

# **INFORMATION SOCIETY IN FIGURES**

## **2018**

### **CZECH REPUBLIC AND EU**

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## INTRODUCTION

One year on, the Czech Statistical Office has issued again the publication **Information Society in Figures**, this time titled with the year 2018. The aim of this publication is to provide readers with up-to-date basic statistical information about the development in usage of modern information and communication technologies (ICT) in the main areas of our society.

The publication consists of the following seven chapters:

- A. The **ICT Infrastructure** chapter contains basic data on the available telecommunication and broadband fixed and mobile infrastructure measured mainly by number of subscribers using this infrastructure.
- B. The **Households** chapter contains information on households' access to a fixed phone, to a mobile phone, to a computer by its type, and to the internet by type of connection used.
- C. The **Individuals** chapter 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 purchasing over the internet is also included here.
- D. The **Enterprises** chapter provides an overview on ICT use by enterprises. Detailed information on e-Commerce activities is also included as well as the data on use of social media by enterprises, about paid cloud computing services or electronic invoicing.
- E. The **eGovernment** chapter provides information on use of the internet in interaction with public authorities by individuals and enterprises. Data about Czech Point services, electronic submissions for the Financial Administration (eTax), and electronic Data Boxes is also introduced here.
- F. The **Education and digital skills** chapter gives an overview of ICT devices used in schools. Data on selected digital skills provide information on special types of computer software use by individuals. This chapter also presents the data about university students and graduates of ICT and data about ICT professionals.
- G. The **eHealth** chapter gives an overview of ICTs used by independent physicians. Data on the selected internet activities of independent physicians and information on the usage of the internet by individuals for seeking health-related information and making an appointment with a practitioner via a website are also included.

The presented data on ICT development and use **is further classified** for households and individuals according to their main socio-demographic characteristics, data related to enterprises according to their main economic activity (industry) or size.

In addition to data for the Czech Republic, data for other **member states of the European Union** is also presented.

Data given in this brochure was acquired, in most cases, from the **official surveys or databases** of the Czech Statistical Office. **International comparisons** were compiled by the Czech Statistical Office from using freely available data sources of the Eurostat, the European Commission, the OECD or the ITU.

For further information visit our website:

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

or do not hesitate to contact us directly. Your suggestions help us improve our further releases.

Prague, May 2018

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Czech Statistical Office, Society Development Statistics Department



## A ICT Infrastructure

This chapter examines trends in the available **telecommunication and internet infrastructure** measured mainly by number of telephone and broadband subscriptions. Data used in this chapter is 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.

The information in this section applies to services provided at the retail level only, **from services to end users**.

### Definitions:

- **Fixed telephone subscription** refers to individuals or legal entity connected to the public switched telephone network (PSTN) including usage of IP telephone (VoIP technology). Number of fixed telephone subscriptions is measured as a number of active **fixed telephone lines (PSTN lines) and VoIP fixed line subscriptions (VoIP lines)**.
- **Mobile telephone subscription** refers to individual or legal entity connected to a public mobile telephone service that provides access to the PSTN using cellular technology and offering voice communication. Number of mobile telephone subscriptions is measured as a number of **SIM cards**. Both **post-paid** and active **prepaid** SIM cards that have been used during the last three months are included. *Note: As one person may use more than one active SIM card, the number of mobile phones can exceed the number of individuals in total.*
- **The telephone traffic** originated in fixed or mobile telephone networks is measured by means of the number of actually called minutes (real minutes of calling) during the reference year, not the invoiced ones.
- **Broadband internet subscription** includes both **fixed (wired and wireless)** and **mobile access** to the internet with nominal speed 256 or more Kbit/s, in one or both directions. It includes both residential subscriptions and subscriptions for organizations.
- **Fixed wired broadband** includes one of these "wired" technologies: DSL (Digital Subscriber Line); Cable modem (CaTV) and Fiber (FTTx).
- **Fixed wireless access (FWA)** is the terrestrial internet connection by means of a radio system including non-licensed frequency (**Wi-Fi**). It is characteristic by placing of the end point device on a fixed location (house, apartment) - the so-called WLL (Wireless Local Loop). *It is included only if this service is used as the transport mechanism of the internet service provider (ISP).*
- **Mobile broadband** is internet access on third generation technologies (3G) and higher (4G/LTE). Mobile broadband subscriptions refers to:
  - **Standard mobile subscription** via SIM cards are typical voice subscriptions which also provide access to the internet but are not purchased separately. It covers only actual subscribers - users must have accessed the internet in the last three months.
  - **Dedicated data subscription** offered separately from voice services, either as an **add-on data package** to voice service **via SIM cards** or a **stand-alone service** using USB data **cards/modems/keys** integrated usually into portable computers or tablets.
- **Domain (internet domain/domain name)** is a unique identifier of a computer or computer network connected to the internet. The domain is registered by the registration authority (Top Level Domain).

Statistical information from the **Czech Telecommunication Office** (<http://www.ctu.eu>) has been used as main data source for the Czech Rep. Data for **registered domains** has been obtained from [www.nic.cz](http://www.nic.cz). International comparison data has been taken from **ITU, OECD and Eurostat database**.

**For further information on ICT infrastructure see:**

[https://www.czso.cz/csu/czso/telekomunikacni\\_a\\_internetova\\_infrastruktura](https://www.czso.cz/csu/czso/telekomunikacni_a_internetova_infrastruktura)

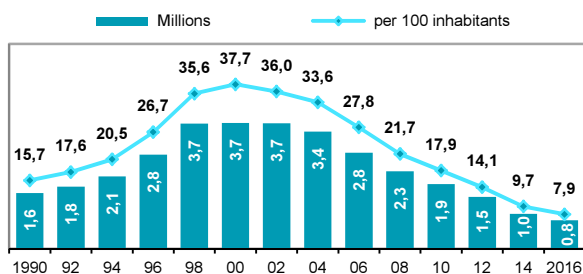
## A ICT infrastructure

**Tab. A1 Fixed telephone network in the Czech Republic**

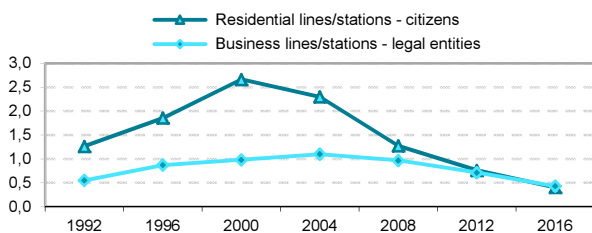
	Thous.		
	2014	2015	2016
<b>Fixed-telephone voice subscriptions, total</b>	<b>1 875</b>	<b>1 893</b>	<b>1 749</b>
<b>Voice subscriptions to PSTN lines</b>	<b>1 022</b>	<b>993</b>	<b>832</b>
Residential lines/stations	589	522	403
Business lines/stations	433	471	429
<b>VoIP technology subscriptions</b>	<b>853</b>	<b>900</b>	<b>917</b>
Individuals (citizens) as subscribers	344	307	299
Legal entities (e.g. enterprises) as subscribers	509	593	619

PSTN lines - Public Switched Telephone Network (formerly called main telephone stations); VoIP - Voice over Internet Protocol

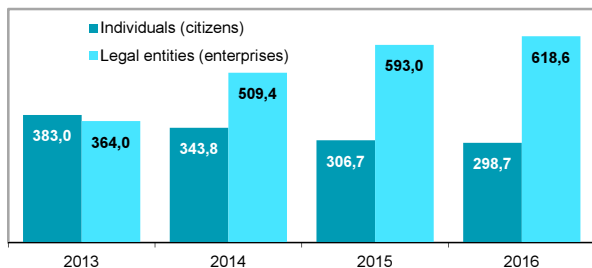
**Figure A1 Fixed-telephone voice subscriptions to PSTN lines**



**Figure A2 Type of voice subscribers to PSTN lines (mil.)**



**Figure A3 Type of subscribers using VoIP (thous.)**

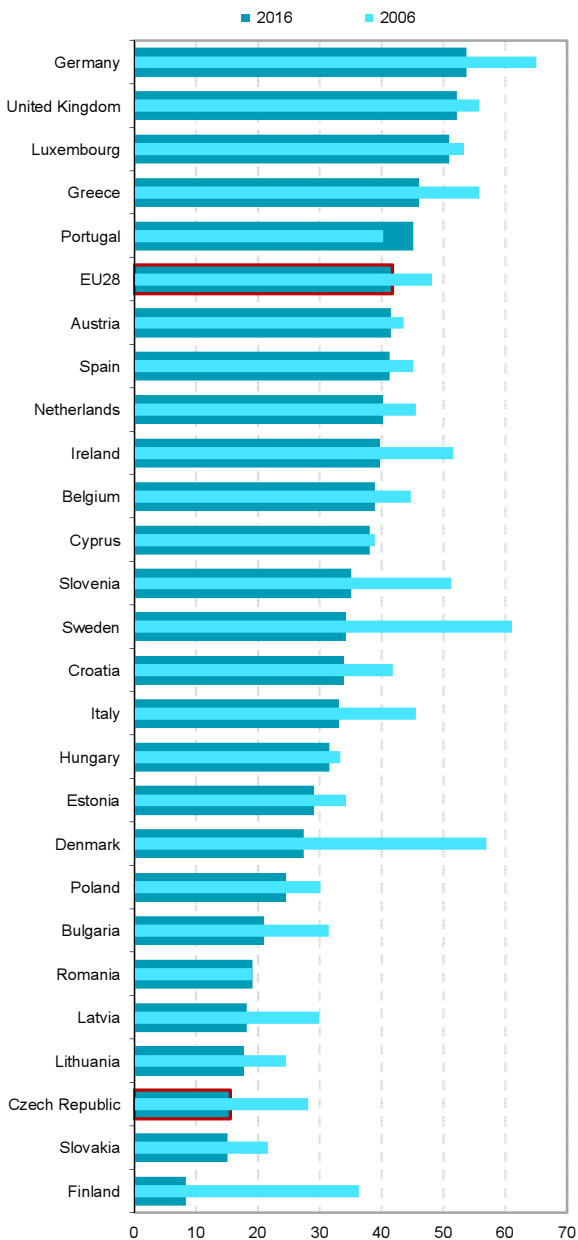


Source: Czech Telecommunication Office, 2018



## A ICT infrastructure

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



Source: International Telecommunication Union, 2018

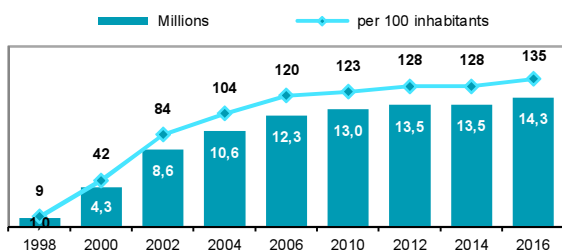
## A ICT infrastructure

Tab. A2 Mobile telephone network in the Czech Republic

	Thous.		
	2014	2015	2016
<b>Mobile telephone subscriptions*, total</b>	<b>13 518</b>	<b>14 017</b>	<b>14 299</b>
M2M mobile-network subscriptions	688	744	838
<b>By type of SIM cards</b>			
Pre-paid subscriptions (SIM cards)	5 055	4 893	4 821
Post-paid (tariff) subscriptions (SIM cards)	8 463	9 124	9 478
<b>By type of subscribers</b>			
Individuals (citizens) as subscribers		9 222	9 237
Legal entities (e.g. enterprises) as subscribers		4 795	5 062

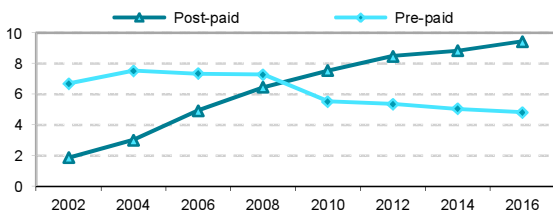
\* Measured by the number of SIM cards that have been used at least once in the last three months. The indicator applies to all mobile-cellular subscriptions that offer voice or data communications.

Figure A5 Mobile telephone subscriptions\*



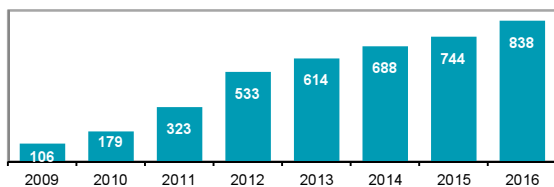
\* change in methodology since 2009

Figure A6 Mobile telephone subscriptions by type of used SIM cards\* (mil.)



\* after 2008, a change in the methodology for calculating the number of pre-paid SIM cards

Figure A7 M2M mobile-network subscriptions\*\* (thous.)

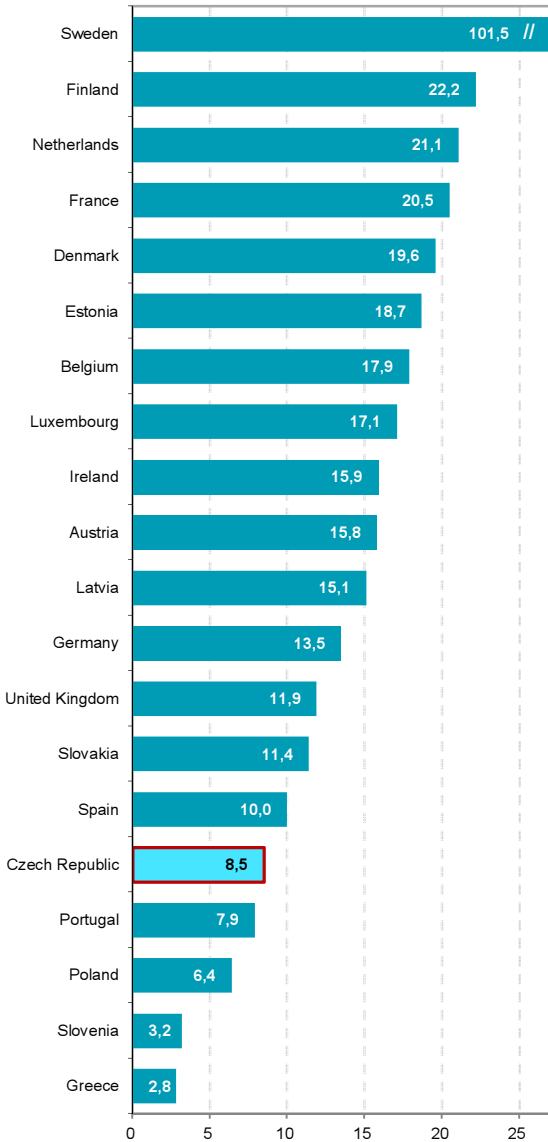


\*\* M2M (Machine-to-machine) SIM cards designed exclusively for wireless communication between machines, devices and IS without human intervention

Source: Czech Telecommunication Office, 2018

## A ICT infrastructure

Figure A8 M2M mobile-network subscriptions per 100 inhabitants in EU countries



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

Source: OECD 2018

## A ICT infrastructure

Tab. A3 Fixed telephone traffic in the Czech Republic

	Million minutes		
	2014	2015	2016
<b>Total voice calls in fixed network*</b>	<b>2 047</b>	<b>1 687</b>	<b>1 489</b>
<b>Domestic voice calls, total</b>	<b>1 740</b>	<b>1 421</b>	<b>1 373</b>
Fixed-to-fixed telephone traffic	1 260	1 006	858
Fixed-to-mobile telephone traffic	480	415	515
<b>International voice calls</b>	<b>153</b>	<b>110</b>	<b>116</b>
<i>Other voice calls</i>	155	156	112
<b>By type of subscribers</b>			
Calls from individuals as subscribers	.	11 550	11 566
Calls from legal entities as subscribers	.	9 084	9 413

\* includes all outgoing voice traffic from public fixed telephone network

Figure A9 Total fixed telephone traffic (mil. minutes)

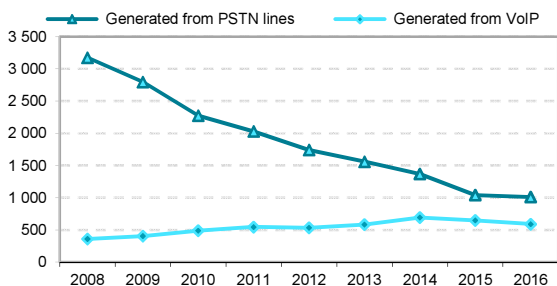


Figure A10 Domestic fixed telephone traffic (mil. minutes)

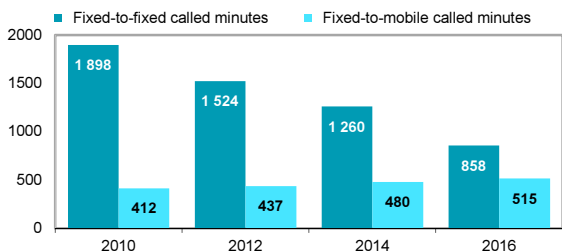
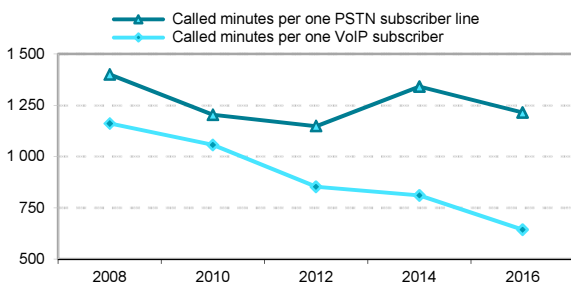


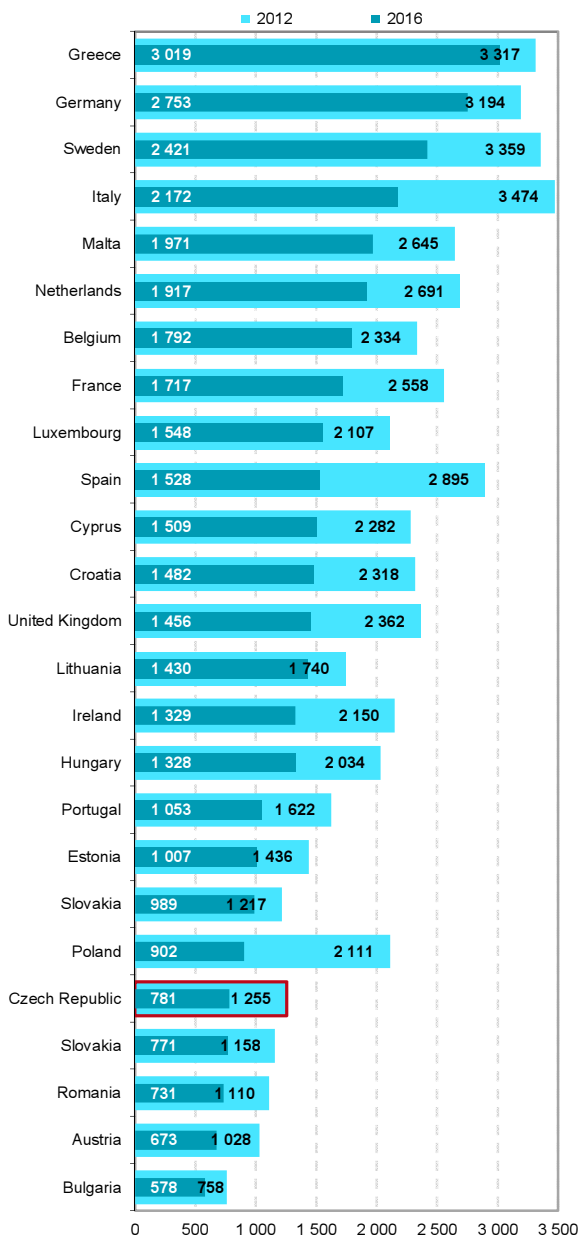
Figure A11 Domestic fixed telephone traffic per one voice subscriber



Source: Czech Telecommunication Office, 2018

## A ICT infrastructure

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



Source: International Telecommunication Union, 2018

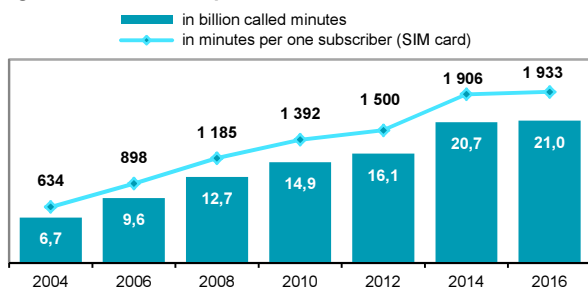
## A ICT infrastructure

**Tab. A4 Mobile telephone traffic in the Czech Republic**

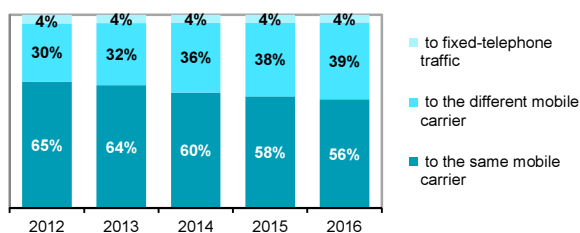
	Million minutes		
	2014	2015	2016
<b>Total voice calls in mobile network*</b>	<b>20 731</b>	<b>20 634</b>	<b>20 979</b>
<b>Domestic voice calls, total</b>	<b>20 197</b>	<b>20 176</b>	<b>20 672</b>
Mobile-to-mobile telephone traffic (to the same mobile carrier)	12 082	11 660	11 544
Mobile-to-mobile telephone traffic (to the different mobile carrier)	7 273	7 694	8 141
Mobile-to-fixed telephone traffic	842	822	826
<b>International voice calls</b>	<b>534</b>	<b>459</b>	<b>307</b>
<b>By type of subscribers</b>			
Calls from individuals as subscribers	.	11 550	11 566
Calls from legal entities as subscribers	.	9 084	9 413

\* includes all outgoing voice traffic from mobile telephone network

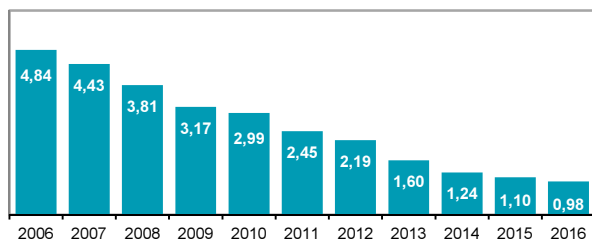
**Figure A13 Mobile telephone traffic**



**Figure A14 Domestic outgoing calls from mobile network**



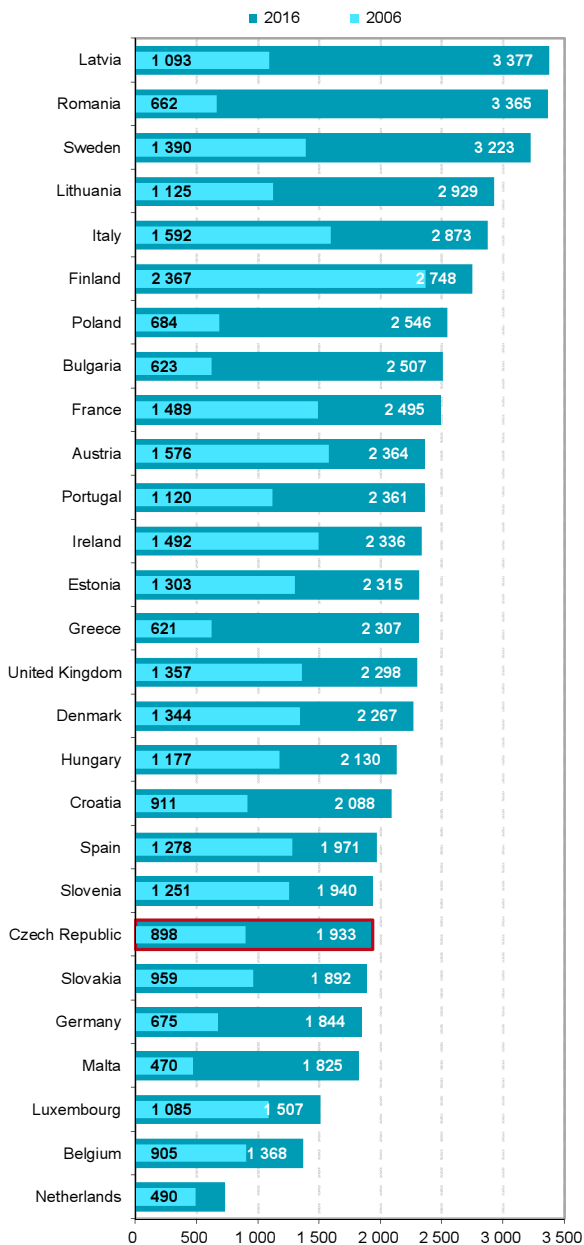
**Figure A15 The average retail price for one outgoing called minute in the mobile network in CZK**



Source: Czech Telecommunication Office, 2018

## A ICT infrastructure

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



Source: International Telecommunication Union, 2018

## A ICT infrastructure

Tab. A5 Fixed broadband penetration in the Czech Republic

	Thous.		
	2014	2015	2016
<b>Fixed broadband subscriptions (lines), total</b>	<b>2 943</b>	<b>2 963</b>	<b>3 058</b>
<b>By technology</b>			
Fixed wireless access (FWA) using WiFi*	1 060	1 004	1 068
xDSL, total	953	941	904
ADSL	554	457	350
VSDL	398	485	554
Cable modem	527	541	563
Fibre (FTTH/B)	404	476	523
<b>By type of subscribers</b>			
Individuals (citizens) as subscribers	.	2 505	2 572
Legal entities (e.g. enterprises) as subscribers	.	459	486

The number of subscriptions to the fixed broadband network is measured on the basis of the number of access points where subscriptions are provided with the service for one of below mentioned technologies employed for the internet access. In majority of cases the number corresponds to the number of agreements concluded for the services providing in the retail segment. Fixed broadband comprises DSL, cable modem, fibre (FTTH/B) and terrestrial fixed wireless technologies.

\* Fixed wireless access (FWA) is the terrestrial internet connection by means of a radio system including non-licensed frequency (Wi-Fi). It is characteristic by placing of the end point device on a fixed location (house, apartment). Sometimes this alternative is also called Wireless Local Loop (WLL).

Figure A17 Fixed broadband internet subscriptions

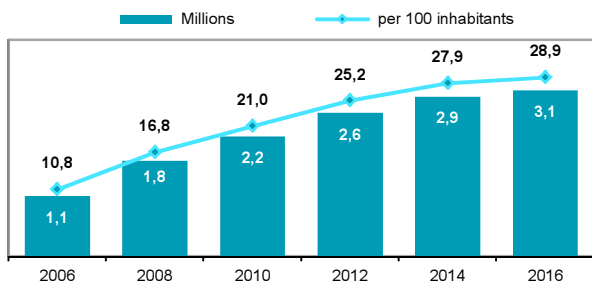
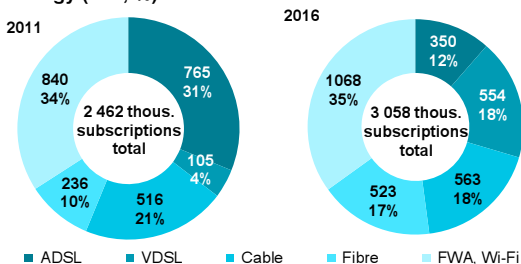


Figure A18 Fixed broadband internet subscriptions by technology (mil.; %)

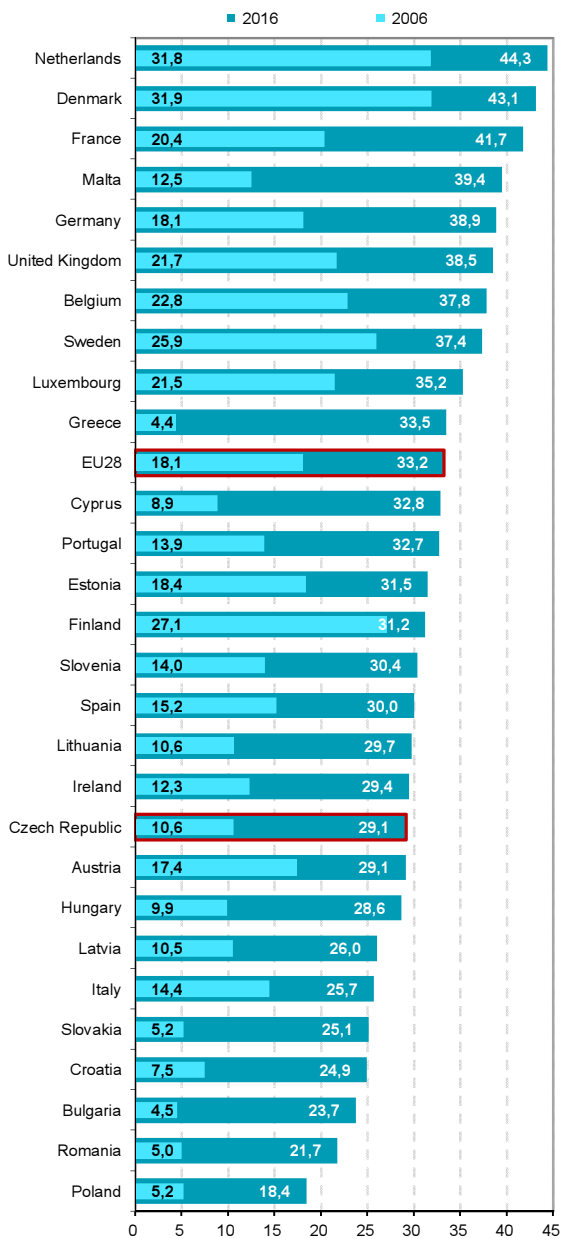


Source: Czech Telecommunication Office, 2018



## A ICT infrastructure

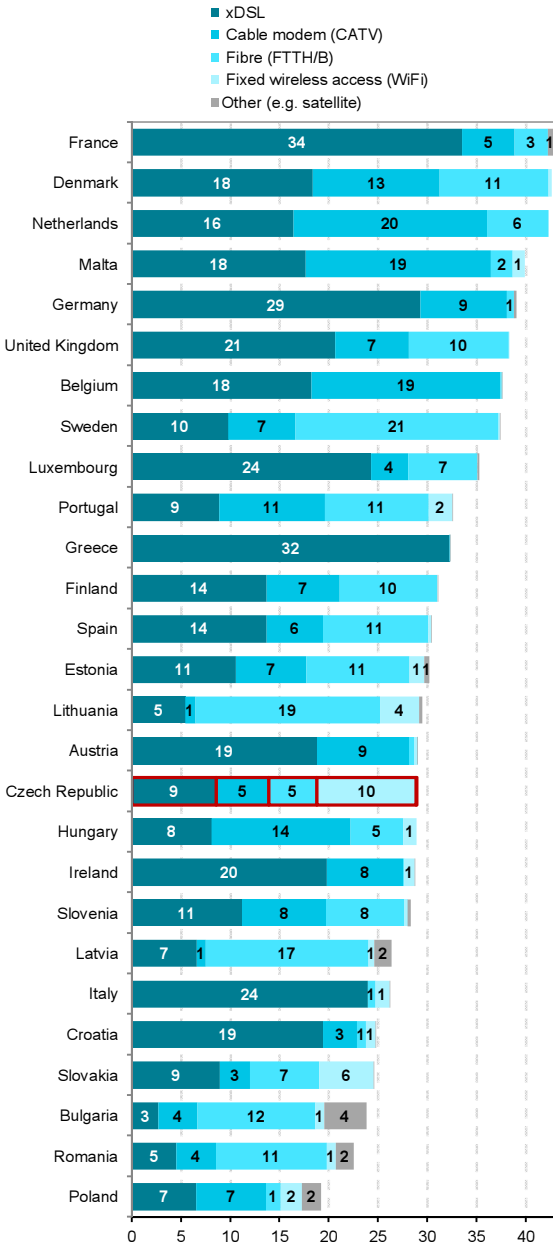
Figure A19 Fixed broadband subscriptions per 100 inhabitants in EU countries



Source: European Commission, 2018

## A ICT infrastructure

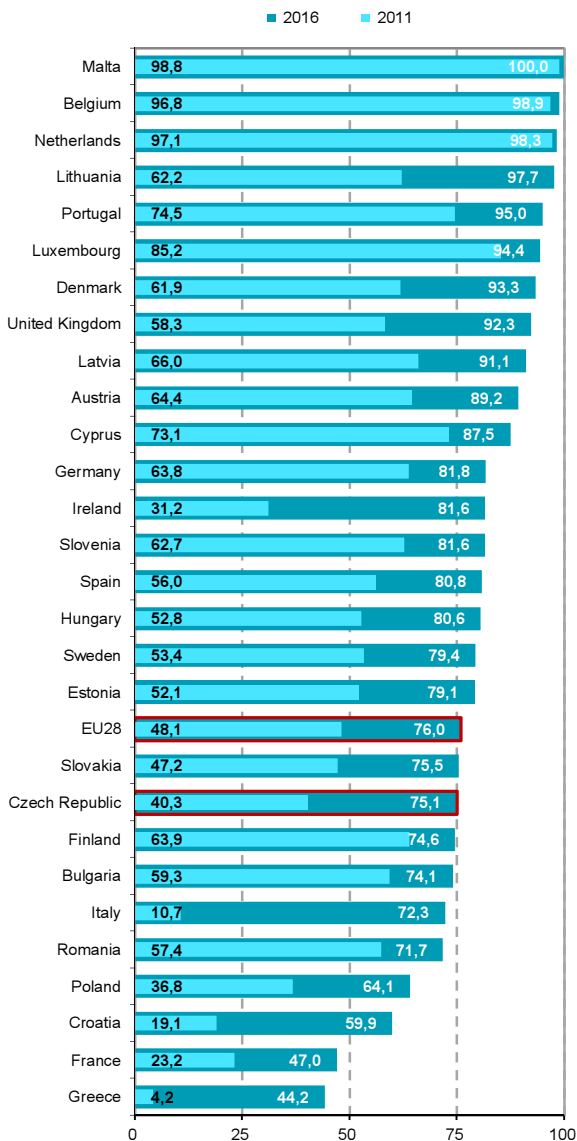
Figure A20 Fixed broadband subscriptions per 100 inhabitants in EU countries by technology; 2016



Source: International Telecommunication Union, 2018

## A ICT infrastructure

Figure A21 Percentage of households in EU countries living in areas served by Next Generation Access (NGA) networks\*



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

Source: European Commission, 2018

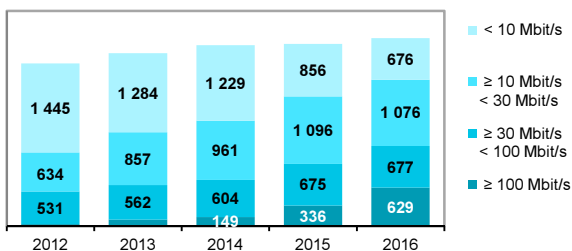
## A ICT infrastructure

**Tab. A6 Fixed broadband advertised maximum download speed in the Czech Republic**

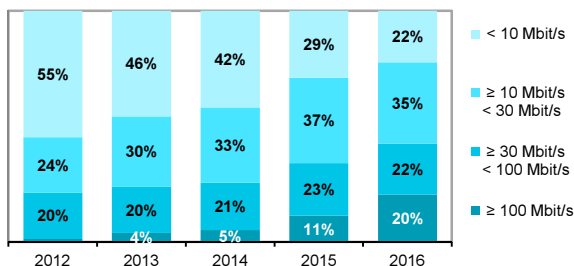
	Thousands of subscriptions		
	2014	2015	2016
<b>Subscriptions, total</b>	<b>2 943</b>	<b>2 963</b>	<b>3 058</b>
< 10 Mbit/s	1 229	856	676
≥ 10 Mbit/s < 30 Mbit/s	961	1 096	1 076
≥ 30 Mbit/s < 100 Mbit/s	604	675	677
≥ 100 Mbit/s	149	336	629

**Figure A22 Fixed broadband internet by speed**

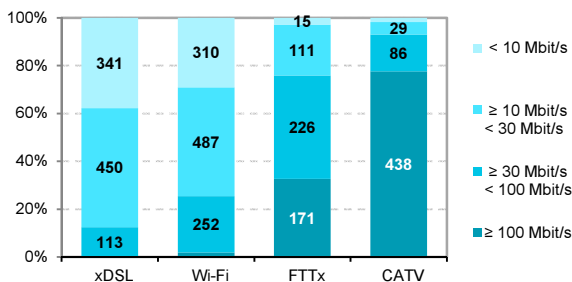
a) Subscriptions with advertised maximum download speed (thous.)



b) Subscriptions with advertised maximum download speed (%)



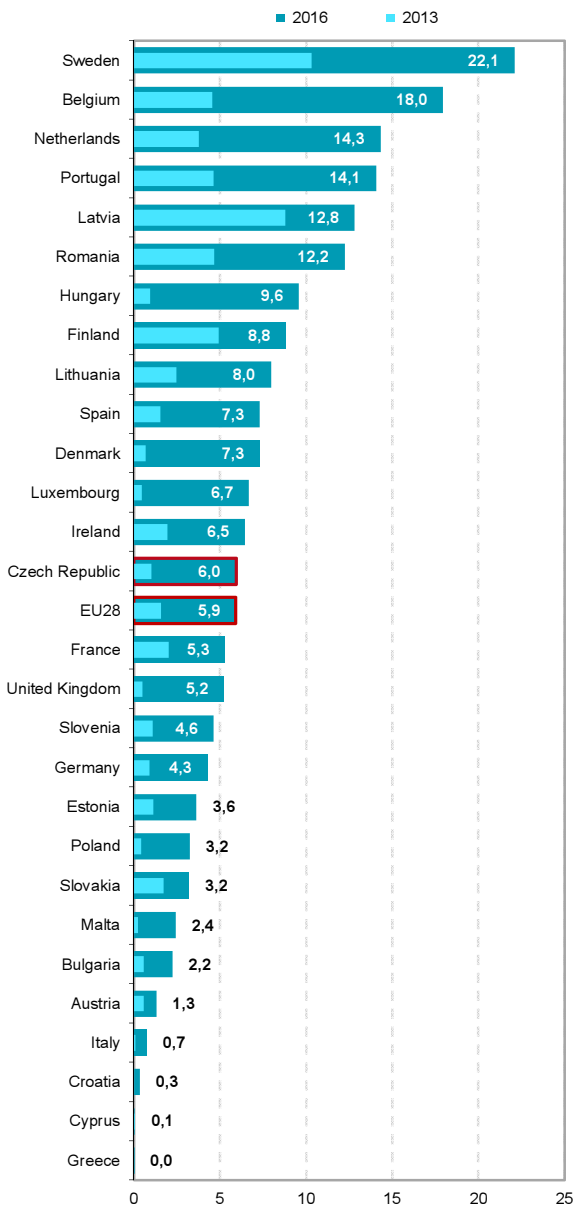
**Figure A23 Technology used for fixed broadband internet connection by speed (thous. of subscriptions; %); 2016**



Source: Czech Telecommunication Office, 2018

## A ICT infrastructure

**Figure A24 Fixed broadband subscriptions with advertised maximum download speed 100 Mbit/s and more per 100 inhabitants in EU countries**



Source: European Commission, 2018

## A ICT infrastructure

Tab. A7 Mobile broadband penetration in the Czech Republic

	2014	2015	2016
<b>Mobile broadband subscriptions, total*</b>	<b>7 165</b>	<b>7 759</b>	<b>8 530</b>
Standard mobile subscription	1 832	2 068	1 908
<b>Dedicated mobile subscription</b>	<b>5 333</b>	<b>5 850</b>	<b>6 622</b>
As a part of voice services - mobile phone	4 442	5 032	5 646
Independently of voice services - laptops, tables	891	818	976

Thous.

\*Wireless mobile broadband subscriptions are mobile subscriptions that advertise data speeds of 256 kbit/s or greater. The subscription must allow access to the internet via HTTP and must have been used to make a data connection via Internet Protocol (IP) in the previous three months.

Figure A25 Mobile broadband subscriptions (thous.)

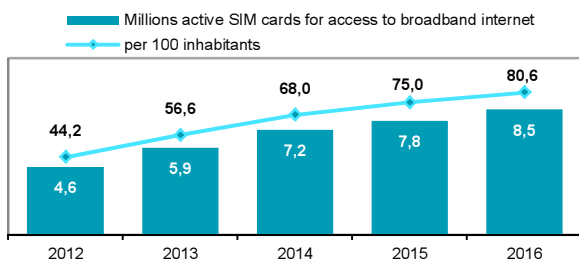


Figure A26 Dedicated mobile data subscription (thous.)

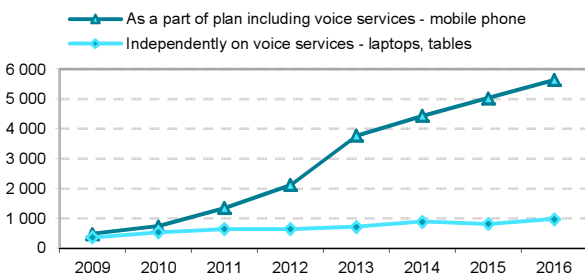
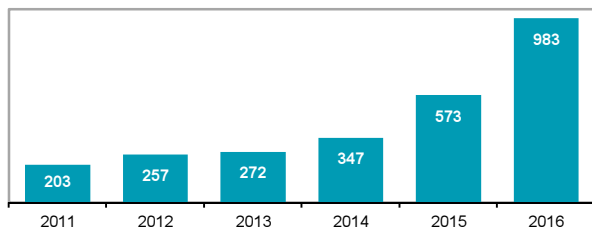
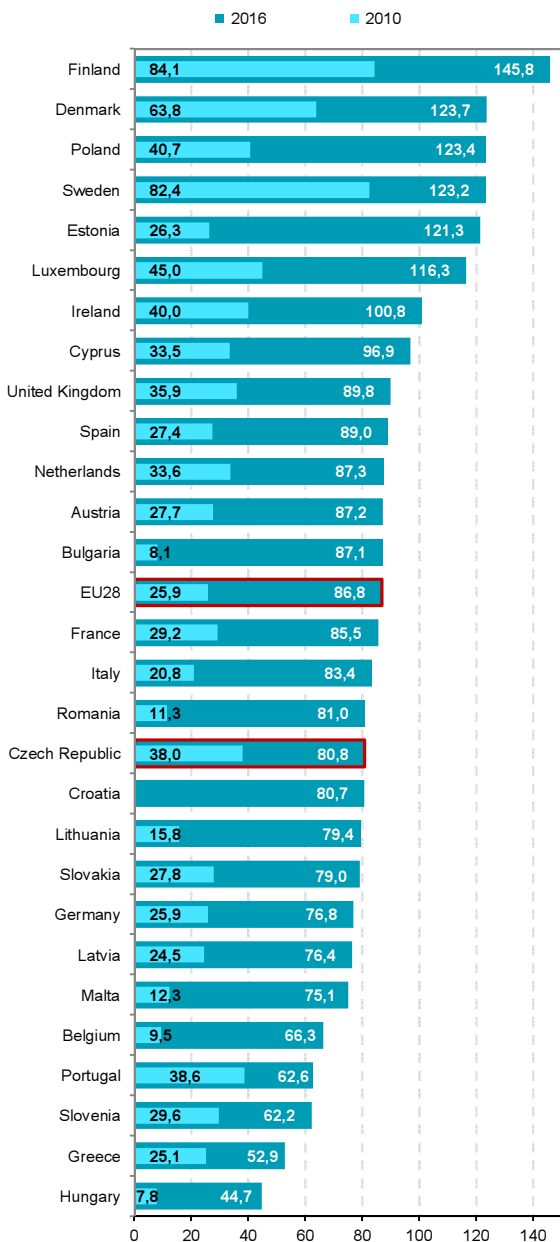


Figure A27 Average mobile data consumption per one active SIM card used for data services (in MB)



## A ICT infrastructure

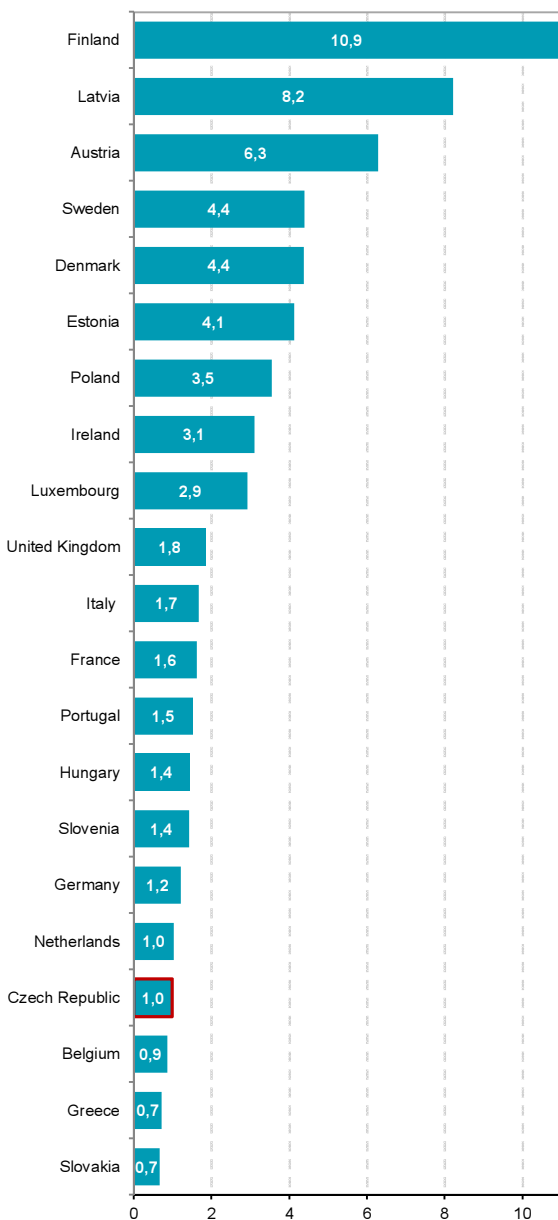
Figure A28 Mobile broadband subscriptions per 100 inhabitants in EU countries



Source: European Commission, 2018

## A ICT infrastructure

Figure A29 Average mobile data usage in GB per mobile broadband subscription in EU countries; 2016

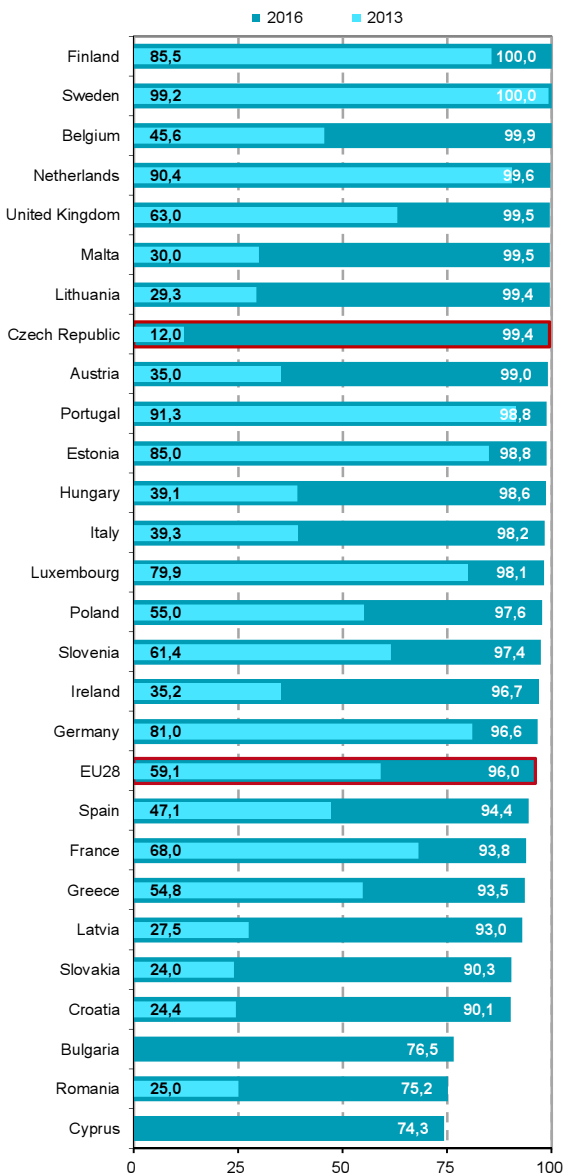


Source: OECD, 2018



## A ICT infrastructure

Figure A30 Percentage of households in EU countries living in areas covered by LTE networks\*



\* LTE (Long Term Evolution) - high-speed wireless communication standard for mobile devices

Source: European Commission, 2018

## A ICT infrastructure

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

	2015	2016	2017
<b>Total</b>	<b>1 230</b>	<b>1 281</b>	<b>1 306</b>
DNSSEC signed	477	664	683
<b>By IP protocol</b>			
IPv4 domains	895	891	895
IPv4+IPv6; IPv6 domains	314	369	389

**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 A31 Top-level domains in (.cz) zone

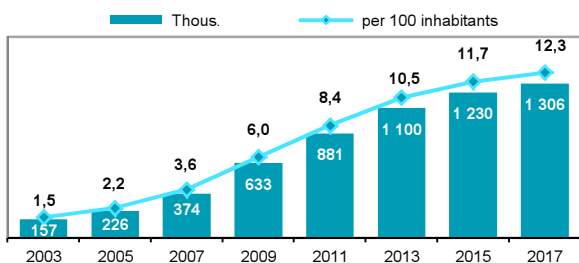


Figure A32 Top-level (.cz) domain registration and cancellation (thousand)

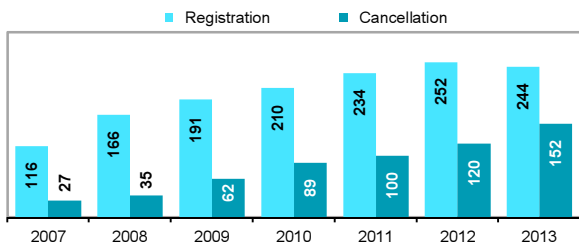


Figure A33 Top-level (.cz) domain by IP protocol



Source: CZ.NIC, 2018

## B Households

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. The regulation allows obtaining of internationally comparable data.

