

# **INFORMATION SOCIETY IN FIGURES**

## **2019**

### **CZECH REPUBLIC 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 2019**.

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 fixed phone lines and mobile telephones, computer, and the Internet broken down by type of the household measured.
- C. **Individuals and ICT** includes basic information on Internet users with focus on type of devices used to access the Internet by different categories of individuals. This basic information is supplemented with data on selected activities carried out by individuals over the Internet for communication, information search or entertainment purposes. Detailed information on online purchases 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 media, e-Commerce and also on the use of paid cloud computing services, Big Data analysis, 3D printing, and industrial robots.
- 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 individuals use the Internet in relation with the government authorities and selected public institutions.
- F. **ICT in Education and Digital Skills** gives an overview on ICT equipment of schools. Furthermore, data on selected learning activities carried out by individuals to improve their ICT skills together with data on digital skills are included here. Finally, data on ICT university students and data on numbers and wages of ICT professionals are also added.
- G. **Health and ICT** gives information on ICT equipment of independent surgeries 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 individuals 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 2019

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## A ICT Infrastructure

This chapter examines trends in the available **telecommunication** and **Internet infrastructure** measured mainly by the number of voice and broadband subscriptions. Data used in this chapter are collected from the telecommunication or Internet **service providers (supply side)** and should be distinguished from data based on ICT users' surveys (demand side).

**Reference period:** end of the year unless otherwise stated.

### Definitions

- A **subscriber** to publicly accessible services of electronic communications (**voice** and **data** services in **fixed** and **mobile** communication **networks**) shall mean a legal or natural person, which has concluded a contract on the use of such services with a provider. Data in the tables and figures include solely services provided in the retail segment, i.e. services provided to end users.
- The number of **voice subscriptions in a fixed network** is measured as the number of the "traditional" **public switched telephone network (PSTN) lines (stations)** and the number of **phone numbers** used for voice services by means of **Internet (IP) telephone (VoIP: Voice over Internet Protocol)**.
- The number of **voice subscriptions in a mobile network** is measured by the number of active **SIM cards**. *Note: The SIM cards are **prepaid ones**, in which case the customer does not conclude any contract with the provider yet buys a credit; and **post-paid** ones in which case customers have a contract concluded with the provider and pay for contracted services by monthly invoice. Only SIM cards, which were used at least once in the last three month for originating and terminating of calls, sending of SMS, MMS, or for data services, are considered to be the active prepaid SIM cards.*
- **Machine-to-Machine (M2M) card** is a SIM card assigned for use in machines and devices without direct human intervention and which are not part of a consumer subscription. *Note: It includes cards in personal navigation devices, smart meters, trains, cars, etc.*
- The number of **fixed broadband subscriptions** - subscribers with the Internet access with nominal speed 256 or more Kbit/s - is measured on the basis of so-called **access points (active connections)** where subscribers are provided with the Internet access from a fixed point for one of technology as follows: xDSL (incl. FTTCab), cable television network (CATV), access via an optical fibre (FTTH/B), and wireless connection (e.g. WiFi).
- **Fixed wireless access (FWA)** to the Internet is the description of terrestrial Internet connection via a radio system including non-licensed frequency (WiFi). *Note: It is characteristic by placing of the end point device on a fixed location (house, dwelling). It is included only if this service is used as a primary internet connection (a transport mechanism) of the Internet service provider (ISP).*
- The number of **mobile broadband subscriptions** - subscribers with the Internet access on third (3G) and higher (4G/LTE) generation technologies of mobile networks - is measured by the number of active data SIM cards or USB modems provided on the basis of contracts on the Internet access in the mobile network.
- **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.

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

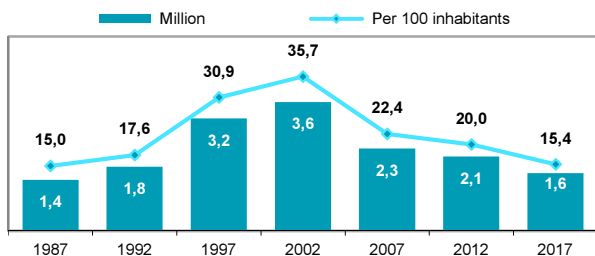
**International comparisons** is based on publicly available data from the International Telecommunication Union (ITU), OECD and the EC.

## A ICT infrastructure

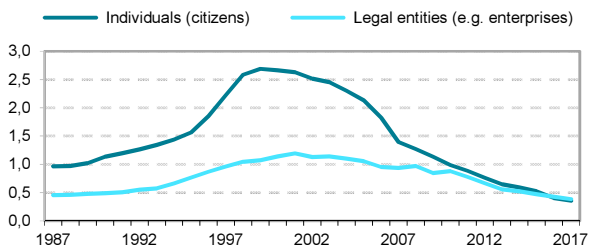
**Tab. A1 Voice subscriptions in a fixed network in Czechia**

	Thousand		
	2015	2016	2017
<b>Total</b>	<b>1 896</b>	<b>1 749</b>	<b>1 633</b>
<b>by subscriber</b>			
Individuals (citizens)	831	701	614
Legal entities (e.g. enterprises)	1 065	1 048	1 018
<b>by technology</b>			
<b>Switched networks - PSTN stations, total</b>	<b>994</b>	<b>832</b>	<b>740</b>
Individuals - residential PSTN stations	523	403	355
Legal entities - business PSTN stations	471	429	385
<b>Internet (IP) telephony - VoIP stations, total</b>	<b>902</b>	<b>917</b>	<b>893</b>
Individuals (citizens)	309	299	259
Legal entities (e.g. enterprises)	594	619	634

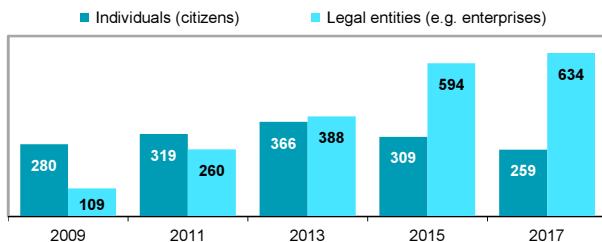
**Figure A1 Total voice subscriptions in a fixed network**



**Figure A2 PSTN voice subscriptions (million)**



**Figure A3 VoIP subscriptions (thousand)**

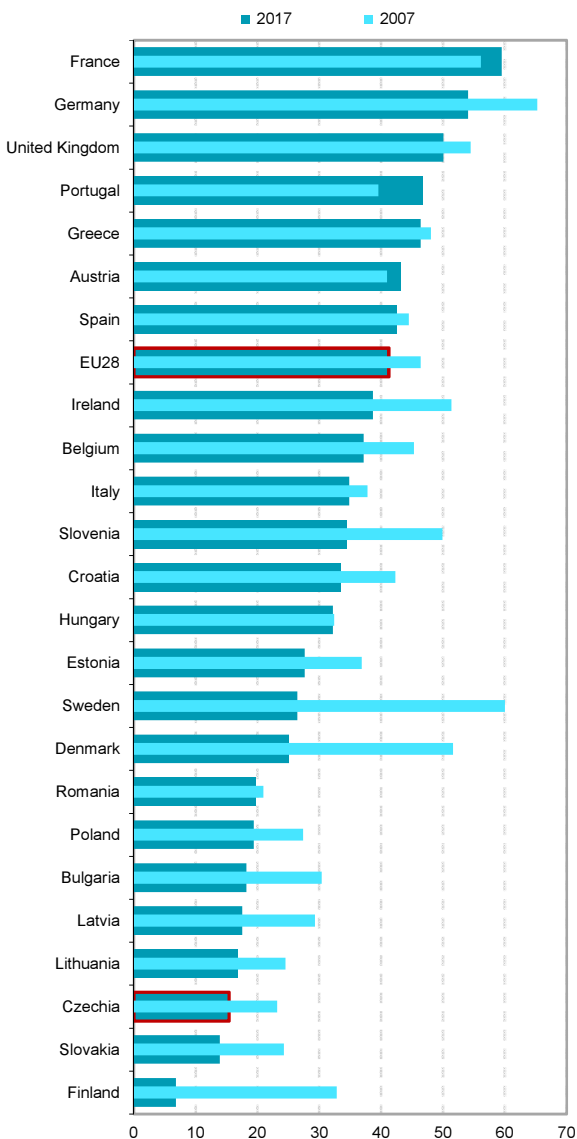


Source: Calculations of the CZSO based on data of the CTO, 2019



## A ICT infrastructure

**Figure A4 Total voice subscriptions in a fixed network in EU countries (per 100 inhabitants)**



*Note: The number of voice subscriptions in a fixed network is measured as a number of "traditional" Public Switched Telephone Network (PSTN) telephone lines (stations) and the number of phone numbers used for voice services by means of IP telephone (VoIP technology: Voice over Internet Protocol).*

*Source: Calculations of the CZSO based on data of the ITU, 2019*

## A ICT infrastructure

Tab. A2 Voice subscriptions in a mobile network in Czechia

	Thousand		
	2015	2016	2017
<b>Total</b>	<b>14 017</b>	<b>14 299</b>	<b>14 511</b>
<b>by subscriber</b>			
Individuals (citizens)	9 222	9 237	9 144
Legal entities (e.g. enterprises)	4 795	5 062	5 367
<b>by SIM card</b>			
Prepaid	4 893	4 821	4 656
Post-paid	9 124	9 478	9 855

Figure A5 Total voice subscriptions in a mobile network

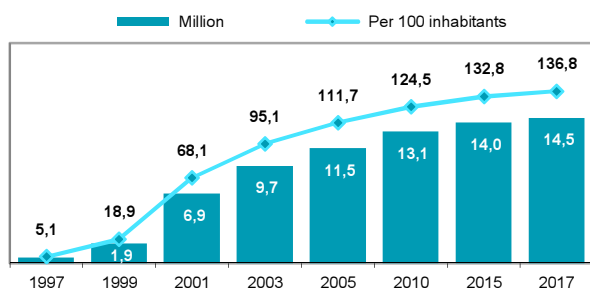
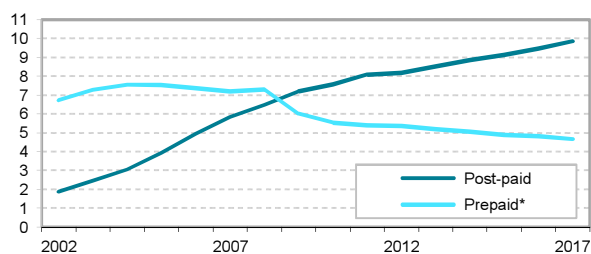
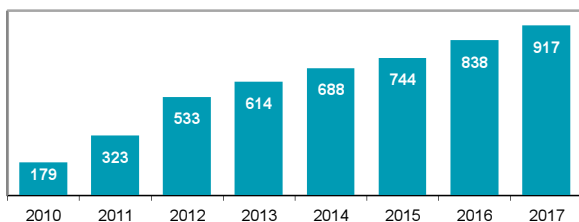


Figure A6 SIM cards used for voice communication (million)



\* Break in time series. Since 2008 only prepaid SIM cards, which were used at least once in the last 3 months; before 2008 it was in the last 13 months.

Figure A7 M2M cards\*\* (thousand)



\*\*Machine-to-machine (M2M) cards are SIM cards assigned for use in machines and devices without direct human intervention and which are not part of a consumer subscription. It includes cards in personal navigation devices, smart meters, trains, cars, etc.

Source: Czech Statistical Office calculations based on the CTO data, 2019

## A ICT infrastructure

**Figure A8 M2M cards\* in EU countries; 2017**  
(per 100 inhabitants)



\* Machine-to-Machine (M2M) cards are SIM cards assigned for use in machines and devices without direct human intervention and which are not part of a consumer subscription. It includes cards in personal navigation devices, smart meters, trains, cars, etc.

Source: Czech Statistical Office calculations based on the ITU data, 2019

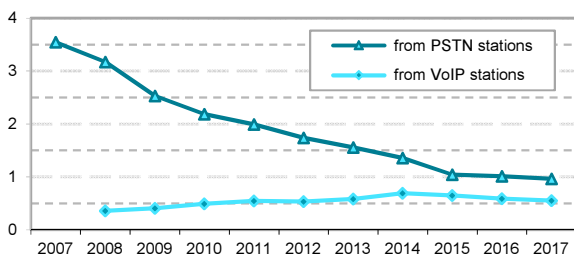
## A ICT infrastructure

**Tab. A3 Fixed telephone traffic in Czechia**

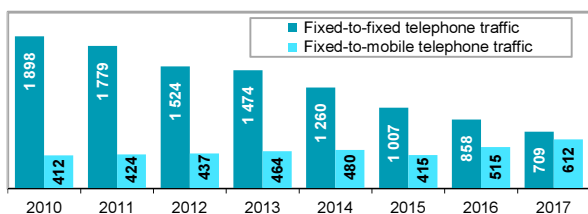
Outgoing calls from the fixed network in million minutes

	2015	2016	2017
<b>Total</b>	<b>1 689</b>	<b>1 601</b>	<b>1 514</b>
<b>by subscriber</b>			
Individuals (citizens)	.	.	692
Legal entities (e.g. enterprises)	.	.	822
<b>by technology</b>			
from the PSTN stations	1 041	1 011	963
from the VoIP stations	648	590	550
<b>by destination</b>			
<b>Domestic calls, total</b>	<b>1 422</b>	<b>1 373</b>	<b>1 321</b>
Fixed-to-fixed telephone traffic	1 007	858	709
Fixed-to-mobile telephone traffic	415	515	612
<b>International and other calls</b>	<b>267</b>	<b>228</b>	<b>192</b>

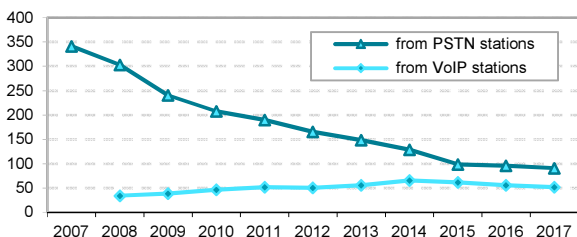
**Figure A9 Total fixed telephone traffic by technology**  
(outgoing calls in billion minutes)



**Figure A10 Domestic fixed telephone traffic by destination**  
(outgoing calls in million minutes)



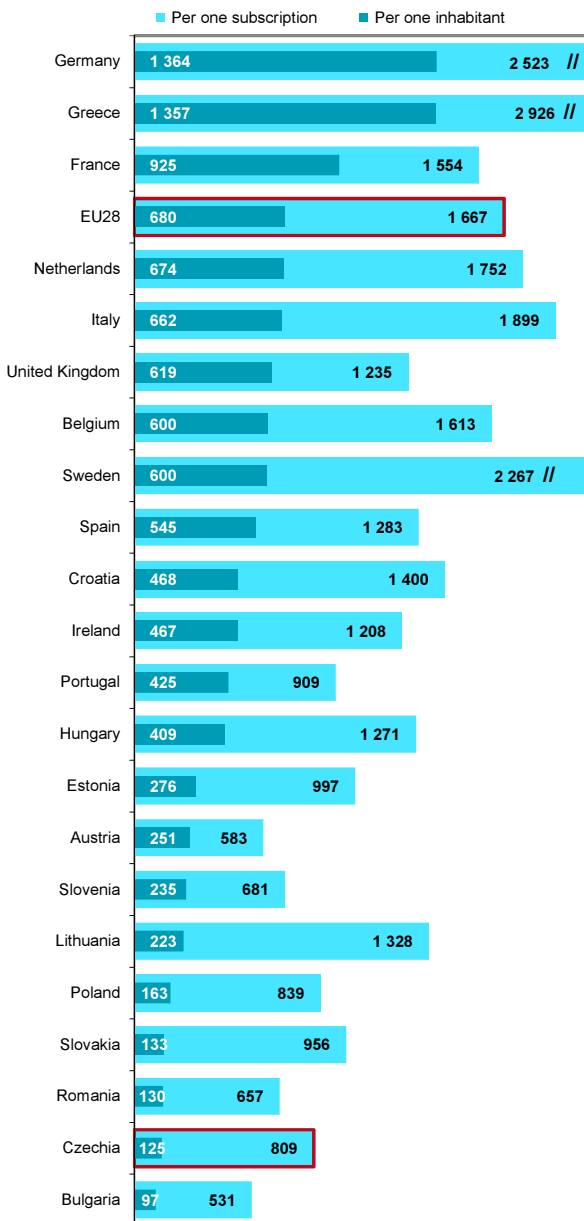
**Figure A11 Domestic fixed telephone traffic by technology**  
(outgoing called minutes per one inhabitant)



Source: Czech Statistical Office calculations based on the CTO data, 2019

## A ICT infrastructure

**Figure A12 Domestic fixed telephone traffic in EU countries; 2017 (outgoing called minutes)**



Source: Czech Statistical Office calculations based on the ITU data, 2019

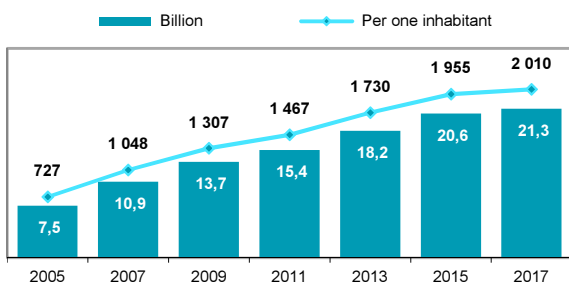
## A ICT infrastructure

**Tab. A4 Mobile telephone traffic in Czechia**

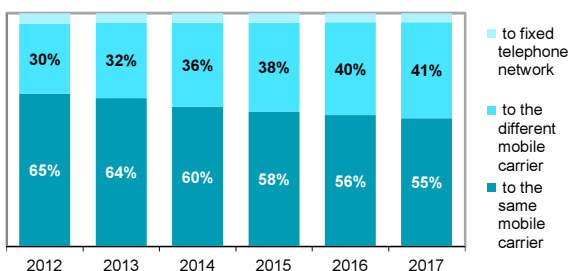
Outgoing calls from the mobile network in million minutes

	2015	2016	2017
<b>Total</b>	<b>20 634</b>	<b>20 979</b>	<b>21 328</b>
<b>by subscriber</b>			
Individuals (citizens)	11 550	11 566	11 591
Legal entities (e.g. enterprises)	9 084	9 413	9 737
<b>by destination (only domestic calls)</b>			
<b>Total</b>	<b>20 176</b>	<b>20 672</b>	<b>20 907</b>
to the same mobile carrier	11 660	11 543	11 482
to the different mobile carrier	7 694	8 141	8 587
to fixed telephone network	822	826	838

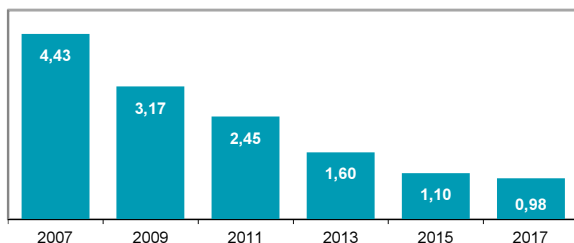
**Figure A13 Total mobile telephone traffic (outgoing minutes)**



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



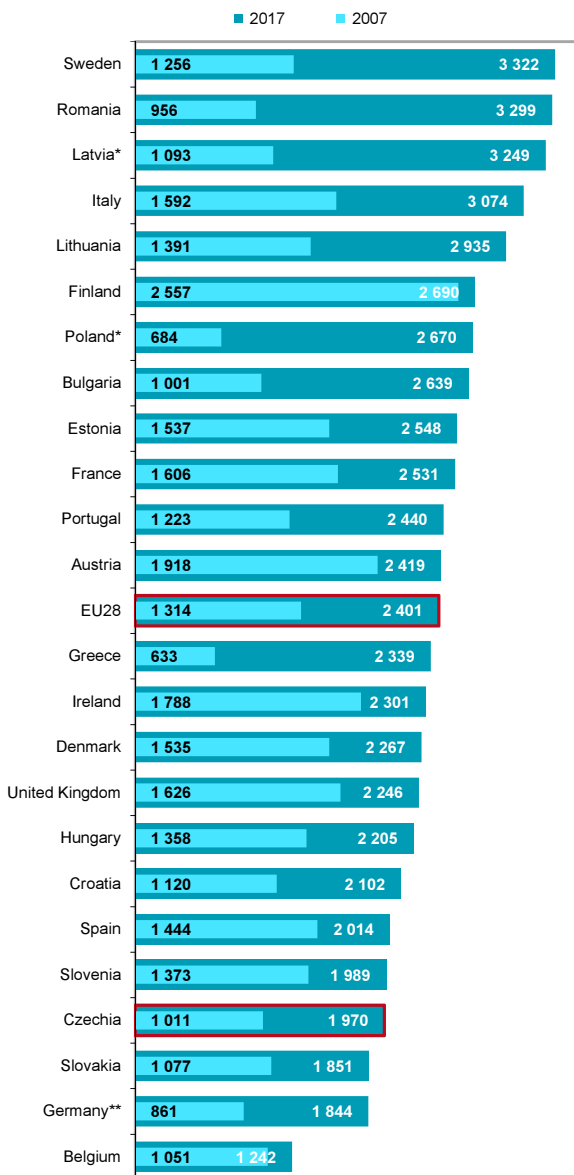
**Figure A15 The average retail price for one outgoing called minute in the mobile network (CZK)**



Source: Czech Statistical Office calculations based on the CTO data, 2019

## A ICT infrastructure

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



\* 2006 instead of 2007

\*\* 2014 instead of 2017

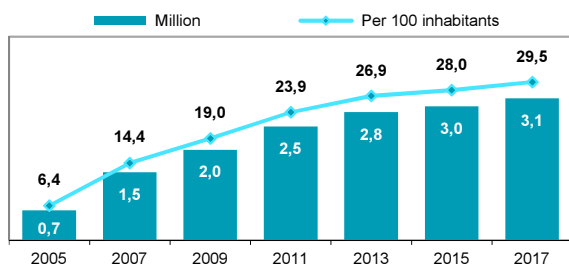
Source: Czech Statistical Office calculations based on the ITU data, 2019

## A ICT infrastructure

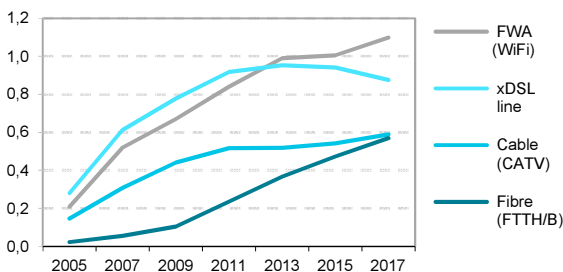
**Tab. A5 Fixed broadband subscriptions in Czechia**

	Thousand		
	2015	2016	2017
<b>Total</b>	<b>2 960</b>	<b>3 058</b>	<b>3 134</b>
<b>by subscriber</b>			
Individuals (citizens)	2 645	2 731	2 800
Legal entities (e.g. enterprises)	315	327	333
<b>by technology</b>			
xDSL line	941	904	876
Cable (CATV)	541	563	589
Fibre (FTTH/B)	473	523	570
Wireless (FWA; WiFi)	1 004	1 068	1 099

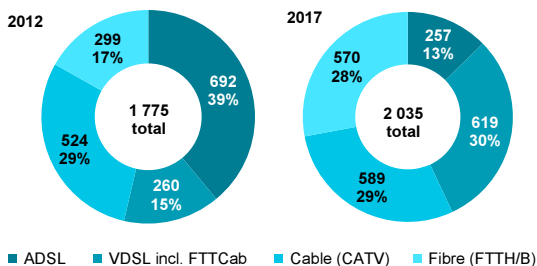
**Figure A17 Fixed broadband subscriptions**



**Figure A18 Fixed broadband subscriptions by technology (mil.)**



**Figure A19 Wired fixed broadband subscriptions by technology (thousand)**

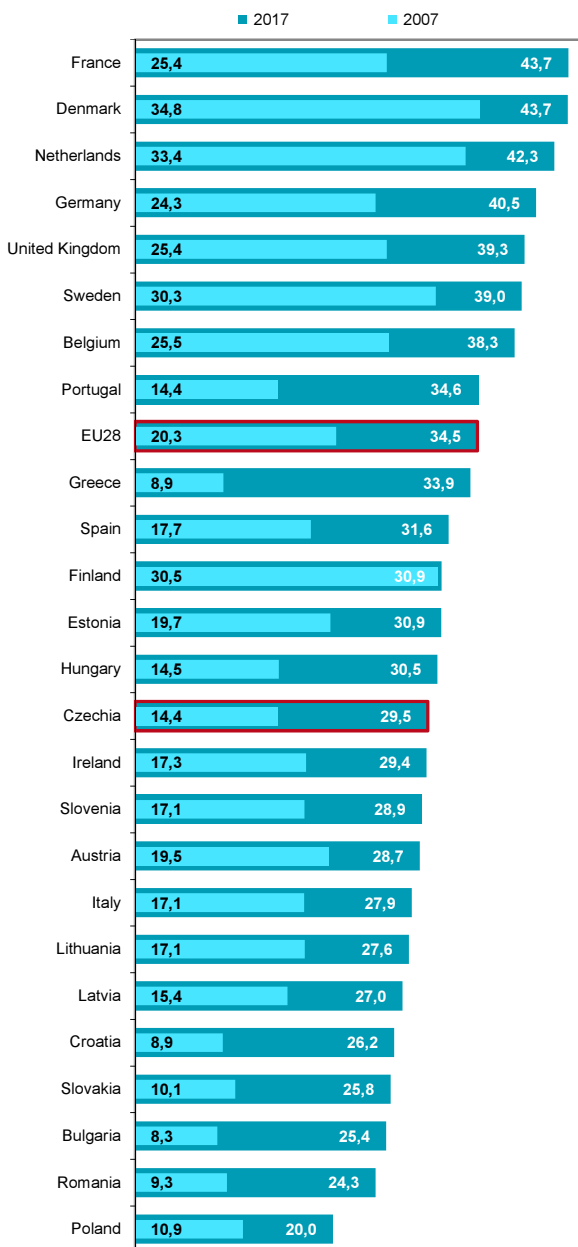


Source: Czech Statistical Office calculations based on the CTO data, 2019



## A ICT infrastructure

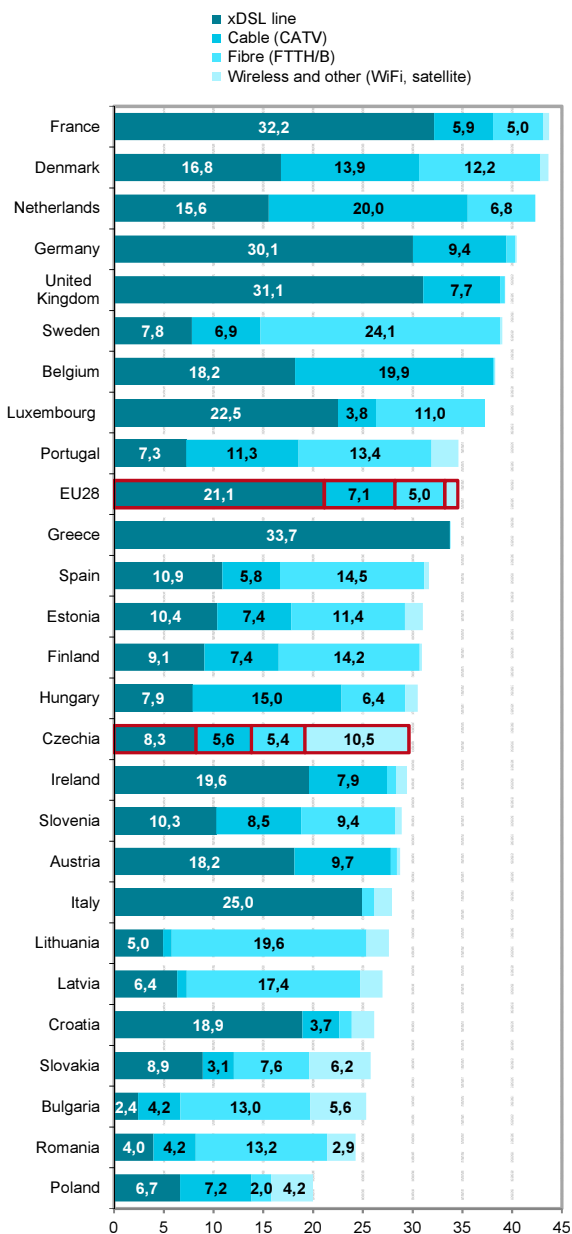
**Figure A20 Fixed broadband subscriptions in EU countries (per 100 inhabitants)**



Source: Czech Statistical Office calculations based on the ITU data, 2019

## A ICT infrastructure

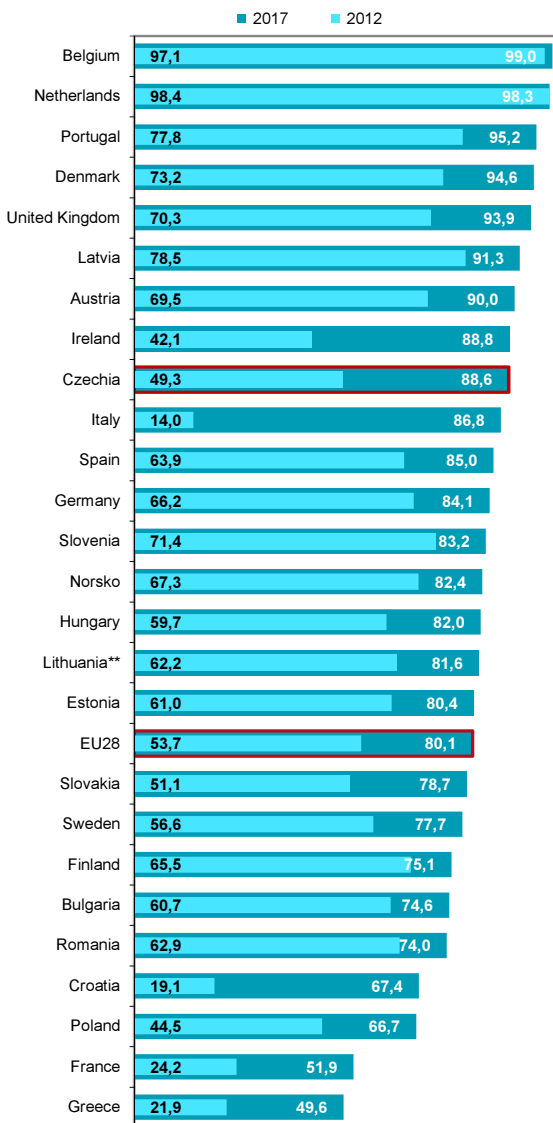
**Figure A21 Fixed broadband subscriptions in EU countries by technology; 2017 (per 100 inhabitants)**



Source: Czech Statistical Office calculations based on the ITU data, 2019

## A ICT infrastructure

**Figure A22 Households in EU countries living in areas served by NGA networks\* (percentage)**



\* NGA (Next Generation Access) includes the following technologies: FTTH, FTTB, Cable Docsis 3.0, VDSL, and other superfast broadband (at least 30 Mbit/s download).

\*\* 2011 instead of 2012

Source: European Commission, 2018

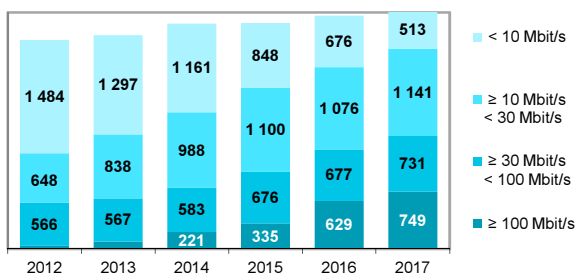
## A ICT infrastructure

**Tab. A6 Fixed broadband subscriptions in Czechia by speed**

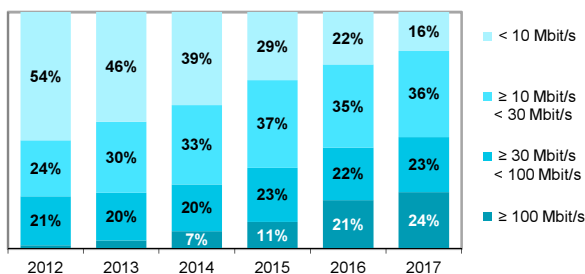
	Thousand		
	2015	2016	2017
<b>Total</b>	<b>2 960</b>	<b>3 058</b>	<b>3 134</b>
<b>by contracted download speed tiers</b>			
< 10 Mbit/s	848	676	513
≥ 10 Mbit/s < 30 Mbit/s	1 100	1 076	1 141
≥ 30 Mbit/s < 100 Mbit/s	676	677	731
≥ 100 Mbit/s	335	629	749

**Figure A23 Fixed broadband subscriptions by speed tiers**

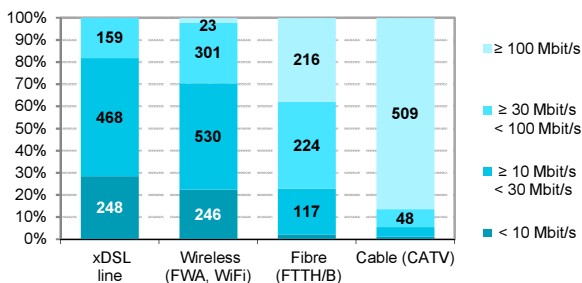
a) Thousand



b) As a percentage of total fixed broadband subscriptions



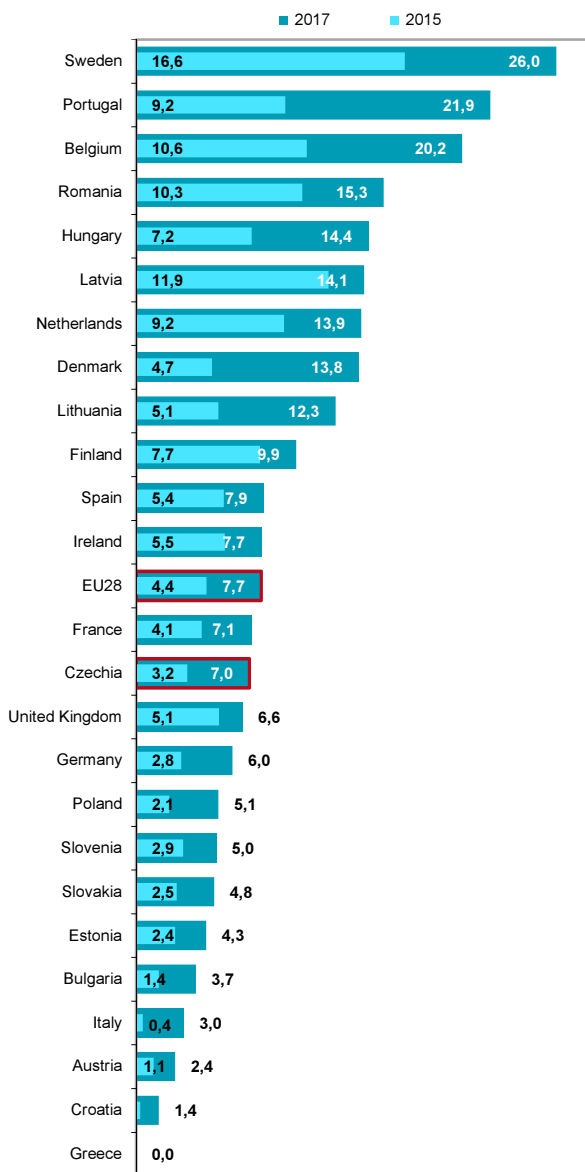
**Figure A24 Fixed broadband subscriptions by technology and speed tiers; 2017 (thousand)**



Source: Czech Statistical Office calculations based on the CTO data, 2019

## A ICT infrastructure

**Figure A25 Fixed broadband subscriptions in EU countries with contracted speed 100 Mbit/s and more (per 100 inhabitants)**



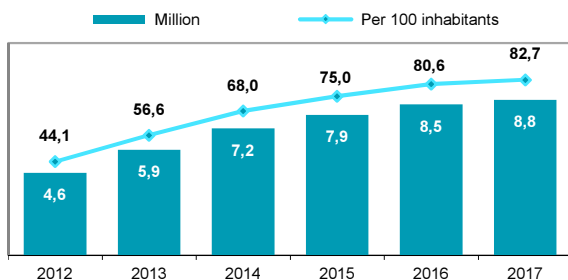
Source: European Commission, 2019

## A ICT infrastructure

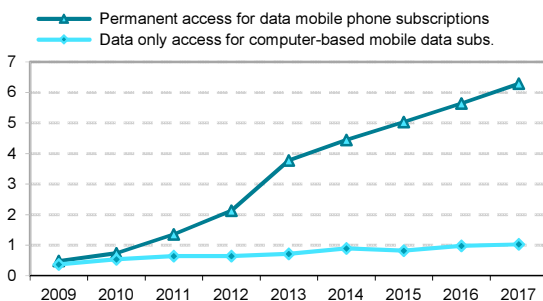
**Tab. A7 Mobile broadband subscriptions in Czechia**

	Thousand		
	2015	2016	2017
<b>Total</b>	<b>7 918</b>	<b>8 530</b>	<b>8 777</b>
<b>by package type</b>			
<b>Data subscriptions as part of mobile phone voice services (data &amp; voice), total</b>	<b>7 100</b>	<b>7 554</b>	<b>7 748</b>
Temporary "ad-hoc" access	2 068	1 908	1 461
Permanent access (monthly data tariffs)	5 032	5 646	6 288
<b>Data only access for computer-based (tablet, laptop) mobile data subscriptions</b>	<b>818</b>	<b>976</b>	<b>1 028</b>

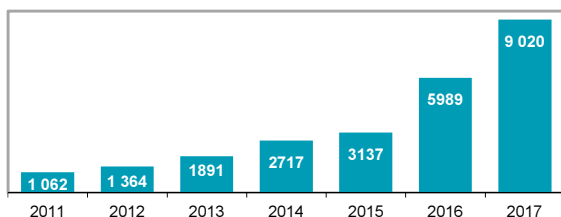
**Figure A26 Mobile broadband subscriptions**



**Figure A27 Mobile broadband subscriptions by package type (million)**



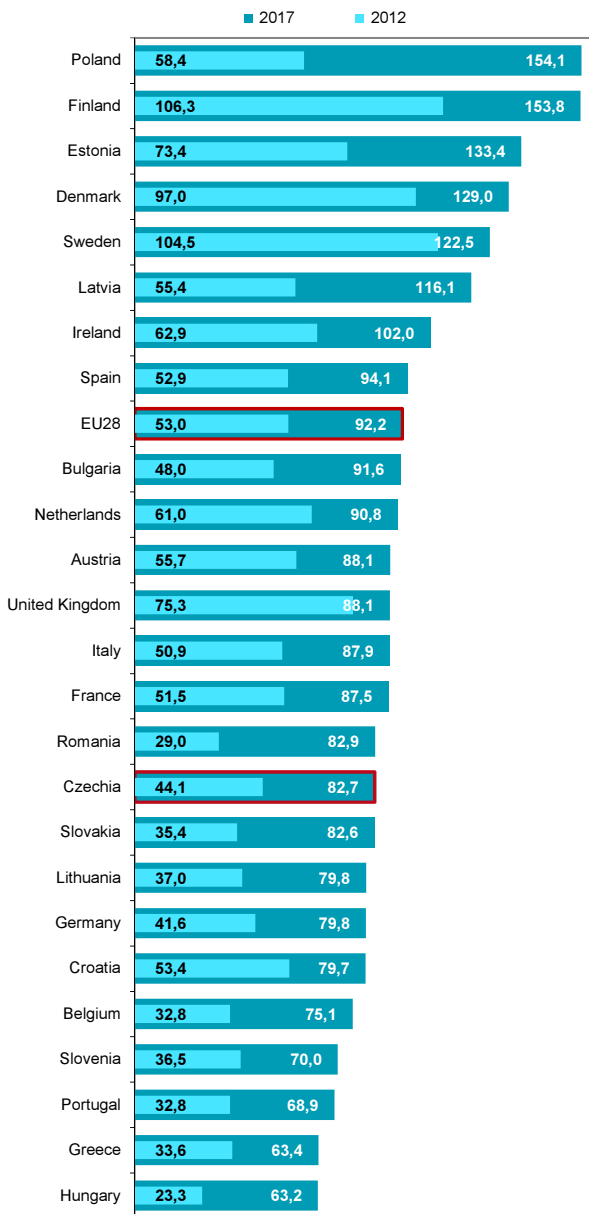
**Figure A28 Average mobile data consumption (megabytes per one inhabitant)**



Source: Czech Statistical Office calculations based on the CTO data, 2019

## A ICT infrastructure

**Figure A29 Mobile broadband subscriptions in EU countries (per 100 inhabitants)**



Source: Czech Statistical Office calculations based on the ITU data, 2019

## A ICT infrastructure

Tab. A8 Top-level domains in (.cz) zone

	Thousand		
	2016	2017	2018
<b>Total</b>	<b>1 281</b>	<b>1 306</b>	<b>1 323</b>
DNSSEC signed	664	683	723
<b>by IP protocol</b>			
IPv4 domains	891	895	890
IPv4+IPv6; IPv6 domains	369	389	412

*DNSSEC is a security extension of common Domain Name System. See: [http://en.wikipedia.org/wiki/Domain\\_Name\\_System\\_Security\\_Extensions](http://en.wikipedia.org/wiki/Domain_Name_System_Security_Extensions)*

*Internet protocol version 4 (IPv4) and Internet protocol version 6 (IPv6): <http://en.wikipedia.org/wiki/IPv4> and <http://en.wikipedia.org/wiki/IPv6>*

Figure A30 Top-level domains in (.cz) zone

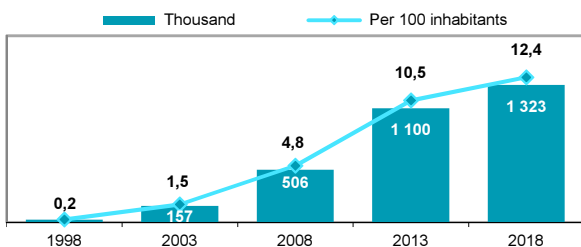


Figure A31 Top-level (.cz) domain registration and cancellation (thousand)

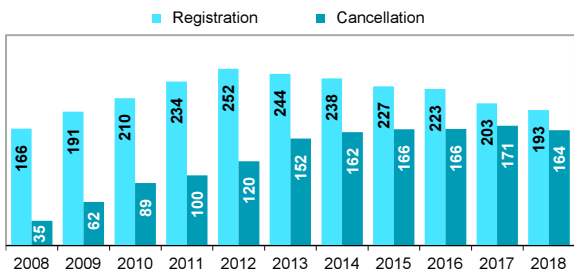
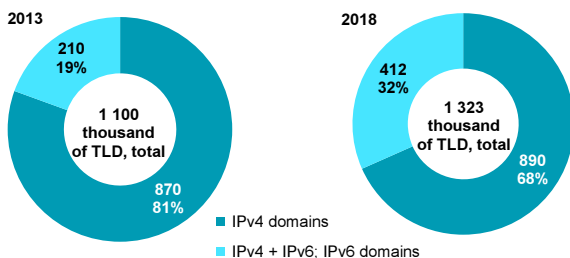


Figure A32 Top-level (.cz) domain by IP protocol (thousand)



Source: CZ.NIC, 2019



## B Households and ICT

Since 2002, the Czech Statistical Office (CZSO) has been regularly monitoring the selected information and communication technologies (ICT) in Czech households by an independent annual statistical survey titled: **“Sample Survey on ICT Use in Households and by Individuals.”**

Since 2006, this survey has been carried out according to the **Regulation (EC) No 808/2004** of the European Parliament and of the Council concerning Community statistics on the information society. It allows internationally comparable data exchange among the EU Member States.

The survey is representative of the population of persons living in **private households** in the territory of the Czech Republic, i.e. the survey does not cover individuals living in so-called collective households (correctional facilities, social care institutions, retirement homes, etc.).

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 in approx. **6 000 households**.

The **reference period** is the 2nd quarter of the monitored year.

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

Data published by Eurostat for Czech households **slightly differ** from data published by the CZSO. *Note: This difference is because Eurostat includes solely households with at least one person aged 16–74 years. The CZSO publishes data for all households (without age restrictions) in a standard way. Therefore, tables for the Czech Republic in this publication give two values - for all households, and for households with at least one member younger than 75 years.*

### Definitions

- **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 (desktop PC, laptop, or tablet) at home. *Note: The household does not need to be in possession of the computer (it may be employer’s computer, a borrowed one from friends, etc.) yet this computer should be functional and located at home. A portable computer may not be permanently located at home; it may be in use at work or at school.*
- **Households with the Internet** shall mean households, which at the time of the survey stated that at least one of the household members used the Internet at home, regardless the device type or the way of connection. *Note: The Internet connection at home to any of devices is counted. That means not merely to a computer, yet also to tablet, mobile phone, smart television, game console, etc.*
- A **WiFi router** is a device that provides a wireless access to the Internet and enables persons in the given household to be connected to the Internet from multiple devices at the same time and from any location, which is within the wireless Internet signal provided by the WiFi router.
- **Households of persons aged up to 40 years with no children** shall mean households in which only persons aged up to 40 years who have no child live.
- **Households of persons aged 65+ years with no children** shall mean households in which only persons aged 65+ years live.
- **Households with children** shall mean households with children up to 15 years of age, included.

The **Household Budget Survey (HBS)** of the CZSO is the source of data on households equipped with **fixed and mobile phones**, as at the end of the reference year. Within the scope of this survey, these data were last monitored for the reference year 2016.

