36,9	4,2	6,7
Travel agency and related activ.	28,6	9,1	2,5
Media industries	39,5	10,3	18,7
Telecommunications	56,4	35,4	21,2
Computer programming	52,5	13,3	18,7
Professional, S&T activities	34,7	9,7	9,1

**Figure D42 Enterprises using interconnected devices or systems of Internet of Things to:; 2020**



**Figure D43 Industries with the highest shares of enterprises using Internet of Things; 2020**



as a percentage of all enterprises with 10+ employees in a given group

Source: Czech Statistical Office, Survey on ICT usage in enterprises

The Czech Statistical Office gathers and processes data on contact points of the **Czech POINT** and their use as the number of the system outputs, on new established data boxes, and on the number of performed transactions by means of the data boxes from open data of the **Ministry of the Interior**. The CZSO takes data on the number of **tax forms submitted electronically** to the Financial Administration of the Czech Republic by means of the **web application EPO** (electronic tax forms, e-Tax) or through data boxes from open data of the **Financial Administration of the Czech Republic**.

Data on the number of electronically submitted documents of selected services (e-Submission) to the **Czech Social Security Administration (CSSA)** are taken from open data of the CSSA.

A valuable source of information on the internet use for communication with public administration is also a separate annual statistical survey named **Sample Survey on the ICT Use in Households and by Individuals** carried out by the CZSO.

The **reference period** for data on individuals is the last **12 months** prior the survey interview. In this publication it is Q2 2020.

### Definitions (sorted alphabetically)

- **Czech POINT** is a system of an assisted platform of public administration where citizens can deal with, dispose off, or settle as many as possible matters related to public administration at a single point.
- **CzechPOINT@office** is a non-public interface of the Czech POINT system. It contains agendas performed by offices, authorities and bodies of public power in order to carry out their scope of authority.
- **CzechPOINT@home** is an interface of the Czech POINT system dedicated to citizens and enabling the data box holders a remote access (from a computer or mobile phone) to selected copies of documents without the need to pay a visit to a contact point of the Czech POINT system.
- A **data box** shall serve for secure electronic delivery of documents in between public administration bodies and a legal or natural person.
- An **electronic submission** (e-Submission) is a form of a submission delivered in the classic way, yet performed over the internet. Therefore, legal and/or natural persons are not obliged to pay visits to public administration authorities or offices in person anymore.
- A **downloadable form** shall mean a downloadable form, or a form to be downloaded, on a website, most often in doc and/or pdf formats, which citizens or businesses can download from an authority website, can fill in by hand or in computer, put their handwritten signature on, and deliver to the authority and/or office.
- **On-line filling and submitting forms** shall mean citizens fill in a form right on the web page while if the citizen has filled in the form in a correct way is computer checked. Subsequently, the forms filled this way are electronically submitted right from the webpage.
- **Public institutions** shall mean public educational institutions (schools, universities), public health services or public libraries.

The data may be **internationally compared** solely in the case of the data on individuals using the internet for interaction with public administration (public institutions and government authorities/office together). Data for this comparison originate from the **Eurostat** database which was updated in January 2021.

**More information on this theme can be found at:**

[https://www.czso.cz/csu/czso/verejna\\_sprava](https://www.czso.cz/csu/czso/verejna_sprava)

(in the Czech language only).

## E Government and ICT

**Table E1 Czech POINT - number of public contact points**

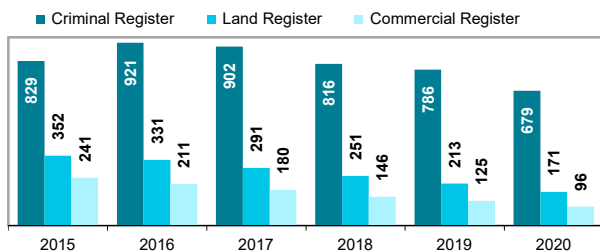
	Number		
	2010	2015	2019
<b>Total</b>	<b>6 911</b>	<b>7 423</b>	<b>7 934</b>
at the municipal authority offices	5 571	5 926	6 398
at post offices	943	979	951
at notary offices	308	387	439
at other places	89	131	146

*Czech POINT is an acronym for Czech Filing and Verification Information National Terminal that is a network of assisted public administration centres where every citizen can obtain all information on the data kept on him or her by the state in its central registers.*

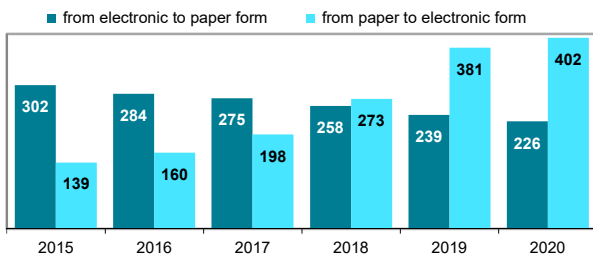
**Table E2 Outputs issued 'at the desk' of the Czech POINT**

	Thousand		
	2015	2019	2020
<b>Total</b>	<b>2 139</b>	<b>2 046</b>	<b>1 961</b>
<b>Verified copies (extracts), total</b>	<b>1 584</b>	<b>1 251</b>	<b>1 048</b>
from the Criminal Register	829	786	679
from the Land Register	352	213	171
from the Commercial Register	241	125	96
from the Driver Register	91	75	57
other verified extracts	71	52	45
<b>Authorized conversion of documents, total</b>	<b>441</b>	<b>620</b>	<b>628</b>
from electronic to paper form	302	239	226
from paper to electronic form	139	381	402
<b>Other outputs (issued documents), total</b>	<b>114</b>	<b>174</b>	<b>285</b>
Requests for a Data box registration	35	60	112

**Figure E1 Verified copies issued 'at the desk' of the Czech POINT for selected services (thousand)**



**Figure E2 Authorized conversions of documents issued 'at the desk' of the Czech POINT (thousand)**



Source: Ministry of the Interior ([www.czechpoint.cz](http://www.czechpoint.cz))



## E Government and ICT

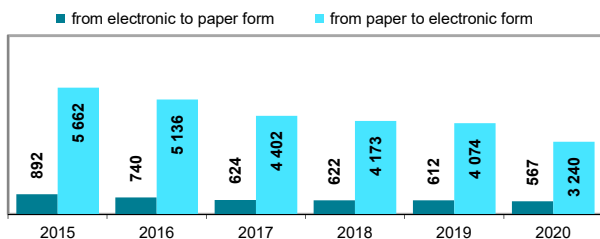
**Table E3 Documents issued from CzechPOINT@office interface**

Thousand

	2015	2019	2020
<b>Total</b>	<b>7 795</b>	<b>6 094</b>	<b>5 055</b>
<b>Verified copies/extracts ex officio, total</b>	<b>952</b>	<b>1 181</b>	<b>1 101</b>
from the Register of Vital Records (e.g. certificates of birth or death)	420	437	429
from the Register of Residents/Citizens (e.g. certificates of permanent residence)	424	430	383
others	108	314	289
<b>Verified extracts from Basic registers</b>	<b>289</b>	<b>226</b>	<b>148</b>
<b>Authorized conversion of documents, total</b>	<b>6 554</b>	<b>4 687</b>	<b>3 807</b>
from electronic to paper form	892	612	567
from paper to electronic form	5 662	4 074	3 240

CzechPOINT@office is a non-public interface of Czech POINT used by civil servants who must access the registers by law or convert documents by virtue of office.

**Figure E3 Authorized conversions of documents issued from the CzechPOINT@office interface (thousand)**

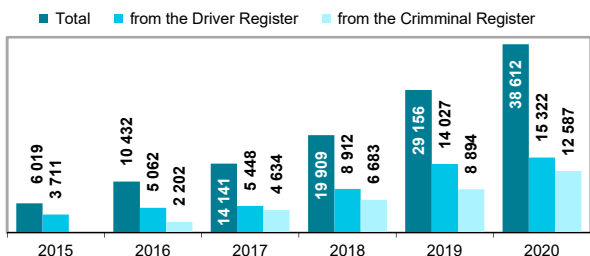


**Table E4 Verified copies of extracts issued from the CzechPOINT@home interface**

Number

	2015	2019	2020
<b>Total</b>	<b>6 019</b>	<b>29 156</b>	<b>38 612</b>
from the Driver Register	3 711	14 027	15 322
from the Criminal Register		8 894	12 587
from the Trade Licensing Register	683	1 713	3 136
from the Insolvency Register	234	640	801
other verified extracts	2 074	3 882	6 766

**Figure E4 Verified copies of extracts from the CzechPOINT@home interface**



Source: Ministry of the Interior ([www.czechpoint.cz](http://www.czechpoint.cz))

## E Government and ICT

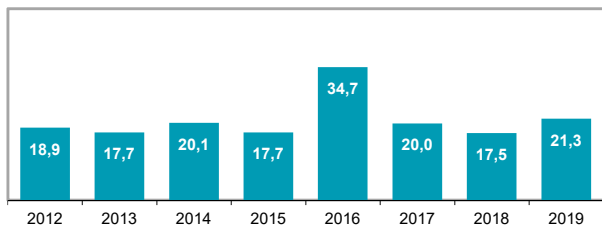
**Table E5 New Data Boxes in Czechia**

Thousand

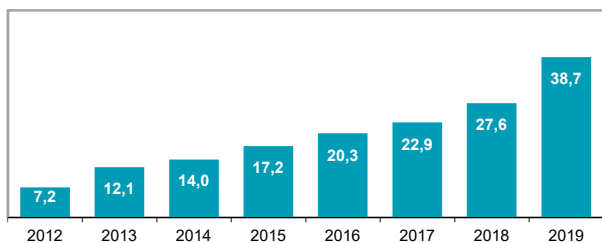
	2015	2018	2019
<b>Total</b>	<b>65,4</b>	<b>79,8</b>	<b>93,7</b>
Established by law	28,5	32,9	31,2
Established upon request	36,8	46,9	62,5
<b>Owner of newly activated Data Boxes</b>			
Public authority body	0,1	0,1	0,1
Enterprise	30,4	34,7	33,7
Self-employed person (entrepreneur)	17,7	17,5	21,3
Citizen (non-entrepreneur)	17,2	27,6	38,7