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.).

### Notes:

**Reference period:** 2<sup>nd</sup> quarter of a monitored year

**Households with children:** households with children up to 15 years

**Income quartiles:** Households were divided into four groups (quartiles) according to the size of household net income. In 2017, there were changes in the calculation of this breakdown, so the time series in this classification may not be fully comparable.

### Data comparability with Eurostat database

Data for the Czech Republic published by Eurostat slightly differs from data published by the CZSO. This difference is due to the fact that Eurostat includes solely households with at least one person aged 16 to 74. The CZSO publishes data for all households (without age restrictions).

### Definitions:

- **Households with a computer** involve all households, which at the time of the survey stated, that at least one of the household members had access to a computer at home (business portable computers used at home were also included).
- **A computer** refers to a desktop computer or a portable computer (laptop or tablet). Smartphones are excluded.
- **Households with internet access** include all households, which at the time of survey stated, that at least one of the household members used the internet at home through any device at least sometimes.

**Regional data** can be found in chapter 18 of each **Regional yearbook**.

<https://www.czso.cz/csu/czso/regional-yearbooks>

The **Eurostat** comprehensive database for **Information society statistics** has been used for the international comparison. Data from this database was extracted in March 2018.

**Household Budget Survey (HBS)**, which has been also regularly conducted by CZSO, serves as an additional source of information for data on households equipped with **landlines** and **mobile phones**, as well as data on households' **consumption expenditure on telecommunication services**. Telecommunication services include fixed phone and telefax services, mobile phone services and internet.

**Households with dependent children:** households with dependent children up to 26 years

International comparison on households with fixed and mobile phones was obtained from publicly available sources of EC: <https://ec.europa.eu/digital-single-market/en/digital-scoreboard>

## B Households

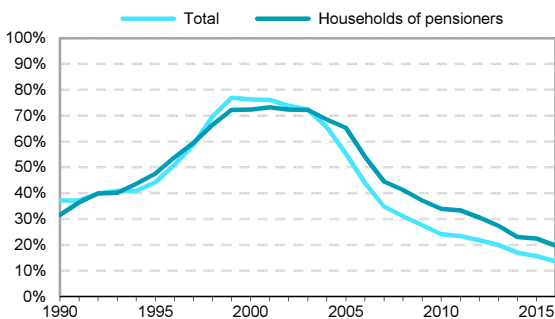
**Tab. B1 Households with a fixed phone in the Czech Republic**

%

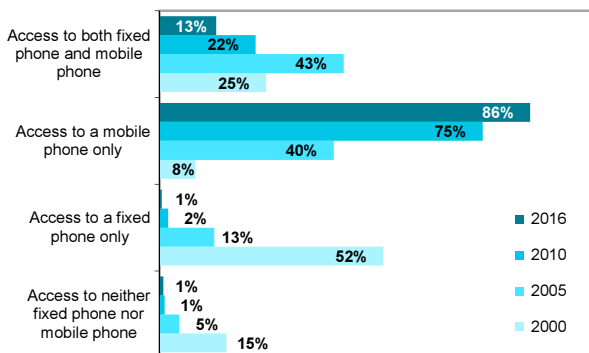
	2014	2015	2016
<b>Total</b>	<b>17,1</b>	<b>15,6</b>	<b>13,6</b>
<b>Household type:</b>			
Households without dependent children	18,6	17,2	15,8
Households with dependent children	14,1	12,3	8,9
<b>Economic status of the head of a household:</b>			
Employee	13,1	11,0	9,8
Self-employed	19,2	17,1	14,1
Pensioner	23,0	22,4	19,7
<b>Age of the head of a household:</b>			
Untill 29 years	2,8	1,4	1,5
30 - 39 years	5,4	5,0	3,4
40 - 49 years	14,1	11,6	7,6
50 - 59 years	17,8	16,4	13,9
60 - 69 years	21,3	17,3	15,4
70 years and more	27,4	27,5	25,4

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

**Figure B1 Households with a fixed phone**



**Figure B2 Households by access to a telephone**

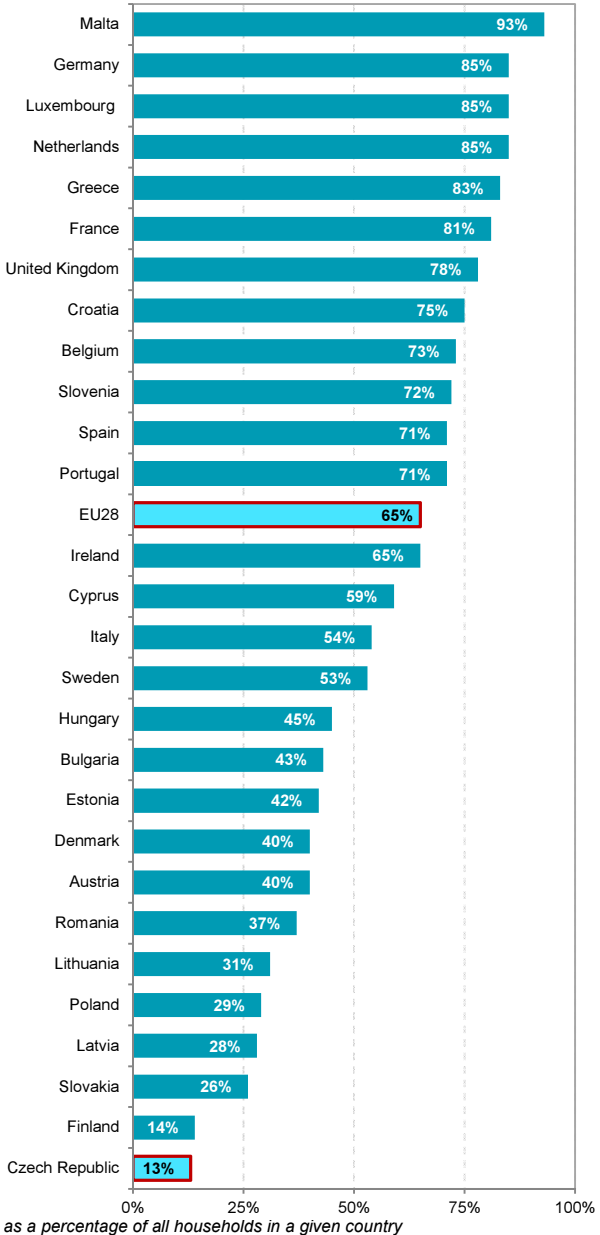


as a percentage of all households

Source: Czech Statistical Office, Household Budget Survey, 2018

## B Households

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



Source: European Commission, 2016

## B Households

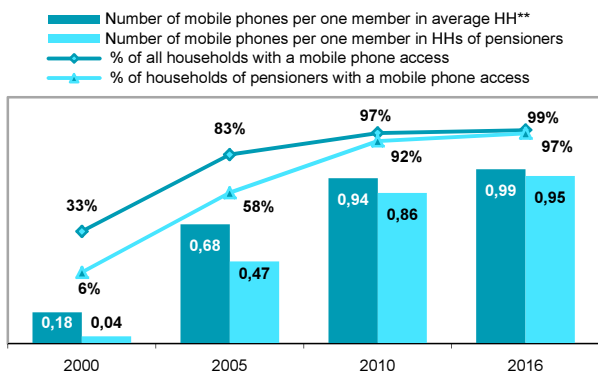
**Tab. B2 Households with a mobile phone in the Czech Republic**

Number of devices per one member of a household\*

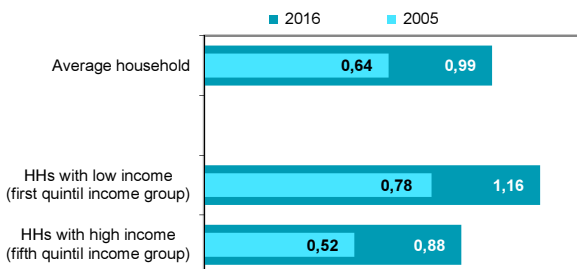
	2012	2014	2016
<b>Total</b>	<b>0,96</b>	<b>0,98</b>	<b>0,99</b>
<b>Household (HH) type:</b>			
Households without dependent children	1,00	1,03	1,04
Households with dependent children	0,93	0,93	0,94
<b>Economic status of the head of household:</b>			
Employee	0,99	0,99	1,01
Self-employed	0,97	0,97	1,00
Pensioner	0,90	0,96	0,95
<b>Household income group:</b>			
Lowest income group (first quintil)	0,86	0,89	0,88
Second quintil income group	0,92	0,94	0,96
Third quintil income group	0,97	0,98	0,97
Fourth quintil income group	1,02	1,03	1,05
Highest income group (fifth quintil)	1,11	1,13	1,16

\* included were only members aged 6+ living in the given type of household

**Figure B4 Mobile phones in households**



**Figure B5 Number of mobile phones used in households\*\***

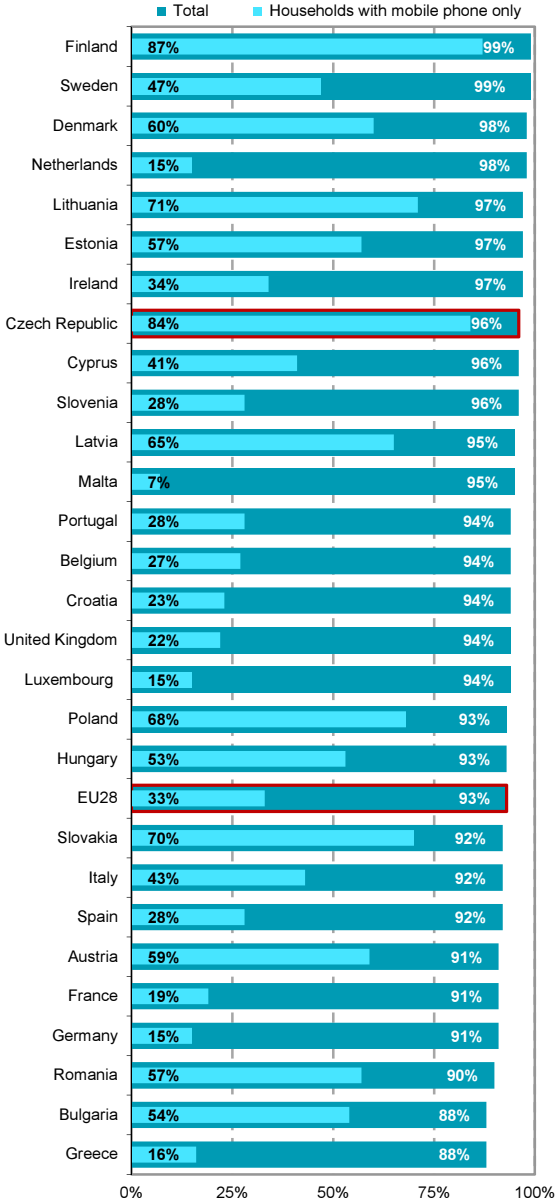


\*\* per one member aged 6+ living in the given type of household

Source: Czech Statistical Office, Household Budget Survey, 2018

## B Households

**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

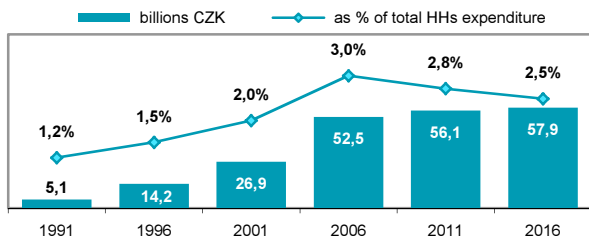
## B Households

**Tab. B3 Households consumption expenditure for telecommunication services in the Czech Republic**

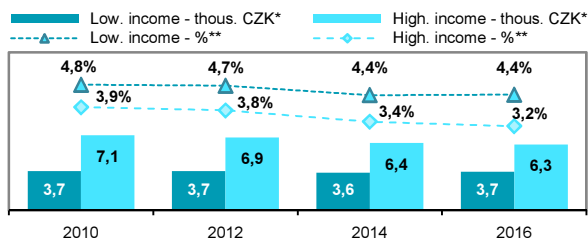
Annual averages per capita in CZK

	2012	2014	2016
<b>Total</b>	<b>4 955</b>	<b>4 694</b>	<b>4 699</b>
<b>Service type:</b>			
Fixed phone and telefax services	367	236	176
Mobile phone services	3 272	3 091	3 137
Internet	1 316	1 367	1 386
<b>Household (HH) type:</b>			
Households of pensioners	4 410	4 478	4 322
Households with head of HH under 29 years	6 125	5 578	5 961
Households with dependent children	4 360	4 062	3 994
Lowest income group (first quintil)	3 720	3 576	3 677
Highest income group (fifth quintil)	6 922	6 398	6 256

**Figure B7 Households consumption expenditure for telecommunication services**



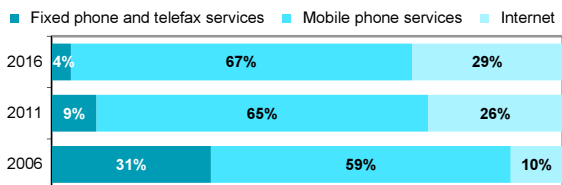
**Figure B8 Consumption expenditure for telecommunication services of households in lowest and highest income group**



\* annual averages per capita in CZK

\*\* as share of total consumption expenditures by type of households

**Figure B9 Households expenditure for different types of telecommunication services**

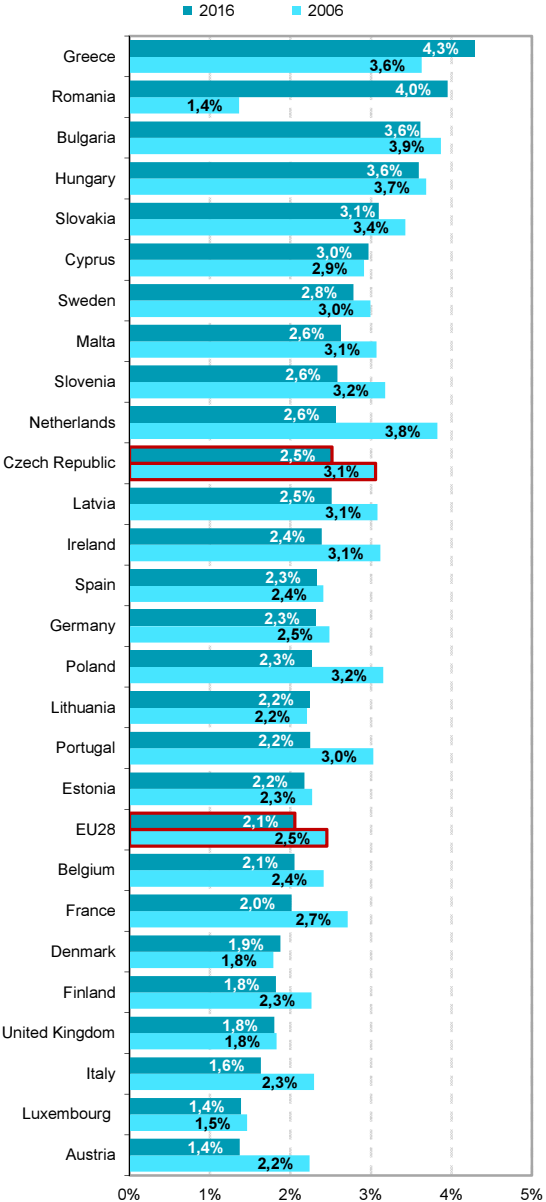


Source: Czech Statistical Office, Household Budget Survey, 2018



## B Households

**Figure B10 Households expenditure for telecommunication services in EU countries**



as a percentage of total households expenditure in a given country and year

Source: Eurostat, 2018

## B Households

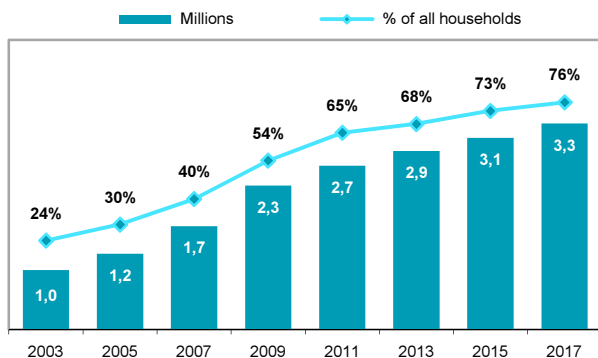
**Tab. B4 Households with a computer in the Czech Republic**

%

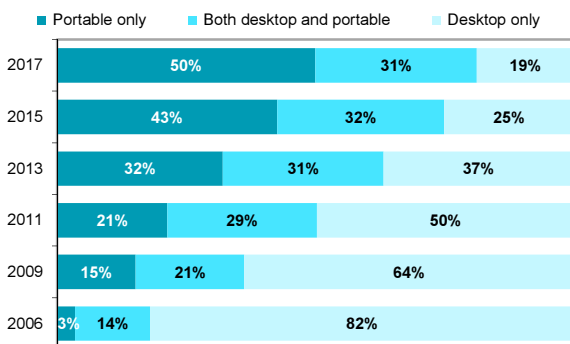
	2013	2015	2017
<b>Total</b>	<b>68,1</b>	<b>73,1</b>	<b>76,3</b>
Total (with at least one member younger than 75)	73,9	78,9	82,2
<b>Household (HH) type:</b>			
Households without children, total	58,8	65,1	69,8
all persons living in HHs are younger than 40	92,5	93,0	94,5
all persons living in HHs are older than 65	14,8	24,9	32,3
Households with children	92,3	93,8	94,4
<b>Household income group:</b>			
Lowest income group (first quartile)	30,4	34,3	41,4
Second quartile income group	52,4	57,2	70,0
Third quartile income group	87,6	85,7	93,7
Highest income group (fourth quartile)	95,5	96,7	98,5

as a percentage of all households of a given type

**Figure B11 Households with a computer**



**Figure B12 Types of computers used in households**

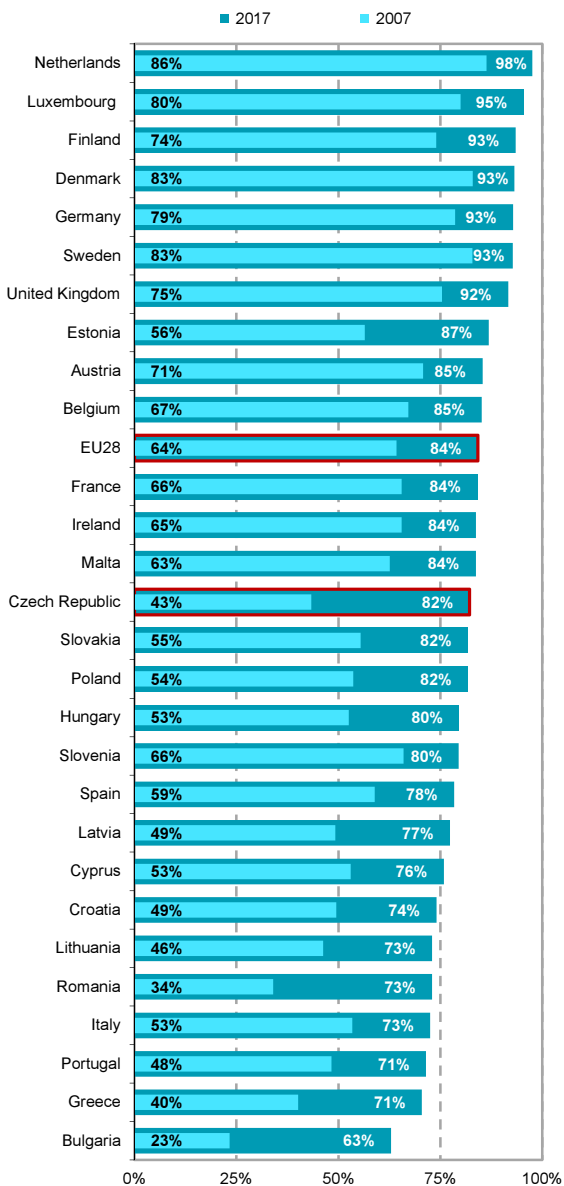


as a percentage of households with a computer

Source: Czech Statistical Office, ICT use survey in households, 2018

## B Households

**Figure B13 Households in EU countries with a computer**



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

Source: Eurostat, 2018

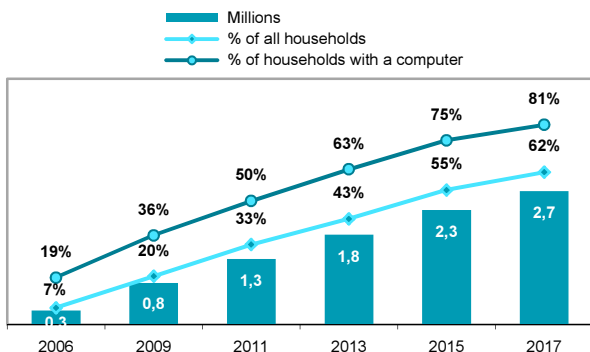
## B Households

**Tab. B5 Households with a computer in the Czech Republic by its type; 2017**

	%		
	Desktop	Laptop	Tablet
<b>Total</b>	<b>38,2</b>	<b>57,7</b>	<b>23,9</b>
<b>Household (HH) type:</b>			
Households without children, total	35,2	51,0	16,0
all persons living in HHs are younger than 40	27,3	82,6	22,4
all persons living in HHs are older than 65	18,0	16,1	3,3
Households with children	46,6	76,4	45,8
<b>Household income group:</b>			
Lowest income group (first quartile)	19,2	24,5	6,2
Second quartile income group	32,1	45,6	13,5
Third quartile income group	42,6	73,3	29,8
Highest income group (fourth quartile)	57,2	85,0	45,0

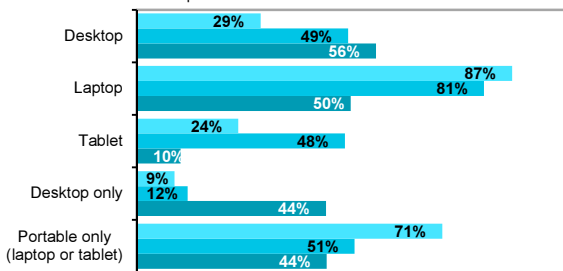
as a percentage of all households of a given type

**Figure B14 Households with a portable computer (laptop or tablet)**



**Figure B15 Type of computers used in selected types of households; 2017**

- HHs without dependent children where all persons are younger than 40
- Households with children
- Households where all persons are older than 65

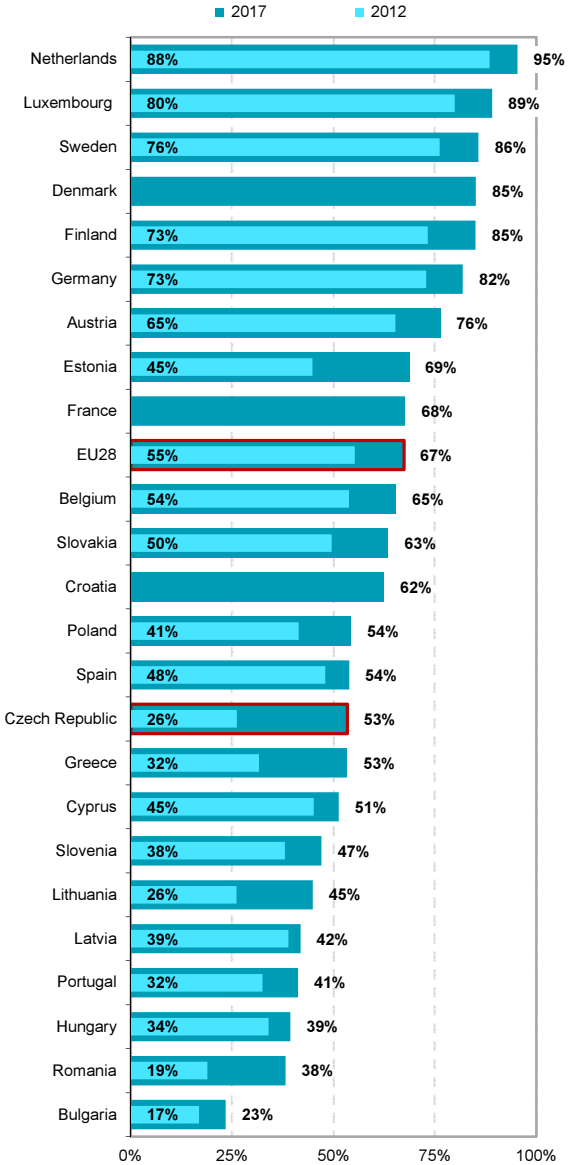


as a percentage of all households of a given type with a computer

Source: Czech Statistical Office, ICT use survey in households, 2018

## B Households

**Figure B16 Low income households (first quartile) in EU countries with a computer**



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

Source: Eurostat, 2018

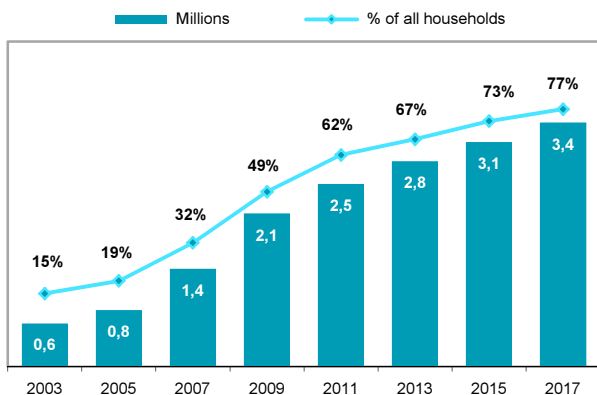
## B Households

**Tab. B6 Households with internet access in the Czech Republic**

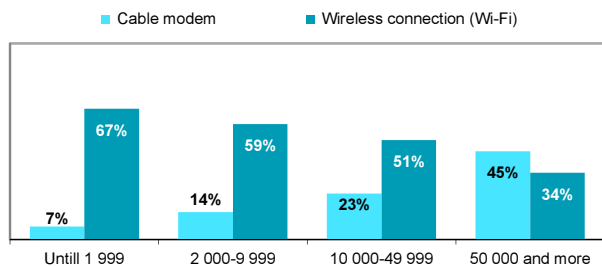
	%		
	2013	2015	2017
<b>Total</b>	<b>67,0</b>	<b>73,1</b>	<b>77,2</b>
Total (with at least one member younger than 75)	72,6	79,0	83,2
<b>Household (HH) type:</b>			
Households without children, total	57,4	65,2	70,5
all persons living in HHs are younger than 40	92,0	94,7	96,8
all persons living in HHs are older than 65	14,0	24,2	31,1
Households with children	91,5	93,6	95,9
<b>Household income group:</b>			
Lowest income group (first quartile)	29,0	33,8	42,6
Second quartile income group	50,5	57,2	70,7
Third quartile income group	86,4	85,8	93,9
Highest income group (fourth quartile)	94,9	96,8	99,3

as a percentage of all households of a given type

**Figure B17 Households with access to the internet**



**Figure B18 internet connection used in households by size of their municipalities (number of inhabitants); 2017**

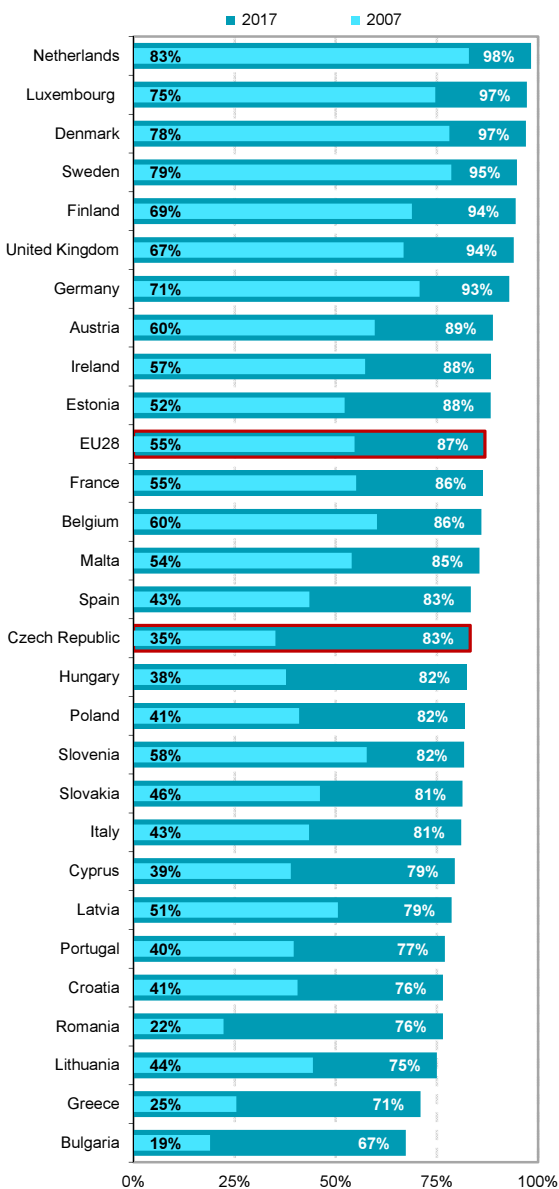


as a percentage of all households with internet located in a given municipalities

Source: Czech Statistical Office, ICT use survey in households, 2018

## B Households

**Figure B19 Households in EU countries with access to the internet**



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

Source: Eurostat, 2018

## B Households

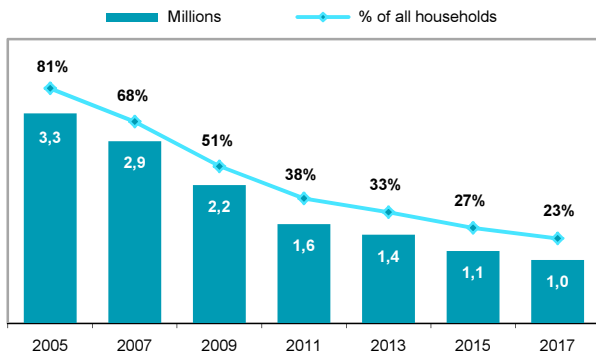
**Tab. B7 Households without internet access in the Czech Rep.**

%

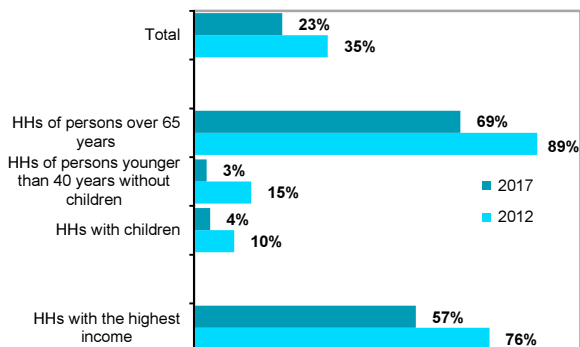
	2013	2015	2017
<b>Total</b>	<b>33,0</b>	<b>26,9</b>	<b>22,8</b>
Total (with at least one member younger than 75)	27,4	21,0	16,8
<b>Household (HH) type:</b>			
Households without children, total	42,6	34,8	29,5
all persons living in HHs are younger than 40	8,0	5,3	3,2
all persons living in HHs are older than 65	86,0	75,8	68,9
Households with children	8,5	6,4	4,1
<b>Household income group:</b>			
Lowest income group (first quartile)	71,0	66,2	57,4
Second quartile income group	49,5	42,8	29,3
Third quartile income group	13,6	14,2	6,1
Highest income group (fourth quartile)	5,1	3,2	0,7

as a percentage of all households of a given type

**Figure B20 Households without access to the internet**



**Figure B21 Households without access to the internet by type of household**



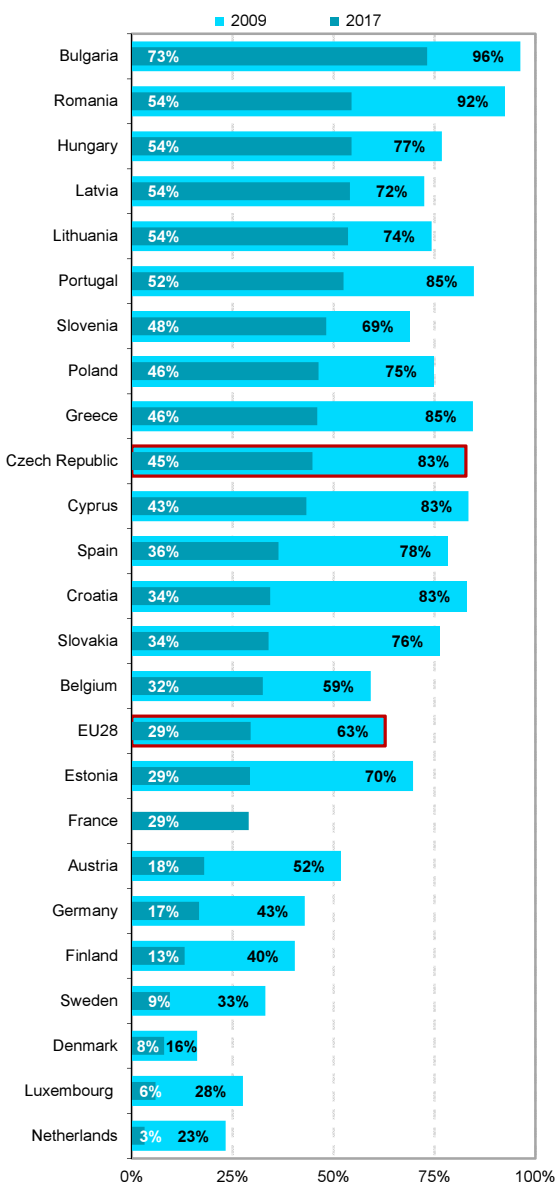
as a percentage of all households of a given type

Source: Czech Statistical Office, ICT use survey in households, 2018



## B Households

**Figure B22 Low income households (first quartile) in EU countries without internet access**



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

Source: Eurostat, 2018

## B Households

**Tab. B8 The most common reasons for not having access to the internet at home; 2017**

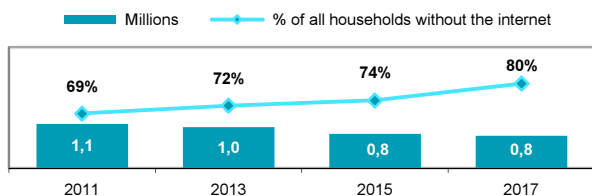
	Don't need internet	Lack of skills	Costs too high*
<b>Total</b>	<b>80,0</b>	<b>37,6</b>	<b>19,9</b>
<i>Household (HH) type:</i>			
Households without children, total	82,6	37,7	18,0
all persons living in HHs are younger than 40	28,7	9,8	26,3
all persons living in HHs are older than 65	87,4	38,4	12,8
Households with children	28,6	35,4	57,5

as a percentage of all households of a given type without internet

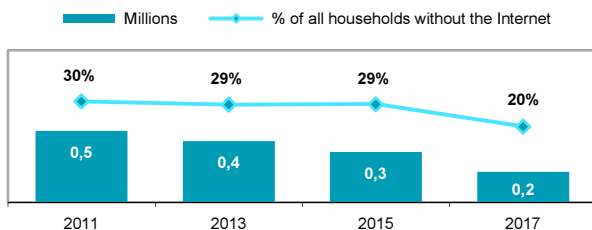
only the most frequently reported reasons were selected

\* access and equipment costs too high

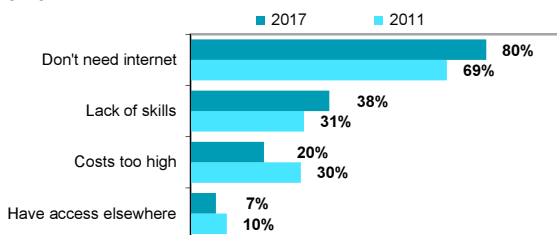
**Figure B23 Households without access to the internet because access is not needed**



**Figure B24 Households without access to the internet due to high access or equipment costs**



**Figure B25 Reasons for not having access to the internet at home**

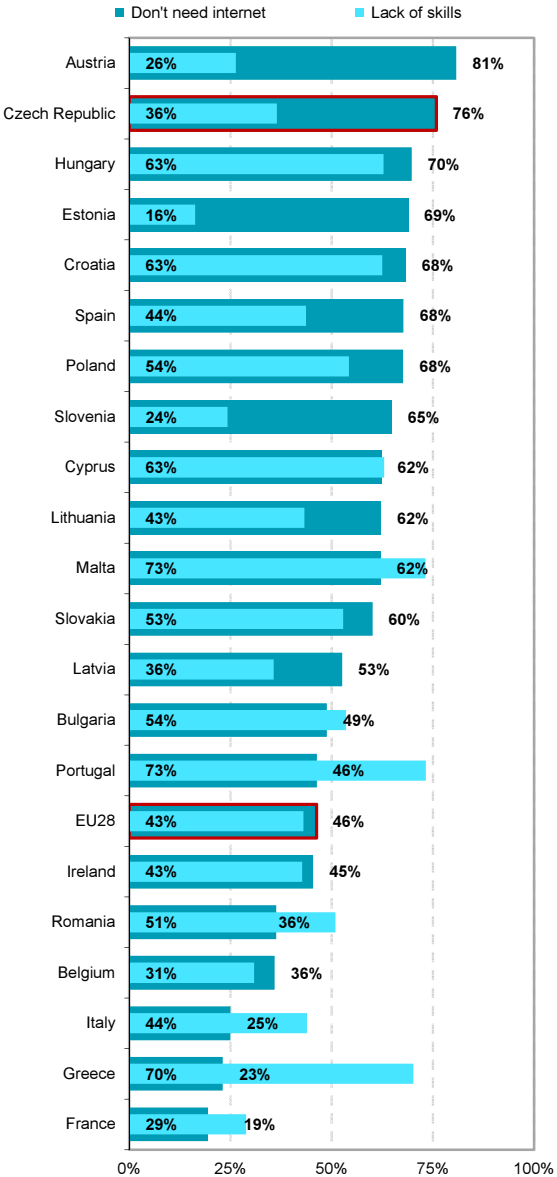


as a percentage of all households without the internet in a given year

Source: Czech Statistical Office, ICT use survey in households, 2018

## B Households

**Figure B26 The most common reasons for not having access to the internet at home in EU countries; 2017**



as a percentage of all households without the internet in a given country where at least one member is younger than 75

Source: Eurostat, 2018

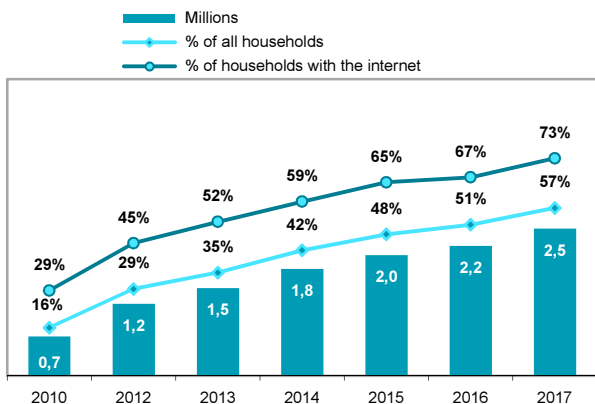
## B Households

**Tab. B9 Households with a Wi-Fi router in the Czech Republic**

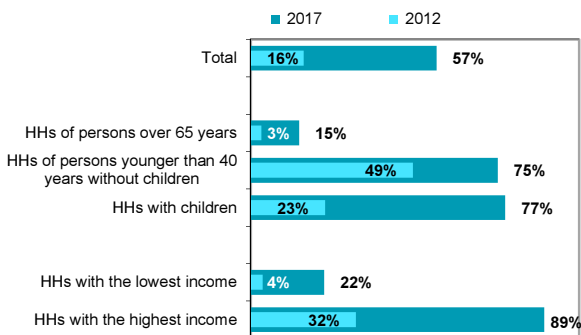
	2013	2015	2017
<b>Total</b>	<b>34,8</b>	<b>47,7</b>	<b>56,6</b>
<i>Household (HH) type:</i>			
Households without children, total	28,1	39,7	49,2
all persons living in HHs are younger than 40	49,4	64,1	75,2
all persons living in HHs are older than 65	3,2	8,8	14,7
Households with children	51,8	68,4	77,5
<i>Household income group:</i>			
Lowest income group (first quartile)	9,7	13,5	22,3
Second quartile income group	19,9	28,7	48,7
Third quartile income group	37,9	53,4	77,4
Highest income group (fourth quartile)	65,7	76,8	89,4

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

**Figure B27 Households with a Wi-Fi router**



**Figure B28 Households with a Wi-Fi router in selected types of households**



as a percentage of all households of a given type

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

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

The survey is a sample household survey with annual periodicity and the data collection itself is embedded in the Labor Force Survey (LFS). Embedment in LFS enables to break the data down according to wide range of demographic and social characteristics of people living in the monitored households.

The survey is conducted in the form of personal interviews using a personal computer (CAPI), on a sample of about 10 thousand individuals aged 16 and over. The acquired data are weighted by the post-stratified weights which are calculated on the base of gender, age, regions and employment status.

The survey is representative of the population of persons living in private households in the Czech Republic aged 16 and over, i.e. individuals who are living in so-called collective households (correctional facilities, social care institutions, retirement homes, etc.) are not part of the survey. In 2017 persons living in private households accounted a group of 8.8 million people in 4.4 million households.

Since 2006 this survey has been conducted 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.

### Notes:

**Reference period:** 3 or 12 months prior to the interviews

**The education category** is published for the age group of 25 and over, as there are a lot of students aged 16-24, who are still in studying process.

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

The data for the Czech Republic published by Eurostat slightly differs from the data published by the CZSO. This difference is due to the fact that Eurostat includes solely individuals aged between 16 and 74 years. The CZSO provides as standard the data for the whole adult population aged 16+. *This is the reason why the tables in this publication give dual total values for the Czech Republic: total of the ones aged 16 and over and total of the ones aged 16-74.*

### Definitions:

- **Individuals using the internet – internet users** are individuals who used the internet at least once **in the last 3 months** preceding the interviews, **anywhere** (at home, work, school, etc.) and for **any purpose** (private or work).
- **The internet use** shall mean any activity on the internet carried out in an active manner, for example, browsing websites or downloading files.
- Part of the survey focuses on **access to the internet via selected types of devices** (desktop computers, laptops, tablets, mobile phones, etc.). An individual used the device to access the internet if he/she did so in the last 3 months prior to the interview. It did not matter what type of connection was used to access the internet (mobile networks, Wi-Fi, cable).
- Monitored **internet activities** were carried out by the respondents for **private purposes at least once in the last 3 months** preceding the interview by using **any device** including a mobile phone. **On-line purchases** may have the reference period of **3 months or 12 months** preceding the interview.

- **Social networking** can be distinguished from other communication and content activities by the aspect of creating a profile on certain websites. Being a member of a network with selected other members who share interests and activities is an essential characteristic of a social network. A person is called a user of social networks if he/she has a profile on any social network and used the network at least once in the last 3 months before the interview.
- **Paid video catalogues (e.g. Netflix)** include commercial services (for payment) on demand and therefore the videos that one might have watched on the basis of some kind of subscription (also one-time).
- **Internet storage** also called as “cloud services” offers the possibility of storage on a server accessible via the internet. It is appropriate especially for large files which take up space on hard drive. Storing them on the internet also provides with opportunities to share the files with other devices.
- **An individual purchasing on the internet** is a person who in the last 12 months purchased or ordered goods or a service over the internet for private purposes. This e-commerce activity may be performed on any device including smart phone. Goods or services ordered may not be paid over the internet. Goods or services may be delivered on-line (over the internet) or off-line (mail or in person). *Reference period for online purchases is 12 months prior the interview, only the amount of money spent on online purchases and frequency of purchasing online is measured with the reference period of 3 months.*

Data on ICT use by individuals classified by **gender** of the respondents can be found in the publication titled: „**Focused on Women and Men**“.