**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>.

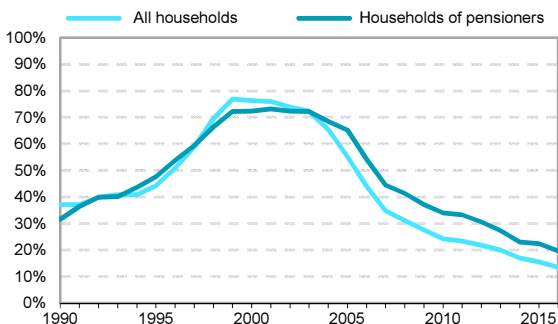
## B Households and ICT

**Tab. B1 Households in Czechia with a fixed telephone line**

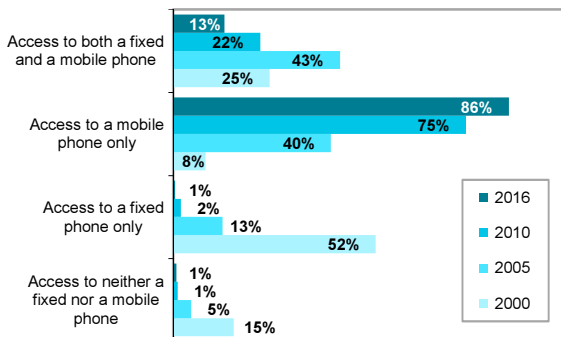
	Percentage		
	2005	2010	2016
<b>All households</b>	<b>55,2</b>	<b>24,2</b>	<b>13,6</b>
<b>Type of household</b>			
Households without dependent children	52,4	18,7	15,8
Households with dependent children	65,2	34,0	8,9
<b>Economic status of the head of a household</b>			
Employee	50,7	18,8	9,8
Self-employed	56,4	25,2	14,1
Pensioner	65,2	34,0	19,7
<b>Age of the head of a household (years)</b>			
Below 30	20,5	4,1	1,5
30-39	40,4	10,0	3,4
40-49	56,6	20,6	7,6
50-59	61,4	25,7	13,9
60-69	64,8	28,1	15,4
70+	70,2	42,5	25,4

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

**Figure B1 Share of households with a fixed telephone line**



**Figure B2 Households with an access to a telephone**

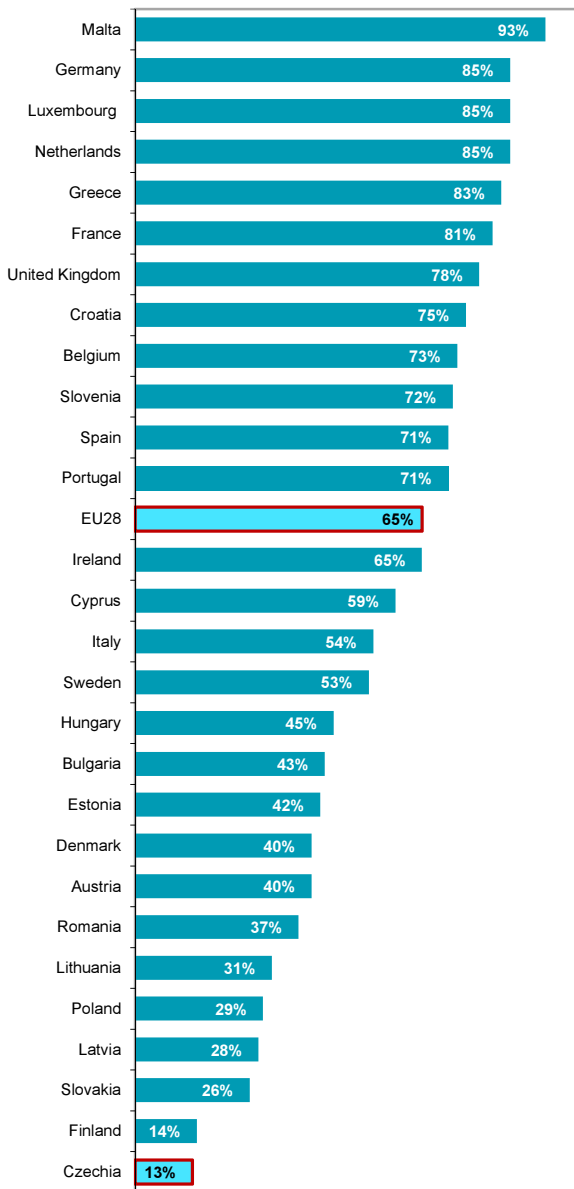


as a percentage of all households

Source: Czech Statistical Office, Household Budget Survey, 2018

## B Households and ICT

**Figure B3 Households in EU countries with a fixed telephone line; 2015**



as a percentage of all households in a given country

Source: European Commission, 2016

## B Households and ICT

**Tab. B2 Households in Czechia with a mobile phone**

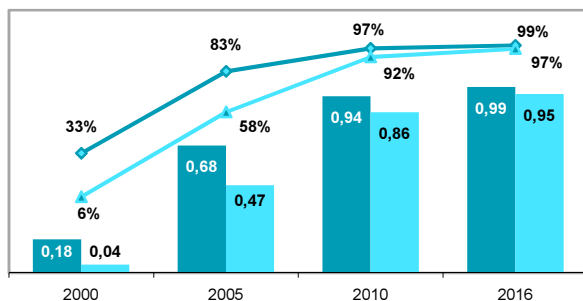
Number of devices per one household member\*

	2005	2010	2016
<b>All households</b>	0,68	0,94	0,99
<b>Type of household</b>			
Households without dependent children	.	0,95	1,04
Households with dependent children	.	0,93	0,94
<b>Economic status of the head of a household</b>			
Employee	0,73	0,98	1,01
Self-employed	0,70	0,95	1,00
Pensioner	0,47	0,86	0,95
<b>Household income group</b>			
The lowest income group (first quintile)	.	0,86	0,88
Second quintile income group	.	0,89	0,96
Third quintile income group	.	0,93	0,97
Fourth quintile income group	.	0,98	1,05
The highest income group (fifth quintile)	.	1,08	1,16

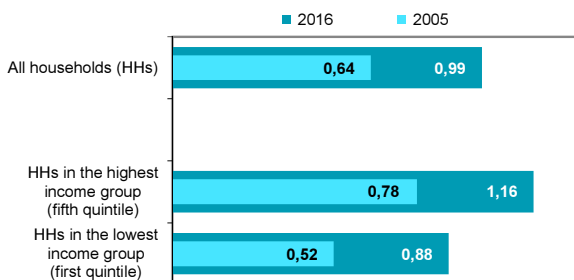
\* only individuals aged 6+ years living in a given type of household

**Figure B4 Households and mobile phones**

- No. of devices per one member\* in all households (HHs)
- No. of devices per one member\* in HHs of pensioners
- ◆ Percentage of all HHs with a mobile phone
- ▲ Percentage of HHs of pensioners with a mobile phone



**Figure B5 Mobile phones in households by HH income**  
(number of devices per one household member\*)

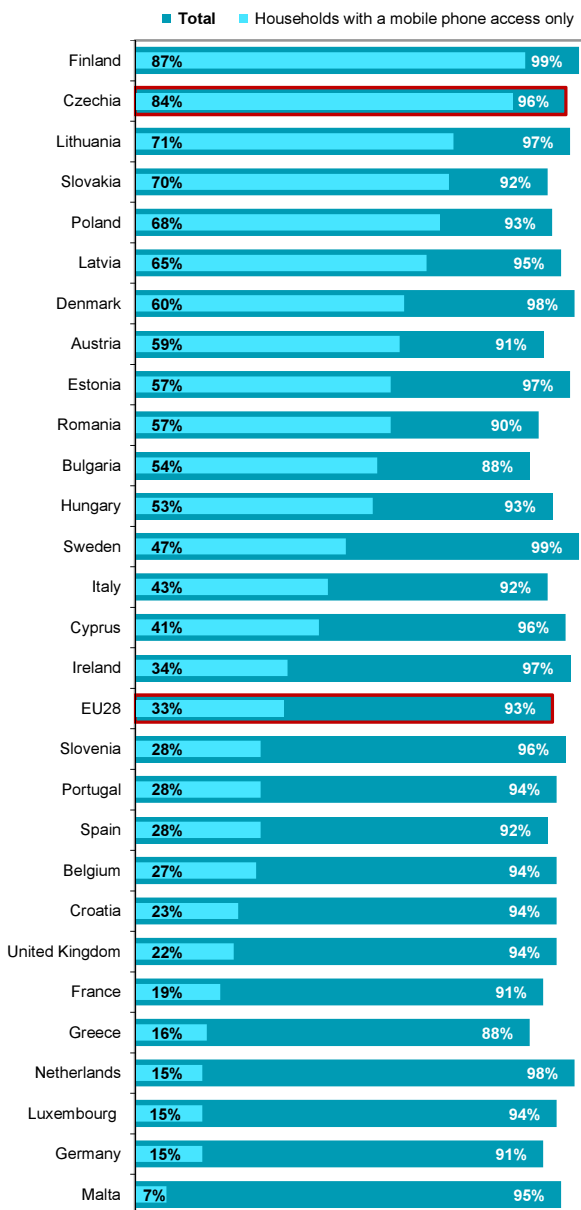


\* only individuals aged 6+ years living in a given type of household

Source: Czech Statistical Office, Household Budget Survey, 2018

## B Households and ICT

**Figure B6 Households in EU countries with a mobile phone; 2015**



as a percentage of all households in a given country

Source: European Commission, 2016

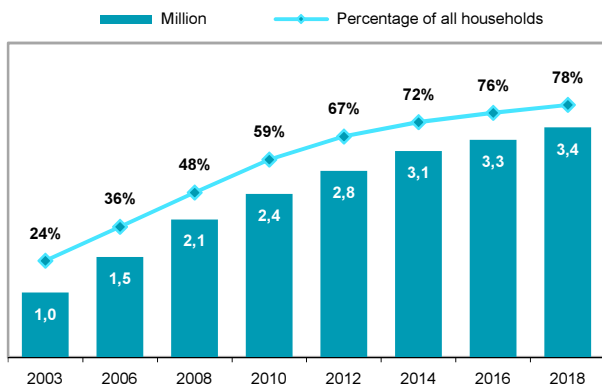
## B Households and ICT

**Tab. B3 Households in Czechia with a computer**

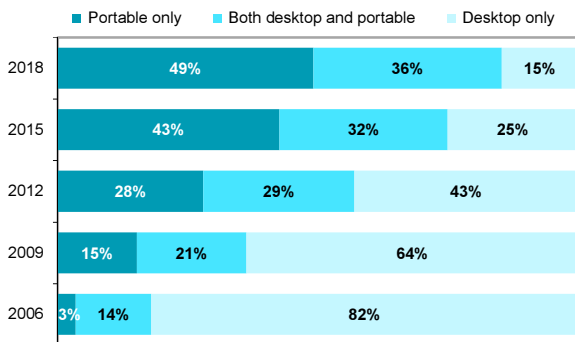
	Percentage		
	2015	2017	2018
<b>All households (HHs)</b>	<b>73,1</b>	<b>76,3</b>	<b>78,4</b>
HHs with at least 1 member younger than 75 years	78,9	82,2	84,0
<b>Type of household</b>			
Households (HHs) with no children, total	65,1	69,8	71,6
HHs of persons aged up to 40 years	93,0	94,5	94,6
HHs of persons aged 65+ years	24,9	32,3	37,6
Households with children	93,8	94,4	95,8
<b>Household income group</b>			
The lowest income group (first quartile)	34,3	41,4	44,1
Second quartile income group	57,2	70,0	76,4
Third quartile income group	85,7	93,7	94,7
The highest income group (fourth quartile)	96,7	98,5	98,2

as a percentage of all households of a given type

**Figure B7 Households with a computer**



**Figure B8 Households with a computer by type of device**



as a percentage of all households with a computer at home in a given year

Source: Czech Statistical Office, ICT use survey in households, 2019

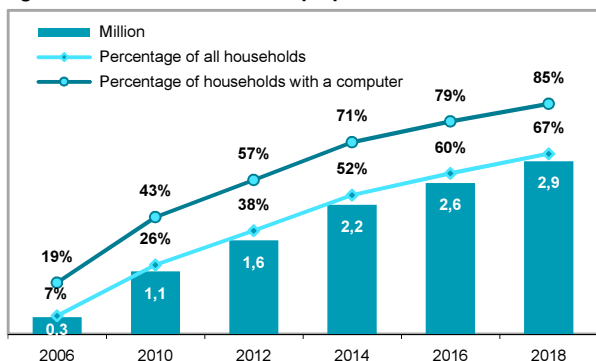
## B Households and ICT

**Tab. B4 Computers used in Czech households; 2018**

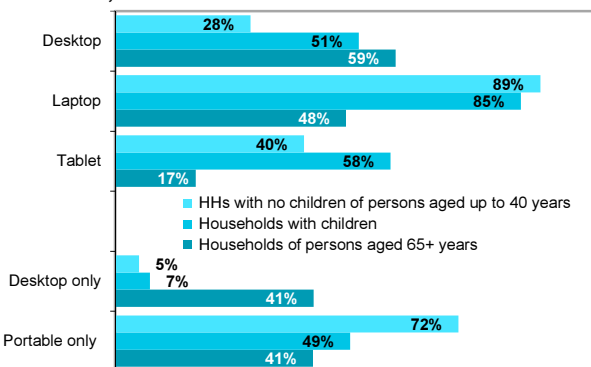
	Percentage		
	Desktop	Laptop	Tablet
<b>All households (HHs)</b>	<b>39,9</b>	<b>61,4</b>	<b>32,3</b>
HHs with at least 1 member younger than 75 years	42,4	66,5	35,1
<b>Type of household</b>			
Households (HHs) with no children, total	36,4	53,7	23,5
HHs of persons aged up to 40 years	26,7	84,0	37,4
HHs of persons aged 65+ years	22,0	18,1	6,3
Households with children	48,7	81,2	55,1
<b>Household income group</b>			
The lowest income group (first quartile)	19,4	27,2	10,4
Second quartile income group	32,6	53,7	24,4
Third quartile income group	47,1	76,8	41,1
The highest income group (fourth quartile)	60,3	87,6	53,4

as a percentage of all households of a given type

**Figure B9 Households with a laptop or a tablet**



**Figure B10 Computers used at home by different type of households; 2018**



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

Source: Czech Statistical Office, ICT use survey in households, 2019

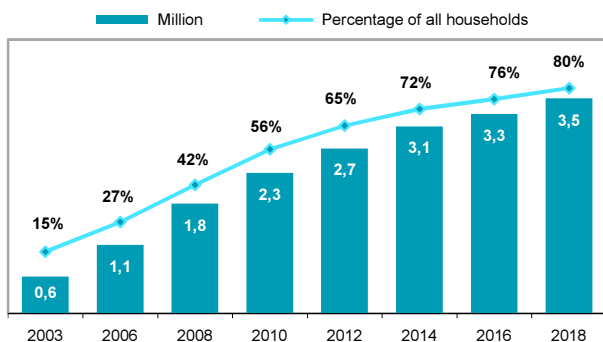
## B Households and ICT

**Tab. B5 Households in Czechia with the Internet**

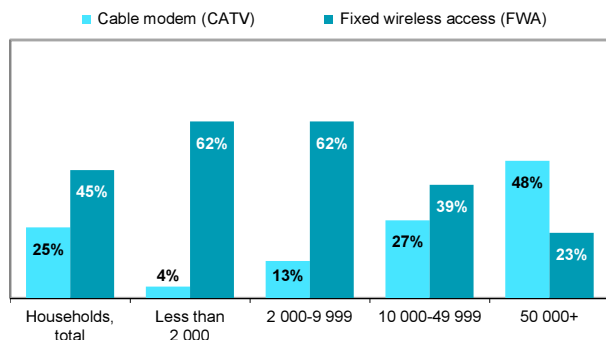
	Percentage		
	2015	2017	2018
<b>All households (HHs)</b>	<b>73,1</b>	<b>77,2</b>	<b>80,5</b>
HHs with at least 1 member younger than 75 years	79,0	83,2	86,4
<b>Type of household (HH)</b>			
Households with no children, total	65,2	70,5	73,8
HHs of persons aged up to 40 years	94,7	96,8	97,7
HHs of persons aged 65+ years	24,2	31,1	37,4
Households with children	93,6	95,9	97,8
<b>Household income group</b>			
The lowest income group (first quartile)	33,8	42,6	47,1
Second quartile income group	57,2	70,7	78,8
Third quartile income group	85,8	93,9	96,5
The highest income group (fourth quartile)	96,8	99,3	99,5

as a percentage of all households of a given type

**Figure B11 Households with the Internet**



**Figure B12 Households using a cable modem and a fixed wireless connection to access the Internet by municipality size (population); 2018**



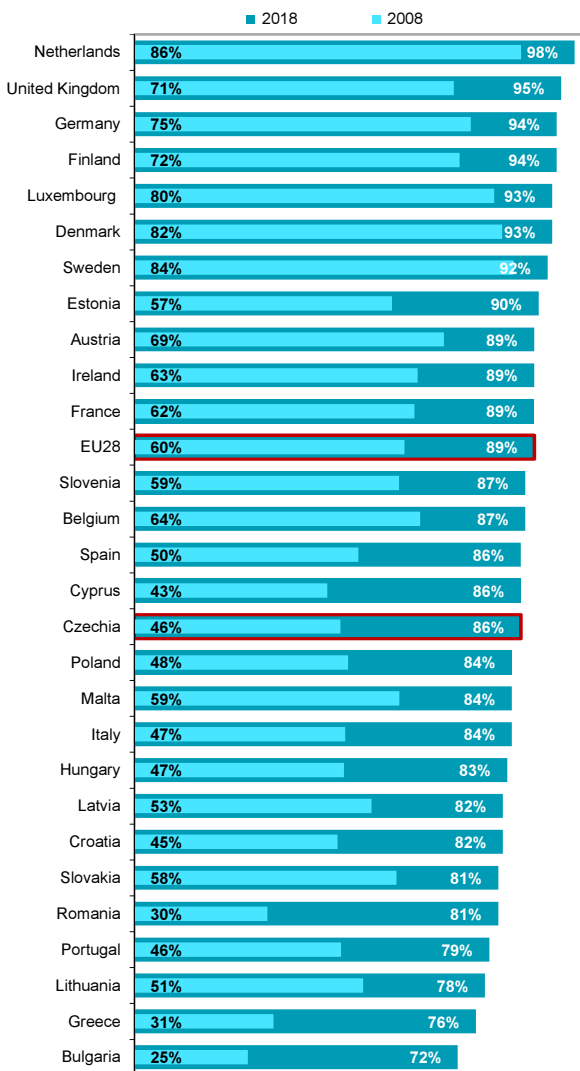
as a percentage of households with the Internet in the given municipality size

Source: Czech Statistical Office, ICT use survey in households, 2019



## B Households and ICT

**Figure B13 Households in EU countries with the Internet**



*Note: Households with the Internet shall mean households, which at the time of the survey stated that at least one of the household members uses the Internet at home. It does not matter what type of device is used for the Internet connection or what type of connection it is.*

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

Source: Eurostat, 2019

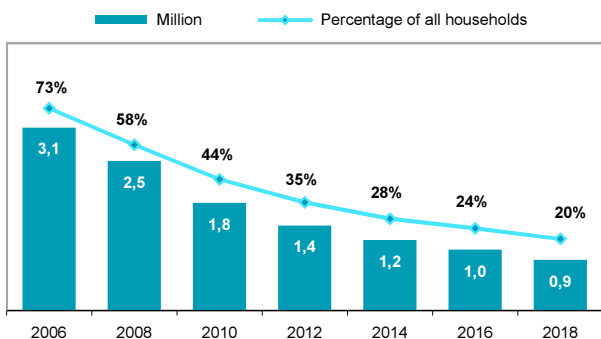
## B Households and ICT

**Tab. B6 Households in Czechia not using the Internet**

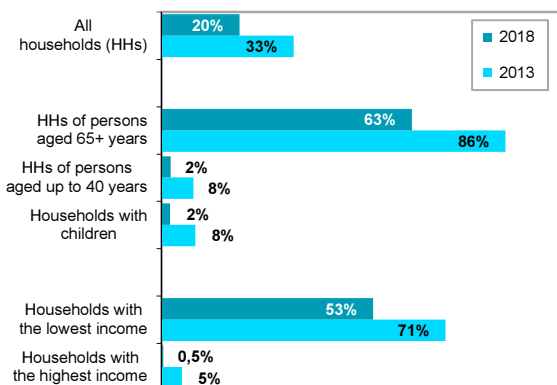
	Percentage		
	2015	2017	2018
<b>All households (HHs)</b>	<b>26,9</b>	<b>22,8</b>	<b>19,5</b>
HHs with at least 1 member younger than 75 years	21,0	16,8	13,6
<b>Type of household</b>			
Households (HHs) with no children, total	34,8	29,5	26,2
HHs of persons aged up to 40 years	5,3	3,2	2,3
HHs of persons aged 65+ years	75,8	68,9	62,6
Households with children	6,4	4,1	2,2
<b>Household income group</b>			
The lowest income group (first quartile)	66,2	57,4	52,9
Second quartile income group	42,8	29,3	21,2
Third quartile income group	14,2	6,1	3,5
The highest income group (fourth quartile)	3,2	0,7	0,5

as a percentage of all households of a given type

**Figure B14 Households not using the Internet**



**Figure B15 Households not using the Internet by their type**

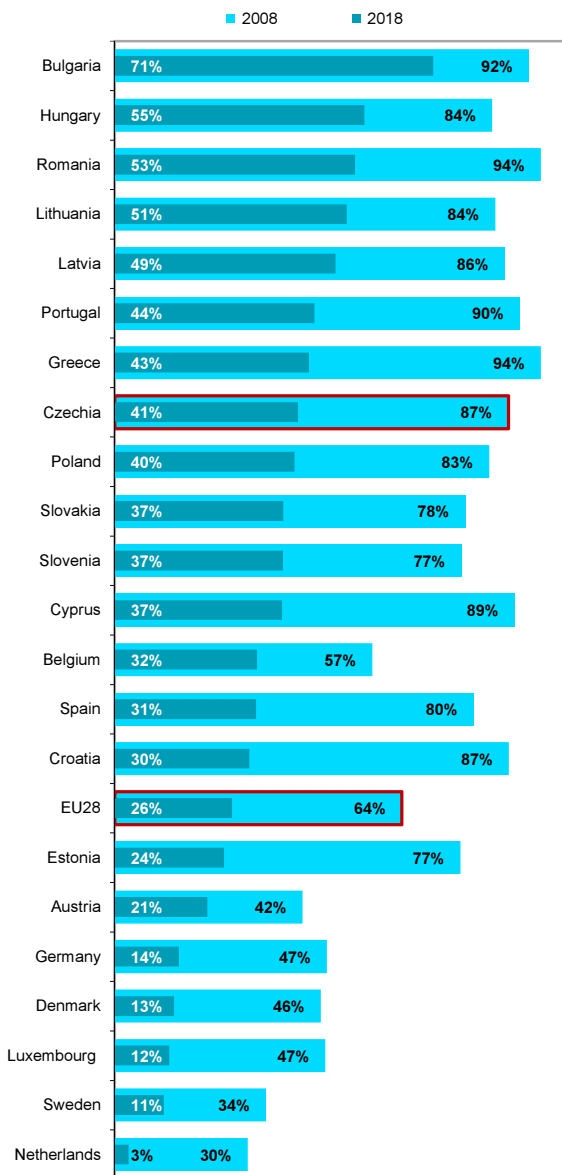


as a percentage of all households of a given type

Source: Czech Statistical Office, ICT use survey in households, 2019

## B Households and ICT

**Figure B16 Low income households in EU countries not using the Internet**



as a percentage of all low income households (HHs in the first quartile income group) in a given country where at least one member is younger than 75 years

Source: Eurostat, 2019

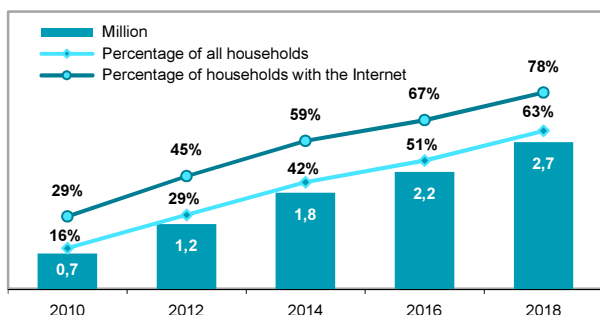
## B Households and ICT

**Tab. B7 Households in Czechia using a WiFi router at home**

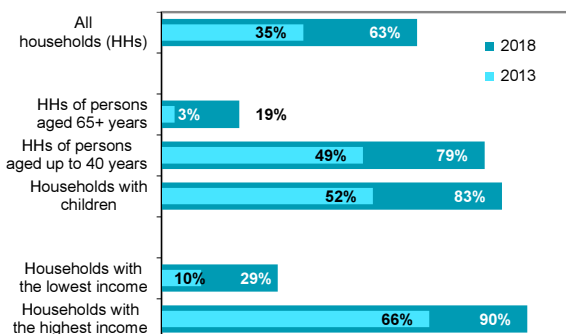
	Percentage		
	2015	2017	2018
<b>All households (HHs)</b>	<b>47,7</b>	<b>56,6</b>	<b>62,7</b>
HHs with at least 1 member younger than 75 years	52,0	61,7	67,9
<b>Type of household (HH)</b>			
Households with no children, total	39,7	49,2	54,6
HHs of persons aged up to 40 years	64,1	75,2	79,2
HHs of persons aged 65+ years	8,8	14,7	19,1
Households with children	68,4	77,5	83,5
<b>Household income group</b>			
The lowest income group (first quartile)	13,5	22,3	28,5
Second quartile income group	28,7	48,7	54,4
Third quartile income group	53,4	77,4	78,0
The highest income group (fourth quartile)	76,8	89,4	89,7

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

**Figure B17 Households using a WiFi router at home**



**Figure B18 Households using a WiFi router by HH type**



as a percentage of all households of a given type

A WiFi router is a device that provides a wireless access to the Internet and enables persons in the given household to get connected to the Internet from multiple devices at the same time and also from any location, which is within the wireless internet signal provided by the WiFi router.

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

Since 2002, the Czech Statistical Office (CZSO) has been regularly collecting detailed information on the users of the Internet and other ICTs by an independent annual statistical survey titled: “**Sample Survey on ICT Use in Households and by Individuals**”.

Since 2006, the survey has been carried out yearly in the **2nd quarter of the monitored year** according to the annual implementing measures of the **Framework Regulation (EC) No 808/2004** of the European Parliament and of the Council concerning Community statistics on the information society, which ensures data harmonisation and comparability among EU countries.

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 (prisons, 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 down 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 or 12 months prior to the survey interviews.

**Educational attainment** is published only for the population aged 25+ years. *Note: The population of the aged 16–24 years include numerous persons with still unfinished education process at the time of the survey. Therefore, the educational attainment in this age category is rather determined by age then educational aspirations.*

### 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. *Note: This difference is because Eurostat includes solely individuals aged 16 to 74 years. The CZSO collects data from the whole population aged 16+ years in a standard way. Therefore, tables for the Czechia in this publication give two values - for all individuals aged 16+ years, and for all individuals aged 16–74 years.*

### Definitions

- Individuals using the information and communication technologies - **ICT users** - are such individuals who have used a mobile phone, a computer or the Internet at least once in the last three months anywhere (e.g. at home, at work, at school, etc.) and for whatever reason (private or work). *Note: Since 2018, in case of the use of mobile phone, the survey monitors neither the reference period nor the frequency of the use.*
- An individual using the Internet - **Internet user** - is defined here as someone who has used the Internet at least once within the last three months anywhere (e.g. at home, at work, at school, etc.) and for whatever reason (private or work) and on any device (a computer, a tablet, a mobile phone, a smart TV, a game console, etc.).
- The **Internet use** shall mean any activity on the Internet carried out in an active manner, e.g. browsing of websites, reading emails, listening to the music, downloading of files, participating in social networks.
- Individuals using the Internet on a mobile phone - **a mobile Internet user** - is defined here as someone who has used a mobile phone or a smartphone to access Internet services at least once in the last three months prior to being surveyed. *Note: It does not matter whether the phone was private, borrowed or an employer's one as well as whether for a connection to the Internet a mobile network (paid data from the mobile phone operator) or a wireless network (by using a router for WiFi access at home or public WiFi hotspots) was used.*

- The **Internet connection via mobile network data** shall mean here a connection of a mobile phone or a tablet to the Internet by using both pre-paid and data (monthly) tariff subscriptions of a mobile network provider/operator. *Note: The user can be connected to the Internet on location where there is a signal of the contracted mobile telephone network.*
- The **Internet connection via wireless network** shall mean here a connection of a mobile phone or a tablet to the Internet via a local wireless network (WiFi), secured or not. *Note: Typical examples include household wireless networks by using a router, local wireless networks (public or commercial WiFi hotspots) of cafes, hospitals, airports, transport means, schools, etc. The public WiFi connection is usually for free, it may be paid in certain cases as at the airports, for instance, or with limited access time.*
- **Internet activities** shall mean measured activities on the Internet, which a respondent did **at least once for private purposes in the last 3 months** prior to being surveyed. *Note: In the case of the **purchase over the Internet**, the reference period is either the last 3 months or the last 12 months.*
- 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. *Note: The **user of online social networks** had to do some of the aforementioned activities at least once in the last 3 months prior to being surveyed.*
- A **purchase over the Internet (online purchase)** shall mean ordering of any goods or services on a website or via an application (e.g. on a mobile phone) for private purposes. *Note 1: Orders placed via email are not included. 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. Note 2: The reference period for purchases over the Internet is the last 12 months prior to the survey interview. The frequency of purchases and the amount of money spent on purchasing over the Internet are measured for the reference period of the last 3 months prior to the survey interview.*
- **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. *Note: A respondent had to carry out some of aforementioned activities for private purposes in the last 3 months prior to being interviewed.*
- The **Internet banking** is operated via an Internet portal enabling remote control and administration of bank accounts via the Internet. The portal shall enable, for instance, checking the account balance, making a payment or standing orders, setting up limits for cash withdrawing from ATMs, etc. The Internet banking can also be accessible via a mobile phone with a mobile banking application.
- **Watching an Internet television**, as Stream, Playtvak, or DVTV stations, for instance, shall mean watching programmes on websites of the Internet television stations. Watching of such programmes is, as usual, for free. These television stations have no counterpart in the classic television transmissions, they are active on the Internet only.

**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>.

**For more information see:**

[https://www.czso.cz/csu/czso/domacnosti\\_a\\_jednotlivci](https://www.czso.cz/csu/czso/domacnosti_a_jednotlivci) (in Czech only).

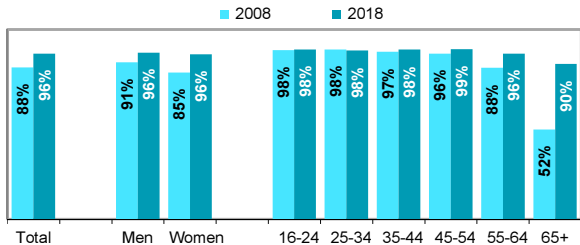
## C Individuals and ICT

**Tab. C1 Individuals in Czechia using a mobile phone; 2018**

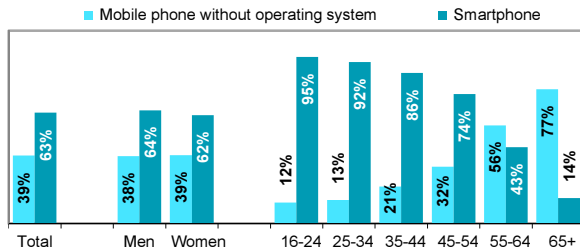
	Percentage		
	Total	Smart-phone	Mobile phone without operating system
<b>All individuals (aged 16+ years)</b>	<b>96,0</b>	<b>63,1</b>	<b>38,7</b>
All individuals (aged 16-74 years)	97,4	68,6	35,0
<b>Sex</b>			
Men (aged 16+ years)	96,5	64,5	38,4
Women (aged 16+ years)	95,6	61,8	38,9
<b>Age group (years)</b>			
16-24	98,4	94,8	11,9
25-34	97,7	92,1	13,3
35-44	98,3	85,9	21,0
45-54	98,6	73,8	32,3
55-64	95,9	43,5	55,9
65+	90,0	14,4	76,6
<b>Educational attainment (of the aged 25+)</b>			
Primary	86,3	25,4	63,3
Secondary without A-level examin.	95,3	48,5	50,9
Secondary with A-level examination	97,3	68,6	34,6
Tertiary	98,1	81,1	26,1
<b>Economic activity status</b>			
Women on maternity leave	97,8	89,6	14,5
Students (aged 16+ years)	99,1	95,4	13,1
Pensioners	90,2	14,8	76,3

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

**Figure C1 Individuals using a mobile phone by sex and age**



**Figure C2 Type of mobile phones used by individuals; 2018**



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

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

Tab. C2 Individuals in Czechia using the Internet; 2018

	Percentage		
	At least once per lifetime	In the last 3 months - Internet users	Every day or almost every day
<b>All individuals (aged 16+ years)</b>	<b>85,0</b>	<b>80,7</b>	<b>70,0</b>
All individuals (aged 16-74 years)	90,3	86,5	75,4
<b>Sex</b>			
Men (aged 16+ years)	87,0	82,8	71,7
Women (aged 16+ years)	83,0	78,7	68,4
<b>Age group (years)</b>			
16-24	99,4	99,1	97,6
25-34	99,5	98,9	94,6
35-44	98,5	97,6	90,9
45-54	96,4	93,4	78,0
55-64	82,8	77,3	57,9
65+	50,0	38,4	24,9
<b>Educational attainment (of the aged 25+)</b>			
Primary	45,2	36,9	27,1
Secondary without A-level examin.	78,1	71,9	54,5
Secondary with A-level examination	91,1	87,2	77,2
Tertiary	97,5	95,9	91,7
<b>Economic activity status</b>			
Women on maternity leave	99,7	97,9	91,8
Students (aged 16+ years)	100,0	99,8	99,2
Pensioners	52,3	40,8	26,1

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

Figure C3 Individuals who have never used the Internet

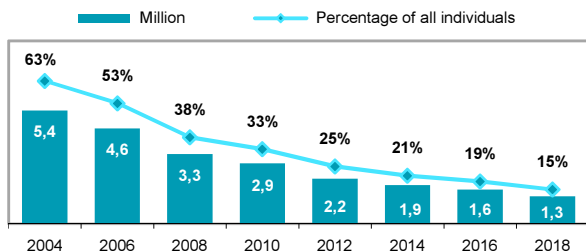
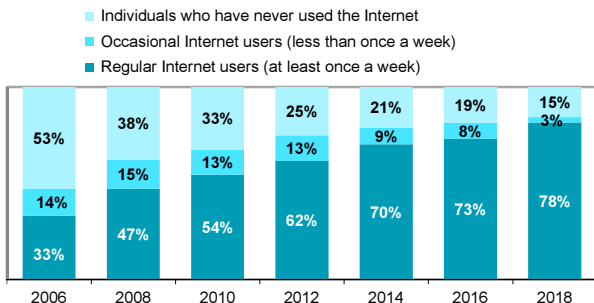


Figure C4 Individuals by their use of the Internet

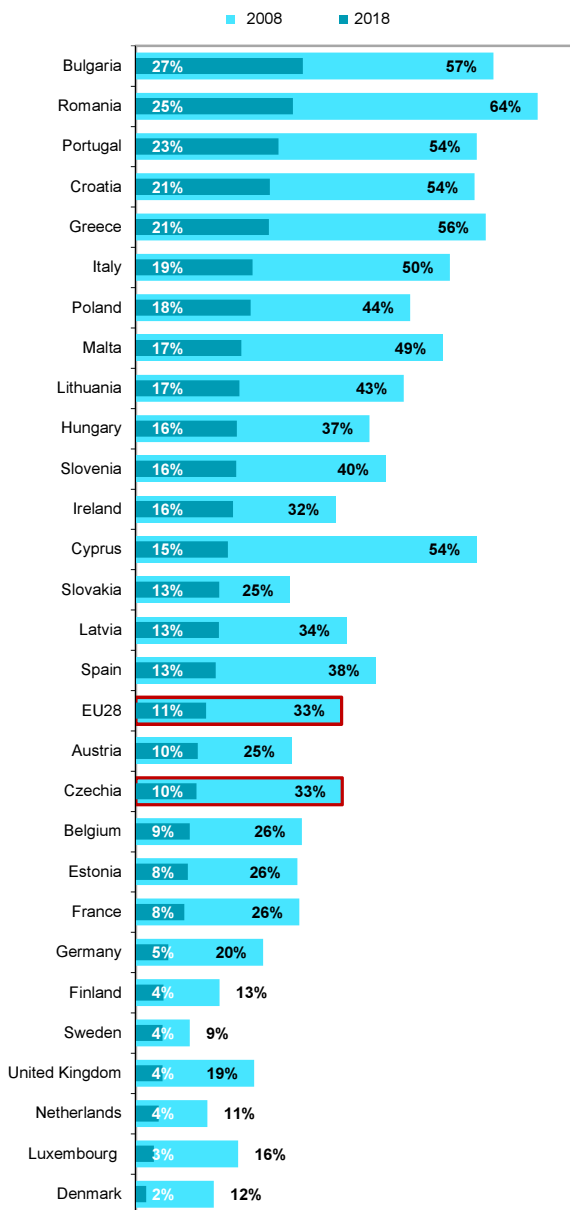


Source: Czech Statistical Office, ICT use survey in households, 2019



## C Individuals and ICT

**Figure C5 Individuals in EU countries who have never used the Internet**



as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

## C Individuals and ICT

Tab. C3 Internet users in Czechia

	Percentage		
	2015	2017	2018
All individuals (aged 16+ years)	75,7	78,7	80,7
All individuals (aged 16-74 years)	81,3	84,5	86,5
<b>Sex</b>			
Men (aged 16+ years)	77,9	81,6	82,8
Women (aged 16+ years)	73,5	76,0	78,7
<b>Age group (years)</b>			
16-24	97,0	99,0	99,1
25-34	95,4	96,4	98,9
35-44	93,9	96,9	97,6
45-54	86,7	91,5	93,4
55-64	68,0	75,3	77,3
65+	28,4	33,6	38,4
<b>Educational attainment (of the aged 25+)</b>			
Primary	30,4	34,6	36,9
Secondary without A-level examination	62,6	68,1	71,9
Secondary with A-level examination	84,2	86,0	87,2
Tertiary	94,1	95,0	95,9
<b>Economic activity status</b>			
Women on maternity leave	93,9	94,7	97,9
Students (aged 16+ years)	99,0	99,7	99,8
Pensioners	32,8	37,0	40,8

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

Figure C6 Internet users

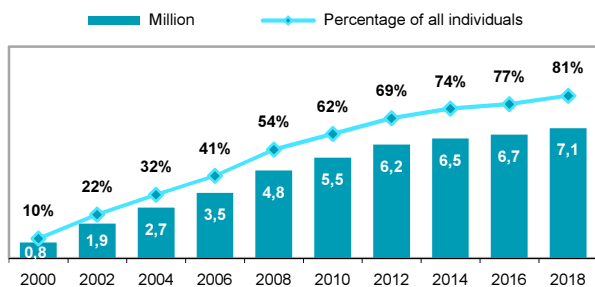
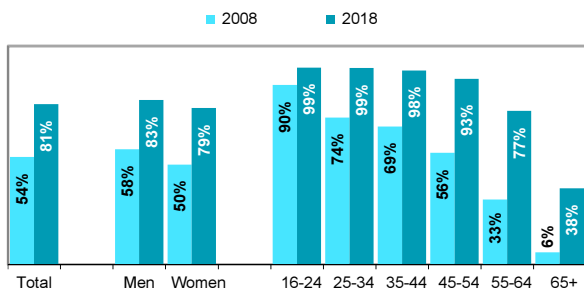


Figure C7 Internet users by sex and age

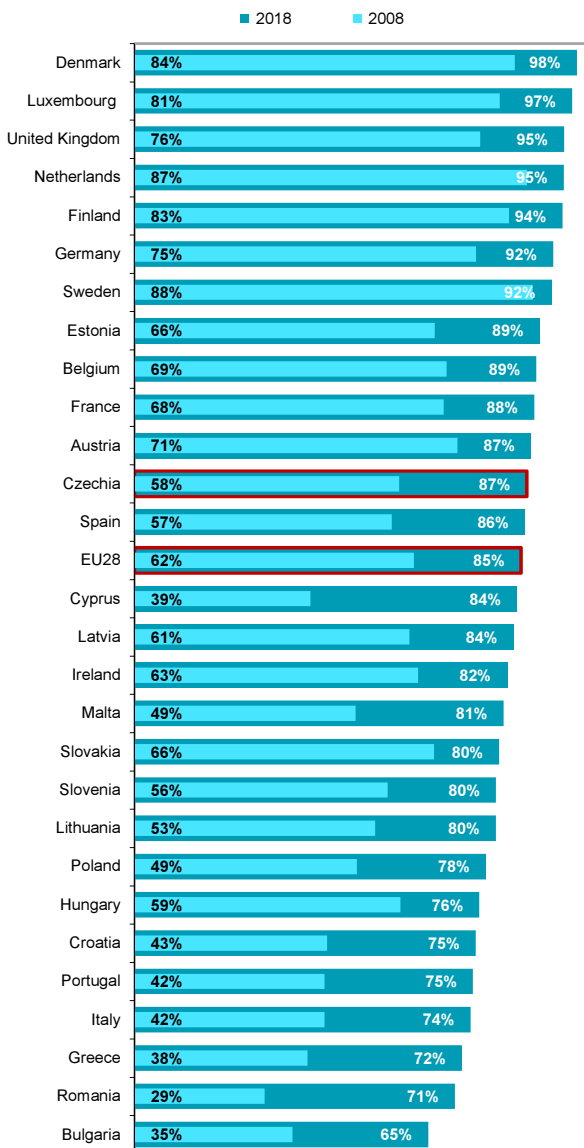


as a percentage of all individuals in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

Figure C8 Internet users in EU countries



Note: **An internet user** is defined here as someone who has used the Internet at least once within the last three months on any device (computer, tablet, mobile phone, smart TV, game console, etc.) from any location (household, school, work, etc.) and for any purpose (private, work, etc.).

as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

## C Individuals and ICT

Tab. C4 Mobile Internet users in Czechia

	Percentage		
	2015	2017	2018
All individuals (aged 16+ years)	37,0	50,4	58,4
All individuals (aged 16-74 years)	40,1	54,9	63,7
<b>Sex</b>			
Men (aged 16+ years)	41,7	54,9	60,7
Women (aged 16+ years)	32,5	46,1	56,3
<b>Age group (years)</b>			
16-24	77,1	86,7	93,7
25-34	68,0	81,3	90,0
35-44	48,6	71,4	81,6
45-54	28,1	53,1	66,6
55-64	14,2	28,6	35,9
65+	3,1	5,8	9,9
<b>Educational attainment (of the aged 25+)</b>			
Primary	9,2	15,0	21,3
Secondary without A-level examination	20,5	34,5	43,1
Secondary with A-level examination	34,8	53,1	62,8
Tertiary	59,1	71,3	77,7
<b>Economic activity status</b>			
Women on maternity leave	51,2	73,8	82,8
Students (aged 16+ years)	80,1	87,0	94,6
Pensioners	3,3	6,7	10,0

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

Figure C9 Mobile Internet users

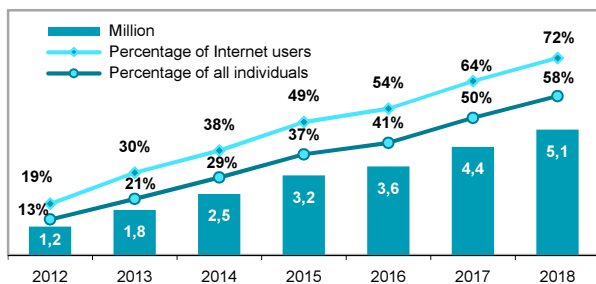
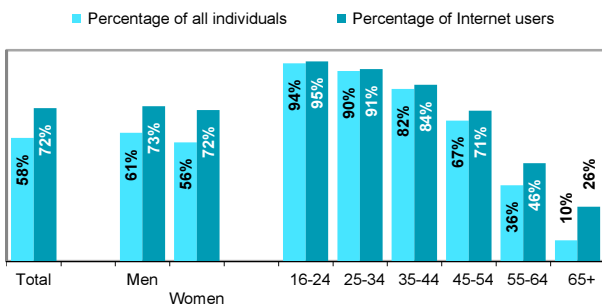


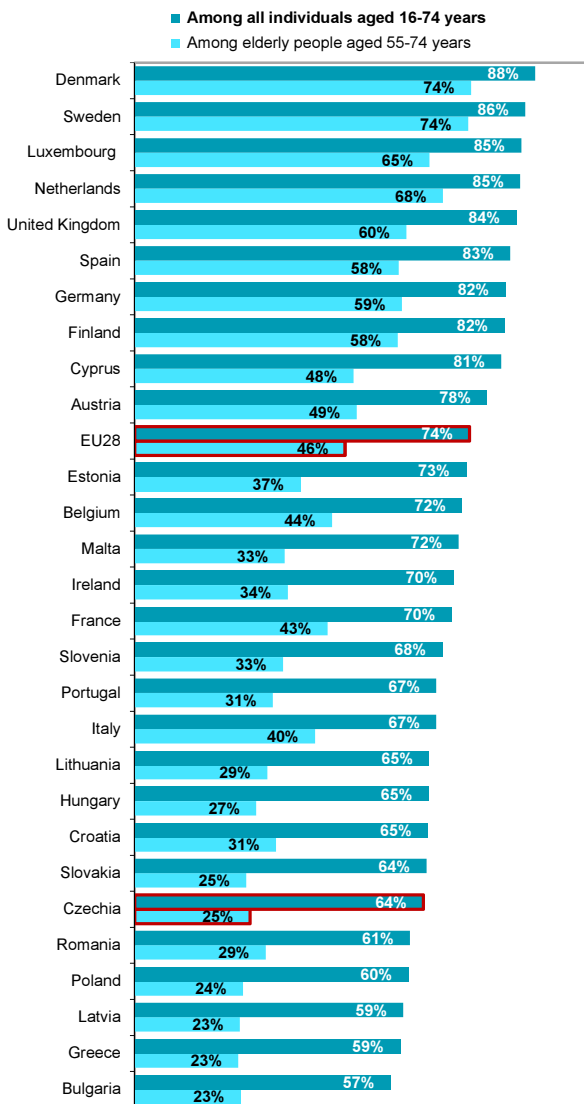
Figure C10 Mobile Internet users by sex and age; 2018



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C11 Mobile Internet users in EU countries; 2018**



*Note: A mobile internet user is defined here as someone who has used at least once within the last three months a mobile phone or smartphone to access any Internet service. It does not matter if the phone was private, borrowed or employer's one and also it does not matter what type of connection was used to access the Internet (mobile networks, WiFi, etc.).*

*as a percentage of all individuals in a given age group and country*

Source: Eurostat, 2019

## C Individuals and ICT

**Tab. C5 Networks used by mobile Internet users; 2018**

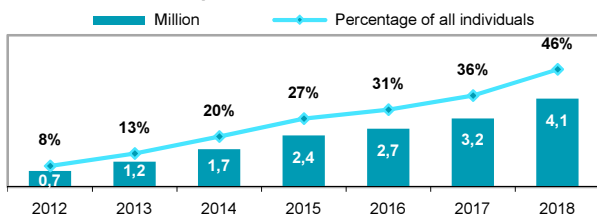
	Percentage		
	mobile network*	WiFi network**	only WiFi network
<b>All individuals (aged 16+ years)</b>	<b>46,5</b>	<b>55,9</b>	<b>11,6</b>
All individuals (aged 16-74 years)	50,7	61,1	12,7
<b>Sex</b>			
Men (aged 16+ years)	49,8	58,2	10,6
Women (aged 16+ years)	43,4	53,7	12,6
<b>Age group (years)</b>			
16-24	74,3	91,4	19,2
25-34	74,2	87,0	15,5
35-44	66,2	77,8	14,7
45-54	52,1	63,9	14,5
55-64	27,0	33,3	8,2
65+	6,7	8,9	3,2
<b>Educational attainment (of the aged 25+)</b>			
Primary	14,8	19,1	6,6
Secondary without A-level examination	31,8	40,2	10,8
Secondary with A-level examination	50,4	60,0	12,1
Tertiary	67,1	76,2	10,4
<b>Economic activity status</b>			
Women on maternity leave	68,1	79,7	14,4
Students (aged 16+ years)	74,8	93,3	19,6
Pensioners	6,5	8,8	3,3

\* Mobile network stands here for the use of both pre-paid and tariff (monthly) data subscriptions from the mobile phone operators.