*A Data Box is a special electronic storage site intended for a delivery of official documents and for communication with public authority bodies in Czechia. Electronic documents sent via Data Boxes are recognised as equal to signed paper documents by law. Setting up a data box is optional for citizens and private individuals who carry out business activities (entrepreneurs) but it is obligatory for all other legal entities (e.g. enterprises or public authority bodies).*

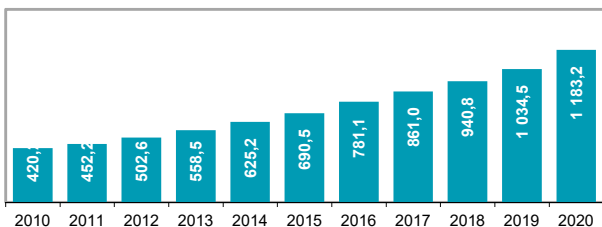
**Figure E5 New Data Boxes of self-employed persons (thousand)**



**Figure E6 New Data Boxes of citizens (thousand)**



**Figure E7 The total cumulative number of newly activated Data Boxes as of 31st December (thousand)**



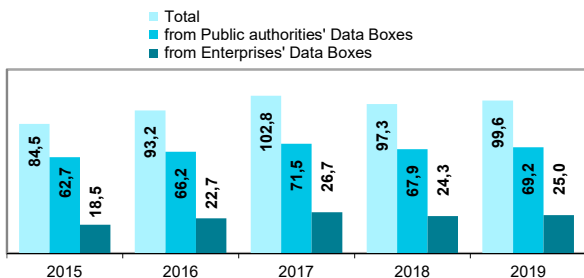
Source: Ministry of the Interior

## E Government and ICT

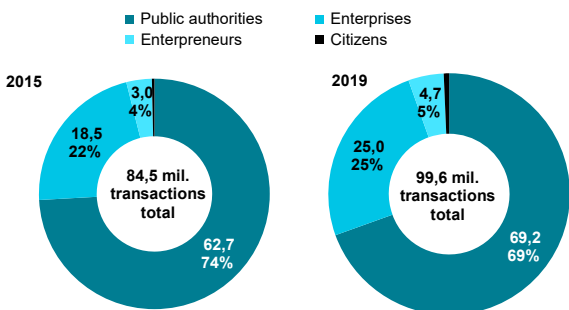
**Table E6 Electronic transactions made via Data Boxes**

	Thousand		
	2015	2018	2019
<b>Total</b>	<b>84 480</b>	<b>97 325</b>	<b>99 631</b>
from Public authorities' Data Boxes	62 664	67 878	69 209
from Enterprises' Data Boxes	18 511	24 323	24 959
from Entrepreneurs' Data Boxes	2 994	4 494	4 739
from Citizens' (non-entrepreneur) Data Boxes	311	630	724

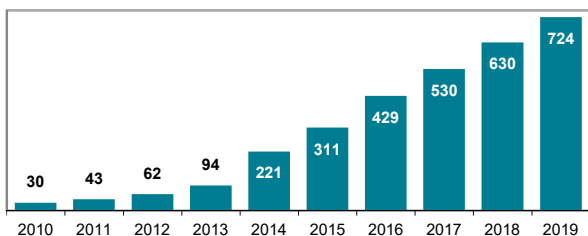
**Figure E8 E-transactions made via Data Boxes (million)**



**Figure E9 E-transactions made via Data Boxes by type of entities that conducted these transactions (million; %)**



**Figure E10 E-transactions made from Citizens' (non-entrepreneur) Data Boxes (thousand)**



Source: Ministry of the Interior

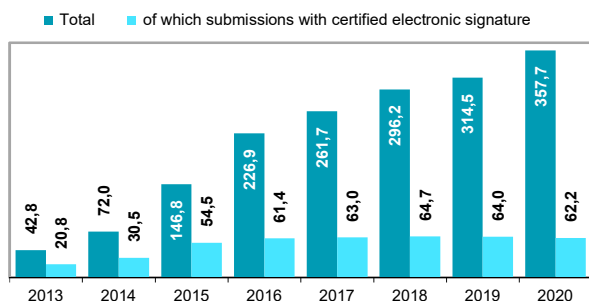
## E Government and ICT

**Table E7 Electronic Tax Returns sent to the Czech Financial Administration via the EPO application**

	Thousand		
	2018	2019	2020
Value Added Tax declaration	2 371	2 453	2 479
Personal Income Tax declaration	296	315	358
Corporate Income Tax declaration	220	225	223
Road Tax declaration	220	225	227
Real Estate Tax declaration	38	37	40

*EPO is a Czech abbreviation used for an electronic filing room (client-oriented web application) of the Czech Financial Administration (CFA) which allows electronic submissions in tax related matters (e.g. e-filing of tax declarations).*

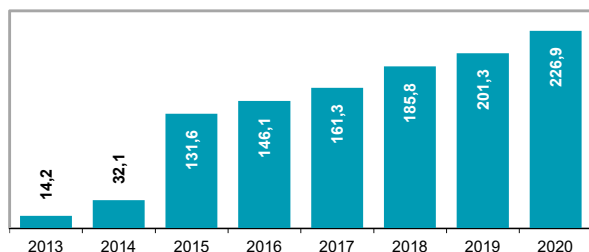
**Figure E11 Personal Income Tax forms filled in for the CFA electronically via the EPO application (thousand)**



**Table E8 Selected tax forms filled in electronically to the Czech Financial Administration via Data Boxes**

	Thousand		
	2018	2019	2020
Value Added Tax declaration	2 125	2 271	2 411
Personal Income Tax declaration	186	201	227
Corporate Income Tax declaration	279	289	295
Road Tax declaration	168	175	181
Real Estate Tax declaration	21	20	20

**Figure E12 Personal Income Tax forms filled in for the CFA electronically via Data Boxes (thousand)**



Source: Czech Financial Administration

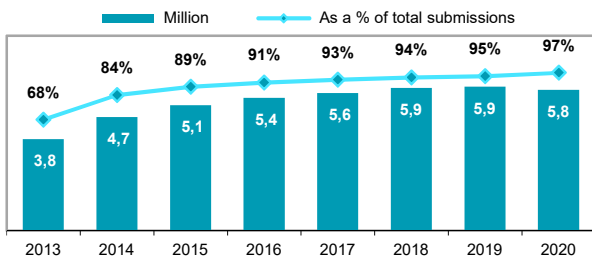
## E Government and ICT

**Table E9 Forms sent electronically to the Czech Social Security Administration via the e-Submission application**

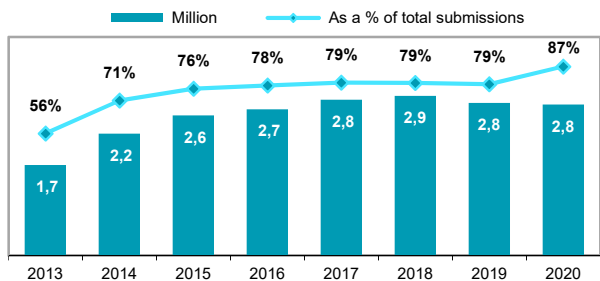
	Thousand		
	2015	2019	2020
Record for Pension Insurance	5 149	5 911	5 780
Announcement of the commencement of employment	2 560	2 792	2 761
Overview of insurance contribution amount	2 041	2 674	3 076
Survey of income and expenses of the self-employed person	45	137	182

The e-Submission application is a web application which allows citizens, self-employed persons (entrepreneurs) and enterprises to submit selected forms to the Czech Social Security Administration (CSSA) electronically.

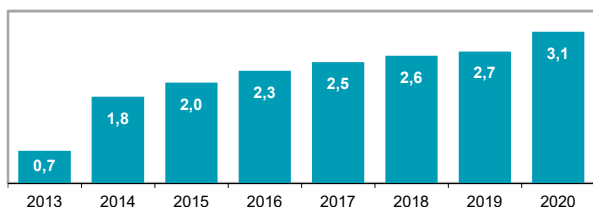
**Figure E13 Records for Pension Insurance filled in electronically via the e-Submission application**



**Figure E14 Announcements of the commencement of employment filled in electronically via e-Submission app.**



**Figure E15 Overviews of insurance contribution amount filled in electronically via the e-Submission app. (million)**



Source: Czech Social Security Administration

## E Government and ICT

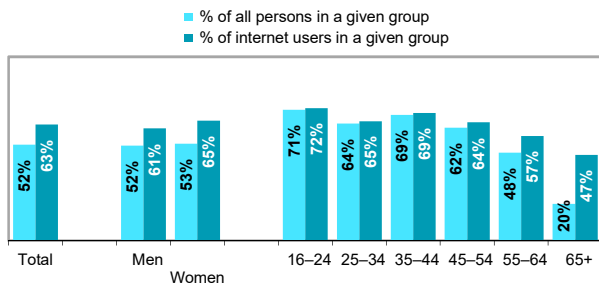
**Table E10 Persons in Czechia who in the last 12 months used the internet in relation to the public institutions; 2020**

	Percentage		
	Total	of which with	
		government authorities	other public institutions*
<b>Total (aged 16+)</b>	<b>52,3</b>	<b>40,9</b>	<b>34,4</b>
Men	51,7	41,4	30,5
Women	52,8	40,5	38,1
<b>Age group (years)</b>			
16–24	71,2	28,4	62,5
25–34	63,7	53,8	44,0
35–44	68,5	57,4	46,3
45–54	61,5	51,8	36,6
55–64	47,9	41,4	24,6
65+	20,2	16,3	11,5
<b>Activities conducted on websites of public institutions (aged 16+)</b>			
Getting information	48,8	38,9	29,0
Downloading forms	25,9	18,9	13,6
Filling and submitting forms	26,7	14,9	18,7

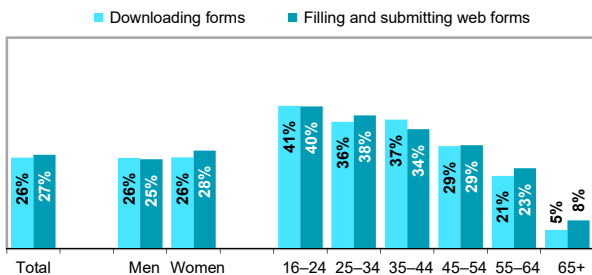
as a percentage of all persons in a given socio-demographic group

\* Includes public educational institutions, health services or libraries.