<https://www.czso.cz/csu/czso/focus-on-women-and-men>

The **Eurostat** comprehensive database for **Information society statistics** has been used for the international comparison. Data from this database was extracted in March 2018. For more information see:

<http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/comprehensive-database>

**More information on topic of households' and individuals' access to ICT is available on:**

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

Detailed information on different socio-demographic groups is available at the following pages:

**Information on the internet usage by students:**

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

**Information on usage of e-government services:**

[https://www.czso.cz/csu/czso/vyuzivani\\_ict\\_ve\\_vztahu\\_k\\_verejne\\_sprave](https://www.czso.cz/csu/czso/vyuzivani_ict_ve_vztahu_k_verejne_sprave)  
(in Czech only)

**Information on usage of the internet for health related activities:**

[https://www.czso.cz/csu/czso/information\\_technologies\\_in\\_the\\_czech\\_health\\_sector](https://www.czso.cz/csu/czso/information_technologies_in_the_czech_health_sector)

## C Individuals

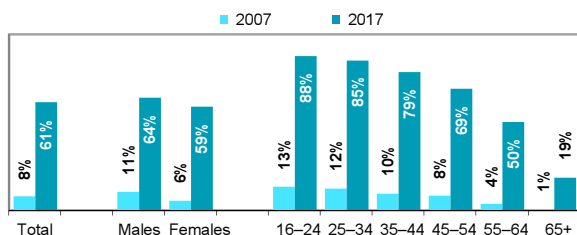
Tab. C1 Individuals in the Czech Rep. using a computer; 2017

%

	Total	by type of device:	
		laptop	tablet
<b>Total (aged 16+)</b>	<b>77,0</b>	<b>55,9</b>	<b>19,4</b>
Total (aged 16-74)	82,7	60,5	21,0
<b>Sex:</b>			
Males (aged 16+)	80,0	59,0	19,5
Females (aged 16+)	74,2	53,0	19,3
<b>Age group:</b>			
16-24 year-olds	98,0	78,8	37,2
25-34 year-olds	95,0	78,7	26,6
35-44 year-olds	94,9	71,5	28,9
45-54 year-olds	88,8	63,4	19,2
55-64 year-olds	73,3	45,9	11,3
65 year-olds and over	32,8	16,9	3,2
<b>Education attainment level (aged 25+):</b>			
Basic	32,2	16,7	6,2
Secondary without A-level exam.	65,5	41,0	11,7
Secondary with A-level exam. or Higher professional	84,7	62,8	19,3
University	94,5	77,5	29,9
<b>Specific groups:</b>			
Women on maternity leave	93,1	70,0	31,4
Students (aged 16+)	99,5	80,3	40,1
Pensioners	36,1	19,1	3,7

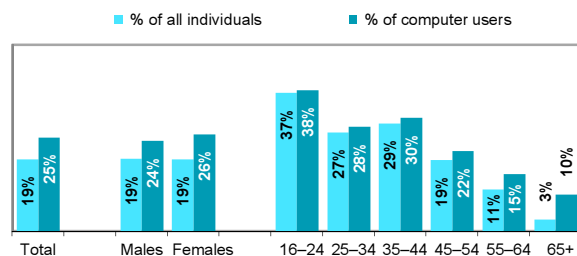
as a percentage of all individuals in a given socio-demographic group

Figure C1 Individuals using a portable computer (laptop or tablet) by sex and age



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

Figure C2 Individuals using a tablet by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

Tab. C2 Individuals in the Czech Rep. using the internet; 2017

%

	At least once in the past	In the last 3 months*	Every day or almost every day
<b>Total (aged 16+)</b>	<b>83,4</b>	<b>78,7</b>	<b>63,1</b>
Total (aged 16-74)	88,8	84,5	68,2
<b>Sex:</b>			
Males (aged 16+)	86,1	81,6	66,4
Females (aged 16+)	81,0	76,0	59,9
<b>Age group:</b>			
16-24 year-olds	99,8	99,0	96,5
25-34 year-olds	98,2	96,4	88,6
35-44 year-olds	97,9	96,9	80,5
45-54 year-olds	94,3	91,5	68,1
55-64 year-olds	82,2	75,3	50,0
65 year-olds and over	45,8	33,6	19,4
<b>Education attainment level (aged 25+):</b>			
Basic	44,1	34,6	16,9
Secondary without A-level exam.	74,4	68,1	45,0
Secondary with A-level exam.			
or Higher professional	90,6	86,0	69,9
University	97,3	95,0	87,9
<b>Specific groups:</b>			
Women on maternity leave	98,2	94,7	83,3
Students (aged 16+)	99,9	99,7	97,5
Pensioners	49,2	37,0	21,0

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

\* **internet users** - main indicator used for international comparison

Figure C3 Individuals who have never used the internet

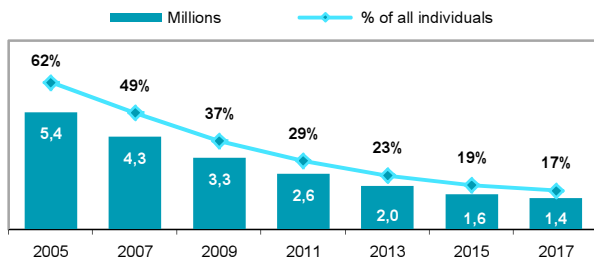
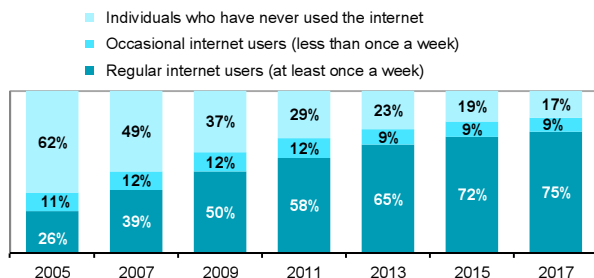


Figure C4 Individuals by usage of the internet

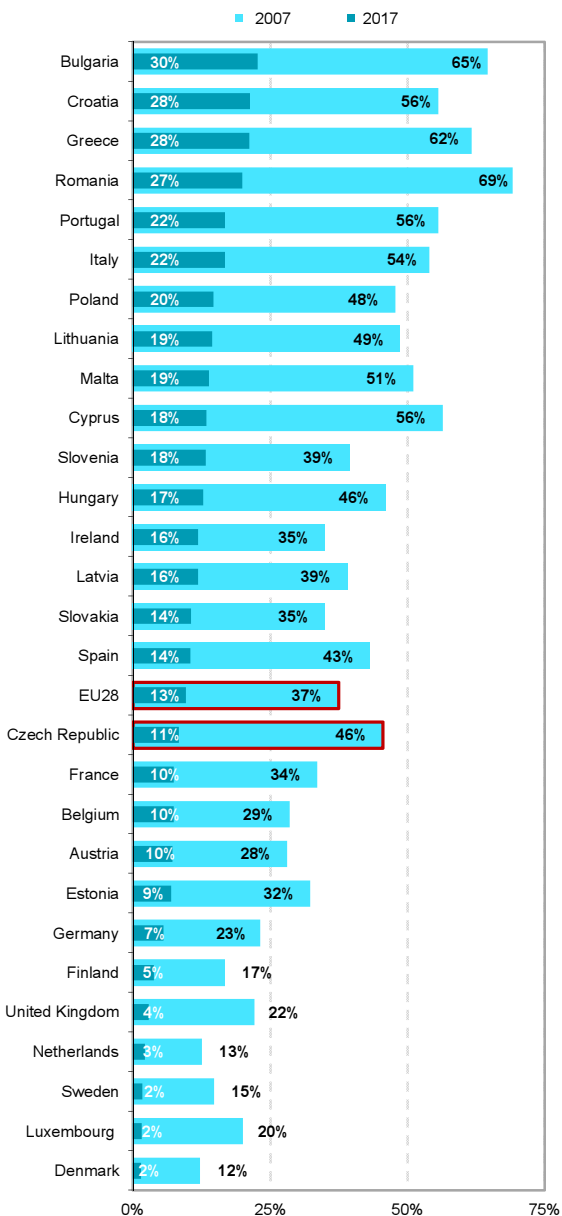


Source: Czech Statistical Office, ICT use survey in households, 2018



## C Individuals

Figure C5 Individuals in EU countries aged 16-74 who have never used the internet



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

Source: Eurostat, 2018

## C Individuals

Tab. C3 Individuals in the Czech Republic using the internet - internet users\*

	2013	2015	2017
<b>Total (aged 16+)</b>	<b>68,8</b>	<b>75,7</b>	<b>78,7</b>
Total (aged 16-74)	74,1	81,3	84,5
<b>Sex:</b>			
Males (aged 16+)	73,1	77,9	81,6
Females (aged 16+)	67,9	73,5	76,0
<b>Age group:</b>			
16-24 year-olds	96,9	97,0	99,0
25-34 year-olds	91,8	95,4	96,4
35-44 year-olds	91,2	93,9	96,9
45-54 year-olds	81,2	86,7	91,5
55-64 year-olds	58,0	68,0	75,3
65 year-olds and over	19,0	28,4	33,6
<b>Education attainment level (aged 25+):</b>			
Basic	21,2	30,4	34,6
Secondary without A-level exam.	58,4	62,6	68,1
Secondary with A-level exam.			
or Higher professional	80,5	84,2	86,0
University	90,4	94,1	95,0
<b>Specific groups:</b>			
Women on maternity leave	89,4	93,9	94,7
Students (aged 16+)	98,9	99,0	99,7
Pensioners	24,2	32,8	37,0

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

\* **internet users** - individuals who used the internet in the last 3 months

Figure C6 Individuals aged 16+ using the internet

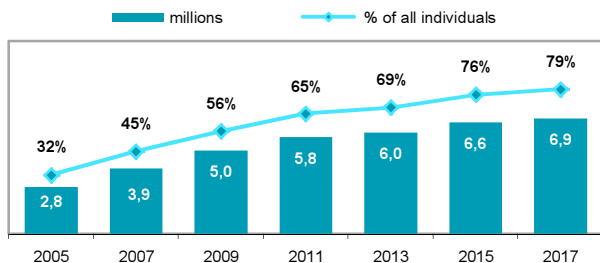
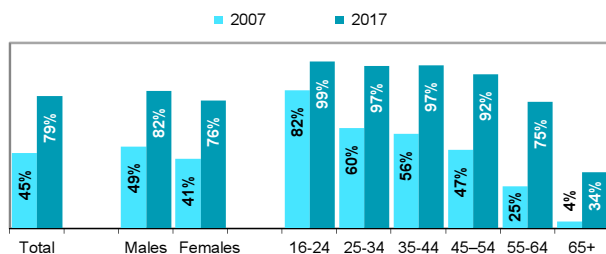


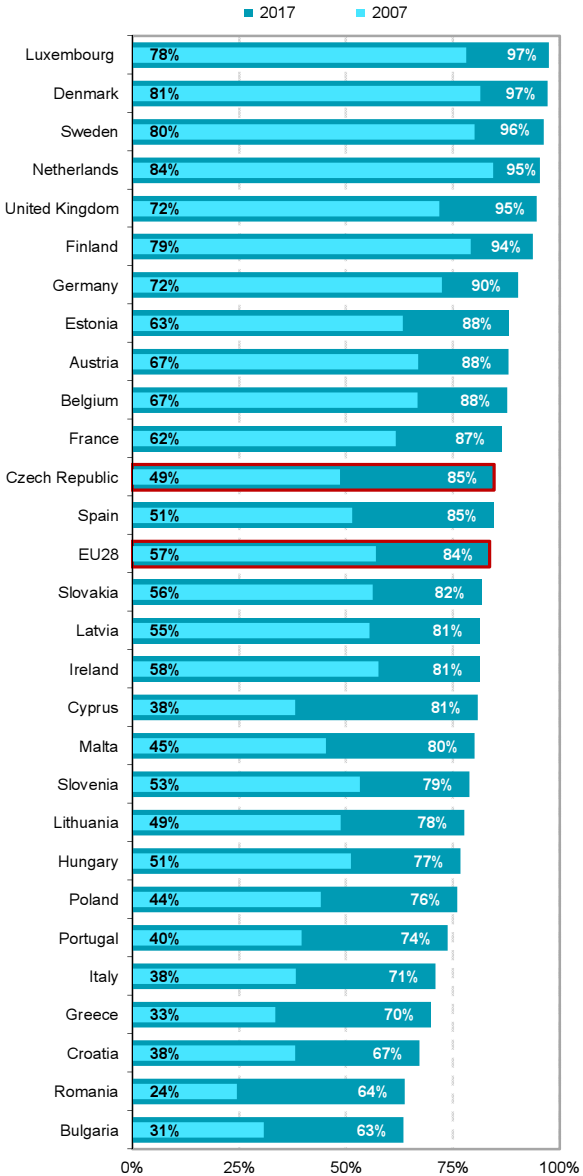
Figure C7 Individuals using the internet by sex and age



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

## C Individuals

**Figure C8 Individuals in EU countries aged 16-74 using the internet - internet users\***



\* individuals who used the internet in the last 3 months  
as a percentage of all individuals aged 16 to 74 in a given country

Source: Eurostat, 2018

## C Individuals

Tab. C4 Individuals in the Czech Republic accessing the internet via a mobile phone

	%		
	2015	2016	2017
<b>Total (aged 16+)</b>	<b>37,0</b>	<b>41,2</b>	<b>50,4</b>
Total (aged 16-74)	40,1	44,8	54,9
<b>Sex:</b>			
Males (aged 16+)	41,7	45,0	54,9
Females (aged 16+)	32,5	37,6	46,1
<b>Age group:</b>			
16-24 year-olds	77,1	81,1	86,7
25-34 year-olds	68,0	73,6	81,3
35-44 year-olds	48,6	54,7	71,4
45-54 year-olds	28,1	36,7	53,1
55-64 year-olds	14,2	17,6	28,6
65 year-olds and over	3,1	5,5	5,8
<b>Education attainment level (aged 25+):</b>			
Basic	9,2	12,1	15,0
Secondary without A-level exam.	20,5	24,8	34,5
Secondary with A-level exam.			
or Higher professional	34,8	43,8	53,1
University	59,1	63,2	71,3
<b>Specific groups:</b>			
Women on maternity leave	51,2	64,2	73,8
Students (aged 16+)	80,1	82,2	87,0
Pensioners	3,3	5,6	6,7

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

Figure C9 Individuals aged 16+ accessing the internet via a mobile phone

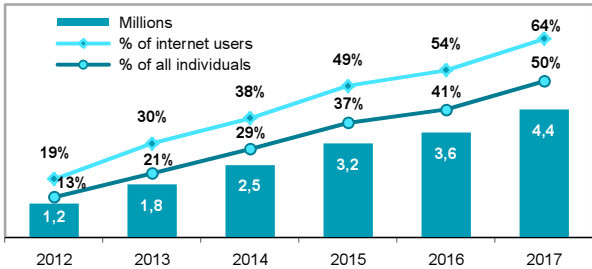
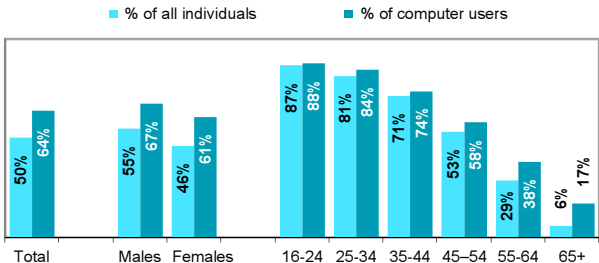


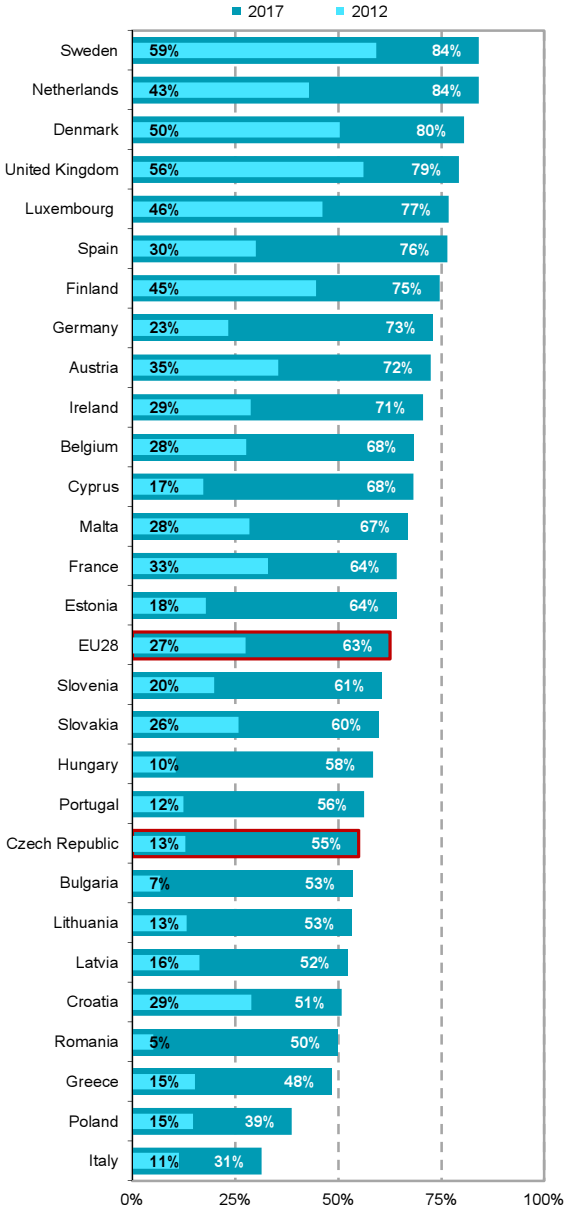
Figure C10 Individuals aged 16+ accessing the internet via a mobile phone by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C11 Individuals in EU countries aged 16-74 accessing the internet via a mobile phone**



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

Source: Eurostat, 2018

## C Individuals

Tab. C5 Individuals using mobile phone to access the internet via mobile phone network or wireless network (e.g. Wi-Fi); 2017 %

	Mobile phone network	Wi-Fi	via Wi-Fi only
<b>Total (aged 16+)</b>	<b>36,1</b>	<b>46,4</b>	<b>14,3</b>
Total (aged 16-74)	39,3	50,5	15,4
<b>Sex:</b>			
Males (aged 16+)	40,3	50,4	14,6
Females (aged 16+)	32,1	42,6	14,0
<b>Age group:</b>			
16-24 year-olds	60,7	81,2	26,0
25-34 year-olds	61,3	74,6	20,0
35-44 year-olds	52,5	65,6	18,9
45-54 year-olds	35,0	49,7	18,1
55-64 year-olds	20,1	25,7	8,5
65 year-olds and over	4,0	5,0	1,8
<b>Education attainment level (aged 25+):</b>			
Basic	9,7	11,0	5,3
Secondary without A-level exam.	23,5	30,5	11,0
Secondary with A-level exam.			
or Higher professional	39,1	49,3	14,0
University	53,0	68,0	18,3
<b>Specific groups:</b>			
Women on maternity leave	53,0	66,8	20,8
Students (aged 16+)	59,2	82,6	27,8
Pensioners	4,2	5,7	2,5

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

Figure C12 Individuals aged 16+ using mobile phone to access the internet via mobile phone network

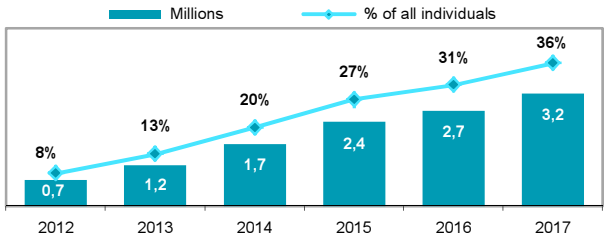
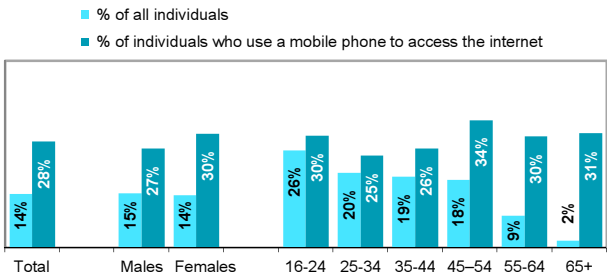


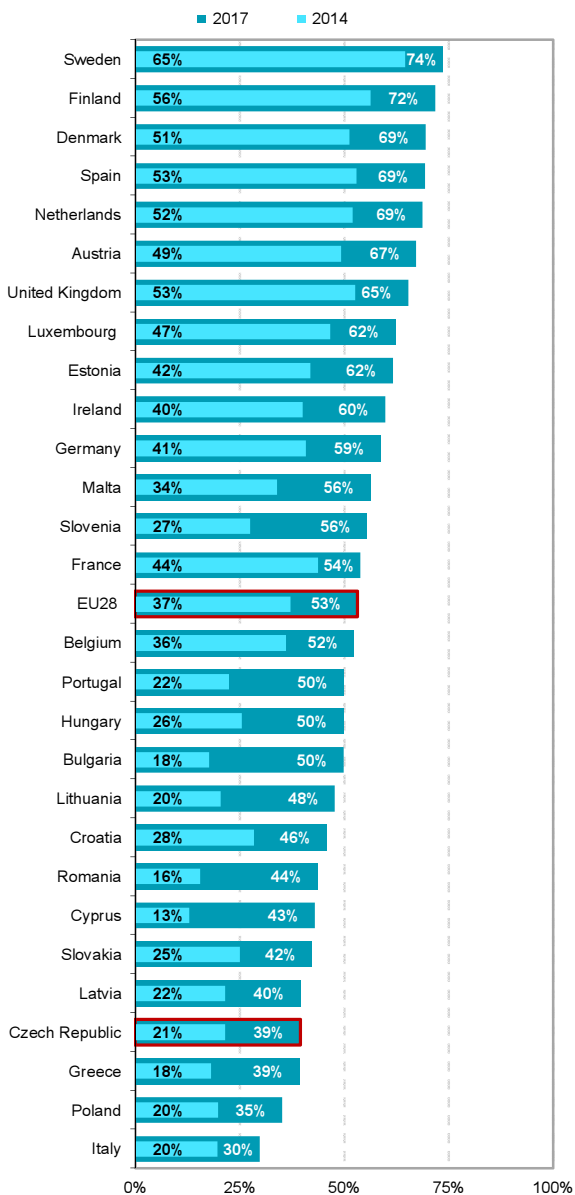
Figure C13 Individuals using mobile phone to access the internet only via Wi-Fi by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C14 Individuals in EU countries aged 16-74 who have used a mobile phone to access the internet via mobile phone network**



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

Source: Eurostat, 2018

## C Individuals

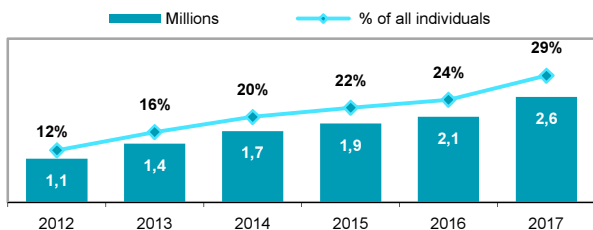
**Tab. C6 Individuals in the Czech Republic using a portable computer (laptop or tablet) to access the internet; 2017**

%

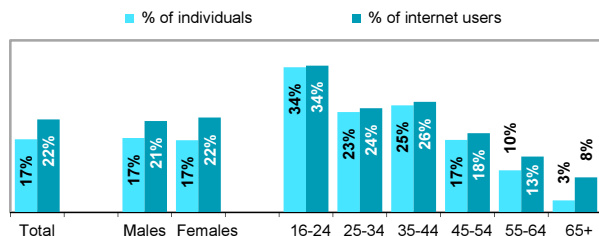
	Total	of which:	
		away from home or work	on tablet
<b>Total (aged 16+)</b>	57,8	29,5	17,0
Total (aged 16-74)	62,6	32,0	18,4
<b>Sex:</b>			
Males (aged 16+)	60,7	32,9	17,3
Females (aged 16+)	55,2	26,2	16,7
<b>Age group:</b>			
16-24 year-olds	86,1	63,7	33,7
25-34 year-olds	79,9	47,6	23,3
35-44 year-olds	74,8	36,0	24,9
45-54 year-olds	65,2	27,0	16,8
55-64 year-olds	46,2	17,5	9,8
65 year-olds and over	16,5	4,8	2,7
<b>Education attainment level (aged 25+):</b>			
Basic	18,2	5,9	5,7
Secondary without A-level exam.	42,5	13,1	10,3
Secondary with A-level exam.	63,2	30,6	16,5
or Higher professional University	79,6	49,5	26,2
<b>Specific groups:</b>			
Women on maternity leave	72,5	33,6	25,4
Students (aged 16+)	89,8	70,7	37,1
Pensioners	18,6	5,1	3,2

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

**Figure C15 Individuals aged 16+ using a portable computer to access the internet away from home or work**



**Figure C16 Individuals using the internet via tablet by sex and age; 2017**

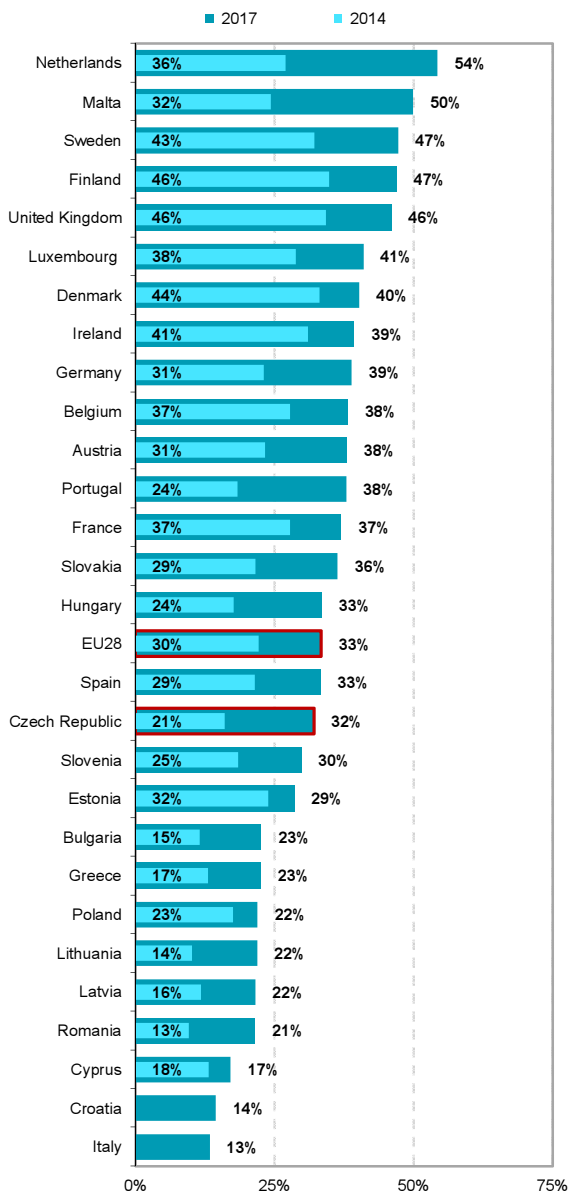


Source: Czech Statistical Office, ICT use survey in households, 2018



## C Individuals

**Figure C17 Individuals in EU countries aged 16-74 using portable computer to access the internet away from home or work**



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

Source: Eurostat, 2018

## C Individuals

Tab. C7 Individuals aged 55-74 years using the internet in the Czech Republic

	%		
	2013	2015	2017
<b>Total</b>	<b>44,1</b>	<b>55,5</b>	<b>60,7</b>
Regularly (at least once a week)	39,1	48,5	54,0
<b>Sex:</b>			
Males (aged 16+)	48,3	59,1	64,6
Females (aged 16+)	42,1	52,0	57,3
<b>Age group:</b>			
55-64 year-olds	58,0	68,0	75,3
65-74 year-olds	27,4	39,5	44,9
<b>Education attainment level (aged 25+):</b>			
Basic	13,6		23,7
Secondary without A-level exam.	34,9	44,5	49,6
Secondary with A-level exam.			
or Higher professional	60,9	71,5	74,7
University	79,3	88,8	92,4
<b>Specific groups:</b>			
Employed	74,1	80,5	86,6
Pensioners	31,9	43,1	47,4

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

Figure C18 Individuals aged 55-74 years using the internet by frequency of use

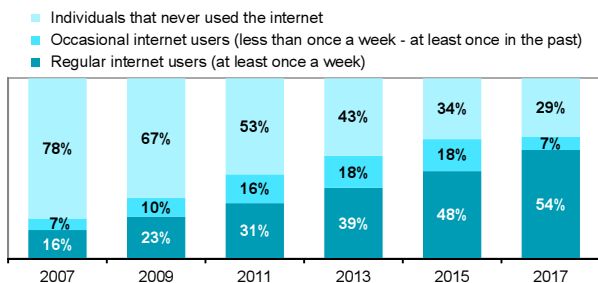
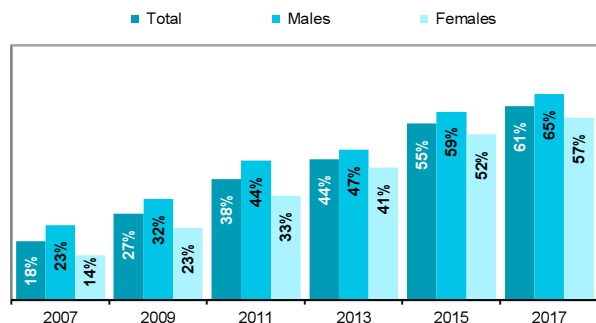


Figure C19 Individuals aged 55-74 years using the internet

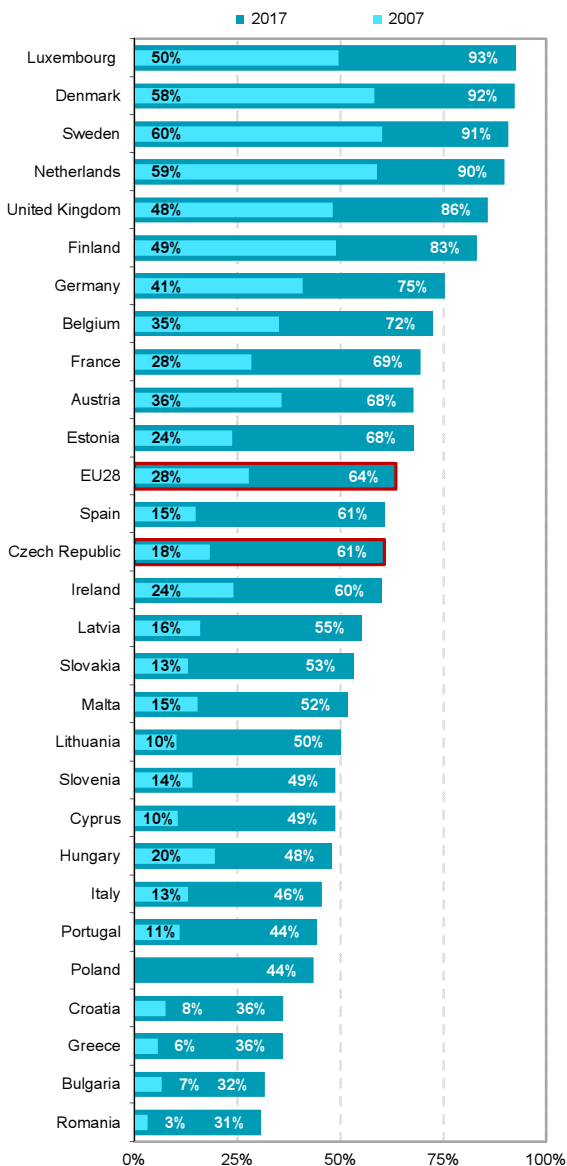


as a percentage of all individuals (males and females) aged 55-74 years

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C20 Individuals in EU countries aged 55-74 using the internet - internet users\***



\* individuals who used the internet at least one in the last 3 months as a percentage of all individuals aged 55 to 74 in a given country

Source: Eurostat, 2018

## C Individuals

Tab. C8 Individuals aged 55-74 years using portable computer and mobile to access the internet in the Czech Republic; 2017

	Total	Males	Females
<b>Portable computer, total</b>	<b>34,8</b>	<b>38,5</b>	<b>31,5</b>
Laptop	31,9	35,7	28,4
Tablet	6,8	7,3	6,4
<b>Mobile phone</b>	<b>19,0</b>	<b>23,2</b>	<b>15,1</b>

as a percentage of all individuals (males and females) aged 55 to 74 years

Figure C21 Individuals aged 55-74 years using the internet via mobile phone

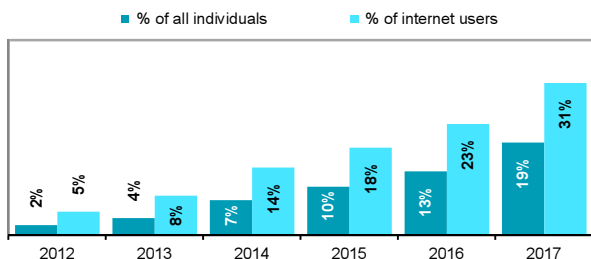


Figure C22 Individuals aged 55-74 years using the internet on mobile phone by sex, age and education attainment level; 2017

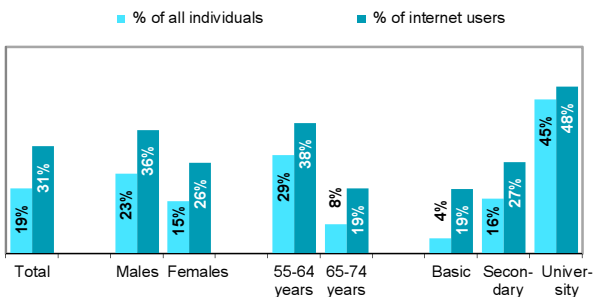
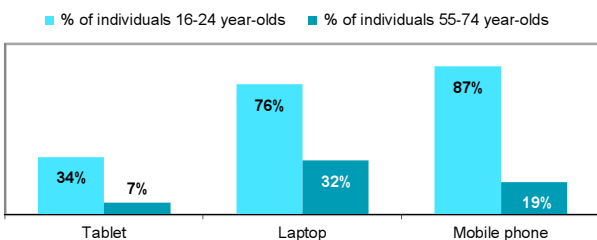


Figure C23 Individuals in selected age groups using portable devices to access the internet; 2017

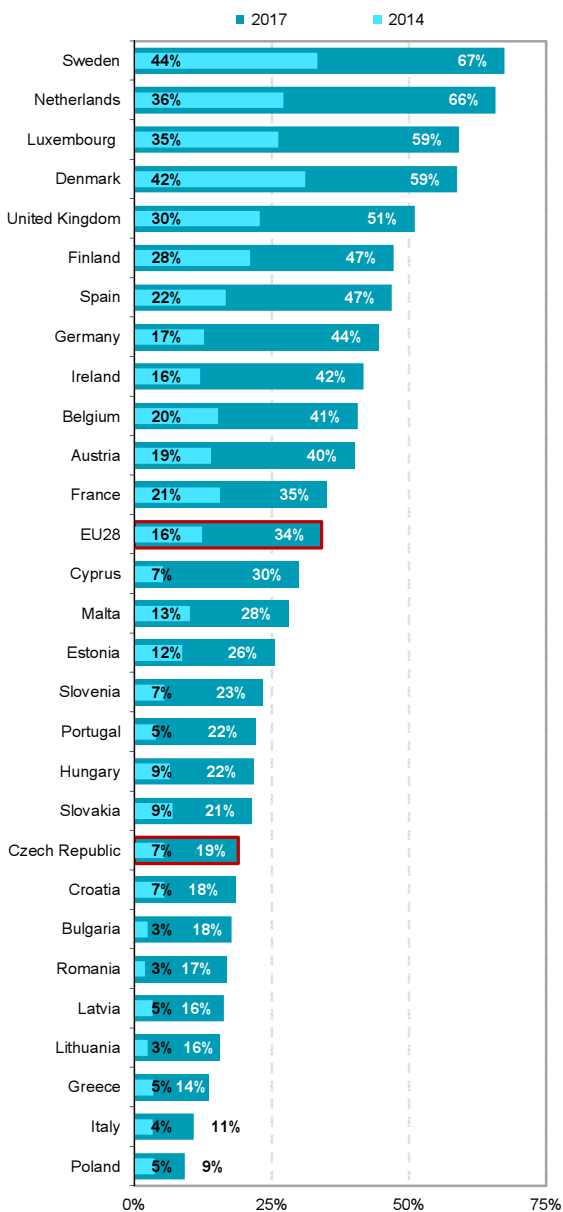


as a percentage of all individuals in given age group

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

Figure C24 Individuals in EU countries aged 55-74 years using the internet on mobile phone



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

Source: Eurostat, 2018

## C Individuals

Tab. C9 Individuals in the Czech Republic using social networks

	2013	2015	2017
<b>Total (aged 16+)</b>	<b>34,3</b>	<b>37,4</b>	<b>44,2</b>
Total (aged 16-74)	36,3	40,7	48,2
<b>Sex:</b>			
Males (aged 16+)	35,8	37,6	44,7
Females (aged 16+)	32,9	37,3	43,9
<b>Age group:</b>			
16-24 year-olds	85,4	88,7	93,2
25-34 year-olds	65,5	72,3	78,8
35-44 year-olds	40,2	46,9	59,0
45-54 year-olds	21,3	23,9	38,8
55-64 year-olds	9,7	10,1	19,4
65 year-olds and over	2,0	3,3	5,1
<b>Education attainment level (aged 25+):</b>			
Basic	7,2	9,2	15,9
Secondary without A-level exam.	19,3	22,1	29,4
Secondary with A-level exam.	33,6	35,5	45,6
or Higher professional	44,1	47,2	54,8
University			
<b>Specific groups:</b>			
Women on maternity leave	54,2	67,4	76,2
Students (aged 16+)	90,1	93,3	94,6
Pensioners	3,3	3,7	5,8

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

Figure C25 Individuals aged 16+ using social networks

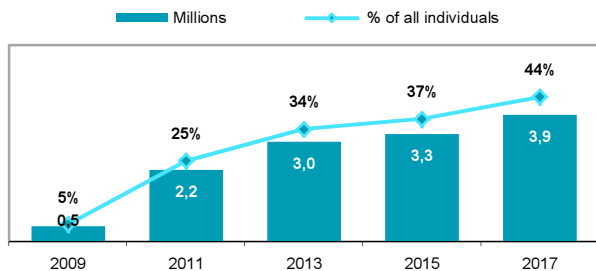
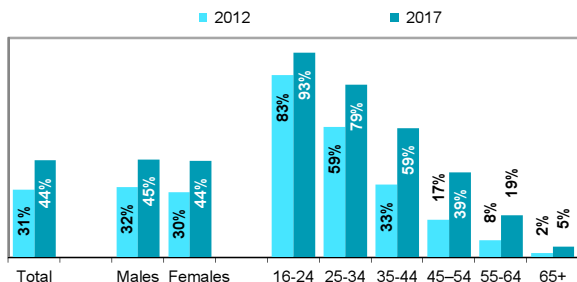


Figure C26 Individuals using social networks by sex and age

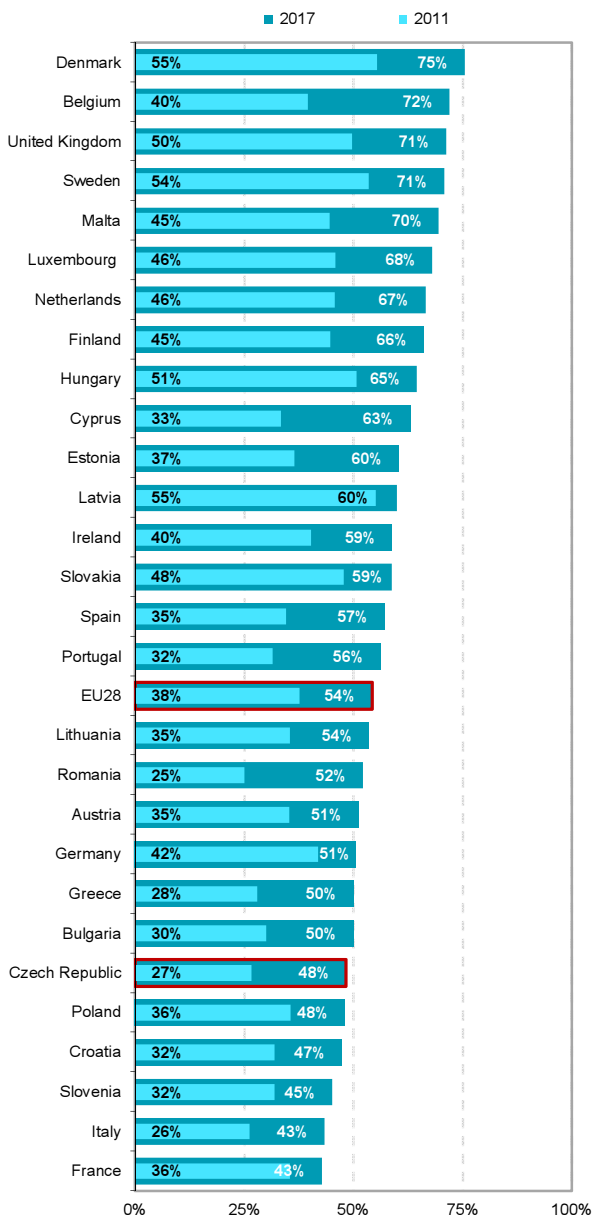


as a percentage of all individuals in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C27 Individuals in EU countries aged 16-74 using social networks**

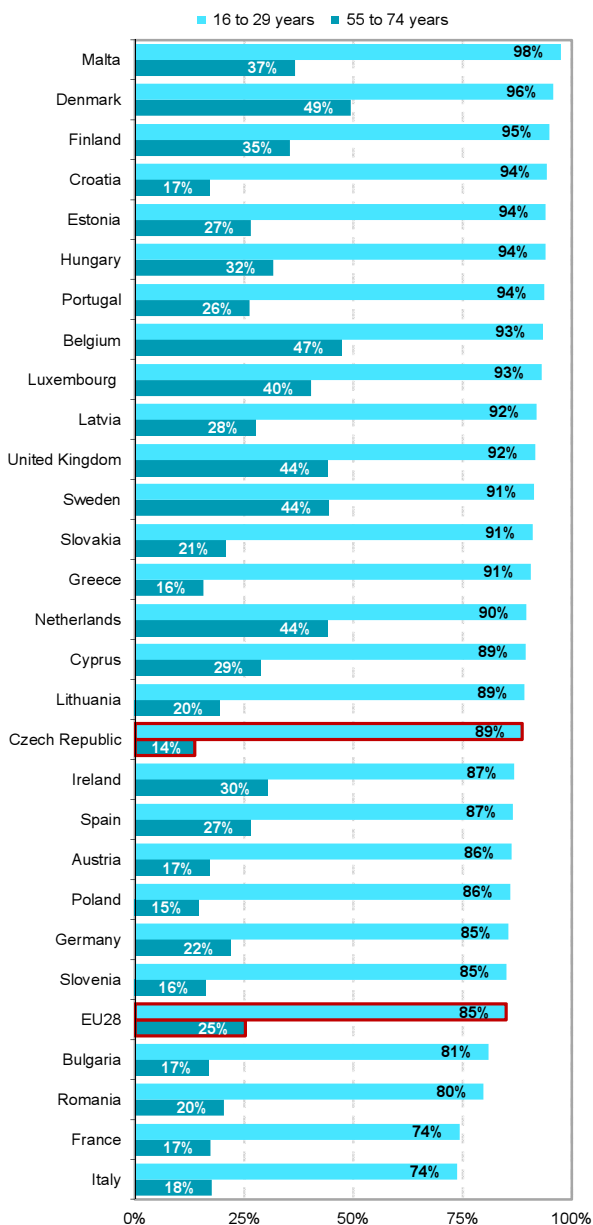


as a percentage of all individuals aged 16 to 74 in a given country

Source: Eurostat, 2018

## C Individuals

Figure C28 Individuals in EU countries using social networks by age; 2017



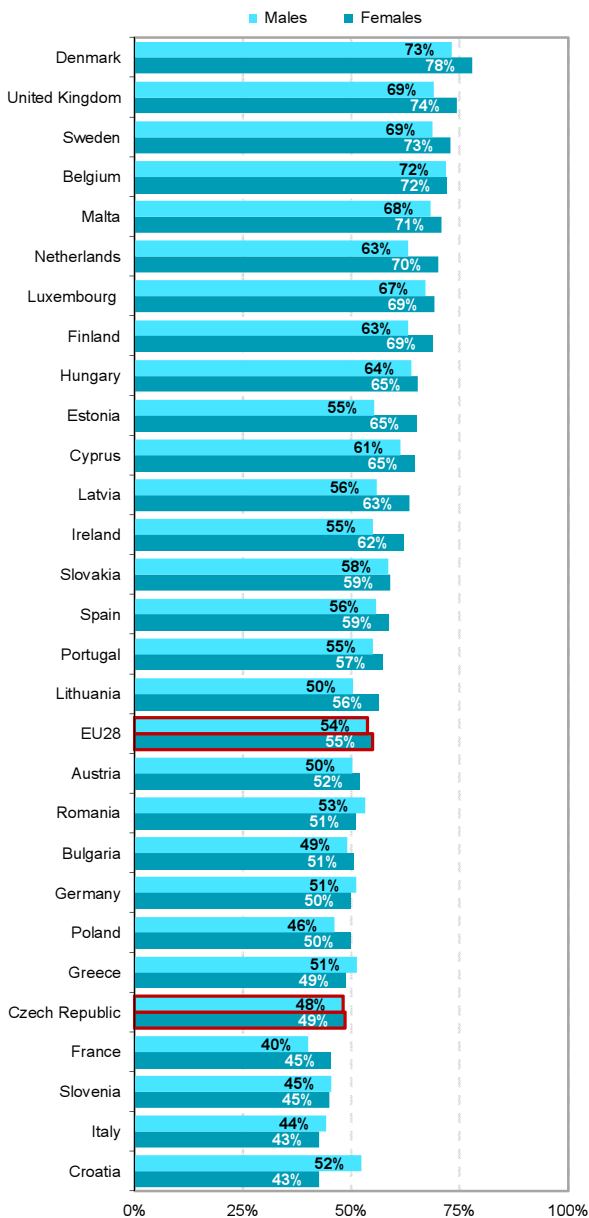
as a percentage of all individuals in a given age group and country

Source: Eurostat, 2018



## C Individuals

Figure C29 Individuals in EU countries aged 16-74 using social networks by sex; 2017



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

Source: Eurostat, 2018

## C Individuals

Tab.C10 Individuals in the Czech Republic reading on-line news\*  
%

	2013	2015	2017
<b>Total (aged 16+)</b>	<b>58,7</b>	<b>65,2</b>	<b>71,2</b>
Total (aged 16-74)	63,3	70,0	76,6
<b>Sex:</b>			
Males (aged 16+)	61,9	68,4	74,5
Females (aged 16+)	55,7	62,2	68,5
<b>Age group:</b>			
16-24 year-olds	78,5	79,9	86,5
25-34 year-olds	76,1	85,0	87,8
35-44 year-olds	77,9	81,3	88,7
45-54 year-olds	68,4	75,4	84,7
55-64 year-olds	47,5	57,3	68,6
65 year-olds and over	15,3	24,5	30,1
<b>Education attainment level (aged 25+):</b>			
Basic	15,6	21,2	27,5
Secondary without A-level exam.	47,3	52,0	61,4
Secondary with A-level exam. or Higher professional	68,1	76,1	78,5
University	79,3	85,5	90,2
<b>Specific groups:</b>			
Women on maternity leave	72,6	79,9	85,6
Students (aged 16+)	80,1	83,0	87,6
Pensioners	19,7	28,0	33,3

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

\* includes reading of news on on-line servers, e.g. iDnes.cz, aktualne.cz, ihned.cz, novinky.cz, and reading of on-line newspapers and magazines

Figure C30 Individuals aged 16+ reading on-line news

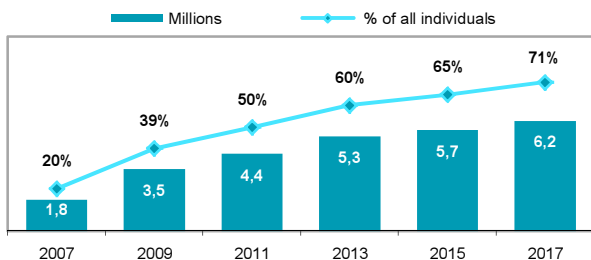
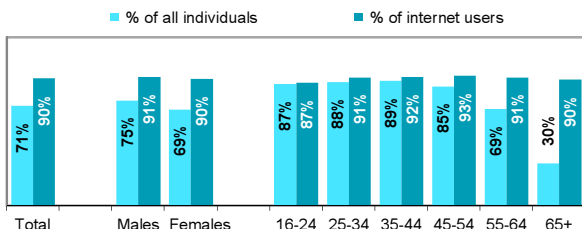


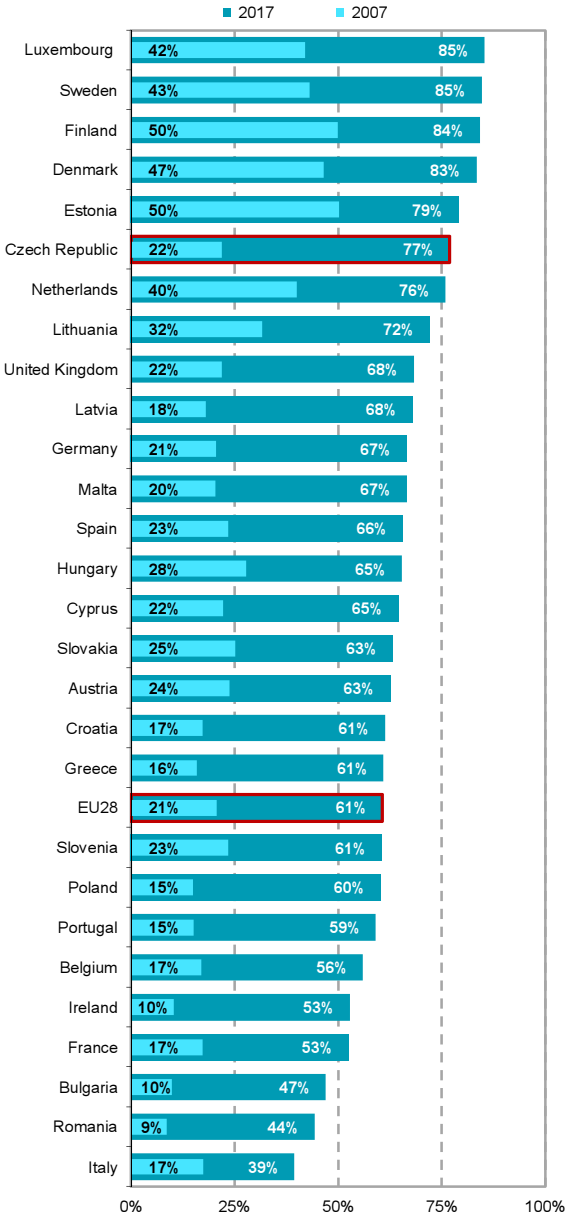
Figure C31 Individuals reading on-line news by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

