

# INFORMATION SOCIETY IN FIGURES

2017

# **CZECH REPUBLIC AND EU**

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#### INTRODUCTION

One year on, the Czech Statistical Office has issued the publication **Information Society in Figures** again, this time titled with the year 2017. The aim of this publication is to provide readers with up-to-date basic statistical info. about the development in usage of modern information and communication technologies (ICT) in the main areas of our society.

The brochure consists of the following seven chapters:

- A. The ICT Infrastructure chapter contains basic data on the available telecommunication and broadband infrastructure. Data on registered Top-level domains are also available here.
- B. The Households chapter contains information on households' access to selected ICT. Information about number of mobile phones used by households are included here.
- C. The Individuals chapter includes basic information on ICT uptake by adult population. This basic information is supplemented with data on selected Internet activities. Information about use of mobile devices to access the Internet and about use of Internet storage space is also included here.
- D. The Enterprises chapter provides an overview on ICT use by enterprises with main focus on e-commerce activities. Data on use of social media by enterprises, about cloud computing services or Big Data analysis are also added.
- 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 are also introduced.
- F. The Education and digital skills chapter gives an overview of ICT devices used in schools. Data on selected digital skills provide information about computer software use by individuals. Data on individuals using the Internet for educational purposes are also included in this chapter. This chapter also presents data about tertiary education students of Computing and data on ICT specialists.
- 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.

Presented data on ICT development and use **are 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 are also presented.

Data given in this brochure were 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 information on the production and the supply of advanced ICTs, including data on investments, trade or qualified human resources in this field see our publication **Information economy in figures.** 

If you needed any further information, do not hesitate to contact us directly. Your suggestions help us improve our further releases.

Prague, April 2017

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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 are collected from the telecommunication or Internet service providers (supply side) and should be distinguished from data based on ICT users' surveys (demand side).

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

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 exceeds 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

International comparison data has been taken from ITU and EC database.

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

https://www.czso.cz/csu/czso/telekomunikacni a internetova infrastruktura

Tab. A1 Fixed telephone network in the Czech Republic

thous.

	2013	2014	2015
Fixed-telephone subscriptions, total	2 005	1 875	1 893
Voice subscriptions to PSTN lines	1 245	1 149	993
Residential lines/stations	596	589	522
Business lines/stations	596	433	471
VoIP technology subscriptions	747	853	900
Individuals (citizens) as subscribers	383	344	307
Legal entities (e.g. enterprises) as subscribers	364	509	593

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

Figure A1 Fixed-telephone subscriptions to PSTN lines

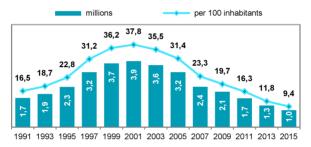


Figure A2 Type of subscribers using PSTN lines (mil.; %)

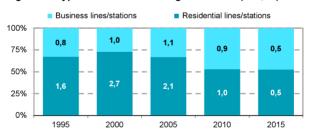


Figure A3 Type of subscribers using VoIP (thous.)

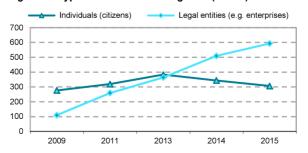
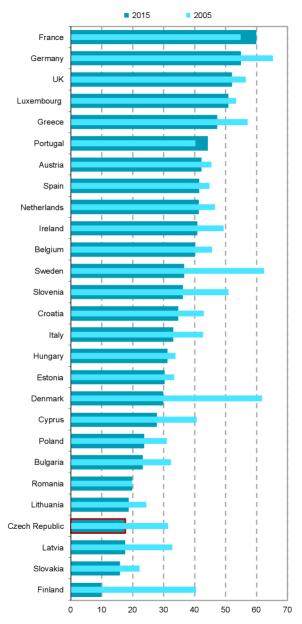


Figure A4 Fixed-telephone subscriptions per 100 inhabitants in EU countries



<sup>\*</sup> both using traditional PSTN lines and VoIP technology

Source: International Telecommunication Union, 2016

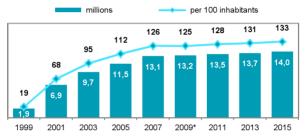
Tab. A2 Mobile telephone network in the Czech Republic

thous

			tilous.
	2013	2014	2015
Mobile telephone subscriptions*, total	13 719	13 914	14 017
Pre-paid subscriptions (SIM cards)	5 195	5 055	4 893
Post-paid (tariff) subscriptions (SIM cards)	8 524	8 859	9 124
Subscriptions type			
Individuals (citizens) as subscribers			9 222
Legal entities (e.g. enterprises) as subscribers			4 795

<sup>\*</sup> measured by the number of SIM cards that have been used for at least once in the last three months. The indicator applies to all mobile-cellular subscriptions that offer voice communications. It excludes subscriptions via data cards or USB modems, subscriptions to public mobile data services and M2M services.