**Figure E16 Using the internet in relation to the public institutions by gender and age; 2020**



**Figure E17 Activities conducted on websites of public institutions by gender and age; 2020**

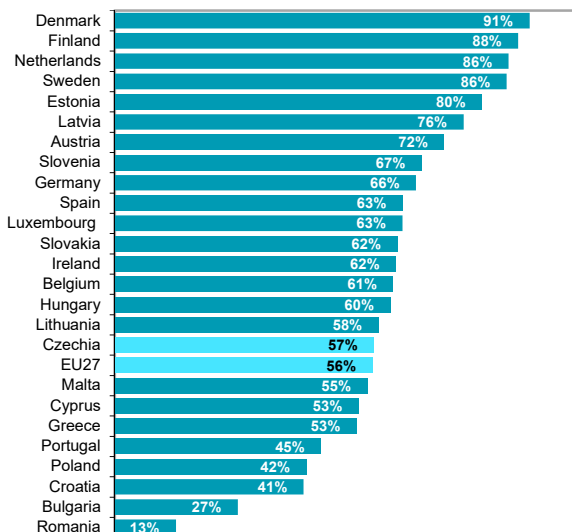


as a percentage of all persons in a given socio-demographic group

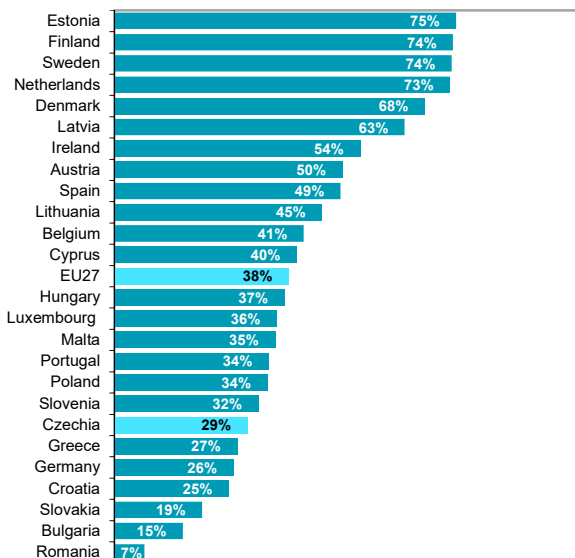
Source: Czech Statistical Office, ICT use survey in households

## E Government and ICT

**Figure E18 Persons aged 16–74 years in EU countries who in the last 12 months used the internet in relation to the public institutions; 2020**



**Figure E19 Persons aged 16–74 years in EU countries who in the last 12 months online submitted completed forms on websites of public institutions; 2020**



Source: Eurostat

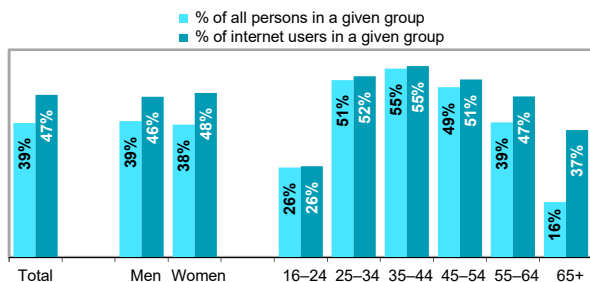
## E Government and ICT

**Table E11 Persons in Czechia who conducted selected activities on websites of government authorities; 2020**

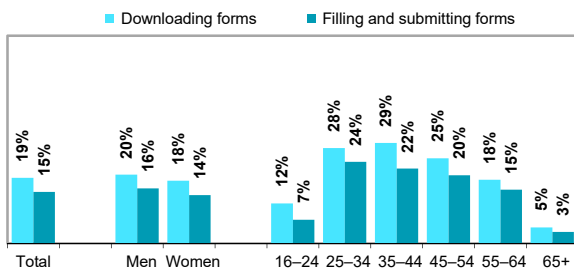
	Percentage		
	Getting information	Download- ing forms	Filling and submitting forms
<b>Total (aged 16+)</b>	<b>38,9</b>	<b>18,9</b>	<b>14,9</b>
Men	39,3	19,8	15,9
Women	38,4	18,1	13,9
<b>Age group (years)</b>			
16–24	26,0	11,5	6,8
25–34	51,3	27,6	23,5
35–44	54,6	29,0	21,6
45–54	49,2	24,5	19,7
55–64	39,0	18,3	15,5
65+	15,9	4,6	3,3
<b>Education (aged 25–64)</b>			
Primary	19,6	5,0	5,8
Secondary without A-level exam.	38,2	16,1	12,1
Secondary with A-level examination	52,7	27,8	22,0
Tertiary	66,5	39,5	33,0

as a percentage of all persons in a given socio-demographic group

**Figure E20 Obtaining information from websites of government authorities by gender and age; 2020**



**Figure E21 Activities conducted on websites of government authorities by gender and age; 2020**



as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households



## F ICT in Education and Digital Skills

Data on **numbers of computers at schools** per 100 pupils/students of respective school grades, as well as on school equipment with other ICTs in the Czech Republic come from data sources of the **Ministry of Education, Youth and Sports**. The Ministry collect these data at nursery, primary, secondary, and higher professional schools within the annual questionnaire called Report of Schools Headquarters (R 13-01). The data are as at **30 September of the reference year**.

**More information on these fields can be found at:**

[https://www.czso.cz/csu/czso/information\\_technologies\\_in\\_schools](https://www.czso.cz/csu/czso/information_technologies_in_schools)

Detailed data on the 15-year-old pupils in the Czech Republic access to selected ICTs at home and at school were processed based on the results of the **Programme for International Student Assessment (PISA 2018)**, survey conducted by OECD. The survey is the most important project of the OECD in education measurement, which is currently carried out in the world. Detailed information on the PISA 2018 can be found at: <http://www.oecd.org/pisa/>.

The independent annual statistical survey called **Sample Survey on the ICT Use in Households and by Individuals** (for details see Chapter C) has been a valuable source of information on how **students aged 16+ years** use information technologies.

The **Sample Survey on the ICT Use in Households and by Individuals** is also a source of data on **online learning activities** over the internet. Within the survey, respondents were asked if they attended an online course, used online learning material or communicated with instructors using educational portals within **the last 3 months** prior the survey.

The indicators on **computer (digital) skills** of people in Czechia are also based on results from the above-mentioned Sample Survey on the ICT Use in Households and by Individuals. Within the survey, respondents were asked if they used selected digital skills in **the last 12 months**.

### Definitions (sorted alphabetically)

- **Communication with instructors** means that students/ pupils/ participants of the training event can share their experiences and knowledge or consult with the instructor/teacher or other students through special educational websites or portals (e.g. Moodle).
- **Copying or moving files** between folders or between two computers (e.g. via USB flash drive) or between computers and other devices (e.g. from/to mobile phone via Bluetooth)
- **Editing photos** means using photo editing software e.g. Adobe Photoshop or GIMP. The software for editing allows to add effects, filters, overlays and use other tools.
- **Presentation software** e.g. Powerpoint or Prezi is used to create slides for presentation integrating text, pictures, tables or charts.
- **Programming** shall include the use of programming languages as Java, C, Python, Pascal, for instance, writing of scripts in PHP or JavaScript, for instance, writing of source codes, formatting and generating of tools, binary tools for compatibility analyses, tools for code checking, generators of documentation, generators of interfaces, etc.
- **School Intranet** uses most of the same technology as the internet but it is restricted only to a limited group of users within an organization, typically to students and staff of given school. The access by outsiders is excluded.
- **School Wireless Network** (school WiFi network) enables students and school staff using portable devices in a school to connect to the school computer network. An example is international roaming service Eduroam.

- **Spreadsheet** software e.g. MS Excel is used to organise and analyse data, such as sorting, filtering, using formulas or creating charts.
- **The participation in an online course** shall include a participation in course attended over the internet. Students communicate with lecturers over the internet, study materials are also sent online. Online courses may include language courses, personal development courses, computer courses and more. It also includes courses made through the applications such as Duolingo.
- **Uploading photos, videos or music** includes posting self-created content on the internet.
- **Using online learning material** includes using audio-visual materials, online learning software or electronic textbooks. Excludes downloading such material for offline use at a later point of time.
- **Word processing software** e.g. MS Word or OpenOffice Writer is used to create a document with text.