Figure C32 Individuals in EU countries aged 16-74 reading on-line news



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

Source: Eurostat, 2018

## C Individuals

Tab. C11 Individuals in the Czech Republic using the internet for activities connected to travelling; 2017

%

	Looking for info. about travelling	Accommodation purchase	Travel tickets purchase
<b>Total (aged 16+)</b>	<b>44,2</b>	<b>19,1</b>	<b>9,4</b>
Total (aged 16-74)	48,0	20,8	10,2
<b>Sex:</b>			
Males (aged 16+)	43,1	22,0	10,7
Females (aged 16+)	45,7	16,4	8,1
<b>Age group:</b>			
16-24 year-olds	55,2	16,9	16,0
25-34 year-olds	65,1	29,4	16,9
35-44 year-olds	59,3	29,3	12,9
45-54 year-olds	50,5	23,4	9,0
55-64 year-olds	35,4	13,8	5,0
65 year-olds and over	13,4	4,4	1,2
<b>Education attainment level (aged 25+):</b>			
Basic	10,7	3,4	2,2
Secondary without A-level exam.	29,9	9,3	3,1
Secondary with A-level exam.			
or Higher professional	51,9	23,3	8,8
University	68,6	39,5	22,2
<b>Specific groups:</b>			
Women on maternity leave	51,4	15,4	10,1
Students (aged 16+)	56,3	15,6	19,1
Pensioners	14,8	4,1	1,3

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

Figure C33 Individuals aged 16+ looking for information about travelling or accommodation

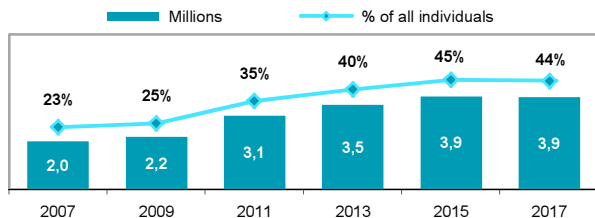
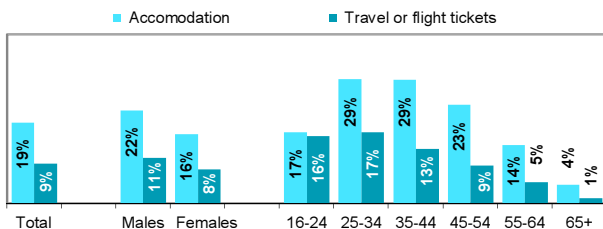


Figure C34 Individuals purchasing accommodation or travel/flight tickets by sex and age; 2017

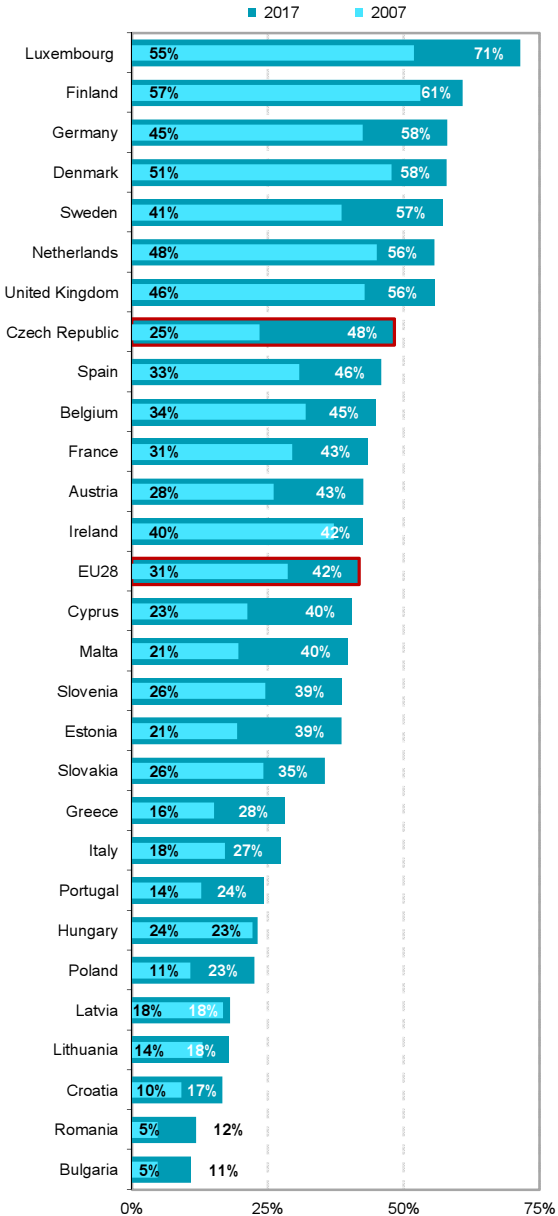


as a percentage of all individuals in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C35 Individuals in EU countries aged 16-74 looking for information about travelling or accomodation**



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

Source: Eurostat, 2018

## C Individuals

Tab. C12 Individuals in the Czech Republic using the internet for selected activities connected to entertainment; 2017

	Playing games	Uploading pictures/video	Watching paid video
<b>Total (aged 16+)</b>	<b>19,6</b>	<b>32,2</b>	<b>3,7</b>
Total (aged 16-74)	21,2	35,1	4,0
<b>Sex:</b>			
Males (aged 16+)	28,9	34,9	4,5
Females (aged 16+)	10,9	30,0	2,8
<b>Age group:</b>			
16-24 year-olds	66,8	79,6	10,7
25-34 year-olds	30,2	60,7	7,0
35-44 year-olds	19,6	39,6	4,5
45-54 year-olds	12,5	24,0	2,2
55-64 year-olds	8,1	13,3	1,2
65 year-olds and over	4,0	3,4	0,2
<b>Education attainment level (aged 25+):</b>			
Basic	9,6	7,5	0,3
Secondary without A-level exam.	14,4	18,5	1,4
Secondary with A-level exam.			
or Higher professional	15,2	32,3	3,3
University	14,9	42,9	6,2
<b>Specific groups:</b>			
Women on maternity leave	13,4	52,7	4,2
Students (aged 16+)	67,1	84,1	10,8
Pensioners	4,7	3,7	0,2

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

Figure C36 Individuals uploading pictures/videos or other content on websites by sex and age; 2017

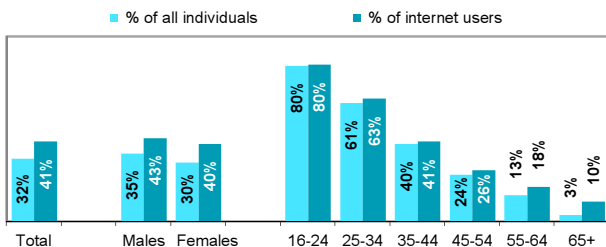
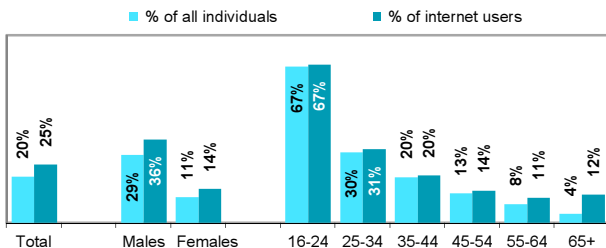


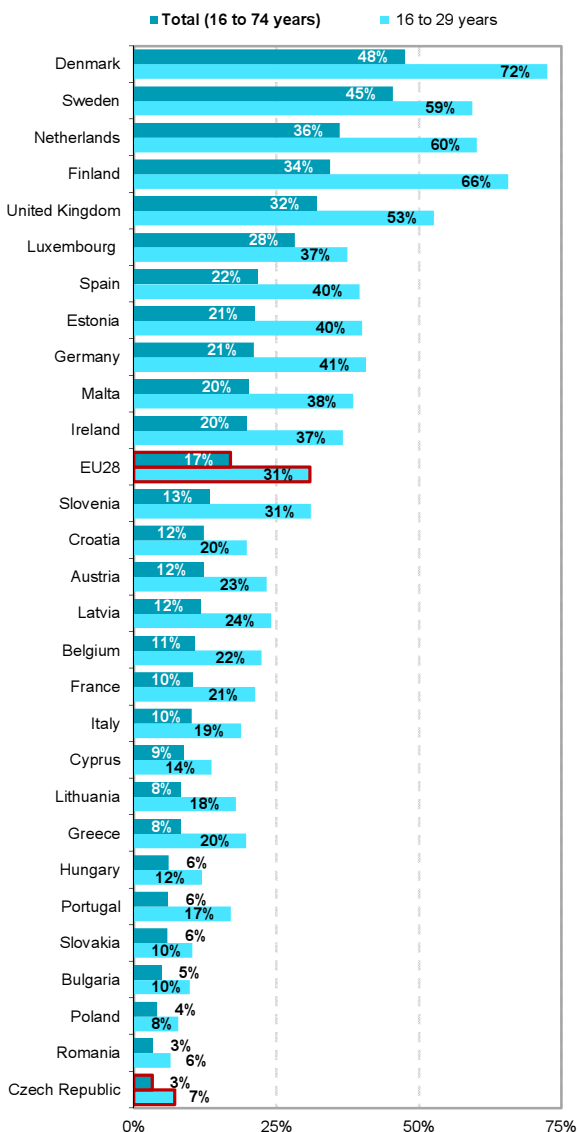
Figure C37 Individuals playing games over the internet by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

Figure C38 Individuals in EU countries watching videos from paid video catalogs\*; 2016



\* includes watching movies, TV series or other video content on commercial websites (e.g. Netflix or Apple iTunes) where subscription and payment are required

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

Source: Eurostat, 2018

## C Individuals

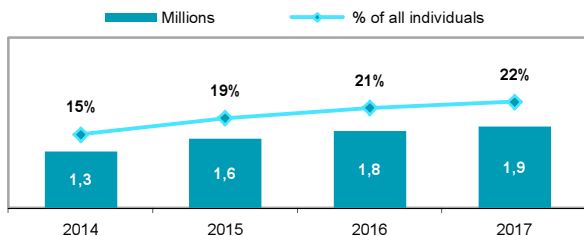
Tab. C13 Individuals in the Czech Rep. using internet storage

%

	2014	2015	2017
<b>Total (aged 16+)</b>	<b>15,1</b>	<b>18,5</b>	<b>21,8</b>
Total (aged 16-74)	16,4	20,0	23,7
<b>Sex:</b>			
Males (aged 16+)	19,0	22,0	25,4
Females (aged 16+)	11,3	15,2	18,8
<b>Age group:</b>			
16-24 year-olds	32,9	39,3	47,7
25-34 year-olds	32,1	33,9	39,3
35-44 year-olds	15,7	22,0	26,6
45-54 year-olds	11,6	14,7	18,8
55-64 year-olds	5,1	8,2	11,9
65 year-olds and over	1,4	2,0	3,3
<b>Education attainment level (aged 25+):</b>			
Basic	1,5	4,0	3,2
Secondary without A-level exam.	4,2	5,1	7,8
Secondary with A-level exam.			
or Higher professional	18,4	17,7	20,9
University	35,8	41,8	45,2
<b>Specific groups:</b>			
Women on maternity leave	18,2	23,0	29,9
Students (aged 16+)	37,8	44,5	54,2
Pensioners	1,5	2,1	3,1

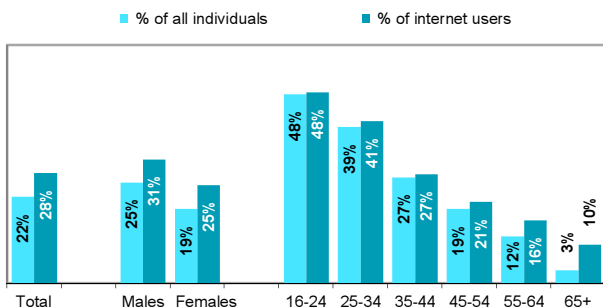
as a percentage of all individuals in a given socio-demographic group

Figure C39 Individuals aged 16+ using internet storage



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

Figure C40 Individuals using internet storage by sex and age; 2017

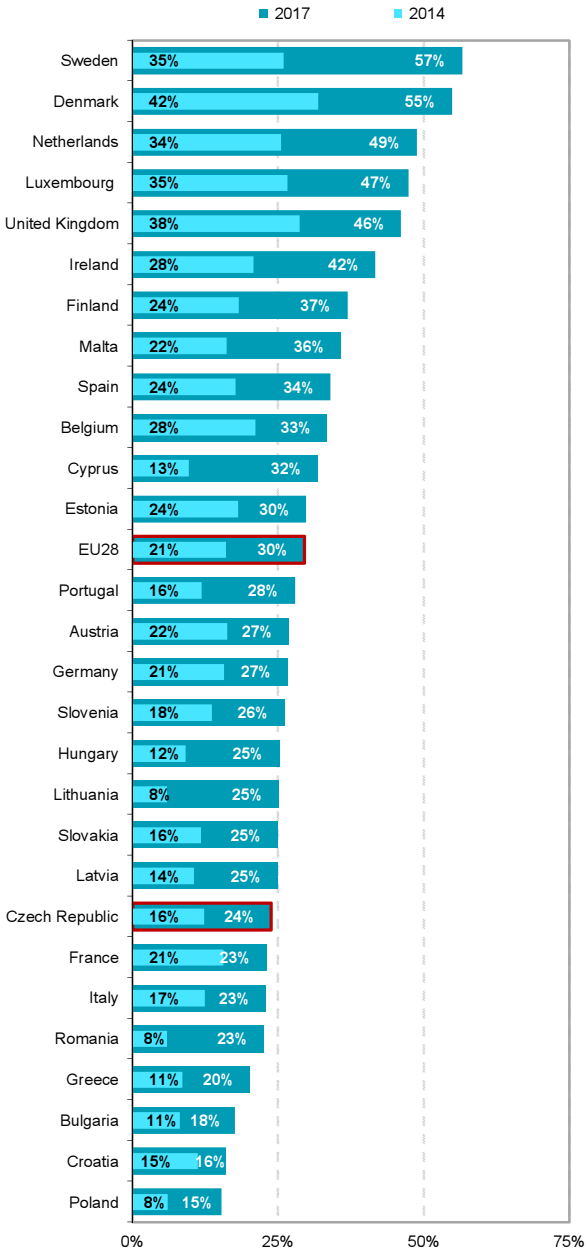


Source: Czech Statistical Office, ICT use survey in households, 2018



## C Individuals

Figure C41 Individuals in EU countries using internet storage



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

Source: Eurostat, 2018

## C Individuals

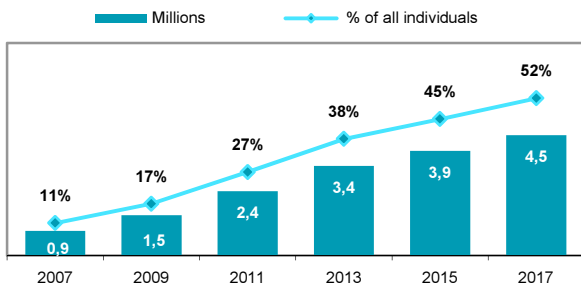
**Tab. C14 Individuals in the Czech Rep. using internet banking**

%

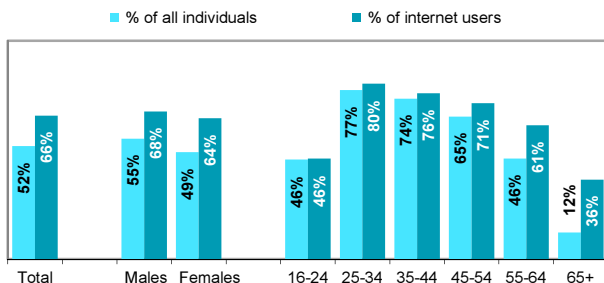
	2013	2015	2017
<b>Total (aged 16+)</b>	<b>38,4</b>	<b>44,9</b>	<b>51,8</b>
Total (aged 16-74)	41,5	48,5	56,3
<b>Sex:</b>			
Males (aged 16+)	40,2	47,0	55,1
Females (aged 16+)	36,7	43,0	49,0
<b>Age group:</b>			
16-24 year-olds	31,0	36,1	45,6
25-34 year-olds	62,5	68,4	77,4
35-44 year-olds	58,5	68,5	73,5
45-54 year-olds	45,7	54,8	65,3
55-64 year-olds	27,9	33,4	46,1
65 year-olds and over	6,0	10,2	12,2
<b>Education attainment level (aged 25+):</b>			
Basic	5,9	8,9	12,1
Secondary without A-level exam.	27,0	30,4	39,2
Secondary with A-level exam.			
or Higher professional	50,8	58,1	62,9
University	68,8	76,3	79,9
<b>Specific groups:</b>			
Women on maternity leave	57,9	61,8	73,4
Students (aged 16+)	24,9	31,6	37,4
Pensioners	7,7	11,7	14,5

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

**Figure C42 Individuals aged 16+ using internet banking**



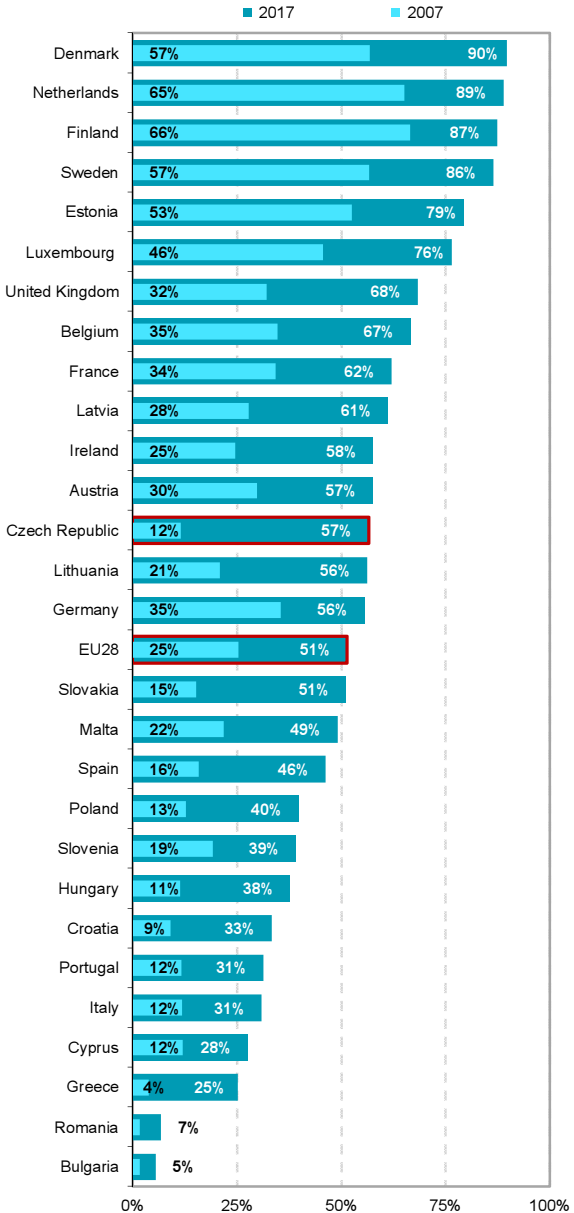
**Figure C43 Individuals using internet banking by sex and age; 2017**



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C44 Individuals in EU countries aged 16-74 using internet banking**



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

Source: Eurostat, 2018

## C Individuals

Tab. C15 Individuals in the Czech Republic purchasing over the internet; 2017

	At least once in the past	In the last 12 months*	In the last 3 months
<b>Total (aged 16+)</b>	<b>61,6</b>	<b>51,2</b>	<b>31,3</b>
Total (aged 16-74)	66,6	55,5	34,0
<b>Sex:</b>			
Males (aged 16+)	64,5	53,0	31,1
Females (aged 16+)	60,0	50,3	32,1
<b>Age group:</b>			
16-24 year-olds	79,1	69,8	42,8
25-34 year-olds	89,1	79,1	53,1
35-44 year-olds	84,5	70,9	45,1
45-54 year-olds	70,1	56,2	32,3
55-64 year-olds	50,2	38,6	21,9
65 year-olds and over	18,5	12,7	5,7
<b>Education attainment level (aged 25+):</b>			
Basic	19,4	12,2	5,9
Secondary without A-level exam.	47,7	35,3	19,1
Secondary with A-level exam.			
or Higher professional	70,8	59,5	36,4
University	85,4	77,3	52,9
<b>Specific groups:</b>			
Women on maternity leave	88,8	77,6	58,6
Students (aged 16+)	76,8	68,5	41,4
Pensioners	21,1	14,5	6,7

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

\* **individuals purchasing online** - main indicator used for international comparison

Figure C45 Individuals aged 16+ who have never purchased over the internet

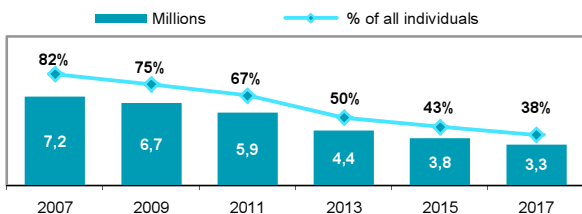
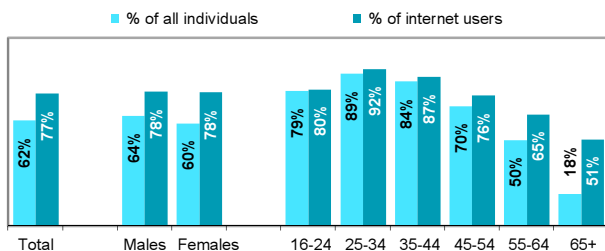


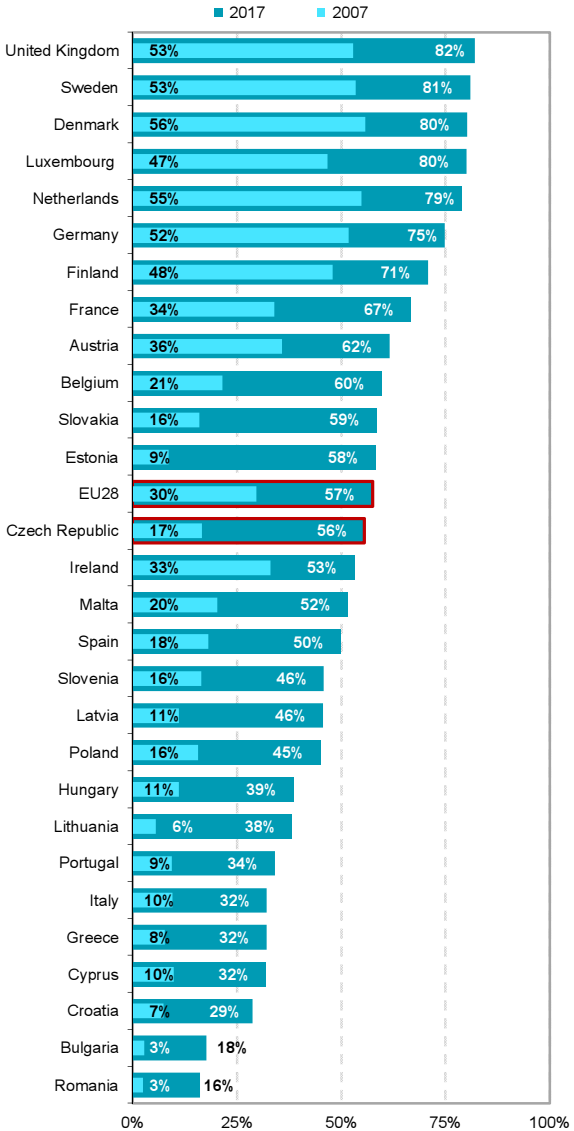
Figure C46 Individuals who have purchased over the internet at least once in the past by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C47 Individuals in EU countries aged 16-74 purchasing over the internet\***



\* individuals who purchased (ordered a good or a service) over the internet at least once in the last 12 months is one of the main indicators (individual purchasing online) used for international comparison

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

Source: Eurostat, 2018

## C Individuals

Tab. C16 Individuals in the Czech Republic purchasing over the internet at least once in the last 12 months

	%		
	2013	2015	2017
<b>Total (aged 16+)</b>	<b>33,6</b>	<b>41,9</b>	<b>51,2</b>
Total (aged 16-74)	36,4	45,3	55,5
<b>Sex:</b>			
Males (aged 16+)	35,6	42,6	53,0
Females (aged 16+)	33,4	41,2	50,3
<b>Age group:</b>			
16-24 year-olds	54,1	60,6	69,8
25-34 year-olds	58,3	66,9	79,1
35-44 year-olds	47,0	59,2	70,9
45-54 year-olds	32,5	41,2	56,2
55-64 year-olds	19,8	25,7	38,6
65 year-olds and over	4,6	8,0	12,7
<b>Education attainment level (aged 25+):</b>			
Basic	5,8	7,8	12,2
Secondary without A-level exam.	21,6	26,6	35,3
Secondary with A-level exam.			
or Higher professional	41,8	49,2	59,5
University	54,3	62,1	77,3
<b>Specific groups:</b>			
Women on maternity leave	55,1	65,2	77,6
Students (aged 16+)	54,5	61,4	68,5
Pensioners	6,4	9,6	14,5

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

Figure C48 Individuals aged 16+ purchasing over the internet

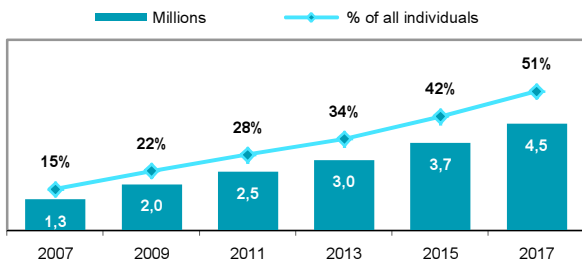
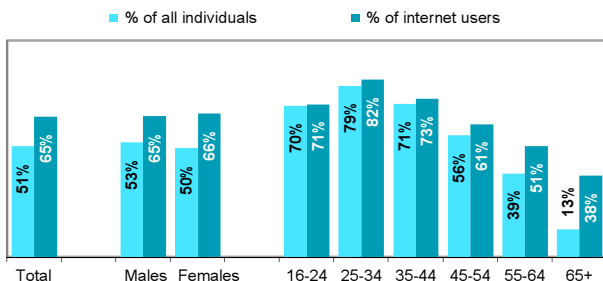


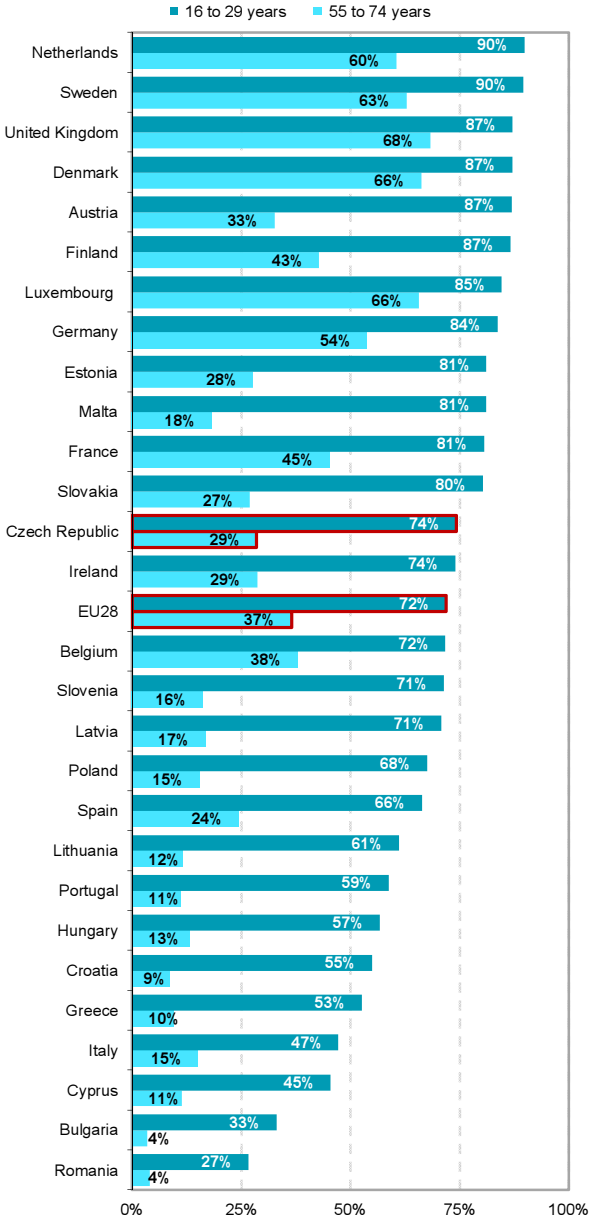
Figure C49 Individuals purchasing over the internet by sex and age; 2017



Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

Figure C50 Individuals in EU countries purchasing over the internet by age; 2017



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

Source: Eurostat, 2018

## C Individuals

Tab. C17 Individuals in the Czech Republic purchasing over the internet by seller's country of origin; 2017

	National sellers	Sellers from other EU countries	Sellers from the rest of the world
<b>Total (aged 16+)</b>	<b>47,2</b>	<b>7,4</b>	<b>4,2</b>
Total (aged 16-74)	51,1	8,1	4,5
<b>Sex:</b>			
Males (aged 16+)	48,2	8,4	4,6
Females (aged 16+)	46,3	6,4	3,8
<b>Age group:</b>			
16-24 year-olds	61,5	10,3	7,3
25-34 year-olds	71,4	14,1	8,5
35-44 year-olds	65,7	8,8	6,2
45-54 year-olds	51,5	8,6	3,1
55-64 year-olds	35,3	4,4	1,8
65 year-olds and over	12,1	1,3	0,2
<b>Education attainment level (aged 25+):</b>			
Basic	10,5	1,4	0,9
Secondary without A-level exam.	31,8	3,6	1,6
Secondary with A-level exam. or Higher professional University	54,8	7,8	4,3
University	72,4	15,2	8,5
<b>Specific groups:</b>			
Women on maternity leave	72,7	8,2	6,8
Students (aged 16+)	62,1	9,7	8,0
Pensioners	13,7	1,1	0,3

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

Figure C51 Individuals purchasing over the internet from non-national sellers\*

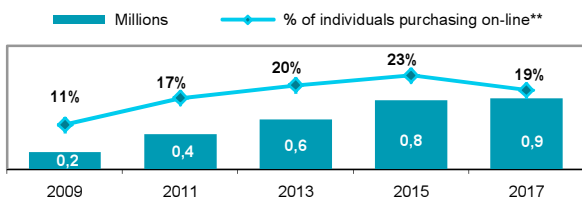
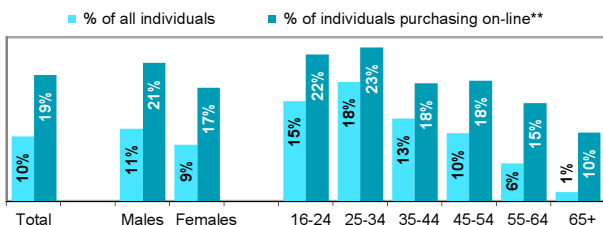


Figure C52 Individuals purchasing over the internet from non-national sellers\* by sex and age; 2017



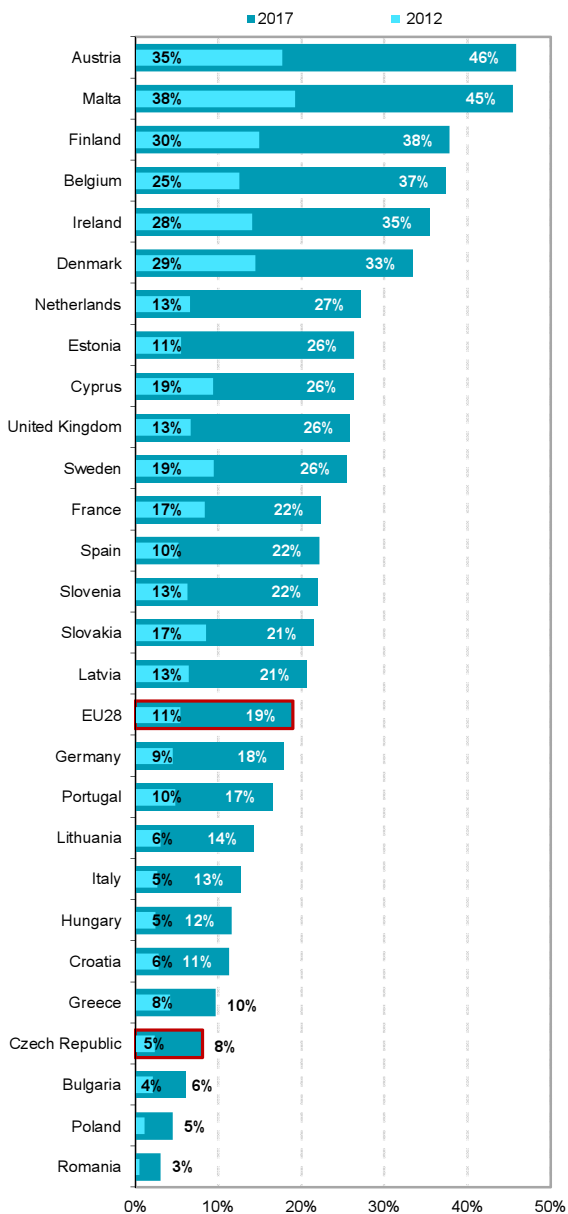
\* sellers from other EU countries and from the rest of the world

\*\* individuals who purchased (ordered a good or a service) over the internet at least once in the last 12 months



## C Individuals

Figure C53 Individuals in EU countries aged 16-74 purchasing over the internet from sellers from other EU countries



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

Source: Eurostat, 2018

## C Individuals

Tab. C18 Individuals in the Czech Republic purchasing selected goods over the internet; 2017

%

	Clothes, shoes and accessories	Electronic equipment	Food or groceries
<b>Total (aged 16+)</b>	<b>27,8</b>	<b>15,7</b>	<b>10,7</b>
Total (aged 16-74)	30,4	17,1	11,7
<b>Sex:</b>			
Males (aged 16+)	18,9	23,0	5,7
Females (aged 16+)	36,6	8,7	15,6
<b>Age group:</b>			
16-24 year-olds	42,9	17,3	11,6
25-34 year-olds	48,0	23,6	18,7
35-44 year-olds	41,9	23,2	18,3
45-54 year-olds	26,8	16,3	10,4
55-64 year-olds	15,6	12,6	5,9
65 year-olds and over	3,7	4,2	1,7
<b>Education attainment level (aged 25+):</b>			
Basic	6,1	3,7	2,6
Secondary without A-level exam.	17,4	10,2	6,2
Secondary with A-level exam. or Higher professional	32,2	16,9	13,3
University	42,0	28,9	18,5
<b>Specific groups:</b>			
Women on maternity leave	60,2	10,7	31,6
Students (aged 16+)	41,3	16,5	15,1
Pensioners	4,7	4,6	1,8

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

Figure C54 Individuals purchasing clothes, shoes and accessories by sex and age; 2017

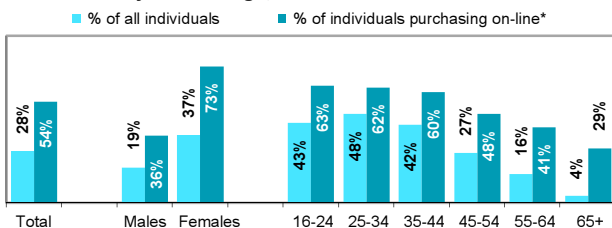
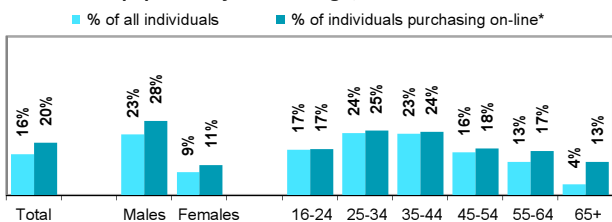


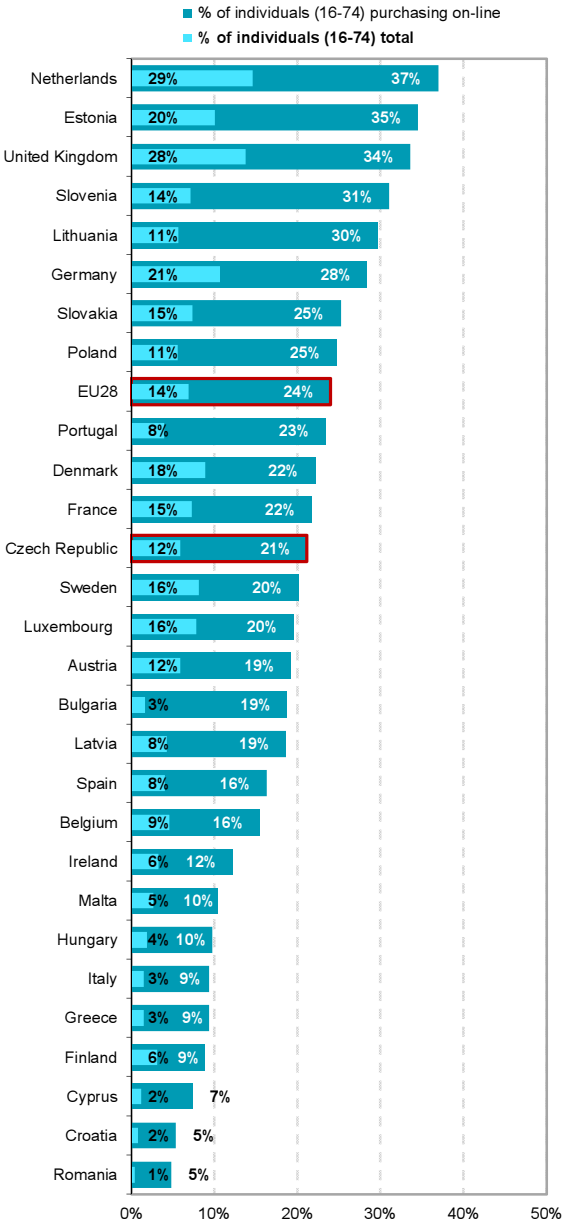
Figure C55 Individuals purchasing home appliances and electronic equipment by sex and age; 2017



\* individuals who purchased (ordered a good or a service) over the internet at least once in the last 12 months

## C Individuals

**Figure C56 Individuals in EU countries who in the last 12 months purchased food or groceries over the internet; 2017**



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

Source: Eurostat, 2018

## C Individuals

Tab. C19 Individuals in the Czech Republic purchasing selected services over the internet; 2017

%

	Cultural events tickets	Sport events tickets	Accommodation
<b>Total (aged 16+)</b>	<b>15,1</b>	<b>5,2</b>	<b>19,1</b>
Total (aged 16-74)	16,4	5,7	20,8
<b>Sex:</b>			
Males (aged 16+)	13,8	8,7	22,0
Females (aged 16+)	16,3	1,9	16,4
<b>Age group:</b>			
16-24 year-olds	25,3	12,5	16,9
25-34 year-olds	28,6	8,9	29,4
35-44 year-olds	20,4	7,1	29,3
45-54 year-olds	13,4	4,0	23,4
55-64 year-olds	8,0	2,9	13,8
65 year-olds and over	2,2	0,3	4,4
<b>Education attainment level (aged 25+):</b>			
Basic	2,3	0,9	3,4
Secondary without A-level exam.	6,5	3,2	9,3
Secondary with A-level exam.			
or Higher professional	17,1	5,1	23,3
University	28,1	7,1	39,5
<b>Specific groups:</b>			
Women on maternity leave	19,1	1,7	15,4
Students (aged 16+)	27,2	11,6	15,6
Pensioners	2,5	0,2	4,1

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

Figure C57 Individuals in the Czech Republic purchasing cultural/sport events tickets by sex and age; 2017

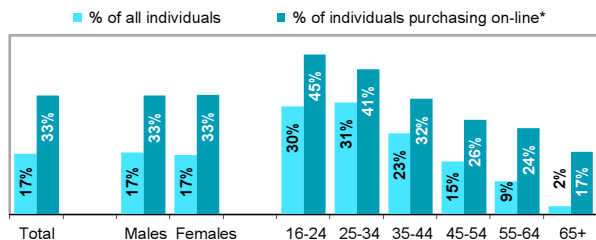
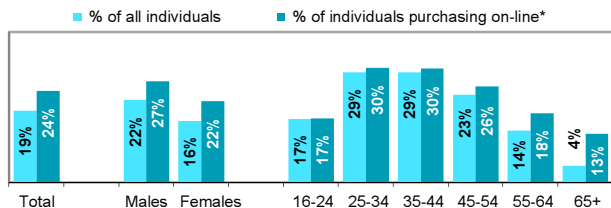


Figure C58 Individuals in the Czech Republic purchasing accommodation by sex and age; 2017

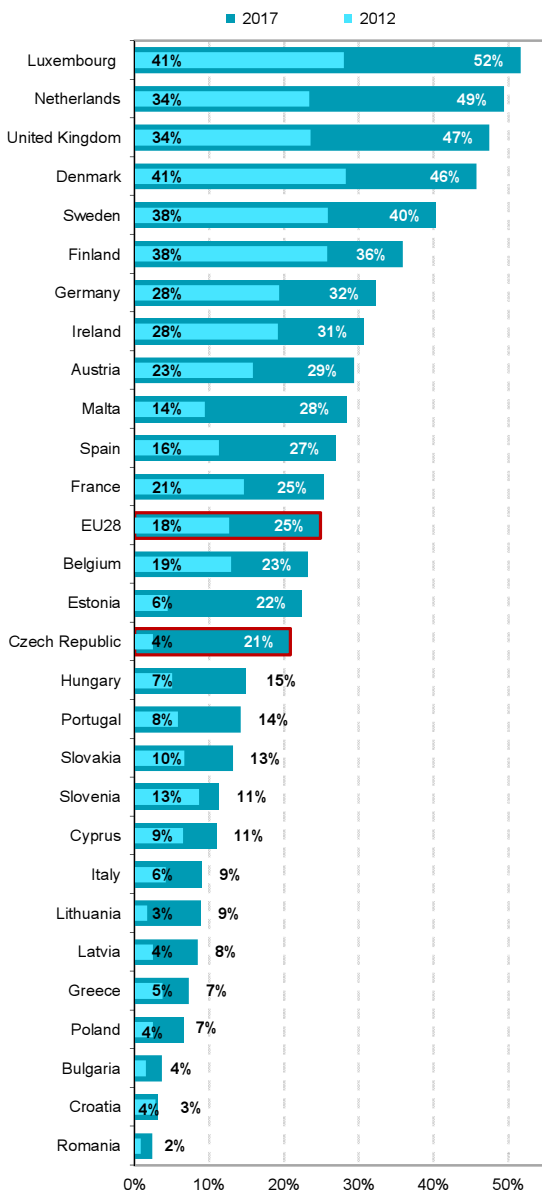


\* individuals who purchased (ordered a good or a service) over the internet at least once in the last 12 months

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

Figure C59 Individuals in EU countries aged 16-74 purchasing accommodation over the internet



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

Source: Eurostat, 2018

## C Individuals

Tab. C20 Individuals in the Czech Republic purchasing over the internet in Q1 2017

	Total*	3x or more	for 5 000 CZK or more
<b>Total (aged 16+)</b>	<b>31,3</b>	<b>16,1</b>	<b>11,1</b>
Total (aged 16-74)	34,0	17,5	12,0
<b>Sex:</b>			
Males (aged 16+)	31,1	16,2	13,2
Females (aged 16+)	32,1	16,0	9,2
<b>Age group:</b>			
16-24 year-olds	42,8	21,7	10,8
25-34 year-olds	53,1	27,2	18,7
35-44 year-olds	45,1	25,4	17,8
45-54 year-olds	32,3	16,3	12,4
55-64 year-olds	21,9	9,2	7,1
65 year-olds and over	5,7	2,0	2,0
<b>Education attainment level (aged 25+):</b>			
Basic	5,9	2,3	1,6
Secondary without A-level exam.	19,1	7,8	6,0
Secondary with A-level exam.			
or Higher professional	36,4	18,2	12,4
University	52,9	31,7	23,8
<b>Specific groups:</b>			
Women on maternity leave	58,6	29,3	17,7
Students (aged 16+)	41,4	22,1	9,7
Pensioners	6,7	2,1	1,9

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

Figure C60 Individuals who purchased over the internet 3x or more in Q1 2017 by sex and age

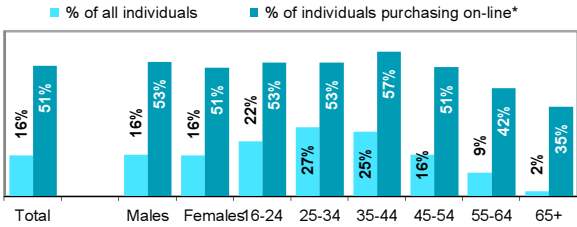
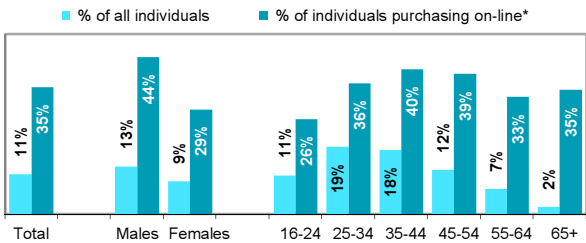


Figure C61 Individuals who spent on on-line purchases 5 000 CZK or more in Q1 2017 by sex and age

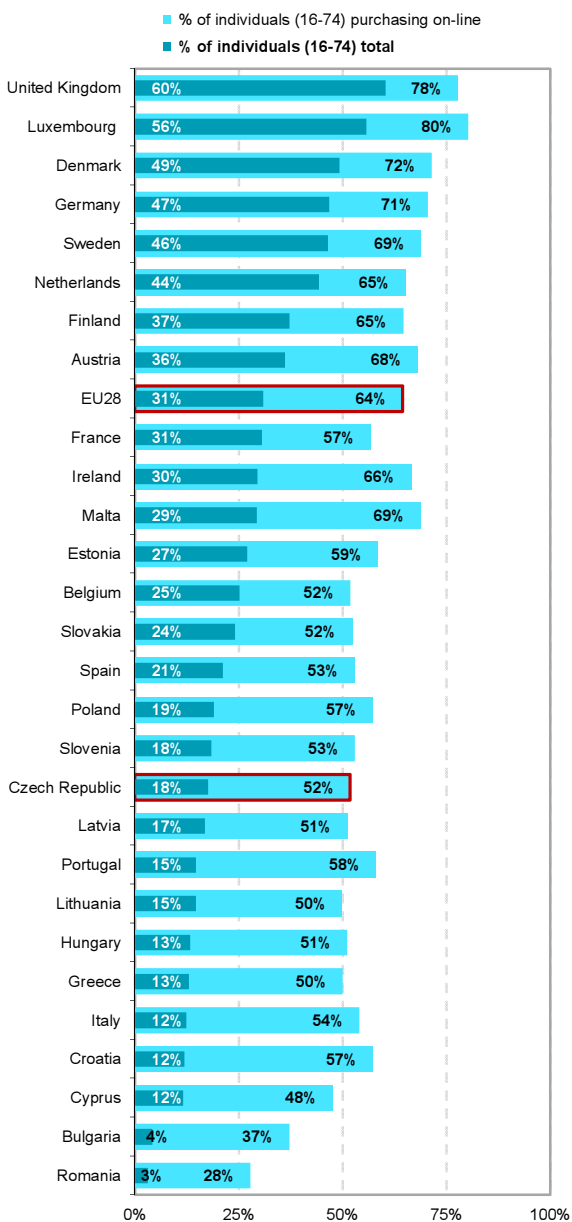


\* individuals who purchased (ordered a good or a service) over the internet at least once in the last 3 months

Source: Czech Statistical Office, ICT use survey in households, 2018

## C Individuals

**Figure C62 Individuals in EU countries aged 16-74 who in the last 3 months purchased over the internet 3x or more; 2017**

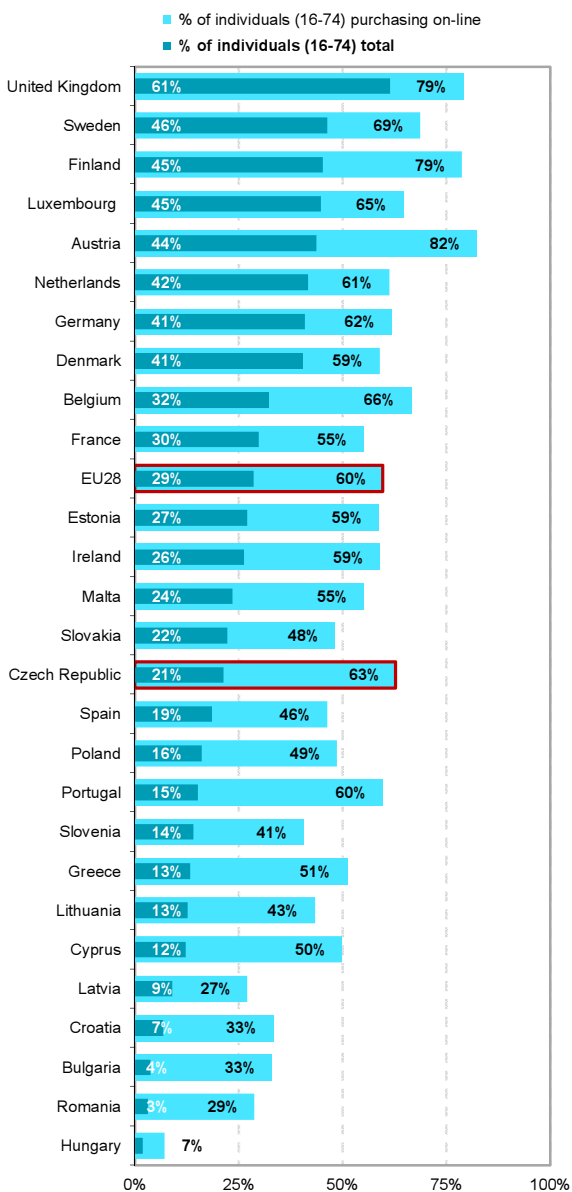


as a percentage of all individuals in given group in a given country

Source: Eurostat, 2018

## C Individuals

**Figure C63 Individuals in EU countries aged 16-74 who spent on on-line purchases\* 100 € or more; 2017**



\* in the last 3 months

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

Source: Eurostat, 2018



## D Enterprises

Since 2002, the Czech Statistical Office (CZSO) has been regularly monitoring the development in usage of information technologies by enterprises with 10 or more persons employed in selected industries with independent annual statistical survey.