Figure A5 Mobile telephone subscriptions



<sup>\*</sup> change in methodology since 2009

Figure A6 Mobile telephone subscriptions by type of used SIM cards (mil.; %)

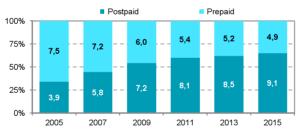
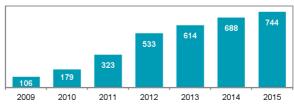
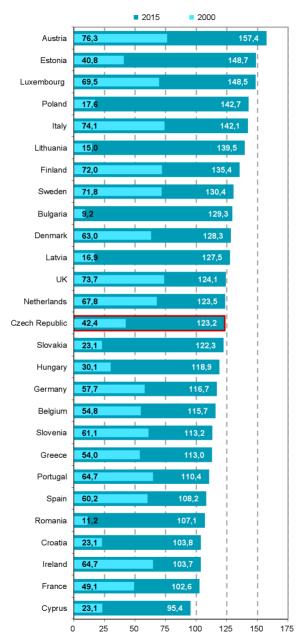


Figure A7 M2M mobile-network subscriptions\*\* (thous.)



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

Figure A8 Mobile telephone subscriptions per 100 inhabitants in EU countries



Source: International Telecommunication Union, 2016

Tab. A3 Fixed telephone traffic in the Czech Republic

mil. outgoing called minutes

	3 3			
	2013	2014	2015	
Total voice calls*	2 141	2 061	1 687	
Domestic voice calls, total	1 850	1 754	1 421	
Fixed-to-fixed telephone traffic	1 411	1 274	1 006	
Fixed-to-mobile telephone traffic	439	480	415	
International voice calls	132	153	110	
Other voice calls	159	155	156	

<sup>\*</sup> Includes all outgoing voice traffic from public fixed telephone network.

Figure A9 Total telephone traffic (mil. called minutes)

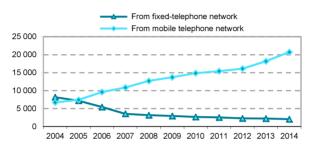


Figure A10 Domestic fixed-telephone traffic by type of calls

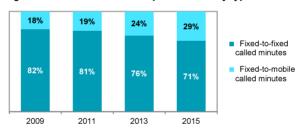


Figure A11 Domestic fixed-telephone traffic by type of technology (outgoing call minutes per 1 subscription)

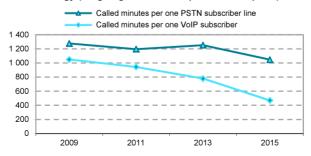
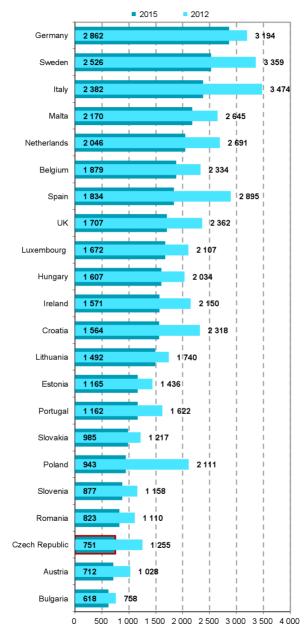


Figure A12 Domestic fixed-telephone traffic in EU countries (outgoing called minutes per one subscription)



Source: International Telecommunication Union, 2016

Tab. A4 Mobile telephone traffic in the Czech Republic

mil. outgoing called minutes

	2013	2014	2015
Total voice calls*	18 188	20 731	20 634
Domestic voice calls, total  Mobile-to-mobile telephone traffic	17 716	20 197	20 176
(to the same mobile carrier)	11 255	12 082	11 660
Mobile-to-mobile telephone traffic			
(to the different mobile carrier)	5 705	7 273	7 694
Mobile-to-fixed telephone traffic	756	842	822
International voice calls	472	534	459
Subscriptions type			
Calls from individuals as subscribers			11 550
Calls from legal entities as subscribers			9 084

<sup>\*</sup> Includes all outgoing voice traffic from mobile telephone network.