**More information on these fields can be found at:**

[https://www.czso.cz/csu/czso/vyuzivani\\_informacnich\\_tehnologii\\_studenty](https://www.czso.cz/csu/czso/vyuzivani_informacnich_tehnologii_studenty)  
(in the Czech language only)

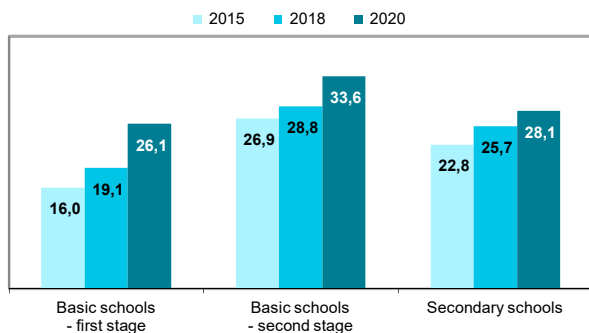
## F ICT in Education and Digital Skills

**Table F1 Computers in schools in Czechia; 2020**

Number of devices per 100 students in a given school type

	Total	Desktop	Portable	Up to age of 2 years
Basic schools - first stage	26,1	14,6	11,5	10,0
Basic schools - second stage	33,6	19,8	13,8	13,1
Secondary schools	28,1	20,9	7,2	8,9

**Figure F1 Computers in schools available to students**(number of devices per 100 students in a given school type)

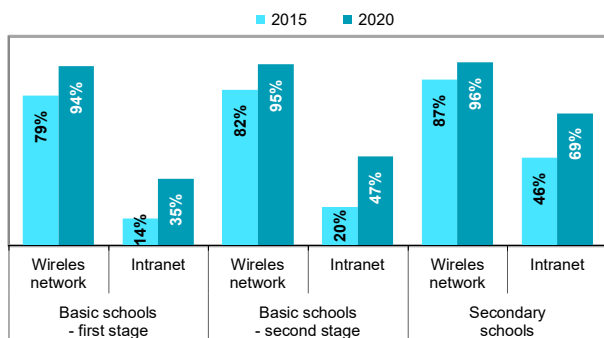


**Table F2 Schools in Czechia with wireless network and school intranet**

Percentage

	Wireless Network		Intranet	
	2015	2020	2015	2020
Basic schools - first stage	78,7	94,1	14,3	35,1
Basic schools - second stage	81,6	95,1	20,3	46,7
Secondary schools	87,0	96,2	46,1	69,5

**Figure F2 Schools with wireless network and school Intranet**



Source: Ministry of Education, Youth and Sports

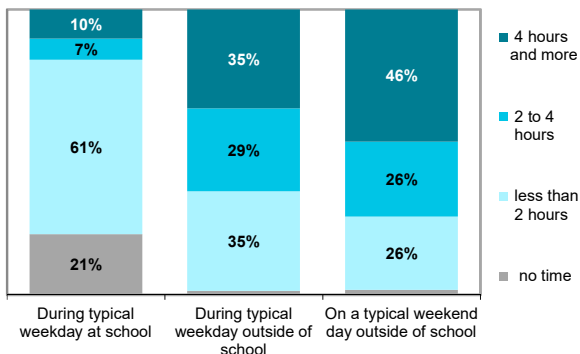
## F ICT in Education and Digital Skills

**Table F3 Fifteen-year-old students in Czechia with access to different digital devices at home and at school**

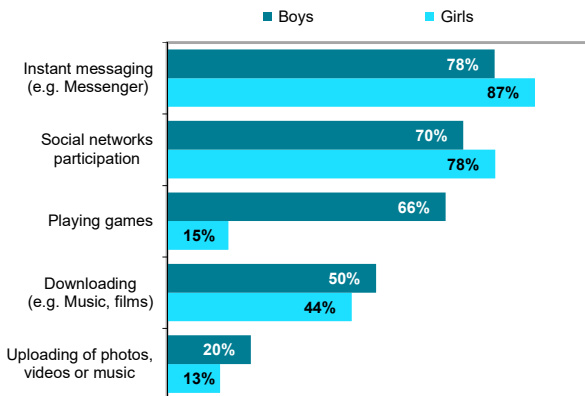
	Percentage			
	At home		At school	
	2015	2018	2015	2018
Mobile phone	93,1	99,1	.	.
Internet	98,7	98,9	90,4	94,8
Desktop computer	82,9	76,4	79,5	81,5
Laptop computer	87,5	88,8	28,6	27,9
Tablet	68,4	71,7	22,7	22,9
Printer	78,1	81,6	.	.

as a percentage of all 15 years old students

**Figure F3 Average daily time spent on the internet by 15-year-old students; 2018**



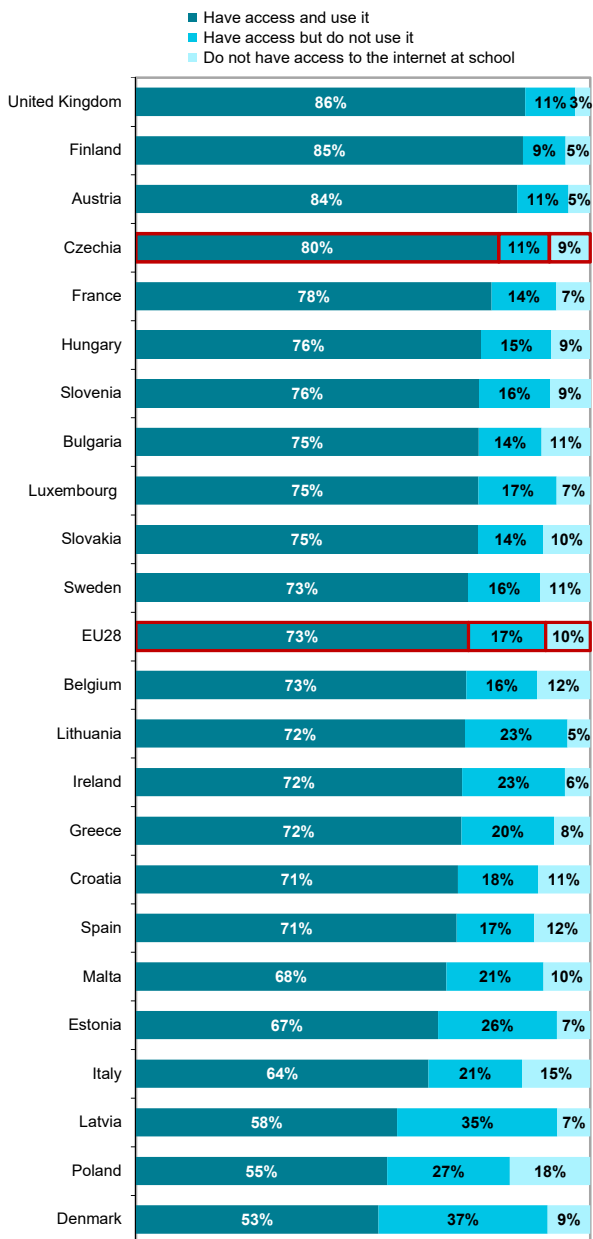
**Figure F4 Fifteen-year-old students using the internet daily for selected entertainment activities; 2018**



Source: OECD, survey PISA

## F ICT in Education and Digital Skills

**Figure F5 15-year-old students in EU countries and their access to the internet at school; 2018**



Source: OECD, survey PISA

## F ICT in Education and Digital Skills

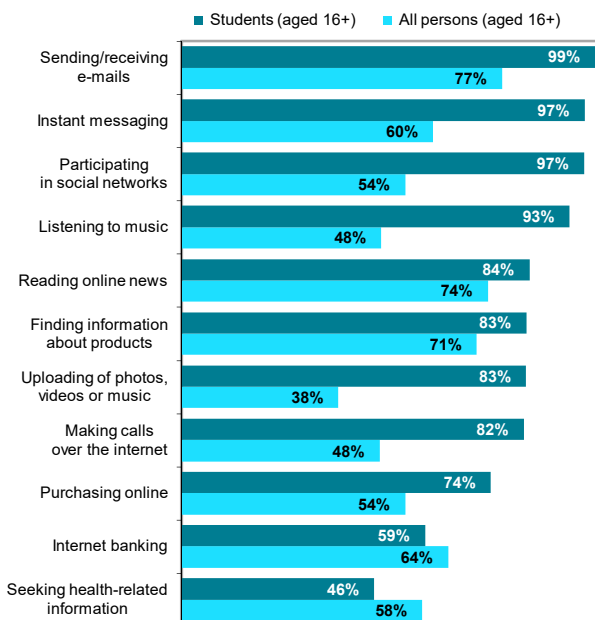
**Tab. F4 Students aged 16+ in Czechia using the internet; 2020**

	Percentage		
	Total	Men	Women
<b>Using the internet, total</b>	<b>100,0</b>	<b>100,0</b>	<b>100,0</b>
Using the internet several times a day	92,1	91,1	93,1
<b>Using the internet on a mobile phone, total</b>	<b>98,5</b>	<b>100,0</b>	<b>97,0</b>
of which via a mobile network (e. g. LTE)*	84,8	82,9	86,7
<b>Using the internet for selected activities</b>			
Sending/receiving e-mails	99,4	99,6	99,2
Instant messaging	96,8	97,4	96,2
Making calls over the internet	82,2	78,1	86,5
Participating in social networks	96,7	96,9	96,5
Reading online news	83,6	80,5	86,8
Listening to music	93,2	90,7	95,7
Uploading photos, videos or music	82,8	80,7	84,8
Internet banking	58,5	56,8	60,3
Purchasing online	74,3	74,8	73,8
Finding information about products	82,8	79,7	86,0
Seeking health-related information	46,3	33,3	59,6

\* Mobile network stands here for the use of both prepaid and postpaid mostly tariff data and voice subscription from the mobile phone operators.