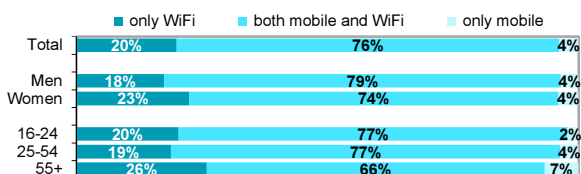
\*\* WiFi network stands here for the use of a connection via a local wireless network (WiFi), secured or not. Typical examples include household wireless networks by using a router, local wireless networks (public or commercial WiFi hotspots) of cafes, hospitals, airports, transport means, schools, etc.

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

**Figure C12 Individuals using a mobile network to access the Internet on a mobile phone**



**Figure C13 Networks used by mobile Internet users; 2018**

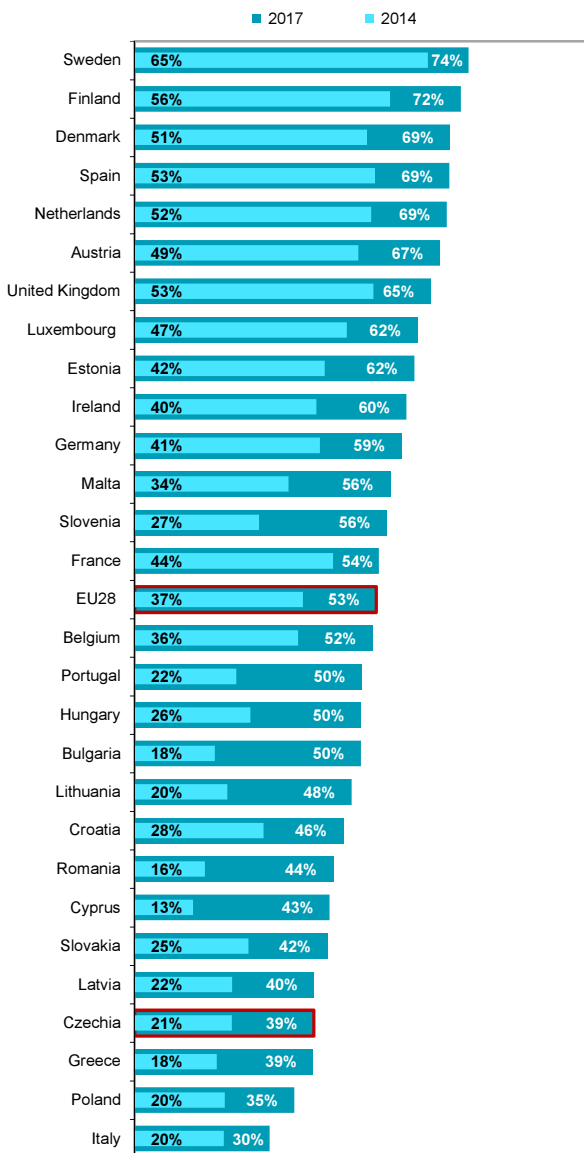


as a percentage of mobile phone Internet users

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C14 Individuals in EU countries using a mobile network\* to access the Internet on a mobile phone**



\* Mobile network stands here for the use of both pre-paid and tariff (monthly) data subscriptions from the mobile phone operators.

as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

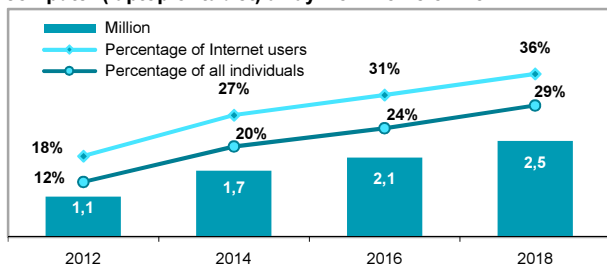
## C Individuals and ICT

**Tab. C6 Individuals in Czechia using the Internet on a portable computer (laptop or tablet); 2018**

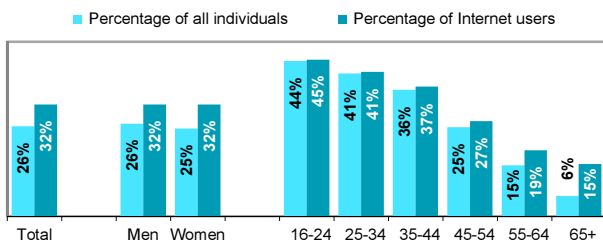
	Total	Percentage	
		of which: out of home or work	on tablet
All individuals (aged 16+ years)	63,7	28,9	25,8
All individuals (aged 16-74 years)	69,0	31,5	28,0
<b>Sex</b>			
Men (aged 16+ years)	65,8	32,8	26,4
Women (aged 16+ years)	61,8	25,1	25,1
<b>Age group (years)</b>			
16-24	87,4	62,3	44,4
25-34	88,9	48,8	40,9
35-44	80,9	36,2	36,2
45-54	73,5	29,1	25,4
55-64	52,5	14,9	14,6
65+	21,4	2,9	5,7
<b>Educational attainment (of the aged 25+)</b>			
Primary	25,3	6,2	10,2
Secondary without A-level examin.	50,1	13,6	17,7
Secondary with A-level examination	68,7	28,1	27,3
Tertiary	86,0	51,9	35,6
<b>Economic activity status</b>			
Women on maternity leave	83,5	30,6	39,3
Students (aged 16+ years)	91,9	70,2	45,7
Pensioners	23,4	2,6	6,4

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

**Figure C15 Individuals using the Internet on a portable computer (laptop or tablet) away from home or work**



**Figure C16 Individuals using the Internet on a tablet computer by sex and age; 2018**

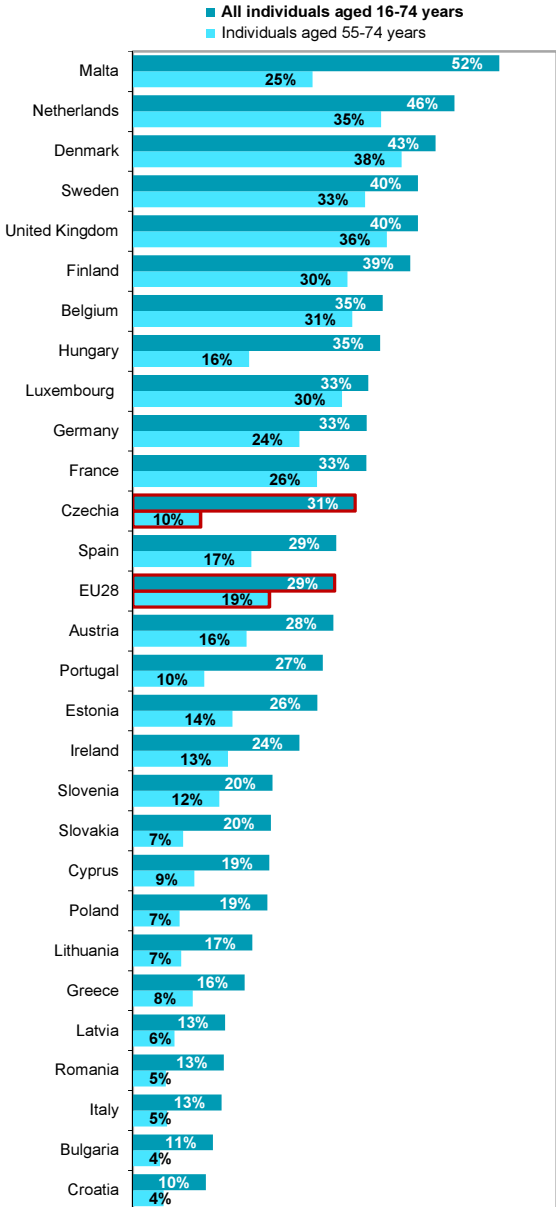


Source: Czech Statistical Office, ICT use survey in households, 2019



## C Individuals and ICT

**Figure C17 Individuals in EU countries using the Internet on a portable computer away from home or work; 2018**



as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019

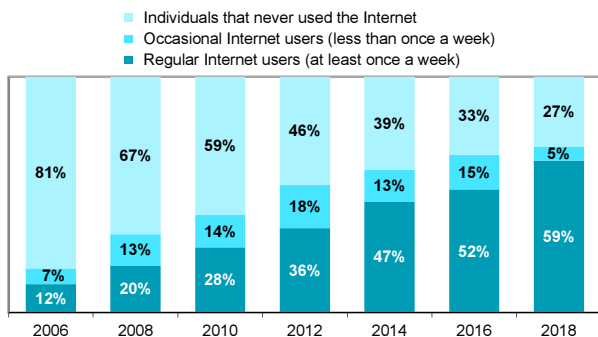
## C Individuals and ICT

**Tab. C7 Internet users in Czechia among elderly people**

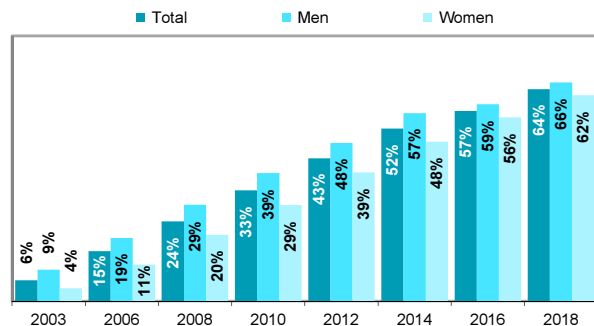
	Percentage		
	2015	2017	2018
<b>All individuals aged 55 to 74 years</b>	<b>55,5</b>	<b>60,7</b>	<b>64,0</b>
of which using the Internet daily	30,6	38,7	45,5
<b>Sex</b>			
Men	59,1	64,6	66,0
Women	52,0	57,3	62,1
<b>Age group (years)</b>			
55–64	68,0	75,3	77,3
65–74	39,5	44,9	50,0
<b>Educational attainment level</b>			
Primary	26,9	23,7	29,0
Secondary without A-level examination	44,5	49,6	54,9
Secondary with A-level examination	71,5	74,7	78,0
Tertiary	88,8	92,4	92,6
<b>Economic activity status</b>			
Employed	80,5	86,6	84,7
Pensioners	43,1	47,4	51,8

as a percentage of all individuals aged 55-74 years in a given group

**Figure C18 Individuals aged 55 to 74 by their use of the Internet**



**Figure C19 Internet users aged 55 to 74 years by sex**

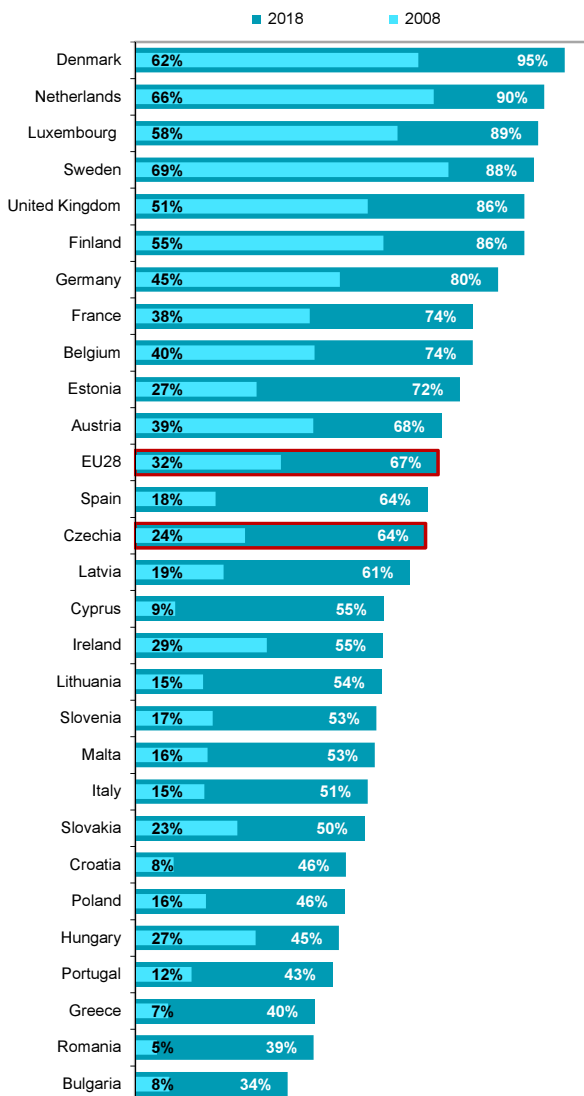


as a percentage of all individuals (men and women) aged 55-74 years

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C20 Internet users in EU countries among elderly people aged 55 to 74 years**



*Note: An Internet user is defined here as someone who has used the Internet at least once within the last three months on any device (computer, tablet, mobile phone, smart TV, game console, etc.) from any location (household, school, work, etc.) and for any purpose (private, work, etc.).*

*as a percentage of all individuals aged 55 to 74 yrs. in a given country and year*

Source: Eurostat, 2019

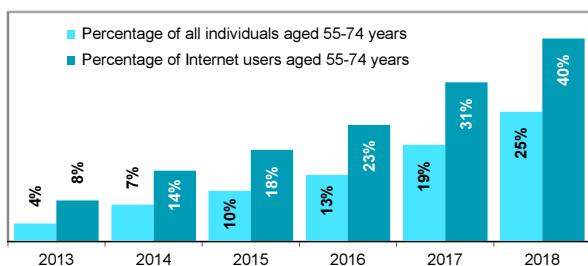
## C Individuals and ICT

**Tab. C8 Internet users among elderly people in Czechia accessing the Internet on mobile devices; 2018**

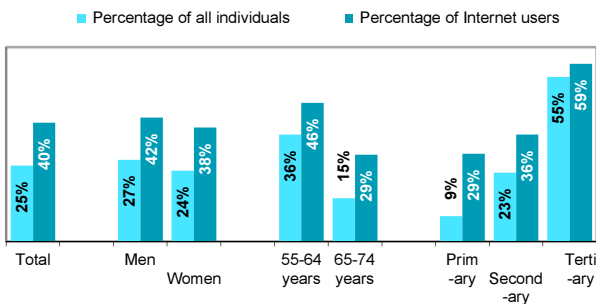
	Percentage		
	All individuals aged 55 to 74	Men	Women
<b>Portable computer, total</b>	<b>41,3</b>	<b>42,3</b>	<b>40,3</b>
Laptop	37,2	39,0	35,6
Tablet	11,3	10,9	11,6
<b>Mobile phone</b>	<b>25,5</b>	<b>27,4</b>	<b>23,7</b>

as a percentage of all individuals (men and women) aged 55-74 years

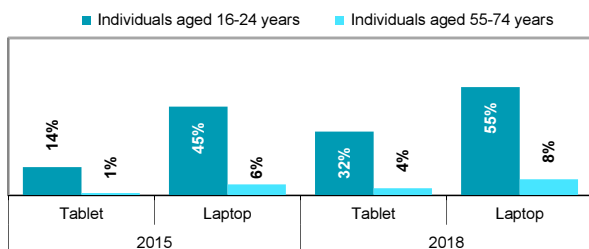
**Figure C21 Mobile Internet users among elderly people**



**Figure C22 Mobile Internet users among elderly people by sex, age, and education; 2018**



**Figure C23 Individuals using tablet or laptop for accessing the Internet out of home**

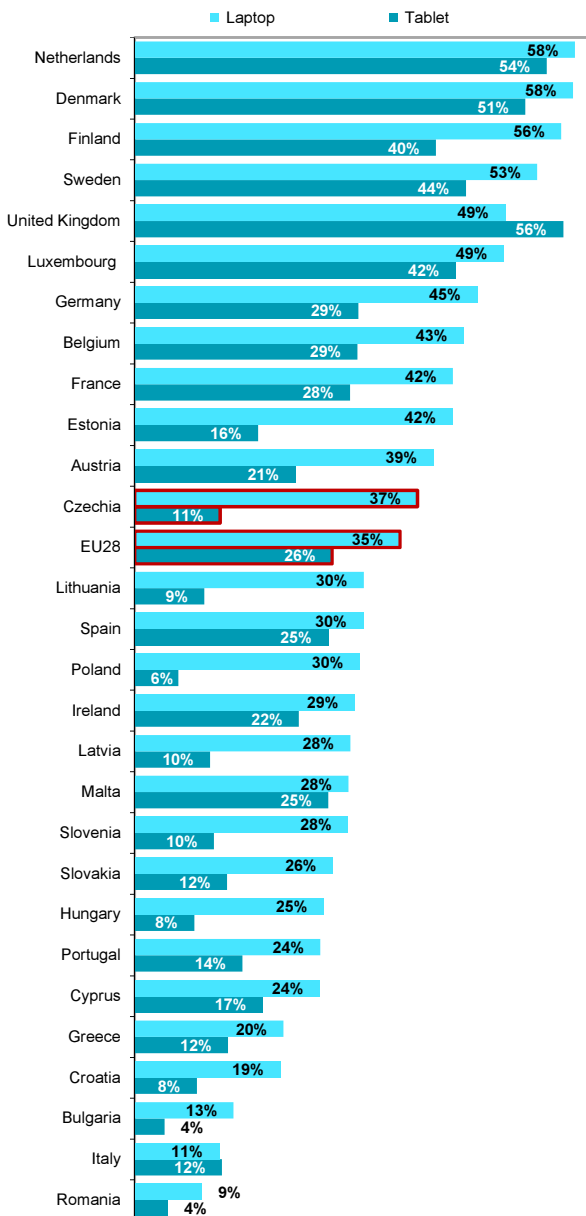


as a percentage of all individuals in a given age group and year

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C24 Individuals in EU countries aged 55 to 74 using laptop or tablet for accessing Internet out of home; 2018**



as a percentage of all individuals aged 55 to 74 years in a given country

Source: Eurostat, 2019

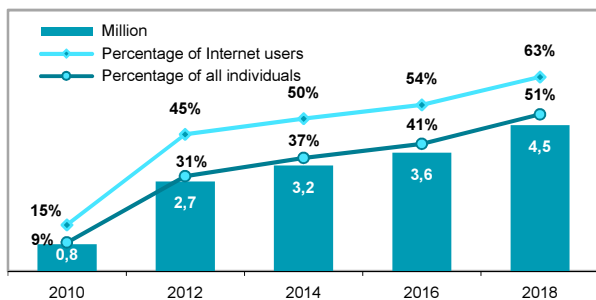
## C Individuals and ICT

**Tab. C9 Individuals in Czechia using online social networks**

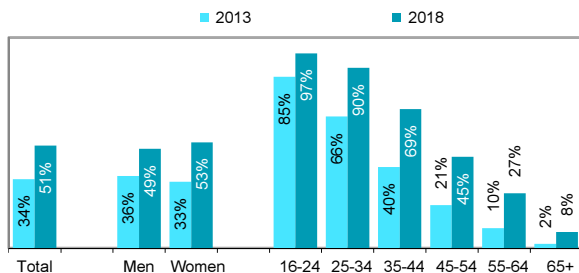
	Percentage		
	2015	2017	2018
<b>All individuals (aged 16+ years)</b>	37,4	44,2	51,0
All individuals (aged 16-74 years)	40,7	48,2	55,6
<b>Sex</b>			
Men (aged 16+ years)	37,6	44,7	49,4
Women (aged 16+ years)	37,3	43,9	52,6
<b>Age group (years)</b>			
16-24	88,7	93,2	97,0
25-34	72,3	78,8	89,8
35-44	46,9	59,0	69,3
45-54	23,9	38,8	45,5
55-64	10,1	19,4	27,2
65+	3,3	5,1	7,8
<b>Educational attainment (of the aged 25+)</b>			
Primary	9,2	15,9	20,4
Secondary without A-level examination	22,1	29,4	36,5
Secondary with A-level examination	35,5	45,6	52,1
Tertiary	47,2	54,8	65,5
<b>Economic activity status</b>			
Women on maternity leave	67,4	76,2	89,4
Students (aged 16+ years)	93,3	94,6	98,2
Pensioners	3,7	5,8	9,3

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

**Figure C25 Individuals using online social networks**



**Figure C26 Online social networks users by sex and age**

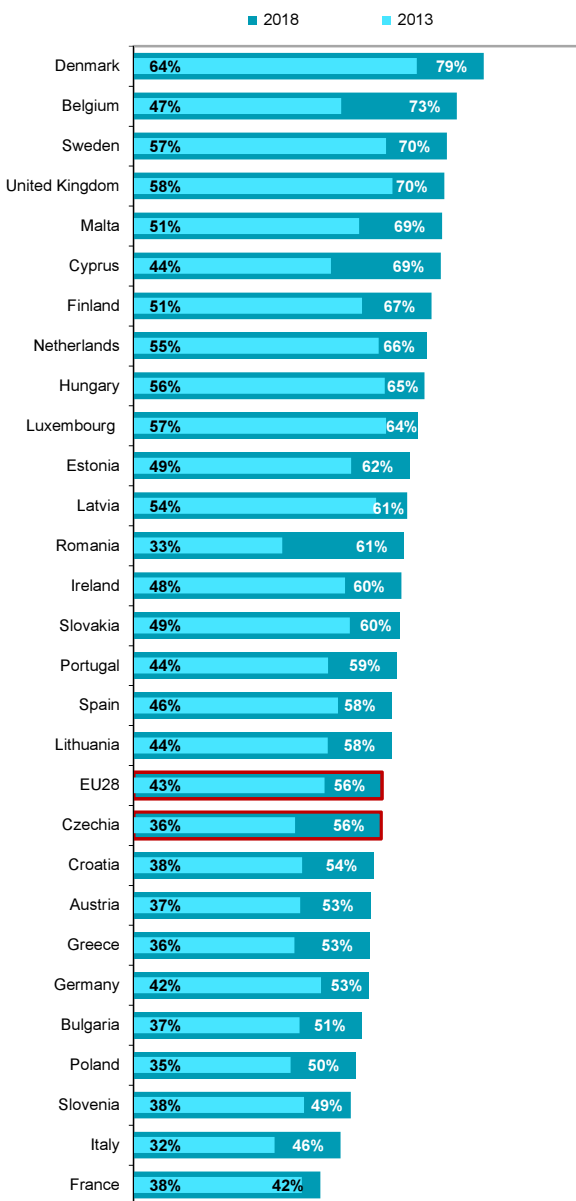


as a percentage of all individuals in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C27 Individuals in EU countries using online social networks**

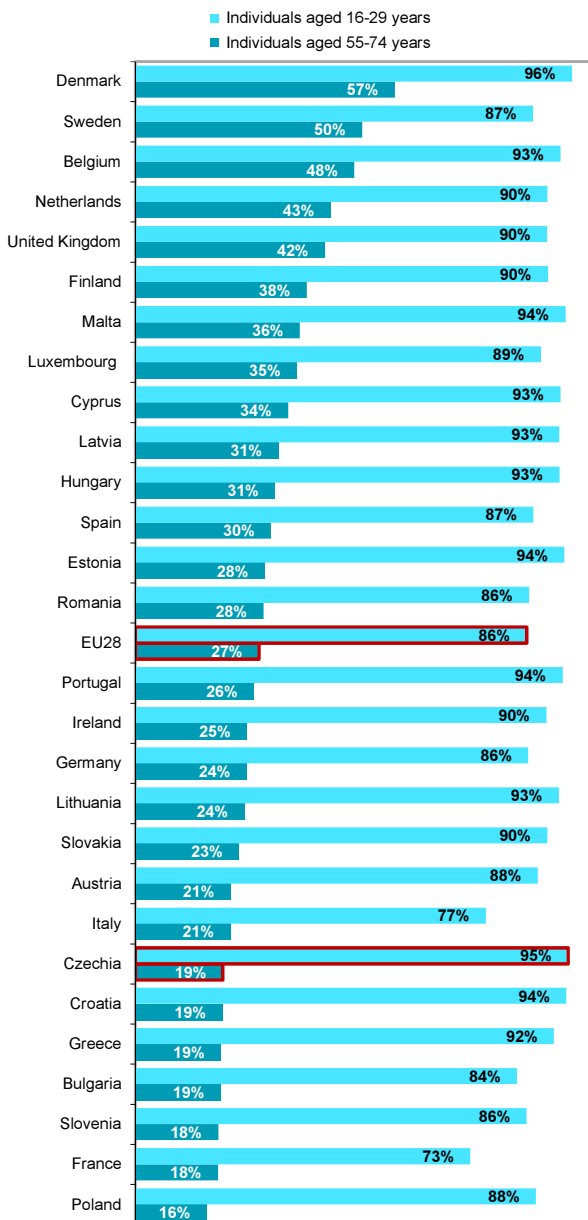


as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

## C Individuals and ICT

**Figure C28 Users of online social networks in EU countries among younger and older generation; 2018**



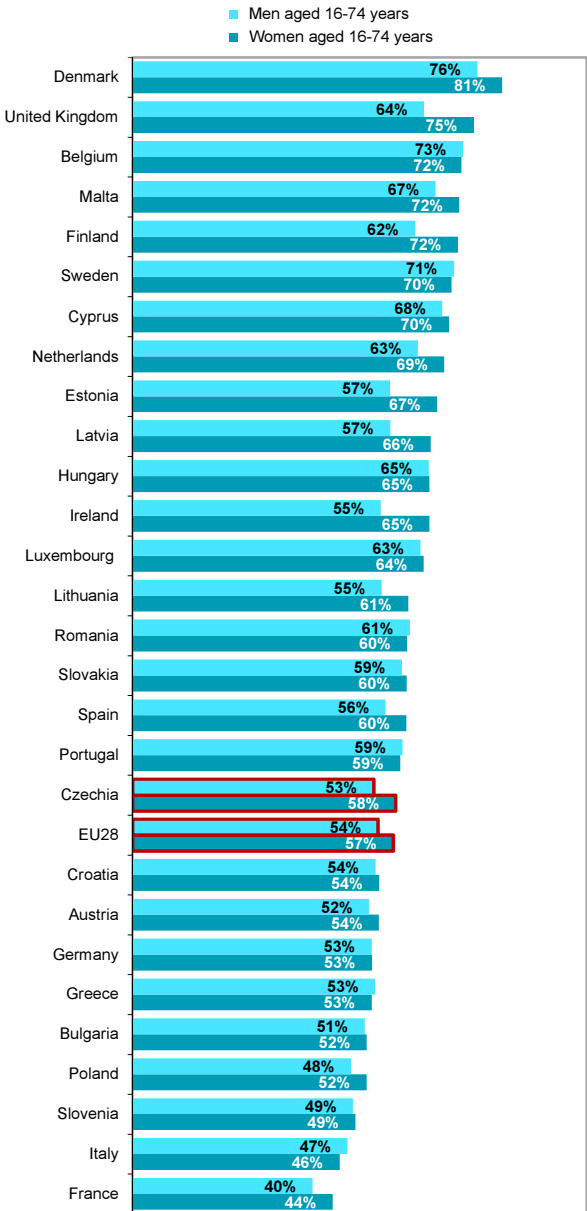
as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019



## C Individuals and ICT

**Figure C29 Online social network users in EU countries among men and women; 2018**



as a percentage of all men and women aged 16 to 74 years in a given country

Source: Eurostat, 2019

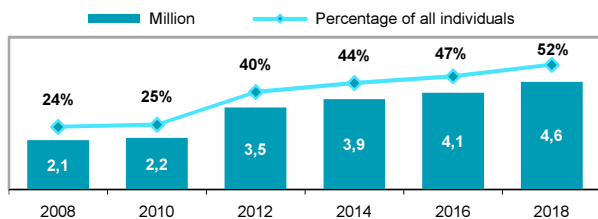
## C Individuals and ICT

**Tab. C10 Individuals in Czechia using the Internet for travel and accommodation related activities; 2018**

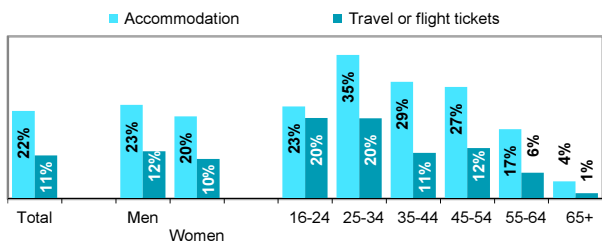
	Percentage		
	Seeking travel-related information	Purchasing accommodation	Purchasing travel/flight tickets
<b>All individuals (aged 16+ years)</b>	<b>52,4</b>	<b>21,6</b>	<b>10,7</b>
All individuals (aged 16-74 years)	56,8	23,5	11,6
<b>Sex</b>			
Men (aged 16+ years)	50,6	23,1	11,6
Women (aged 16+ years)	54,2	20,3	9,8
<b>Age group (years)</b>			
16-24	67,1	22,7	19,9
25-34	72,7	35,4	19,8
35-44	68,2	28,8	11,3
45-54	61,3	27,5	12,5
55-64	44,9	17,1	6,3
65+	16,8	4,2	1,3
<b>Educational attainment (of the aged 25+)</b>			
Primary	14,2	2,9	1,1
Secondary without A-level examin.	39,0	10,7	4,0
Secondary with A-level examin.	59,9	27,0	11,4
Tertiary	74,9	41,9	21,9
<b>Economic activity status</b>			
Women on maternity leave	68,9	26,9	7,1
Students (aged 16+ years)	69,6	21,7	21,7
Pensioners	19,2	4,6	1,3

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

**Figure C30 Individuals seeking travel-related information online**



**Figure C31 Individuals who purchased online accommodation or travel tickets by sex and age; 2018**

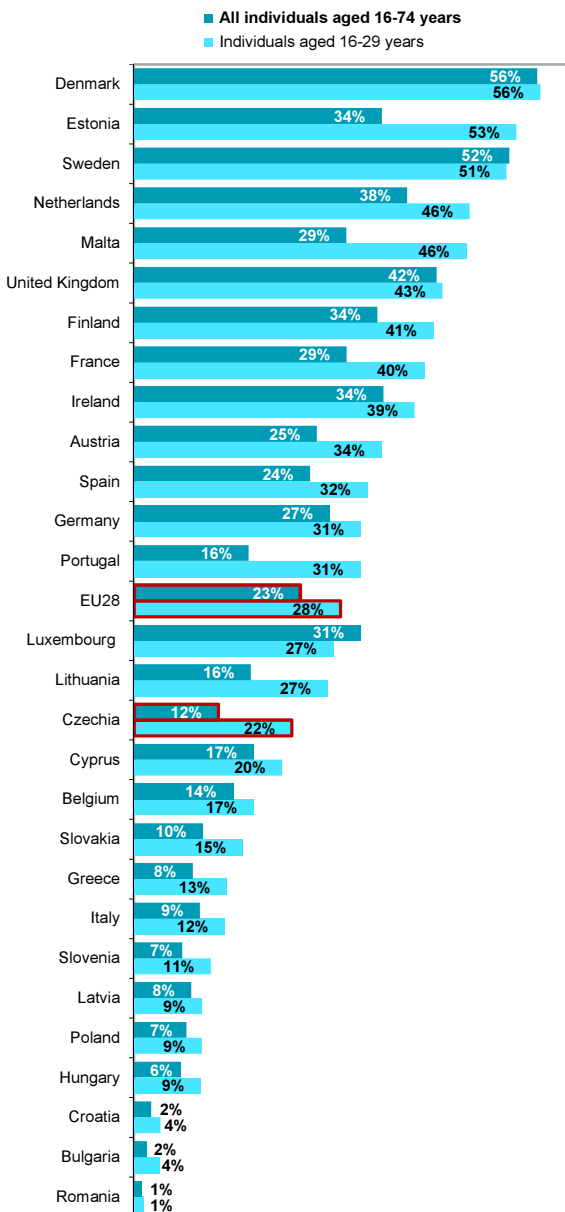


as a percentage of all individuals in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C32 Individuals in EU countries who purchased online travel or flight tickets; 2018**



as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019

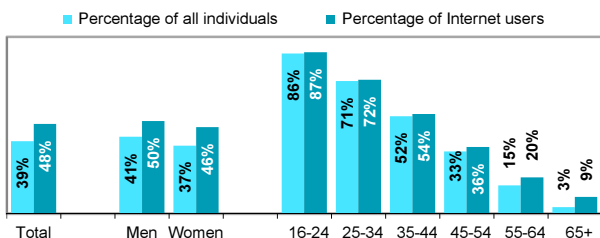
## C Individuals and ICT

**Tab. C11 Individuals in Czechia using the Internet for entertainment; 2018**

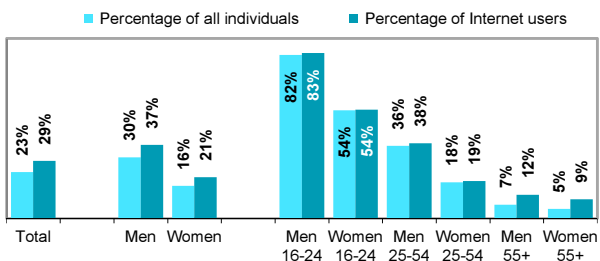
	Percentage		
	Playing games	Listening to web radio	Listening to music
All individuals (aged 16+ years)	23,2	19,6	38,8
All individuals (aged 16-74 years)	25,2	21,3	42,3
<b>Sex</b>			
Men (aged 16+ years)	30,5	21,9	41,2
Women (aged 16+ years)	16,2	17,4	36,5
<b>Age group (years)</b>			
16-24	68,3	38,4	86,0
25-34	41,2	35,7	71,2
35-44	26,8	24,7	52,2
45-54	14,1	17,5	33,4
55-64	9,2	10,6	15,1
65+	3,4	3,0	3,4
<b>Educational attainment (of the aged 25+)</b>			
Primary	11,3	6,2	13,9
Secondary without A-level examination	18,0	12,7	25,1
Secondary with A-level examination	20,6	20,3	39,3
Tertiary	17,0	27,1	49,0
<b>Economic activity status</b>			
Women on maternity leave	21,5	23,4	59,4
Students (aged 16+ years)	70,7	40,9	88,8
Pensioners	4,0	3,4	4,3

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

**Figure C33 Individuals listening to music (except of web radio) on the Internet by sex and age; 2018**



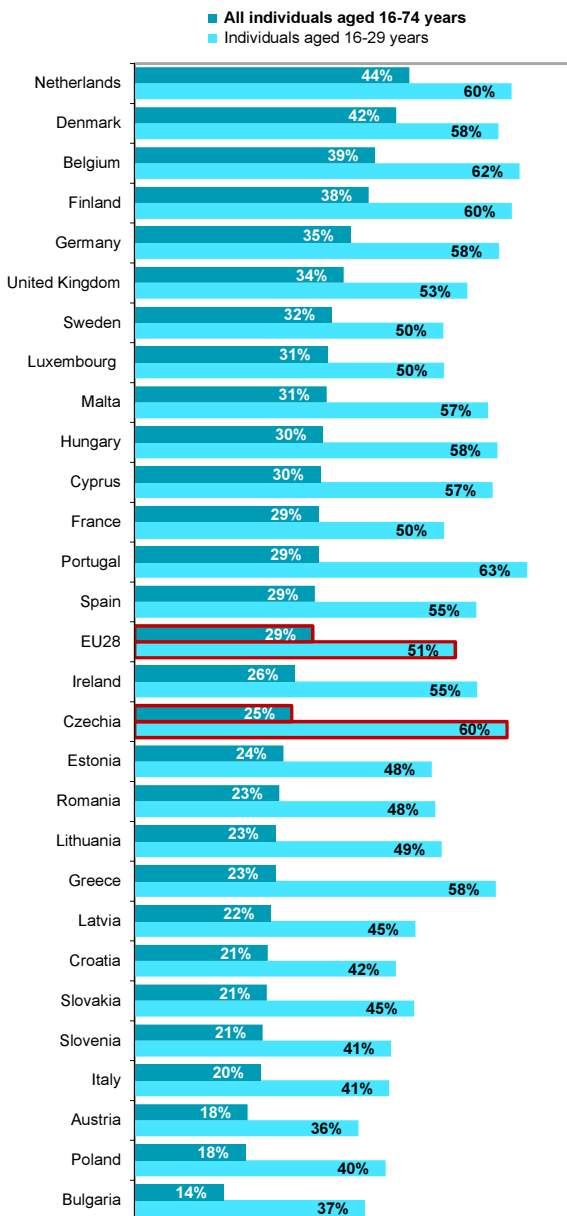
**Figure C34 Individuals playing games on the Internet by sex and age; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C35 Individuals in EU countries playing games on the Internet; 2018**



as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019

## C Individuals and ICT

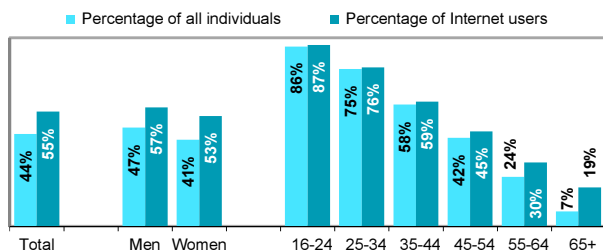
**Tab. C12 Individuals in Czechia watching videos online; 2018**

Percentage

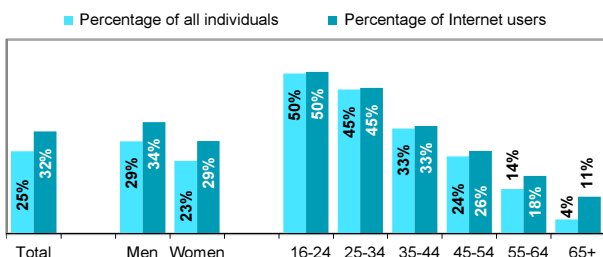
	from free video sharing sites (e.g. YouTube or Vimeo)	from free Internet TV (e.g. Stream or DTVT)	from paid websites (e.g. Netflix or HBO GO)
<b>All individuals aged 16+</b>	<b>44,1</b>	<b>25,5</b>	<b>4,0</b>
All individuals (aged 16-74 years)	48,0	27,7	4,4
<b>Sex</b>			
Men (aged 16+ years)	47,0	28,5	4,7
Women (aged 16+ years)	41,3	22,5	3,3
<b>Age group (years)</b>			
16-24	85,8	49,5	6,4
25-34	75,0	44,5	6,8
35-44	58,1	32,5	5,1
45-54	42,2	23,9	5,3
55-64	23,5	13,8	1,9
65+	7,1	4,4	0,4
<b>Educational attainment (of the aged 25+)</b>			
Primary	16,3	8,4	0,1
Secondary without A-level exam	31,2	16,4	2,0
Secondary with A-level exam.	44,0	26,0	4,5
Tertiary	58,5	36,5	7,7
<b>Economic activity status</b>			
Women on maternity leave	68,5	35,0	3,3
Students (aged 16+ years)	88,4	51,5	7,6
Pensioners	8,4	5,0	0,4

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

**Figure C36 Individuals watching videos on free video sharing websites (e.g. YouTube or Vimeo) by sex and age; 2018**



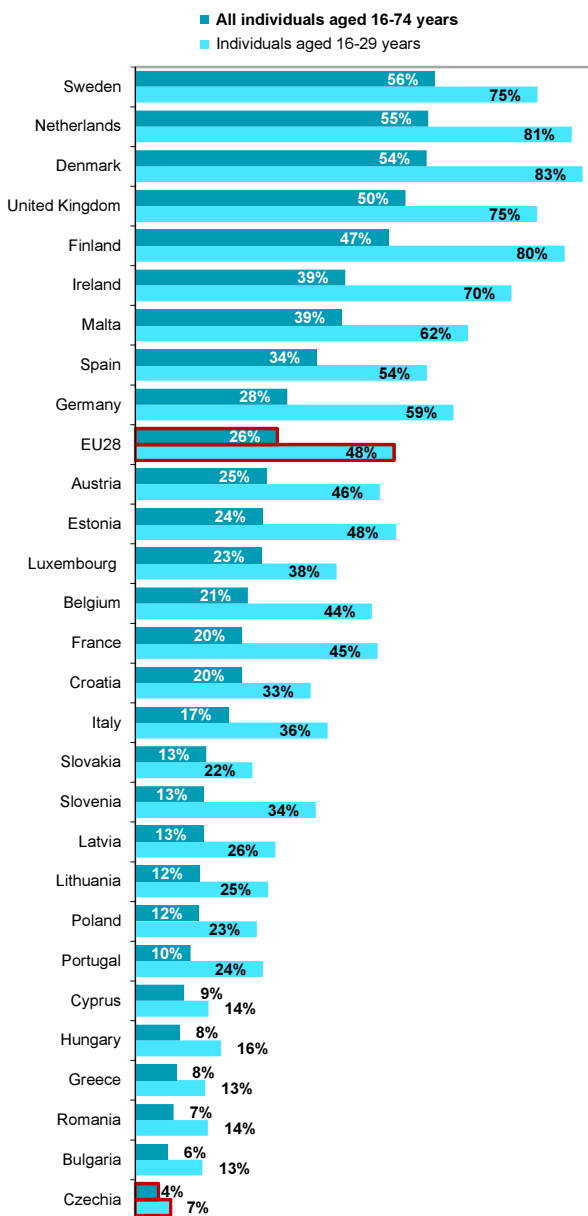
**Figure C37 Individuals watching videos from free Internet TVs (e.g. Stream or DTVT) by sex and age; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C38 Individuals in EU countries watching videos from paid websites (e.g. Netflix or HBO GO); 2018**



as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019

## C Individuals and ICT

Tab. C13 Individuals in Czechia using Internet banking

	Percentage		
	2015	2017	2018
<b>All individuals (aged 16+ years)</b>	<b>44,9</b>	<b>51,8</b>	<b>57,6</b>
All individuals (aged 16-74 years)	48,5	56,3	62,4
<b>Sex</b>			
Men (aged 16+ years)	47,0	55,1	59,2
Women (aged 16+ years)	43,0	49,0	56,0
<b>Age group (years)</b>			
16-24	36,1	45,6	54,7
25-34	68,4	77,4	84,4
35-44	68,5	73,5	81,7
45-54	54,8	65,3	72,1
55-64	33,4	46,1	46,7
65+	10,2	12,2	16,0
<b>Educational attainment (of the aged 25+)</b>			
Primary	8,9	12,1	16,8
Secondary without A-level examination	30,4	39,2	44,7
Secondary with A-level examination	58,1	62,9	69,0
Tertiary	76,3	79,9	83,1
<b>Economic activity status</b>			
Women on maternity leave	61,8	73,4	85,9
Students (aged 16+ years)	31,6	37,4	47,0
Pensioners	11,7	14,5	17,4

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

Figure C39 Individuals using Internet banking

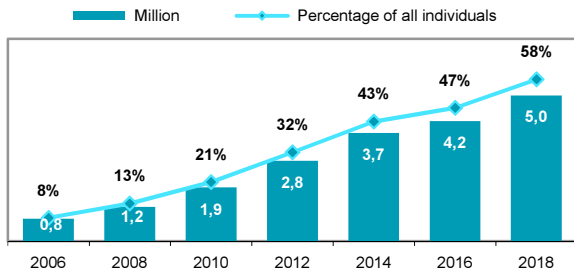
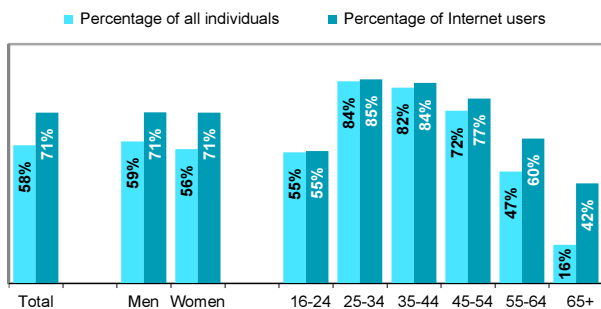