Figure A13 Mobile telephone traffic (outgoing called minutes)

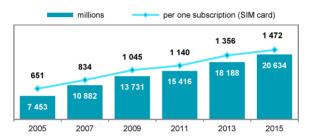


Figure A14 Domestic outgoing calls from mobile network

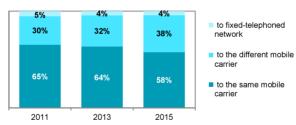


Figure A15 The average retail price for one outgoing called minute in the mobile network in the Czech Republic



<sup>\*\*</sup> figure for the first half of 2015

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



Source: International Telecommunication Union, 2016

Tab. A5 Fixed broadband network in the Czech Republic

thous

			tilouo.
	2013	2014	2015
Fixed-broadband subscriptions, total*	2 811	2 943	2 946
by technology			
Fixed wireless access (FWA) using WiFi**	990	1 060	988
xDSL, total	953	953	943
ADSL	591	554	459
VSDL	362	398	485
Cable modem	518	527	541
Fibre (FTTx)	350	404	473
Subscriptions type			
Residential subscriptions (individuals)			2 487
Subscriptions for organizations (e.g. enterprises)			459

<sup>\*</sup> Fixed-broadband subscriptions refers to fixed subscriptions to high-speed access to the public Internet, at downstream speeds equal to, or greater than 256 kbit/s. This includes cable modem, DSL, fibre-to-the-home/building, other fixed (wired)-broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband (Wifi). Number of subscribtions is measured by number of access points using one of the above listed technologies for fixed broadband internet connection.

Figure A17 Fixed broadband Internet subscriptions

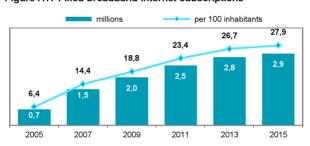
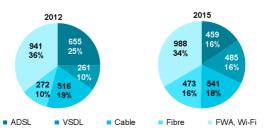
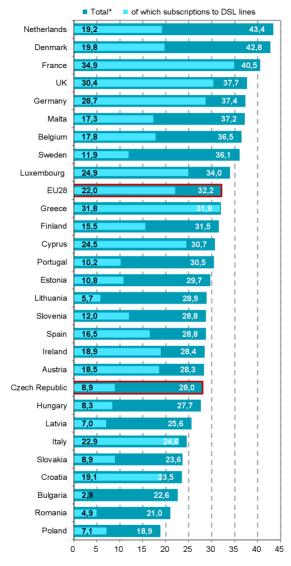


Figure A18 Fixed broadband Internet subscriptions by technology (mil.; %)



<sup>\*\*</sup> 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).

Figure A19 Fixed broadband Internet subscriptions\* per 100 inhabitants in EU countries; 2015



<sup>\*</sup> Also includes Fixed wireless access (FWA) that 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).

Source: European Commission, 2016

Tab. A6 Internet network speed in the Czech Rep.; 2015

thous, of Internet subscriptions with advertised maximum download speed

	< 10 Mbit/s	≥ 10 Mbit/s < 30 Mbit/s	≥ 30 Mbit/s
Subscriptions, total	843	1 093	1 009
by technology			
FWA using Wi-Fi	363	445	180
xDSL	450	426	68
Cable modem	13	89	440
Fibre (FTTx)	18	133	181

Figure A20 Fixed broadband internet by speed

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



b) Subscriptions with advertised maximum download speed (%)



<sup>\*</sup> as at 30 June 2016

Figure A21 Technology used for fixed broadband Internet connection by speed (thous. of subscriptions; %); 2015

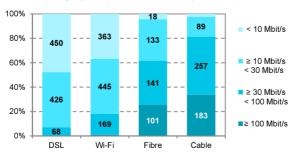
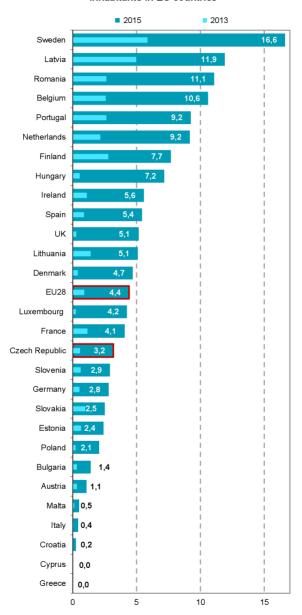


Figure A22 Fixed broadband subscriptions with advertised maximum download speed 100 Mbit/s and more per 100 inhabitants in EU countries



Source: European Commission, 2016

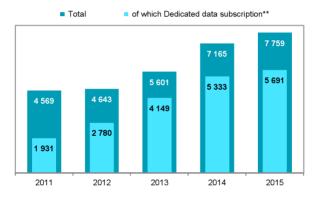
Tab. A7 Mobile broadband network in the Czech Republic

thous.

	2013	2014	2015
Mobile-broadband subscriptions, total*	5 601	7 165	7 759
Standard mobile subscription	1 452	1 832	2 068
Dedicated data subscription**	4 149	5 333	5 691
Average data consumption per 1 active SIM	l card (MB	<b>(</b> )	
All active SIM cards	118	172	323
SIM cards using data services	270	342	598

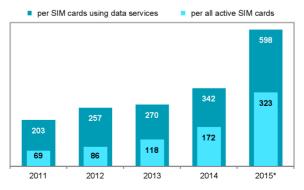
<sup>\*</sup> It refers to the sum of active handset-based and computer-based (USB/dongles) mobile-broadband subscriptions to the public Internet. It covers actual subscribers (not potential subscribers), users must have accessed the Internet in the last three months.