as a percentage of all students (men/women) aged 16+

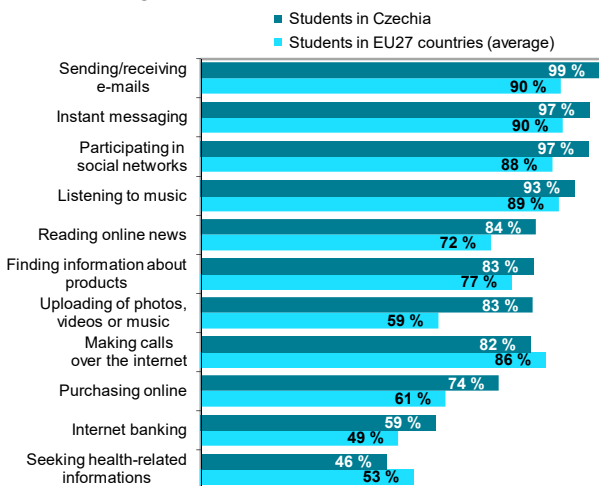
**Figure F6 Students and persons aged 16+ using the internet for selected activities; 2020**



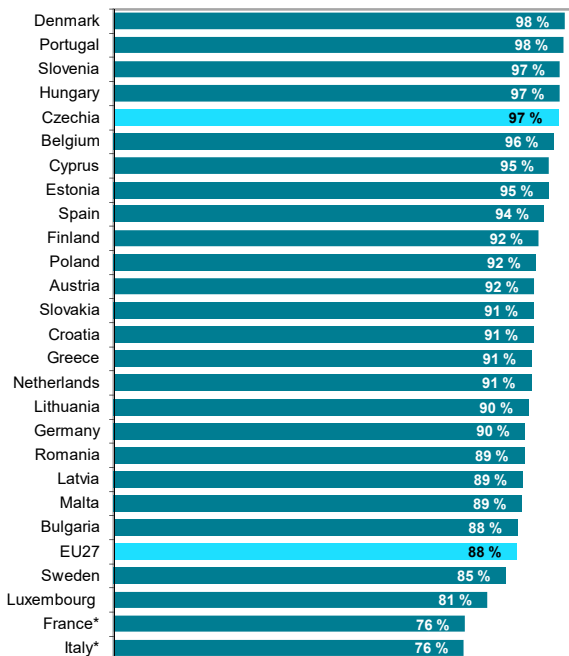
Source: Czech Statistical Office, ICT use survey in households

## F ICT in Education and Digital Skills

**Figure F7 Students aged 16+ in Czechia and other EU countries using the internet for selected activities; 2020**



**Figure F8 Students aged 16+ in EU countries using social networks; 2020**



\* data for 2019

Source: Eurostat

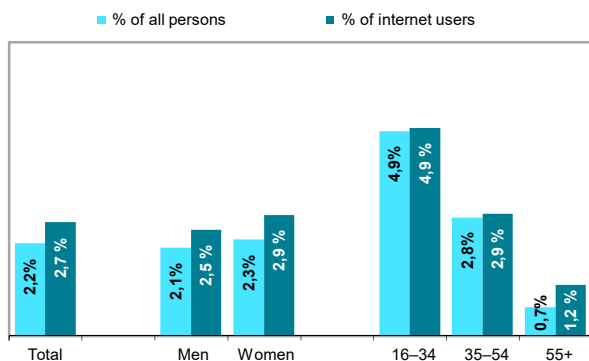
## F ICT in Education and Digital Skills

**Tab. F5 Persons in Czechia using the internet for selected learning activities; 2nd quarter 2020**

	Percentage		
	Doing an online course	Using online learning materials	Communicating with instructors using educat. portals
<b>Total (aged 16+ years)</b>	<b>8,4</b>	<b>12,6</b>	<b>9,9</b>
Men	8,2	12,6	8,9
Women	8,6	12,6	10,7
<b>Age group (years)</b>			
16–34	31,6	49,8	54,5
35–54	9,2	13,1	7,8
55+	1,5	2,3	1,4
<b>Education (aged 25–64)</b>			
Primary	0,1	2,2	2,3
Secondary without A-level exam.	1,3	3,4	2,3
Secondary with A-level examination	7,7	11,2	5,9
Tertiary	19,4	24,8	15,8

as a percentage of all persons in a given socio-demographic group

**Figure F9 Persons in Czechia who paid for online course or online learning material; 2020**



**Tab. F6 Students aged 16+ in Czechia using the internet for selected learning activities; 2nd quarter of the given year**

	Percentage		
	2015	2019	2020
Doing an online course	5,2	15,7	40,6
Using online learning material	16,8	40,9	63,1
Communicating with instructors using educational portals	23,4	45,9	72,3

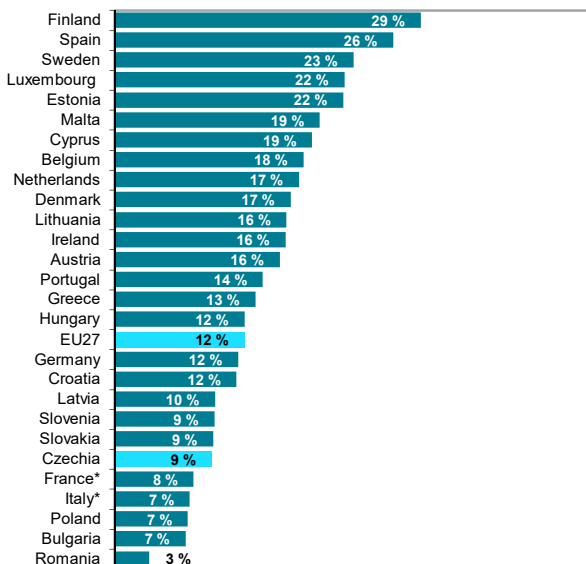
as a percentage of all students aged 16+

Source: Czech Statistical Office, ICT use survey in households

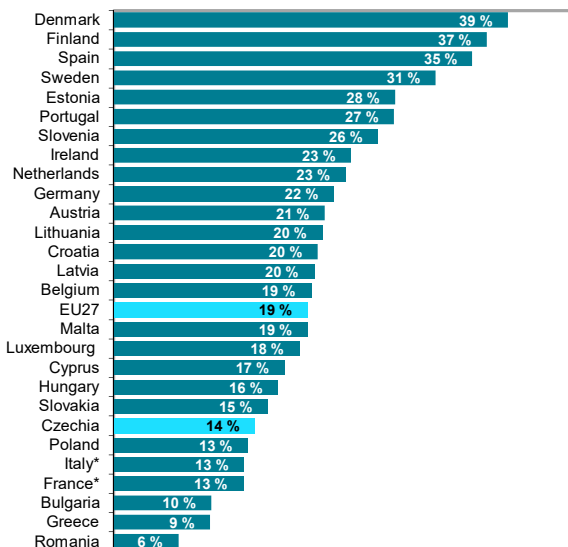


## F ICT in Education and Digital Skills

**Figure F10 Persons aged 16–74 years in EU countries who attended an online course; 2nd quarter 2020**



**Figure F11 Persons aged 16–74 years in EU countries who used online learning materials; 2nd quarter 2020**



\* data for 2019

Source: Eurostat

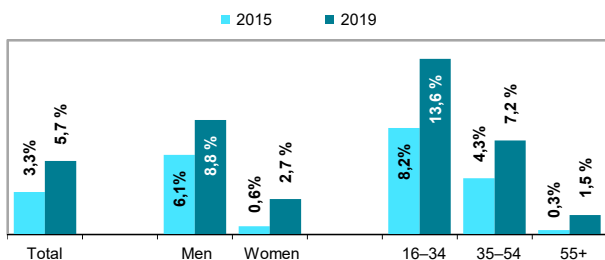
## F ICT in Education and Digital Skills

**Tab. F7 Persons in Czechia with selected IT skills; 2019**

	Percentage		
	Copying files	Editing photos	Program-ming
<b>Total (aged 16+ years)</b>	<b>51,2</b>	<b>31,9</b>	<b>5,7</b>
Men	56,0	33,9	8,8
Women	46,8	29,9	2,7
<b>Age group (years)</b>			
16–34	86,1	69,3	13,6
35–54	65,7	40,5	7,2
55+	22,6	10,4	1,5
<b>Education (aged 25–64)</b>			
Primary	11,5	11,2	0,5
Secondary without A-level exam.	31,3	16,6	1,1
Secondary with A-level examination	63,3	35,5	5,7
Tertiary	84,3	53,7	13,9

as a percentage of all persons in a given socio-demographic group

**Figure F12 Programming by gender and age**



**Tab. F8 Persons in Czechia using office software; 2019**

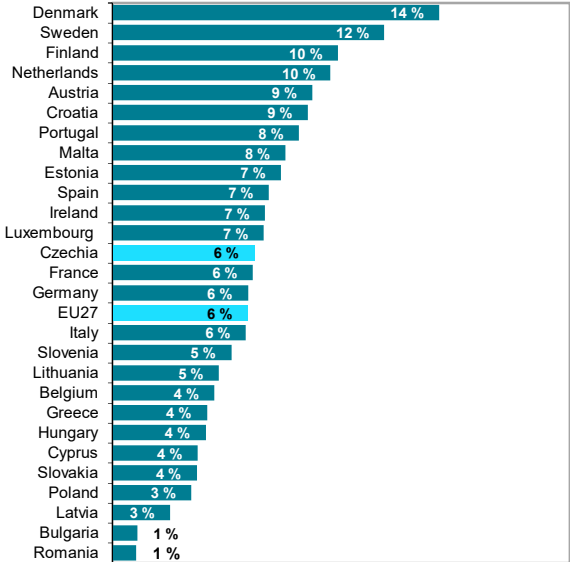
	Percentage		
	Word processing software	Spreadsheet software (e.g. Excel)	Presentation software
<b>Total (aged 16+ years)</b>	<b>53,7</b>	<b>44,9</b>	<b>18,0</b>
Men	54,6	47,0	20,7
Women	52,8	42,9	15,5
<b>Age group (years)</b>			
16–24	88,0	81,6	56,5
25–34	72,3	61,1	27,1
35–44	67,1	57,6	19,6
45–54	60,5	50,9	16,2
55–64	45,5	35,4	9,6
65+	15,9	9,8	1,2
<b>Education (aged 25–64)</b>			
Primary	14,0	8,8	1,6
Secondary without A-level exam.	36,6	23,8	3,7
Secondary with A-level examination	75,6	64,8	18,9
Tertiary	90,9	85,0	44,8