Figure C40 Internet banking users by sex and age; 2018

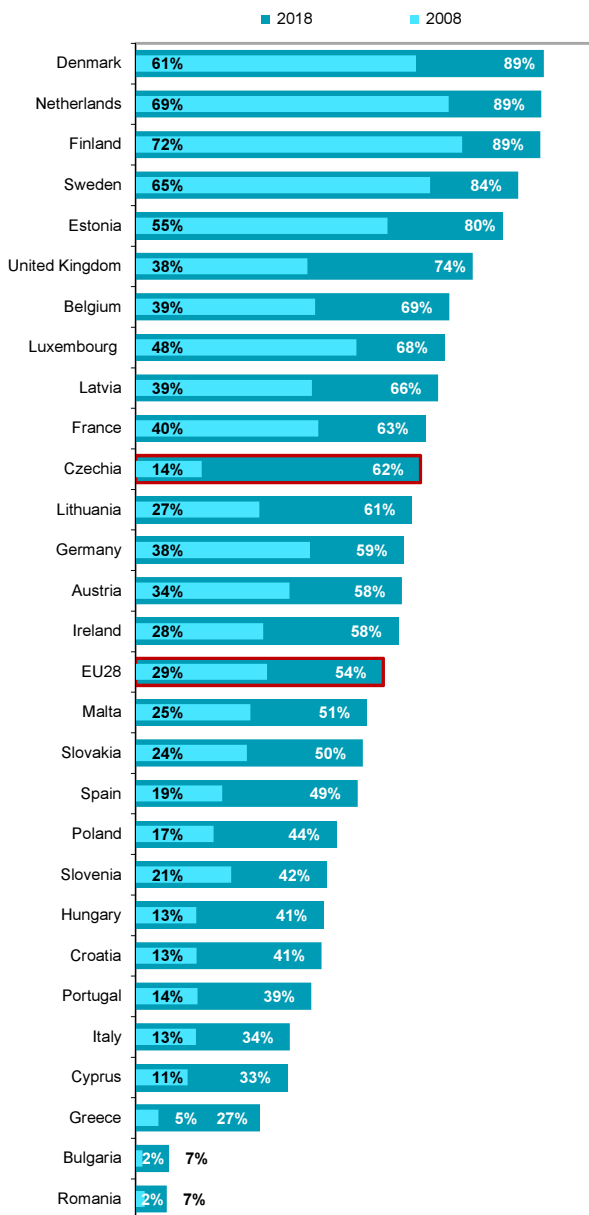


Source: Czech Statistical Office, ICT use survey in households, 2019



## C Individuals and ICT

**Figure C41 Individuals in EU countries using Internet banking**



as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

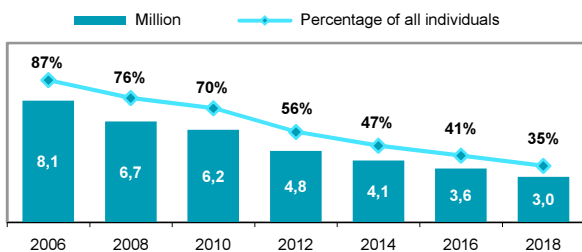
## C Individuals and ICT

**Tab. C14 Individuals in Czechia who purchased online; 2018**

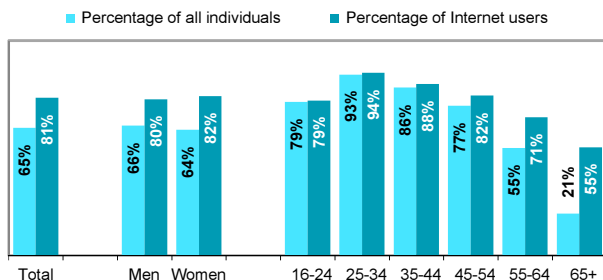
	Percentage		
	At least once in the past	In the last 12 months	In the last 3 months
<b>All individuals (aged 16+ years)</b>	<b>65,3</b>	<b>53,9</b>	<b>34,3</b>
All individuals (aged 16-74 years)	70,7	58,6	37,4
<b>Sex</b>			
Men (aged 16+ years)	66,4	53,6	31,3
Women (aged 16+ years)	64,2	54,2	37,2
<b>Age group (years)</b>			
16-24	78,6	71,0	49,3
25-34	92,6	81,3	58,1
35-44	85,9	71,4	46,2
45-54	76,7	63,8	38,8
55-64	54,9	41,2	20,6
65+	21,3	13,5	6,8
<b>Educational attainment (of the aged 25+)</b>			
Primary	24,6	16,5	8,9
Secondary without A-level examin.	52,6	39,3	22,2
Secondary with A-level examination	74,0	61,8	39,7
Tertiary	85,9	76,1	51,9
<b>Economic activity status</b>			
Women on maternity leave	89,9	82,7	68,4
Students (aged 16+ years)	76,3	69,5	49,0
Pensioners	23,7	15,5	7,7

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

**Figure C42 Individuals who have never purchased online**



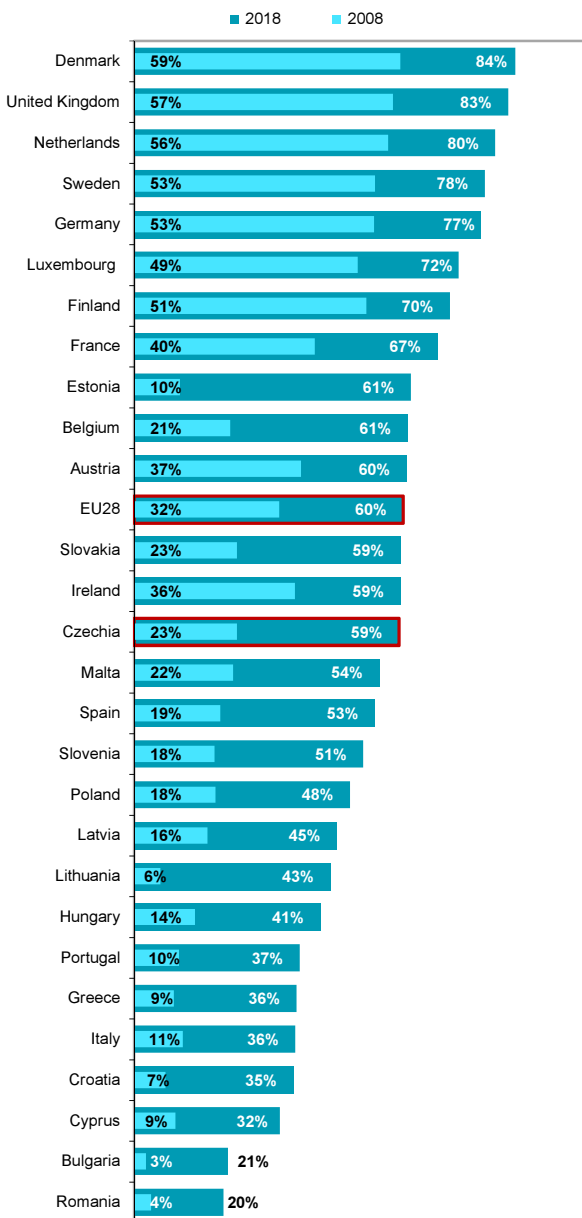
**Figure C43 Individuals who have purchased online at least once in the past by sex and age; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C44 Individuals in EU countries who purchased online at least once in the last 12 months**



as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

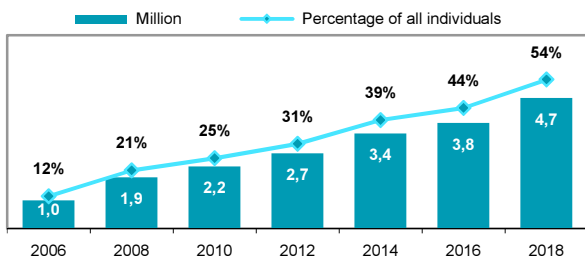
## C Individuals and ICT

**Tab. C15 Individuals in Czechia who purchased online at least once in the last 12 months**

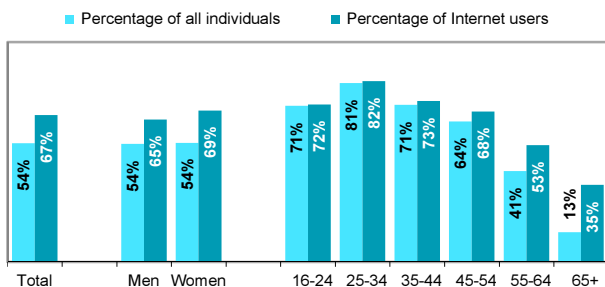
	Percentage		
	2015	2017	2018
All individuals (aged 16+ years)	41,9	51,2	53,9
All individuals (aged 16-74 years)	45,3	55,5	58,6
<b>Sex</b>			
Men (aged 16+ years)	42,6	53,0	53,6
Women (aged 16+ years)	41,2	50,3	54,2
<b>Age group (years)</b>			
16-24	60,6	69,8	71,0
25-34	66,9	79,1	81,3
35-44	59,2	70,9	71,4
45-54	41,2	56,2	63,8
55-64	25,7	38,6	41,2
65+	8,0	12,7	13,5
<b>Educational attainment (of the aged 25+)</b>			
Primary	7,8	12,2	16,5
Secondary without A-level examination	26,6	35,3	39,3
Secondary with A-level examination	49,2	59,5	61,8
Tertiary	62,1	77,3	76,1
<b>Economic activity status</b>			
Women on maternity leave	65,2	77,6	82,7
Students (aged 16+ years)	61,4	68,5	69,5
Pensioners	9,6	14,5	15,5

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

**Figure C45 Individuals who purchased online at least once in the last 12 months**



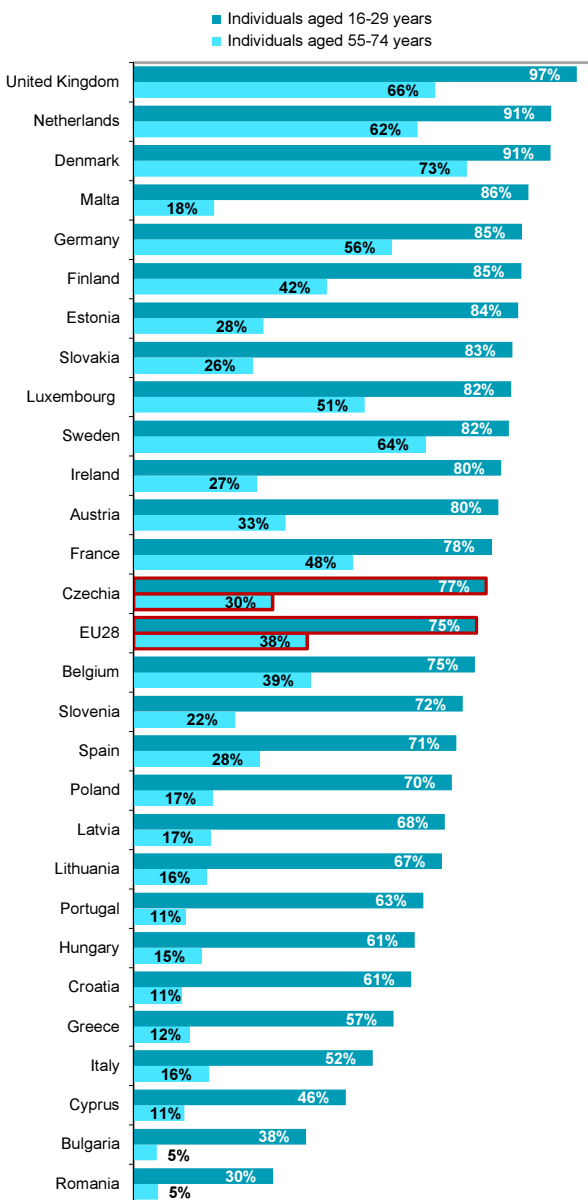
**Figure C46 Individuals who purchased online at least once in the last 12 months by sex and age; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C47 Individuals in EU countries who purchased online among younger and older generation; 2018**



as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019

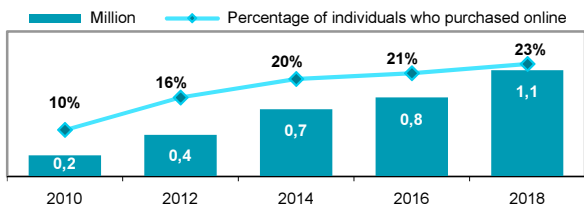
## C Individuals and ICT

**Tab. C16 Individuals in Czechia who purchased online in the last 12 months by seller's country of origin; 2018**

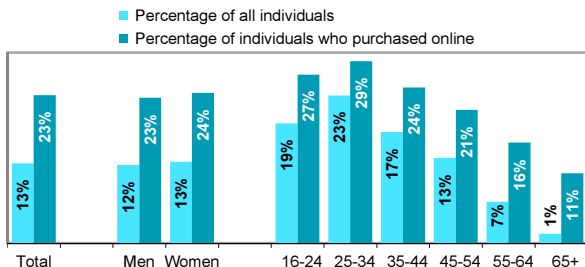
	Percentage		
	National sellers	Foreign sellers	
		from other EU countries	from the rest of the world
<b>All individuals (aged 16+ years)</b>	<b>49,0</b>	<b>10,0</b>	<b>5,4</b>
All individuals (aged 16-74 years)	53,3	10,9	5,9
<b>Sex</b>			
Men (aged 16+ years)	49,1	10,2	5,4
Women (aged 16+ years)	48,9	9,8	5,4
<b>Age group (years)</b>			
16-24	63,1	14,3	9,7
25-34	73,4	18,4	11,3
35-44	64,8	14,0	7,2
45-54	57,8	11,0	5,3
55-64	38,9	5,3	1,8
65+	12,6	1,1	0,4
<b>Educational attainment (of the aged 25+)</b>			
Primary	14,4	2,4	2,0
Secondary without A-level examination	35,6	5,8	3,2
Secondary with A-level examination	56,5	10,4	5,7
Tertiary	70,0	18,8	8,5
<b>Economic activity status</b>			
Women on maternity leave	74,7	12,8	9,7
Students (aged 16+ years)	61,9	17,0	11,1
Pensioners	14,3	1,4	0,4

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

**Figure C48 Individuals who purchased online from foreign sellers in the last 12 months**



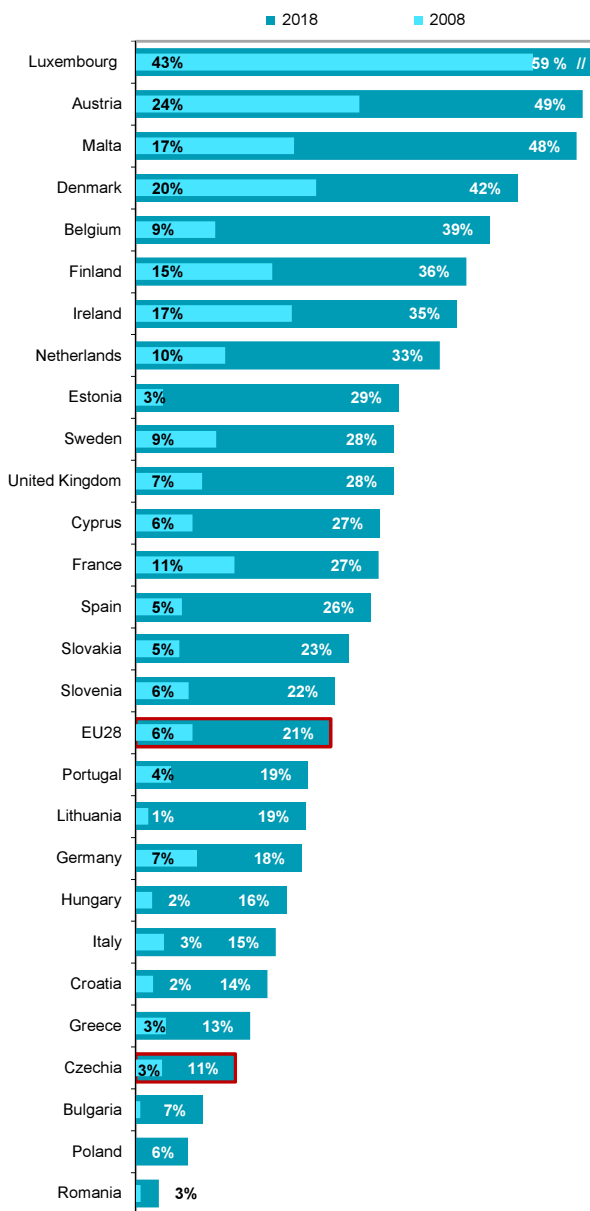
**Figure C49 Individuals who purchased online from foreign sellers in the last 12 months by sex and age; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C50 Individuals in EU countries who purchased online from sellers from another EU country in the last 12 months**



as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

## C Individuals and ICT

**Tab. C17 Individuals in Czechia who purchased selected products online at least once in the last 12 months; 2018**

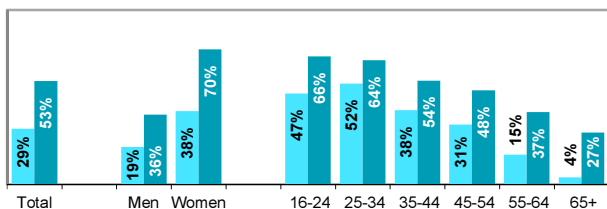
Percentage

	Clothes or shoes	Household goods and electronics	Food or groceries
<b>All individuals (aged 16+ years)</b>	<b>28,7</b>	<b>16,8</b>	<b>7,1</b>
All individuals (aged 16-74 years)	31,4	18,4	7,8
<b>Sex</b>			
Men (aged 16+ years)	19,3	24,1	4,8
Women (aged 16+ years)	37,7	10,0	9,3
<b>Age group (years)</b>			
16-24	46,8	19,0	2,6
25-34	52,0	27,8	11,6
35-44	38,2	24,4	11,5
45-54	30,9	19,7	10,5
55-64	15,4	10,8	4,5
65+	3,6	3,7	1,6
<b>Educational attainment (of the aged 25+)</b>			
Primary	8,9	3,9	1,4
Secondary without A-level examination	18,9	12,1	4,2
Secondary with A-level examination	32,8	19,1	8,7
Tertiary	39,6	27,1	15,7
<b>Economic activity status</b>			
Women on maternity leave	61,9	13,4	18,9
Students (aged 16+ years)	45,3	17,7	1,7
Pensioners	5,2	3,8	1,8

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

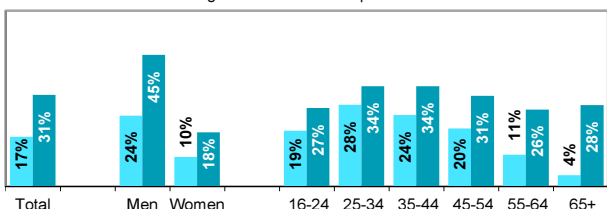
**Figure C51 Individuals who purchased clothes or shoes online at least once in the last 12 months; 2018**

■ Percentage of all individuals  
■ Percentage of individuals who purchased online



**Figure C52 Individuals who purchased household goods or electronics online at least once in the last 12 months; 2018**

■ Percentage of all individuals  
■ Percentage of individuals who purchased online

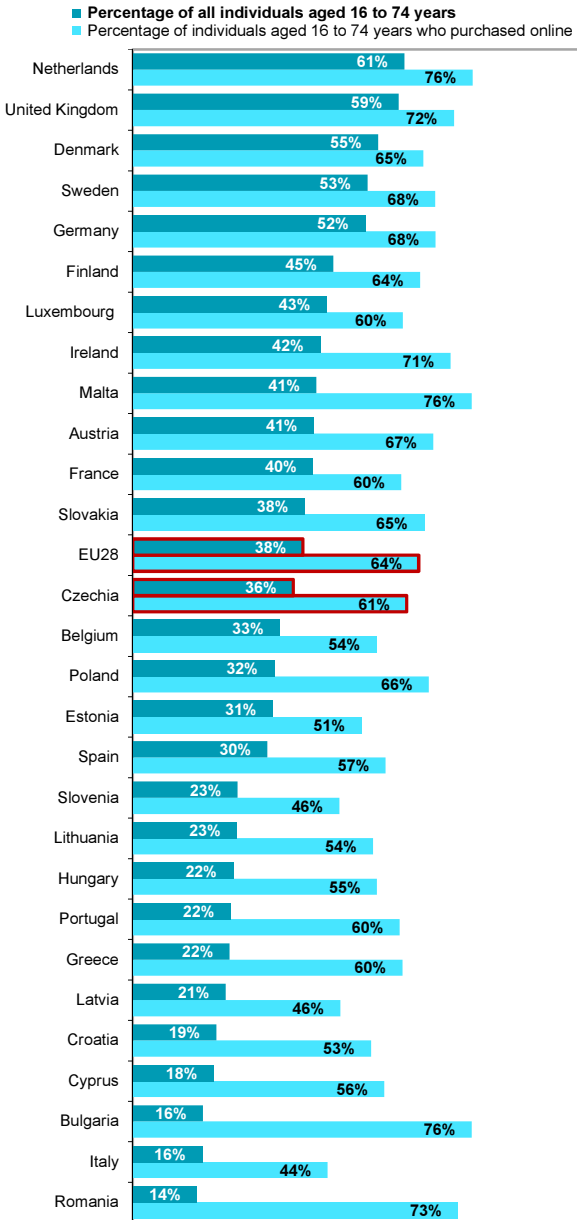


Source: Czech Statistical Office, ICT use survey in households, 2019



## C Individuals and ICT

**Figure C53 Individuals in EU countries who purchased clothes, shoes or sports equipment online; 2018**



Source: Eurostat, 2019

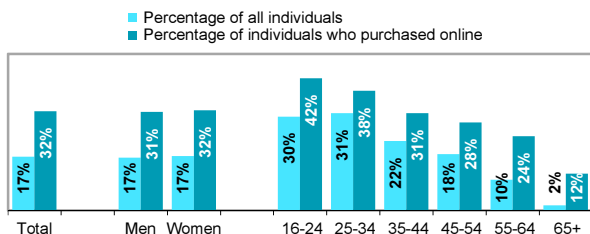
## C Individuals and ICT

**Tab. C18 Individuals in Czechia who purchased selected services online at least once in the last 12 months; 2018**

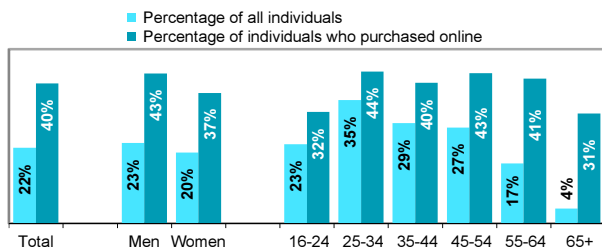
	Percentage		
	Cultural event tickets	Sport event tickets	Accommodation
<b>All individuals (aged 16+ years)</b>	<b>15,1</b>	<b>5,0</b>	<b>21,6</b>
All individuals (aged 16-74 years)	16,4	5,4	23,5
<b>Sex</b>			
Men (aged 16+ years)	13,1	8,0	23,1
Women (aged 16+ years)	16,9	2,1	20,3
<b>Age group (years)</b>			
16-24	25,8	9,0	22,7
25-34	26,6	10,4	35,4
35-44	20,2	6,1	28,8
45-54	15,8	4,7	27,5
55-64	8,7	2,4	17,1
65+	1,5	0,3	4,2
<b>Educational attainment (of the aged 25+)</b>			
Primary	2,8	0,6	2,9
Secondary without A-level examination	6,0	3,0	10,7
Secondary with A-level examination	17,6	4,9	27,0
Tertiary	28,0	8,6	41,9
<b>Economic activity status</b>			
Women on maternity leave	22,8	1,8	26,9
Students (aged 16+ years)	28,3	8,0	21,7
Pensioners	1,8	0,4	4,6

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

**Figure C54 Individuals who purchased cultural or sport event tickets online at least once in the last 12 months; 2018**



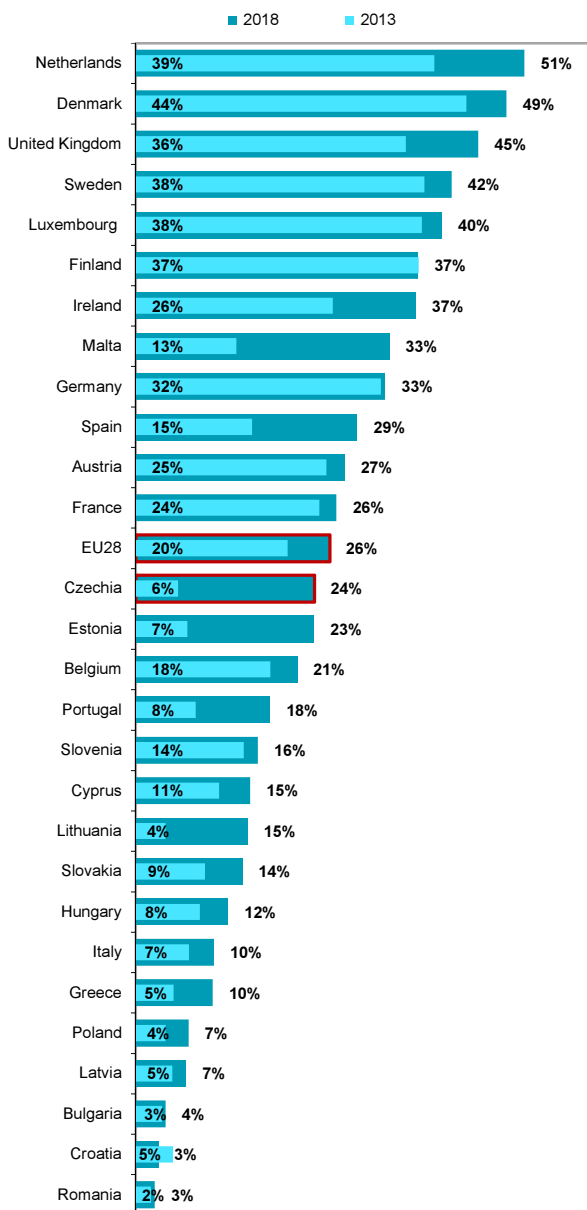
**Figure C55 Individuals who purchased accommodation online at least once in the last 12 months; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

**Figure C56 Individuals in EU countries who purchased accommodation online in the last 12 months**



as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

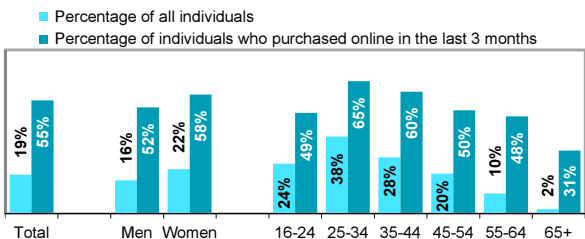
## C Individuals and ICT

**Tab. C19 Individuals in Czechia who purchased online at least once in the last 3 months; 2018**

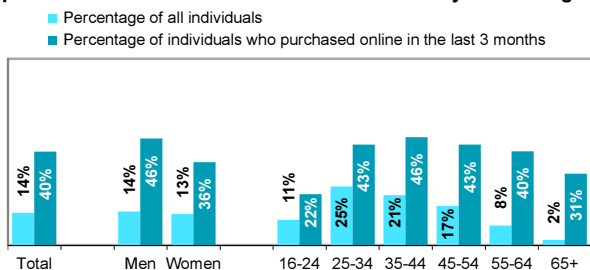
	Percentage		
	Total	three times or often	for CZK 5 000 or more
<b>All individuals (aged 16+ years)</b>	<b>34,3</b>	<b>19,0</b>	<b>13,7</b>
All individuals (aged 16-74 years)	37,4	20,7	14,9
<b>Sex</b>			
Men (aged 16+ years)	31,3	16,3	14,3
Women (aged 16+ years)	37,2	21,6	13,2
<b>Age group (years)</b>			
16-24	49,3	24,3	10,8
25-34	58,1	37,6	25,0
35-44	46,2	27,5	21,4
45-54	38,8	19,6	16,7
55-64	20,6	9,8	8,3
65+	6,8	2,1	2,1
<b>Educational attainment (of the aged 25+)</b>			
Primary	8,9	2,4	1,7
Secondary without A-level examination	22,2	10,6	7,2
Secondary with A-level examination	39,7	21,8	16,7
Tertiary	51,9	35,4	29,0
<b>Economic activity status</b>			
Women on maternity leave	68,4	48,0	24,2
Students (aged 16+ years)	49,0	23,3	8,8
Pensioners	7,7	2,5	2,2

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

**Figure C57 Individuals who purchased online three times or more often in the last 3 months; 2018**



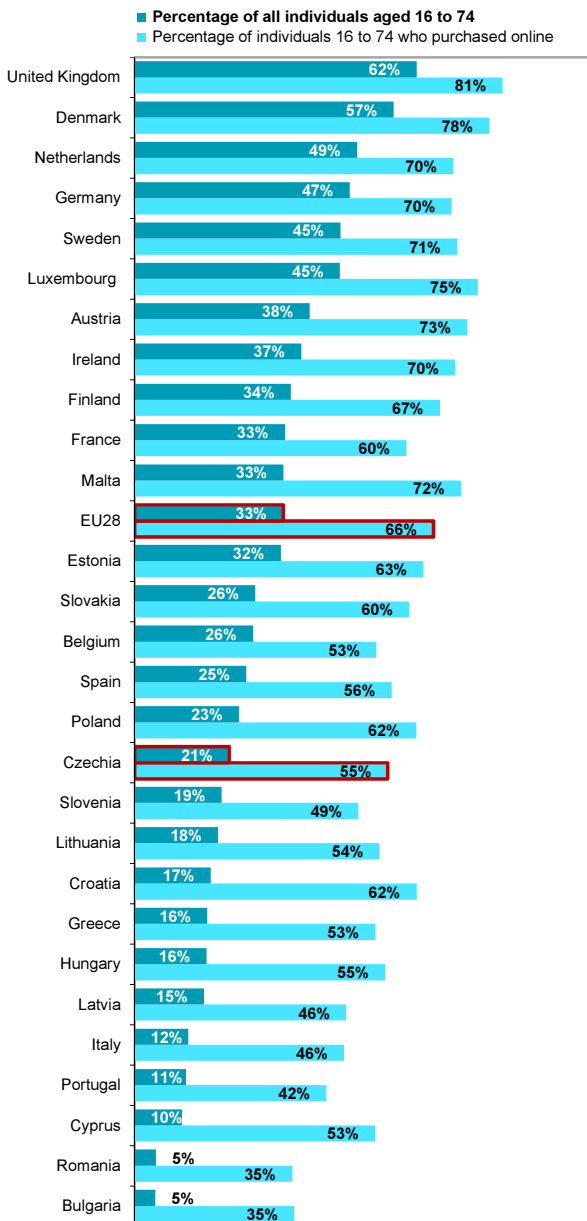
**Figure C58 Individuals who spent CZK 5 000 or more for purchases over the Internet in the Q1 of 2018 by sex and age**



Source: Czech Statistical Office, ICT use survey in households, 2019

## C Individuals and ICT

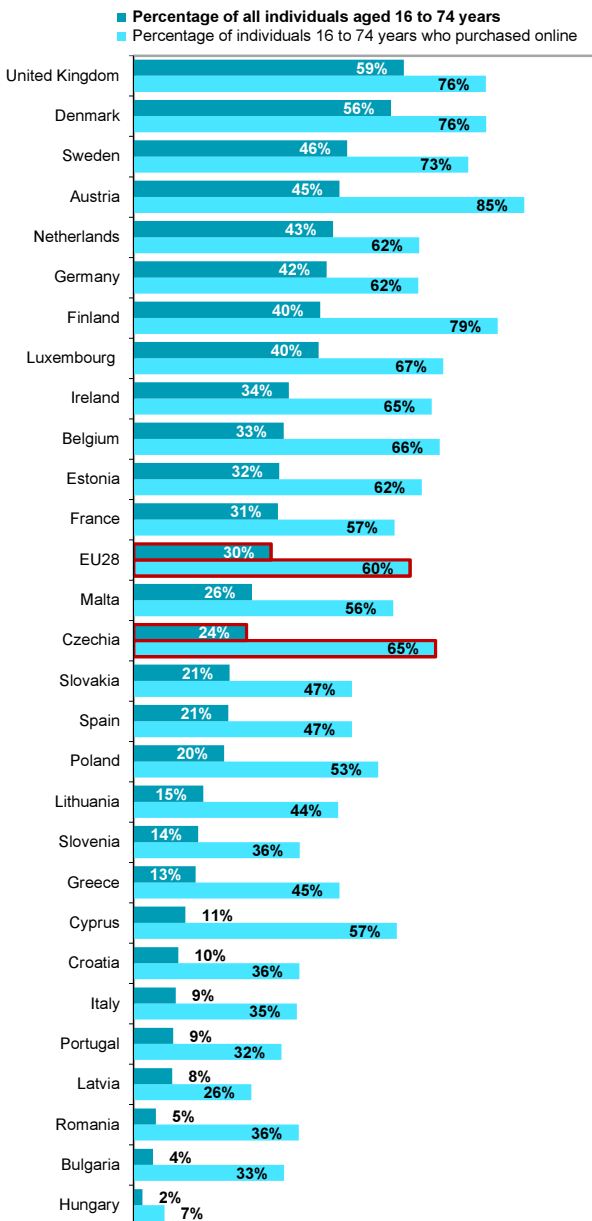
**Figure C59 Individuals in EU countries who purchased online three times or often in the last 3 months; 2018**



Source: Eurostat, 2019

## C Individuals and ICT

**Figure C60 Individuals in EU countries who spent EUR 100 or more for online purchases within the last 3 months; 2018**



Source: Eurostat, 2019

## 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 the reference years 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 EU28 Member States.

The survey is conducted every year 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 down** by prevailing economic activity (**CZ-NACE industry categories**) and **size classes** of enterprises measured.

The **reference period** is, in case of majority of data on equipment or ICT use in enterprises, **January of a given year** (in this issue it is January 2018) when the survey is carried out. In the case of indicators on e-commerce, use of Big Data analyses, and 3D printing the reference period is the **whole previous calendar year** (in this issue it is 2017).

The data obtained in 2008 and later are **not fully comparable** with the data of previous years. This difference is due to implementation of a new NACE classification.

The data for the Czech Republic presented by Eurostat **may slightly differ** until 2015 from data presented by the CZSO. This difference is because Eurostat does not include enterprises from the financial sector. Data are fully comparable since 2016.

### Definitions (in alphabetical order)

- **3D printing** (additive manufacturing) 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.
- **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.). The basic method of **the Big Data analysis** is data mining or using advanced analytic algorithms (e.g. predictive analyses).
- **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).
- The **digital data circuit (leased line)**, shall mean a data line leased from telecommunication operators and serving an enterprise needs to get connected to the Internet. The enterprise leases a transmission line with a guaranteed (contracted) transmission velocity and other parameters as transmission security and encrypting from the provider.
- The **electronic data interchange (EDI)** refers to the transmission of structured messages, as orders, invoices, etc., e.g. 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.

- **Electronic commerce, e-commerce (purchase or sale)** shall mean placing or accepting electronic orders via the Internet or other computer networks regardless of the method of payment or delivery. *Note: 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 a written order) or by e-mail are not included.*  
Electronic orders are made through websites (Web e-commerce) or initiated by using the electronic data interchange (EDI e-commerce).
- **Web e-Commerce** are purchases or sales made via an online store (web shop), via web forms on a website or extranet, or “apps” regardless of how the web is accessed (computer, laptop, etc.)
- **EDI e-Commerce** are orders initiated with EDI-type messages - see definition of the electronic data interchange. *Note: “EDI e-Commerce” is limited to EDI messages placing an order.*
- An **extranet** shall mean a closed enterprise network used for secured information sharing. It usually has a form of a special web page or extension to the intranet and serves for communication with suppliers, sellers, partners, customers, and other enterprises, which are located out of the enterprise headquarters. Access to the extranet is allowed after logging in.
- An **ICT specialist** refers in the survey to an employee whose main job is to design, write, test, or develop software and applications. It includes also employees whose core activity is to install, operate, control, or maintain firm's ICT systems or to enable to use information and communication technologies to other persons (technical assistance to ICT users).
- An **internal computer network (LAN)** shall mean a local enterprise network connecting at least two computers or other IT devices and, most frequently, serving for data transmission and sharing (files, internal emails, for instance) and, furthermore, for communication or sharing the connection to the Internet within the enterprise. End devices can be connected to the enterprise computer network also by a wireless technology (WLAN).
- An **intranet** shall mean internal web pages and their applications revealing their contents and services exclusively to authorised users within the enterprise, as employees, management, etc.
- The **RFID** (radio frequency identification) refers to a next generation of contactless object identifiers, following the barcodes. The RFID technology is based on storing required data into RFID chips, content of which can be remotely read by RFID readers.
- An **industrial robot** shall mean an automatically controlled, re-programmable, multipurpose manipulator for action in three or more axes, which can either be fixed in place or mobile for use in industrial automation applications (e.g. object manipulation, robotic welding, spray painting, pressing, laser cutting, etc.).
- **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 and share information or multimedia content with them. *Note: The most famous and most used type of social media is online **social networks** (e.g. Facebook or LinkedIn), furthermore, these are **enterprise blogs or microblogs** (e.g. Twitter). Other type of social media is **multimedia content sharing websites** (e.g. YouTube, Instagram) and also **Wiki based knowledge-sharing tools**.*
- 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.

Data for **international comparisons** are taken from the Eurostat database for digital economy and society. Detailed information can be found at: <https://ec.europa.eu/eurostat/web/digital-economy-and-society/overview> and [https://ec.europa.eu/eurostat/cache/metadata/en/isoc\\_e\\_esms.htm](https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm).



## D Enterprises and ICT

Tab. D1 Enterprises in Czechia using computer networks; 2018

	Percentage		
	LAN	Intranet	Extranet
<b>Total (10+ employees)</b>	<b>77,2</b>	<b>32,3</b>	<b>14,4</b>
Small enterprises (10-49)	72,8	26,4	10,6
Medium enterprises (50-249)	91,6	47,9	24,7
Large enterprises (250+)	98,8	80,2	43,9
<b>Industry (NACE category)</b>			
Manufacturing	79,6	32,8	12,4
Electricity, gas and water supply	80,3	37,9	23,9
Construction	70,2	28,5	5,7
Sale and repair of motor vehicles	87,1	32,9	23,3
Wholesale trade	88,2	36,7	19,1
Retail trade	65,5	26,7	10,3
Transport and storage	67,8	23,0	9,7
Accommodation	80,3	28,3	20,8
Food and beverage service activities	56,2	16,4	4,5
Travel agency and related activities	92,1	37,9	29,0
Media industries incl. publishing activities	98,2	62,3	37,3
Telecommunications	96,5	68,2	43,6
Computer programming and related activities	97,0	74,7	49,4
Real estate activities	86,3	29,5	16,4
Professional, scientific and technical activities	88,6	40,4	20,9
Administrative and support service activities	62,6	25,1	11,2

as a percentage of all enterprises in a given group

Figure D1 Enterprises using computer networks; 2018

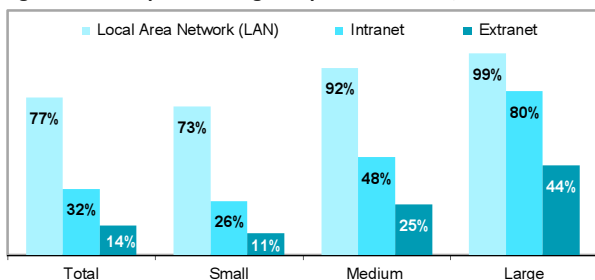
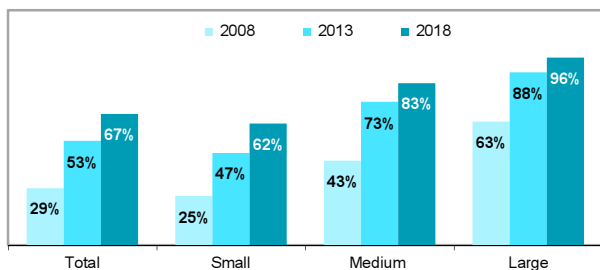


Figure D2 Enterprises with wireless Local Area Network



as a percentage of all enterprises in a given size class

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

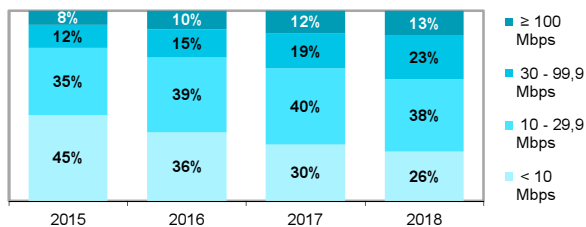
## D Enterprises and ICT

Tab. D2 Enterprises in Czechia with the Internet; 2018

	Percentage		
	Total	connection speed*	
		at least 30 Mbps	at least 100 Mbps
<b>Total (10+ employees)</b>	<b>97,9</b>	<b>35,4</b>	<b>13,2</b>
Small enterprises (10-49)	97,6	30,2	10,6
Medium enterprises (50-249)	98,7	50,6	19,1
Large enterprises (250+)	99,8	69,6	37,6
<b>Industry (NACE category)</b>			
Manufacturing	98,6	29,8	10,1
Electricity, gas and water supply	98,2	50,5	18,0
Construction	97,5	32,3	7,7
Sale and repair of motor vehicles	98,8	32,7	9,0
Wholesale trade	98,5	39,8	16,0
Retail trade	97,5	25,6	8,1
Transport and storage	97,0	31,1	9,4
Accommodation	98,3	50,8	22,4
Food and beverage service activities	97,0	19,8	5,4
Travel agency and related activities	99,1	38,9	19,9
Media industries incl. publishing activities	100,0	61,2	38,8
Telecommunications	99,3	87,8	72,7
Computer programming and related activities	100,0	70,0	36,3
Real estate activities	99,5	43,3	16,3
Professional, scientific and technical activities	98,4	52,6	23,8
Administrative and support service activities	92,4	34,7	15,8

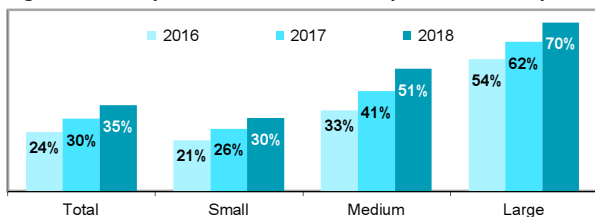
as a percentage of all enterprises in a given group

Figure D3 Internet connection speed\* used by enterprises



as a percentage of all enterprises with 10+ employees with the Internet

Figure D4 Enterprises with at least 30 Mbps connection speed\*



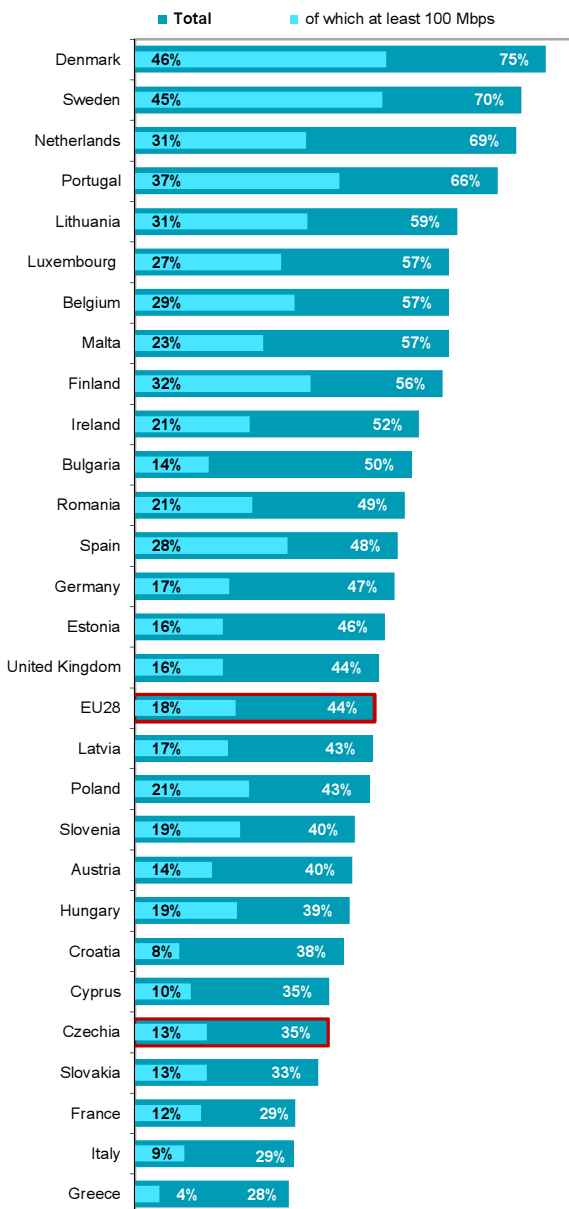
as a percentage of all enterprises in a given size class