Since 2006, the survey has been conducted 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 that ensures data harmonisation and comparability among EU countries.

In 2016 this survey was conducted in the first quarter, with the sample of approximately 7 500 enterprises with 10 or more employees. The resulting data has been then extrapolated to the entire population of enterprises with 10 or more employees in the Czech Republic (38 thousand enterprises).

**Reference period:** 31 December (for the years 2000–2004), since 2006 the reference period refers to January of the monitored year. In the case of electronic commerce the data pertains to the entire year.

**Sample size:** 7 500 enterprises with 10 and more persons employed

### Data comparability:

- The data obtained in 2008 and later is 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 due to the fact that Eurostat does not include enterprises from the financial sector. Data is fully comparable since 2016.

### Definitions (in alphabetical order):

- **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 the following characteristics: are delivered from servers of service providers; can be easily scaled up or down (number of users or change of storage capacity); can be used on-demand by the user, at least after the initial set up; **are paid** (either per user, by capacity used, or they are pre-paid).
- **CRM** - Customer Relationship Management is a management methodology which places the customer at the centre of the business activity, based in an intensive use of information technologies to collect, integrate, process and analyse information related to the customers.
- **E-Invoice** - an invoice where all data is in digital format suitable for automated processing. A distinctive feature of a structured e-Invoice is automation: a structured e-Invoice will be transferred automatically in inter-company invoicing from the invoice issuer's or service provider's system directly into the recipient's financial or other application. The e-Invoice data could be structured according to the XML, EDI or other similar format.
- **Electronic data interchange (EDI)** refers to the structured transmission of data or documents (messages) between organizations or enterprises by electronic means in an agreed format which allows its automatic processing (e.g. EDIFACT, XML, etc.) and without the individual message being manually typed.
- **Electronic commerce** shall mean e-purchases or e-sales (placing or accepting electronic orders) via the internet or other computer networks (proprietary networks used for market transactions) regardless of the method of payment or delivery. Value of e-purchases (e-sales) is the percentage of the total financial value of all enterprises' purchases (enterprises' turnover). Purchases (sales) implemented on the basis of orders prepared from information

obtained on the internet but placed in a traditional way (by phone, fax, or written order) or by manual typed 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. EDI is here used as a generic term for sending or receiving business information in an agreed format suitable for automated processing (e.g. EDIFACT, XML, etc.) and without the individual message being manually typed. “EDI e-Commerce” is limited to EDI messages placing an order.
- **ERP** - Enterprise Resource Planning consists of one or of a set of software applications that integrate information and processes across the several business functions of the enterprise. Typically ERP integrates planning, procurement, sales, marketing, customer relationship, finance and human resources.
- **Extranet** - special website/intranet extensions used to communicate with enterprises' suppliers, resellers, partners, customers, or other entities. Access to the extranet is possible only upon login.
- **E-Marketplace** - refers to websites or apps used by several enterprises for trading products e.g. Booking, eBay, Amazon.
- **Fiber optics technology** - kind of the most modern fixed internet, a frequent solution is a combination of optical fiber and Ethernet wiring used to connect devices to the internet network. Optical fiber is implemented into the building then distributed by cables. Usually provides the fastest internet connection.
- **Internal computer network** (Local Area Network; LAN) connects two or more computers to share information, files, internal emails and applications within the enterprise.
- **Intranet** - an internal company communication network using an internet protocol allowing communication within an organisation.
- **WLAN** - the use of wireless technologies such as radio-frequency, infrared, microwave, or other types of electromagnetic or acoustic waves, for the last internal link between users devices (such as computers, printers, etc) and a LAN backbone line(s) within the enterprise's working premises. It includes mainly Wi-Fi and Bluetooth technologies.
- **SCM** - Supply Chain Management means exchanging all types of information with suppliers and/or customers about the availability, production, development and distribution of goods or services.
- **Social media** use by enterprises - use of tools for conversing and creating content online and for connecting with customers, suppliers or other partners or within the enterprise. The following are the main social media communication platforms and tools for enterprises:
  - **Social networks** (e.g. Facebook or LinkedIn);
  - **Enterprise's blog or microblogs** (e.g. Twitter);
  - **Multimedia content sharing websites** (e.g. YouTube, Instagram);
  - **Wiki-based knowledge sharing tools** (e.g. Wikipedia-like sites).
- **Website** – Location on the WWW identified by a web address. Information is encoded with specific languages (e.g. HTML, XML, Java) readable with a Web browser. Enterprises that have a website containing only contact information without the ability to change the site content should be considered as not having a website.

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *This database was updated in December 2017. For more information see:*

<http://ec.europa.eu/eurostat/web/information-society>

**Further information on ICT usage by enterprises can be found at:**

[https://www.czso.cz/csu/czso/podnikatelsky\\_sektor](https://www.czso.cz/csu/czso/podnikatelsky_sektor) (in Czech only)

## D Enterprises

Tab. D1 Enterprises in the Czech Republic using computer networks; 2017

	%		
	Local Area Network	Intranet	Extranet
<b>Total (10+ employees)</b>	<b>75,2</b>	<b>31,2</b>	<b>17,1</b>
Small enterprises (10-49)	70,4	25,1	13,1
Medium enterprises (50-249)	91,8	48,0	29,2
Large enterprises (250+)	98,4	79,8	44,3
<b>Industry (NACE category):</b>			
Manufacturing	78,2	31,4	15,0
Electricity, gas and water supply	77,7	36,9	18,1
Construction	68,9	19,7	6,2
Sale and repair of motor vehicles	86,4	31,2	22,7
Wholesale trade	89,3	30,4	23,2
Retail trade	62,5	28,2	16,8
Transport and storage	63,6	31,0	14,2
Accommodation	81,9	25,7	22,8
Food and beverage services	43,6	21,9	9,5
Travel agency and related activities	83,7	45,4	32,4
Media industries incl. publishing activit.	97,3	64,8	40,1
Telecommunications	99,3	73,6	50,2
Computer programming and related act.	96,6	70,4	58,9
Real estate activities	76,9	24,3	13,6
Professional, scientific and technical act.	85,3	42,6	20,9
Administrative and support activities	61,5	28,2	14,3

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

Figure D1 Enterprises using computer networks; 2017

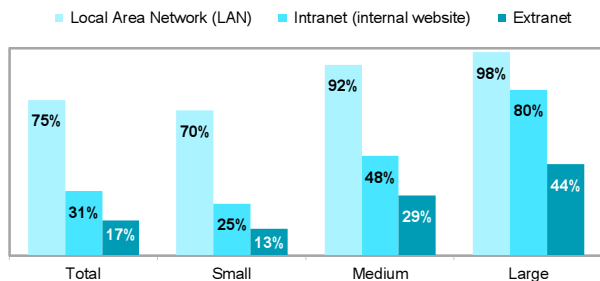
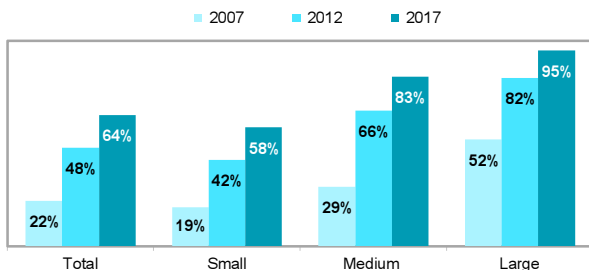


Figure D2 Enterprises with Wireless Local Area Network



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

## D Enterprises

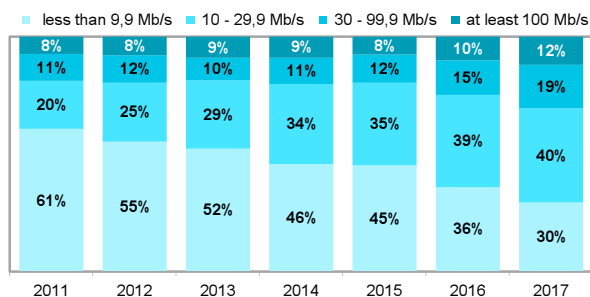
Tab. D2 Enterprises in the Czech Rep. with the internet; 2017

%

	Total	Download speed*	
		at least 30 Mb/s	at least 100 Mb/s
<b>Total (10+ employees)</b>	<b>97,6</b>	<b>29,9</b>	<b>11,8</b>
Small enterprises (10-49)	97,2	25,8	9,8
Medium enterprises (50-249)	99,2	41,3	16,5
Large enterprises (250+)	99,6	61,6	31,6
<b>Industry (NACE category):</b>			
Manufacturing	98,4	27,0	8,3
Electricity, gas and water supply	98,2	34,0	12,1
Construction	97,0	27,2	12,1
Sale and repair of motor vehicles	98,5	27,7	7,8
Wholesale trade	98,0	31,2	10,9
Retail trade	95,5	26,3	7,6
Transport and storage	98,2	22,7	9,4
Accommodation	98,9	37,4	17,1
Food and beverage services	94,2	21,3	7,6
Travel agency and related activities	99,1	38,6	18,9
Media industries incl. publishing activities	100,0	56,4	31,7
Telecommunications	100,0	83,9	68,0
Computer programming and related activ.	99,6	65,8	38,5
Real estate activities	96,6	32,4	14,1
Professional, scientific and technical activ.	99,2	40,2	21,4
Administrative and support activities	94,0	25,6	9,9

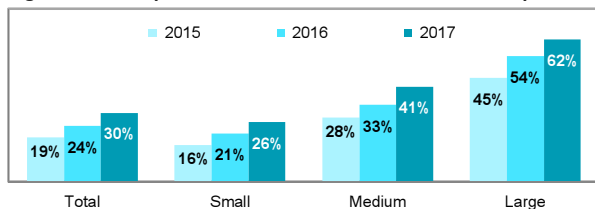
as a percentage of all enterprises with 10+ employees in a given group

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 Mb/s download speed\*



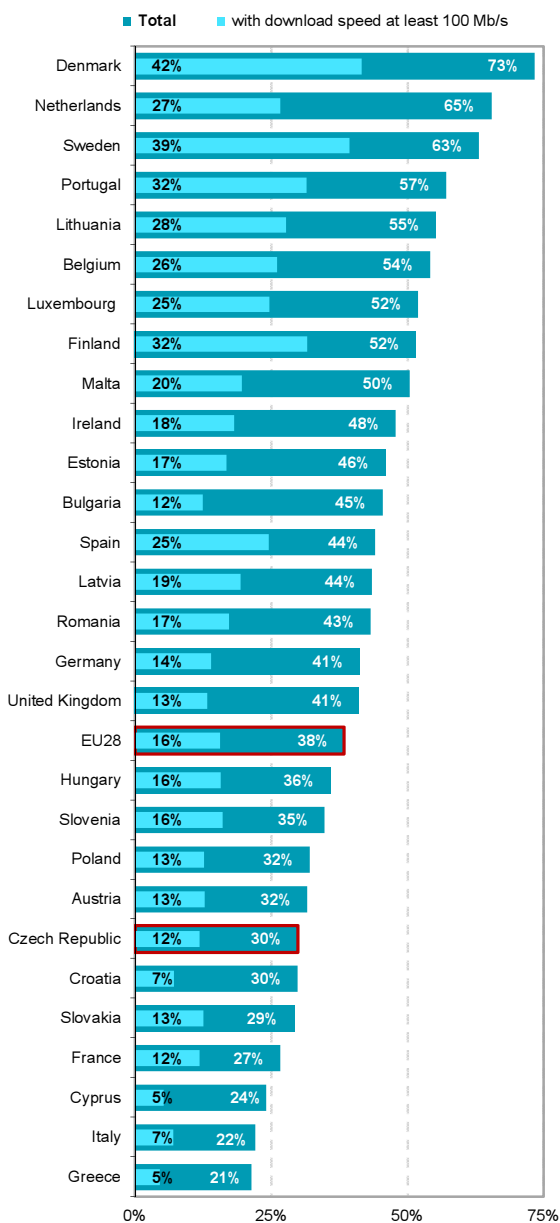
as a percentage of all enterprises with 10+ employees in a given size class

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

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D5 Enterprises in EU countries with at least 30 Mb/s internet connection speed; 2017



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

Source: Eurostat, 2018

## D Enterprises

Tab. D3 Enterprises in the Czech Republic using selected types of fixed connection to the internet; 2017

	%		
	xDSL technology	fiber optics	leased line
<b>Total (10+ employees)</b>	<b>57,5</b>	<b>21,4</b>	<b>19,2</b>
Small enterprises (10-49)	58,1	17,2	14,7
Medium enterprises (50-249)	53,2	33,2	30,9
Large enterprises (250+)	64,4	54,5	58,1
<b>Industry (NACE category):</b>			
Manufacturing	58,2	17,3	18,5
Electricity, gas and water supply	54,5	27,4	23,6
Construction	55,1	21,3	14,8
Sale and repair of motor vehicles	62,5	22,9	22,3
Wholesale trade	62,6	25,4	22,5
Retail trade	68,1	16,5	16,0
Transport and storage	56,7	17,6	16,3
Accommodation	63,2	23,1	20,7
Food and beverage services	58,2	10,7	10,2
Travel agency and related activities	66,5	26,9	24,5
Media industries incl. publishing activities	52,2	41,0	26,0
Telecommunications	30,6	70,7	44,9
Computer programming and related activ.	46,1	50,0	37,5
Real estate activities	47,6	27,2	20,9
Professional, scientific and technical activ.	52,1	31,3	24,9
Administrative and support activities	50,8	15,6	16,6

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

Figure D6 Enterprises using xDSL technology

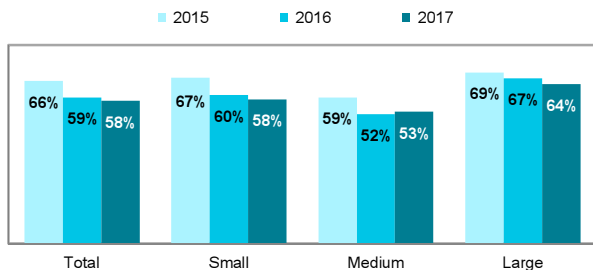
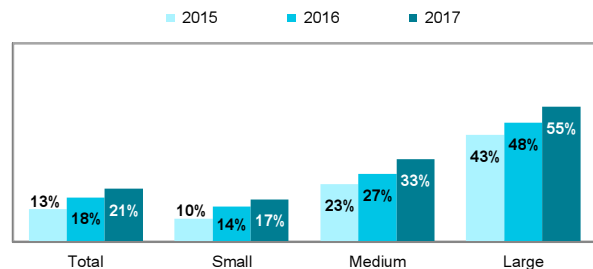


Figure D7 Enterprises using fiber optics technology

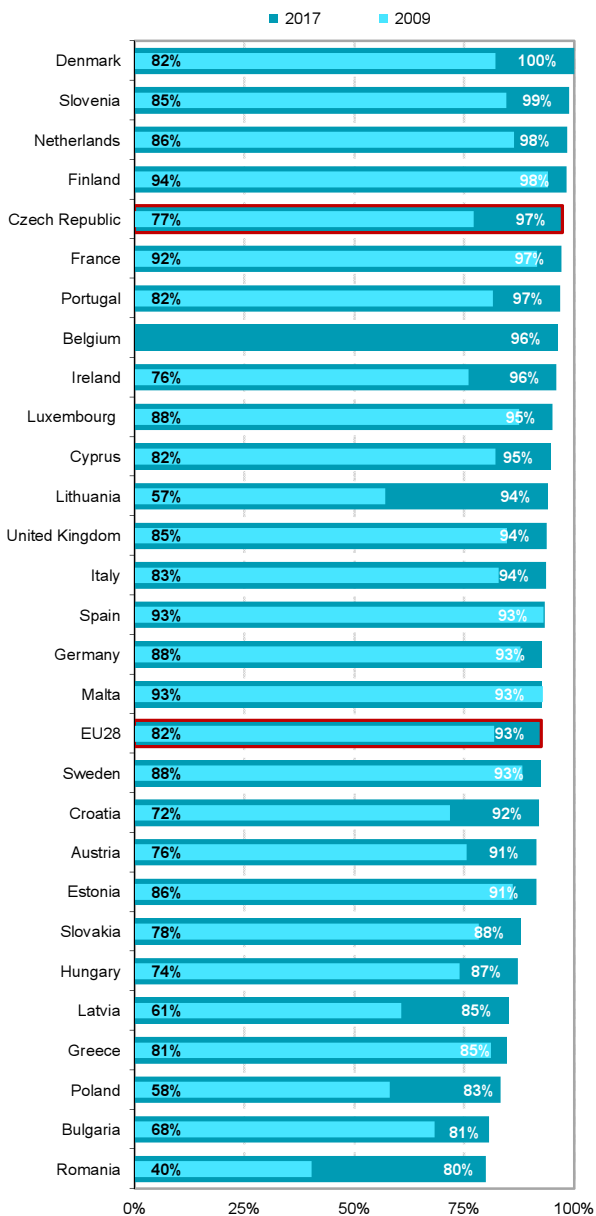


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D8 Enterprises in EU countries with fixed connection to the internet



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

Source: Eurostat, 2018

## D Enterprises

Tab. D4 Enterprises in the Czech Republic with a website; 2017

	Total	of which customized for mobiles
<b>Total (10+ employees)</b>	<b>82,9</b>	<b>42,5</b>
Small enterprises (10-49)	80,4	40,3
Medium enterprises (50-249)	91,8	48,3
Large enterprises (250+)	94,2	59,2
<b>Industry (NACE category):</b>		
Manufacturing	84,4	38,9
Electricity, gas and water supply	88,2	43,0
Construction	83,3	40,6
Sale and repair of motor vehicles	92,2	50,9
Wholesale trade	89,9	46,3
Retail trade	63,4	39,9
Transport and storage	70,9	29,9
Accommodation	97,3	69,9
Food and beverage services	72,8	44,4
Travel agency and related activities	96,6	65,4
Media industries incl. publishing activities	98,4	64,1
Telecommunications	96,4	64,2
Computer programming and related activities	96,0	65,4
Real estate activities	88,2	39,0
Professional, scientific and technical activities	88,9	46,3
Administrative and support activities	72,9	39,5

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

Figure D9 Enterprises with a website

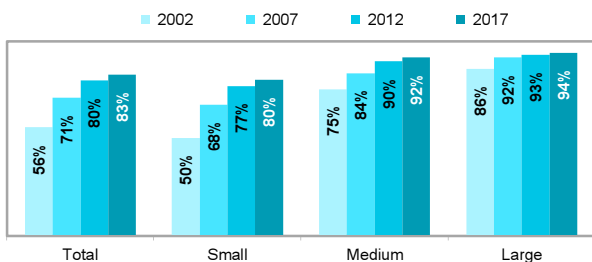
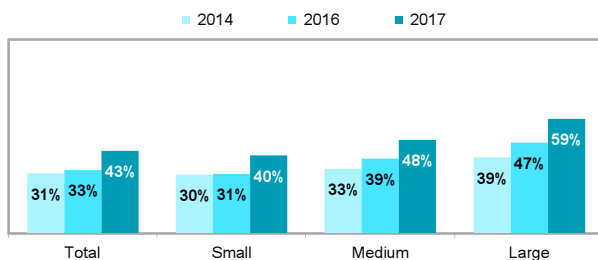


Figure D10 Enterprises with a website customized for mobiles



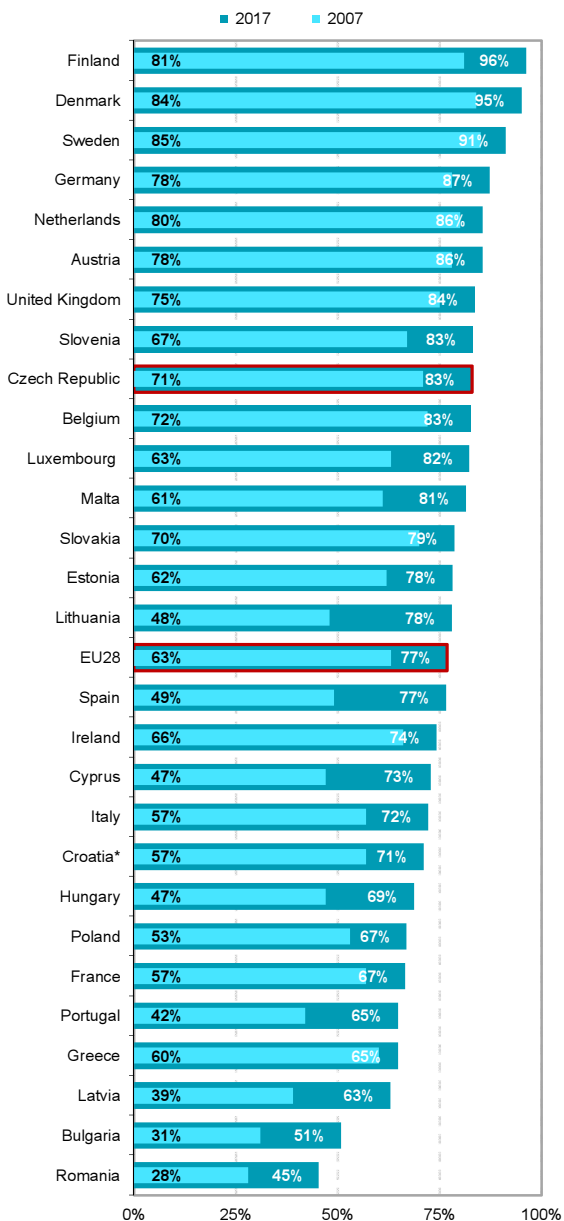
as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018



## D Enterprises

Figure D11 Enterprises in EU countries with a website



\* Croatian data for 2009 and 2017

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

Source: Eurostat, 2018

## D Enterprises

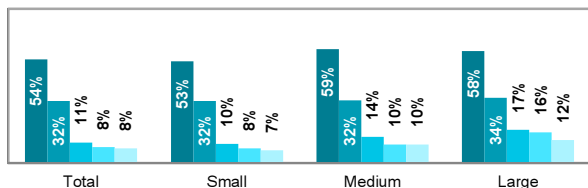
**Tab. D5 Applications available on enterprise's websites in the Czech Republic; 2017**

	Description of products	Online ordering	Online payment
<b>Total (10+ employees)</b>	<b>53,9</b>	<b>32,2</b>	<b>7,5</b>
Small enterprises (10-49)	52,6	32,1	6,7
Medium enterprises (50-249)	58,9	32,4	9,7
Large enterprises (250+)	57,9	33,9	12,0
<b>Industry (NACE category):</b>			
Manufacturing	53,8	26,3	4,2
Electricity, gas and water supply	54,8	24,9	2,7
Construction	43,0	20,6	1,9
Sale and repair of motor vehicles	71,0	51,7	4,6
Wholesale trade	73,4	48,8	16,6
Retail trade	48,7	41,9	22,7
Transport and storage	33,9	25,2	3,2
Accommodation	88,9	87,0	23,2
Food and beverage services	62,7	41,2	5,4
Travel agency and related activities	89,4	78,6	34,4
Media industries incl. publishing activities	81,4	69,3	38,0
Telecommunications	84,9	65,9	18,2
Computer programming and related act.	59,2	34,7	12,8
Real estate activities	47,4	20,4	2,0
Professional, scientific and technical act.	46,8	23,9	4,3
Administrative and support activities	40,4	23,3	2,9

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

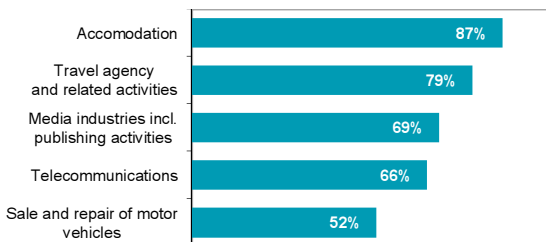
**Figure D12 Apps available on enterprise's websites; 2017**

■ Description of products   
 ■ Online ordering   
 ■ Product configuration  
■ Online tracking   
 ■ Online payment



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

**Figure D13 Enterprises in TOP 5 industries with a website enabling online ordering; 2017**

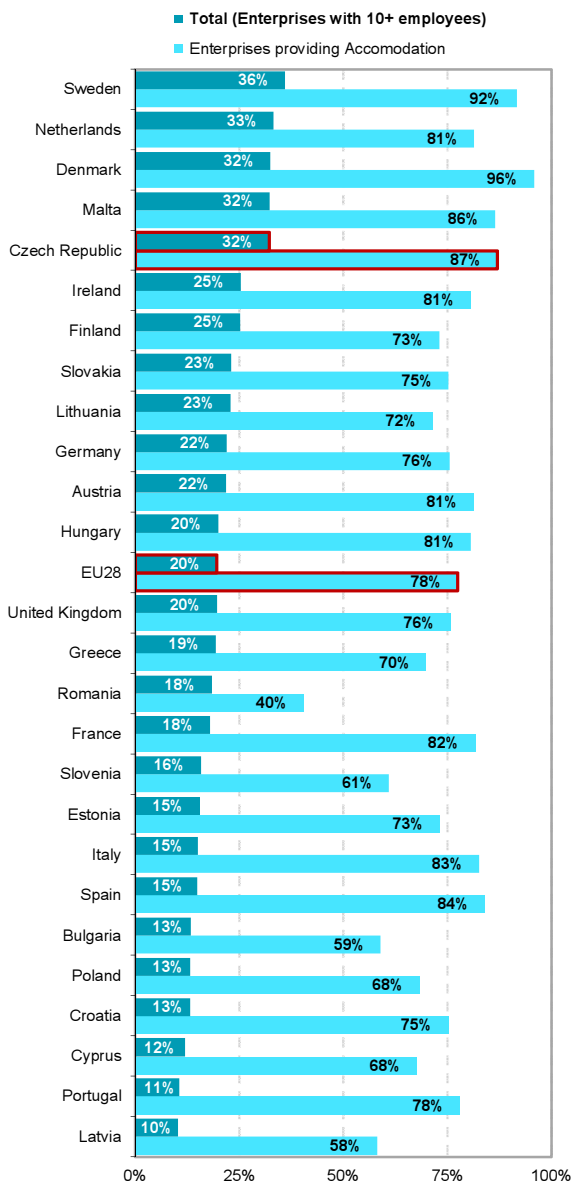


as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

**Figure D14 Enterprises in EU countries with online ordering/reservation application; 2017**



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

Source: Eurostat, 2018

## D Enterprises

Tab. D6 Enterprises in the Czech Republic selling via a website; 2016

	Total	via:	
		their own website	e-commerce marketplace
<b>Total (10+ employees)</b>	<b>19,1</b>	<b>18,6</b>	<b>2,7</b>
Small enterprises (10-49)	18,0	17,6	2,6
Medium enterprises (50-249)	22,4	21,8	3,2
Large enterprises (250+)	27,0	26,1	4,0
<b>Industry (NACE category):</b>			
Manufacturing	15,3	14,8	1,1
Electricity, gas and water supply	8,4	8,2	0,8
Construction	6,9	6,5	0,8
Sale and repair of motor vehicles	27,1	26,3	4,5
Wholesale trade	37,4	36,5	4,3
Retail trade	32,8	32,7	4,8
Transport and storage	10,0	9,7	2,3
Accommodation	60,0	58,8	25,8
Food and beverage services	20,9	19,5	4,1
Travel agency and related activities	63,4	62,7	10,4
Media industries incl. publishing activities	59,3	59,3	3,7
Telecommunications	53,5	52,2	5,6
Computer programming and related activit.	27,5	27,2	6,3
Real estate activities	10,0	10,0	1,1
Professional, scientific and technical activit.	10,4	10,4	1,5
Administrative and support activities	8,8	8,7	0,8

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

Figure D15 Enterprises selling via a website

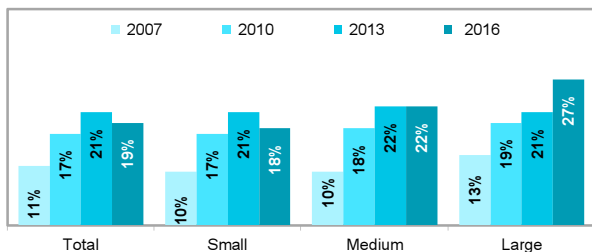
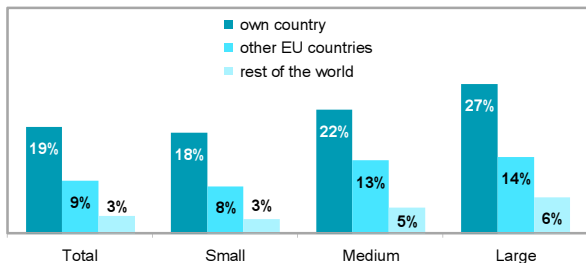


Figure D16 Enterprises selling via a website by customers' locations; 2016

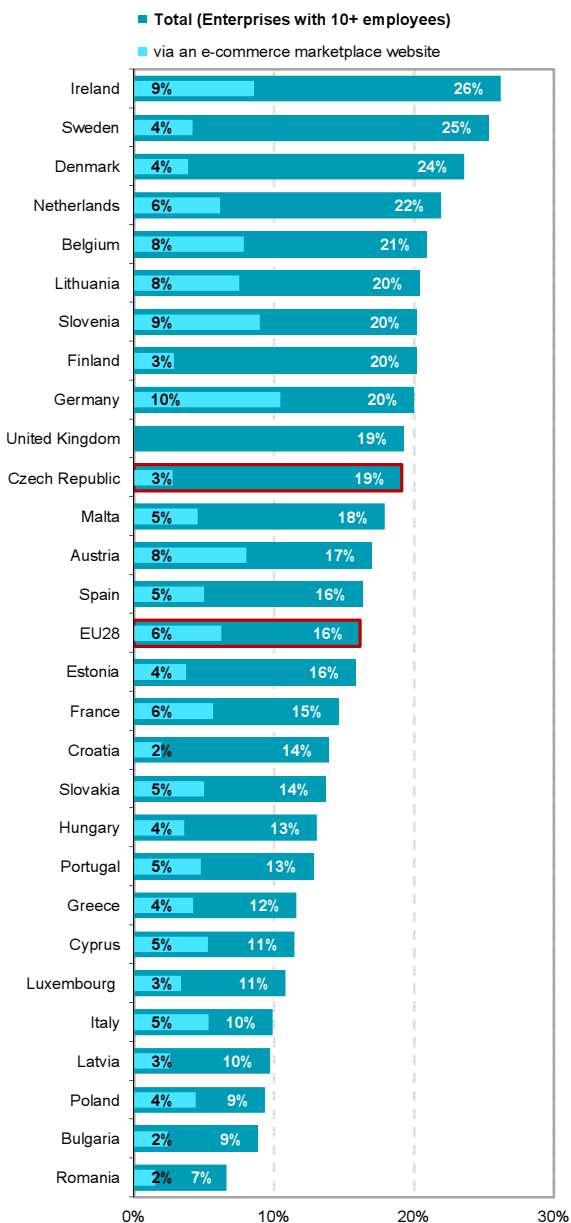


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D17 Enterprises in EU countries selling via a website; 2016



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

Source: Eurostat, 2018

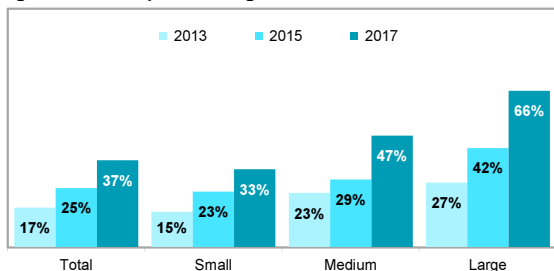
## D Enterprises

Tab. D7 Enterprises in the Czech Rep. using social media; 2017 %

	Total	of which:	
		Social networks	Other types
<b>Total (10+ employees)</b>	<b>36,5</b>	<b>34,1</b>	<b>15,2</b>
Small enterprises (10-49)	32,7	30,4	12,4
Medium enterprises (50-249)	46,8	44,1	22,4
Large enterprises (250+)	65,6	62,3	40,4
<b>Industry (NACE category):</b>			
Manufacturing	29,8	26,5	12,9
Electricity, gas and water supply	26,3	22,5	13,5
Construction	21,6	17,8	5,7
Sale and repair of motor vehicles	52,0	51,1	22,4
Wholesale trade	44,6	43,2	21,3
Retail trade	45,8	45,1	17,3
Transport and storage	25,0	23,9	7,4
Accommodation	78,5	78,5	23,2
Food and beverage services	52,7	52,3	8,3
Travel agency and related activities	84,2	84,2	47,1
Media industries incl. publishing activities	82,2	78,9	60,8
Telecommunications	72,8	69,4	42,1
Computer programming and related activities	68,9	62,1	54,1
Real estate activities	24,6	22,3	8,8
Professional, scientific and technical activities	39,9	37,7	21,1
Administrative and support activities	30,1	28,5	8,8

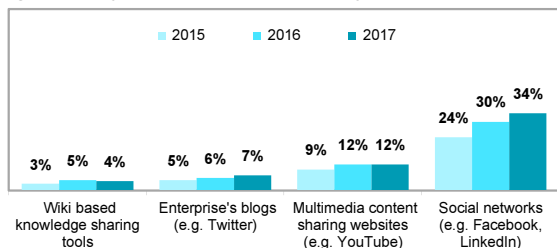
as a percentage of all enterprises with 10+ employees in a given group

Figure D18 Enterprises using social media



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

Figure D19 Types of social media used by enterprises

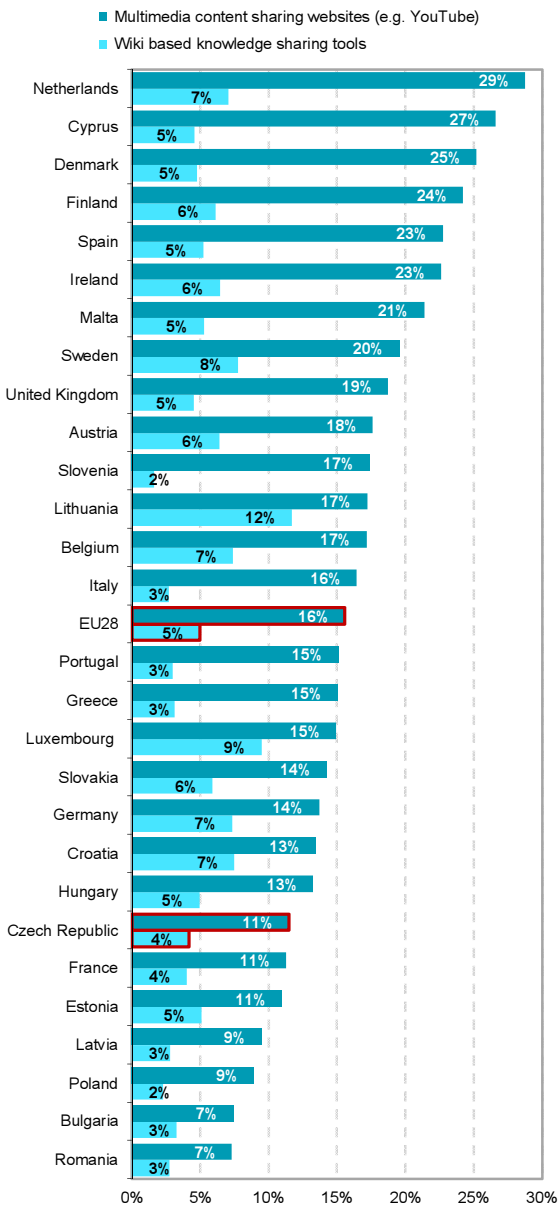


as a percentage of all enterprises with 10+ employees in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

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



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

Source: Eurostat, 2018

## D Enterprises

Tab. D8 Enterprises in the Czech Rep. using social networks\*

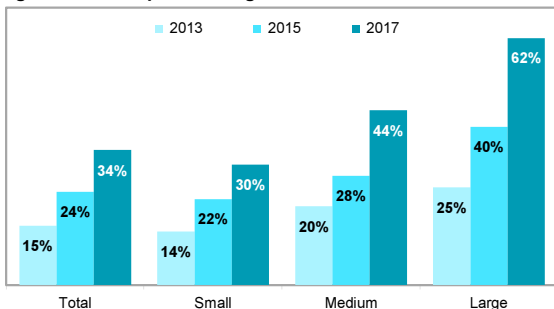
%

	2015	2016	2017
<b>Total (10+ employees)</b>	<b>23,5</b>	<b>30,3</b>	<b>34,1</b>
Small enterprises (10-49)	21,7	27,7	30,4
Medium enterprises (50-249)	27,6	37,5	44,1
Large enterprises (250+)	39,9	53,2	62,3
<b>Industry (NACE category):</b>			
Manufacturing	17,3	22,8	26,5
Electricity, gas and water supply	13,2	16,0	22,5
Construction	10,7	17,3	17,8
Sale and repair of motor vehicles	36,7	51,7	51,1
Wholesale trade	30,8	35,3	43,2
Retail trade	28,9	37,0	45,1
Transport and storage	13,2	20,6	23,9
Accommodation	66,1	78,2	78,5
Food and beverage services	40,5	48,6	52,3
Travel agency and related activities	72,9	78,4	84,2
Media industries incl. publishing activities	69,9	75,8	78,9
Telecommunications	55,8	67,8	69,4
Computer programming and related activities	45,2	55,3	62,1
Real estate activities	18,0	25,9	22,3
Professional, scientific and technical activities	28,0	35,0	37,7
Administrative and support activities	21,9	27,6	28,5

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

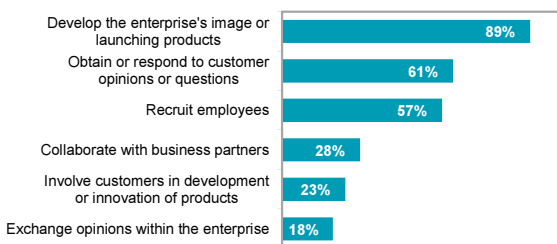
\* enterprise has a user profile/ an account on social networks (e.g. Facebook)

Figure D21 Enterprises using social networks



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

Figure D22 Reasons for using social networks by enterprises; 2017



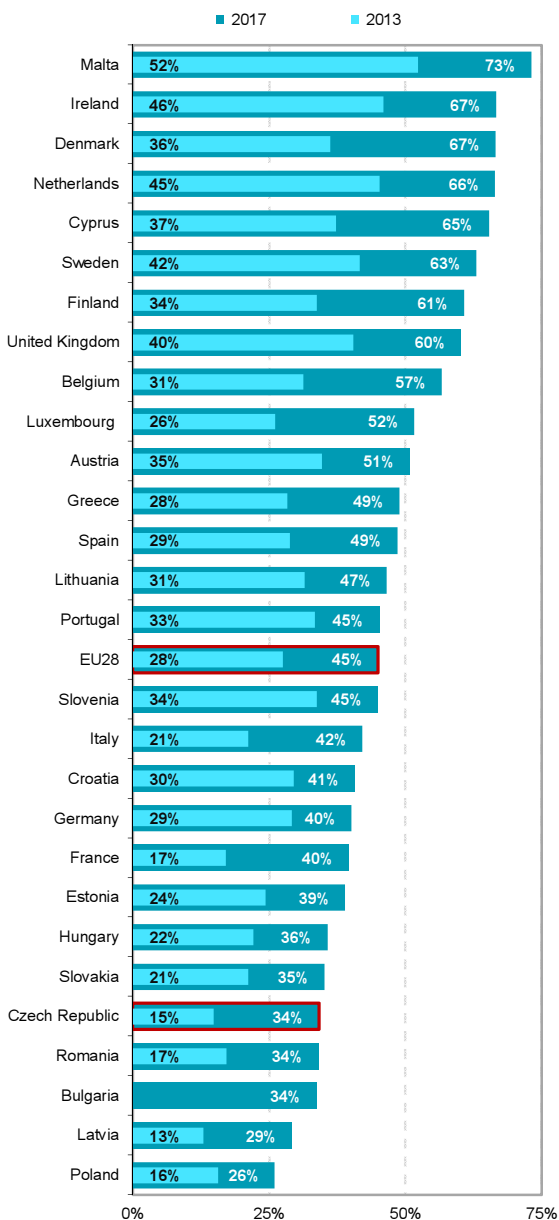
as a percentage of all enterprises with 10+ employees using social networks

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018



## D Enterprises

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



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

Source: Eurostat, 2018

## D Enterprises

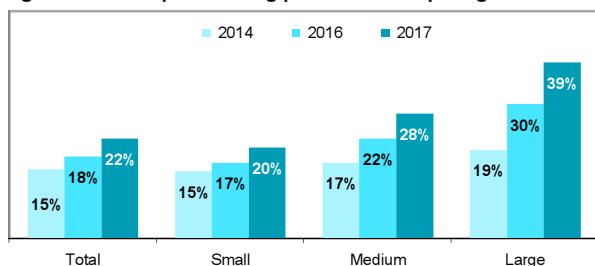
**Tab. D9 Enterprises in the Czech Republic using paid cloud computing services**

%

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

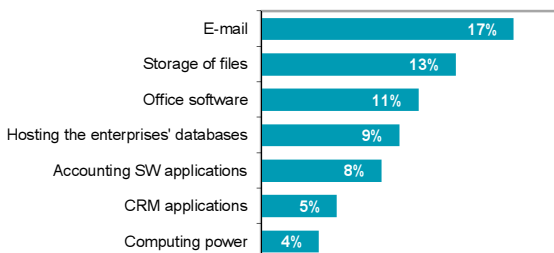
as a percentage of all enterprises with 10+ employees in a given group

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



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

**Figure D25 Enterprises using paid cloud computing by type of service; 2017**

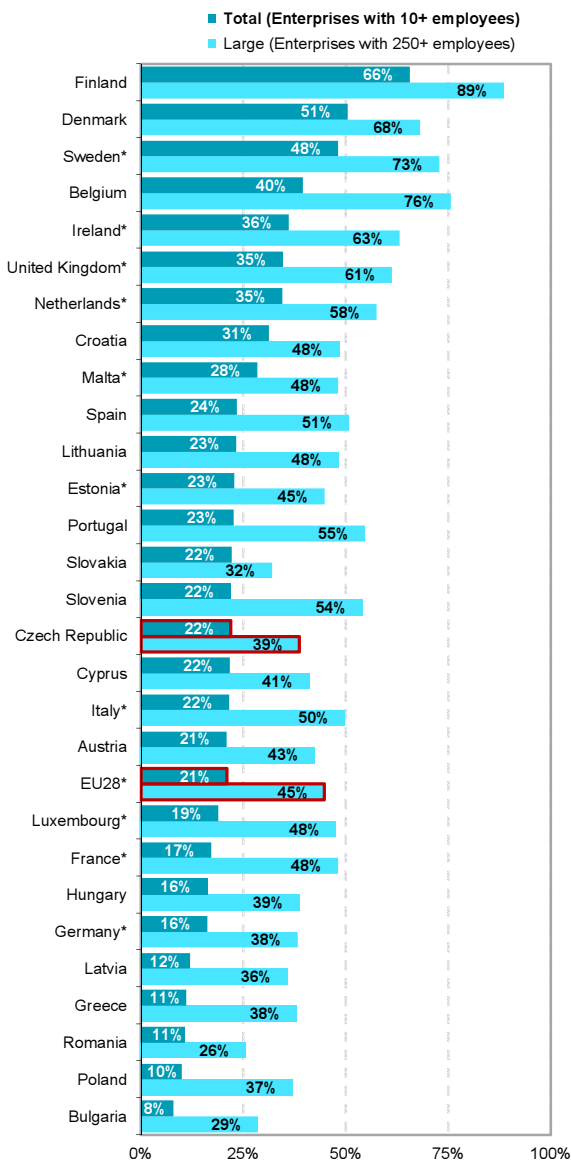


as a percentage of all enterprises with 10+ employees

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

**Figure D26 Enterprises in EU countries using paid cloud computing services; 2017**



\* data for 2016

as a percentage of all enterprises with 10+ employees (250+ employees) in a given country

Source: Eurostat, 2018

## D Enterprises

Tab. D10 Enterprises in the Czech Republic using ERP, CRM and SCM software application; 2017

	ERP	CRM	SCM
<b>Total (10+ employees)</b>	<b>27,7</b>	<b>20,8</b>	<b>2,4</b>
Small enterprises (10-49)	19,7	16,6	1,7
Medium enterprises (50-249)	53,0	34,3	4,3
Large enterprises (250+)	77,4	45,7	9,2
<b>Industry (NACE category):</b>			
Manufacturing	36,6	22,1	2,8
Electricity, gas and water supply	25,4	21,5	0,9
Construction	14,8	8,7	1,1
Sale and repair of motor vehicles	35,0	32,5	10,4
Wholesale trade	44,1	34,3	2,3
Retail trade	19,6	16,6	3,3
Transport and storage	14,1	10,7	3,3
Accommodation	20,2	18,4	1,2
Food and beverage services	5,9	3,7	0,5
Travel agency and related activities	24,1	26,4	.
Media industries incl. publishing activities	32,1	45,6	.
Telecommunications	37,4	56,1	.
Computer programming and related activities	44,6	58,8	1,8
Real estate activities	19,2	12,4	.
Professional, scientific and technical activities	24,0	24,4	1,8
Administrative and support activities	18,7	13,4	1,4