as a percentage of all persons in a given socio-demographic group

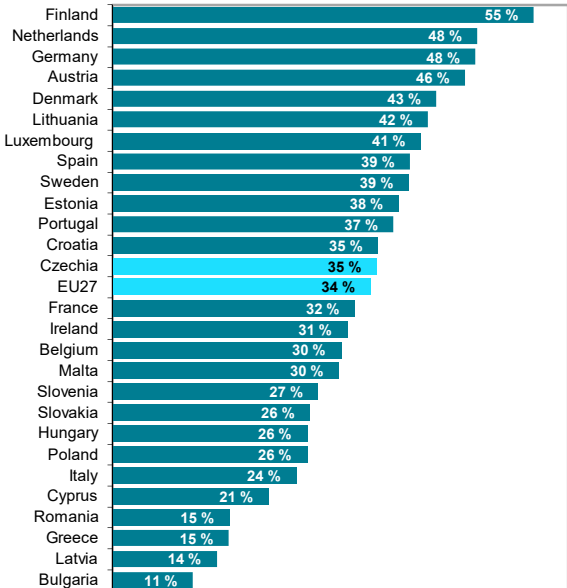
Source: Czech Statistical Office, ICT use survey in households

## F ICT in Education and Digital Skills

**Figure F13 Persons aged 16–74 years in EU countries who do programming; 2019**



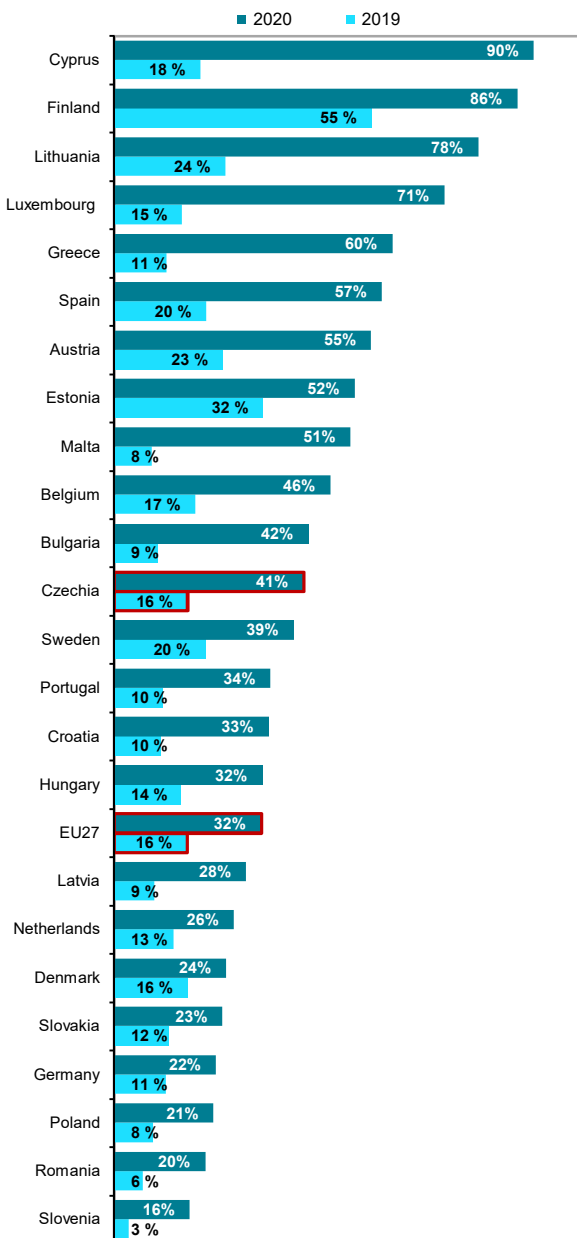
**Figure F14 Persons aged 16–74 years in EU countries who used photo editing software; 2019**



Source: Eurostat

## F ICT in Education and Digital Skills

**Figure F15 Students aged 16+ in EU countries who attended an online course; 2nd quarter of a given year**



Source: Eurostat

## G Health and ICT

Data on e-Health services are processed from the results of the comprehensive annual survey on information on health care services providers E (MZ) 1-01 performed by the **Institute of Health Information and Statistics of the Czech Republic** (IHIS CR). This survey includes basic questions on the ICT equipment of practices (offices/ surgeries) of **independent physicians**. In addition, data on **online services** offered via websites of independent physicians and **keeping health records (documentation) in the electronic form** are taken from this survey.

Since the reference year 2016, the survey includes also detailed questions on available functionalities and used records of **electronic information healthcare systems** deployed in offices of independent physicians.

**Reference period:** the data are as at 31 November of the reference year for ICT equipment of practices and 3 months prior to the survey for seeking health-related information by individuals.

**Available breakdowns:** Data on the ICT use by independent physicians are available by the type of practice – general practitioner for adults, general practitioner for children, dentist, gynecologist, and specialist.

The independent annual statistical survey called **Sample Survey on the ICT Use in Households and by Individuals** (for details see Chapter C) has been a valuable source of information how many individuals use the internet for seeking health-related information in the last 3 months. The survey results are internationally comparable as a percentage of all individuals aged 16 to 74 years.

**International data and comparisons** of certain indicators are taken from the Eurostat database for digital economy and society, data of which are updated every year in December. Detailed information can be found at: <https://ec.europa.eu/eurostat/web/digital-economy-and-society/overview>.

### Definitions (sorted alphabetically)

- A **specialist physician** shall mean a doctor who has completed advanced education and training in a specific field of medicine to become an allergist, a dermatologist, an ophthalmologist, a urologist, etc. This category excludes gynecologists and dentists.
- **Electronic health records** shall mean the documentation (medical patient data), which is made, processed, filed, stored, and transmitted in a digital form.
- **Independent physicians** include all independent practices who are not part of another medical facility, e.g. hospital.
- **Lists of patients by diagnosis, laboratory results or for an appointment** for examinations shall mean a list of electronic records of all patients of the health establishment by a given criterion entered.
- **Online appointments to the physician** shall mean that the patients may make appointments for examination and/or medical intervention by means of an online editable form, which is transmitted directly from the website of the surgery. **These do not include making appointments simply by email.**
- **Online consultancies** shall mean the option to send health related queries via a website of the physician's surgery.
- **Online prescribing** allows a physician to use digital prescription software to electronically transmit a prescription to the patient. Patient receives an electronic identification code which then produces to the pharmacist.
- **Seeking health-related information** includes searching for information about injuries, diseases, nutrition, improving health, etc.
- **The notice on drug interaction** shall mean that the system issues a notice to the physician if the patient has been prescribed medicines, which have mutual effects.
- **The online application for prescription** shall mean that the patient receives the electronic prescription through an email or an SMS code, which the patient then produces to the pharmacist.

**For more information see:**

[https://www.czso.cz/csu/czso/information technologies in the czech health sector](https://www.czso.cz/csu/czso/information%20technologies%20in%20the%20czech%20health%20sector)

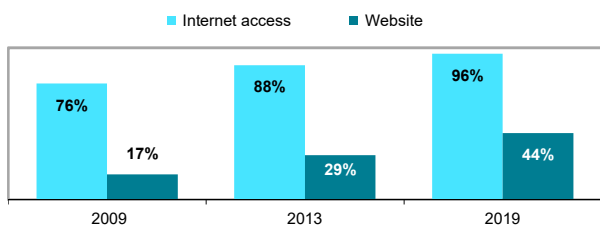
## G Health and ICT

**Table G1 Independent surgeries of physicians in Czechia having a computer and the internet access in their medical offices and their website; 2019**

	Percentage		
	Computer	Internet	Website
<b>Total</b>	<b>97,0</b>	<b>96,1</b>	<b>43,8</b>
General practitioners for adults	98,6	98,0	45,5
General practitioners for children	98,7	98,2	63,2
Dentists	97,3	96,1	28,3
Gynecologists	97,5	97,1	61,4
Specialists	95,2	94,0	45,9

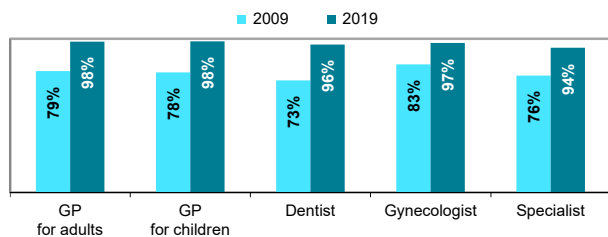
as a percentage of all independent surgeries of a given physician practice