\* maximum contracted download speed of the fastest fixed Internet connection

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

**Figure D5 Enterprises in EU countries with Internet connection speed at least 30 Mbps; 2018**



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

Source: Eurostat, 2019

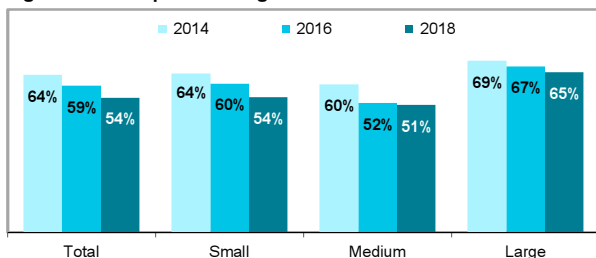
## D Enterprises and ICT

**Tab. D3 Enterprises in Czechia using selected types of fixed broadband Internet connection; 2018**

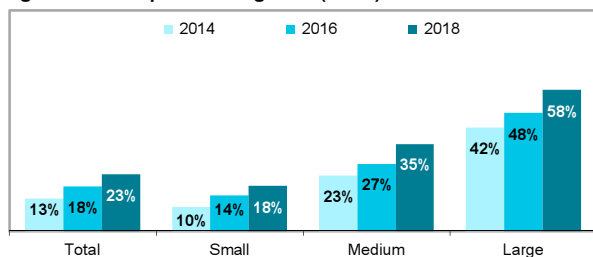
	Percentage		
	xDSL	Fibre (FTTx)	Leased line
<b>Total (10+ employees)</b>	<b>54,3</b>	<b>22,9</b>	<b>21,2</b>
Small enterprises (10-49)	54,4	18,3	16,9
Medium enterprises (50-249)	51,4	35,4	31,5
Large enterprises (250+)	64,5	57,5	59,6
<b>Industry (NACE category)</b>			
Manufacturing	53,4	18,9	20,7
Electricity, gas and water supply	59,3	35,0	24,1
Construction	44,4	17,2	12,3
Sale and repair of motor vehicles	55,7	29,2	26,2
Wholesale trade	55,3	25,6	28,4
Retail trade	77,6	17,4	15,9
Transport and storage	50,3	17,0	19,0
Accommodation	59,4	25,8	20,0
Food and beverage service activities	59,3	11,2	13,2
Travel agency and related activities	68,8	29,5	30,5
Media industries incl. publishing activities	53,3	42,6	32,6
Telecommunications	30,5	75,3	49,8
Computer programming and related activities	49,1	47,3	38,2
Real estate activities	53,8	32,5	19,1
Professional, scientific and technical activities	51,5	38,5	28,6
Administrative and support service activities	51,1	23,2	19,5

as a percentage of all enterprises in a given group

**Figure D6 Enterprises using xDSL Internet connection**



**Figure D7 Enterprises using fibre (FTTx) Internet connection**

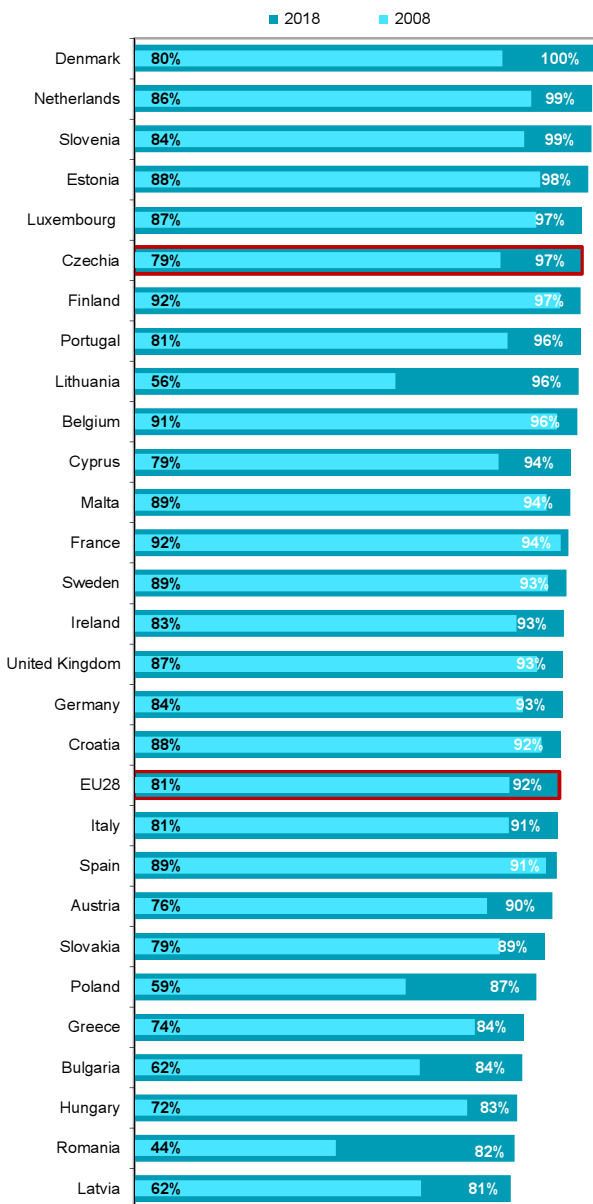


as a percentage of all enterprises in a given size class

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

**Figure D8 Enterprises in EU countries with a fixed broadband Internet connection**



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

Source: Eurostat, 2019

## D Enterprises and ICT

Tab. D4 Enterprises in Czechia with a website; 2018

	Percentage	
	Total	of which customized for mobiles
<b>Total (10+ employees)</b>	<b>82,8</b>	<b>47,5</b>
Small enterprises (10-49)	80,3	44,6
Medium enterprises (50-249)	91,3	56,7
Large enterprises (250+)	93,7	64,2
<b>Industry (NACE category)</b>		
Manufacturing	84,4	44,6
Electricity, gas and water supply	86,3	43,6
Construction	82,9	38,4
Sale and repair of motor vehicles	92,6	68,1
Wholesale trade	88,4	50,1
Retail trade	63,5	41,8
Transport and storage	68,3	37,3
Accommodation	95,0	68,8
Food and beverage service activities	83,8	56,1
Travel agency and related activities	95,9	71,6
Media industries incl. publishing activities	98,8	70,9
Telecommunications	95,1	68,6
Computer programming and related activities	96,2	74,0
Real estate activities	85,6	45,4
Professional, scientific and technical activities	88,0	51,3
Administrative and support service activities	76,0	48,8

as a percentage of all enterprises in a given group

Figure D9 Enterprises with a website

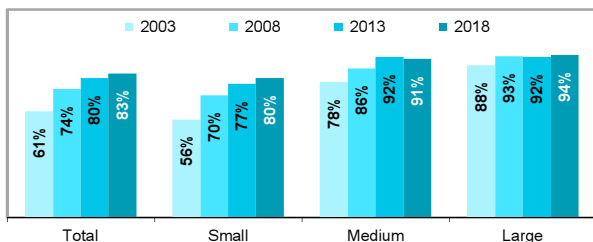
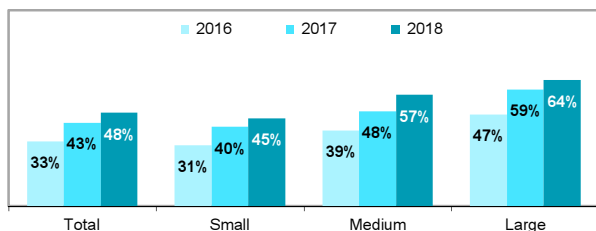


Figure D10 Enterprises with a website customized for mobiles

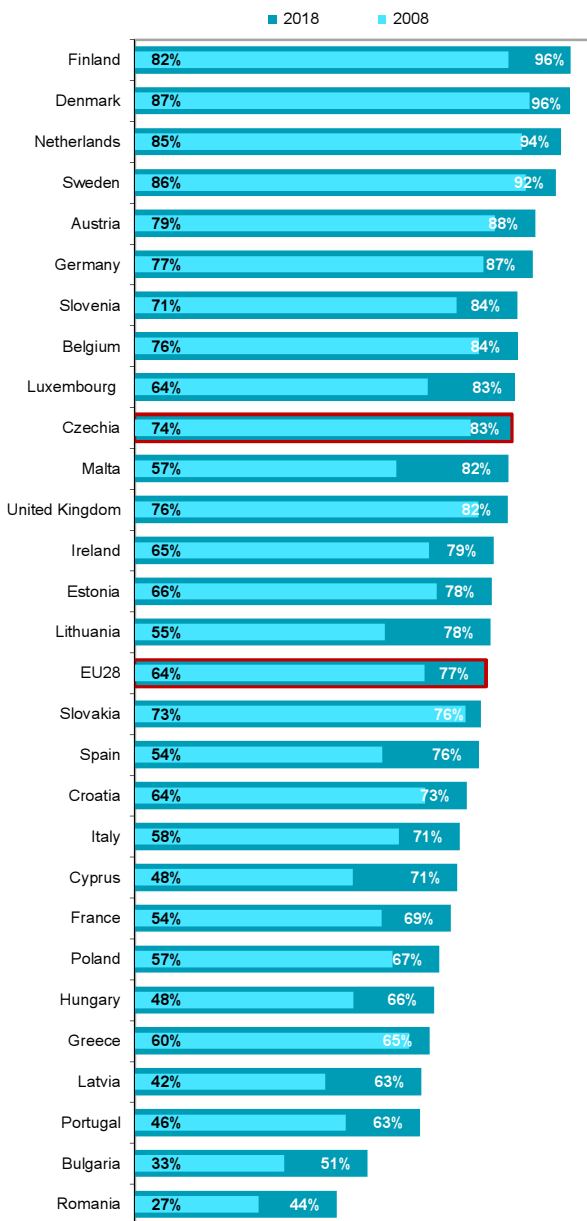


as a percentage of all enterprises in a given size class

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

Figure D11 Enterprises in EU countries with a website



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

Source: Eurostat, 2019

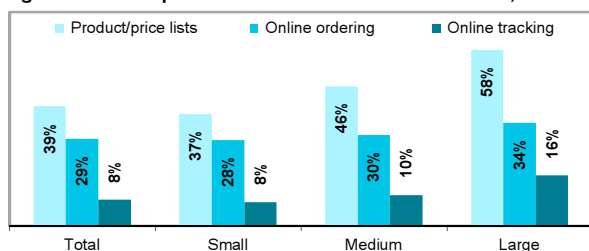
## D Enterprises and ICT

Tab. D5 Enterprises in Czechia with website facilities; 2018

	Percentage		
	Product/ price lists	Online ordering	Online tracking
<b>Total (10+ employees)</b>	<b>39,1</b>	<b>28,5</b>	<b>8,4</b>
Small enterprises (10-49)	36,7	28,0	7,7
Medium enterprises (50-249)	45,7	29,8	10,0
Large enterprises (250+)	57,7	33,6	16,4
<b>Industry (NACE category)</b>			
Manufacturing	39,3	21,4	4,8
Electricity, gas and water supply	35,0	26,9	2,4
Construction	19,7	16,3	1,0
Sale and repair of motor vehicles	67,1	56,1	11,1
Wholesale trade	54,9	42,4	17,6
Retail trade	39,6	34,5	21,1
Transport and storage	21,3	21,5	9,4
Accommodation	76,3	82,8	21,3
Food and beverage service activities	51,7	43,4	7,5
Travel agency and related activities	82,8	78,2	23,7
Media industries incl. publishing activities	78,1	67,1	24,9
Telecommunications	80,5	61,8	13,4
Computer programming and related activities	40,0	32,0	12,0
Real estate activities	37,6	18,9	3,7
Professional, scientific and technical activities	30,5	19,2	5,6
Administrative and support service activities	33,1	26,1	6,8

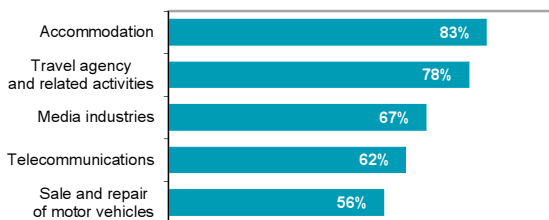
as a percentage of all enterprises in a given group

Figure D12 Enterprises with selected website facilities; 2018



as a percentage of all enterprises in a given size class

Figure D13 Top 5 industries with the highest share of enterprises with a website enabling online ordering; 2018



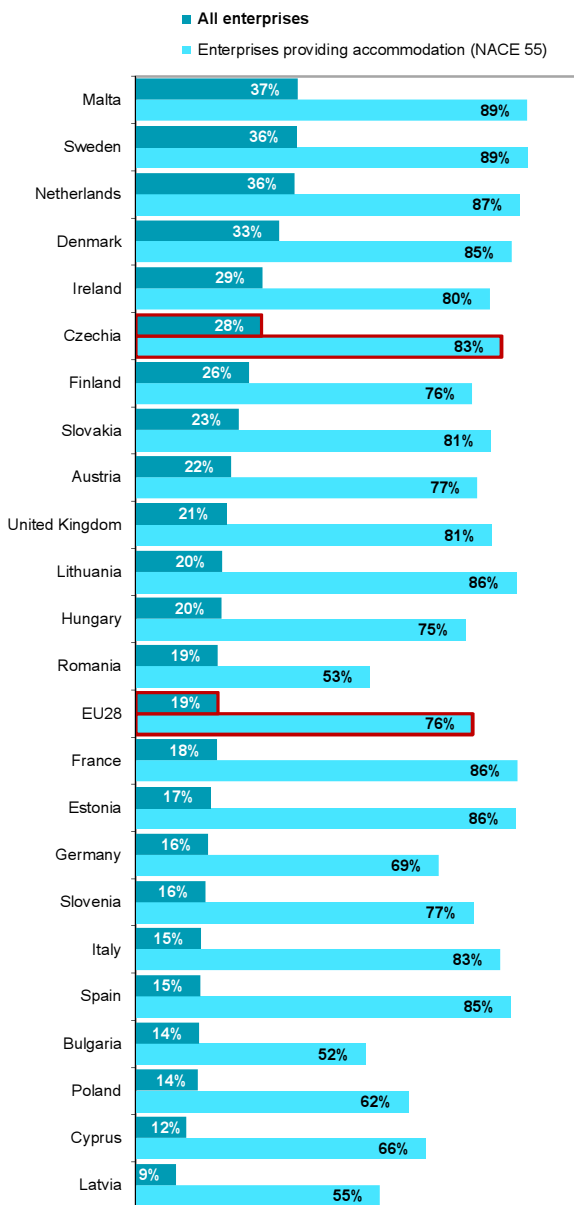
as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019



## D Enterprises and ICT

Figure D14 Enterprises in EU countries with a website enabling online ordering; 2018



as a percentage of all (or in a given industry) enterprises with 10+ employees

Source: Eurostat, 2019

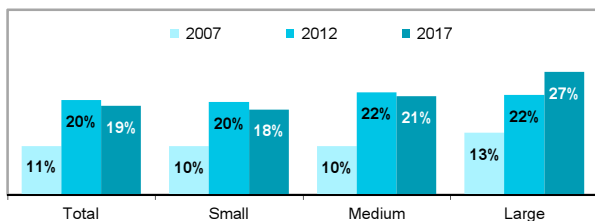
## D Enterprises and ICT

Tab. D6 Enterprises in Czechia selling via websites; 2017

	Percentage	
	Total	with web sales making over 10% of total turnover
<b>Total (10+ employees)</b>	<b>19,2</b>	<b>12,1</b>
Small enterprises (10-49)	18,4	12,0
Medium enterprises (50-249)	21,3	11,8
Large enterprises (250+)	26,5	14,6
<b>Industry (NACE category):</b>		
Manufacturing	14,5	7,8
Electricity, gas and water supply	4,3	1,4
Construction	4,2	2,3
Sale and repair of motor vehicles	35,5	22,2
Wholesale trade	39,2	24,8
Retail trade	32,2	19,9
Transport and storage	11,1	7,1
Accommodation	63,0	51,1
Food and beverage service activities	18,0	12,1
Travel agency and related activities	65,9	60,4
Media industries incl. publishing activities	56,8	38,1
Telecommunications	46,4	29,8
Computer programming and related activities	25,4	18,6
Real estate activities	13,1	9,6
Professional, scientific and technical activities	11,3	7,2
Administrative and support service activities	15,6	12,2

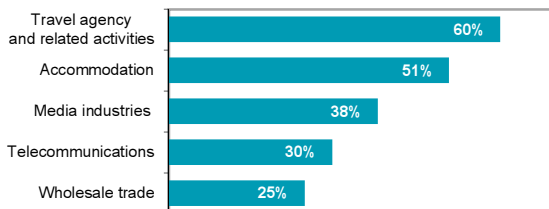
as a percentage of all enterprises in a given group

Figure D15 Enterprises selling via websites or apps



as a percentage of all enterprises in a given size class

Figure D16 Top 5 industries with the highest share of firms with web sales higher than 10% of their total turnover; 2017

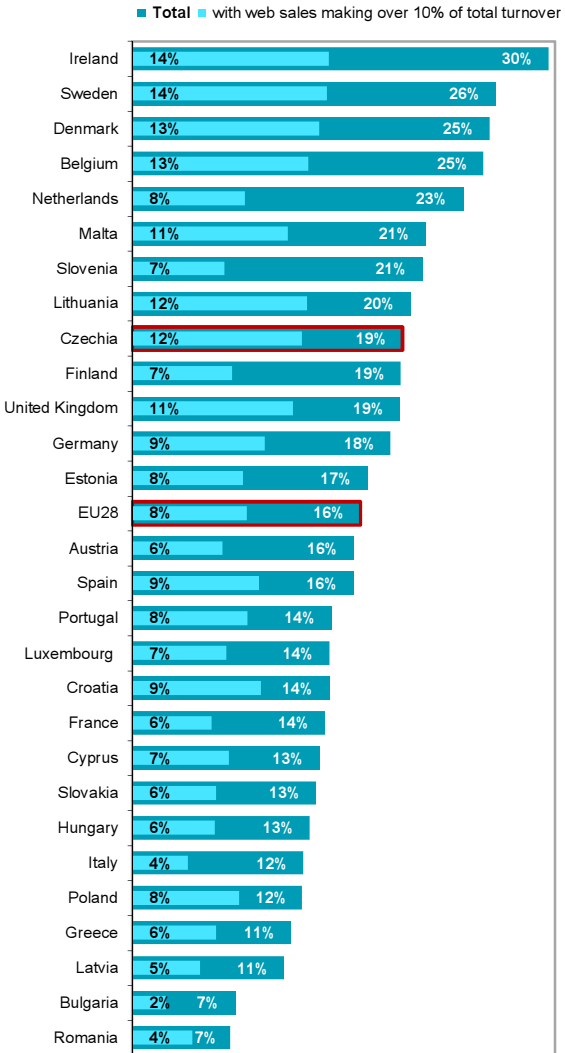


as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

**Figure D17 Enterprises in EU countries selling via a websites or apps; 2017**



\* Includes any enterprise that during the reference year received at least one electronic order placed by their customers both via enterprises's websites or 'apps' such as online store (webshop), web form, booking/reservation application for services or apps for mobile devices or via an e-commerce marketplace websites or 'apps' used by several enterprises for trading products.

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

Source: Eurostat, 2019

## D Enterprises and ICT

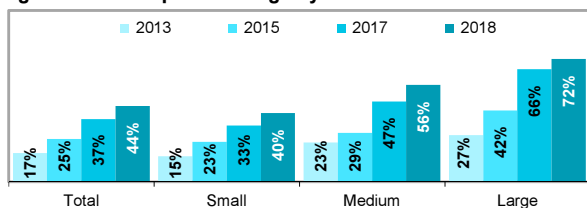
**Tab. D7 Enterprises in Czechia using online social media; 2018**

	Percentage		
	Total*	of which:	
		Social networks	other social media
<b>Total (10+ employees)</b>	<b>44,2</b>	<b>42,3</b>	<b>19,9</b>
Small enterprises (10-49)	40,0	38,4	16,4
Medium enterprises (50-249)	56,4	54,0	29,0
Large enterprises (250+)	71,7	68,4	47,6
<b>Industry (NACE category)</b>			
Manufacturing	39,6	36,9	16,0
Electricity, gas and water supply	29,1	26,8	14,9
Construction	26,1	23,9	9,0
Sale and repair of motor vehicles	62,2	61,7	23,7
Wholesale trade	49,4	48,0	23,2
Retail trade	46,9	46,6	26,9
Transport and storage	33,0	31,6	10,6
Accommodation	78,6	77,3	32,9
Food and beverage service activities	64,2	63,8	22,8
Travel agency and related activities	82,3	80,8	44,6
Media industries incl. publishing activities	84,5	82,8	60,1
Telecommunications	74,1	69,9	42,3
Computer programming and related activ.	74,8	68,6	55,5
Real estate activities	30,0	29,0	13,8
Professional, scientific and technical activ.	52,3	50,9	28,2
Administrative and support service activ.	41,3	40,3	17,0

as a percentage of all enterprises in a given group

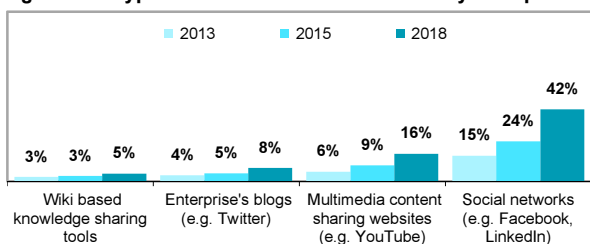
\* It includes firms that used their profile, account or licence on at least one type of social media (e.g. social networks, blogs, content-sharing sites or wikis).

**Figure D18 Enterprises using any online social media**



as a percentage of all enterprises in a given size class

**Figure D19 Types of online social media used by enterprises**

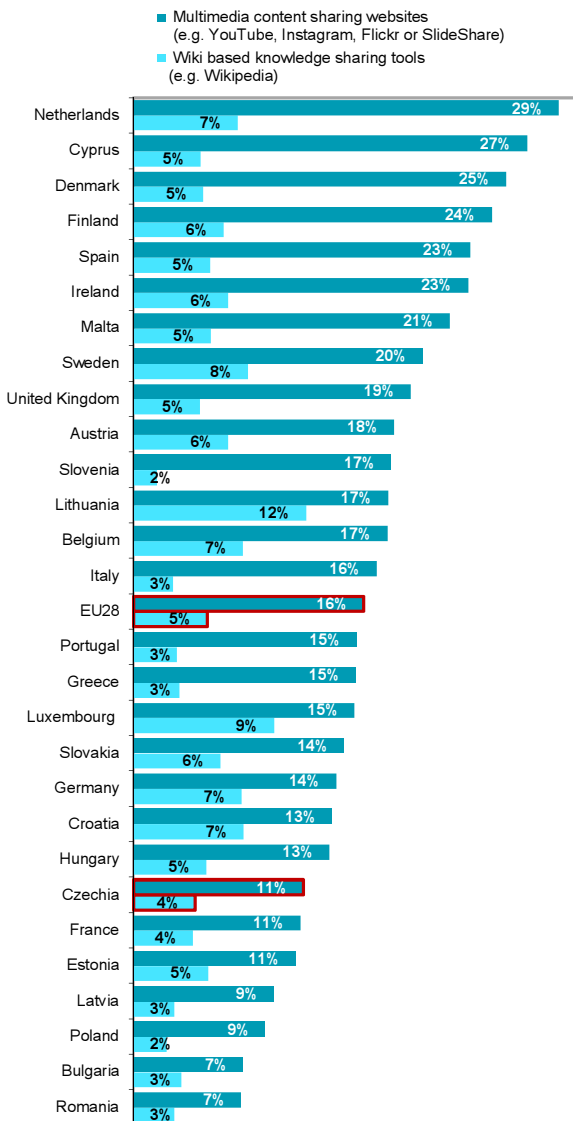


as a percentage of all enterprises with 10+ employees in a given year

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

**Figure D20 Enterprises in EU countries using selected types of online social media; 2017**



*Note: Enterprises using social media are those that have a user profile, an account, or a user licence depending on the requirements and the type of the online social media.*

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

Source: Eurostat, 2019

## D Enterprises and ICT

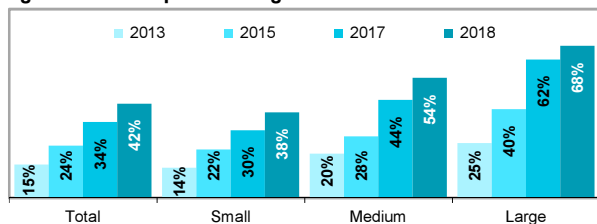
**Tab. D8 Enterprises in Czechia using online social networks\***

	Percentage		
	2016	2017	2018
<b>Total (10+ employees)</b>	<b>30,3</b>	<b>34,1</b>	<b>42,3</b>
Small enterprises (10-49)	27,7	30,4	38,4
Medium enterprises (50-249)	37,5	44,1	54,0
Large enterprises (250+)	53,2	62,3	68,4
<b>Industry (NACE category)</b>			
Manufacturing	22,8	26,5	36,9
Electricity, gas and water supply	16,0	22,5	26,8
Construction	17,3	17,8	23,9
Sale and repair of motor vehicles	51,7	51,1	61,7
Wholesale trade	35,3	43,2	48,0
Retail trade	37,0	45,1	46,6
Transport and storage	20,6	23,9	31,6
Accommodation	78,2	78,5	77,3
Food and beverage service activities	48,6	52,3	63,8
Travel agency and related activities	78,4	84,2	80,8
Media industries incl. publishing activities	75,8	78,9	82,8
Telecommunications	67,8	69,4	69,9
Computer programming and related activities	55,3	62,1	68,6
Real estate activities	25,9	22,3	29,0
Professional, scientific and technical activities	35,0	37,7	50,9
Administrative and support service activities	27,6	28,5	40,3

as a percentage of all enterprises in a given group

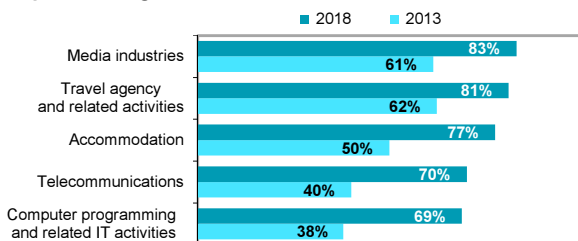
\* Firms with a user profile on social networks such as Facebook or LinkedIn.

**Figure D21 Enterprises using online social networks**



as a percentage of all enterprises in a given size class

**Figure D22 Top 5 industries with the highest share of enterprises using online social networks**

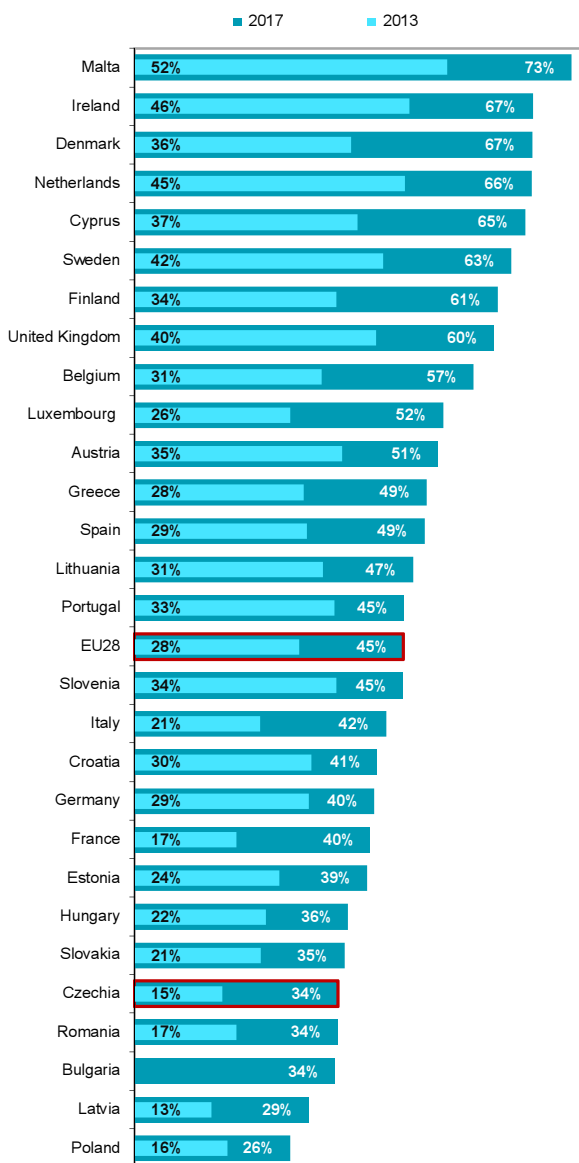


as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

**Figure D23 Enterprises in EU countries using online social networks**



*Note: Enterprises using online social networks are those that have an active user profile on websites such as Facebook or LinkedIn.*

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

Source: Eurostat, 2019

## D Enterprises and ICT

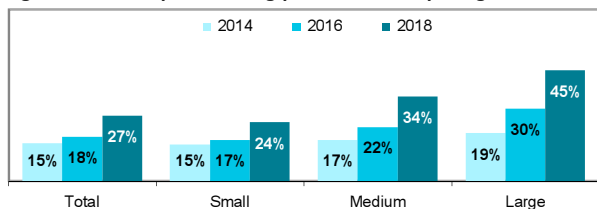
**Tab. D9 Enterprises in Czechia using paid cloud computing**

Percentage

	2016	2017	2018
<b>Total (10+ employees)</b>	<b>18,0</b>	<b>22,0</b>	<b>26,5</b>
Small enterprises (10-49)	16,6	20,0	23,8
Medium enterprises (50-249)	21,9	27,5	34,3
Large enterprises (250+)	29,5	38,7	44,9
<b>Industry (NACE category)</b>			
Manufacturing	14,7	19,1	23,4
Electricity, gas and water supply	13,5	24,6	23,2
Construction	16,9	17,0	21,0
Sale and repair of motor vehicles	18,3	22,9	19,9
Wholesale trade	25,6	28,4	29,4
Retail trade	15,9	23,1	26,2
Transport and storage	13,6	12,6	20,5
Accommodation	13,9	24,3	26,7
Food and beverage service activities	9,1	9,6	18,2
Travel agency and related activities	34,2	33,6	41,0
Media industries incl. publishing activities	34,1	44,0	45,7
Telecommunications	24,5	30,4	31,1
Computer programming and related activities	45,4	56,4	60,1
Real estate activities	17,0	18,3	24,0
Professional, scientific and technical activities	23,8	30,9	44,4
Administrative and support service activities	19,6	24,4	26,1

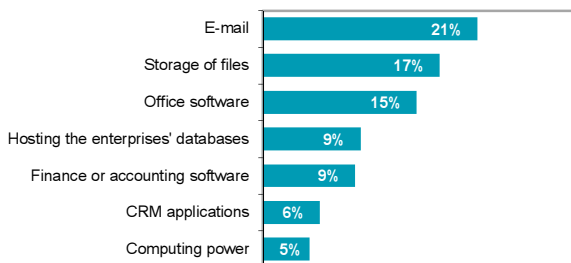
as a percentage of all enterprises in a given group

**Figure D24 Enterprises using paid cloud computing services**



as a percentage of all enterprises in a given size class

**Figure D25 Enterprises using selected paid cloud computing services; 2018**



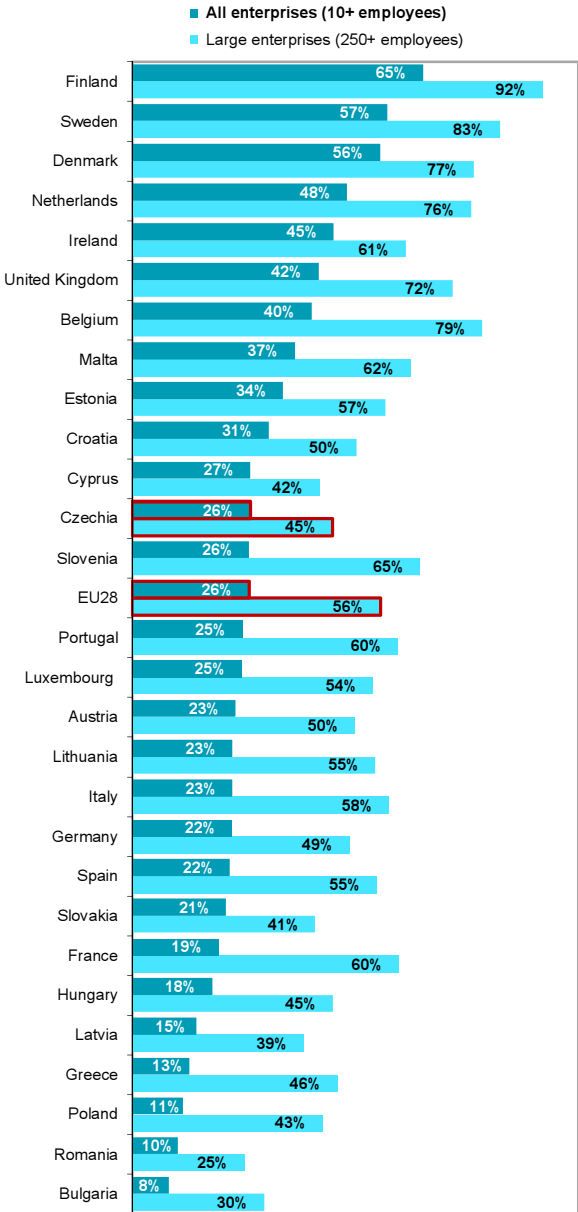
as a percentage of all enterprises with 10+ employees

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019



## D Enterprises and ICT

Figure D26 Enterprises in EU countries using paid cloud computing services; 2018



as a percentage of all enterprises in a given size group and country

Source: Eurostat, 2019

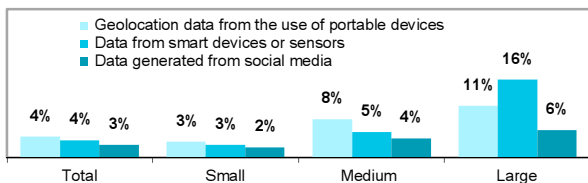
## D Enterprises and ICT

**Tab. D10 Enterprises in Czechia performing Big Data analysis; 2017**

	Total	Percentage of which based on the following data sources:	
		geolocation data	data from social media
		<b>Total (10+ employees)</b>	<b>8,1</b>
Small enterprises (10-49)	6,2	3,3	2,1
Medium enterprises (50-249)	12,6	7,8	4,0
Large enterprises (250+)	24,2	10,6	5,6
<b>Industry (NACE category)</b>			
Manufacturing	6,4	3,4	1,0
Electricity, gas and water supply	6,4	3,5	1,3
Construction	6,0	5,0	0,3
Sale and repair of motor vehicles	8,2	3,9	3,8
Wholesale trade	10,3	5,6	4,2
Retail trade	4,9	1,3	2,3
Transport and storage	13,5	12,9	0,4
Accommodation	6,3	1,1	5,2
Food and beverage service activities	7,7	3,5	6,2
Travel agency and related activities	7,0	1,5	4,7
Media industries incl. publishing act.	17,3	5,9	10,6
Telecommunications	18,4	8,4	4,3
Computer programming and related act.	19,9	8,2	8,3
Real estate activities	3,6	2,1	1,6
Professional, scientific and technical act.	9,5	2,5	5,0
Administrative and support service activ.	7,9	3,3	3,6

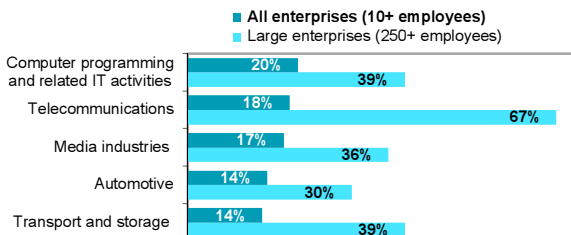
as a percentage of all enterprises in a given group

**Figure D27 Data sources used by enterprises for performing Big Data analysis; 2017**



as a percentage of all enterprises in a given size class

**Figure D28 Top 5 industries with the highest share of enterprises performing Big Data analysis; 2017**

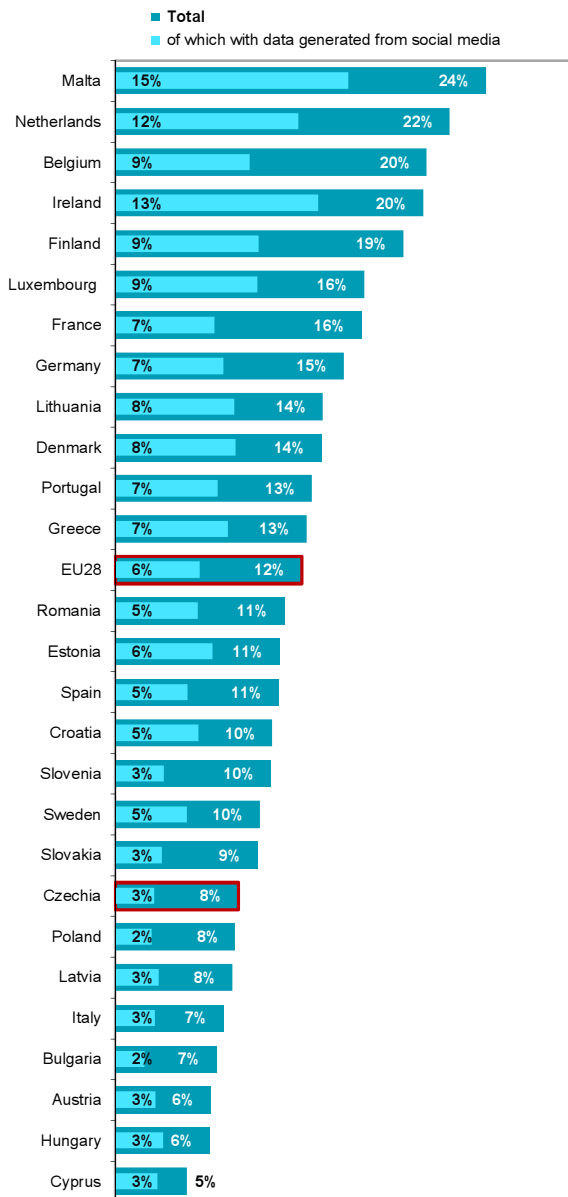


as a percentage of all enterprises in a given size and industry group

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

Figure D29 Enterprises in EU countries performing Big Data analysis; 2017



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

Source: Eurostat, 2019

## D Enterprises and ICT

Tab. D11 Enterprises in Czechia using RFID technology; 2017

Percentage

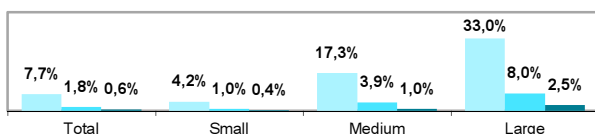
	Total	for purpose of RFID use:	
		person identification or access control	production monitoring and control, SCM*
<b>Total (10+ employees)</b>	<b>8,6</b>	<b>7,7</b>	<b>1,8</b>
Small enterprises (10-49)	5,0	4,2	1,0
Medium enterprises (50-249)	18,4	17,3	3,9
Large enterprises (250+)	35,4	33,0	8,0
<b>Industry (NACE category)</b>			
Manufacturing	10,9	10,4	2,0
Electricity, gas and water supply	8,1	7,2	3,2
Construction	3,7	3,7	1,1
Sale and repair of motor vehicles	7,2	5,9	2,2
Wholesale trade	9,1	7,8	1,9
Retail trade	5,6	2,9	1,3
Transport and storage	7,2	4,8	3,3
Accommodation	9,9	8,5	0,9
Food and beverage service activities	4,0	1,9	1,4
Travel agency and related activities	3,3	3,3	0,0
Media industries incl. publishing activities	8,2	8,2	0,4
Telecommunications	23,6	23,0	1,2
Computer programming and related activ.	15,1	14,1	0,8
Real estate activities	4,7	4,7	0,6
Professional, scientific and technical act.	10,7	10,6	1,0
Administrative and support service activ.	9,1	8,8	2,7

as a percentage of all enterprises in a given group

\* SCM = supply chain management

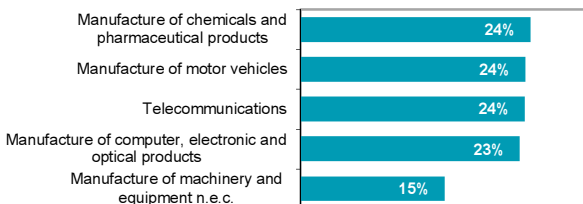
Figure D30 Purposes of RFID technology usage; 2017

- Person identification or access control
- Monitoring and control of industrial production and service delivery
- Product identification after the production process



as a percentage of all enterprises in a given size class

Figure D31 Top 5 industries with the highest share of enterprises using RFID technology; 2017

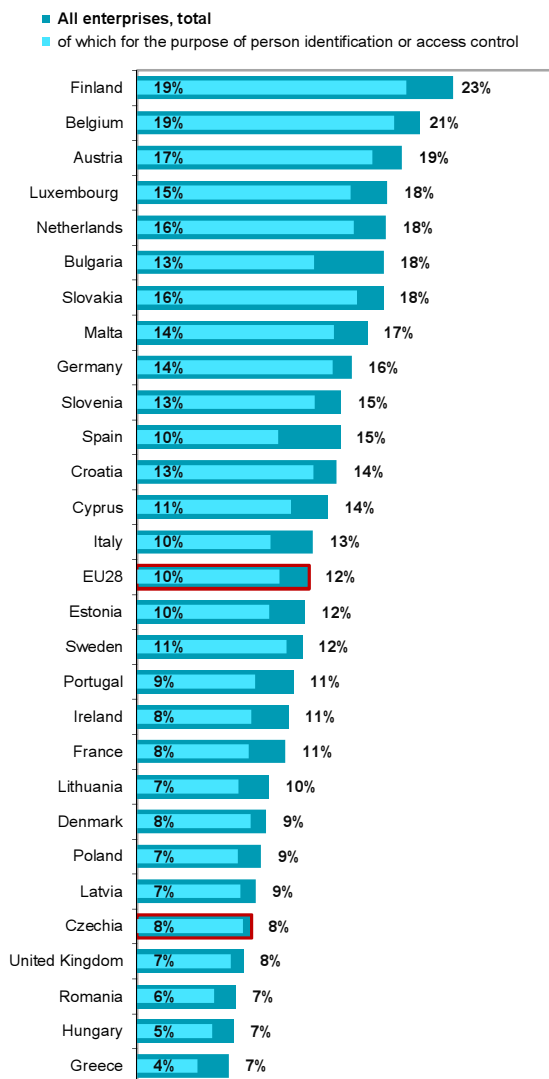


as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

**Figure D32 Enterprises in EU countries that used Radio Frequency Identification (RFID) technology; 2017**



*The use of Radio Frequency identification technologies (RFID):*

- refers to an automated identification method to store and remotely retrieve data using RFID tags or transponders,

- includes the use of Near Field Communication (NFC) connectivity standard as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2019

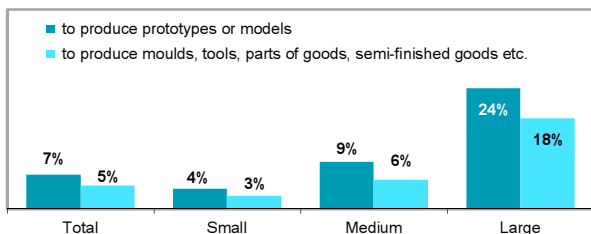
## D Enterprises and ICT

**Tab. D12 Enterprises in Manufacturing in Czechia using industrial robots or 3D printing**

	Percentage	
	Industrial robots (2018)	3D printing (2017)
<b>Manufacturing, total (10+ employees)</b>	<b>15,6</b>	<b>7,6</b>
Small enterprises (10-49)	6,0	4,5
Medium enterprises (50-249)	30,5	10,5
Large enterprises (250+)	52,8	27,0
<b>Manufacture of (NACE category)</b>		
food or beverages	7,3	1,3
wood and manufacture of paper	8,1	3,4
chemicals & pharmaceutical products	10,8	3,6
rubber and plastic products	30,9	11,1
other non-metallic mineral products	12,2	7,8
basic metals	32,2	6,3
fabricated metal products	20,2	5,6
computer, electronic & optical products	11,7	25,6
electrical equipment	18,5	16,6
machinery and equipment n.e.c.	15,6	11,3
motor vehicles	43,3	21,6
other transport equipment	19,4	14,6

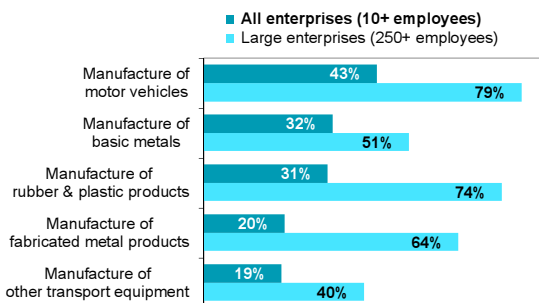
as a percentage of all enterprises in a given group

**Figure D33 Purposes of 3D printing use in Manufacturing; 2017**



as a percentage of all enterprises in a given size class

**Figure D34 Top 5 industries in Manufacturing with the highest share of enterprises using industrial robots; 2018**

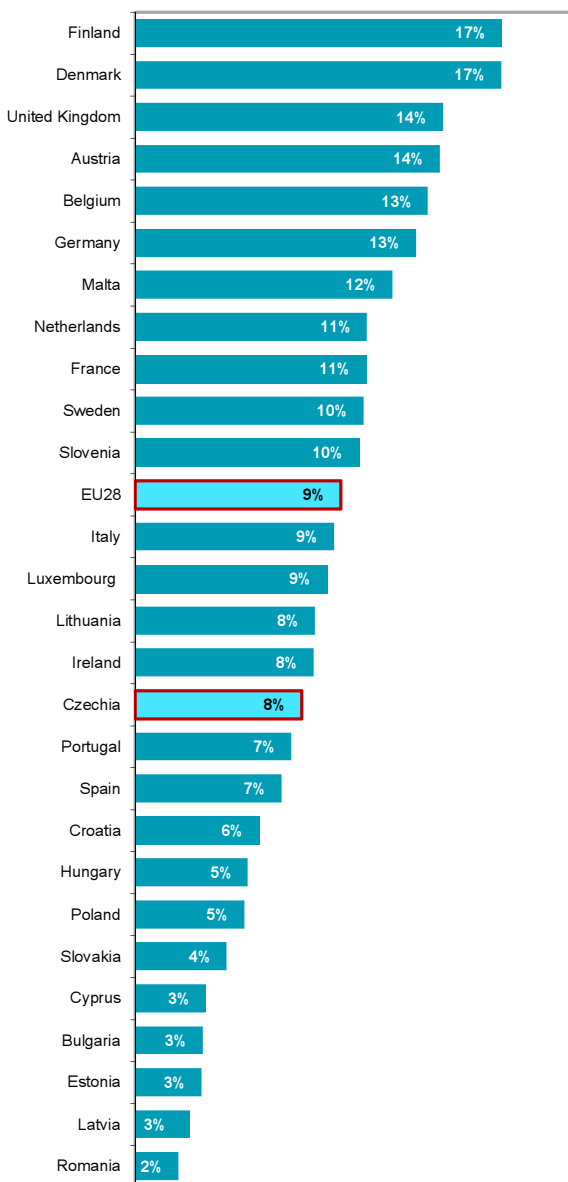


as a percentage of all enterprises in a given size class and NACE category

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

Figure D35 Enterprises in Manufacturing in EU countries using 3D printing; 2017



as a percentage of all enterprises with 10+ employees in Manufacturing (NACE section C) in a given country

Source: Eurostat, 2019

## D Enterprises and ICT

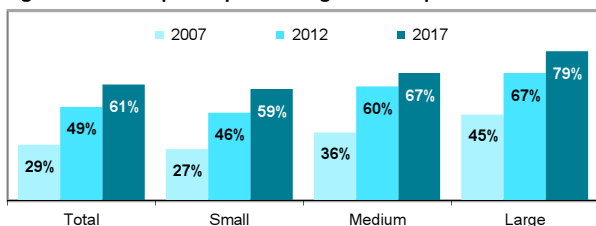
Tab. D13 Value of enterprises' e-purchases in Czechia; 2017

	Percentage		
	Total	EDI purchases*	Web purchases
<b>Total (10+ employees)</b>	<b>39,3</b>	<b>21,0</b>	<b>18,4</b>
Small enterprises (10-49)	25,9	8,3	17,6
Medium enterprises (50-249)	29,5	11,9	17,6
Large enterprises (250+)	48,3	29,4	19,0
<b>Industry (NACE category)</b>			
Manufacturing	41,6	22,5	19,1
Electricity, gas and water supply	45,4	31,3	14,1
Construction	13,0	4,7	8,3
Sale and repair of motor vehicles	57,5	32,4	25,1
Wholesale trade	33,1	13,2	19,9
Retail trade	49,6	31,9	17,7
Transport and storage	20,7	7,7	13,0
Accommodation	25,7	4,3	21,4
Food and beverage service activities	26,4	10,3	16,1
Travel agency and related activities	28,0	6,1	21,9
Media industries	38,6	10,7	27,9
Telecommunications	78,4	57,7	20,7
IT programming and related activities	52,8	13,4	39,5
Real estate activities	34,0	2,6	31,3
Professional, scientific & techn. activ.	20,0	4,7	15,3
Administrative and support service act.	26,3	5,6	20,7

as a percentage of the total purchases' value of enterprises in a given group

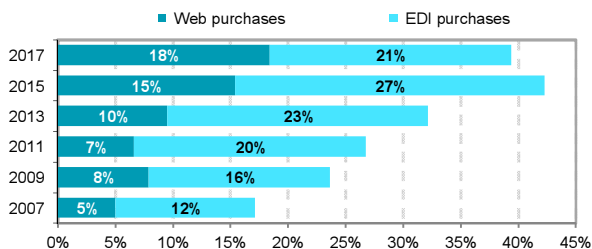
\* Orders initiated with EDI (Electronic Data Interchange) type messages suitable for automated processing (e.g. EDIFACT or XML)

Figure D36 Enterprises purchasing over computer networks



as a percentage of all enterprises in a given size class

Figure D37 Value of enterprises' e-purchases



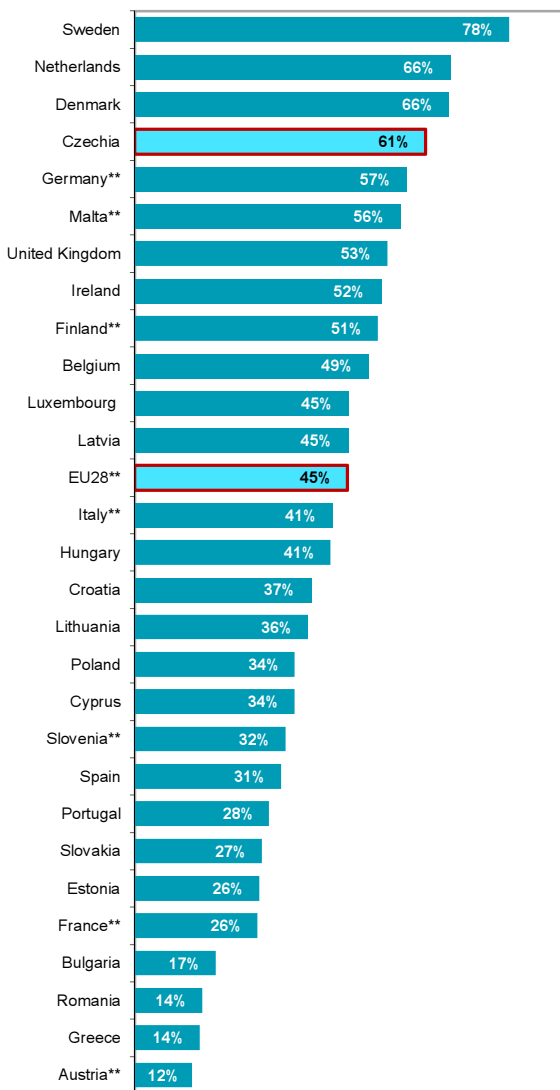
as a percentage of the total value of purchases of enterprises with 10+ empl.