Figure A23 Mobile broadband subscriptions (thous.)



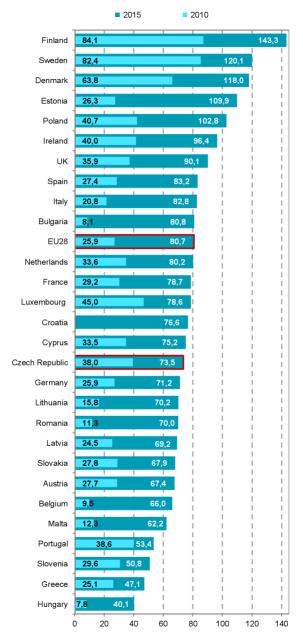
<sup>\*\*</sup> SIM cards with data plans and data packs

Figure A24 Volume of transmitted data per one active SIM card (in MB)



<sup>\*</sup> Czech Telecommunication Office estimate

Figure A25 Mobile broadband subscriptions per 100 inhabitants in EU countries



Source: European Commission, 2016

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

			thous.
	2014	2015	2016
Total	1 173	1 230	1 281
DNSSEC signed	453	477	664
by IP protocol			
IPv4 domains	884	895	891
IPv4+IPv6; IPv6 domains	269	314	369

DNSSEC is a security extension of common Domain Name Systym. See: 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

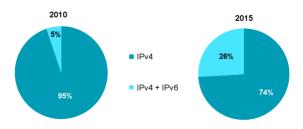
Figure A26 Top-level domains in (.cz) zone



Figure A27 Top-level (.cz) domain registration and cancellation (thousand)

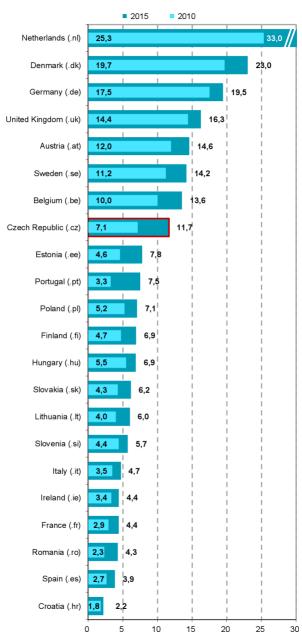


Figure A28 Top-level (.cz) domain by IP protocol



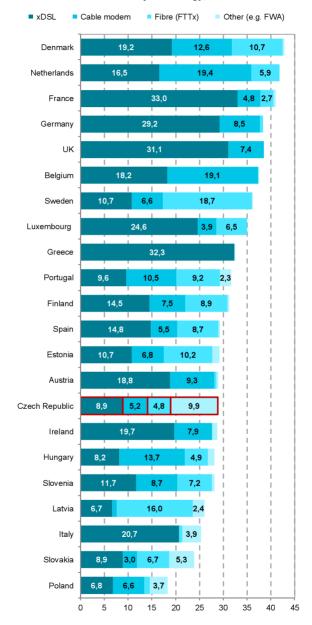
Source: CZ.NIC, 2016

Figure A29 Country top-level domains (ccTLD) per 100 inhabitants in EU countries



Source: CENTR.org and national administrators of ccTLD, 2015

Figure A30 Fixed-broadband subscriptions per 100 inhabitants in EU countries by technology; June 2016



Source: OECD, 2017

Since 2002, the Czech Statistical Office (CZSO) has been regularly monitoring the selected 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.

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

Sample size: 6 000 households

#### 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, as part of the data it publishes, 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 an access to a computer at home. The household does not need
  to be in possession of the computer (it may be employer's portable
  computer or tablet) yet this computer should be functional and located
  at home. A portable computer may not be permanently located at
  home; it may be in use also at work or at school.
- A computer refers to a desktop computer, a laptop (portable) computer or a 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
  had access to the Internet at home through any device. 'Access' does
  not refer here to the "connectability" (i.e. can connections be provided
  in the households' area), but to whether anyone in the household
  could use the Internet at home if desired.

Regional data can be found in chapter 18 of each Regional yearbook. https://www.czso.cz/csu/czso/regional-yearbooks

The **Eurostat** online database for **Information society statistics** has been used for the international comparison. Data from this database were extracted in March 2017.

#### Households with access to a telephone

Data on households equipped with landlines and mobile phones come from the Household Budget Survey (HBS).