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

Figure D27 Enterprises using an ERP software application

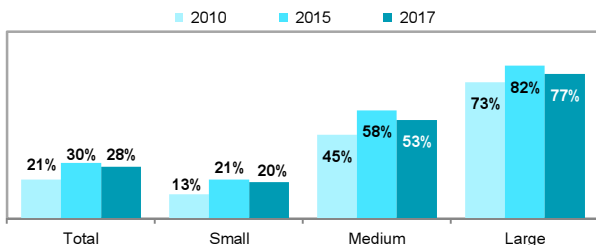
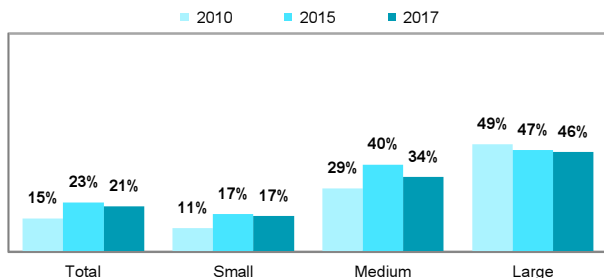


Figure D28 Enterprises using a CRM software application

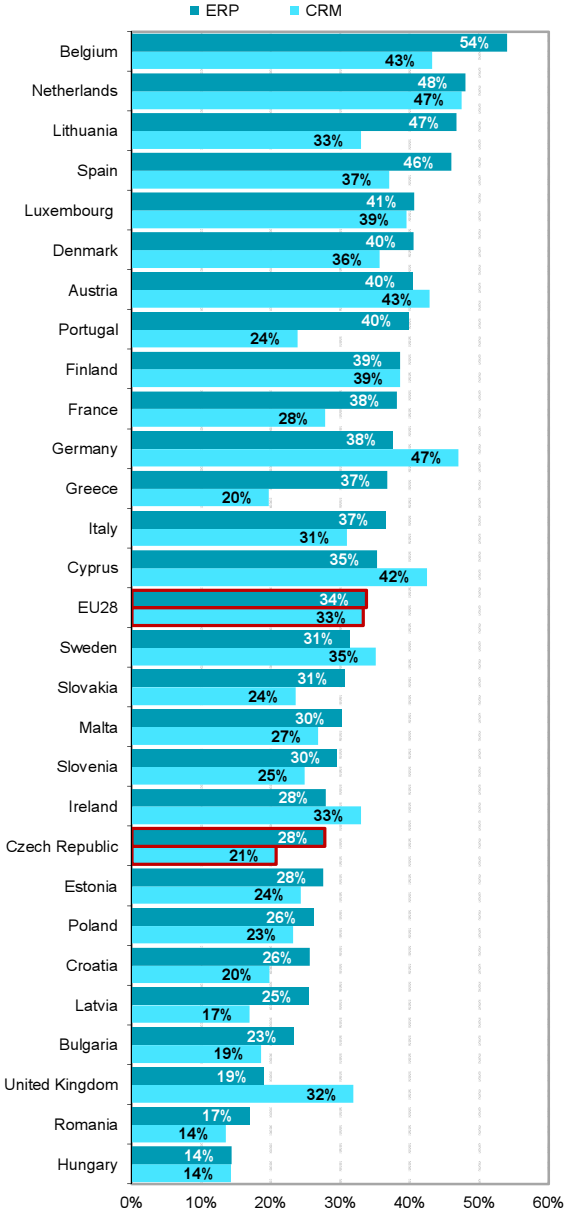


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D29 Enterprises in EU countries using ERP and CRM software application; 2017



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

Source: Eurostat, 2018

## D Enterprises

**Tab. D11 Enterprises in the Czech Republic sending invoices in electronic form; 2017**

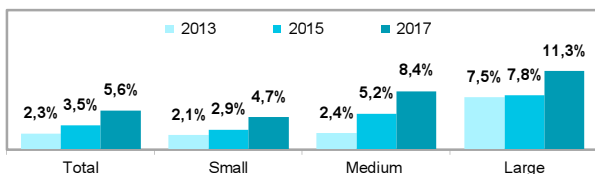
	Total	of which:	
		e-Invoices*	Other types**
<b>Total (10+ employees)</b>	<b>74,8</b>	<b>18,4</b>	<b>69,4</b>
Small enterprises (10-49)	72,0	16,1	67,0
Medium enterprises (50-249)	83,9	24,0	77,6
Large enterprises (250+)	89,1	38,6	82,2
<b>Industry (NACE category):</b>			
Manufacturing	79,8	21,8	72,8
Electricity, gas and water supply	78,7	20,8	71,3
Construction	68,7	13,9	65,2
Sale and repair of motor vehicles	81,7	20,7	76,4
Wholesale trade	84,0	24,3	79,0
Retail trade	62,3	20,0	56,9
Transport and storage	57,8	13,5	53,9
Accommodation	83,3	16,1	78,1
Food and beverage services	58,7	12,8	54,9
Travel agency and related activities	88,2	16,7	84,8
Media industries incl. publishing activities	90,2	22,0	84,4
Telecommunications	94,5	25,9	87,3
Computer programming and related activit.	87,6	23,3	79,4
Real estate activities	63,7	8,3	60,3
Professional, scientific and technical activit.	80,8	11,5	76,1
Administrative and support activities	70,0	15,7	65,5

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

\* invoices in electronic form in a standard structure suitable for automated processing (e.g. EDI, XML, ISDOC form)

\*\* other invoices in electronic form not suitable for automated processing (e.g. e-mail attachment as pdf, images or other format)

**Figure D30 Enterprises using data boxes for sending invoices**



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

**Figure D31 Enterprises in TOP 5 industries sending e-Invoices; 2017**

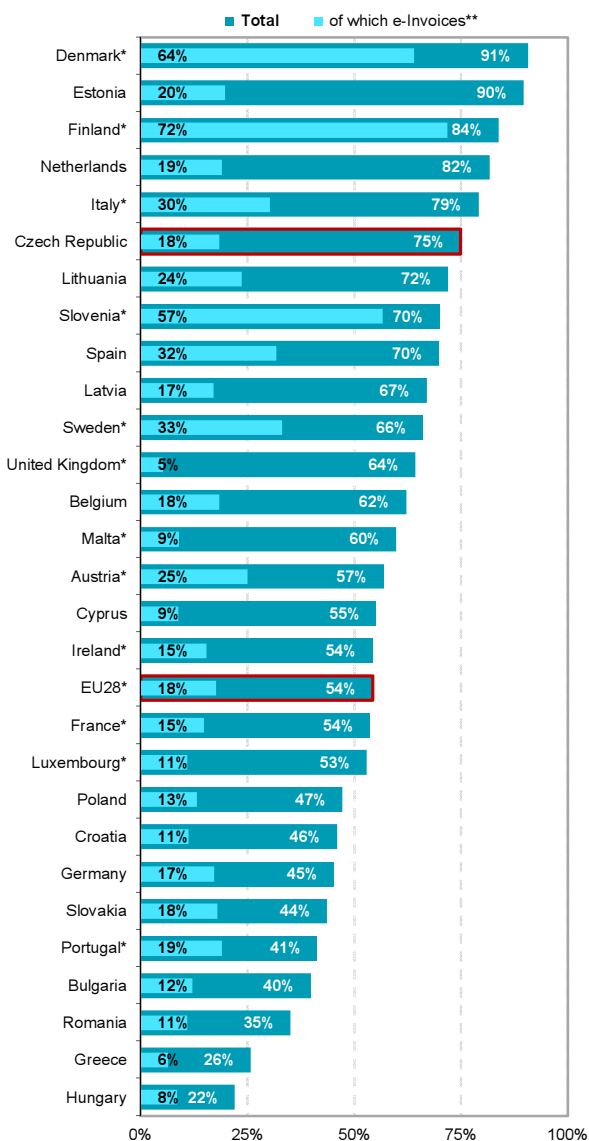


as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D32 Enterprises in EU countries sending invoices in electronic form; 2017



\* data for 2016

\*\* invoices in electronic form in a standard structure suitable for automated processing (e.g. EDI, XML, ISDOC form)

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

Source: Eurostat, 2018

## D Enterprises

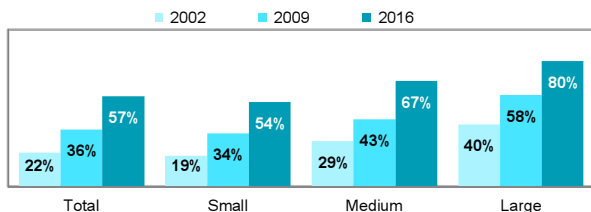
**Tab. D12 Value of enterprises' purchases in the Czech Republic from conducting e-Commerce; 2016**

		%	
	<b>Total</b>	via EDI messages*	via a website
<b>Total (10+ employees)</b>	<b>41,0</b>	<b>25,7</b>	<b>15,3</b>
Small enterprises (10-49)	20,8	7,5	13,4
Medium enterprises (50-249)	33,5	18,1	15,5
Large enterprises (250+)	51,0	35,2	15,8
<b>Industry (NACE category):</b>			
Manufacturing	43,6	27,1	16,5
Electricity, gas and water supply	58,2	49,0	9,2
Construction	9,6	2,8	6,8
Sale and repair of motor vehicles	53,4	32,6	20,8
Wholesale trade	31,4	16,0	15,5
Retail trade	57,3	44,0	13,3
Transport and storage	18,0	7,4	10,6
Accommodation	24,1	5,3	18,8
Food and beverage services	27,5	11,1	16,4
Travel agency and related activities	27,9	6,4	21,5
Media industries incl. publishing activities	40,4	11,3	29,1
Telecommunications	75,8	60,0	15,8
Computer programming and related activ.	54,8	13,4	41,4
Real estate activities	18,8	1,8	17,0
Professional, scientific and technical activ.	27,2	6,2	20,9
Administrative and support activities	41,2	28,9	21,5

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

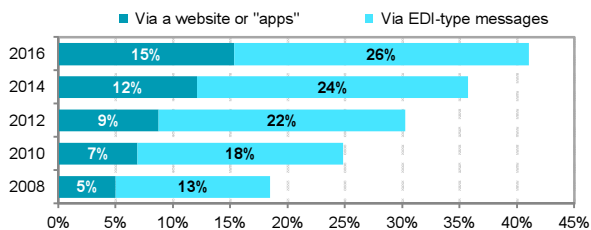
\* electronic transmission of messages suitable for automated processing, i.e. using EDI, XML for business-to-business e-Commerce

**Figure D33 Enterprises purchasing via electronic networks**



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

**Figure D34 Value of enterprises' electronic purchases**



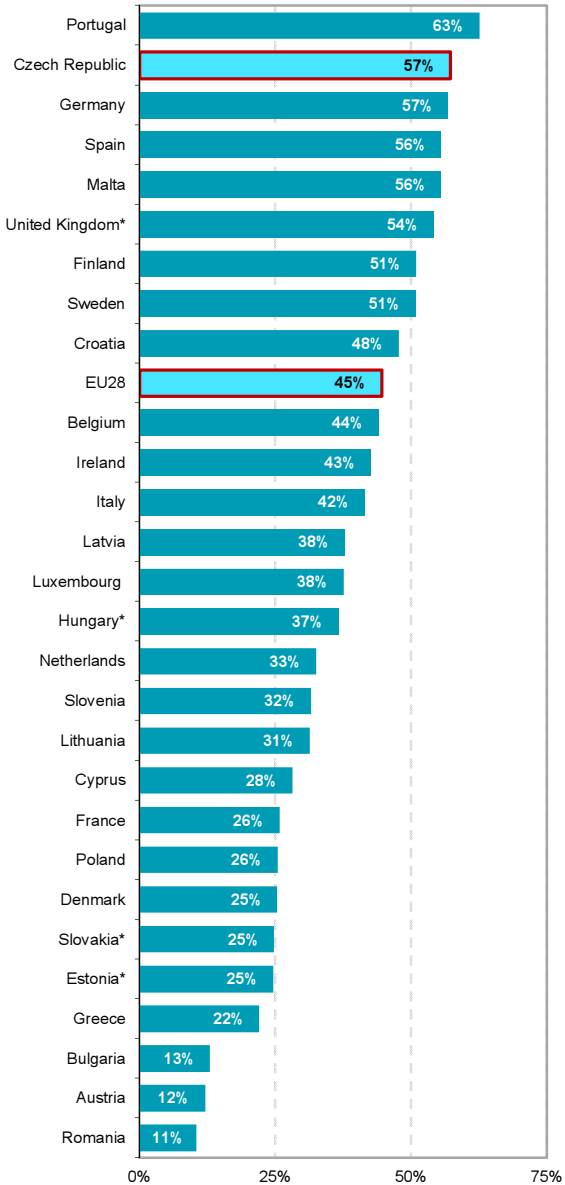
as a percentage of the total purchases' value of enterprises with 10+ employees in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018



## D Enterprises

Figure D35 Enterprises in EU countries purchasing via electronic networks; 2016



\* data for 2015

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

Source: Eurostat, 2018

## D Enterprises

**Tab. D13 Value of enterprises' electronic sales in the Czech Republic from conducting e-Commerce; 2016**

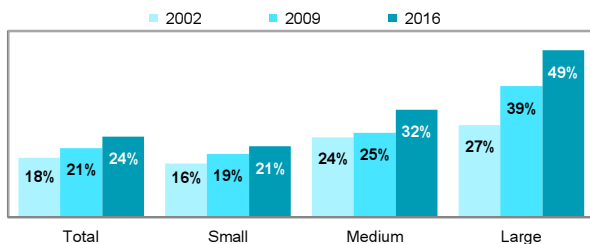
%

	Total	via EDI-type messages*	via a website
<b>Total (10+ employees)</b>	<b>31,1</b>	<b>22,5</b>	<b>8,6</b>
Small enterprises (10-49)	11,6	5,8	5,9
Medium enterprises (50-249)	19,5	12,6	6,8
Large enterprises (250+)	42,9	32,6	10,3
<b>Industry (NACE category):</b>			
Manufacturing	40,8	34,0	6,8
Electricity, gas and water supply	39,6	35,1	4,5
Construction	1,8	1,1	0,7
Sale and repair of motor vehicles	30,7	16,2	14,4
Wholesale trade	27,5	14,5	13,0
Retail trade	17,0	2,8	14,2
Transport and storage	17,7	9,1	8,6
Accommodation	29,6	7,0	22,6
Food and beverage services	5,6	1,3	4,4
Travel agency and related activities	47,4	5,7	41,7
Media industries incl. publishing activities	28,2	5,1	23,2
Telecommunications	31,7	16,1	15,6
Computer programming and related activit.	23,5	8,9	14,6
Real estate activities	4,4	2,1	2,4
Professional, scientific and technical activ.	8,7	6,4	2,3
Administrative and support activities	21,7	15,5	6,2

as a percentage of total enterprises' (10+) turnover in a given group

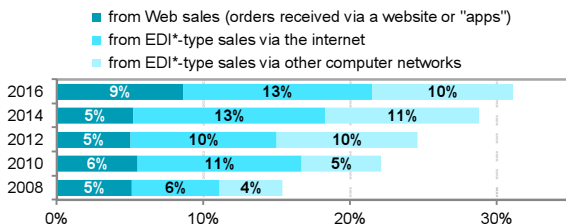
\* electronic transmission of messages suitable for automated processing, i.e. using EDI, XML for business-to-business e-Commerce

**Figure D36 Enterprises selling via electronic networks**



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

**Figure D37 Value of enterprises' electronic sales**

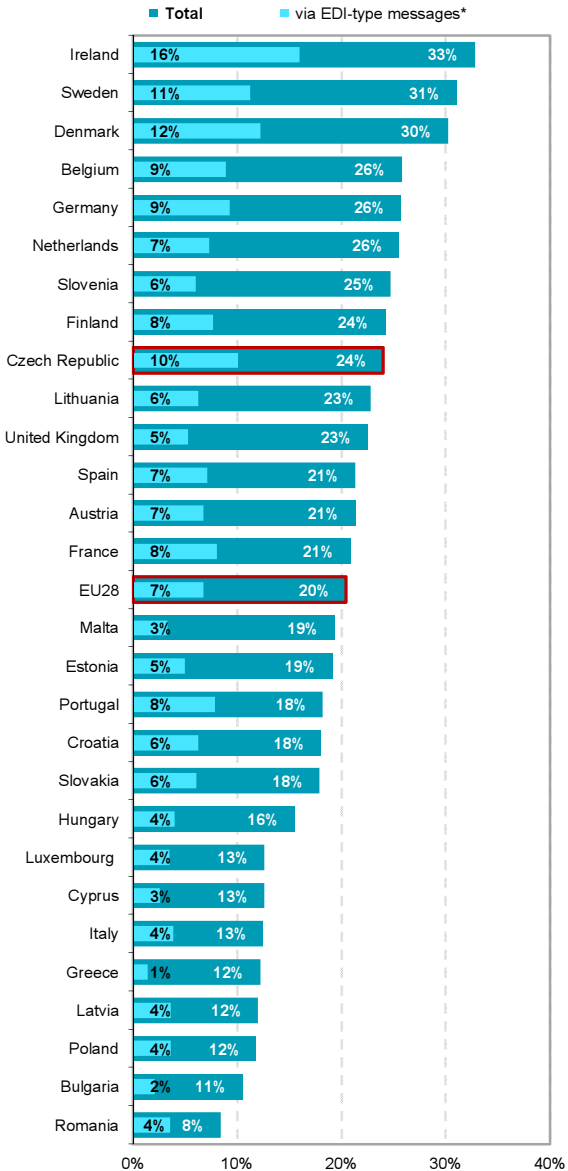


as a percentage of total enterprises' (10+) turnover in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D38 Enterprises in EU countries selling via electronic networks; 2016



\* electronic transmission of messages suitable for automated processing, i.e. using EDI, XML for business-to-business e-Commerce.

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

Source: Eurostat, 2018

## D Enterprises

Tab. D14 Enterprises in the Czech Rep. providing employees with portable devices that allow internet connection; 2017

%

	Total	Portable computers/ tablets	Smartphones
<b>Total (10+ employees)</b>	<b>79,6</b>	<b>64,8</b>	<b>75,1</b>
Small enterprises (10-49)	75,9	58,9	71,0
Medium enterprises (50-249)	91,9	84,3	88,9
Large enterprises (250+)	98,4	96,1	97,3
<b>Industry (NACE category):</b>			
Manufacturing	79,8	64,3	75,7
Electricity, gas and water supply	85,0	68,5	81,4
Construction	81,0	65,7	78,4
Sale and repair of motor vehicles	85,3	74,9	80,8
Wholesale trade	90,1	81,0	86,5
Retail trade	59,9	40,4	54,9
Transport and storage	81,3	55,8	77,9
Accommodation	71,4	54,2	66,2
Food and beverage services	51,6	35,3	41,5
Travel agency and related activities	89,2	82,3	81,5
Media industries incl. publishing activ.	89,3	84,9	84,5
Telecommunications	98,5	95,6	97,2
Computer programming and relat.act.	98,5	95,3	93,1
Real estate activities	75,7	60,5	70,1
Professional, scientific and tech.activ.	87,5	76,8	83,2
Administrative and support activities	75,6	60,2	69,6

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

Figure D39 Enterprises providing employees with selected portable devices that allow internet connection; 2017

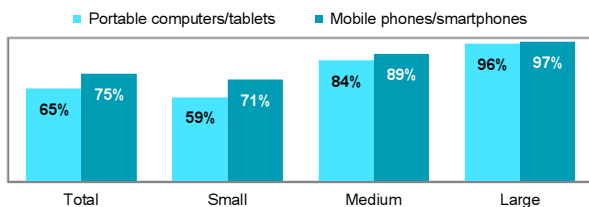
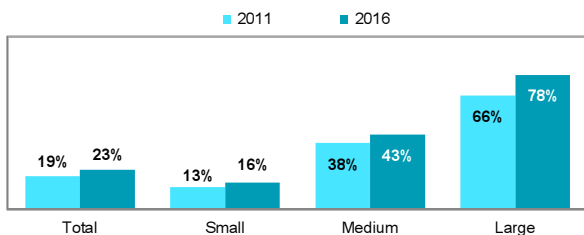


Figure D40 Enterprises providing training for employees to develop their ICT related skills

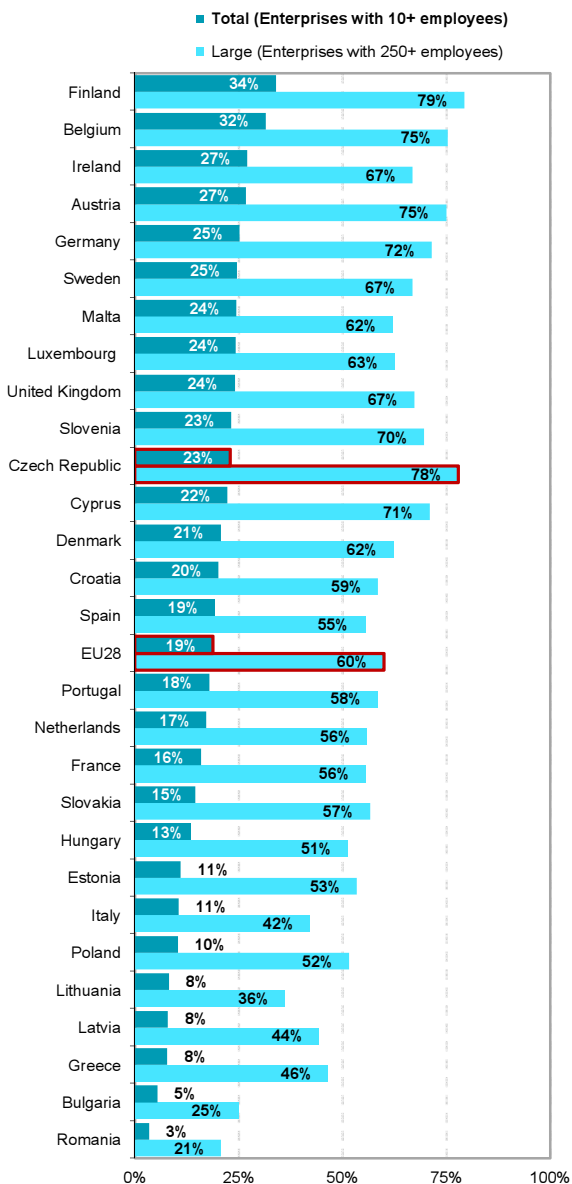


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D41 Enterprises in EU countries providing training for employees to develop their ICT related skills; 2016



as a percentage of all enterprises with 10+ employees (250+ employees) in a given country

Source: Eurostat, 2018

## D Enterprises

Tab. D15 Employees in the Czech Republic using selected ICT for business purposes; 2017

%

	Computer	Computer with internet	Portable devices*
<b>Total (10+ employees)</b>	<b>48,7</b>	<b>41,6</b>	<b>24,6</b>
Small enterprises (10-49)	45,9	43,5	30,0
Medium enterprises (50-249)	46,8	42,0	23,8
Large enterprises (250+)	51,3	40,4	22,4
<b>Industry (NACE category):</b>			
Manufacturing	44,1	34,1	17,8
Electricity, gas and water supply	54,8	49,3	26,7
Construction	41,4	40,9	30,6
Sale and repair of motor vehicles	67,3	63,8	32,9
Wholesale trade	72,1	66,5	42,6
Retail trade	52,0	38,8	13,1
Transport and storage	40,5	30,9	20,7
Accommodation	42,0	39,1	17,7
Food and beverage services	26,5	23,7	12,7
Travel agency and related activities	79,6	78,7	31,3
Media industries incl. publishing activ.	90,6	90,0	51,3
Telecommunications	95,4	95,0	85,7
Computer programming and related act.	95,0	94,8	77,7
Real estate activities	61,8	60,2	29,4
Professional, scientific and technical act.	81,6	80,3	61,1
Administrative and support activities	22,0	20,9	11,5

\* laptops, tablets, smartphones or other portable devices that allow internet connection

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

Figure D42 Employees using computers for business purposes

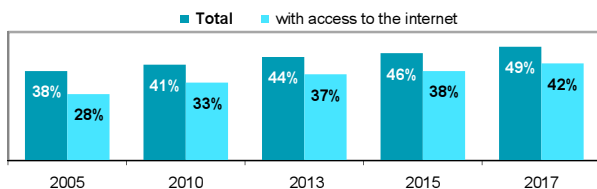
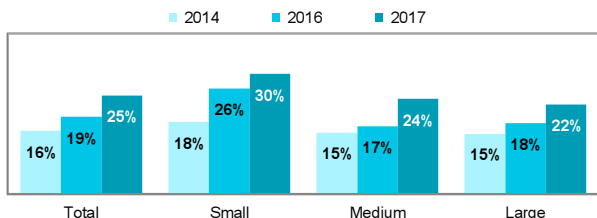


Figure D43 Employees using portable devices that allow internet connection for business purposes

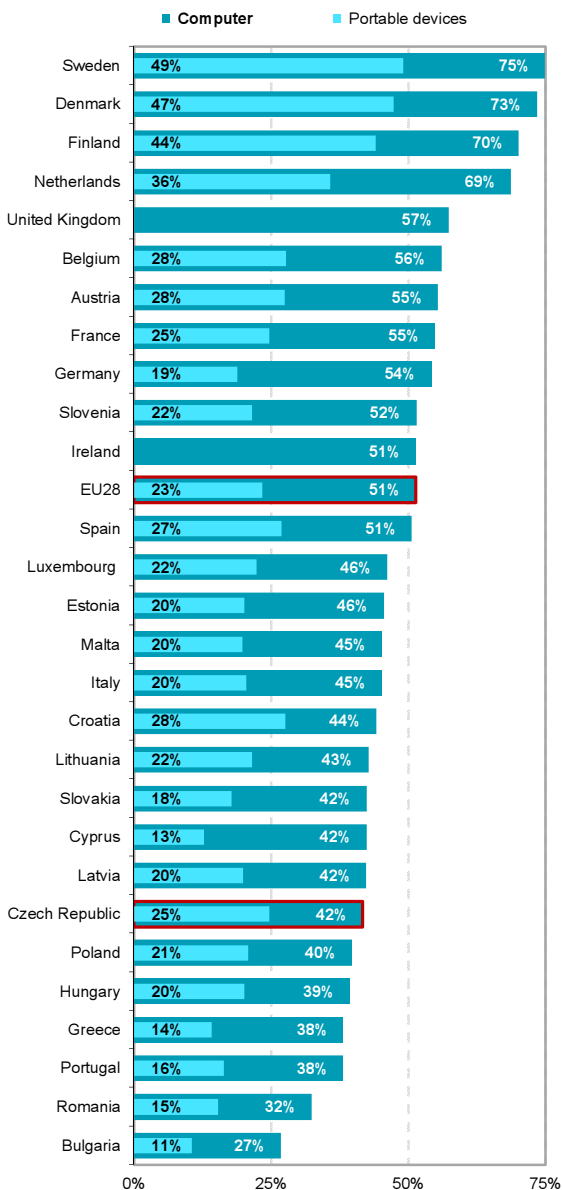


as a percentage of all employees in enterprises with 10+ employees in a given size class in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

## D Enterprises

Figure D44 Employees in EU countries using ICT with access to the internet for business purposes; 2017



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

Source: Eurostat, 2018

## D Enterprises

Tab. D16 Enterprises in the Czech Republic employing ICT specialists

	Total 2017	Recruiting during 2016	Vacancies difficult to fill 2016
<b>Total (10+ employees)</b>	<b>20,4</b>	<b>6,7</b>	<b>6,0</b>
Small enterprises (10-49)	13,1	4,1	4,2
Medium enterprises (50-249)	39,7	12,1	8,8
Large enterprises (250+)	81,1	35,1	28,3
<b>Industry (NACE category):</b>			
Manufacturing	23,4	5,7	3,9
Electricity, gas and water supply	22,0	3,4	1,7
Construction	5,9	0,3	0,6
Sale and repair of motor vehicles	14,4	2,9	3,1
Wholesale trade	22,3	5,4	5,7
Retail trade	16,7	7,4	4,6
Transport and storage	9,2	2,2	1,5
Accommodation	9,5	2,3	0,8
Food and beverage services	4,1	0,8	0,2
Travel agency and related activities	28,6	5,6	7,1
Media industries incl. publishing activities	55,9	25,1	27,7
Telecommunications	84,6	43,3	55,6
Computer programming and related activities	92,5	66,3	73,9
Real estate activities	18,2	4,5	4,4
Professional, scientific and technical activ.	27,3	10,4	8,6
Administrative and support activities	16,7	5,0	3,4

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

Figure D45 Enterprises having vacancies for ICT specialists that were difficult to fill

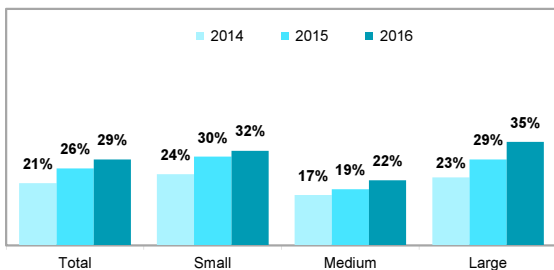
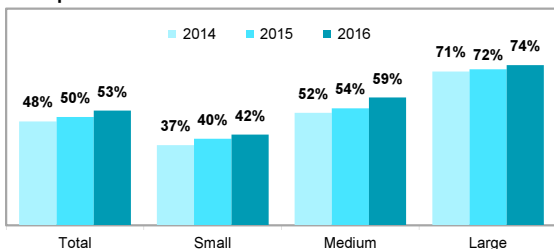


Figure D46 Enterprises providing training for ICT specialists to develop their ICT related skills



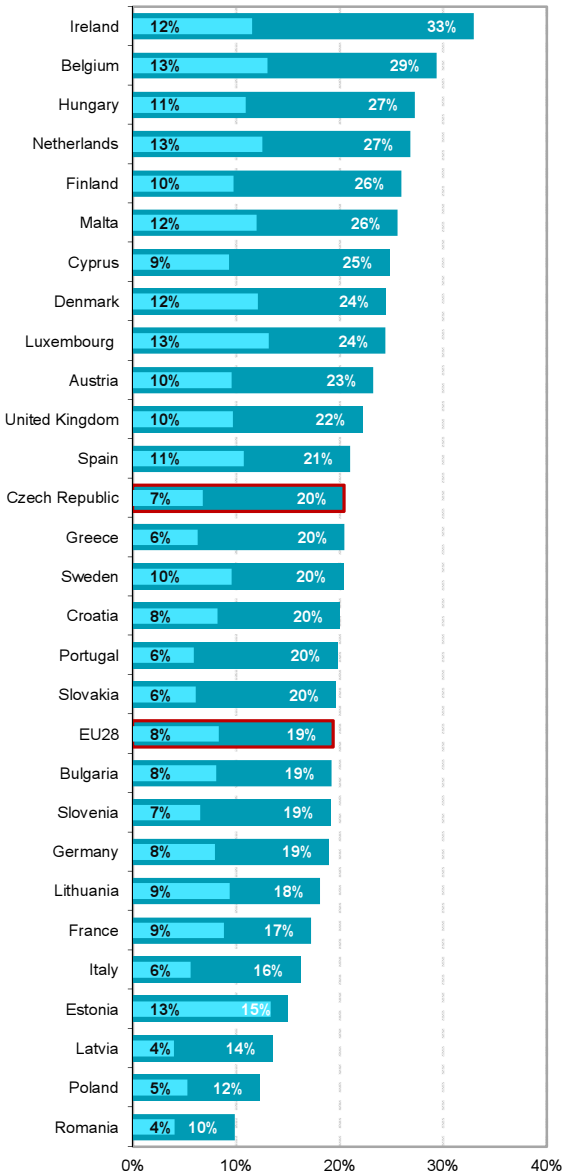
as a percentage of all enterprises with 10+ employees employing ICT specialists in a given size class and year



## D Enterprises

**Figure D47 Enterprises in EU countries employing ICT specialists**

■ Total (data for 2017) ■ Enterprises which recruited ICT specialists during 2016



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

Source: Eurostat, 2018

## D Enterprises

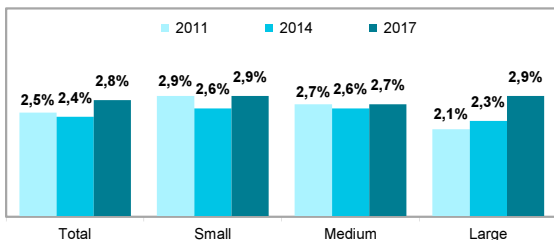
Tab. D17 Share of ICT specialists on all employees in enterprises in the Czech Republic; 2017

	Total	of which programmers*
<b>Total (10+ employees)</b>	<b>2,8</b>	<b>0,8</b>
Small enterprises (10-49)	2,9	1,2
Medium enterprises (50-249)	2,7	0,8
Large enterprises (250+)	2,9	0,6
<b>Industry (NACE category):</b>		
Manufacturing	0,9	0,3
Electricity, gas and water supply	0,9	0,1
Construction	0,4	0,1
Sale and repair of motor vehicles	1,0	0,4
Wholesale trade	1,9	0,7
Retail trade	0,9	0,3
Transport and storage	0,7	0,1
Accommodation	0,3	0,1
Food and beverage services	0,3	0,1
Travel agency and related activities	3,2	1,8
Media industries incl. publishing activities	10,8	5,4
Telecommunications	18,7	5,3
Computer programming and related activities	59,8	14,0
Real estate activities	1,5	0,6
Professional, scientific and technical activities	3,6	1,3
Administrative and support activities	0,5	0,2

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

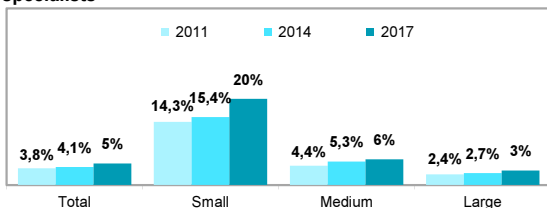
\* programmers developing corporate SW/information systems designed for the company's internal needs

Figure D48 ICT specialists employed in enterprises in the Czech Republic



% of ICT specialists on all employees in enterprises with 10+ employees

Figure D49 ICT specialists in enterprises employing ICT specialists



% of ICT specialists on all employees in enterprises employing ICT specialists

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

The Czech Statistical Office gathers administrative data on **e-Government services** from three sources - the Ministry of the Interior of the Czech Republic, the General Financial Directorate of the Financial Administration and the Czech Social Security Administration.

### Definitions:

**Czech Point** (an acronym which stands for Czech Filing and Verification Information National Terminal) is a platform for assisted access to the public administration system where every citizen can obtain all the information on the data kept on him or her by the state in its central registers (e.g. get certified extracts/copies from Land Register).

**Electronic submission for the Financial Administration** is an application which allows e-filing of tax returns (**eTax services**) such as personal or corporate income tax returns or value added tax returns.

**A Data Box** is an instrument for secured transmission of messages and documents between public authorities and other entities. It is not intended for storing messages or performing other operations with it. Data Boxes are meant to replace the ordinary paper contacts with electronic means. Electronic documents are recognised as equal to paper documents by law. *A Data Box is not obligatory for citizens and private individuals who carry out business activities. Establishment of a Data Box is obligatory for all legal entities and public authority bodies (state administration).*

Information on the **internet use of enterprises for interaction with public authorities** comes from annual survey of the CZSO on ICT use by enterprises (for additional information see Chapter D of this publication).

Information on the **internet use of individuals for interaction with public authorities** comes from annual survey of the CZSO on ICT use in households and by individuals (for additional information see Chapter C of this publication).

### Data comparability with Eurostat database

Data for interaction with public authorities published by the CZSO include interaction with ministries, regional administrations, municipal offices and other offices. Data published by Eurostat include also interaction with public services such as schools, libraries and medical facilities.

Individuals have used the internet for interaction with public authorities (Eurostat published data) when they conducted at least one of the following tasks in the last 12 months before the survey: obtaining information from public authority websites, downloading official forms or sending filled in forms. Data for this indicator published by the CZSO include also communication with public authority via e-mail.

### Definitions:

- **Obtaining information** from websites includes searching to obtain any type of information from public authority websites.
- **Downloading official forms** includes downloading official forms (mostly in the PDF format) from public authority websites.
- **Sending filled in (submitting completed) forms (an electronic submission)** include completed forms sent via internet (to public authority websites). An electronic submission shall mean there is a web application enabling that a form can be filled in and sent out directly on-line. What is important is that citizen does not need to visit the authority in person. Forms downloaded, printed, filled in and sent by mail or email should not be included in this category.

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *Data from this database was extracted in April 2018. For more information see:*

<http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/comprehensive-database>

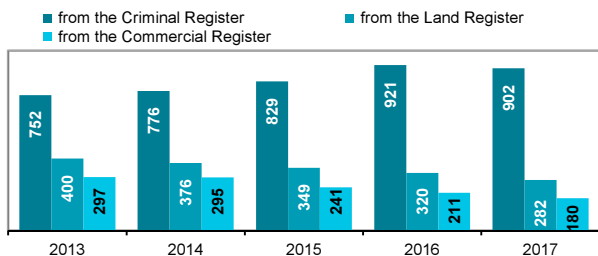
**Tab. E1 Czech POINT - number of public contact points**

	Thous.		
	2015	2016	2017
<b>Total</b>	<b>7 423</b>	<b>7 460</b>	<b>7 536</b>
Municipal authority offices	5 926	5 933	5 937
Post offices	979	981	984
Notary offices	387	415	442
Others	131	131	173

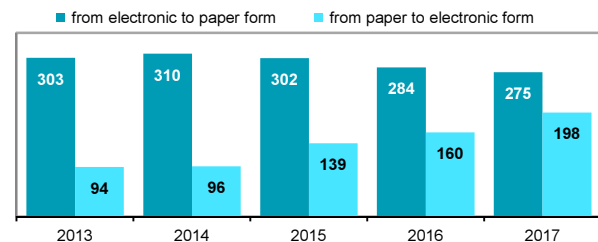
**Tab. E2 Number of extracts from the Czech POINT public contact points**

	Thous.		
	2015	2016	2017
<b>Total</b>	<b>2 139</b>	<b>2 208</b>	<b>2 124</b>
<b>Verified extracts, total</b>	<b>1 584</b>	<b>1 625</b>	<b>1 522</b>
from the Criminal Register	829	921	902
from the Land Register	349	320	282
from the Commercial Register	241	211	180
from the Driver Register	91	95	87
from the Trade Register	62	60	53
other verified extracts	11	19	17
<b>Authorized conversion of documents, total</b>	<b>441</b>	<b>444</b>	<b>473</b>
from electronic to paper form	302	284	275
from paper to electronic form	139	160	198
<b>Other issued documents, total</b>	<b>114</b>	<b>139</b>	<b>130</b>
Requests on the registration of data box	35	57	43

**Figure E1 Selected extracts from the Czech POINT public contact points (thous.)**



**Figure E2 Number of authorized conversions of documents made by Czech POINT public contact points (thous.)**

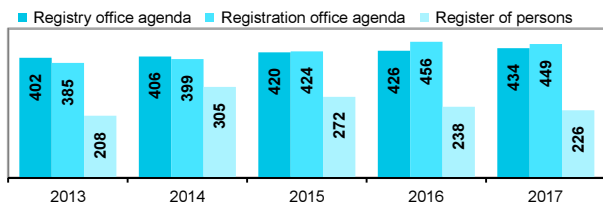


**Tab. E3 Number of issued documents from CzechPoint@office\* interface**

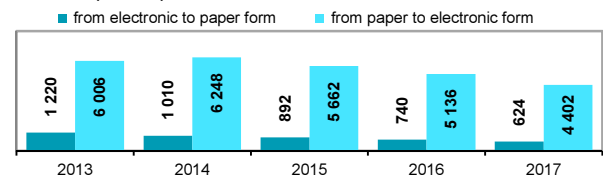
	2015	2016	2017
<b>Total</b>	<b>7 783</b>	<b>7 183</b>	<b>6 309</b>
<b>Verified extracts from official authority, total</b>	<b>939</b>	<b>1 046</b>	<b>1 034</b>
Registry office agenda	420	426	434
Registration office agenda	424	456	449
Others	95	165	151
<b>Verified extracts from Basic registers, total</b>	<b>289</b>	<b>261</b>	<b>249</b>
Verified extracts from the Register of Persons	272	238	226
<b>Authorized conversion of documents, total</b>	<b>6 554</b>	<b>5 876</b>	<b>5 026</b>
from electronic to paper form	892	740	624
from paper to electronic form	5 662	5 136	4 402

\* a non-public interface of Czech POINT for public authorities, using by officials in sphere of their competence for getting information, verifications and submissions

**Figure E3 Verified extracts from the CzechPoint@office interface by official authority (thous.)**



**Figure E4 Document conversions in CzechPoint@office interface (thous.)**



**Tab. E4 Number of verified extracts from CzechPoint@home\*\* interface**

	2015	2016	2017
<b>Total</b>	<b>6 019</b>	<b>10 432</b>	<b>14 141</b>
Statement of driver scores from the Driver Register	3 711	5 062	5 448
from the Criminal Register		2 202	4 634
from the Trade Register	683	1 006	1 160
from the Insolvency Register	234	236	251
Other verified extracts	1 391	1 926	2 648

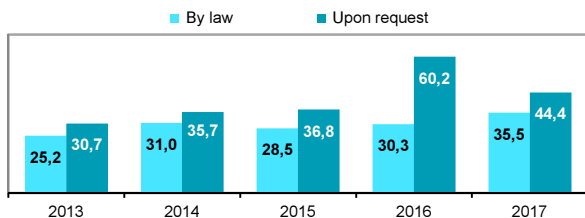
\*\* an interface of Czech POINT for citizens as data box owners, allowing remote access to selected verified extracts from their own computers or smartphones

**Tab. E5 Newly activated data boxes in the Czech Republic**

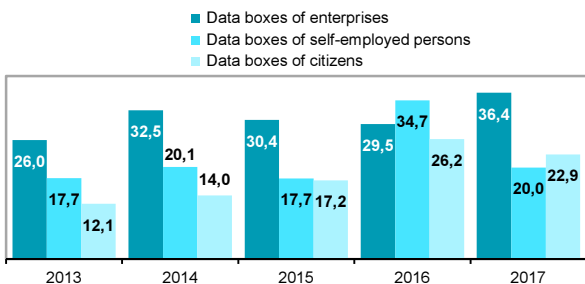
Thous.

	2015	2016	2017
<b>Total</b>	<b>65,4</b>	<b>90,5</b>	<b>79,9</b>
Set up by law	28,5	30,3	35,5
Set up upon request	36,8	60,2	44,4
<b>by type of entity</b>			
Public authority	0,1	0,1	0,6
Enterprise	30,4	29,5	36,4
Self-employed person	17,7	34,7	20,0
Other individual (citizen)	17,2	26,2	22,9

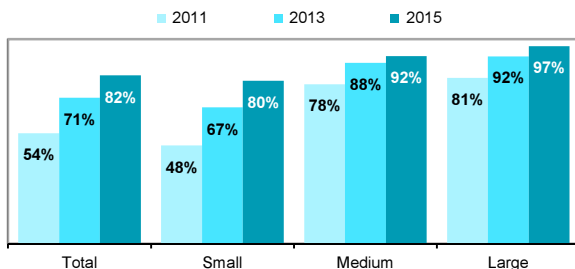
**Figure E5 Newly activated data boxes (thous.)**



**Figure E6 Activation of data boxes by type of entity (thous.)**



**Figure E7 Enterprises in the Czech Republic using data boxes for e-submitting forms to public authorities**



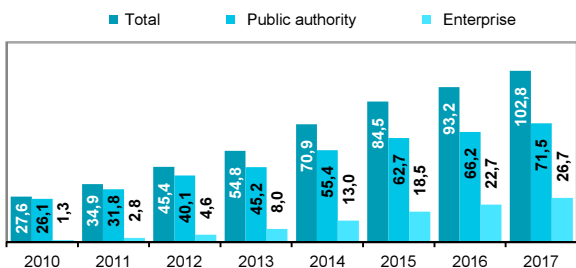
as a percentage of all enterprises with 10+ employees in a given group

Source: Ministry of the Interior of the Czech Republic, 2018

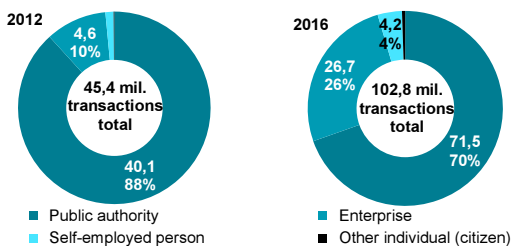
**Tab. E6 Number of e-transactions made via data boxes in the Czech Republic**

	2015	2016	2017
<b>Total</b>	<b>84 480</b>	<b>93 195</b>	<b>102 830</b>
Thous.			
<i>by type of entity</i>			
Public authority	62 664	66 248	71 495
Enterprise	18 511	22 722	26 654
Self-employed person	2 994	3 796	4 151
Other individual (citizen)	311	429	530

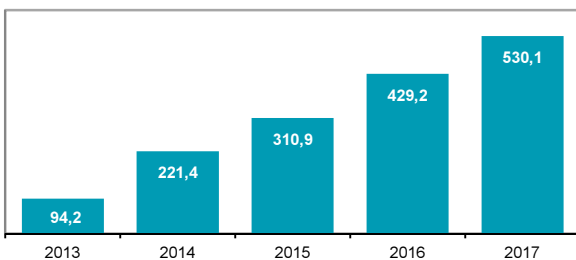
**Figure E8 Number of e-transactions made via data boxes in the Czech Republic (mil.)**



**Figure E9 Number of e-transactions made via data boxes by entity/subject (mil.; %)**



**Figure E10 Number of e-transactions made via data boxes by individual citizens (thous.)**

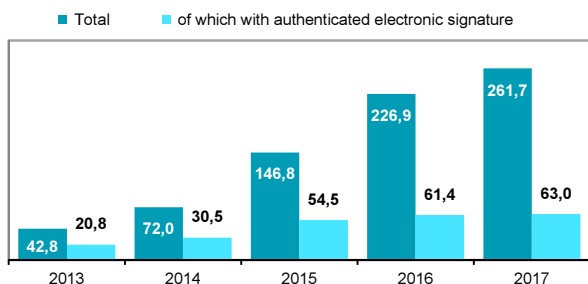


**Tab. E7 Electronic Tax Returns sent to the Czech Financial Administration (FA) via EPO application\***

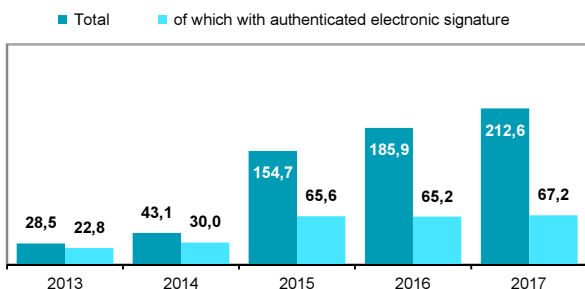
	Thous.		
	2015	2016	2017
Value Added Tax declaration	1 644,6	2 156,4	2 243,5
Personal Income Tax declaration	146,8	226,9	261,7
Corporate Income Tax declaration	154,7	185,9	212,6
Road Tax declaration	147,4	204,3	214,7
Real Estate Tax declaration	24,8	36,9	38,1

\* EPO (Electronic submissions for the Financial Administration) is application which allows e-filing of Tax Returns and sending other documents electronically

**Figure E11 Electronic Personal Income Tax forms sent to the Czech Financial Administration via EPO application (thous.)**



**Figure E12 Electronic Corporate Income Tax forms sent to the Czech Financial Administration via EPO application (thous.)**



**Tab. E8 Electronic Tax Returns sent to the Czech Financial Administration via Data Boxes**

	Thous.		
	2015	2016	2017
Value Added Tax declaration	1 375,6	1 665,7	1 857,0
Personal Income Tax declaration	32,1	131,6	146,1
Corporate Income Tax declaration	59,3	265,4	249,1
Road Tax declaration	71,4	150,0	159,0
Real Estate Tax declaration	7,2	19,4	19,9

Source: Czech Financial Administration, 2018



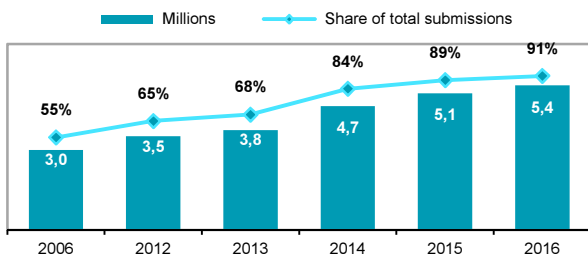
**Tab. E9 Electronic submissions sent to the Czech Social Security Administration (CSSA) via e-Submission\* application**

Thous.