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019



## D Enterprises and ICT

Figure D38 Enterprises in EU countries that purchased over computer networks\*; 2017



\* Includes any enterprises that during the reference year placed at least one electronic order over the Internet or other computer network via a website (on-line store/web form/apps) or by using EDI-type message.

\*\* data for year 2016

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

Source: Eurostat, 2019

## D Enterprises and ICT

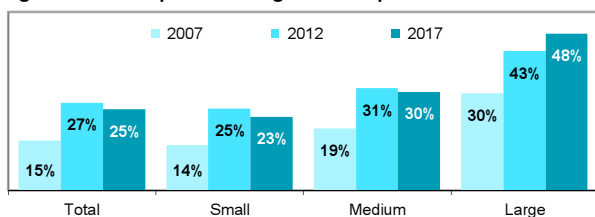
Tab. D14 Turnover from e-sales of enterprises in Czechia; 2017

	Percentage		
	Total	EDI sales*	Web sales
<b>Total (10+ employees)</b>	<b>28,6</b>	<b>21,4</b>	<b>7,2</b>
Small enterprises (10-49)	14,8	7,8	7,0
Medium enterprises (50-249)	20,8	12,8	7,9
Large enterprises (250+)	36,7	29,8	6,9
<b>Industry (NACE category)</b>			
Manufacturing	34,8	31,3	3,5
Electricity, gas and water supply	31,6	28,1	3,6
Construction	2,5	1,8	0,7
Sale and repair of motor vehicles	36,5	20,2	16,3
Wholesale trade	28,2	15,5	12,6
Retail trade	17,3	4,5	12,8
Transport and storage	21,8	12,2	9,6
Accommodation	33,4	7,2	26,2
Food and beverage service activities	5,5	1,5	4,1
Travel agency and related activities	47,3	8,7	38,6
Media industries incl. publishing activities	36,1	6,9	29,2
Telecommunications	27,2	12,0	15,3
Computer programming and related activit.	22,2	10,3	11,9
Real estate activities	4,7	1,3	3,4
Professional, scientific and technical activit.	4,4	2,4	2,1
Administrative and support service activities	31,9	11,9	20,0

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

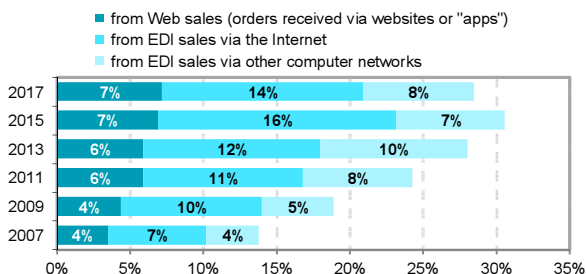
\* Orders initiated with EDI (Electronic Data Interchange) type messages suitable for automated processing (e.g. EDIFACT or XML).

Figure D39 Enterprises selling over computer networks



as a percentage of all enterprises in a given size class

Figure D40 Turnover from e-sales of enterprises

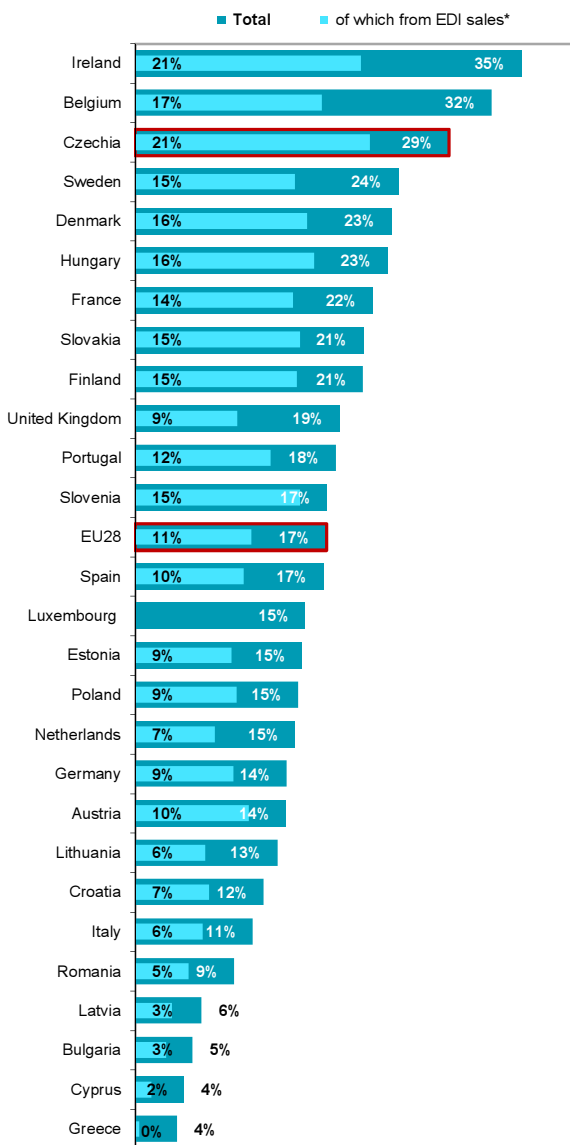


as a percentage of total enterprises' turnover in a given year

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

Figure D41 Turnover from e-sales of enterprises in EU countries; 2017



\* Orders initiated with EDI (Electronic Data Interchange) type messages suitable for automated processing (e.g. EDIFACT or XML).

as a percentage of total turnover of enterprises with 10+ employees

Source: Eurostat, 2019

## D Enterprises and ICT

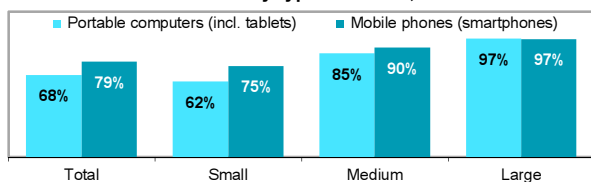
**Tab. D15 Enterprises in Czechia providing portable devices for mobile connection to the Internet; 2018**

	Percentage		
	Total*	Mobile phones	Portable computers (incl. tablets)
<b>Total (10+ employees)</b>	<b>82,7</b>	<b>78,6</b>	<b>67,5</b>
Small enterprises (10-49)	79,5	75,0	62,0
Medium enterprises (50-249)	93,3	90,0	85,1
Large enterprises (250+)	98,8	97,0	97,4
<b>Industry (NACE category)</b>			
Manufacturing	82,1	77,5	68,1
Electricity, gas and water supply	85,9	82,1	67,8
Construction	86,9	86,5	66,9
Sale and repair of motor vehicles	92,0	86,1	72,8
Wholesale trade	93,8	90,6	83,0
Retail trade	66,3	58,3	51,1
Transport and storage	82,0	80,5	61,4
Accommodation	78,2	69,9	62,4
Food and beverage service activities	57,6	48,5	36,0
Travel agency and related activities	88,9	84,7	81,9
Media industries	94,6	90,4	89,8
Telecommunications	96,6	96,0	92,4
IT programming and related activities	98,1	95,3	95,6
Real estate activities	86,0	83,2	65,1
Professional, scientific & techn. activ.	90,4	86,3	78,6
Administrative and support service act.	76,7	71,9	61,5

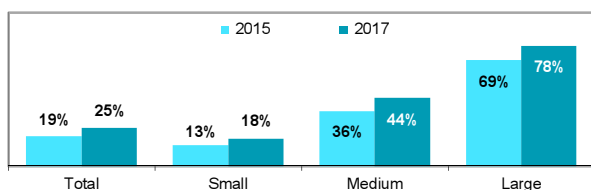
as a percentage of all enterprises in a given group

\* Enterprises providing portable devices with the connection to the Internet through mobile telephone networks for business purposes and pay for all or at least up to a limit, the subscription and the use costs.

**Figure D42 Enterprises providing employees with mobile connection to the Internet by type of device; 2018**



**Figure D43 Enterprises which provide any type of training to develop ICT related skills of their employees**

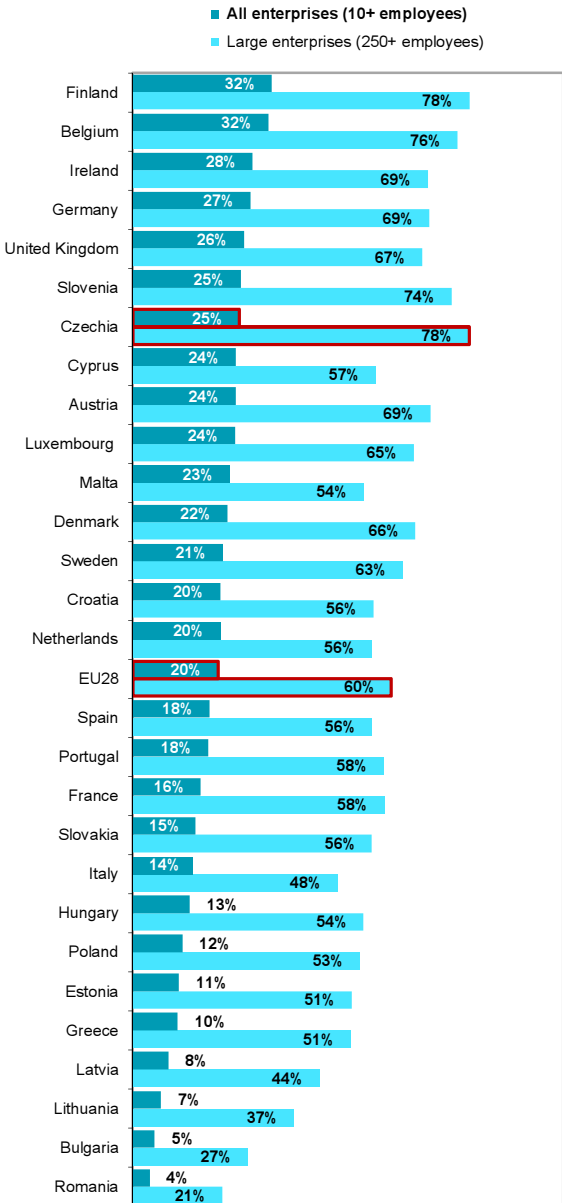


as a percentage of all enterprises in a given size class

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

Figure D44 Enterprises in EU countries providing training to develop ICT related skills of their employees; 2017



as a percentage of all enterprises in a given size group and country

Source: Eurostat, 2019

## D Enterprises and ICT

Tab. D16 Employees in Czech enterprises using at work selected ICT devices for business purposes; 2018

	Percentage		
	Computer, total	with access to the Internet	Portable device*
<b>Total (10+ employees)</b>	<b>50,2</b>	<b>42,9</b>	<b>26,7</b>
Small enterprises (10-49)	46,8	44,3	30,0
Medium enterprises (50-249)	48,5	43,3	27,4
Large enterprises (250+)	52,9	41,9	24,7
<b>Industry (NACE category)</b>			
Manufacturing	44,7	35,3	19,8
Electricity, gas and water supply	64,4	53,3	34,5
Construction	44,5	43,5	34,1
Sale and repair of motor vehicles	69,4	67,1	38,7
Wholesale trade	72,7	67,5	45,2
Retail trade	53,3	40,5	16,1
Transport and storage	43,6	33,1	21,6
Accommodation	43,9	41,5	19,6
Food and beverage service activities	27,7	24,4	13,1
Travel agency and related activities	82,7	82,6	28,3
Media industries	91,3	89,8	59,5
Telecommunications	95,0	94,7	85,2
IT programming and related activities	95,1	94,6	79,8
Real estate activities	60,1	58,4	35,8
Professional, scientific & techn. act.	81,3	80,4	60,4
Administrative and support service act.	25,6	23,9	13,3

\* laptops, tablets, or smartphones with the Internet access as a percentage of all employees of enterprises of a given group

Figure D45 Employees of enterprises using at work a computer

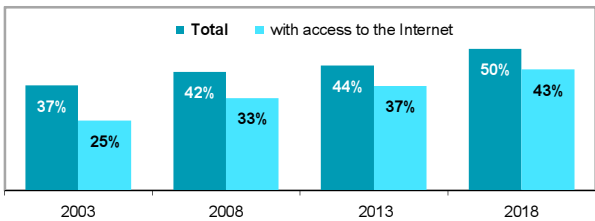
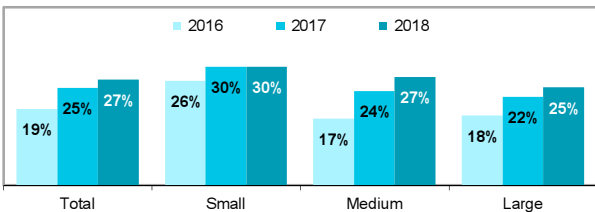


Figure D46 Employees of enterprises using at work portable devices with the Internet access for business purposes

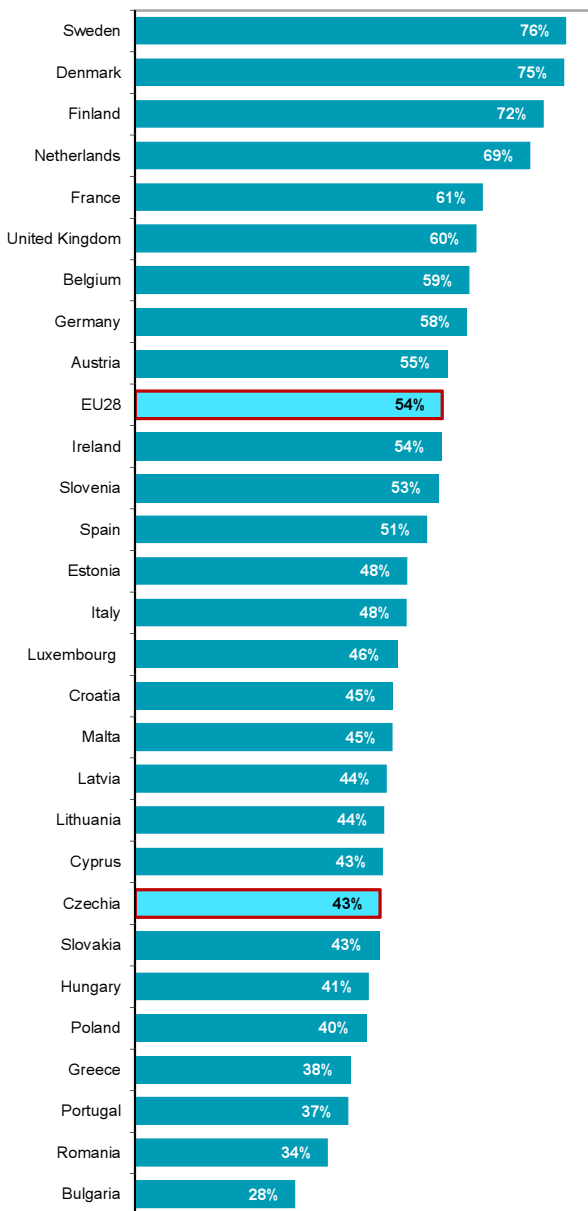


as a percentage of all employees of enterprises in a given size group

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## D Enterprises and ICT

Figure D47 Employees of enterprises in EU countries with access to the Internet for business purposes; 2018



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

Source: Eurostat, 2019

## D Enterprises and ICT

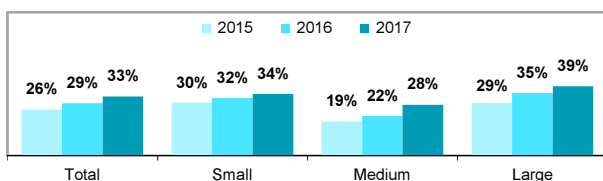
**Tab. D17 Enterprises in Czechia that employ ICT specialists; 2018**

	Percentage		
	Total	of which during the year 2017:	
		recruited or tried to recruit new ICT spec.	had vacancies for ICT spec. difficult to fill
<b>Total (10+ employees)</b>	<b>19,4</b>	<b>8,1</b>	<b>6,4</b>
Small enterprises (10-49)	11,8	5,0	4,1
Medium enterprises (50-249)	39,0	14,3	11,0
Large enterprises (250+)	81,4	41,0	31,5
<b>Industry (NACE category)</b>			
Manufacturing	22,4	6,5	4,7
Electricity, gas and water supply	28,9	11,1	9,4
Construction	8,5	2,3	1,6
Sale and repair of motor vehicles	15,5	2,7	2,1
Wholesale trade	17,0	6,8	4,5
Retail trade	13,3	6,4	3,6
Transport and storage	11,1	4,4	3,3
Accommodation	9,0	0,7	0,7
Food and beverage service activities	2,4	0,5	0,3
Travel agency and related activities	25,4	10,3	9,4
Media industries	54,2	32,5	27,4
Telecommunications	84,5	50,7	47,3
IT programming and related activ.	90,3	77,0	69,1
Real estate activities	17,6	3,4	2,5
Professional, scientific & techn. act.	24,6	9,3	8,3
Administrative and support serv. act.	14,8	7,3	6,2

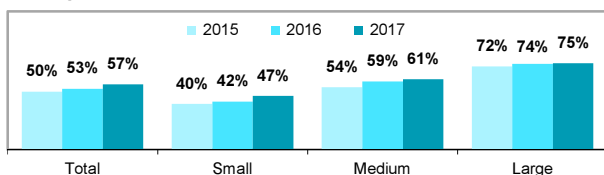
*Note: An ICT specialist refers here to an employee for whom the main job is to design, write, test or develop software and apps or to instalate, operate, control or maintain firm's ICT systems incl. technical assistance to users.*

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

**Figure D48 Enterprises having vacancies for ICT specialists that were difficult to fill**



**Figure D49 Enterprises providing training for ICT specialists to develop their ICT related skills**



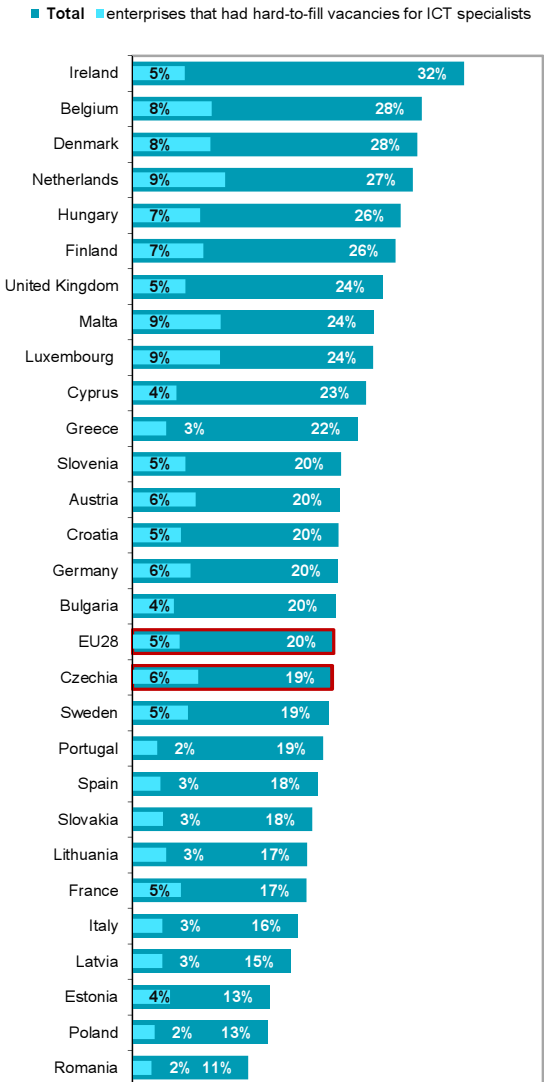
*as a percentage of all enterprises employing ICT specialists in a given size class*

*Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019*



## D Enterprises and ICT

**Figure D50 Enterprises in EU countries that employ ICT specialists; 2018**



*Note: An ICT specialist refers here to an employee for whom the main job is to design, write, test or develop software and apps or to instalate, operate, control or maintain firm's ICT systems incl. technical assistance to users. as a percentage of all enterprises with 10+ employees in a given country*

Source: Eurostat, 2019

## D Enterprises and ICT

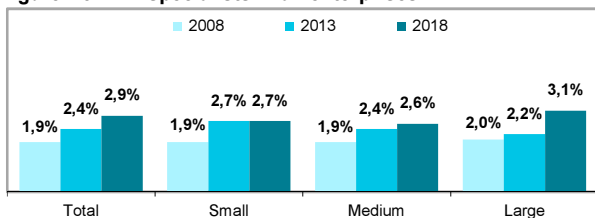
Tab. D18 ICT specialists in Czech enterprises; 2018

	Percentage	
	Total	of which programmers*
<b>Total (10+ employees)</b>	<b>2,9</b>	<b>0,7</b>
Small enterprises (10-49)	2,7	0,9
Medium enterprises (50-249)	2,6	0,7
Large enterprises (250+)	3,1	0,7
<b>Industry (NACE category)</b>		
Manufacturing	0,9	0,3
Electricity, gas and water supply	1,1	0,2
Construction	0,7	0,3
Sale and repair of motor vehicles	1,0	0,3
Wholesale trade	1,5	0,3
Retail trade	0,9	0,2
Transport and storage	0,8	0,1
Accommodation	0,3	0,1
Food and beverage service activities	0,2	0,1
Travel agency and related activities	3,0	1,5
Media industries incl. publishing activities	13,6	3,9
Telecommunications	19,2	5,5
Computer programming and related activ.	59,1	13,3
Real estate activities	1,4	0,3
Professional, scientific and technical activ.	4,0	1,4
Administrative and support service activ.	0,7	0,2

\* Employees developing software, applications and information systems designed for the company's internal needs.

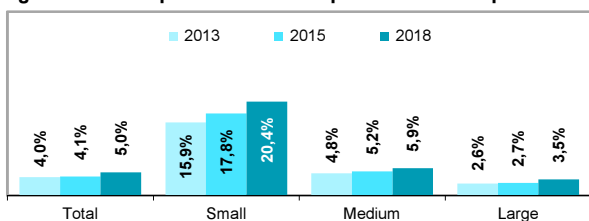
as a percentage of all employees in enterprises in a given group

Figure D51 ICT specialists in all enterprises



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

Figure D52 ICT specialists in enterprises with ICT specialists



as a percentage of all employees in enterprises with ICT specialists in a given size group

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

### E.1 Administrative data about selected e-Government services

The Czech Statistical Office (the CZSO) gathers administrative data on e-Government services from three different sources:

- i) The **Ministry of the Interior of the Czech Republic** for a) data about the use of a platform for assisted access to the public administration system called **Czech POINT** including its *CzechPOINT@office* and *CzechPOINT@home* web applications (interfaces) and b) data about the use of 'Data Boxes' that are special electronic storage sites intending for delivery of official documents and for communication with public authority bodies in the Czech Republic;
- ii) The **General Financial Directorate of the Financial Administration** in the Czech Republic for data on **tax forms** filled in electronically by using the client-oriented web application called **EPO application**;
- iii) The **Czech Social Security Administration (CSSA)** for data on forms filled in via the **e-Submission application** of the CSSA.

#### Definitions:

- **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 the information on the data kept on him or her by the state in its central registers at a single point.
- **CzechPOINT@office** is a non-public interface (application) of the Czech POINT system designated for civil servants of public administration who must access the registers by law or convert documents by virtue of office. 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 (web application) of the Czech POINT system dedicated to citizens and enabling data box holders a remote access (from a computer or mobile phone) to selected copies of documents.

### E.2 Survey data about the use of the Internet in relation with the government authorities and selected public institutions

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. For more details on the survey see **Chapter C**.

The survey collects data on the Internet use by **individuals** while dealing with public administration for activities as follows: searching information on public administration websites; downloading, filling in, and submitting forms. The **reference period** for data on individuals is the last **12 months** prior to the survey interview.

- A **downloadable form** shall mean 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.
- **Public institutions** shall mean educational institutions, health care establishments, and libraries.
- **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 in this way are electronically submitted right from the webpage.

The data may be **internationally compared** solely in the case of the data on individuals using the Internet for communication with the public administration. Data for this comparison originate from the **Eurostat** database, which was updated at the end of 2018.

## E Government and ICT

**Tab. E1 Czech POINT - number of public contact points**

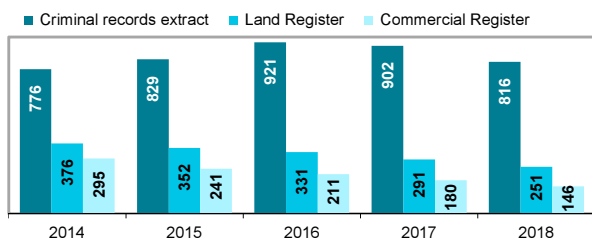
	2008	2013	2018
<b>Total</b>	<b>3 034</b>	<b>7 297</b>	<b>7 461</b>
at the municipal authority offices	1 791	5 879	5 939
at post offices	856	978	981
at notary offices	298	337	438
at other places	89	103	103

*Note: Czech POINT is an acronym in Czech for Czech Filing and Verification Information National Terminal; it 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.*

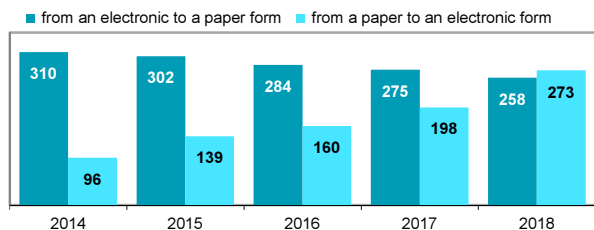
**Tab. E2 Outputs issued 'at the desk' of the Czech POINT**

	Thousand		
	2016	2017	2018
<b>Total</b>	<b>2 208</b>	<b>2 124</b>	<b>2 025</b>
<b>Verified copies of extracts, total</b>	<b>1 625</b>	<b>1 522</b>	<b>1 352</b>
from criminal records	921	902	816
from the Land Register	331	291	251
from the Commercial Register	211	180	146
from the Driver Register	95	87	84
from the Trade Licensing Register	60	53	47
other verified extracts	8	9	9
<b>Authorized conversion of documents, total</b>	<b>444</b>	<b>473</b>	<b>531</b>
from an electronic form to a paper form	284	275	258
from a paper form to an electronic form	160	198	273
<b>Other outputs (issued documents), total</b>	<b>139</b>	<b>130</b>	<b>142</b>
Requests for a Data Box registration	57	43	45

**Figure E1 Verified copies of extracts issued 'at the desk' of the Czech POINT, by selected service (thousand)**



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



Source: CZSO calculations based on data from [www.czechpoint.cz](http://www.czechpoint.cz), 2019

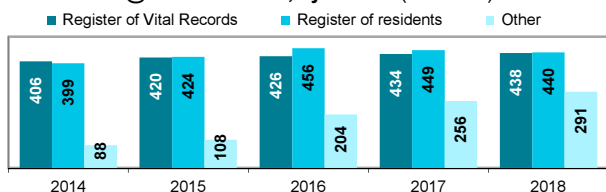
## E Government and ICT

**Tab. E3 Documents issued from CzechPOINT@office interface**

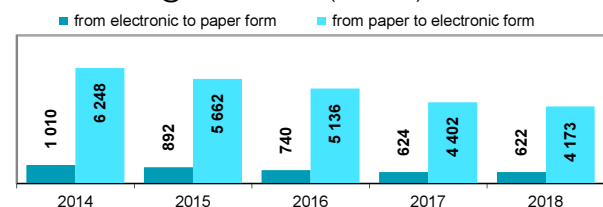
	Thousand		
	2016	2017	2018
<b>Total</b>	<b>7 222</b>	<b>6 414</b>	<b>6 245</b>
<b>Verified copies/extracts <i>ex officio</i>, total</b>	<b>1 085</b>	<b>1 139</b>	<b>1 169</b>
from the Register of Vital Records (e.g. certificates of birth, marriage, or death)	426	434	438
from the Register of residents/citizens (e.g. certificates of permanent residence)	456	449	440
Others	204	256	291
<b>Verified extracts from basic registers, total</b>	<b>261</b>	<b>249</b>	<b>282</b>
from the Administrative Business Register	15	16	15
<b>Authorized conversions of documents, total</b>	<b>5 876</b>	<b>5 026</b>	<b>4 795</b>
from an electronic form to a paper form	740	624	622
from a paper form to an electronic form	5 136	4 402	4 173

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

**Figure E3 Verified copies of extracts issued from the CzechPOINT@office interface, by service (thousand)**



**Figure E4 Authorized conversions of documents issued from the CzechPOINT@office interface (thousand)**



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

	2016	2017	2018
<b>Total</b>	<b>10 432</b>	<b>14 141</b>	<b>19 909</b>
from the Driver Register	5 062	5 448	8 912
from criminal records	2 202	4 634	6 683
from the Trade Register	1 006	1 160	1 141
from the Insolvency Register	236	251	414
Other verified extracts	1 926	2 648	2 759

*Note: CzechPOINT@home is an interface (web application) designated for citizens to obtain all information kept on them by the state in its central registers directly from "home" on their computer without the need to have a certified electronic signature (only for those who are holders of data boxes).*

*Source: CZSO calculations based on data from www.czechpoint.cz, 2019*

## E Government and ICT

Tab. E5 Newly activated Data Boxes in Czechia

	Thousand		
	2016	2017	2018
<b>Total</b>	<b>90,5</b>	<b>79,9</b>	<b>79,8</b>
Established by law (obligatory data boxes)	30,3	35,5	32,9
Established upon request (voluntary data boxes)	60,2	44,4	46,9
<b>By type of entity (owners of the data boxes)</b>			
Public authority body	0,1	0,6	0,1
Enterprise	29,5	36,4	34,7
Self-employed person	34,7	20,0	17,5
Citizen (non-entrepreneur)	26,2	22,9	27,6

Note: 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 by their establishment (thousand)

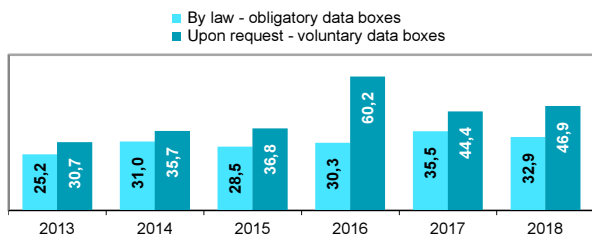
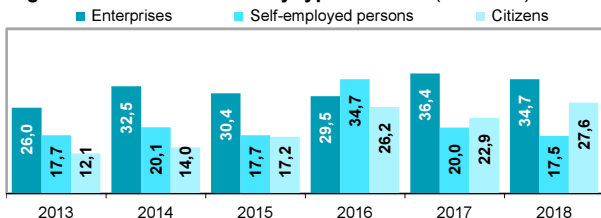
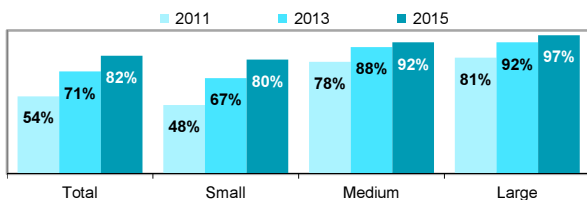


Figure E6 New Data Boxes by type of owner (thousand)



Source: CZSO calculations based on data from the Ministry of the Interior, 2019

Figure E7 Enterprises in Czechia using Data Boxes for submitting official forms to public authorities



as a percentage of all enterprises in a given size group

Source: Czech Statistical Office, Survey on the ICT Use in Enterprises, 2019

## E Government and ICT

Tab. E6 E-transactions made via Data Boxes in Czechia

	Thousand		
	2016	2017	2018
<b>Total</b>	<b>93 195</b>	<b>102 830</b>	<b>97 325</b>
<b>By type of entity (owners of the data boxes)</b>			
Public authority body	66 248	71 495	67 878
Enterprise	22 722	26 654	24 323
Self-employed person	3 796	4 151	4 494
Citizen (non-entrepreneur)	429	530	630

Figure E8 Electronic transactions made via Data Boxes (million)

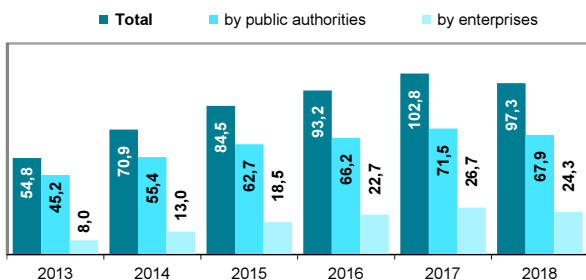


Figure E9 E-transactions made via Data Boxes by type of entity conducting these transactions (million)

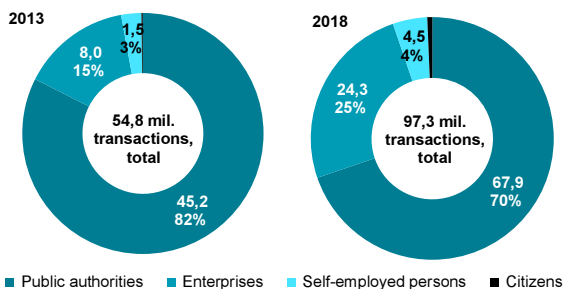
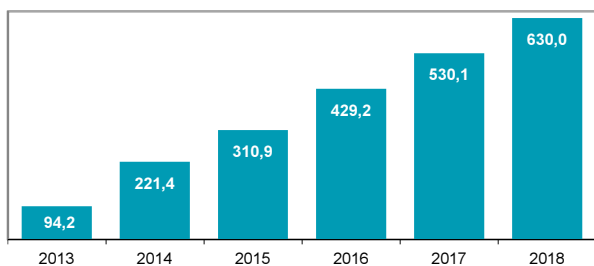


Figure E10 E-transactions via Data Boxes by citizens (thousand)



Source: CZSO calculations based on data from the Ministry of the Interior, 2019

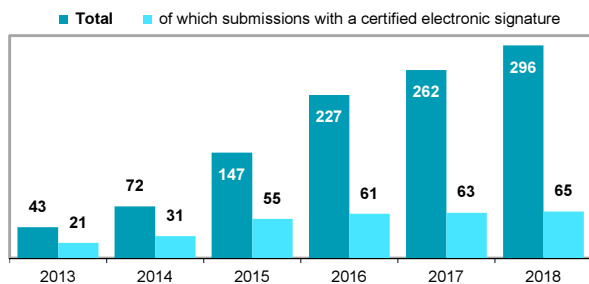
## E Government and ICT

**Tab. E7 Tax returns forms filled in for the Czech Financial Administration (CFA) electronically via the EPO application**

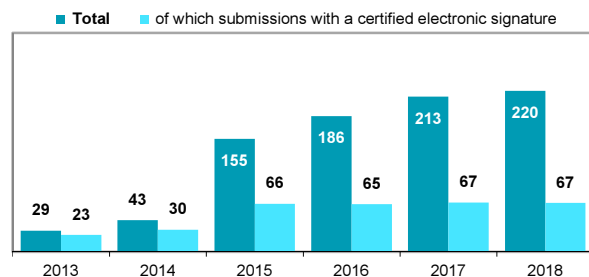
	Thousand		
	2016	2017	2018
Value Added Tax declaration	2 156	2 243	2 371
Personal Income Tax declaration	227	262	296
Corporate Income Tax declaration	186	213	220
Road Tax declaration	204	215	220
Real Estate Tax declaration	37	38	38

*Note: EPO is a Czech abbreviation used for an electronic filing room (client-oriented web application) of the Czech Financial Administration (CFA) used for e-submissions in tax matters (e-filing of tax declarations). Through the EPO application it is possible to send submissions without a certified electronic signature.*

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



**Figure E12 Corporate Income Tax forms filled in electronically for the CFA via the EPO application (thous.)**



**Tab. E8 Selected tax forms sent electronically to the Czech Financial Administration via Data Boxes**

	Thousand		
	2016	2017	2018
Value Added Tax declaration	1 857	1 968	2 125
Personal Income Tax declaration	146	161	186
Corporate Income Tax declaration	249	268	279
Road Tax declaration	159	161	168
Real Estate Tax declaration	20	19	21

Source: Financial Administration of the Czech Republic, 2019



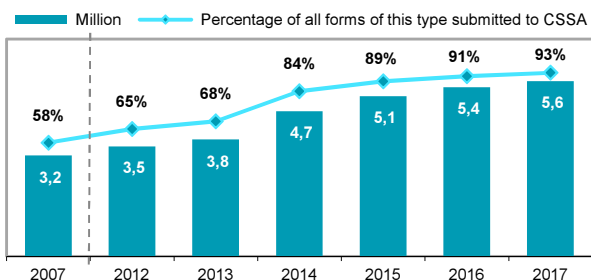
## E Government and ICT

**Tab. E9 Forms filled in via the e-Submission application of the Czech Social Security Administration (CSSA)**

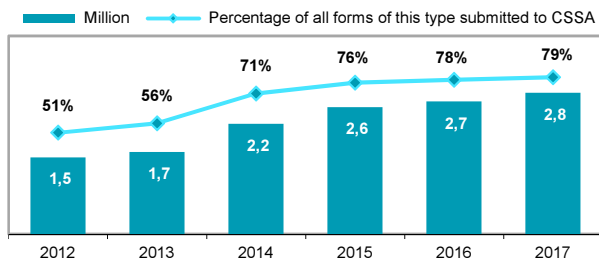
	Thousand		
	2015	2016	2017
Record for Pension Insurance	5 149	5 445	5 643
Announcement of the commencement of empl.	2 560	2 676	2 849
Overview of insurance contribution amount	2 041	2 283	2 460
Income & expenses form of the self-employed person	45	74	96

*Note: e-Submission is a web application which allows to submit selected forms to the Czech Social Security Administration electronically.*

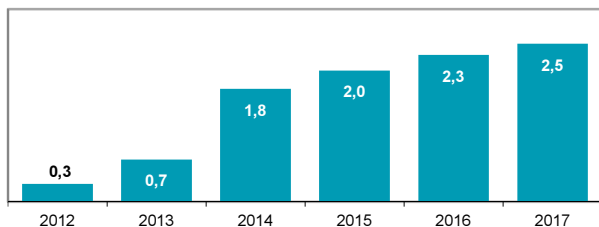
**Figure E13 Records for Pension Insurance forms filled in via the e-Submission application of the CSSA**



**Figure E14 Announcement of the commencement of empl. forms filled in via the e-Submission app. of the CSSA**



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



Source: Czech Social Security Administration, 2019

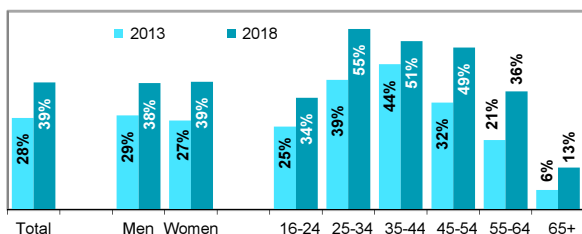
## E Government and ICT

**Tab. E10 Individuals in Czechia who in the last 12 months used the Internet in relation to the government authorities**

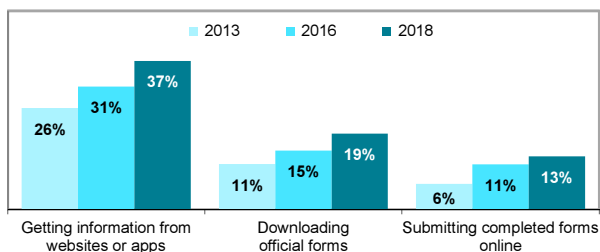
	Percentage		
	2016	2017	2018
All individuals (aged 16+ years)	34,0	37,2	38,5
All individuals (aged 16-74 years)	36,7	40,1	41,7
<b>Sex</b>			
Men (aged 16+ years)	34,8	38,8	38,3
Women (aged 16+ years)	33,2	35,7	38,7
<b>Age group (years)</b>			
16-24	26,7	28,7	33,9
25-34	45,5	50,9	54,6
35-44	48,2	53,5	51,1
45-54	44,5	46,8	49,1
55-64	29,9	33,5	35,8
65+	11,3	12,5	12,7
<b>Educational attainment (of the aged 25+)</b>			
Primary	6,3	7,0	10,1
Secondary without A-level examination	22,8	26,0	28,2
Secondary with A-level examination	45,1	45,2	45,6
Tertiary	59,5	64,0	62,5
<b>Economic activity status</b>			
Women on maternity leave	46,6	54,1	55,2
Students (aged 16+ years)	24,3	27,1	33,4
Pensioners	11,4	12,9	14,2

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

**Figure E16 Individuals who in the last 12 months used the Internet in relation to the government authorities**



**Figure E17 Individuals who in the last 12 months used the Internet for selected activities in relation with the government authorities**



as a percentage of all individuals aged 16+ or in a given demographic group

Source: Czech Statistical Office, ICT use survey in households, 2019

## E Government and ICT

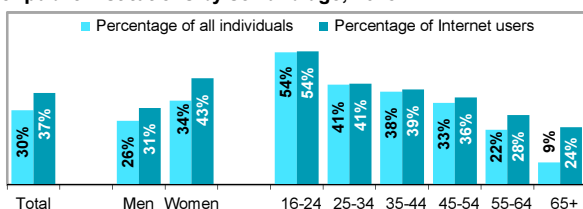
**Tab. E11 Individuals in Czechia who conducted selected activities on websites of public institutions; 2018**

	Percentage		
	Getting information	Filling forms	Downloading forms
<b>All individuals aged 16+ years</b>	<b>30,3</b>	<b>17,5</b>	<b>12,2</b>
All individuals aged 16-74	32,8	19,0	13,3
<b>Sex</b>			
Males (aged 16+)	26,1	13,6	10,4
Females (aged 16+)	34,3	21,2	14,0
<b>Age group (years)</b>			
16-24	53,8	33,2	28,9
25-34	40,7	26,7	18,6
35-44	37,9	21,0	14,6
45-54	33,4	17,6	11,5
55-64	22,4	12,1	7,2
65+	9,2	4,7	2,3
<b>Educational attainment (of the aged 25+)</b>			
Primary	6,4	3,7	1,5
Secondary without A-level examin.	17,8	7,0	3,9
Secondary with A-level examination	31,1	19,2	12,1
Tertiary	51,6	32,7	24,7
<b>Economic activity status</b>			
Women on maternity leave	45,7	28,1	16,3
Students (aged 16+)	65,5	41,2	37,5
Pensioners	10,2	4,8	2,2

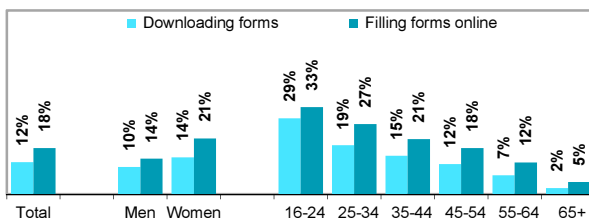
as a percentage of all individuals in a given socio-demographic group

Note: Only public institutions providing educational or health related services (e.g. public libraries, schools, universities or hospitals) are included here.