- A fixed phone refers to a telephone line connecting a customer's terminal equipment (e.g. telephone set) to the public switched telephone network (PSTN) and which has a dedicated port on a telephone exchange.
- Household with a mobile telephone means that the mobile telephone
  is generally available for use by members of the household at any
  time, regardless of whether it is actually used. The mobile telephone
  may or may not be owned by the household but should be considered
  a household asset.

An **international comparison** about penetration of fixed and mobile telephone in households was drawn from the EC: "E-Communications and Digital Single Market Household Survey".

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

			70
	2013	2014	2015
Total	19,5	17,1	15,6
Household type:			
Households without dependent children	22,1	18,6	17,2
Households with dependent children	14,8	14,1	12,3
Economic status of the head of a household	ld:		
Employee	15,4	13,1	11,0
Self-employed	20,2	19,2	17,1
Unemployed	10,4	10,9	6,9
Pensioner	27,4	23,0	22,4
Age of the head of a household:			
Till 29 years	2,9	2,8	1,4
30 - 39 years	6,3	5,4	5,0
40 - 49 years	16,3	14,1	11,6
50 - 59 years	19,8	17,8	16,4
60 - 69 years	25,0	21,3	17,3
70 years and more	32,5	27,4	27,5

as a percentage of all households of a given type

Figure B1 Households with a fixed phone

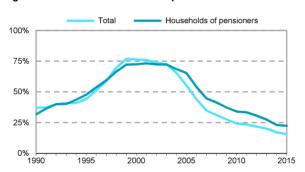
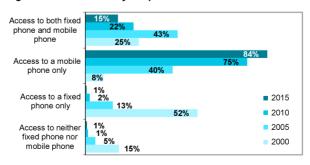


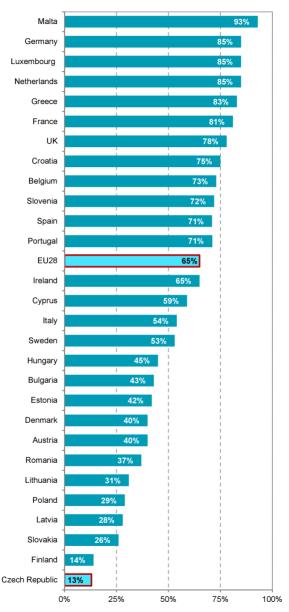
Figure B2 Households by telephone access



as a percentage of all households

Source: Czech Statistical Office, Household Budget Survey

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



as a percentage of all households in a given country

Source: European Commission, 2016

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

Number of devices per one member of a household\*

	2013	2014	2015
Total	0,97	0,98	0,99
Household (HH) type:			
Households without dependent children	1,01	1,03	1,04
Households with dependent children	0,93	0,93	0,93
Economic status of the head of a household	<b>:</b>		
Employee	0,98	0,99	1,00
Self-employed	0,98	0,97	0,99
Unemployed	0,93	0,92	0,92
Pensioner	0,93	0,96	0,97
Household income group:			
Lowest income group (first quintil)	0,88	0,89	0,89
Second quintil income group	0,94	0,94	0,96
Third quintil income group	0,98	0,98	1,00
Fourth quintil income group	1,01	1,03	1,04
Highst income group (fifth quintil)	1,11	1,13	1,13

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

Figure B4 Mobile phones in households

Number of mobile phones per one member in average HH\*\*

Number of mobile phones per one member in HHs of pensioners\*\*

% of all households with a mobile phone access

— % of households of pensioners with a mobile phone access

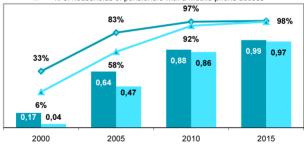
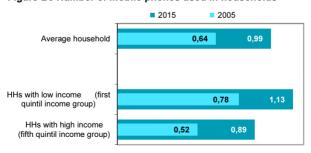


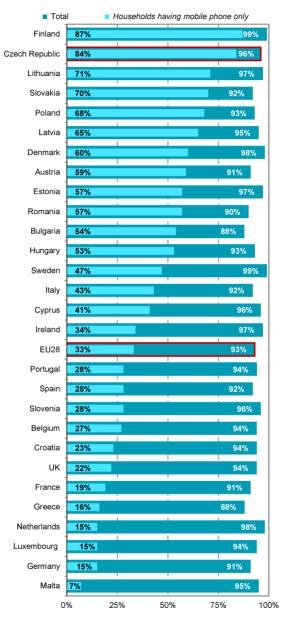
Figure B5 Number of mobile phones used in households\*\*