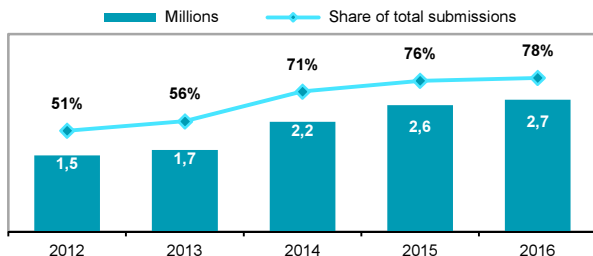
	2014	2015	2016
Record for Pension Insurance	4 665,2	5 148,5	5 444,9
Announcement of the commencement of employment	2 226,2	2 560,0	2 675,6
Overview of insurance contribution amount	1 753,4	2 040,7	2 283,0
Survey of income and expenses of the self-employed person	16,5	44,7	74,4

\* e-Submission is a service which allows electronic submission of selected forms by the Czech Social Security Administration

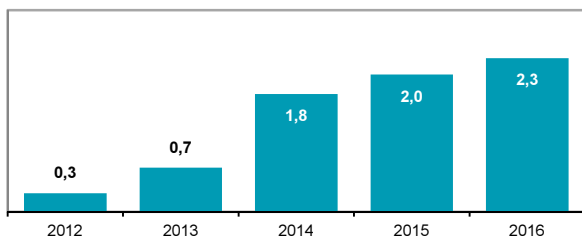
**Figure E13 Records for Pension Insurance sent to the CSSA electronically via e-Submission application**



**Figure E14 Announcements of the commencement of employment sent to the CSSA electronically via e-Submission application**



**Figure E15 Overviews of insurance contribution amount sent to the CSSA electronically via e-Submission application (mil.)**

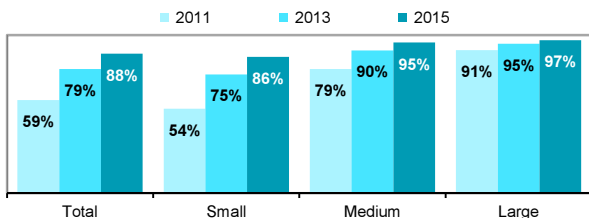


**Tab. E10 Enterprises in the Czech Republic using the complete e-submission for interaction with public administration**

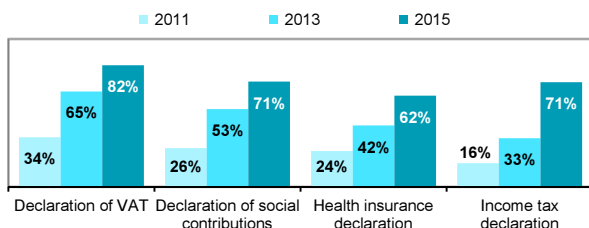
	2013	2014	2015
<b>Total (10+ employees)</b>	<b>78,5</b>	<b>86,3</b>	<b>88,3</b>
Small enterprises (10-49)	75,2	84,3	86,4
Medium enterprises (50-249)	90,5	92,8	95,4
Large enterprises (250+)	94,6	96,3	96,9
<b>Industry (NACE category):</b>			
Manufacturing	80,9	88,0	90,6
Electricity, gas and water supply	84,1	92,6	94,4
Construction	76,5	90,8	86,5
Sale and repair of motor vehicles	80,9	93,2	91,0
Wholesale trade	84,0	85,1	90,0
Retail trade	69,5	82,1	83,9
Transport and storage	75,3	85,0	86,1
Accommodation	76,2	85,9	82,8
Food and beverage services	61,5	68,6	71,1
Travel agency and related activities	70,0	82,9	90,4
Media industries incl. publishing activities	77,9	90,1	94,7
Telecommunications	84,1	95,1	95,1
Computer programming and related activities	85,5	89,6	93,3
Real estate activities	80,4	90,6	90,5
Professional, scientific and technical activities	70,0	84,6	92,8
Administrative and support activities	71,3	84,0	88,7

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

**Figure E16 Enterprises using the complete e-submission for interaction with public administration**



**Figure E17 Enterprises treating the following administrative procedures completely electronically**



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

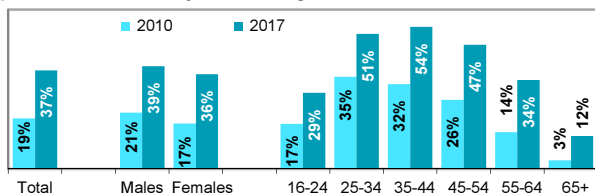
## E eGovernment

**Tab. E11 Individuals in the Czech Republic using the internet for interaction with public authorities**

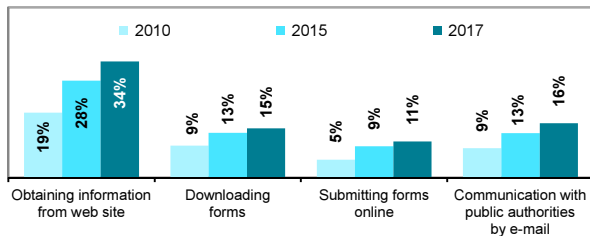
	%		
	2013	2015	2017
<b>Total (aged 16+)</b>	27,7	30,6	37,2
Total (aged 16-74)	30,0	32,9	40,1
<b>Sex:</b>			
Males (aged 16+)	28,5	30,8	38,8
Females (aged 16+)	27,0	30,3	35,7
<b>Age group:</b>			
16-24 year-olds	25,1	19,3	28,7
25-34 year-olds	39,3	45,5	50,9
35-44 year-olds	43,7	45,4	53,5
45-54 year-olds	32,4	37,9	46,8
55-64 year-olds	21,1	25,8	33,5
65 year-olds and over	6,0	9,0	12,5
<b>Education attainment level (aged 25+):</b>			
Basic	4,6	4,9	7,0
Secondary without A-level exam.	15,7	18,6	26,0
Secondary with A-level exam.			
or Higher professional	38,6	40,9	45,2
University	52,0	58,5	64,0
<b>Specific groups:</b>			
Women on maternity leave	37,8	46,1	54,1
Students (aged 16+)	23,4	17,3	27,1
Pensioners	6,4	9,9	12,9

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

**Figure E18 Individuals using the internet for interaction with public authorities by sex and age**



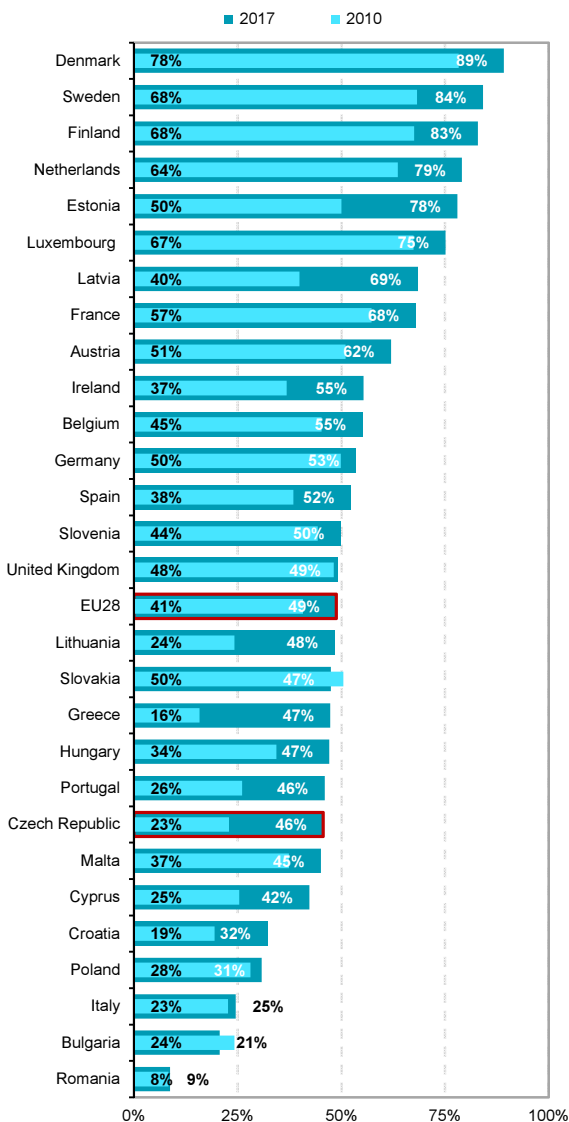
**Figure E19 Individuals using the internet for interaction with public authorities for selected activities**



as a percentage of all individuals aged 16+

Source: Czech Statistical Office, ICT use survey in households, 2018

**Figure E20 Individuals in EU countries using the internet for interaction with public authorities\***

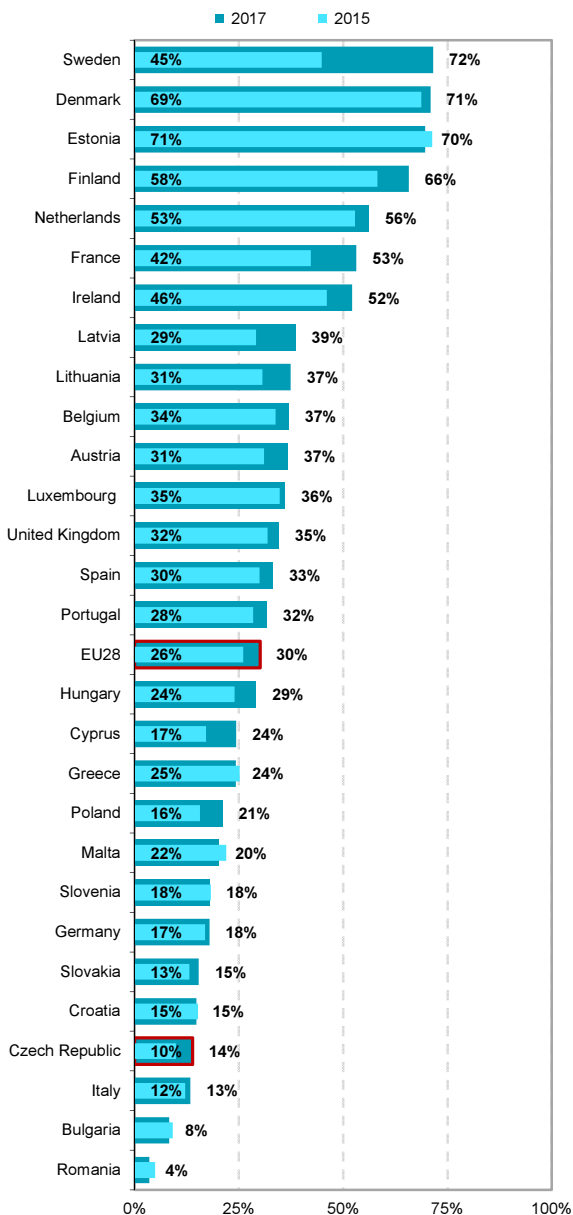


\* Includes individuals who have used the internet for interaction with public authorities at least once in the last 12 months and for private purposes. Individuals could have looked for information on public authorities websites, downloaded forms from these websites and submitted forms on-line.

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

Source: Eurostat, 2018

**Figure E21 Individuals in EU countries who filled and submitted forms to public authorities on-line**



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

Source: Eurostat, 2018

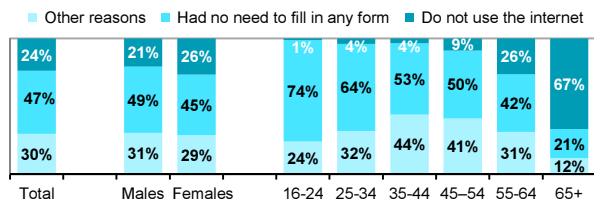
**Tab. E12 Reasons why individuals in the Czech Republic did not complete and submit forms to public authorities on-line; 2017**

%

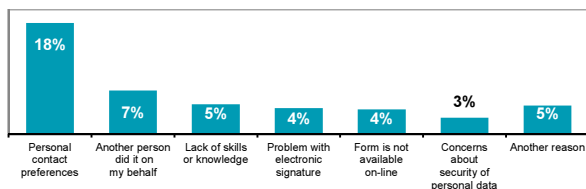
	Do not use the internet	Did not need to submit any form	Other reasons
<b>Total (aged 16+)</b>	<b>25,4</b>	<b>50,8</b>	<b>23,8</b>
Total (aged 16-74)	19,1	55,2	25,6
<b>Sex:</b>			
Males (aged 16+)	23,7	51,3	24,9
Females (aged 16+)	26,9	50,3	22,7
<b>Age group:</b>			
16-24 year-olds	3,3	75,3	21,3
25-34 year-olds	5,9	67,3	26,8
35-44 year-olds	5,3	62,8	31,9
45-54 year-olds	10,4	57,6	31,9
55-64 year-olds	32,7	41,7	25,6
65 year-olds and over	68,4	21,2	10,4
<b>Education attainment level (aged 25+):</b>			
Basic	67,6	19,3	13,0
Secondary without A-level exam.	34,5	42,2	23,3
Secondary with A-level exam. or Higher professional	14,9	56,9	28,1
University	7,3	66,0	26,5
<b>Specific groups:</b>			
Women on maternity leave	5,2	66,3	28,5
Students (aged 16+)	1,4	77,3	20,9
Pensioners	65,2	23,7	11,1

as a percentage of all individuals in a given socio-demographic group who did not submit forms to public authorities on-line

**Figure E22 Reasons why individuals did not submit forms to public authorities on-line; 2017**



**Figure E23 Other reasons for not submitting forms to public authorities on-line; 2017**



as a percentage of all individuals who did not submit forms to public authorities on-line

## F Education and digital skills

Numbers of schools with internet access and connection speed, as well as numbers of schools with website and student information system were collected by **Czech School Inspection** in years 2011/2012 and 2016/2017 as part of survey on ICT use at nursery, basic, secondary and higher professional schools.

Numbers of desktop computers, tablets and laptops both with and without internet connection calculated per 100 students in different levels of schools have been collected by **Ministry of Education, Youth and Sports**. Numbers of schools equipped with school wireless network and school intranet come from the same source. These indicators have been collected from nurseries, basic, secondary, and higher professional schools every year since 2005 (nursery schools since 2014).

**Reference period:** 30/9 of the reference year

**PISA 2015**, survey conducted by OECD, has been used for data on usage of selected ICT by 15-year-old students in the Czech Republic as well as in other countries. The survey itself contained of six questionnaires. Data presented in this chapter come from the questionnaire targeted on and answered by 15-year-old students.

**Further information on PISA survey:** <http://www.oecd.org/pisa/>

**Sample Survey on ICT Use in Households and by Individuals** has been used as a source for data on **computer skills** of individuals (this survey is described in details in the opening text of Chapter C). Eurostat database has been used for international comparison. Data contained in this chapter presents mainly information about usage of different kinds of software.

**Sample Survey on ICT Use in Households and by Individuals** has been also used as a source for data on different activities carried out by students. Eurostat database has been used for international comparison. *Data from this database was extracted in March 2018.*

**Comparability of data published by the CZSO and Eurostat:** The data for the Czech Republic published by Eurostat slightly differs from the data published by the CZSO. This difference is due to the fact that Eurostat includes solely individuals aged between 16 and 74 years. The CZSO provides as standard the data for the whole adult population aged 16 and over. *This is the reason why the tables in this publication give dual total values for the Czech Republic: total aged 16 and over and total aged 16-74.*

**Reference period (data for all individuals and students):** last 3 months before the time of answering the questions (unless otherwise stated)

Data on ICT field of education comes from the **Ministry of Education, Youth and Sports in the Czech Republic** data sources.

ICT field of education (Computing: ISCED 48) is according to the international classification ISCED 97 divided into two detailed fields: **Computer science** (ISCED 481) and **Use of computers** (ISCED 482). In the Czech Republic tertiary education includes **Higher professional education and University education** which is provided by Universities at Bachelor's or equivalent level (ISCED 6), Master's or equivalent level (ISCED 7) and Doctoral or equivalent level (ISCED 8).

Data on the **numbers and structure** of ICT professionals comes from the **Labour Force Sample Survey (LFS)** of the Czech Statistical Office.

**ICT professionals (ISCO 25)** refer to comprising analysts and software and computer applications developers and specialists in the field of databases and computer network. Their classification is based on the Classification of Occupations (CZ-ISCO) the corresponding national classification in the Czech Republic developed on the basis of the **International Standard Classification of Occupations (ISCO-08)**.

**For more information on Eurostat databases see:**

<http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/database> and

<http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/comprehensive-database>

**Further information on Education can be found at:**

[https://www.czso.cz/csu/czso/information technologies in schools](https://www.czso.cz/csu/czso/information_technologies_in_schools)

[https://www.czso.cz/csu/czso/lidske zdroje pro informacni technologie](https://www.czso.cz/csu/czso/lidske_zdroje_pro_informacni_technologie)  
(in Czech only)



## F Education and digital skills

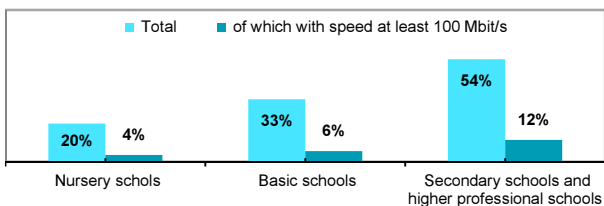
**Tab. F1 Schools in the Czech Republic with the internet access; 2016/2017**

%

	Download speed		
	less than 30 Mbit/s	31 to 100 Mbit/s	at least 100 Mbit/s
Nursery schools	77,6	16,6	3,6
Basic schools	66,9	27,4	5,6
Secondary schools and higher professional schools	45,8	42,5	11,6

percentage of all schools of a given type

**Figure F1 Schools with at least 31 Mbit/s internet download speed; 2016/2017**



percentage of all schools of a given type

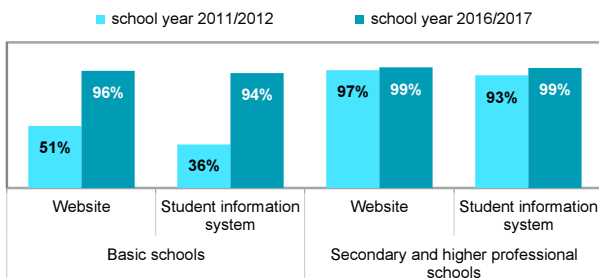
**Tab. F2 Schools with a website and student information system**

%

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

percentage of all schools of a given type

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



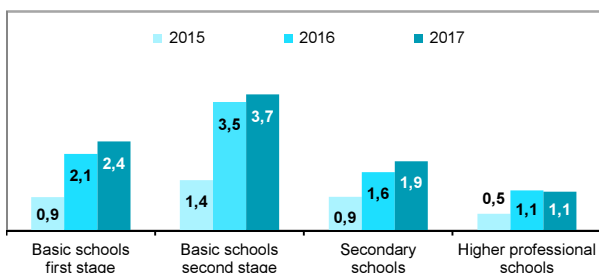
Source: Czech School Inspection, 2018

## F Education and digital skills

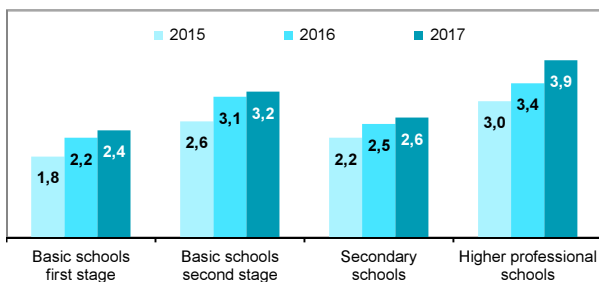
**Tab. F3 Computers available to students in the Czech Republic by type of device; 2017**

	Number of devices per 100 students			
	Total	Desktop computer	Portable computer	Tablet
Basic schools - first stage	18,2	13,4	2,4	2,4
Basic schools - second stage	28,6	21,7	3,2	3,7
Secondary schools	25,0	20,5	2,6	1,9
Higher professional schools	47,7	42,7	3,9	1,1

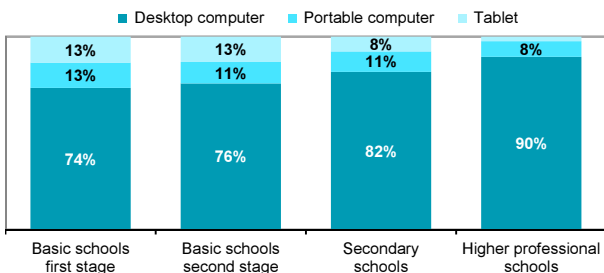
**Figure F3 The number of tablets per 100 students in a given type of schools**



**Figure F4 The number of portable computers with internet connection per 100 students in a given type of schools**



**Figure F5 Types of computers available to students; 2017**



Source: Ministry of Education, Youth and Sports of the Czech Republic, 2018

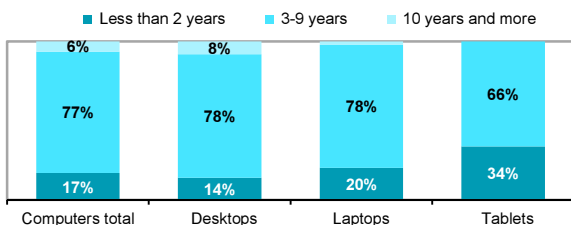
## F Education and digital skills

**Tab. F4 Computers in schools available to students by type and age of devices; 2017**

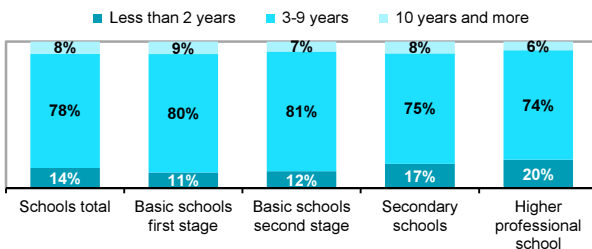
	Total*	Less than 2 years	3-9 years	10 years and more
				Thous.
<b>Total</b>	<b>261,8</b>	<b>44,4</b>	<b>200,4</b>	<b>17,0</b>
Desktops	198,9	27,7	154,9	16,3
Laptops	33,5	6,8	26,0	0,7
Tablets	29,4	9,9	19,5	0,0
<b>Basic schools - first stage</b>	<b>104,6</b>	<b>15,5</b>	<b>82,2</b>	<b>6,9</b>
Desktops	76,9	8,5	61,8	6,6
Laptops	13,6	2,6	10,7	0,3
Tablets	14,1	4,5	9,6	0,0
<b>Basic schools - second stage</b>	<b>100,2</b>	<b>15,4</b>	<b>79,6</b>	<b>5,2</b>
Desktops	75,9	9,1	61,8	5,1
Laptops	11,3	2,2	8,9	0,2
Tablets	13,1	4,1	8,9	0,0
<b>Secondary schools</b>	<b>105,5</b>	<b>19,5</b>	<b>78,8</b>	<b>7,3</b>
Desktops	86,4	14,6	64,8	7,0
Laptops	11,1	2,1	8,7	0,3
Tablets	8,0	2,8	5,2	0,0
<b>Higher professional school</b>	<b>11,3</b>	<b>2,2</b>	<b>8,4</b>	<b>0,6</b>
Desktops	10,1	2,0	7,5	0,6
Laptops	0,9	0,1	0,7	0,0
Tablets	0,3	0,1	0,2	0,0

\* For methodological reasons total counts of computers are lower than counts of individual education stages. Schools usually cover more than one educational stage, where one computer is counted toward each stage whereas the totals count that computer as one computer only.

**Figure F6 Age of computers available to basic and secondary school students by type of devices; 2017**



**Figure F7 Age of computers available to students by type of school; 2017**



Source: Ministry of Education, Youth and Sports of the Czech Republic, 2018

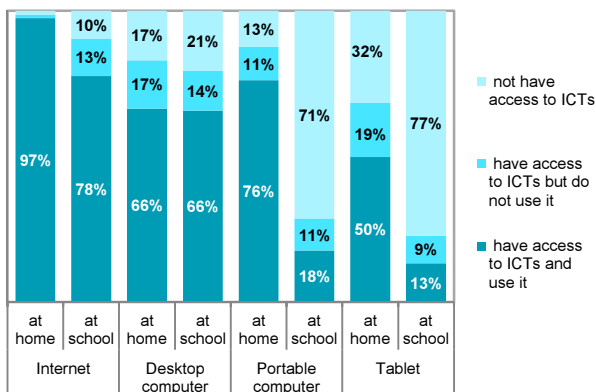
## F Education and digital skills

**Tab. F5 15 years old students in the Czech Republic having access to selected ICTs; 2015**

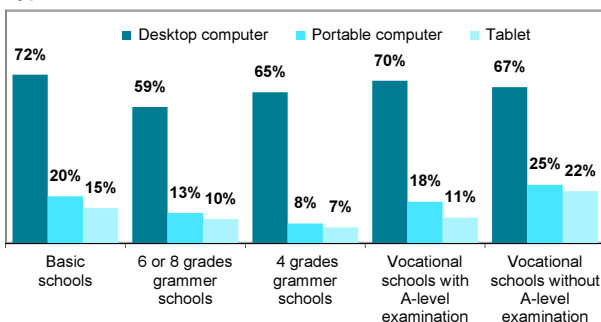
	%	
	at home	at school
Internet	98,7	90,4
Mobile phone	93,1	.
Portable computer	87,5	28,6
Desktop computer	82,9	79,5
Tablet	68,4	22,7
E-book reader	26,2	12,9
MP3/MP4 player	70,8	.
Printer	78,1	.

as a percentage of all 15 years old students

**Figure F8 15 years old students having access to selected ICTs; 2015**



**Figure F9 15 years old students using a computer at school by type of school; 2015**

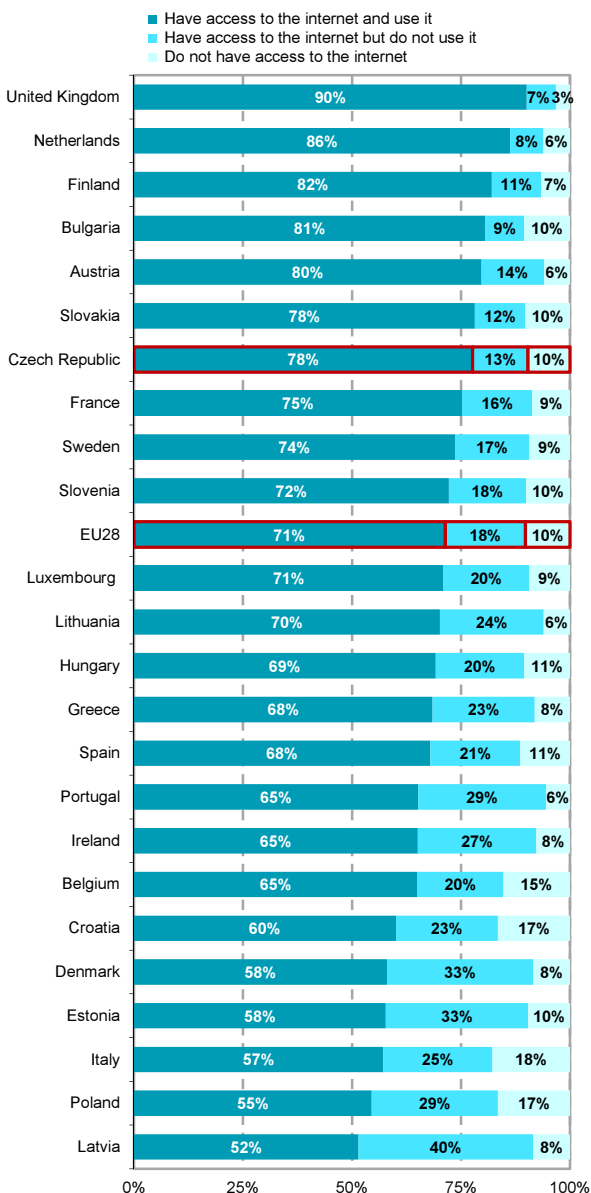


as a percentage of all 15 years old students at given type of school

Source: OECD, survey PISA, 2015

## F Education and digital skills

**Figure F10 15 years old students in EU countries with the internet access at school; 2015**



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

Source: OECD, survey PISA, 2015

## F Education and digital skills

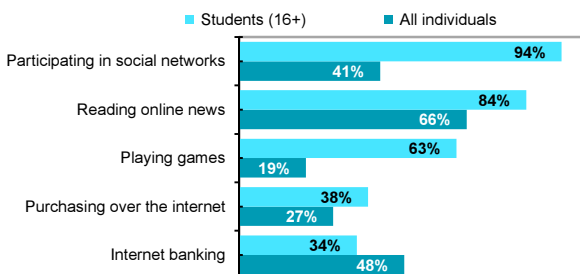
**Tab. F6 Students in the Czech Republic aged 16+ using the internet for selected activities; 2015-2017\***

	Total	Males	Females
<b>Using the internet</b>	<b>99,1</b>	<b>98,9</b>	<b>99,4</b>
Using mobile connections	83,1	83,0	83,1
<b>Using the internet for learning activities:</b>			
On-line course	6,9	5,9	8,0
Using on-line learning material	38,7	32,7	42,7
Communication with instructors or other students	30,9	29,2	32,7
<b>Using the internet for other activities:</b>			
Participating in social networks	93,8	93,1	94,5
Reading online news	83,5	82,6	84,6
Playing games	63,2	78,7	46,2
Searching for travel-related information	57,9	52,7	63,6
Purchasing over the internet	37,5	35,3	40,1
Internet banking	34,2	31,4	37,3

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

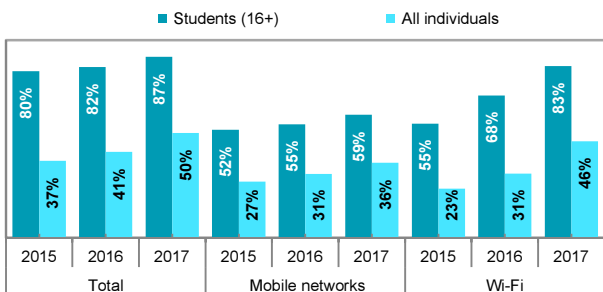
\* numbers are moving average calculated for years 2015-2017

**Figure F11 Students and individuals aged 16+ using the internet for selected activities; 2015 - 2017**



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

**Figure F12 Students and individuals aged 16+ accessing the Internet via mobile phone by type of connection**

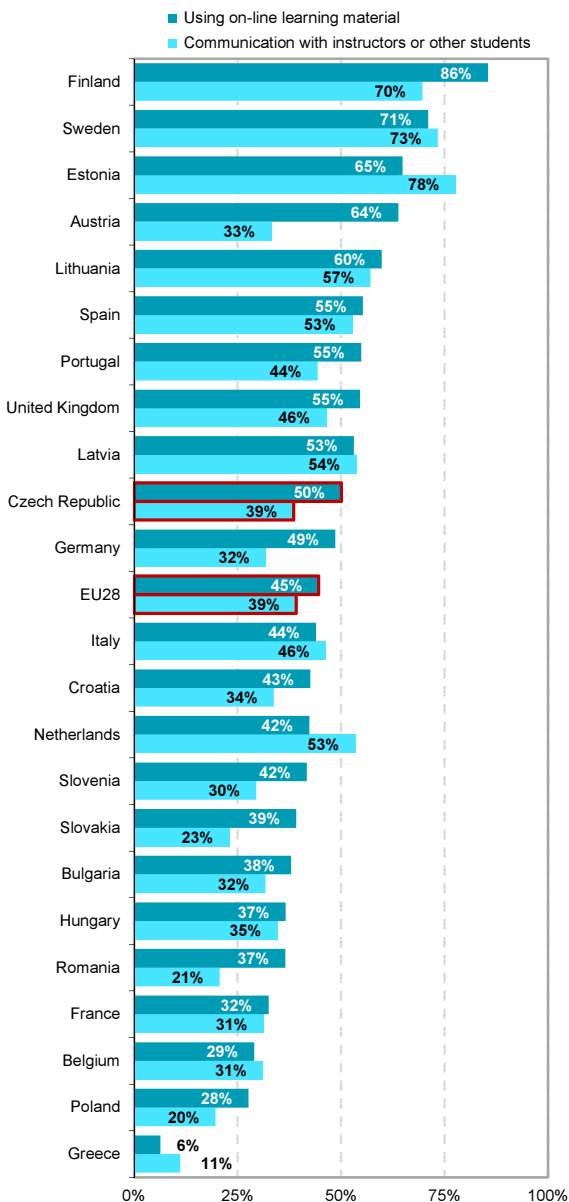


as a percentage of all students and individuals

Source: Czech Statistical Office, ICT use survey in households, 2018

## F Education and digital skills

**Figure F13 Students in EU countries aged 16+ using the internet for selected activities; 2017**



as a percentage of all students (16+) in a given country

Source: Eurostat, 2018

## F Education and digital skills

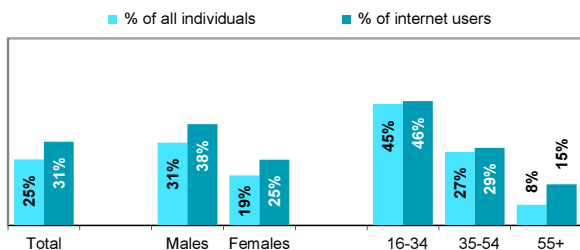
**Tab. F7 Individuals in the Czech Republic with selected computer skills; 2017**

	Copying files	Editing photos*	Program-ming
<b>Total (aged 16+)</b>	<b>59,3</b>	<b>24,7</b>	<b>3,9</b>
Total (aged 16-74)	64,0	26,9	4,3
<b>Sex:</b>			
Males (aged 16+)	63,9	30,9	7,1
Females (aged 16+)	54,8	18,7	0,9
<b>Age group:</b>			
16-34 year-olds	85,6	45,4	8,8
35-54 year-olds	70,8	27,4	3,7
55 year-olds and over	29,9	7,7	0,8
<b>Education attainment level (aged 25+):</b>			
Basic	14,3	3,6	0,0
Secondary without A-level exam.	38,8	10,8	0,5
Secondary with A-level exam. or Higher professional	67,5	25,1	3,1
University	87,1	43,8	10,4
<b>Specific groups:</b>			
Women on maternity leave	75,0	31,0	0,6
Students (aged 16+)	93,0	57,0	11,4
Pensioners	19,1	3,9	0,3

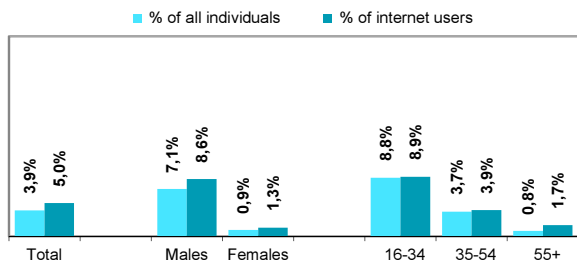
as a percentage of all individuals in a given socio-demographic group

\* using software to edit photos, video or audio files

**Figure F14 Photo editing software use by sex and age; 2017**



**Figure F15 Programming by sex and age; 2017**

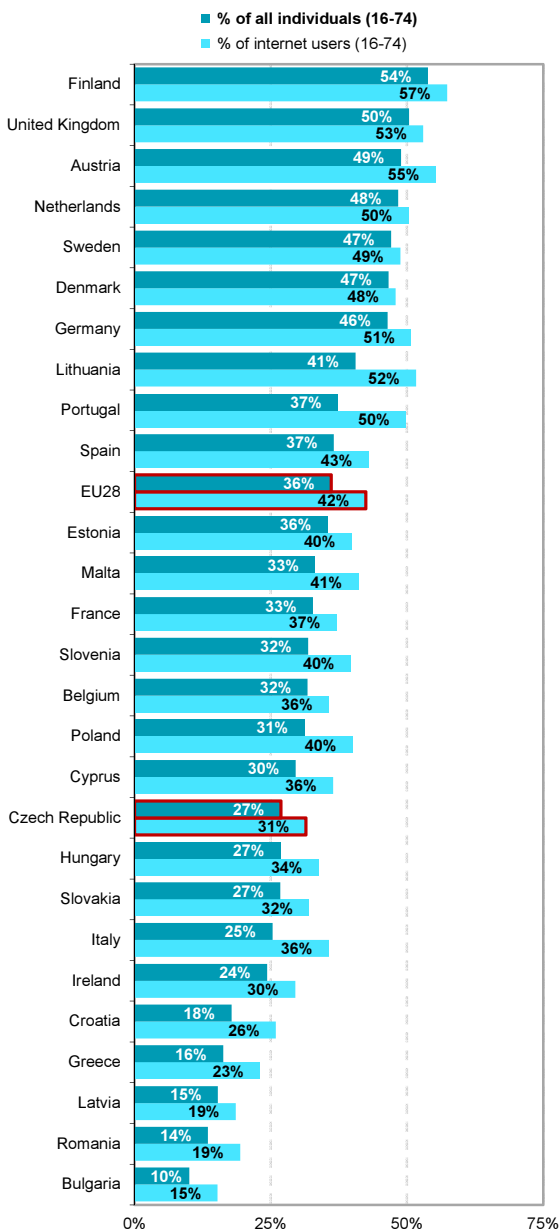


Source: Czech Statistical Office, ICT use survey in households, 2018



## F Education and digital skills

Figure F16 Individuals in EU countries, who used specialised software to edit photos, video or audio files; 2017



Source: Eurostat, 2018

## F Education and digital skills

**Tab. F8 Individuals in the Czech Republic who declared they used selected Office software; 2017**

	Word processing software*	Spreadsheet software**	Presentation software***
Total (aged 16+)	53,9	41,0	24,5
Total (aged 16-74)	58,2	44,4	26,7
<b>Sex:</b>			
Males (aged 16+)	57,1	43,9	27,9
Females (aged 16+)	50,9	38,1	21,3
<b>Age group:</b>			
16-34 year-olds	80,2	67,4	48,3
35-54 year-olds	63,2	46,9	25,8
55 year-olds and over	26,8	17,1	6,9
<b>Education attainment level (aged 25+):</b>			
Basic	11,8	5,1	1,3
Secondary without A-level exam.	29,7	14,7	6,5
Secondary with A-level exam. or Higher professional	63,7	48,0	23,3
University	85,0	75,9	52,9
<b>Specific groups:</b>			
Women on maternity leave	65,7	51,9	31,6
Students (aged 16+)	89,4	80,1	67,2
Pensioners	16,3	8,8	2,4

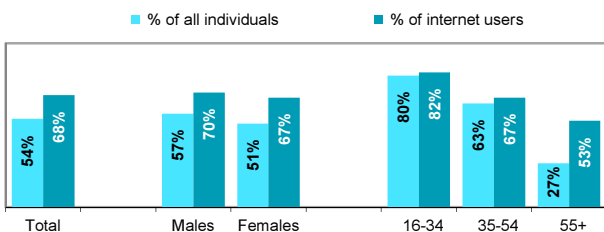
as a percentage of all individuals in a given socio-demographic group

\* e.g. MS Word or OpenOffice Writer

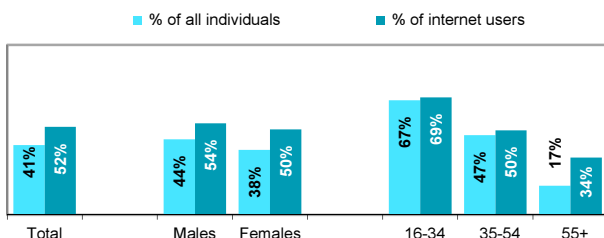
\*\* e.g. MS Excel or OpenOffice Calc

\*\*\* e.g. MS PowerPoint or Prezi

**Figure F17 Word processing software use by sex and age; 2017**



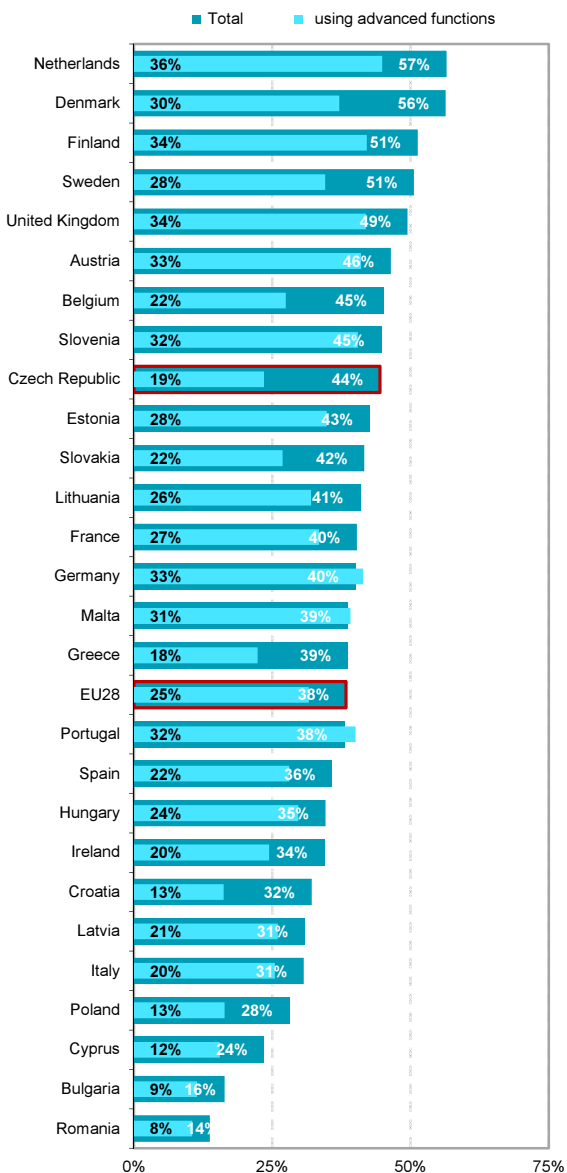
**Figure F18 Spreadsheet software use by sex and age; 2017**



Source: Czech Statistical Office, ICT use survey in households, 2018

## F Education and digital skills

**Figure F19 Individuals in EU countries who used spreadsheet software\*; 2017**



\* e.g. MS Excel or OpenOffice Calc  
as a percentage of all individuals aged 16 to 74 in a given country

Source: Eurostat, 2018

## F Education and digital skills

Tab. F9 University students of ICT in the Czech Republic

	Number of students		
	2014	2015	2016
<b>Total</b>	<b>18 175</b>	<b>17 757</b>	<b>17 251</b>
of which 25 years and older	4 441	4 508	4 424
<b>Sex:</b>			
Males	15 606	15 162	14 543
Females	2 569	2 595	2 708
<b>Study programme:</b>			
Bachelor (ISCED level 6)	12 260	11 994	11 787
Master (ISCED level 7)	4 979	4 811	4 574
Doctoral (ISCED level 8)	945	963	899
<b>Nationality:</b>			
Czech	14 365	13 676	12 937
Foreigners	3 810	4 081	4 314

Figure F20 University students of ICT field of education in CZ

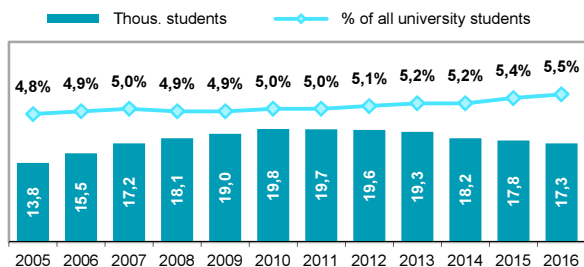


Figure F21 University students of ICT by sex in CZ

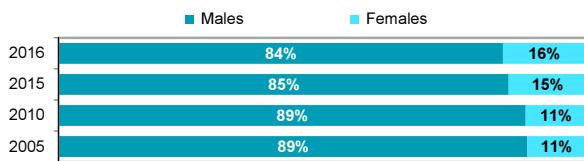


Figure F22 University students of ICT by nationality in CZ

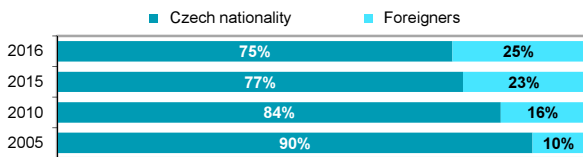
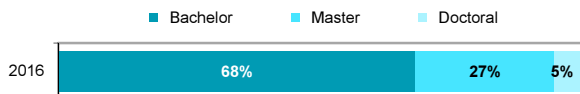


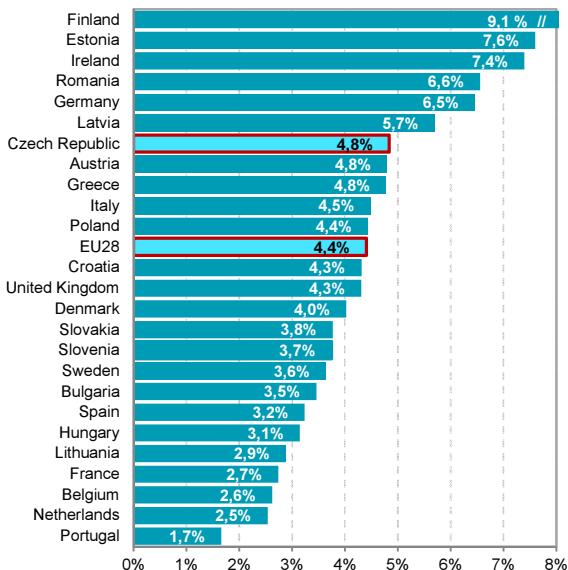
Figure F23 University students of ICT by study programme in CZ



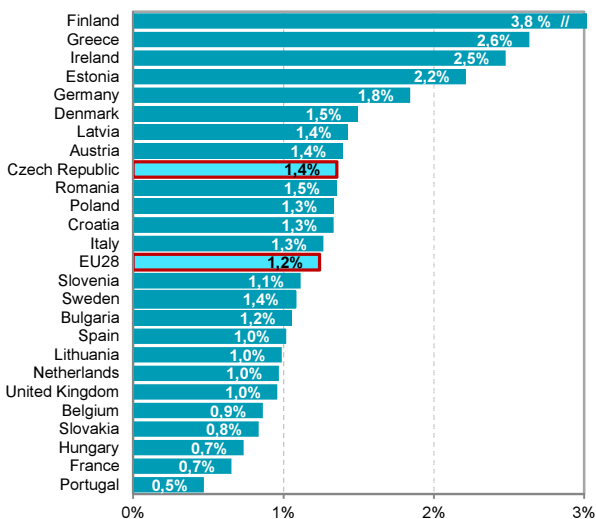
Source: CZSO calculation based on MEYS database, 2018

## F Education and digital skills

**Figure F24 ICT tertiary students in EU countries\*; 2015  
(as a percentage of all tertiary students\*)**



**Figure F25 ICT tertiary students in EU countries\*; 2015  
(as a percentage of population aged 20 to 29 years)**



\* Tertiary education comprises here only ISCED-2011 classification levels 6 (Bachelor or equivalent level) and 7 (Master or equivalent level)

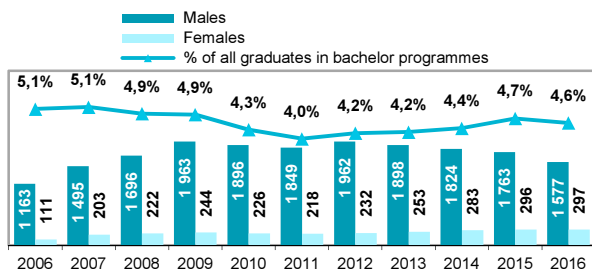
Source: CZSO calculation based on Eurostat database, 2018

## F Education and digital skills

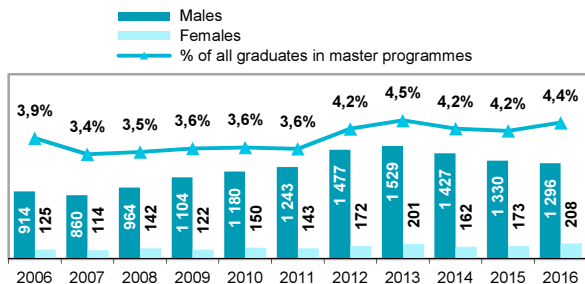
**Tab. F10 University graduates of ICT in the Czech Republic**

	Number of graduates		
	2014	2015	2016
<b>Total</b>	<b>3 764</b>	<b>3 638</b>	<b>3 463</b>
Males	3 314	3 161	2 951
Femalse	450	477	512
<b>Study programme:</b>			
Bachelor (ISCED level 6)	2 107	2 059	1 874
Master (ISCED level 7)	1 589	1 503	1 504
Doctoral (ISCED level 8)	69	76	85
<b>Nationality:</b>			
Czech	3 133	2 934	2 750
Foreigners	631	704	713

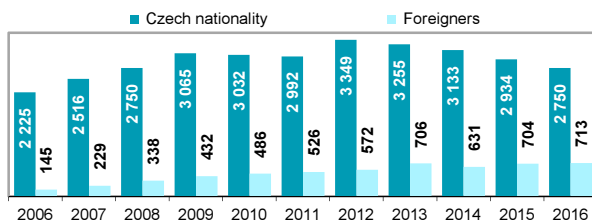
**Figure F26 University graduates in ICT bachelor programmes in CZ**



**Figure F27 University graduates in ICT master programmes in CZ**



**Figure F28 University graduates in ICT by nationality in CZ**



Source: CZSO calculation based on MEYS database, 2018

## F Education and digital skills

Figure F29 University graduates in ICT in EU countries\*; 2015

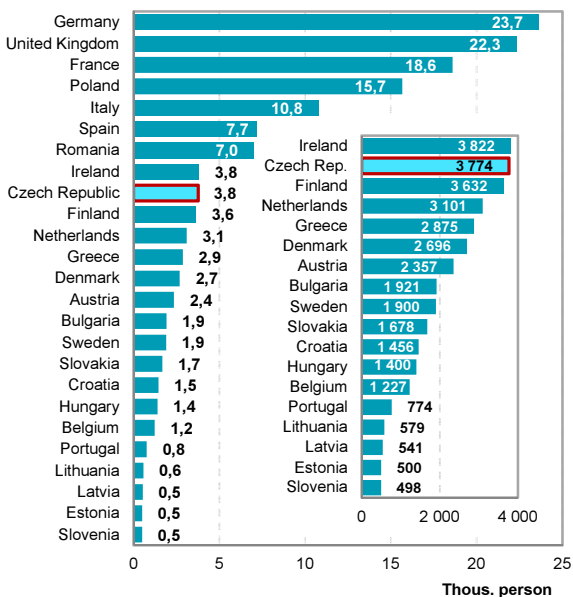
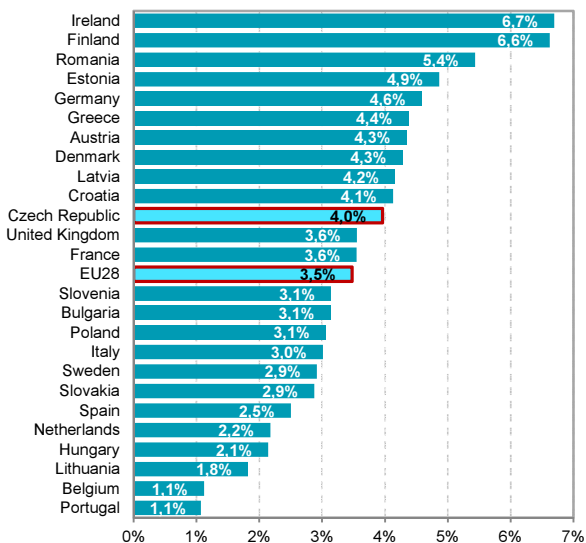


Figure F30 University graduates in ICT\* in EU countries; 2015  
(% of all graduates\*)

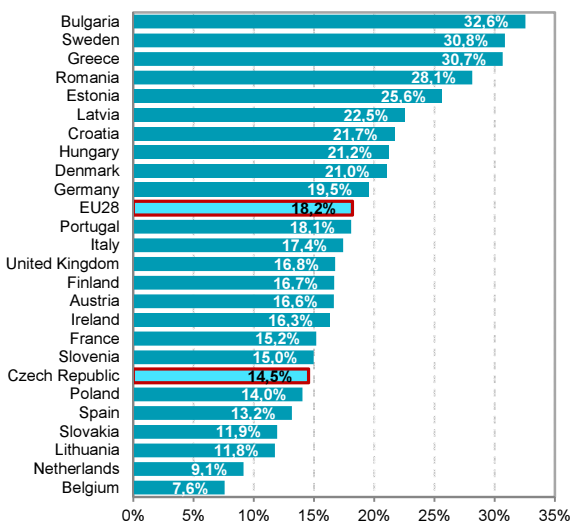


\* Tertiary education comprises here only ISCED-2011 classification levels 6 (Bachelor or equivalent level) and 7 (Master or equivalent level).