**Figure E18 Individuals obtaining information on websites of public institutions by sex and age; 2018**



**Figure E19 Individuals downloading/filling in forms on websites of public institutions by sex and age; 2018**

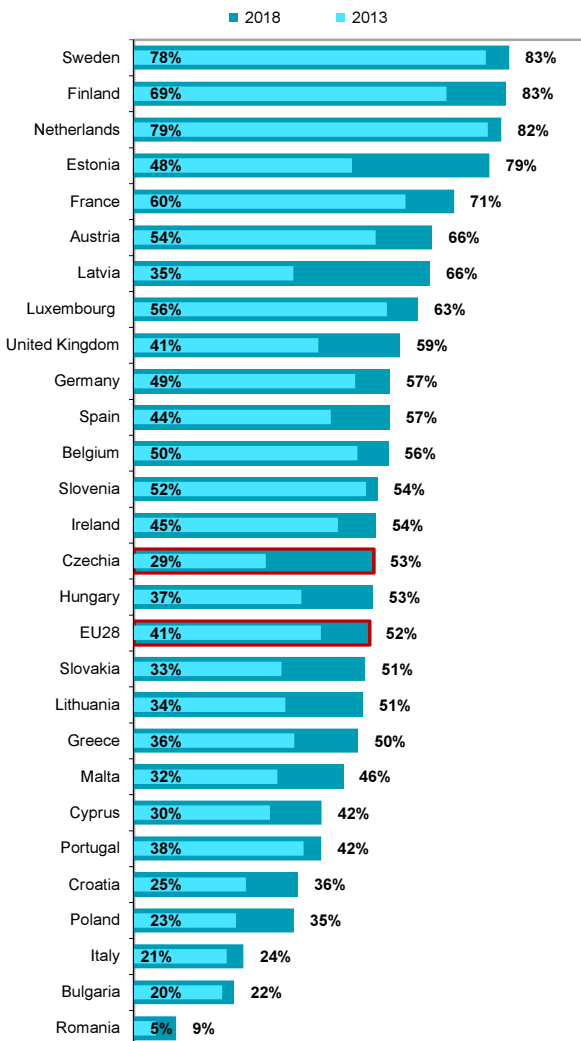


as a percentage of all individuals in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households, 2019

## E Government and ICT

**Figure E20 Individuals in EU countries who in the last 12 months used the Internet in relation to the government authorities and public institutions**



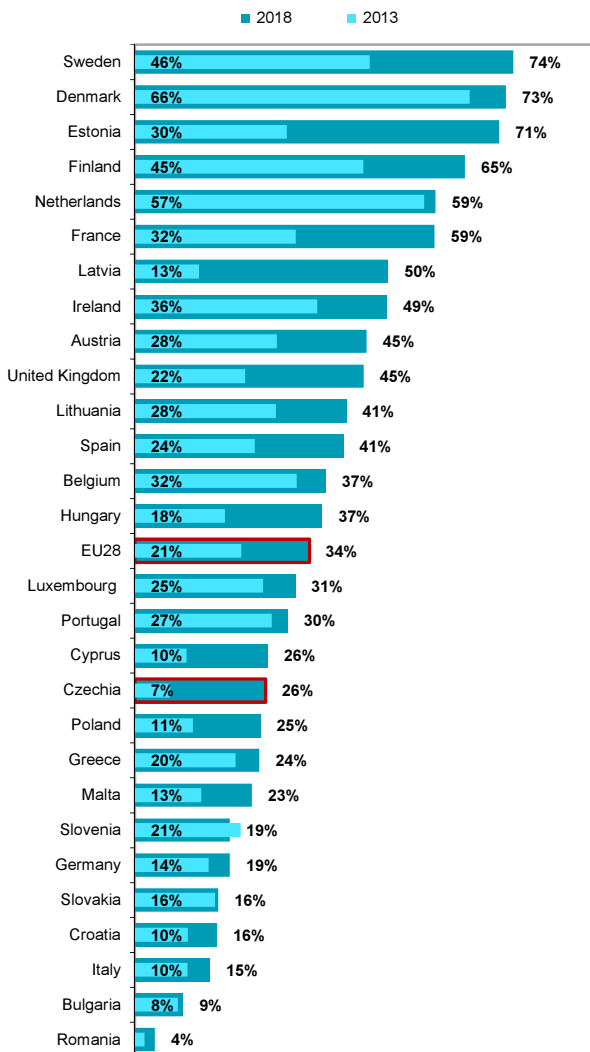
as a percentage of all individuals aged 16 to 74 years in a given country

*Note: Citizens using the Internet in relation to the government authorities and public institutions include individuals who used the Internet for private purposes at least once in the last 12 months to contact or interact with government authorities and/or some public educational or health institutions for at least one of the following activities: obtaining information from their websites, downloading official forms and/or filling forms online.*

Source: Eurostat, 2019

## E Government and ICT

**Figure E21 Individuals in EU countries who at least once filled in forms on websites of government authorities or public institutions in the last 12 months**



as a percentage of all individuals aged 16 to 74 years in a given country

Note: This includes websites concerning citizen obligations (such as tax declaration, notification of moving), rights (e.g. social benefits), official documents (e.g. ID card, birth certificate), public educational services (e.g. public libraries, information on the enrolment in schools or universities) or public health services (e.g. services of public hospitals).

Source: Eurostat, 2019

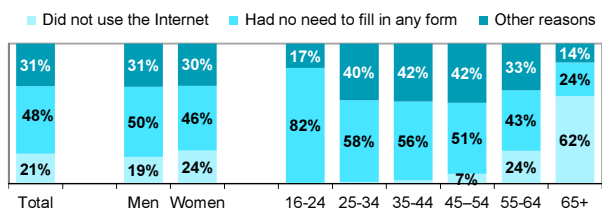
## E Government and ICT

**Tab. E12 Main reasons why individuals in Czechia did not submit forms to the government authorities online; 2018**

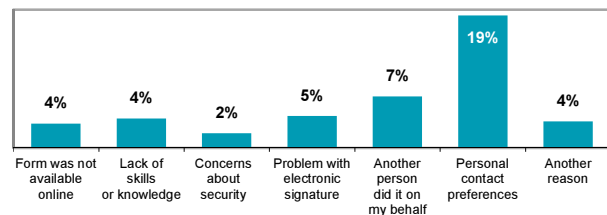
	Percentage		
	Did not use the Internet	Had no need to fill in any form	Other reasons
<b>All individuals (aged 16+ years)</b>	<b>21,5</b>	<b>47,9</b>	<b>30,6</b>
All individuals (aged 16-74 years)	15,0	51,7	33,3
<b>Sex</b>			
Men (aged 16+ years)	19,2	49,9	30,9
Women (aged 16+ years)	23,6	46,0	30,3
<b>Age group (years)</b>			
16-24	0,7	81,9	17,5
25-34	1,3	58,2	40,5
35-44	2,6	55,9	41,5
45-54	7,0	50,6	42,4
55-64	23,5	43,1	33,4
65+	62,5	23,9	13,6
<b>Educational attainment (of the aged 25+)</b>			
Primary	64,3	20,6	15,2
Secondary without A-level examination	28,9	40,1	31,0
Secondary with A-level examination	14,4	52,0	33,5
Tertiary	5,7	51,4	42,9
<b>Economic activity status</b>			
Women on maternity leave	2,5	52,2	45,3
Students (aged 16+ years)	0,0	83,2	16,8
Pensioners	59,4	25,8	14,8

as a percentage of all individuals in a given socio-demographic group who did not submit forms to the government authorities online

**Figure E22 Main reasons why individuals did not submit forms to the government authorities online; 2018**



**Figure E23 Other reasons for not filling in/submitting forms to the government authorities online; 2018**



as a percentage of all individuals who did not submit forms online

Source: Czech Statistical Office, ICT use survey in households, 2019

## F ICT in Education and Digital Skills

### F.1 ICT at schools

Data on **schools** with the **Internet** by its speed, as well as with a **website** and a **student information system** are taken from the **Czech School Inspectorate (CSI)**. The CSI collected these data in school years 2011/2012 and 2016/2017.

Data on **numbers of computers by device type and age category** that are accessible to 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 (MEYS)**. The Ministry collects these data at all 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**.

### F.2 ICT use by students

Publicly available results of the **OECD Programme for International Student Assessment (PISA 2015)** were used to process detailed data on the access of **fifteen-year-old pupils** to selected ICTs at home and at school in the Czech Republic. The 2015 international survey was focusing, among others, on whether 15-year-old pupils in schools have Internet access and on whether they use this opportunity. Detailed information on the PISA 2015 can be found at: <http://www.oecd.org/pisa/>.

An independent annual European 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 the Internet**.

### F.3 ICT skills

The indicators on **selected learning activities** carried out by individuals, regardless their age, to improve **ICT skills** in the last 12 months are based on results from the above-mentioned **European ICT household survey**.

An additional set of questions included in the survey was about using **selected software** (e.g. office or occupation specific software) **at work**.

#### Definitions

- **Office software** (e.g. Microsoft Word, Microsoft Excel) is used to create and modify electronic documents as texts, tables, presentations, etc.
- **Programming** shall include the use of programming languages as Java, C, Python, 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.
- **Occupational specific software**, as accounting or graphic applications, for instance, also includes proprietary applications (in-house developed in enterprises/companies) software.
- The **participation in a computer (ICT) course or training** shall include a participation in official paid courses or training on any computer technology or ICT skills provided by employers, schools, non-profit organizations or government institutions.
- The **acquisition of ICT skills by self-study** may mean, for instance, by reading manuals, searching on the Internet, or watching an instruction video.
- The **acquisition of ICT skills by on-the-job training** shall include non-formal training provided by colleagues, fellows, or managers. *This item asks about cases where the training took place while the worker was performing his/her tasks, within his/her working time, i.e. the so-called on the job training.*

#### **F.4 ICT students and graduates**

Students and graduates of **ICT fields of education** (in short ICT students and graduates) are defined based on the International Standard Classification of Education: **Fields of Education and Training 2013 (ISCED-F 2013)**. ICT fields of education correspond to the broad field of **Information and Communication Technologies (code 05)** and include:

- Computer use (0611);
- Database and network design and administration (0612);
- Software and applications development and analysis (0613);
- ICT not elsewhere classified (0619) and Inter-disciplinary programmes and qualifications involving ICTs (0688).

Data were taken from data sources of the Ministry of Education, Youth and Sports (MEYS), more specifically from the **Union Information from Students' Registers (SIMS)**. The source database of SIMS is continually completed and updated, including retrospective corrections. Data published in this publication correspond to the state of processing as at 31 March 2018.

Education **at universities** presented in the tables for the Czech Republic belongs to the tertiary level of education and includes bachelor, master, and doctoral study programmes.

Data on university students are always as at 31 December of the reference year; data on graduates are for the entire school year.

Numbers of students and graduates in the table are given as **headcount**, i.e. each student is included in a particular piece of data only once, including students, who study in more study programmes at the same time.

**Eurostat data sources** are used for **international comparisons**.

#### **F.5 ICT professionals**

Information and communication technology professionals (**ICT professionals**) conduct research, plan, design, write, test, provide advice and improve information technology systems, hardware, software and related concepts for specific applications; develop associated documentation including principles, policies and procedures; and design, develop, control, maintain and support databases and other information systems to ensure optimal performance and data integrity and security.

ICT professionals are defined since 2011 as persons employed in the national economy whose principal activity comes within the two minor groups of occupations expressed in terms of the current Czech version of the **International Standard Classification of Occupations (CZ-ISCO) sub-major group 25**, which are sources of their main income:

- Software and applications developers and analysts (code 251);
- Database and network professionals (code 252).

Data on the **numbers of ICT professionals** (CZ-ISCO sub-major group 25) come from the **Labour Force Sample Survey (LFSS)**. The table presents average annual data for given years.

For more information about the Czech LFSS see: [https://www.czso.cz/csu/czso/employment\\_unemployment\\_ekon](https://www.czso.cz/csu/czso/employment_unemployment_ekon)

Data on **earnings of ICT professionals** come from a special processing of data obtained within the **Structural statistics on earnings of employees (SES: Structural Earnings Statistics)**. At present, the SES is a result of merging the databases of the sample survey of the Information System on Average Earnings (ISPV) of the Ministry of Labour and Social Affairs, which covers the **wage sphere**, and of the administrative source of the Salary Information System (ISP) of the Ministry of Finance, which exhaustively covers the **salary sphere**.

For more information about the Czech SES see:

<https://www.czso.cz/csu/czso/structure-of-earnings-survey-2018> or

<https://www.ispv.cz/getdoc/893a792d-72c2-41e9-ab93-8481a1dcadc8/Methodology.aspx>



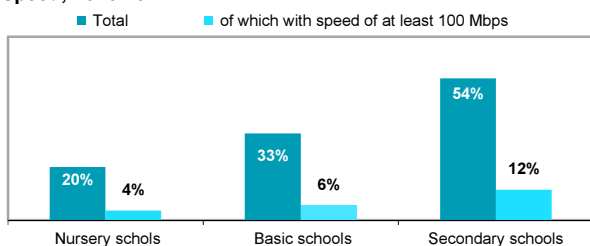
## F ICT in Education and Digital Skills

**Tab. F1 Schools in Czechia with the Internet; 2016/2017**

	Percentage		
	with maximum download speed		
	less than 30 Mbps	31 to 100 Mbps	at least 100 Mbps
Nursery schools	77,6	16,6	3,6
Basic schools	66,9	27,4	5,6
Secondary schools	45,8	42,5	11,6

as a percentage of all schools of a given type

**Figure F1 Schools with at least 31 Mbps Internet download speed; 2016/2017**

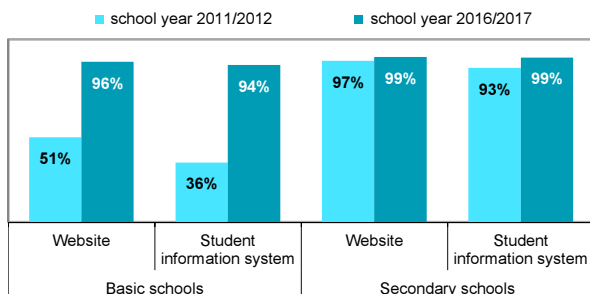


**Tab. F2 Schools with a website and a student inform. system**

	Percentage	
	School year 2011/2012	School year 2016/2017
<b>Website</b>		
Nursery schools	.	87,1
Basic schools	51,0	96,4
Secondary schools	96,9	99,3
<b>Student information system</b>		
Basic schools	35,8	94,5
Secondary schools	92,7	98,9

as a percentage of all schools of a given type

**Figure F2 Basic and secondary schools with a website and a student information system**



as a percentage of all schools of a given type

Source: Czech School Inspection, 2018

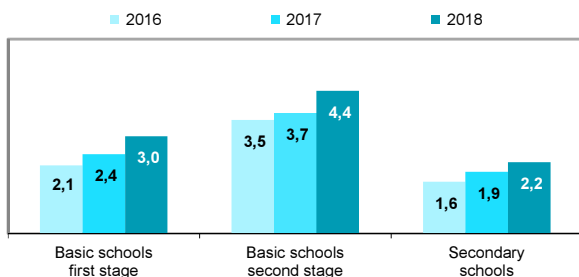
## F ICT in Education and Digital Skills

**Tab. F3 Computers in Czech schools; 2018**

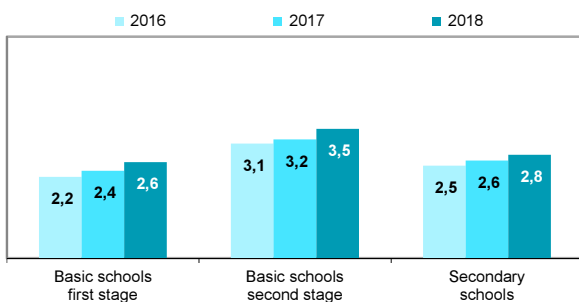
Number of computers per 100 pupils/students in a given type of school

	Total	Type of used computers		
		Desktops	Laptops	Tablets
Basic schools - first stage	19,1	13,5	2,6	3,0
Basic schools - second stage	28,8	21,0	3,5	4,4
Secondary schools	25,7	20,7	2,8	2,2

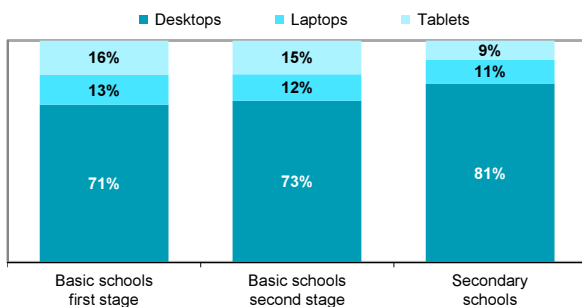
**Figure F3 Number of tablets per 100 pupils/students**



**Figure F4 Number of laptops per 100 pupils/students**



**Figure F5 Computers by type that are accessible to pupils/students in different schools; 2018**



Source: Ministry of Education, Youth and Sports, 2019

## F ICT in Education and Digital Skills

Tab. F4 Computers in Czech schools by type and age; 2018

Thousand

	Total	Age categories of computers		
		≤ 2 years old	3-9 years old	≥ 10 years old
<b>Basic schools - 1st stage:</b>				
Computers, total	109,3	19,6	82,8	7,0
Desktops	77,6	11,1	60,0	6,5
Laptops	14,7	3,6	10,7	0,5
Tablets	17,0	5,0	12,0	0,0
<b>Basic schools - 2nd stage:</b>				
Computers, total	105,9	19,9	80,0	6,0
Desktops	77,0	12,1	59,3	5,6
Laptops	12,7	3,1	9,3	0,3
Tablets	16,2	4,7	11,4	0,0
<b>Secondary schools:</b>				
Computers, total	108,3	22,2	78,2	7,9
Desktops	87,2	16,2	63,6	7,5
Laptops	11,7	2,7	8,7	0,4
Tablets	9,3	3,3	6,0	0,0

Figure F6 Different types of computers by age that are accessible to pupils/students in schools; 2018

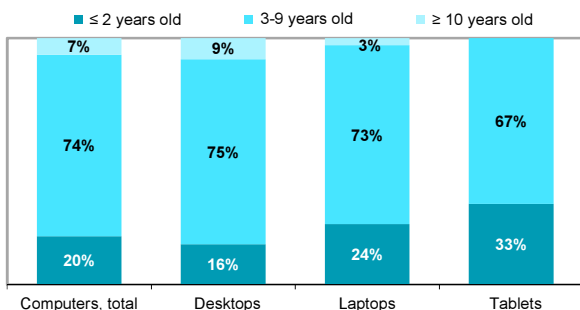
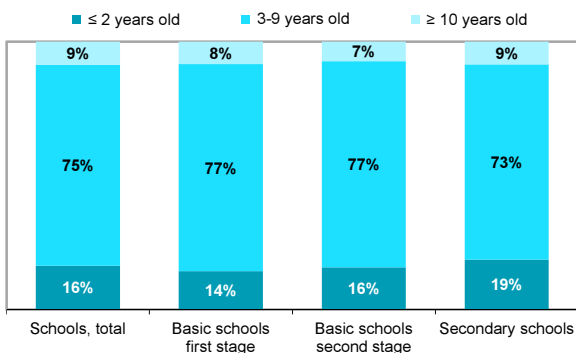


Figure F7 Computers by age that are accessible to pupils/students in different schools; 2018



Source: Ministry of Education, Youth and Sports, 2019

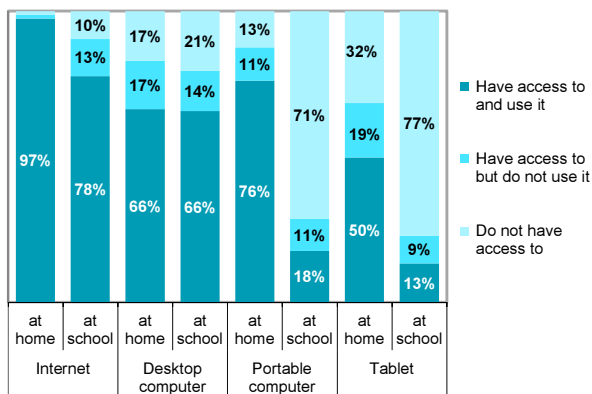
## F ICT in Education and Digital Skills

**Tab. F5 Fifteen-year-old students in Czechia with access to different ICT devices at home and at school; 2015**

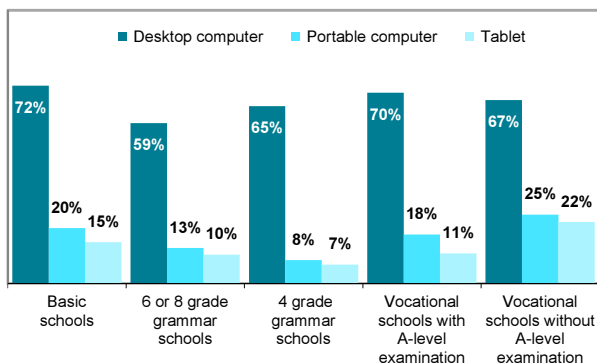
	Percentage	
	at home	at school
Internet	98,7	90,4
Mobile phone	93,1	.
Portable computer (laptop)	87,5	28,6
Desktop computer	82,9	79,5
Tablet	68,4	22,7
E-book reader	26,2	12,9
MP3/MP4 player	70,8	.
Printer	78,1	.

as a percentage of all 15 year old students

**Figure F8 Fifteen-year-old students and their access to different ICT devices at home and at school; 2015**



**Figure F9 Fifteen-year-old students who use different computers at school by type of school attended; 2015**

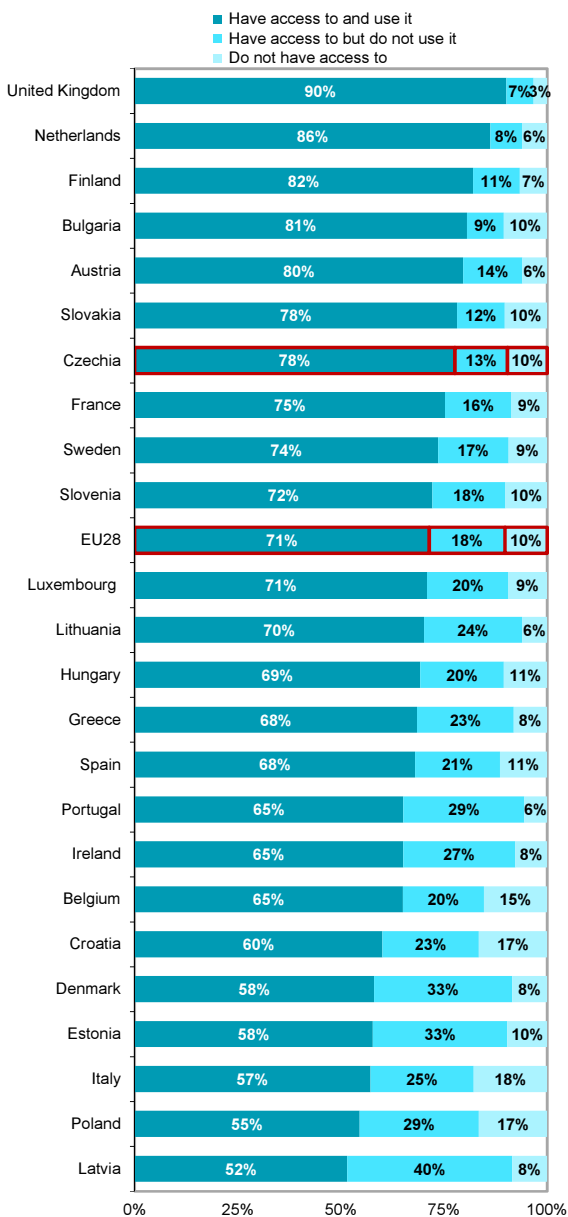


as a percentage of all 15 year old students at a given type of school

Source: OECD, survey PISA, 2015

## F ICT in Education and Digital Skills

**Figure F10 Fifteen-year-old students in EU countries and their access to the Internet at school; 2015**



as a percentage of all 15 year old students in a given country

Source: OECD, survey PISA, 2015

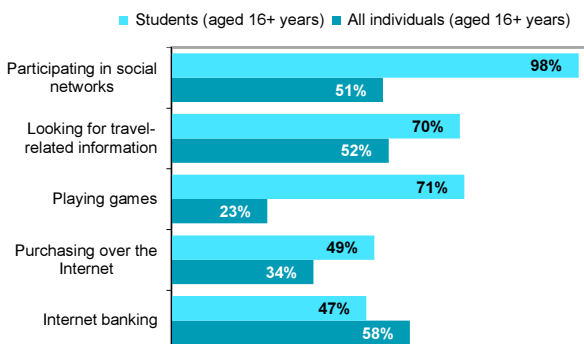
## F ICT in Education and Digital Skills

**Tab. F6 Students aged 16+ years in Czechia using the Internet; 2018**

	Percentage		
	Total	Men	Women
<b>Total - Internet users</b>	<b>99,8</b>	<b>99,5</b>	<b>100,0</b>
on a mobile phone - mobile Internet users	94,6	93,3	95,8
<b>Using Internet for some other activities</b>			
Participating in online social networks	98,2	97,5	98,9
Watching videos on paid websites	7,6	10,7	4,8
Playing games	70,7	84,9	57,4
Looking for travel-related information	69,6	64,1	74,8
Purchasing over the Internet	49,0	41,1	56,5
Internet banking	47,0	45,5	48,5

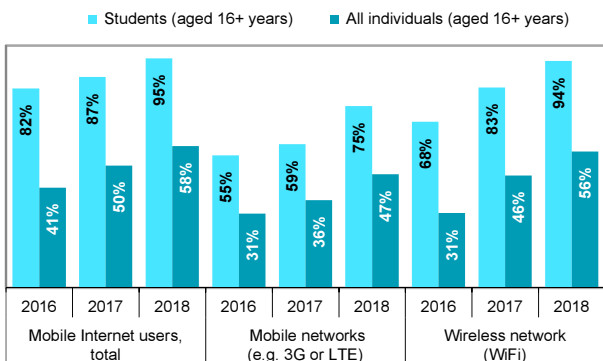
as a percentage of all students aged 16+ years in a given group

**Figure F11 Students and individuals aged 16+ years using the Internet for selected activities; 2018**



as a percentage of all students/individuals aged 16+ years

**Figure F12 Students and individuals aged 16+ years using the Internet on mobile phone by type of network**

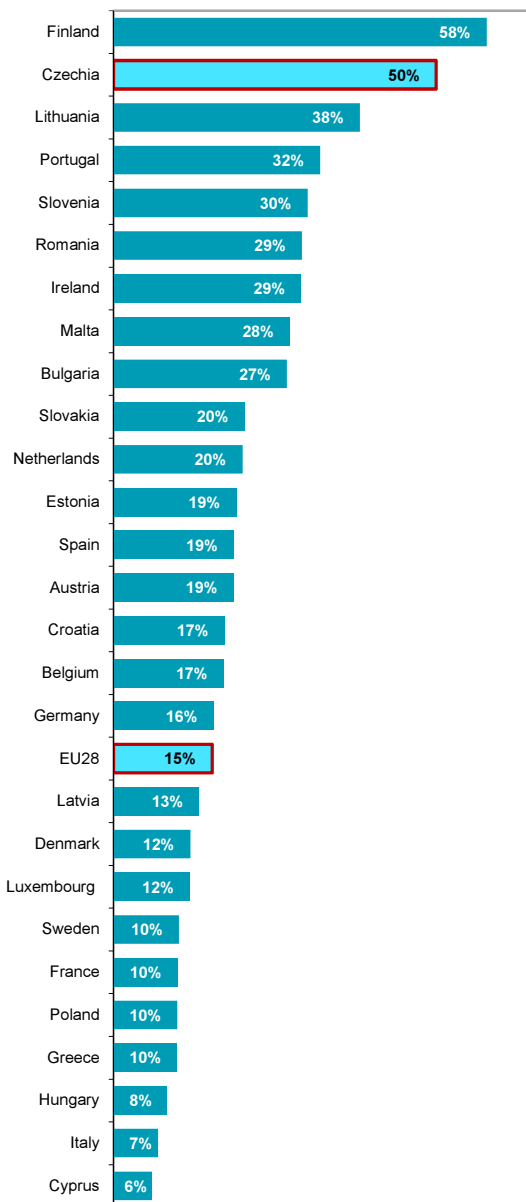


as a percentage of all students/individuals aged 16+ years

Source: Czech Statistical Office, ICT use survey in households, 2019

## F ICT in Education and Digital Skills

**Figure F13 Students aged 16+ years in EU countries who used self-study to improve their ICT skills; 2018**



as a percentage of all students aged 16+ years in a given country

Source: Eurostat, 2019

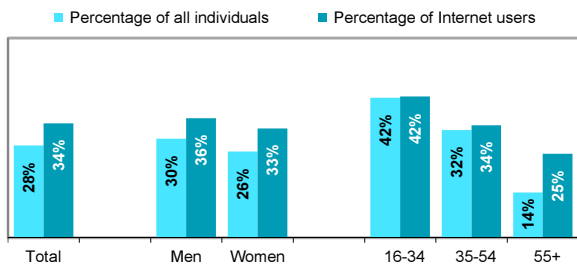
## F ICT in Education and Digital Skills

**Tab. F7 Individuals in Czechia who carried out selected learning activities to improve their ICT skills; 2018**

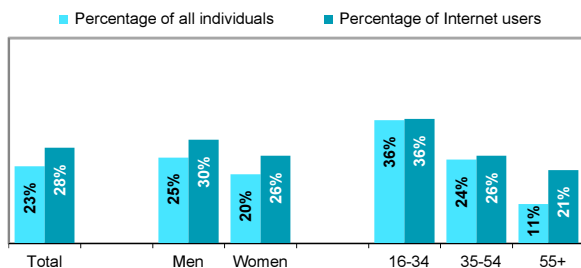
	Percentage		
	ICT course	Self-study	On-the-job training
<b>All individuals (aged 16+ years)</b>	5,5	22,5	10,6
All individuals (aged 16-74 years)	6,0	24,3	11,6
<b>Sex</b>			
Men (aged 16+ years)	4,9	25,0	10,5
Women (aged 16+ years)	6,0	20,1	10,7
<b>Age group (years)</b>			
16-34	11,0	35,9	13,8
35-54	5,4	24,5	15,5
55+	1,8	11,5	3,8
<b>Educational attainment (of the aged 25+)</b>			
Primary	0,2	5,7	1,1
Secondary without A-level examination	1,1	13,4	6,8
Secondary with A-level examination	5,1	23,0	13,5
Tertiary	11,5	34,6	19,7
<b>Economic activity status</b>			
Women on maternity leave	0,4	17,8	0,9
Students (aged 16+ years)	18,0	50,1	1,0
Pensioners	0,5	7,6	0,4

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

**Figure F14 Individuals who carried out any learning activities to improve their ICT skills by sex and age; 2018**



**Figure F15 Individuals who used self-study to improve their ICT skills by sex and age; 2018**

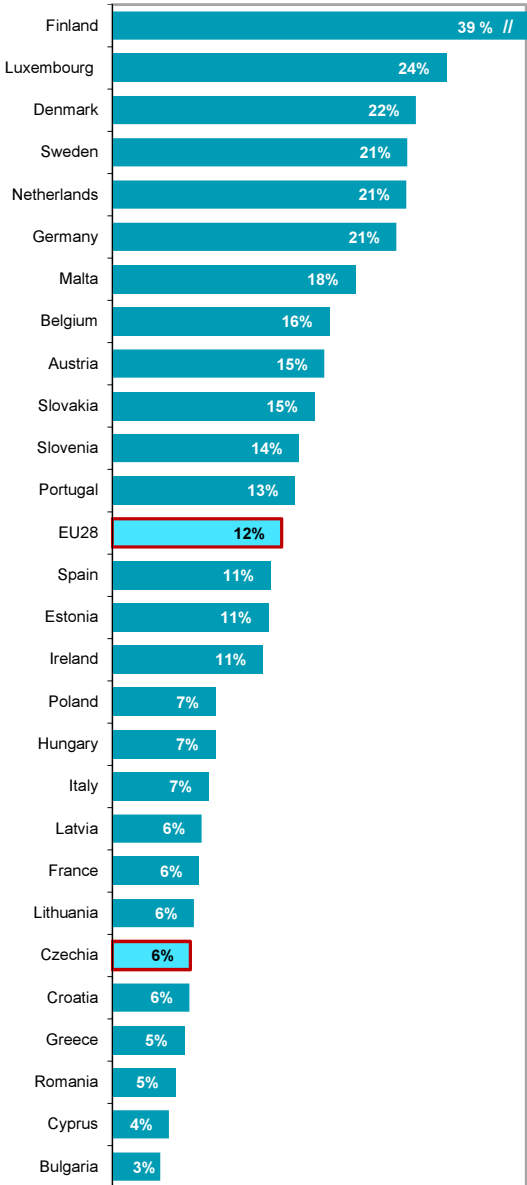


Source: Czech Statistical Office, ICT use survey in households, 2019



## F ICT in Education and Digital Skills

**Figure F16 Persons employed in EU countries who attended any training to develop ICT skills paid or provided by employer; 2018**



as a percentage of all persons employed aged 16-74 years in a given country

Source: Eurostat, 2019

## F ICT in Education and Digital Skills

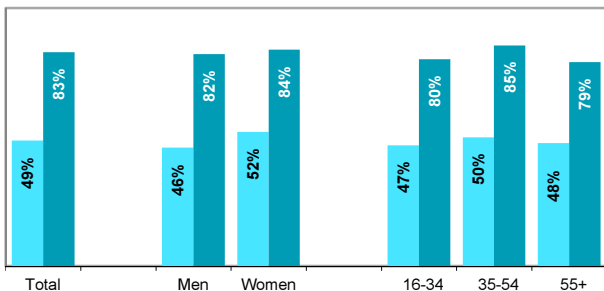
**Tab. F8 Persons employed in Czechia using at work selected software at least once per week; 2018**

	Percentage		
	Office SW (Word, Excel)	Occupation- specific SW	Program- ming SW
<b>Total (aged 16+ years)</b>	<b>48,6</b>	<b>36,7</b>	<b>5,0</b>
Total (aged 16-74 years)	48,6	36,7	5,0
<b>Sex</b>			
Men (aged 16+ years)	45,9	33,7	7,4
Women (aged 16+ years)	51,9	40,4	2,1
<b>Age group (years)</b>			
16-34	46,8	37,2	7,6
35-54	49,8	36,2	4,3
55+	47,6	37,6	3,4
<b>Educational attainment (of the aged 25+)</b>			
Primary	6,3	8,8	0,0
Secondary without A-level exam.	19,7	15,2	0,7
Secondary with A-level exam.	60,2	44,6	4,8
Tertiary	80,5	59,7	12,6

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

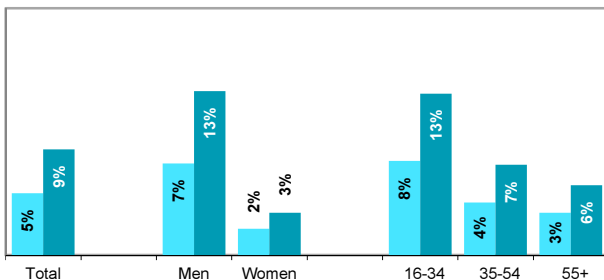
**Figure F17 Use of office software at work by sex and age; 2018**

■ % of all persons employed\*   ■ % of all persons employed\* using PCs at work



**Figure F18 Programming at work by sex and age; 2018**

■ % of all persons employed\*   ■ % of all persons employed\* using PCs at work

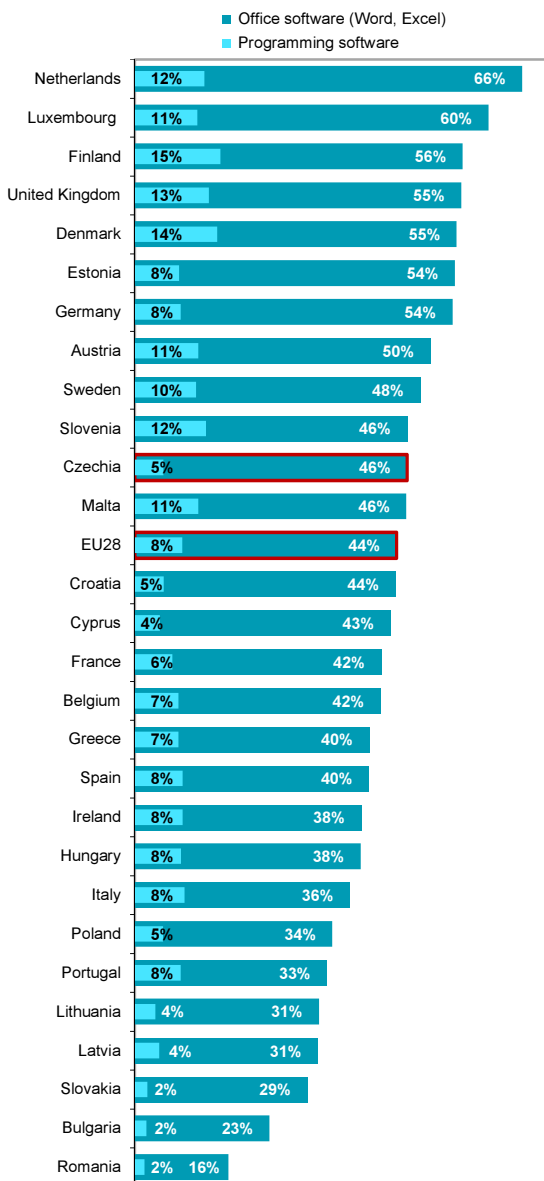


\* persons employed category includes employees and self-employed persons

Source: Czech Statistical Office, ICT use survey in households, 2019

## F ICT in Education and Digital Skills

**Figure F19 Persons employed in EU countries using at work selected software at least once per week; 2018**



as a percentage of all persons employed aged 16-74 years in a given country

Source: Eurostat, 2019

## F ICT in Education and Digital Skills

Tab. F9 University students in Czechia of ICT fields of educat.

	2015	2016	2017
<b>Total</b>	<b>21 482</b>	<b>20 502</b>	<b>19 985</b>
of which aged 25+ years	5 061	4 909	4 814
<b>Sex</b>			
Men	18 390	17 358	16 839
Women	3 092	3 144	3 146
<b>Study programme</b>			
Bachelor (ISCED level 6)	14 424	13 956	13 823
Master (ISCED level 7)	6 119	5 662	5 341
Doctoral (ISCED level 8)	951	893	830
<b>Nationality</b>			
Czech	17 056	15 830	15 137
Foreigners	4 426	4 673	4 857

Figure F20 University students of ICT fields of education, total

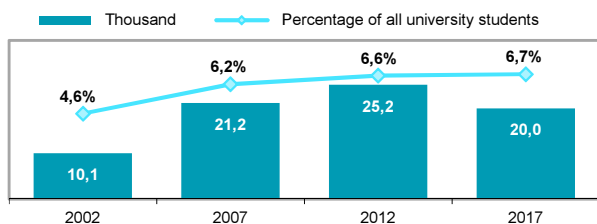


Figure F21 University students of ICT fields of education by sex

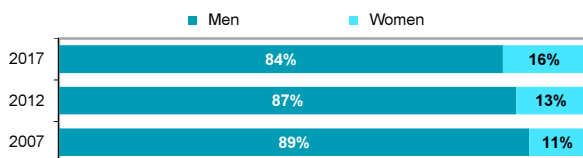


Figure F22 University students of ICT fields by nationality

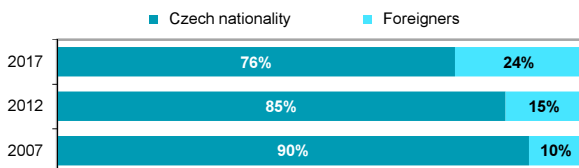
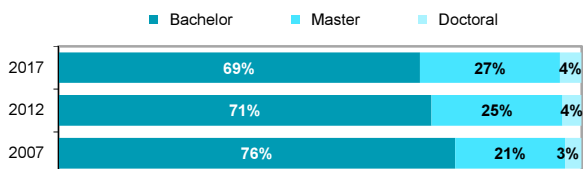


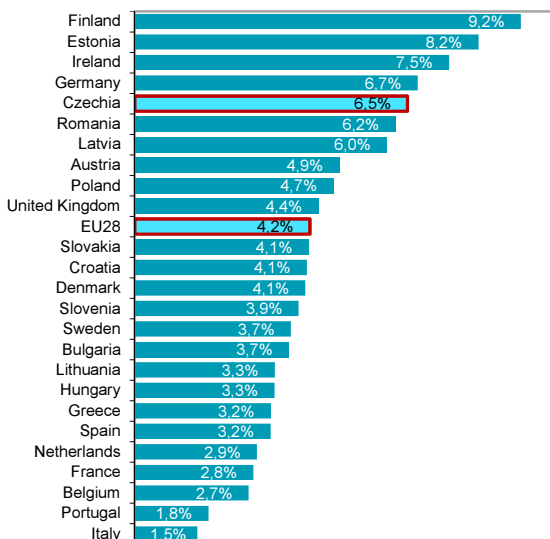
Figure F23 University students of ICTs by study programme



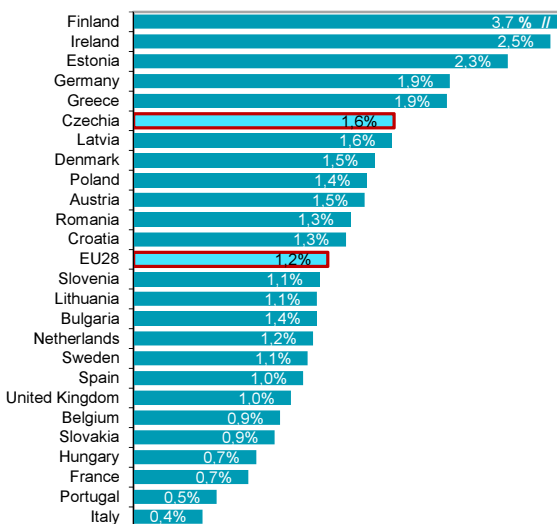
Source: CZSO calculations based on MEYS database, 2019

## F ICT in Education and Digital Skills

**Figure F24 Tertiary students in EU countries of ICT fields of education; 2016** (as a percentage of all tertiary students)



**Figure F25 ICT tertiary students in EU countries; 2016** (as a percentage of all population aged 20 to 29 years)



Note 1: Tertiary-level education comprises here only levels 6 (Bachelor or equivalent) and 7 (Master or equivalent) of the ISCED-2011 classification.

Note 2: ICT fields of education (ICT students) are defined by the classification ISCED-F 2013, class 06 Information and Communication Technologies.

Source: CZSO calculations based on Eurostat database, 2019

## F ICT in Education and Digital Skills

Tab. F10 University graduates in Czechia in ICT fields of educ.