**Figure G1 Independent surgeries of physicians having the internet access in their medical offices and own website**

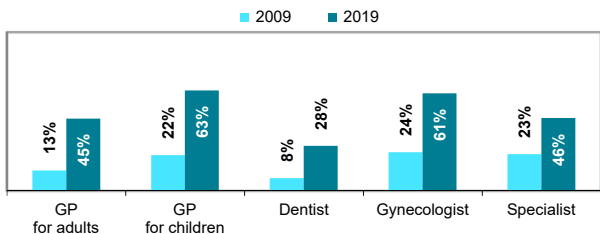


as a percentage of all independent surgeries of physicians

**Figure G2 Independent surgeries of physicians having the internet in their medical offices by type of practice**



**Figure G3 Independent surgeries of physicians having own website by type of practice**



as a percentage of all independent surgeries of a given physician practice

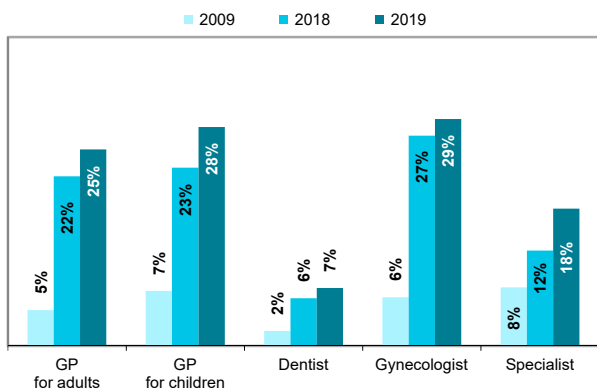
Source: CZSO calculations based on Institute of Health Information and Statistics

**Table G2 Online services available on the websites of independent surgeries of physicians in Czechia; 2019**

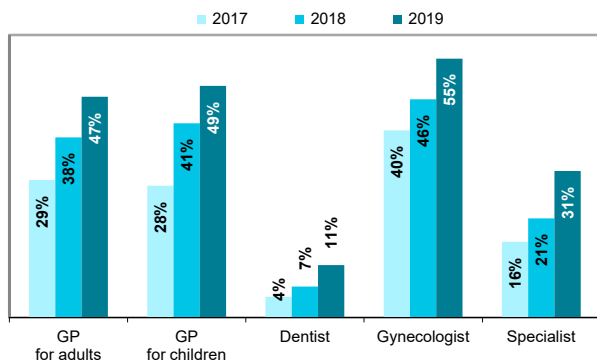
	Percentage		
	Online appointment	Online consultation	Online prescription
<b>Total</b>	<b>18,5</b>	<b>16,2</b>	<b>32,5</b>
General practitioners (GP) for adults	25,4	18,4	46,8
General practitioners (GP) for children	28,3	29,0	49,2
Dentists	7,5	5,4	11,1
Gynecologists	29,4	31,0	54,9
Specialists	17,8	16,9	31,1

as a percentage of all independent surgeries of a given physician practice

**Figure G4 Independent surgeries of physicians having a website application for making online appointment**



**Figure G5 Independent surgeries of physicians having a website application for making online prescription**



as a percentage of all independent surgeries of a given physician practice

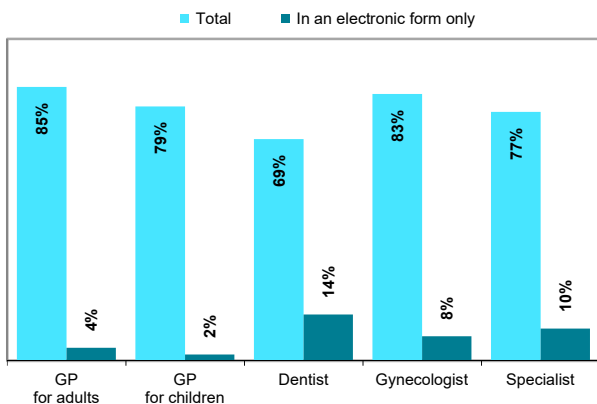
Source: CZSO calculations based on Institute of Health Information and Statistics

**Table G3 Independent surgeries of physicians in Czechia keeping health records electronically; 2019**

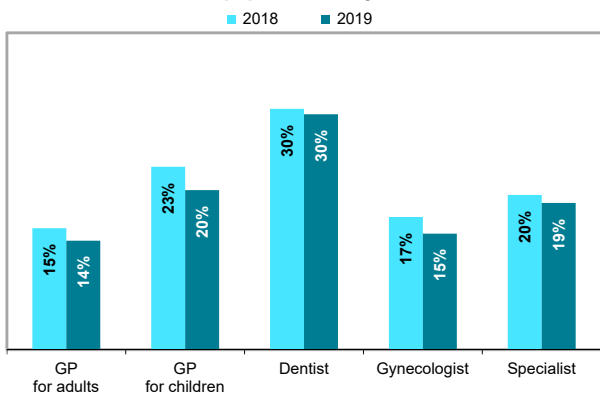
	Percentage	
	Total	of which only electronically
<b>Total</b>	<b>77,3</b>	<b>8,9</b>
General practitioners (GP) for adults	85,1	4,0
General practitioners (GP) for children	79,0	1,9
Dentists	68,8	14,3
Gynecologists	82,8	7,6
Specialists	77,3	10,0

as a percentage of all independent surgeries of a given physician practice

**Figure G6 Independent surgeries of physicians keeping at least part of the health records in an electronic form; 2019**



**Figure G7 Independent surgeries of physicians keeping the health records in a paper form only**



as a percentage of all independent surgeries of a given physician practice

Source: CZSO calculations based on Institute of Health Information and Statistics

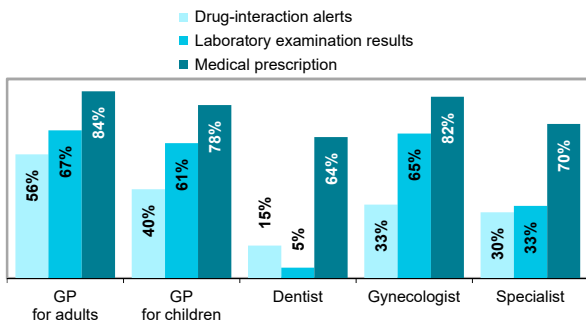


**Table G4 Independent surgeries of physicians in Czechia using selected functions of their information systems; 2019**

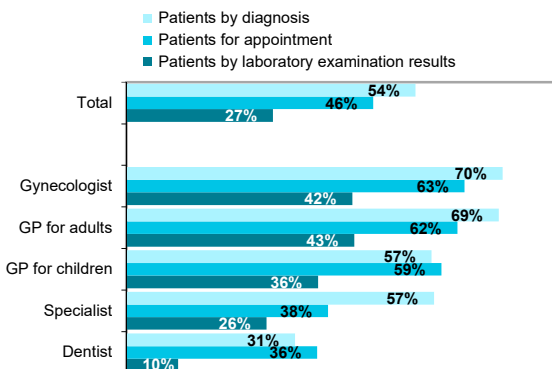
	Percentage		
	Medical prescription	Drug-interaction alerts	Laboratory examinations results
<b>Total</b>	<b>73,0</b>	<b>32,8</b>	<b>37,6</b>
General practitioners (GP) for adults	84,4	55,9	66,7
General practitioners (GP) for children	78,2	40,1	61,0
Dentists	63,8	14,7	4,8
Gynecologists	82,0	33,3	65,4
Specialists	69,7	29,7	32,6

as a percentage of all independent physicians of a given practice

**Figure G8 Independent surgeries of physicians using selected functions of their information systems; 2019**



**Figure G9 Independent surgeries of physicians having information systems enabling to generate selected patient records; 2019**



as a percentage of all physicians of a given practice

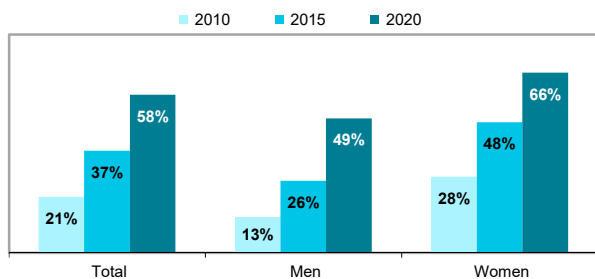
Source: CZSO calculations based on Institute of Health Information and Statistics

**Table G5 Persons in Czechia using the internet for seeking health-related information**

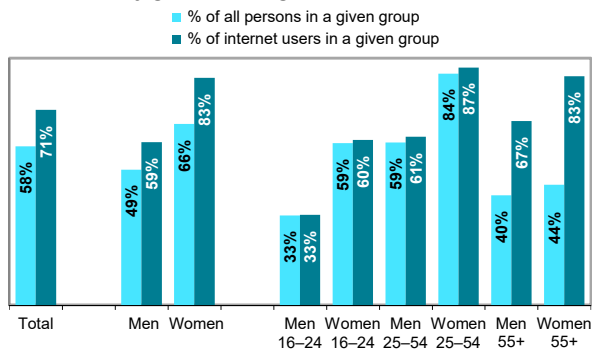
	Percentage		
	2015	2019	2020
<b>Total (aged 16+)</b>	<b>37,3</b>	<b>52,6</b>	<b>57,8</b>
Men	26,4	41,8	49,2
Women	47,9	62,7	66,0
<b>Age group (years)</b>			
16–24	22,9	43,2	45,2
25–34	45,7	64,3	69,9
35–44	48,1	63,2	74,7
45–54	47,5	63,8	71,0
55–64	40,9	56,9	59,2
65+	18,1	29,2	31,3
<b>Education attainment (aged 25–64)</b>			
Primary	20,0	38,6	40,0
Secondary without A-level examination	34,8	51,0	60,2
Secondary with A-level examination	54,8	68,3	74,0
Tertiary	59,2	75,7	82,2