<sup>\*\*</sup> per one member aged 6+ living in the given type of household

Source: Czech Statistical Office, Household Budget Survey

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

Tab. B3 Households with a computer in the Czech Republic

%

	2012	2014	2016
Total	67,3	72,4	75,6
Total (with at least one member younger than 75)	74,6	79,4	81,0
Household (HH) type:			
Households without dependent children, total	58,5	64,7	68,4
all persons living in HHs are younger than 40	86,7	95,0	91,5
all persons living in HHs are older than 65	12,3	23,8	29,5
Households with dependent children	91,1	93,7	94,6
Household income group:			
Lowest income group (first quartile)	26,2	32,7	45,0
Second quartile income group	47,2	57,5	71,2
Third quartile income group	14,0	87,2	94,1
Highest income group (fourth quartile)	5,2	97,4	99,1

as a percentage of all households of a given type

Figure B7 Households with access to a computer

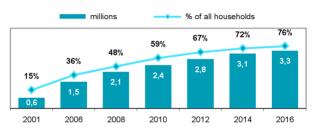
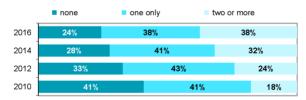
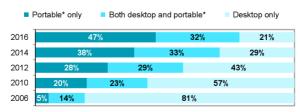


Figure B8 Number of computers used in households



as a percentage of all households

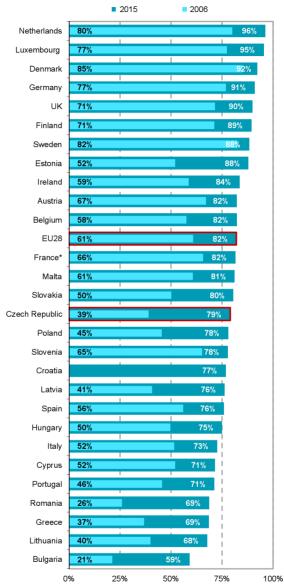
Figure B9 Type of computers used in households\*\*



<sup>\*</sup> Portbale computers include laptops and tablets.

<sup>\*\*</sup> as a percentage of households with a computer

Figure B10 Households in EU countries with access to a computer



<sup>\*</sup> data for 2007

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

Source: Eurostat, 2016

Tab. B4 Households with a computer in the Czech Republic by its type, 2016

0/\_

			70
	Desktop	Laptop	Tablet
Total	40,4	54,8	20,2
Household (HH) type:			
Households without dependent children, total	35,6	47,5	14,1
all persons living in HHs are younger than 40	25,0	76,6	22,3
all persons living in HHs are older than 65	18,4	12,6	3,0
Households with dependent children	53,2	74,1	36,5
Household income group:			
Lowest income group (first quartile)	19,5	26,8	6,8
Second quartile income group	34,8	44,4	11,9
Third quartile income group	52,3	68,9	26,9
Highest income group (fourth quartile)	60,8	87,7	40,6

as a percentage of all households of a given type

Figure B11 Households with a desktop computer

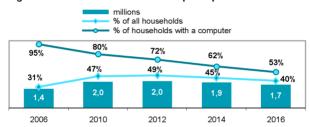


Figure B12 Households with a portable computer\*

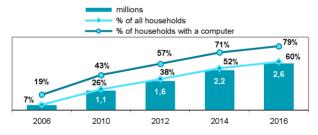
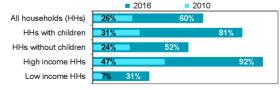


Figure B13 Households with a portable computer\* by their types



as a percentage of all households of a given type

<sup>\*</sup> Portbale computers include laptops and tablets.

Tab. B5 Households in the Czech Rep. with 2 or more computers

			70
	2012	2014	2016
Total	24,2	31,9	37,6
Household (HH) type:			
Households without dependent children, total	19,4	25,6	29,1
all persons living in HHs are younger than 40	16,5	37,9	39,0
all persons living in HHs are older than 65	0,5	3,0	4,8
Households with dependent children	36,9	49,2	61,4
Household income group:			
Lowest income group (first quartile)	2,5	4,0	8,3
Second quartile income group	8,5	11,2	20,6
Third quartile income group	26,5	34,5	53,1
Highest income group (fourth quartile)	54,8	64,5	80,0

as a percentage of all households of a given type

Figure B14 Households with two or more computers

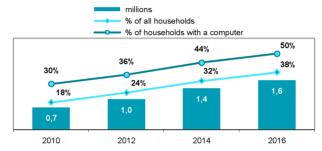


Figure B15 Households with two or more computers by type of the household

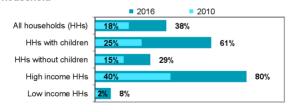


Figure B16 Number of computers used in households by type of the household; 2016



as a percentage of all households of a given type

Tab. B6 Households with Internet access in the Czech Republic

			%
	2012	2014	2016
Total	65,4	72,1	76,1
Total (with at least one member younger than 75)	72,6	79,2	81,7
Household (HH) type:			
Households without dependent children, total	56,5	64,6	68,8
all persons living in HHs are younger than 40	85,2	95,6	94,6
all persons living in HHs are older than 65	11,2	22,7	29,0
Households with dependent children	89,6	93,0	95,3
Household income group:			
Lowest income group (first quartile)	23,6	32,4	45,9
Second quartile income group	49,7	56,5	71,7
Third quartile income group	84,7	87,0	94,7
Highest income group (fourth quartile)	93,9	97,4	99,4