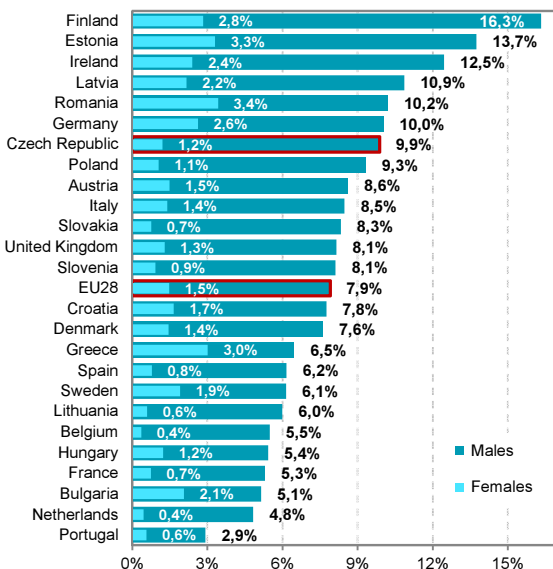
Source: CZSO calculation based on Eurostat database, 2018

## F Education and digital skills

**Figure F31 Share of females in all ICT students (%) in EU countries\*; 2015**



**Figure F32 University students of ICT\* by gender in EU countries; 2015 (% of university students males/females total\*)**



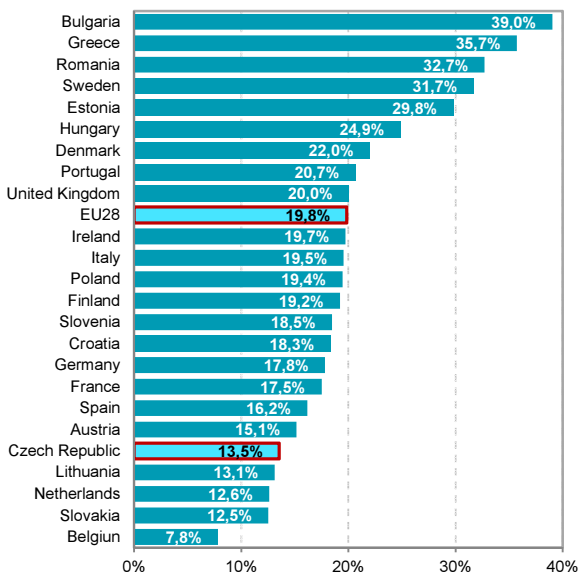
\* Tertiary education comprises here only ISCED-2011 classification levels 6 (Bachelor or equivalent level) and 7 (Master or equivalent level).

Source: CZSO calculation based on Eurostat database, 2018

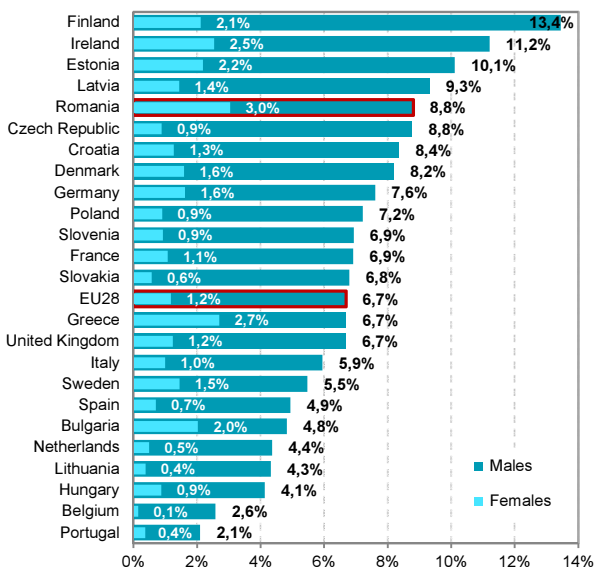


## F Education and digital skills

**Figure F33 Share of females in all ICT graduates (%)\* in EU countries; 2015**



**Figure F34 University graduates in ICT\* by sex; 2015  
(% of university graduates males/females total\*)**



\* Tertiary education comprises here only ISCED-2011 classification levels 6 (Bachelor or equivalent level) and 7 (Master or equivalent level).

Source: CZSO calculation based on Eurostat database, 2018

## F Education and digital skills

Tab. F11 ICT professionals in the Czech Republic

	Thousands of persons		
	2014	2015	2016
<b>Total (CZ-ISCO 25)</b>	<b>63,4</b>	<b>66,6</b>	<b>71,9</b>
Males	56,5	59,9	65,4
Females	6,9	6,7	6,6
<b>Occupation:</b>			
Software and apps developers and analysts	44,9	44,9	46,6
Database and network professionals	18,6	21,6	25,3
<b>By status in employment:</b>			
Self-employed	13,2	12,1	14,2
Employees	50,2	54,5	57,7
<b>By employer activity:</b>			
Industry and construction	6,2	7,8	10,5
Information and communication	43,1	41,8	45,1
Public administration, Education and Healthcare	4,5	5,0	4,9
Other branches	9,5	12,0	11,4
<b>Age group:</b>			
up to 29 years	14,5	15,8	15,5
30-39 years	25,4	25,5	28,3
40-49 years	12,1	15,3	17,7
50+ years	11,6	10,0	10,4
<b>Highest level of education attainment level:</b>			
Secondary with A-level examination	10,1	10,9	11,2
Bachelor's and Higher professional	11,1	9,9	10,3
Master's and Doctoral	42,2	45,7	50,5

Figure F35 ICT professionals

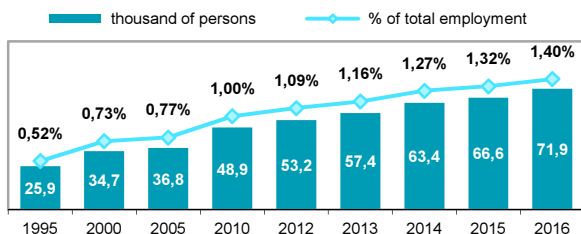


Figure F36 ICT professionals by sex

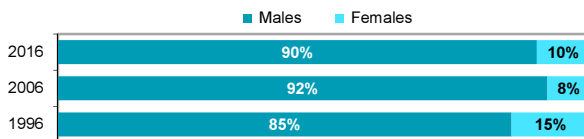
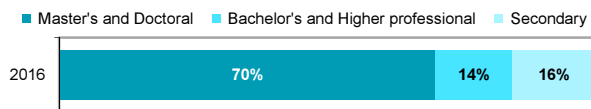


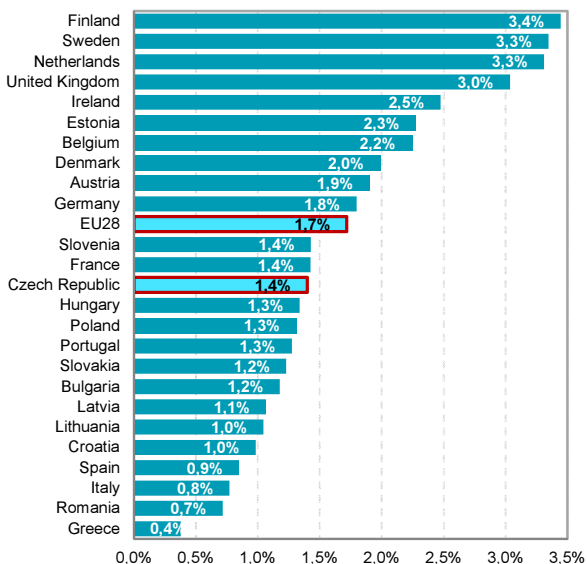
Figure F37 ICT professionals by level of education; 2016



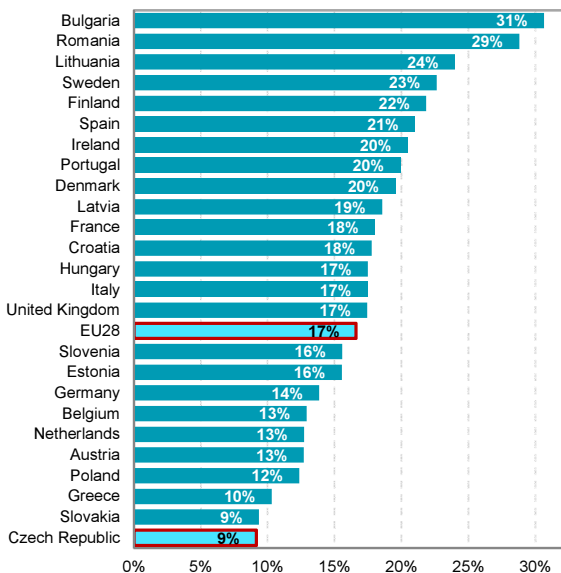
Source: CZSO, Labour Force Survey, 2018

## F Education and digital skills

**Figure F38 ICT Professionals in EU countries; 2016**  
(as a percentage of total employment)



**Figure F39 Females in ICT Professionals in EU countries (%); 2016**



calculation based on Eurostat database, European Labour Force Survey, 2018

## F Education and digital skills

**Tab. F12 Earnings of ICT professionals in the Czech Republic**

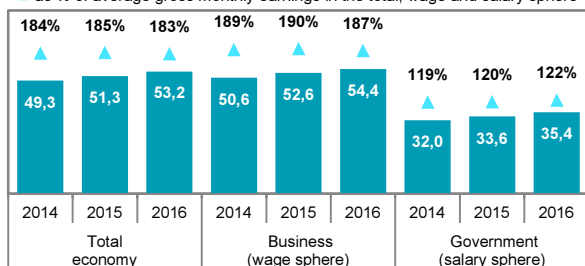
Average gross monthly earnings (wage) in CZK

	2014	2015	2016
<b>Total (CZ ISCO 25)</b>	<b>49 259</b>	<b>51 319</b>	<b>53 241</b>
Males	50 206	52 296	54 325
Females	42 381	43 701	45 369
<b>Sphere of activity (earnings):</b>			
Business (wage sphere)	50 558	52 643	54 391
Government (salary sphere)	32 006	33 607	35 422
<b>Age group:</b>			
under 24 years	27 669	28 393	30 237
25-34 years	45 124	47 296	48 582
35-44 years	56 903	58 751	60 624
45-54 years	50 431	52 543	55 882
55+ years	45 441	46 338	49 522
<b>Highest level of education attainment level:</b>			
Master's and Doctoral	54 387	56 172	58 831
Bachelor's and Higher professional	43 611	46 238	48 644
Secondary with A-level examination	43 324	44 930	47 751

**Figure F40 Earnings of ICT professionals by sphere of activity**

■ Average gross monthly earnings (wage) in thous. CZK

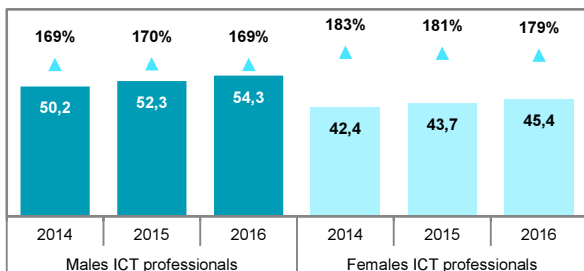
▲ as % of average gross monthly earnings in the total, wage and salary sphere



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

■ Average gross monthly earnings (wage) in thous. CZK

▲ as % of average gross monthly earnings of all males and females workers



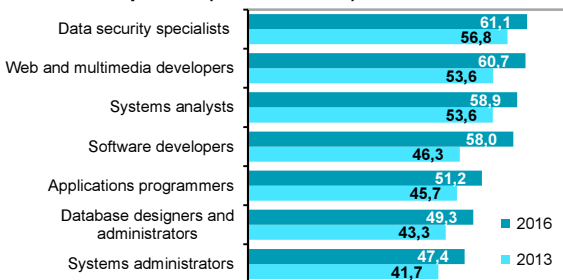
## F Education and digital skills

**Tab. F13 Earnings of ICT professionals in the Czech Republic according to their occupation and branch**

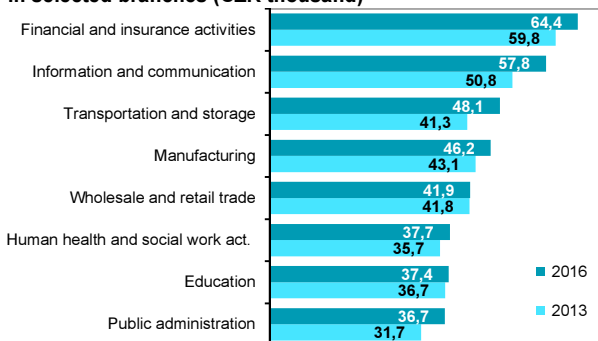
Average gross monthly earnings (wage) in CZK

	2014	2015	2016
<b>Total (CZ ISCO 25)</b>	<b>49 259</b>	<b>51 319</b>	<b>53 241</b>
<b>Selected occupation (ISCO unit groups):</b>			
Systems analysts (ISCO 2511)	54 708	56 843	58 868
Software developers (ISCO 2512)	53 722	55 216	58 049
Applications programmers (ISCO 2514)	47 140	49 620	51 210
Database designers and admin.( ISCO 2521)	44 868	47 001	49 319
Systems administrators (ISCO 2522)	43 118	45 306	47 432
Data security specialists (ISCO 2524)	58 068	58 789	61 073
<b>Selected industries (NACE Sections):</b>			
Manufacturing (NACE: C)	43 760	45 769	46 246
Wholesale and retail trade (NACE: G)	40 631	40 868	41 938
Information and communication (NACE: J)	54 238	56 457	57 786
Financial and insurance activities (NACE: K)	59 932	61 962	64 436
Public administration (NACE: O)	33 055	34 929	36 657
Education (NACE: P)	35 442	35 763	37 421
Human health and social work act. (NACE: Q)	35 237	36 649	37 713

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



**Figure F43 Average gross monthly wage of ICT professionals in selected branches (CZK thousand)**



Source: CZSO, Structural Earnings Statistics, 2018

## F Education and digital skills

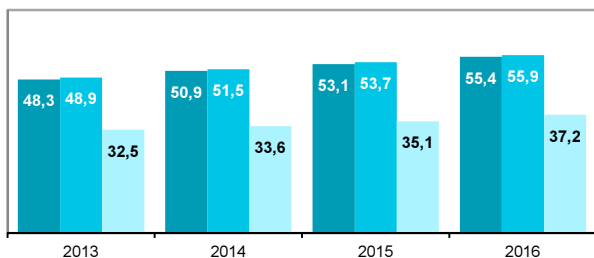
**Tab. F14 Earnings of software and applications developers and analysts in the Czech Republic**

Average gross monthly earnings (wage) in CZK

	2014	2015	2016
<b>Total (CZ ISCO 251)</b>	<b>50 909</b>	<b>53 075</b>	<b>55 404</b>
Males	51 923	54 062	56 531
Females	43 596	45 245	47 313
<b>Sphere of activity (earnings):</b>			
Business (wage sphere)	51 493	53 662	55 916
Government (salary sphere)	33 567	35 077	37 206
<b>Age group:</b>			
25-34 years	46 621	48 513	50 215
35-44 years	60 253	62 326	65 529
45-54 years	51 282	53 637	58 844
55+ years	45 941	47 162	52 483
<b>Highest level of education attainment level:</b>			
Master's and Doctoral	55 291	57 285	60 297
Bachelor's and Higher professional	45 064	47 294	50 087
Secondary with A-level examination	44 747	46 164	49 530

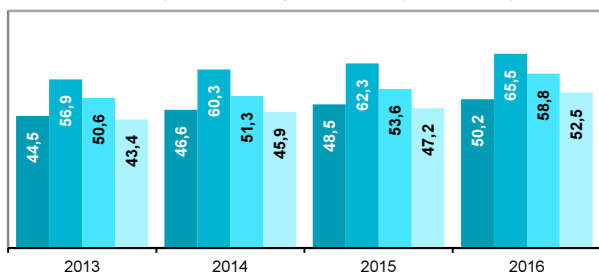
**Figure F44 Average gross monthly wage of software and apps developers and analysts by sphere of activity (CZK thous.)**

■ Total economy ■ Business (wage sphere) ■ Government (salary sphere)



**Figure F45 Average gross monthly wage of software and apps developers and analysts by age (CZK thous.)**

■ 25-34 years ■ 35-44 years ■ 45-54 years ■ 55+ years



Source: CZSO, Structural Earnings Statistics, 2018

The Czech Statistical Office (CZSO) has been collecting data **on the adoption and use of information technologies in health care** since 2003. The main source for measuring the development of eHealth in the Czech Republic is a short module related to **ICT usage in the health-care facilities** conducted by the Institute of Health Information and Statistics of the Czech Republic (IHIS) in cooperation with the CZSO. This module has been surveyed annually. Since 2016 it is a part of a mandatory yearly statement on Informative data of health care providers (E101).

### Notes:

**Reference period:** End of the monitored year

**Target facilities:** Practices of independent physicians.

**Available breakdowns:** Data on the use of information and communication technologies by independent physicians is available by the type of practice – general practitioners for adults, general practitioners for children, dentists, gynecologists and specialists.

### Definitions:

- **Special doctor's practices** – include offices such as dermatologists, urologists, ophthalmologists etc.
- **On-line consultation** offers the possibility to ask health-related questions, which the health establishment answers by e-mail or may publish the response on its website.
- **Online appointment system** offers the possibility to make appointments through the health establishment's website, using online form (e-mail is not included).
- **Storing of medical patient data in electronic form** - documentation is created, processed and stored in digital form using ICT.

Information about **individuals** using internet in relation to health is available from the annual statistical survey conducted by the CZSO titled: **“Sample Survey on ICT Use in Households and by Individuals”**. For more information see **Chapter C** of this publication.

**Reference period:** 3 months prior to the interviews

### Definitions:

- **Internet user** – any person who used the internet at least once in the last three months preceding the interview
- **Using the internet for looking for health related information** - seeking information about diseases, treatment, diagnoses, prevention, healthy nutrition etc. on the internet (at least once in the last 3 months and for personal use only).

The **Eurostat** online database for **Information society statistics** has been used for the international comparison. *Data from this database was extracted in March 2018.* For more information see:

<http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/database> and

<http://ec.europa.eu/eurostat/web/digital-economy-and-society/data/comprehensive-database>

**Further information on eHealth statistics can be found at:**

[https://www.czso.cz/csu/czso/information\\_technologies\\_in\\_the\\_czech\\_health\\_sector](https://www.czso.cz/csu/czso/information_technologies_in_the_czech_health_sector)

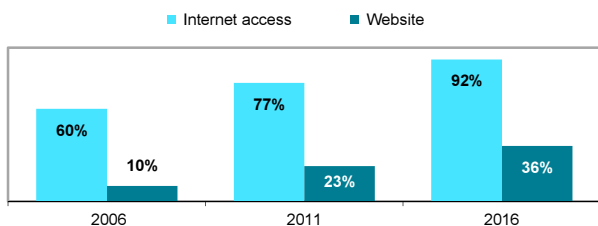
**Tab. G1 ICTs used by independent physicians in the Czech Republic; 2016**

	Computer	Internet	Website
<b>Total</b>	<b>96,4</b>	<b>92,3</b>	<b>36,1</b>
General practitioners (GP) for adults	96,8	94,1	34,0
General practitioners (GP) for children	95,1	93,5	50,9
Dentists	96,1	90,7	23,0
Gynecologists	97,1	93,5	56,4
Specialists	96,7	91,7	40,2

%

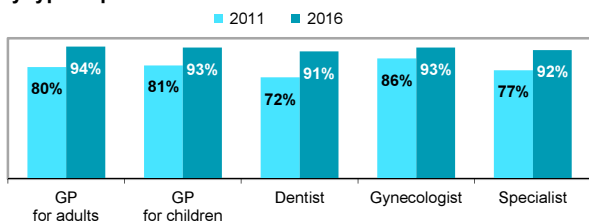
as a percentage of all independent physicians of a given practice

**Figure G1 Independent physicians with internet access and with a website**

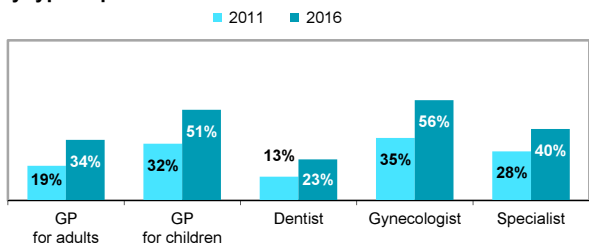


as a percentage of all independent physicians

**Figure G2 Independent physicians with internet access 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, 2018

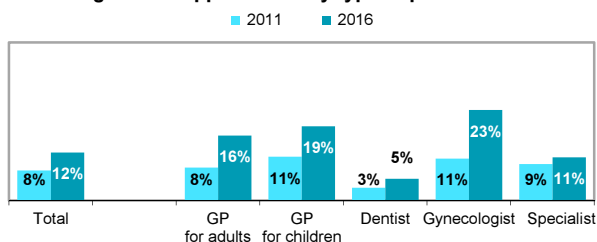


**Tab. G2 On-line services offered by independent physicians in the Czech Republic; 2016**

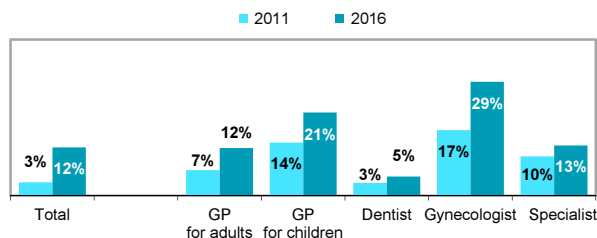
	%		
	Appointment	Consultation	Prescription
<b>Total</b>	<b>12,2</b>	<b>12,3</b>	<b>8,9</b>
General practitioners (GP) for adults	16,4	12,2	14,5
General practitioners (GP) for children	18,8	21,3	13,4
Dentists	5,5	4,9	1,4
Gynecologists	22,9	29,2	21,7
Specialists	10,9	12,8	7,5

as a percentage of all independent physicians of a given practice

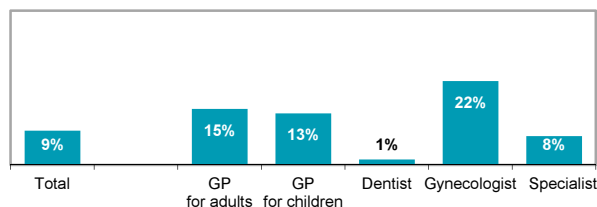
**Figure G4 Independent physicians with a website application for making on-line appointment by type of practice**



**Figure G5 Independent physicians with a website application for making on-line consultation by type of practice**



**Figure G6 Independent physicians with a website application for making on-line prescription by type of practice; 2016**



as a percentage of all independent physicians of a given practice

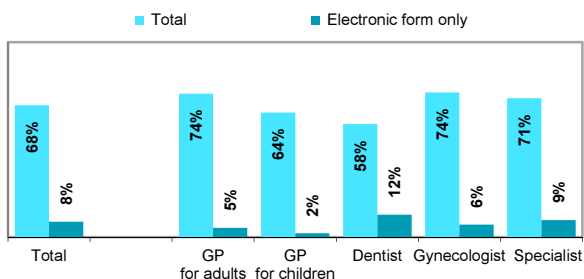
**Tab. G3 Independent physicians in the Czech Republic storing medical patient data in electronic form; 2016**

	Total*	of which only electronically
<b>Total</b>	<b>67,6</b>	<b>7,9</b>
General practitioners (GP) for adults	73,6	4,8
General practitioners (GP) for children	63,9	2,1
Dentists	58,1	11,6
Gynecologists	74,3	6,4
Specialists	71,3	8,8

as a percentage of all independent physicians of a given practice

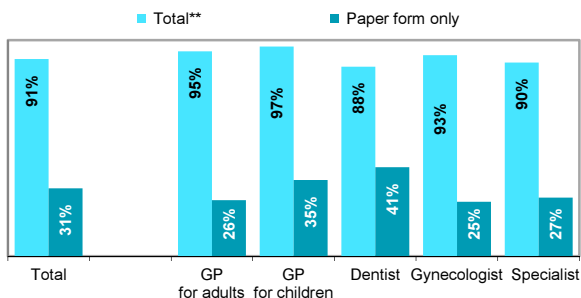
\* includes independent physicians storing at least part of medical patient data in electronic form on their computer or the internet

**Figure G7 Independent physicians storing medical patient data in electronic form; 2016**



as a percentage of all independent physicians of a given practice

**Figure G8 Independent physicians storing medical patient data in paper form; 2016**



\*\* includes independent physicians storing at least part of medical patient data in paper form

as a percentage of all independent physicians of a given practice

Source: Institute of Health Information and Statistics, 2018

**Tab. G4 Independent physicians in the Czech Republic using selected functions of their electronic health systems; 2016**

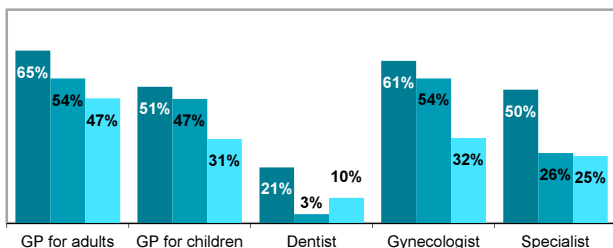
%

	Medical prescription	Drug-interaction alerts	Laboratory examinations results
<b>Total</b>	<b>46,1</b>	<b>26,8</b>	<b>30,0</b>
General practitioners (GP) for adults	64,7	46,8	54,2
General practitioners (GP) for children	51,1	31,5	46,6
Dentists	20,9	9,6	3,4
Gynecologists	60,8	31,9	54,2
Specialists	50,0	25,2	26,3

as a percentage of all independent physicians of a given practice

**Figure G9 Independent physicians using selected functions of their electronic health system; 2016**

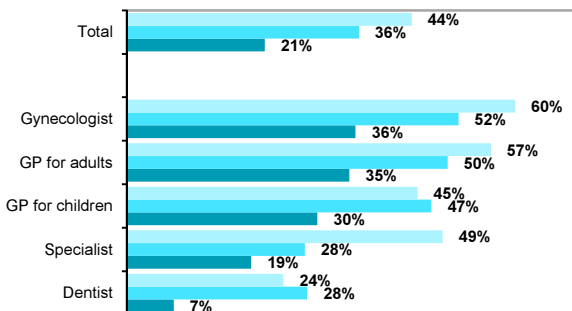
■ Medical prescription ■ Laboratory examinations results ■ Drug-interaction alerts



as a percentage of all independent physicians of a given practice

**Figure G10 Independent physicians using electronic health systems for generating selected patient extracts; 2016**

■ Patients by diagnosis  
 ■ Patients for appointment\*  
 ■ Patients by laboratory examinations results



\* list of patients for general medical examination, tests etc.

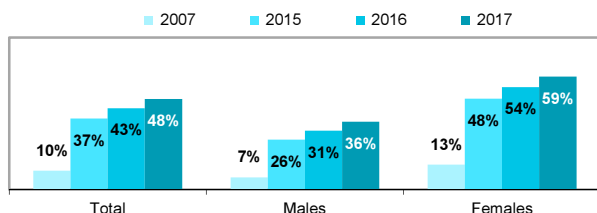
as a percentage of all independent physicians of a given practice

**Tab. G5 Individuals in the Czech Republic looking for health related information via the internet**

	%		
	2015	2016	2017
<b>Total (aged 16+)</b>	37,3	42,7	47,7
Total (aged 16-74)	39,9	45,8	51,1
<b>Sex:</b>			
Males (aged 16+)	26,4	31,0	35,7
Females (aged 16+)	47,9	53,8	59,4
<b>Age group:</b>			
16-24 year-olds	22,9	33,8	41,8
25-34 year-olds	45,7	50,3	58,7
35-44 year-olds	48,1	53,4	62,3
45-54 year-olds	47,5	53,6	57,6
55-64 year-olds	40,9	43,9	47,5
65 year-olds and over	18,1	22,8	23,2
<b>Education attainment level (aged 25+):</b>			
Basic	12,8	15,1	16,7
Secondary without A-level exam.	28,3	33,5	36,4
Secondary with A-level exam.			
or Higher professional	49,4	56,2	59,6
University	57,1	59,8	67,0
<b>Specific groups:</b>			
Women on maternity leave	68,3	75,5	83,2
Students (aged 16+)	19,6	34,3	42,0
Pensioners	21,9	25,6	26,0

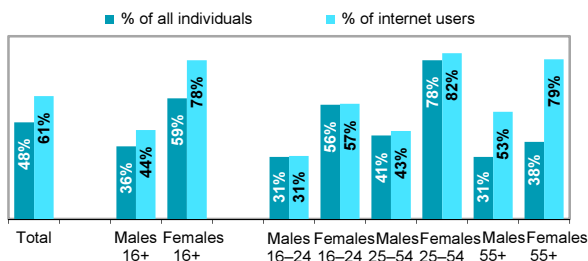
as a percentage of all individuals in a given socio-demographic group

**Figure G11 Individuals looking for health related information by sex**

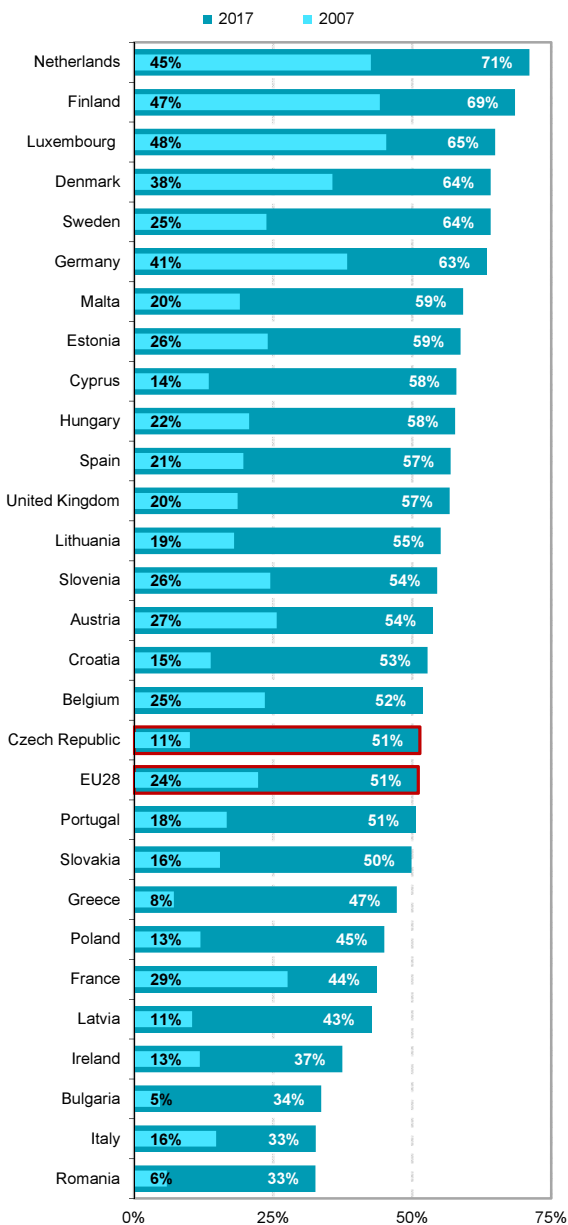


as a percentage of all individuals in a given group

**Figure G12 Individuals looking for health related information by sex and age; 2017**



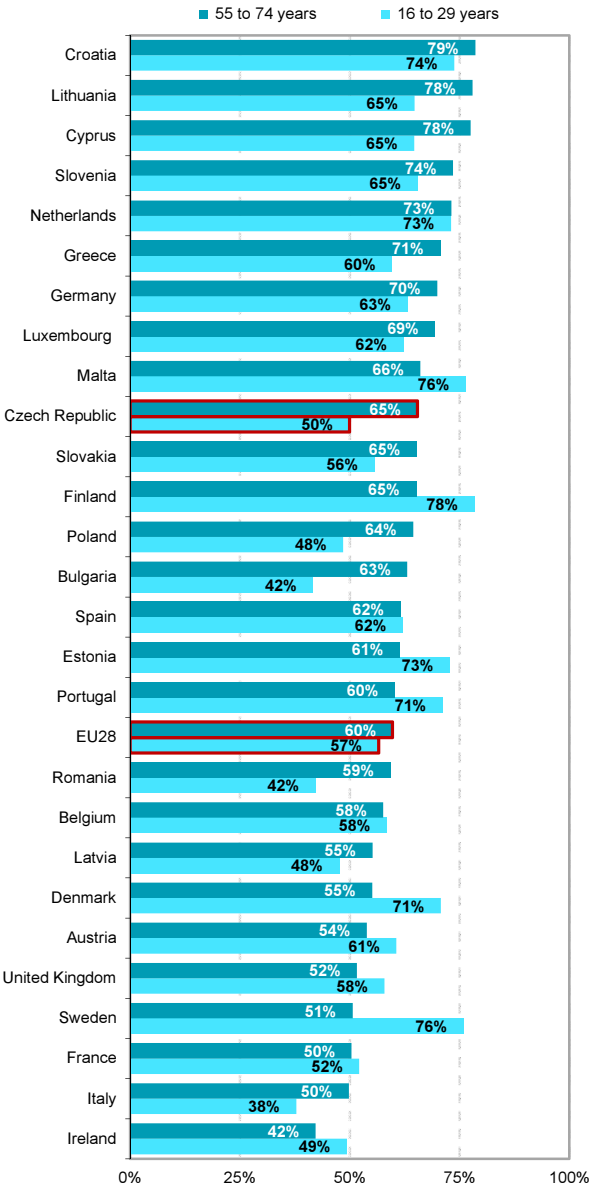
**Figure G13 Individuals in EU countries looking for health related information via the internet**



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

Source: Eurostat, 2018

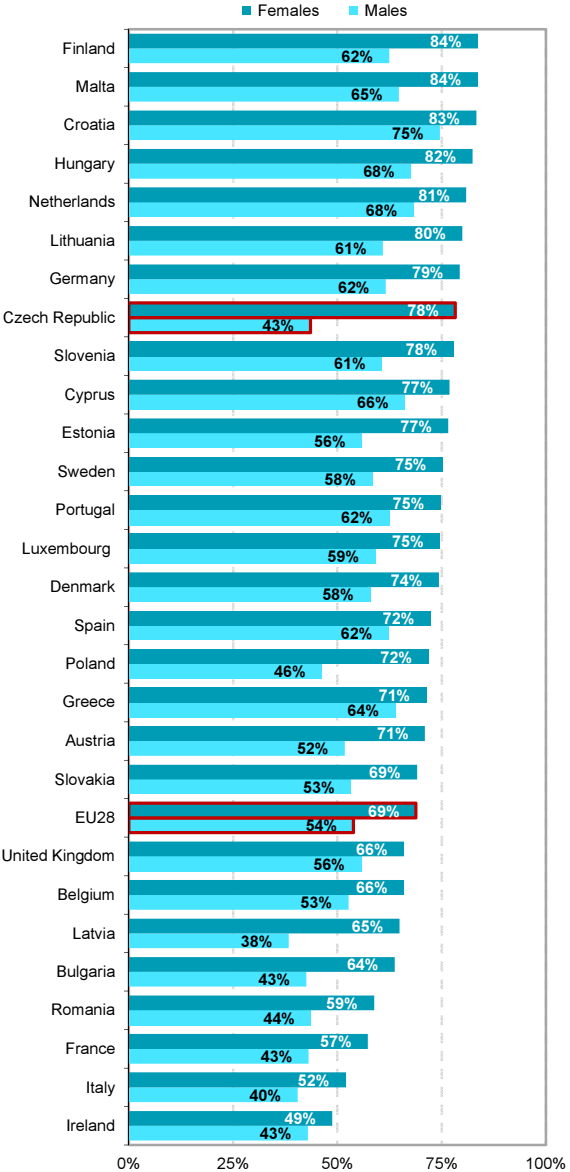
**Figure G14 Internet users in EU countries looking for health related information by age; 2017**



as a percentage of all internet users aged 16 to 74 in a given country and age group

Source: Eurostat, 2018

Figure G15 Internet users in EU countries looking for health related information by sex; 2017



as a percentage of women and men internet users aged 16 to 74 in a given country

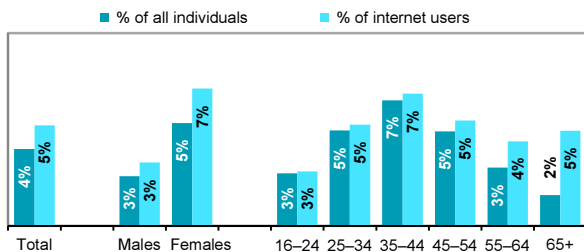
Source: Eurostat, 2018

**Tab. G6 Individuals in the Czech Republic using on-line services in healthcare; 2016**

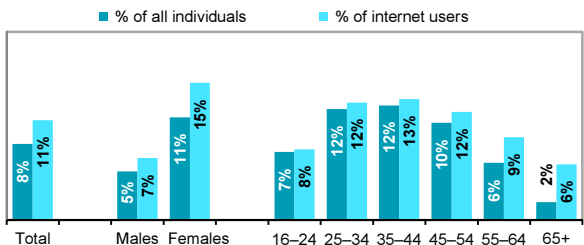
	%	
	On-line appointment	On-line consultation
<b>Total (aged 16+)</b>	<b>8,1</b>	<b>4,0</b>
Total (aged 16-74)	8,8	4,3
<b>Sex:</b>		
Males (aged 16+)	5,2	2,6
Females (aged 16+)	10,9	5,3
<b>Age group:</b>		
16-24 year-olds	7,2	2,7
25-34 year-olds	11,8	5,0
35-44 year-olds	12,2	6,5
45-54 year-olds	10,3	4,9
55-64 year-olds	6,1	3,0
65 year-olds and over	1,9	1,6
<b>Education attainment level (aged 25+):</b>		
Basic	1,5	0,8
Secondary without A-level exam.	3,4	2,1
Secondary with A-level exam.		
or Higher professional	11,4	5,4
University	17,0	8,5
<b>Specific groups:</b>		
Women on maternity leave	20,7	11,8
Students (aged 16+)	7,0	1,7
Pensioners	1,9	1,2

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

**Figure G16 Individuals, who consulted a practitioner on-line by sex and age; 2016**



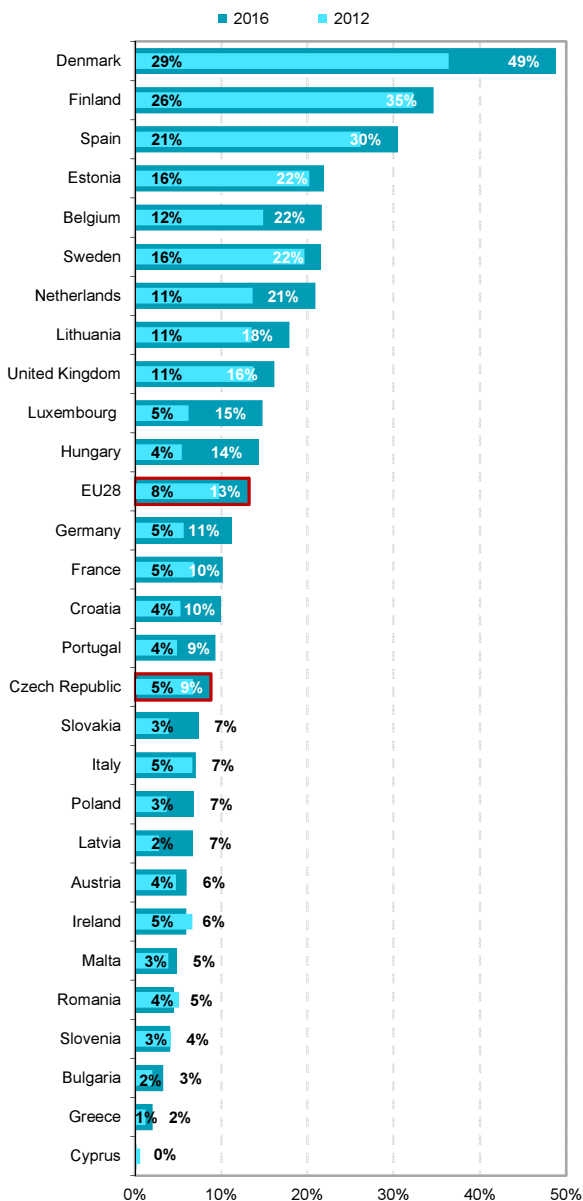
**Figure G17 Individuals, who made an on-line appointment with a practitioner by sex and age; 2016**



Source: Czech Statistical Office, ICT use survey in households, 2018



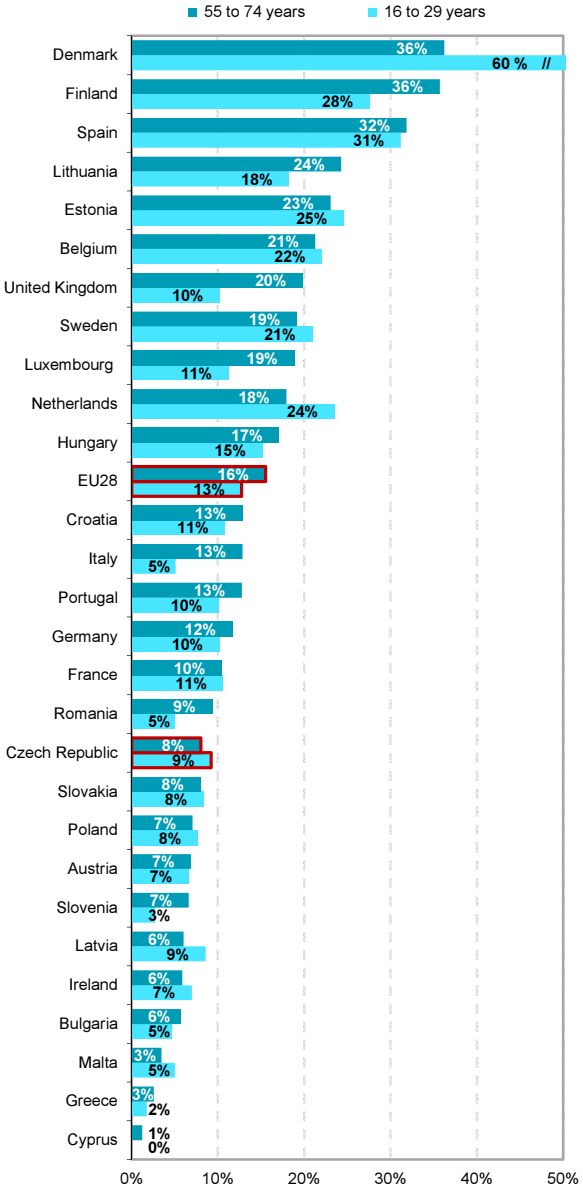
**Figure G18 Individuals in EU countries aged 16-74 who made an on-line appointment with a practitioner**



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

Source: Eurostat, 2018

**Figure G19 Internet users in EU countries, who made an on-line appointment with a practitioner by age; 2016**



as a percentage of all internet users aged 16 to 74 in a given country and age group

Source: Eurostat, 2018