*as a percentage of all persons in a given socio-demographic group*

**Figure G10 Persons aged 16+ using the internet for seeking health-related information**



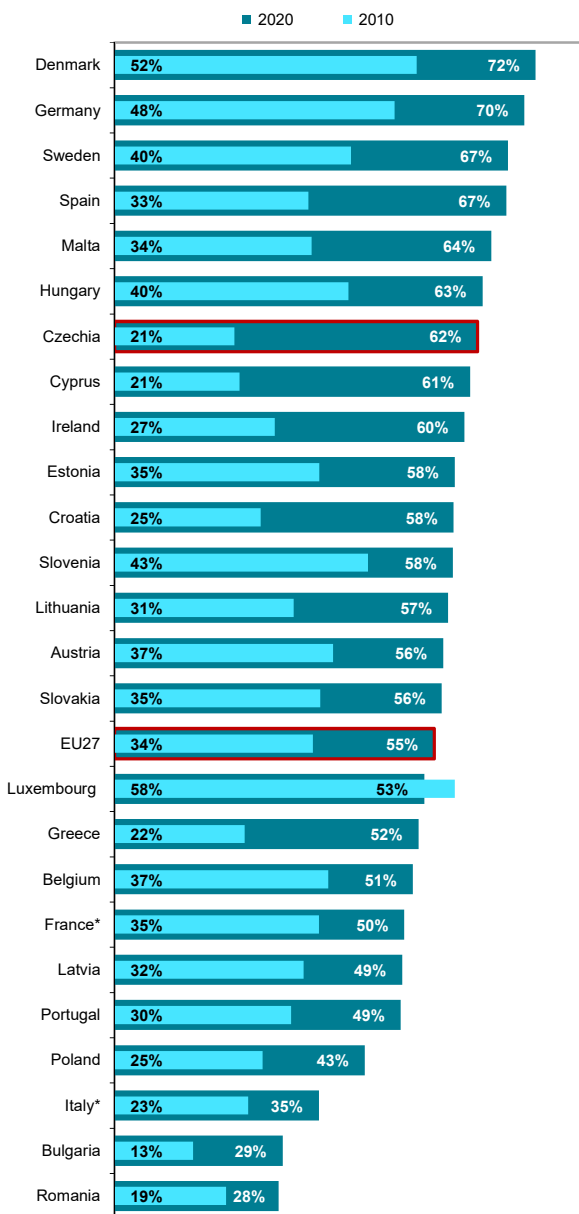
**Figure G11 Use of the internet for seeking health-related information by gender and age; 2020**



*Source: Czech Statistical Office, ICT use survey in households*

## G Health and ICT

**Figure G12 Persons aged 16–74 years in EU countries using the internet for seeking health-related information**



\* data for 2019

Source: Eurostat

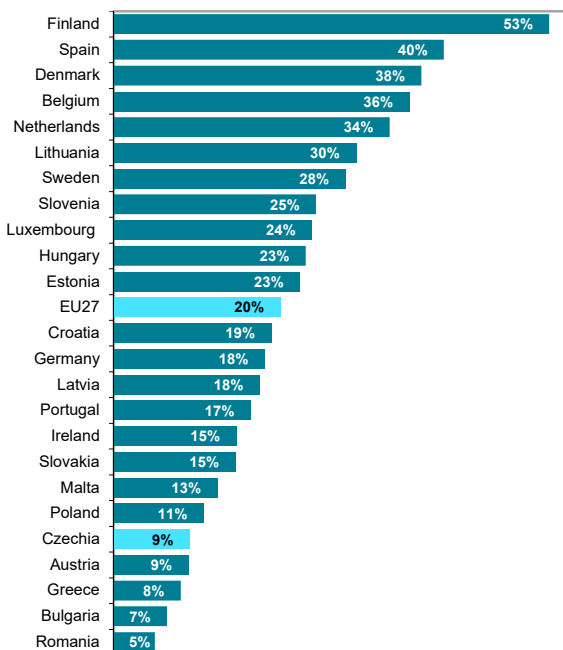
## G Health and ICT

**Table G6 Persons in Czechia using the internet for selected health-related activities; 2020**

	Percentage		
	Request for a prescription	Making an appointment	Consultation
<b>Total (aged 16+)</b>	<b>17,1</b>	<b>8,6</b>	<b>5,0</b>
Men	12,0	6,4	3,0
Women	22,0	10,7	6,8
<b>Age group (years)</b>			
16–24	6,4	6,2	2,6
25–34	17,3	11,5	7,9
35–44	21,0	11,4	6,7
45–54	24,0	10,2	4,9
55–64	21,0	7,6	4,6
65+	10,9	5,1	2,9
<b>Education (aged 25–64)</b>			
Primary	14,5	2,6	2,0
Secondary without A-level exam	19,3	7,3	3,9
Secondary with A-level exam.	24,1	12,3	6,9
Tertiary	19,9	13,5	8,9

*as a percentage of all persons in a given socio-demographic group*

**Figure G13 Persons aged 16–74 years in EU countries who made an appointment with a practitioner via a website or an application; 2020**



Source: Eurostat

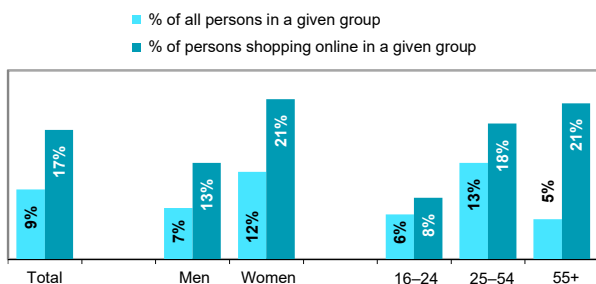
## G Health and ICT

**Table G7 Persons in Czechia purchasing medicine or dietary supplements over the internet; 2020**

	%		
	Total	Men	Women
<b>Total (aged 16+)</b>	<b>9,2</b>	<b>6,8</b>	<b>11,5</b>
16–24 years old	5,9	6,3	5,5
25–54 years old	12,7	8,3	17,1
55 years and more	5,3	4,8	5,7

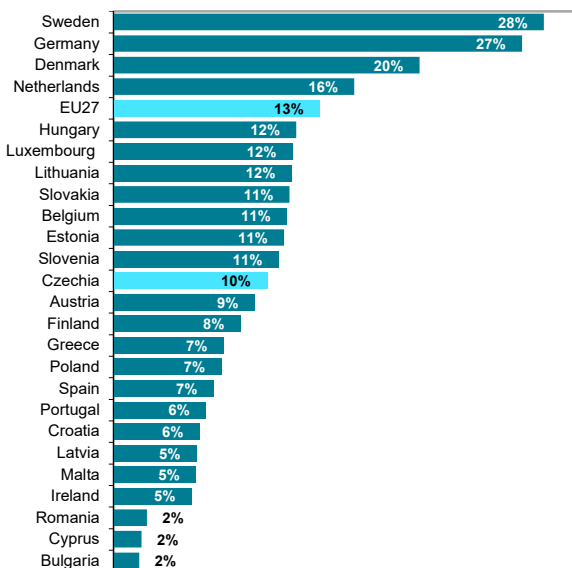
as a percentage of all persons in a given socio-demographic group

**Figure G14 Persons aged 16+ purchasing medicine or dietary supplements over the internet; 2020**



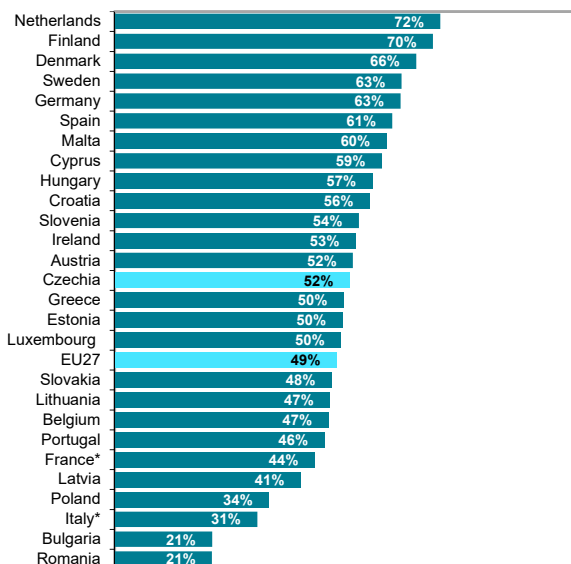
Source: Czech Statistical Office, ICT use survey in households

**Figure G15 Persons aged 16–74 years in EU countries purchasing medicine or dietary supplements online; 2020**

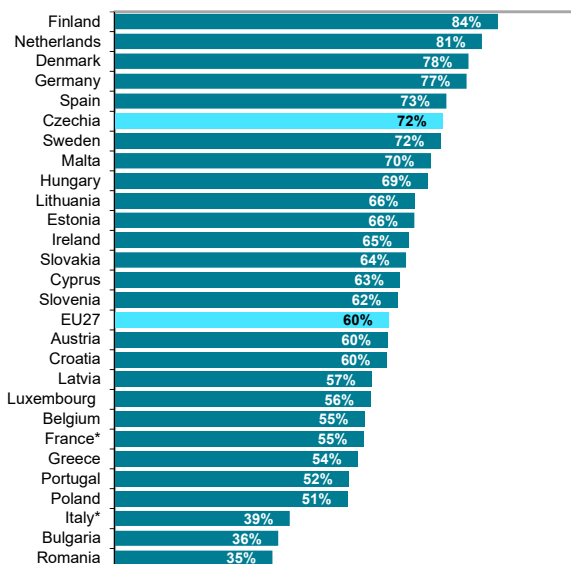


Source: Eurostat

**Figure G16 Men aged 16–74 years in EU countries using the internet for seeking health-related information; 2020**



**Figure G17 Women aged 16–74 years in EU countries using the internet for seeking health-related information; 2020**



\* data for 2019

Source: Eurostat