as a percentage of all households of a given type

Figure B17 Households with access to the Internet

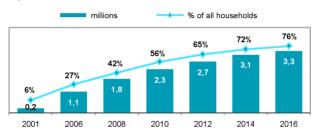
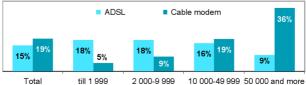


Figure B18 Households with a Wi-Fi router

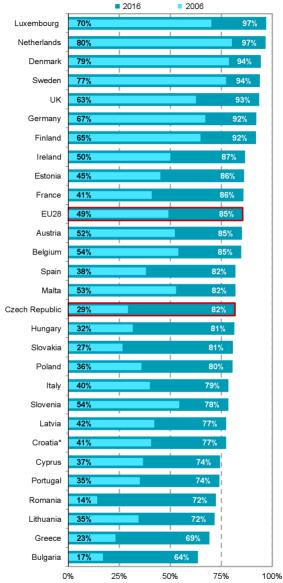


Figure B19 Internet connection used in households by size of their municipalities (number of inhabitants); 2016



as a percentage of all households of a given type with Internet access

Figure B20 Households in EU countries with access to the Internet

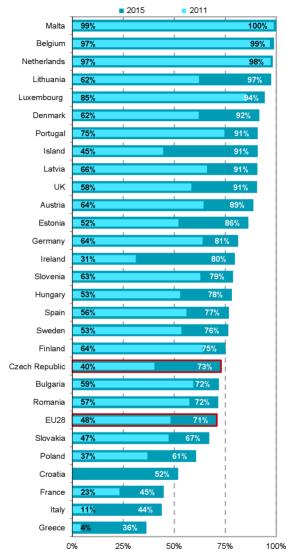


<sup>\*</sup> data for 2007

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

Source: Eurostat, 2016

Figure B21 Households in EU countries living in an area where networks of new generation (NGA) are available\*



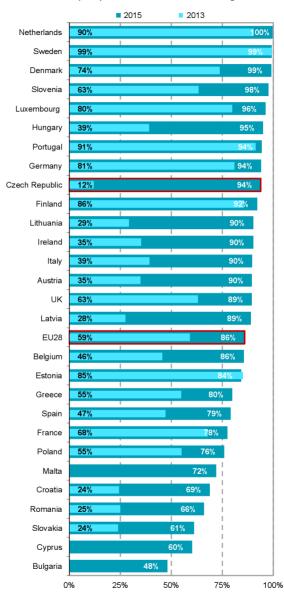
\*(NGA - Next Generation Access) are networks of new generation which are formed by the folowing technologies used for internet access: optical fibre (FTTx), cabel connection Docsis 3.0 and VDSL conection with download speed at least 30 Mb/s.

as a percentage of all households in a given country

Source: European Commission, 2016

#### **B** Households

Figure B22 Households in EU countries living in an area with 4G (LTE)\* mobile broadband coverage

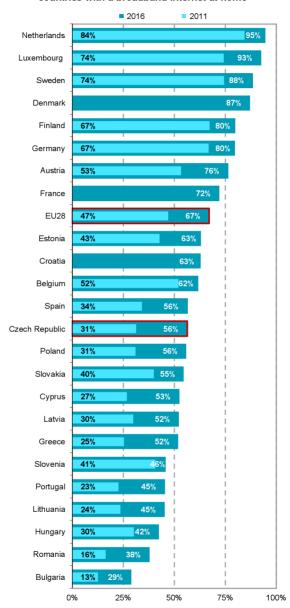


<sup>\*</sup> LTE (Long Term Evolution) - technology used for mobile broadband as a percentage of all households in a given country

Source: European Commission, 2016

#### **B** Households

Figure B23 Low income households (fisrt quartile) in EU countries with a broadband Internet at home



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

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".

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.

**Reference period:** 2<sup>nd</sup> quarter of a monitored year **Sample size:** 10 000 individuals aged 16 and over

**The education category** is published for the age group of 25 and over, as there are a lot of students with a low education attained using ICT very intensively in the age category 16-24.