	2015	2016	2017
<b>Total</b>	<b>4 479</b>	<b>4 361</b>	<b>3 916</b>
Men	3 815	3 678	3 313
Women	664	683	603
<b>Study programme</b>			
Bachelor (ISCED level 6)	2 579	2 291	2 080
Master (ISCED level 7)	1 828	1 986	1 750
Doctoral (ISCED level 8)	72	84	86
<b>Nationality</b>			
Czech	3 710	3 550	3 131
Foreigners	769	811	785

Figure F26 Bachelor programme graduates in ICT fields

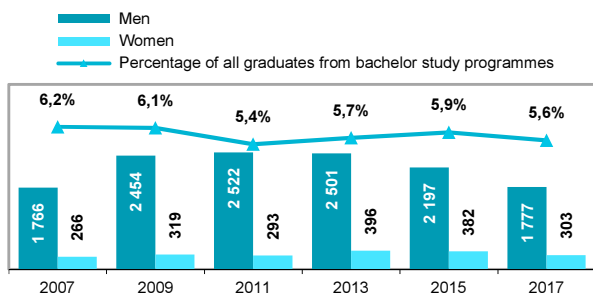


Figure F27 Master programme graduates in ICT fields

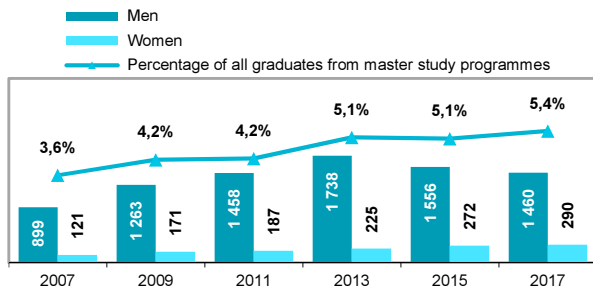
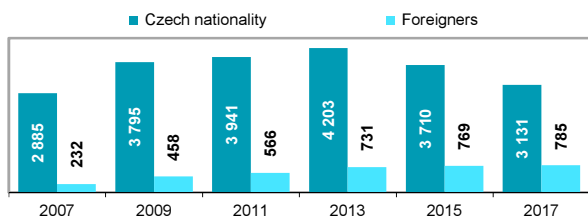


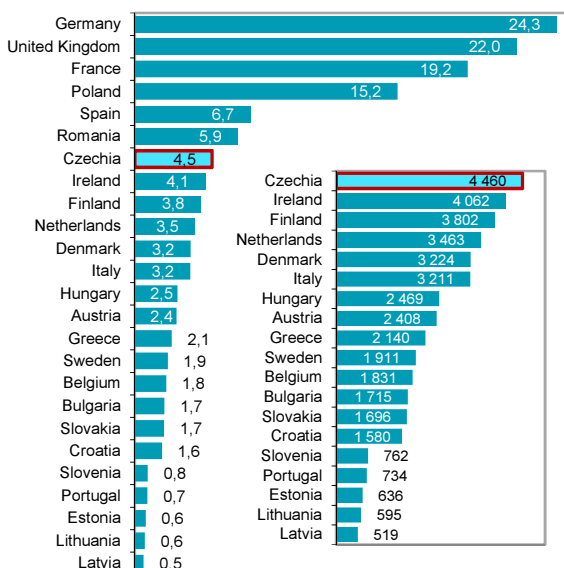
Figure F28 University graduates in ICT fields by nationality



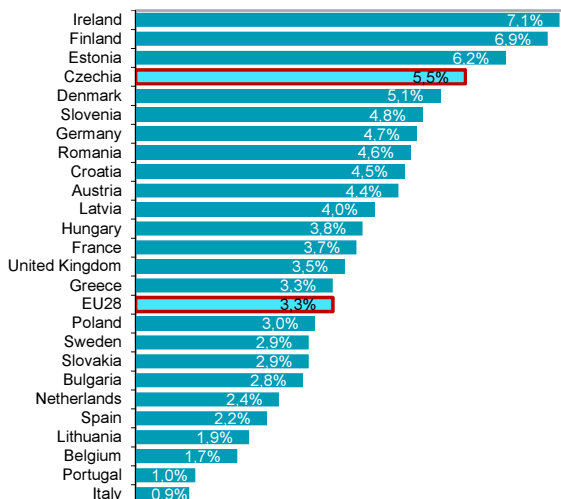
Source: CZSO calculations based on MEYS database, 2019

## F ICT in Education and Digital Skills

**Figure F29 Tertiary graduates in EU countries in ICT fields of education; 2016 (thousand)**



**Figure F30 Tertiary graduates in EU countries in ICT fields of education; 2016 (as a percentage of all tertiary graduates)**

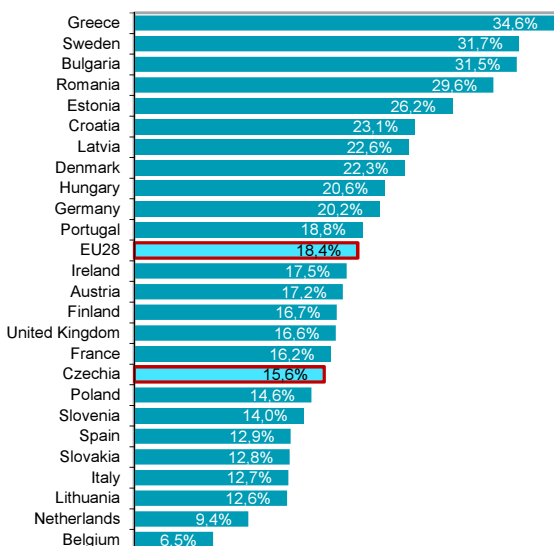


Note: Tertiary-level education comprises here only levels 6 (Bachelor or equivalent) and 7 (Master or equivalent) of the ISCED-2011 classification.

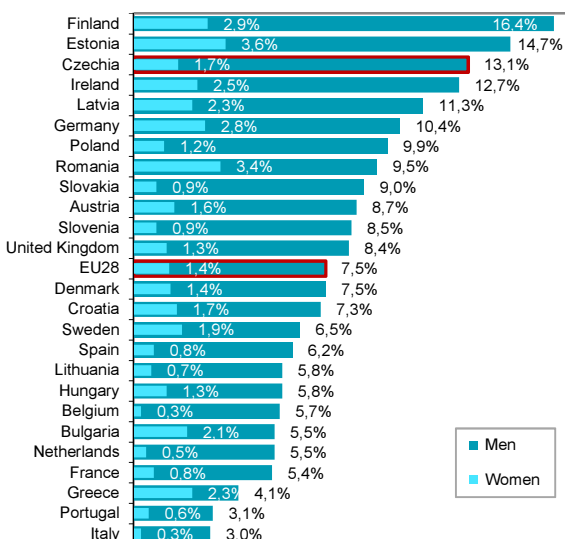
Source: CZSO calculations based on Eurostat database, 2019

## F ICT in Education and Digital Skills

**Figure F31 Share of women among all tertiary students of ICT fields of education in EU countries; 2016**



**Figure F32 Share of students of ICT fields of education among all tertiary students in EU countries by sex; 2016**



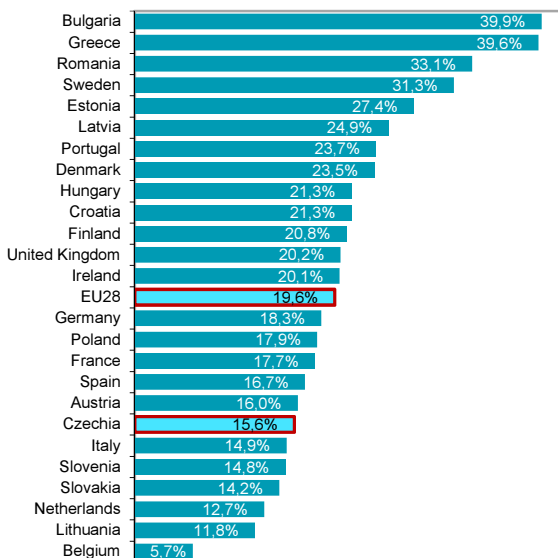
Note: Tertiary-level education comprises here only levels 6 (Bachelor or equivalent) and 7 (Master or equivalent) of the ISCED-2011 classification.

Source: CZSO calculations based on Eurostat database, 2019

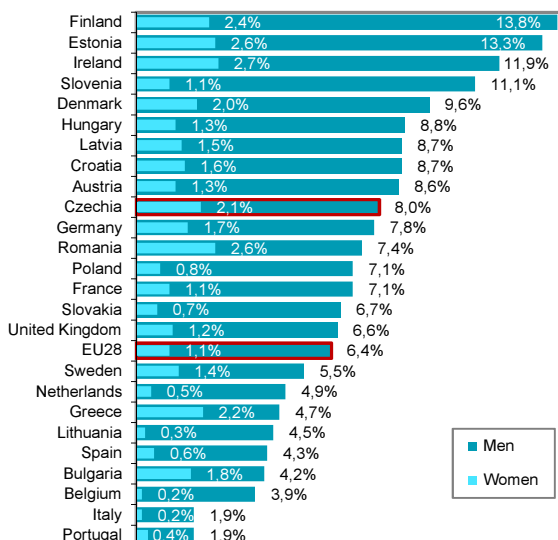


## F ICT in Education and Digital Skills

**Figure F33 Share of women among tertiary graduates in ICT fields of education in EU countries; 2016**



**Figure F34 Share of graduates in ICT fields of education among all tertiary graduates in EU countries by sex; 2016**



Note: Tertiary-level education comprises here only levels 6 (Bachelor or equivalent) and 7 (Master or equivalent) of the ISCED-2011 classification.

Source: CZSO calculations based on Eurostat database, 2019

## F ICT in Education and Digital Skills

Tab. F11 ICT professionals in Czechia

	Thousand		
	2015	2016	2017
<b>Total (CZ-ISCO 25)</b>	<b>66,6</b>	<b>71,9</b>	<b>72,0</b>
Men	59,9	65,4	64,7
Women	6,7	6,6	7,3
<b>Occupation</b>			
Software and apps developers and analysts	44,9	46,6	47,8
Database and network professionals	21,6	25,3	24,2
<b>Status in employment</b>			
Self-employed	12,1	14,2	16,6
Employees	54,5	57,7	55,4
<b>Industry of their employment (NACE category):</b>			
Manufacturing and construction	7,8	10,5	8,5
Information and communication	41,8	45,1	45,9
Public administration, Education, and Healthcare	5,0	4,9	6,7
Other industries	12,0	11,4	10,9
<b>Age group (years)</b>			
up to 29 years	15,8	15,5	14,8
30-39 years	25,5	28,3	28,6
40-49 years	15,3	17,7	17,7
50+ years	10,0	10,4	10,9
<b>Highest level of educational attainment</b>			
Secondary with A-level examination	10,9	11,2	9,6
Bachelor's and higher professional level	9,9	10,3	11,9
Master's and doctoral level	45,7	50,5	50,5

Figure F35 ICT professionals

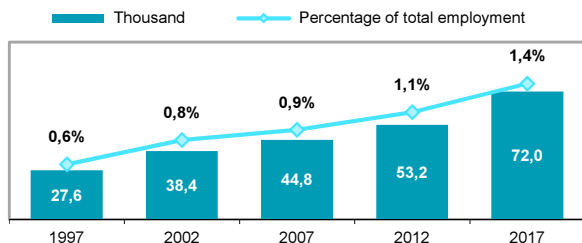


Figure F36 ICT professionals by sex

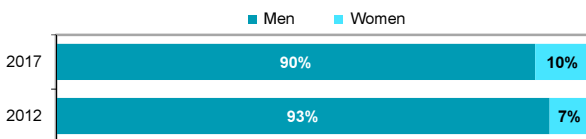
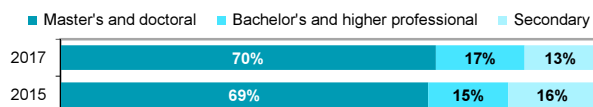


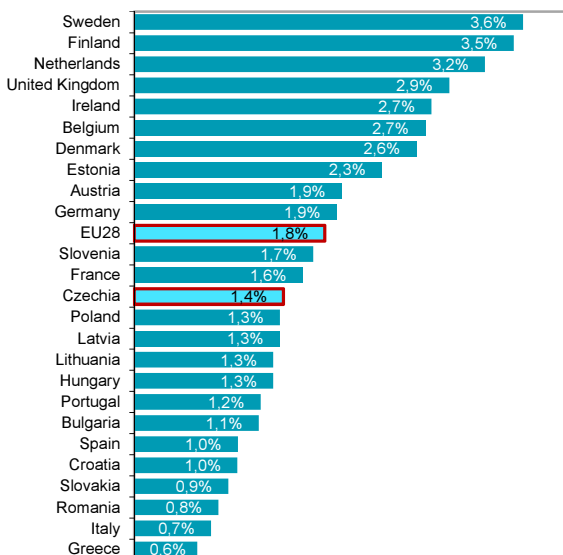
Figure F37 ICT professionals by level of education



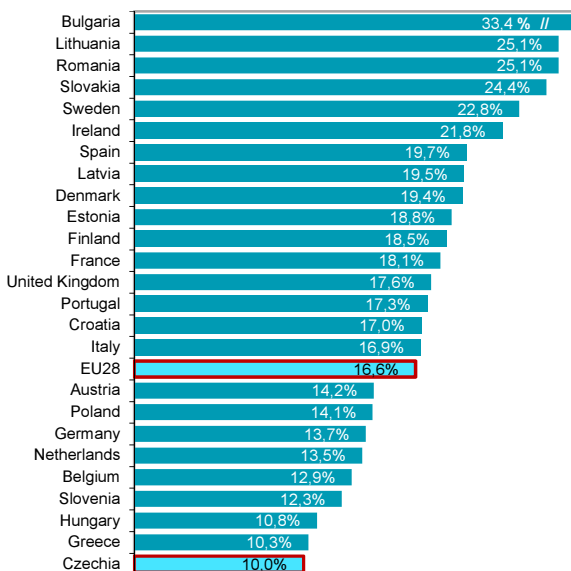
Source: CZSO, Labour Force Sample Survey, 2019

## F ICT in Education and Digital Skills

**Figure F38 ICT professionals in EU countries; 2017**  
(as a percentage of total employment)



**Figure F39 Share of women in EU countries among all ICT professionals; 2017**



Source: CZSO calculations based on Eurostat (LFSS database); 2019

## F ICT in Education and Digital Skills

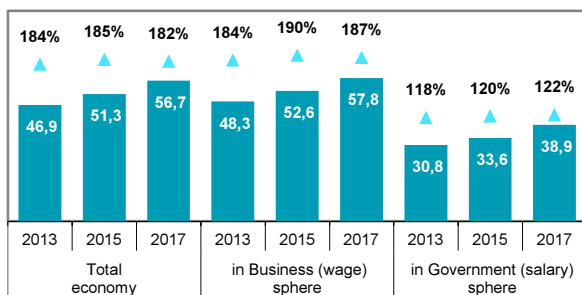
**Tab. F12 Earnings of ICT professionals in Czechia**

Average gross monthly earnings in CZK

	2015	2016	2017
<b>Total (CZ ISCO 25)</b>	<b>51 319</b>	<b>53 241</b>	<b>56 747</b>
Men	52 296	54 325	58 025
Women	43 701	45 369	47 765
<b>Sphere of activity (earnings)</b>			
Business (wage) sphere	52 643	54 391	57 810
Government (salary) sphere	33 607	35 422	38 876
<b>Age group (years)</b>			
25-34 years	47 296	48 582	51 487
35-44 years	58 751	60 624	65 206
45-54 years	52 543	55 882	59 965
55+ years	46 338	49 522	51 652
<b>Highest level of educational attainment</b>			
Master's and doctoral level	56 172	58 831	62 809
Bachelor's and higher professional level	46 238	48 644	51 906
Secondary with A-level examination	44 930	47 751	50 723

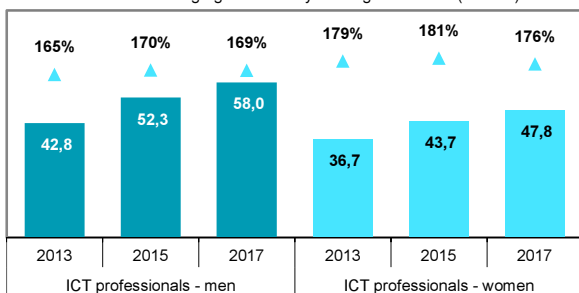
**Figure F40 Earnings of ICT professionals**

- Average gross monthly earnings in CZK thousand
- ▲ % of average gross monthly earnings in the total, wage or salary sphere



**Figure F41 Earnings of ICT professionals by sex**

- Average gross monthly earnings in CZK thous.
- ▲ as % of average gross monthly earnings of all men (women)



Source: CZSO, Structural Earnings Statistics, 2018

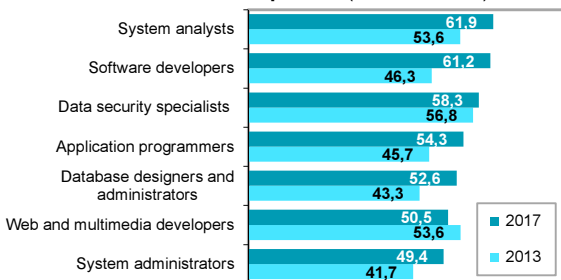
## F ICT in Education and Digital Skills

**Tab. F13 Earnings of ICT professionals in Czechia according to their occupation and industry**

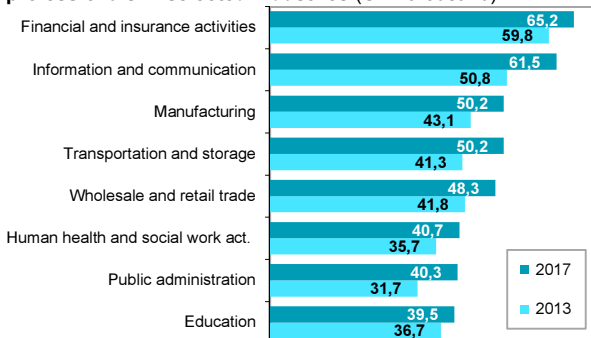
Average gross monthly earnings (wage) in CZK

	2015	2016	2017
<b>Total (CZ ISCO 25)</b>	<b>51 319</b>	<b>53 241</b>	<b>56 747</b>
<b>Selected occupation (ISCO unit groups)</b>			
System analysts (ISCO 2511)	56 843	58 868	61 883
Software developers (ISCO 2512)	55 216	58 049	61 157
Application programmers (ISCO 2514)	49 620	51 210	54 343
Database designers and admin.( ISCO 2521)	47 001	49 319	52 646
System administrators (ISCO 2522)	45 306	47 432	49 375
Data security specialists (ISCO 2524)	58 789	61 073	58 267
<b>Selected industries (NACE Sections)</b>			
Manufacturing (NACE: C)	45 769	46 246	50 159
Wholesale and retail trade (NACE: G)	40 868	41 938	48 326
Information and communication (NACE: J)	56 457	57 786	61 457
Financial and insurance activities (NACE: K)	61 962	64 436	65 182
Public administration (NACE: O)	34 929	36 657	40 278
Education (NACE: P)	35 763	37 421	39 543
Human health and social work act. (NACE: Q)	36 649	37 713	40 663

**Figure F42 Average gross monthly earnings of ICT professionals in selected occupations (CZK thousand)**



**Figure F43 Average gross monthly earnings of ICT professionals in selected industries (CZK thousand)**



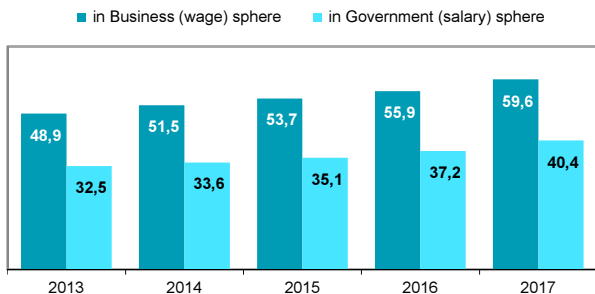
Source: CZSO, Structural Earnings Statistics, 2018

## F ICT in Education and Digital Skills

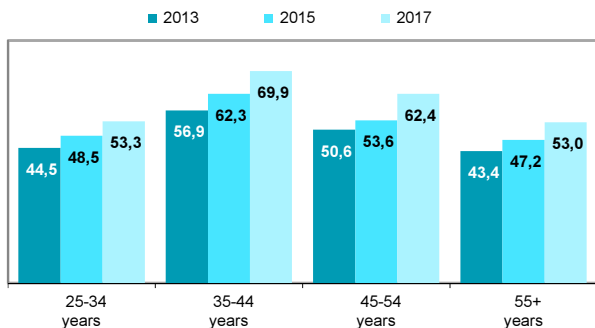
**Tab. F14 Earnings of Software and application developers and analysts in Czechia**

Average gross monthly earnings in CZK			
	2015	2016	2017
<b>Total (CZ ISCO 251)</b>	<b>53 075</b>	<b>55 404</b>	<b>59 139</b>
Men	54 062	56 531	60 429
Women	45 245	47 313	49 971
<b>Sphere of activity (earnings)</b>			
Business (wage) sphere	53 662	55 916	59 643
Government (salary) sphere	35 077	37 206	40 440
<b>Age group (years)</b>			
25-34	48 513	50 215	53 341
35-44	62 326	65 529	69 853
45-54	53 637	58 844	62 380
55+	47 162	52 483	53 017
<b>Highest level of educational attainment</b>			
Master's and doctoral level	57 285	60 297	64 665
Bachelor's and higher professional level	47 294	50 087	53 967
Secondary with A-level examination	46 164	49 530	52 361

**Figure F44 Average gross monthly earnings of Software and application developers and analysts (CZK thousand)**



**Figure F45 Average gross monthly earnings of Software and apps developers and analysts by age group (CZK thousand)**



Source: CZSO, Structural Earnings Statistics, 2018

## G Health and ICT

### G.1 Use of ICTs by independent physicians

Since the 2003 the Czech Statistical Office (the CZSO) processes data on e-Health services mainly 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 namely 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:** End of the monitored year

**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.

#### Definitions:

- 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 gynaecologists and dentists.
- **Electronic health records** shall mean the documentation (medical patient data), which is made, processed, filed, stored, and transmitted in a digital form.
- **On-line consultancies** shall mean the option to send health related queries via a website of the physician's surgery.
- **On-line appointments to the physician** shall mean that the patients may make appointments for examination and/or medical intervention by means of an on-line editable form, which is transmitted directly from the website of the surgery. *These do not include making appointments simply by email.*
- The **on-line 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.
- 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.
- **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.

### G.2 Internet use by individuals with respect to health

The CZSO collects detailed information on **individuals using information and communication technologies** by means of a separate annual statistical survey named **Sample Survey on the ICT Use in Households and by Individuals**. For more details on the survey see **Chapter C**.

The survey results are **internationally comparable** and apart from other, include also data on how many individuals use the Internet for **seeking health-related information** or for **making an online appointment or consultation** with a practitioner via a website or an app.

**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)

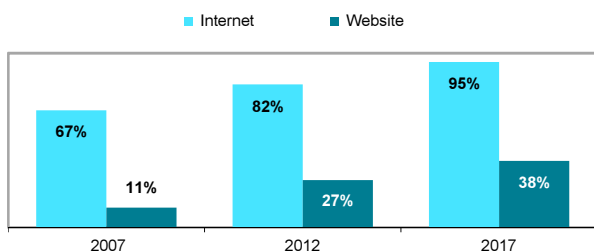
## G Health and ICT

**Tab. G1 Independent physicians in Czechia with a computer and the Internet in their office and with a website; 2017**

	Percentage		
	Computer	Internet	Website
<b>All independent physicians</b>	<b>97,4</b>	<b>94,8</b>	<b>38,1</b>
General practitioners (GP) for adults	98,4	96,3	36,5
General practitioners (GP) for children	97,6	96,1	54,5
Dentists	97,1	93,3	25,0
Gynecologists	98,3	97,3	57,3
Specialists	96,9	94,3	41,6

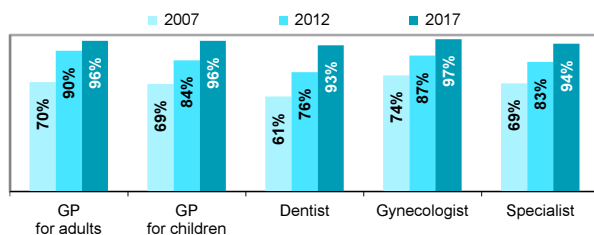
as a percentage of all independent physicians of a given practice

**Figure G1 Independent physicians with Internet and a website**

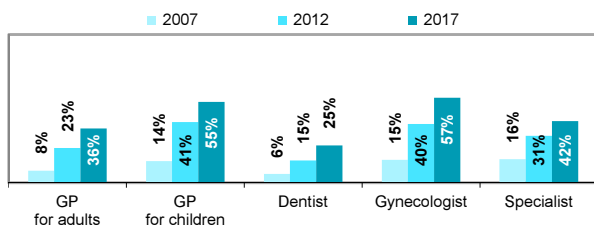


as a percentage of all independent physicians

**Figure G2 Independent physicians with the Internet by type of practice**



**Figure G3 Independent physicians with a website by type of practice**



as a percentage of all independent physicians of a given practice

Source: Institute of Health Information and Statistics, 2019

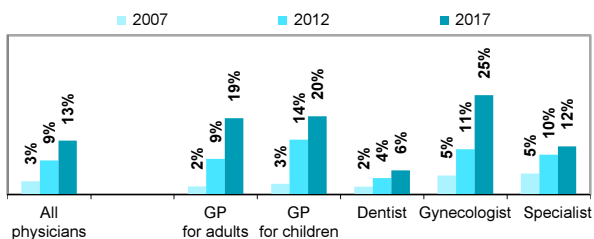


**Tab. G2 Online services available on the websites of independent physicians in Czechia; 2017**

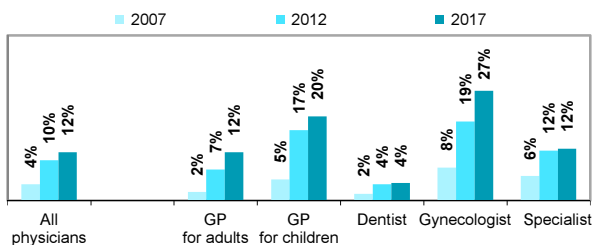
	Percentage		
	Appoint-ment	Consul-tation	Prescri-ption
<b>All independent physicians</b>	<b>13,5</b>	<b>11,6</b>	<b>18,3</b>
General practitioners (GP) for adults	19,2	11,6	29,2
General practitioners (GP) for children	19,6	20,4	28,0
Dentists	6,0	4,2	4,4
Gynecologists	24,9	26,6	39,7
Specialists	12,0	12,5	16,0

as a percentage of all independent physicians of a given practice

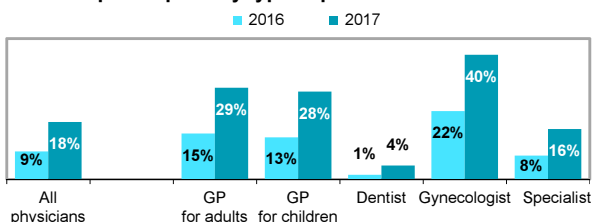
**Figure G4 Independent physicians with a website application for online appointment by type of practice**



**Figure G5 Independent physicians with a website application for online consultation by type of practice**



**Figure G6 Independent physicians with a website application for online prescription by type of practice**



as a percentage of all independent physicians of a given practice

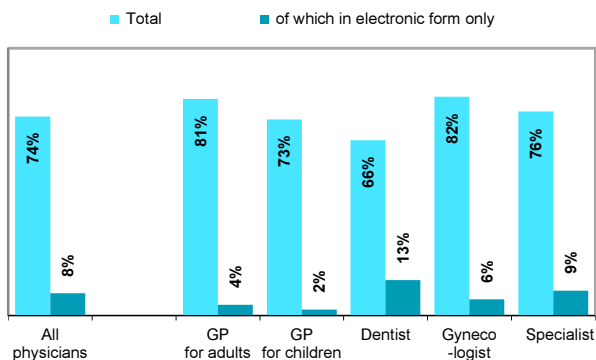
Source: Institute of Health Information and Statistics, 2019

**Tab. G3 Independent physicians in Czechia keeping at least part of the health records in electronic form; 2017**

	Percentage	
	Total	of which only electronically
<b>All independent physicians</b>	<b>74,4</b>	<b>8,3</b>
General practitioners (GP) for adults	80,9	4,0
General practitioners (GP) for children	73,4	2,2
Dentists	65,5	13,2
Gynecologists	81,9	6,1
Specialists	76,3	9,3

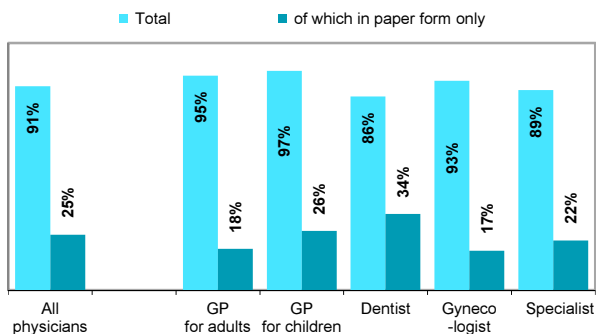
as a percentage of all independent physicians of a given practice

**Figure G7 Independent physicians keeping at least part of the health records in electronic form; 2017**



as a percentage of all independent physicians of a given practice

**Figure G8 Independent physicians still keeping at least part of the health records in paper form; 2016**



as a percentage of all independent physicians of a given practice

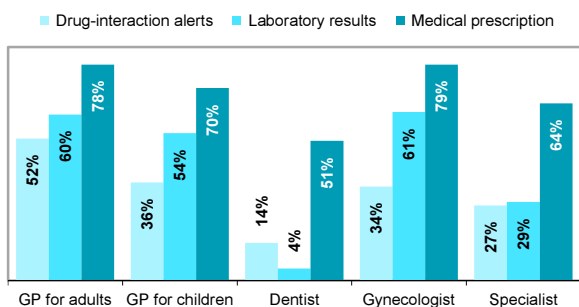
Source: Institute of Health Information and Statistics, 2019

**Tab. G4 Independent physicians in Czechia using selected functions of their e-healthcare information system; 2017**

	Percentage		
	Medical prescription	Drug-interaction alerts	Laboratory examinations results
<b>All independent physicians</b>	<b>65,2</b>	<b>30,2</b>	<b>33,4</b>
GPs for adults	78,5	51,7	60,3
GPs for children	70,1	35,7	53,6
Dentists	50,9	13,7	4,4
Gynecologists	78,5	34,2	61,3
Specialists	64,4	27,4	28,6

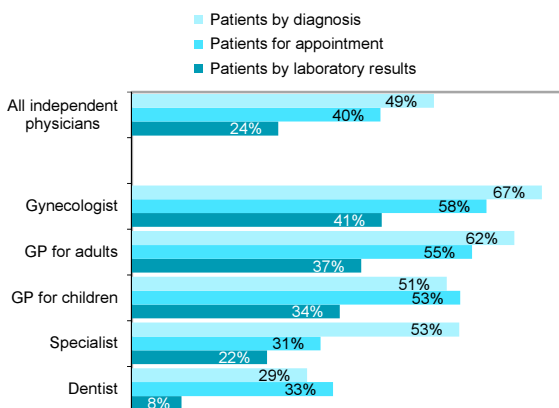
as a percentage of all independent physicians of a given practice

**Figure G9 Independent physicians using selected functions of their e-healthcare information systems; 2017**



as a percentage of all independent physicians of a given practice

**Figure G10 Independent physicians with e-healthcare inf. system enabling to generate selected records; 2017**



as a percentage of all independent physicians of a given practice

Source: Institute of Health Information and Statistics, 2019

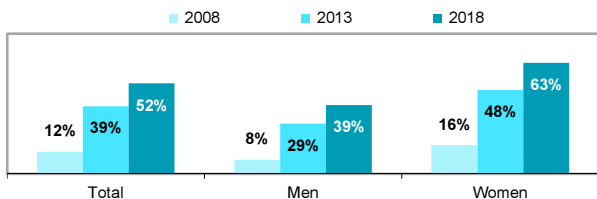
## G Health and ICT

**Tab. G5 Individuals in Czechia using the Internet for seeking health-related information**

	Percentage		
	2015	2017	2018
<b>All individuals (aged 16+ years)</b>	<b>37,3</b>	<b>47,7</b>	<b>51,6</b>
All individuals (aged 16-74 years)	39,9	51,1	55,1
<b>Sex</b>			
Men (aged 16+ years)	26,4	35,7	39,2
Women (aged 16+ years)	47,9	59,4	63,4
<b>Age group (years)</b>			
16-24	22,9	41,8	47,2
25-34	45,7	58,7	63,6
35-44	48,1	62,3	62,8
45-54	47,5	57,6	62,7
55-64	40,9	47,5	52,3
65+	18,1	23,2	26,9
<b>Educational attainment (of the aged 25+)</b>			
Primary	12,8	16,7	21,1
Secondary without A-level examination	28,3	36,4	42,0
Secondary with A-level examination	49,4	59,6	60,4
Tertiary	57,1	67,0	71,5
<b>Economic activity status</b>			
Women on maternity leave	68,3	83,2	84,8
Students (aged 16+ years)	19,6	42,0	47,8
Pensioners	21,9	26,0	29,9

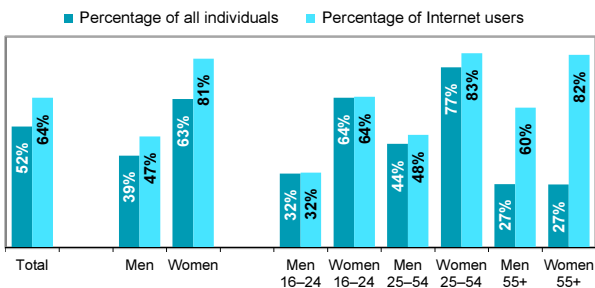
as a percentage of all individuals in a given socio-demographic group

**Figure G11 Individuals aged 16+ years using the Internet for seeking health-related information**



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

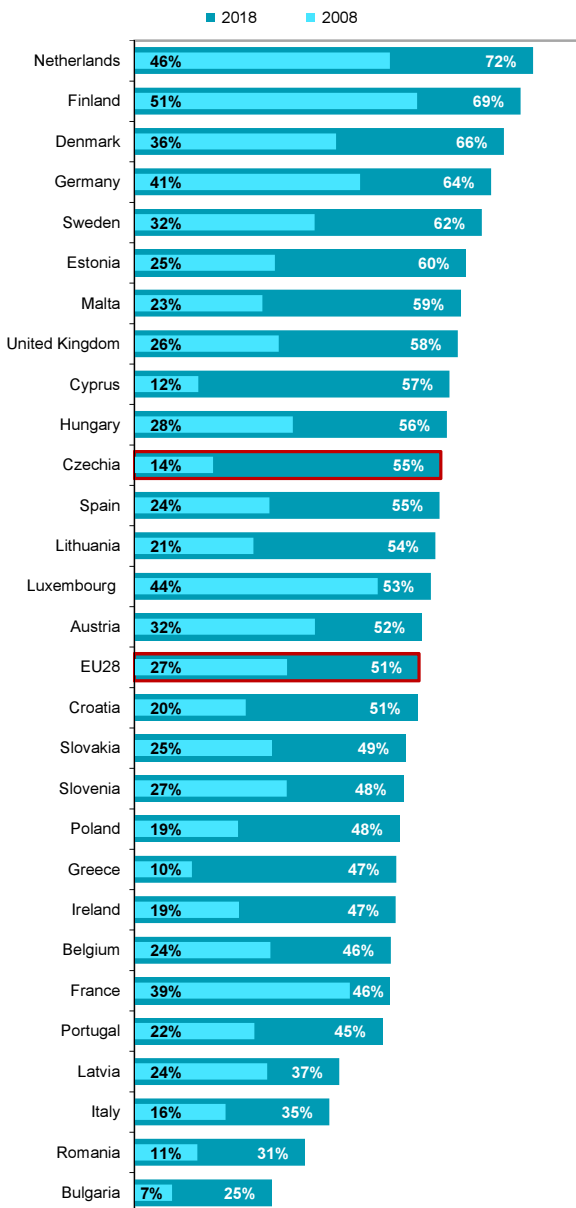
**Figure G12 Individuals using the Internet for seeking health-related information by sex and age; 2018**



Source: Czech Statistical Office, ICT use survey in households, 2019

## G Health and ICT

**Figure G13 Individuals in EU countries using the Internet for seeking health-related information**

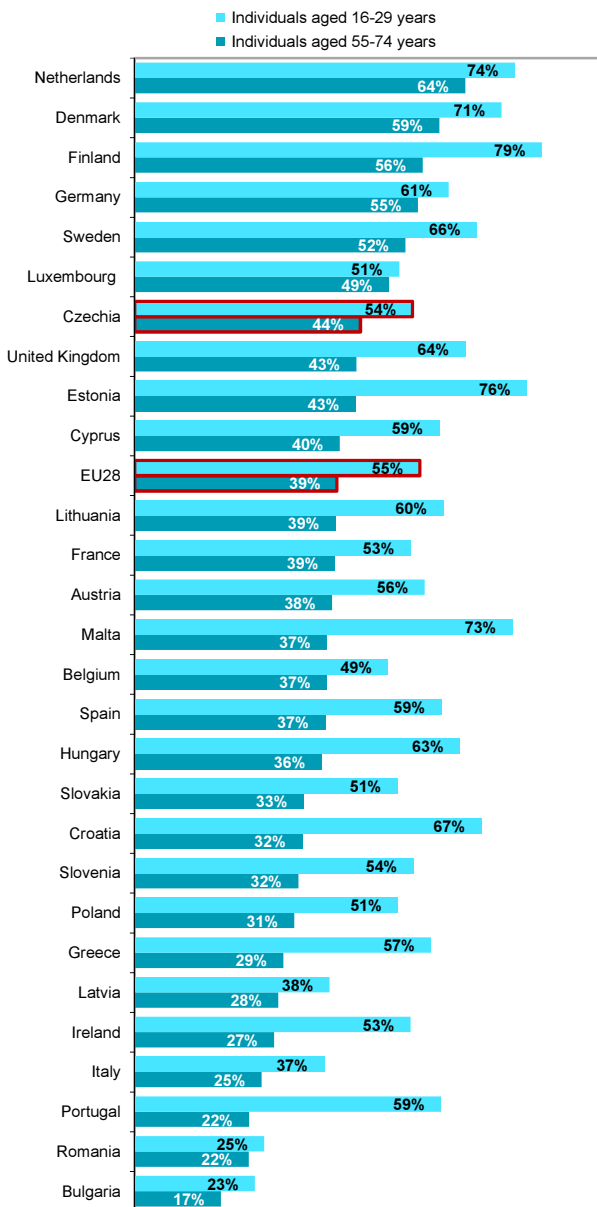


as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

## G Health and ICT

**Figure G14 Seeking health-related information on the Internet among younger and older generation in EU countries; 2018**

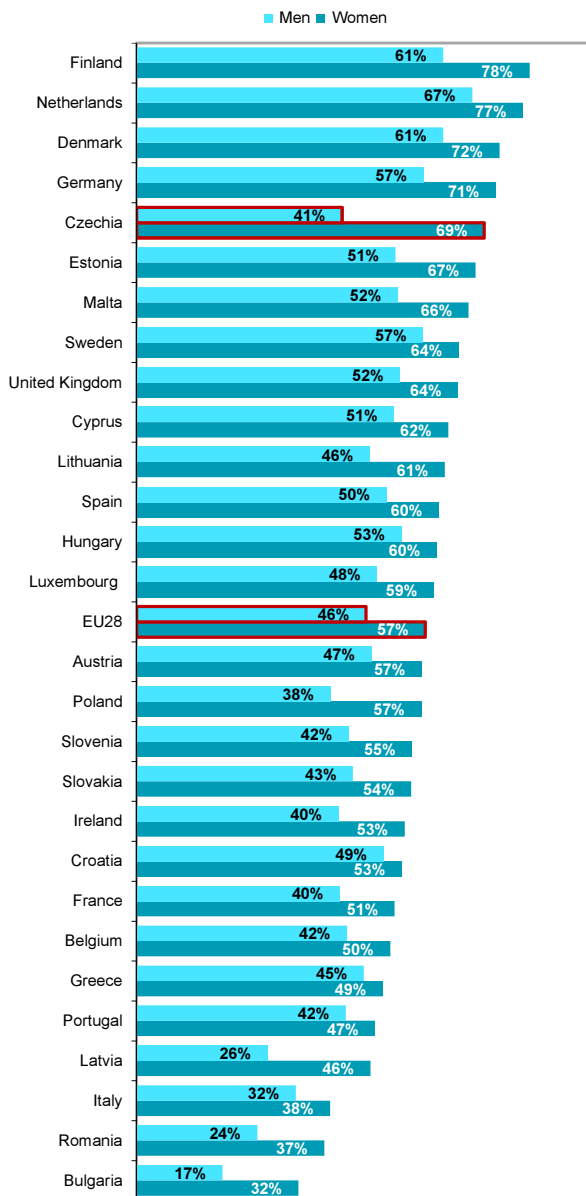


as a percentage of all individuals in a given age group and country

Source: Eurostat, 2019

## G Health and ICT

**Figure G15 Seeking health-related information on the Internet among men and women in EU countries; 2018**



as a percentage of all men and women aged 16 to 74 years in a given country

Source: Eurostat, 2019

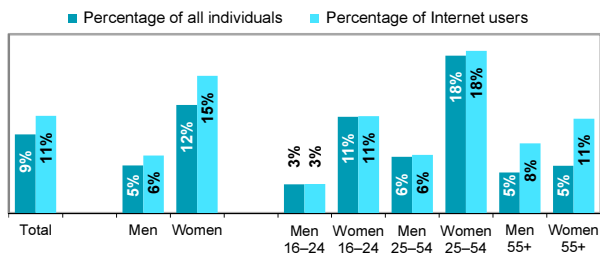
## G Health and ICT

**Tab. G6 Individuals in Czechia who made an appointment or consultation with a practitioner via a website or an app; 2018**

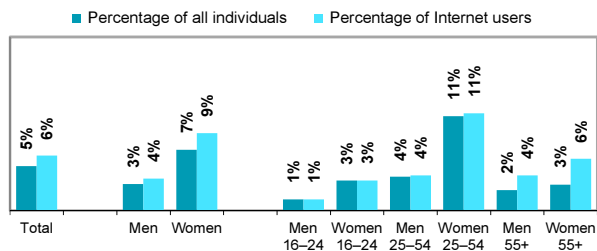
	Percentage	
	Online appointment	Online consultation
<b>All individuals (aged 16+ years)</b>	<b>8,8</b>	<b>5,1</b>
All individuals (aged 16-74 years)	9,5	5,5
<b>Sex</b>		
Men (aged 16+ years)	5,3	3,0
Women (aged 16+ years)	12,1	7,0
<b>Age group (years)</b>		
16-24	6,9	2,3
25-34	13,5	8,8
35-44	11,2	7,6
45-54	11,3	5,7
55-64	8,1	4,0
65+	2,8	1,9
<b>Educational attainment (of the aged 25+)</b>		
Primary	2,0	1,4
Secondary without A-level examination	4,3	2,1
Secondary with A-level examination	11,2	6,3
Tertiary	17,6	12,2
<b>Economic activity status</b>		
Women on maternity leave	17,6	15,2
Students (aged 16+ years)	7,4	2,4
Pensioners	2,9	1,6

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

**Figure G16 Individuals who made an appointment with a practitioner via a website or an app by sex and age; 2018**



**Figure G17 Individuals who consulted with a practitioner via a website or an app by sex and age; 2018**

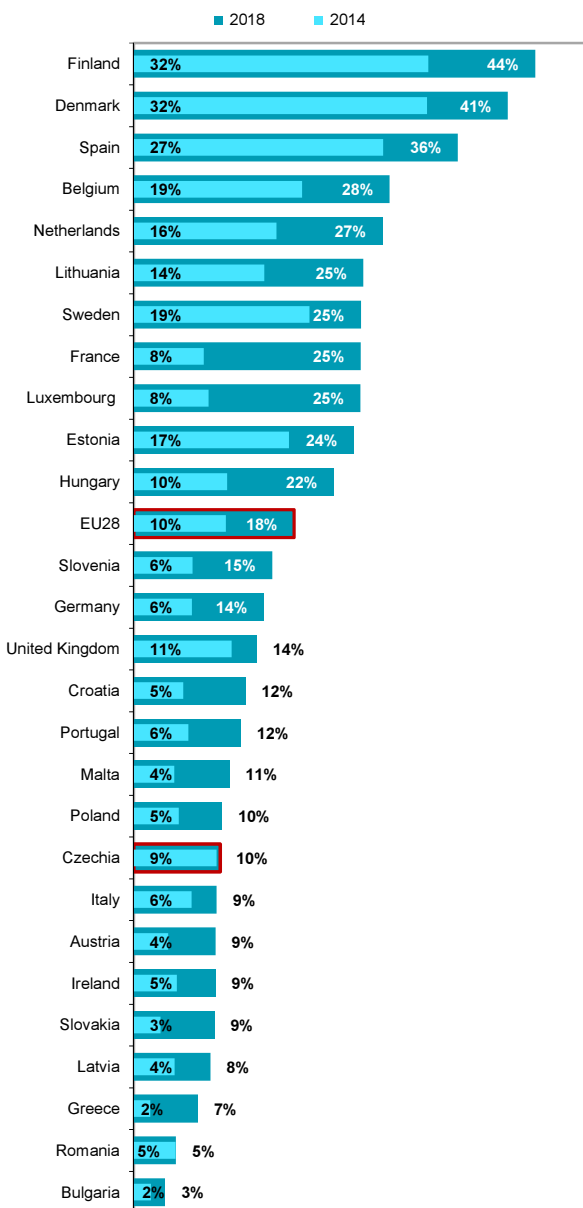


Source: Czech Statistical Office, ICT use survey in households, 2019



## G Health and ICT

**Figure G18 Individuals in EU countries who made an appointment with a practitioner via a website or an app**

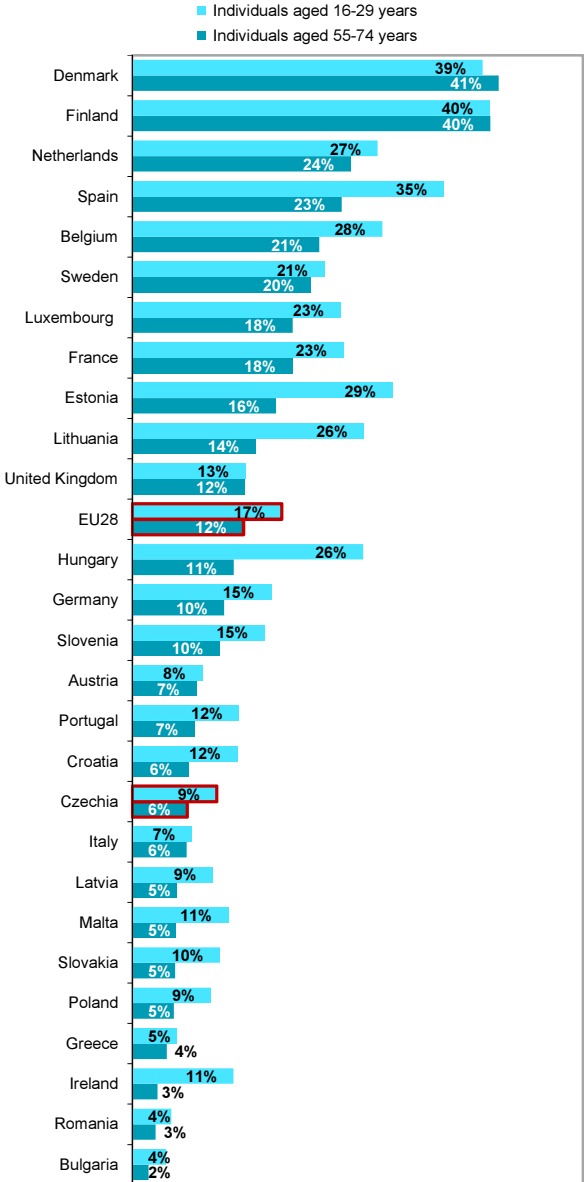


as a percentage of all individuals aged 16 to 74 years in a given country

Source: Eurostat, 2019

## G Health and ICT

**Figure G19 Making an appointment with a practitioner via a website or an app among younger and older generation in EU countries; 2018**



as a percentage of all individuals aged 16 to 29 and 55 to 74 in a given country

Source: Eurostat, 2019