#### 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 data for the whole adult population aged 16+. This is the reason why the tables in this publication give for the Czech Republic dual total values: total of aged 16 and over and total 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
  interview anywhere (at home, work, school, etc.) and for whatever
  reason (private or work).
- The Internet use shall mean any activity on the Internet carried out in an active manner, for instance, browsing of websites, downloading of files, using emails, from any location, for any purpose and using any devices not just computers (including laptops) but also tablets or mobile phones (smart phones).
- 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 could have been at home, in work or at any other place, for private or working purposes. It does 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. Only activities related to cyber security have the reference period of 12 months. 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 she has
  a profile on any social network and used the network at least once in
  the last 3 months before the interview.
- Looking for information related to travel or accommodation includes using the Internet for ascertaining information about travel destination, trips, hotels or any other type of accommodation, travel tickets, etc.
- Watching TV via the Internet refers to watching of programmes of the common TV broadcasters who give the possibility to watch TV live at a specific broadcast time or to watch a programme from an archive.

- Websites intended for sharing (e.g. YouTube) include services where people can upload a video content and also watch videos which other users have uploaded. These websites are generally free of charge. They are financed via advertisements.
- Free video catalogs (e.g. Stream) include web pages which are
  operated by one provider. Users of these web pages can watch video
  content on these sites for free.
- Paid video catalogs (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
  to store on a server accessible over 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 a good or a service for private purpose over the Internet. 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). Purchases via SMS, MMS or emails are excluded since they do not make use of the internet via web browsers or apps. Mere decision on the purchase on the basis of information acquired through the Internet is not considered to be an Internet purchase. Reference period for online purchases is 12 months prior the interview, only amount of money spent on online purchases and frequency of purchasing online is measured with the reference period of 3 months.
- Cookies are small text files that enable the recognition of the computer. They are used to collect information about which web pages are visited on the Internet. Sometimes cookies are set and allowed to optimize the usability of the web site.
- Limitation of access to content on social networks can be done by restriction of access to whole account or only to selected information on the account (e.g. pictures or statuses).

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

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

The **Eurostat** online database for **Information society statistics** has been used for the international comparison. Data from this database were extracted in March 2016. For more information see:

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

More information on this topic is available on:

https://www.czso.cz/csu/czso/domacnosti a jednotlivci (only in Czech)

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

Information on Internet usage by students:

https://www.czso.cz/csu/czso/information technologies in schools

Information on digital skills of individuals:

https://www.czso.cz/csu/czso/digitalni-dovednosti (only in Czech)

Information on usage of e-government services:

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

Information on usage of the Internet for health related activities:

https://www.czso.cz/csu/czso/information\_technologies\_in\_the\_czech\_hea\_lth\_sector\_

Tab. C1 Individuals in the Czech Rep. using the Internet; 2016

			%
	At least once in the past	In the last 12 months	In the last 3 months*
Total (aged 16+)	81,3	77,6	76,5
Total (aged 16-74)	86,7	83,4	82,2
Gender:			
Males (aged 16+)	83,1	79,4	78,2
Females (aged 16+)	79,5	75,9	74,8
Age group:			
16-24 year-olds	98,2	97,0	96,3
25-34 year-olds	96,3	95,0	94,5
35-44 year-olds	96,6	95,7	94,8
45-54 year-olds	92,8	91,3	89,7
55-64 year-olds	76,2	70,8	69,0
65 year-olds and over	43,2	33,7	32,5
Education attainment level (aged	•		
Basic	39,1	32,9	30,9
Secondary without A-level exam. Secondary with A-level exam.	72,5	67,7	65,9
or Higher professional	90,8	87,4	86,7
University	96,4	94,6	94,1
Specific groups:			
Women on maternity leave	97,9	95,6	94,1
Students (aged 16+)	98,8	98,6	98,6
Pensioners	46,0	36,4	35,0

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

Figure C1 Individuals who have never used the Internet

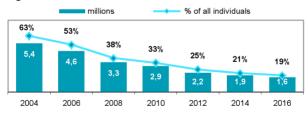
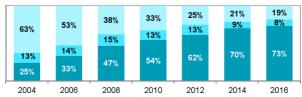


Figure C2 Individuals by usage of the Internet

- Individuals who have never used the Internet
- Occasional Internet users (less than once a weak)
- Regular Internet users (at least once a weak)



<sup>\*</sup> Usage of the Internet at least once in the last 3 months (Internet users) - main indicator used for international comparison.

Tab. C2 Individuals in the Czech Republic using the Internet - Internet users; 2016

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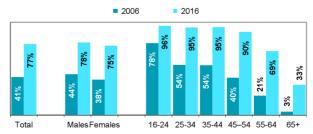
			%
	Total*	Daily	Via a mobile phone
Total (aged 16+)	76,5	60,3	41,2
Total (aged 16-74)	82,2	65,1	44,8
Gender:			
Males (aged 16+)	78,2	63,2	45,0
Females (aged 16+)	74,8	57,5	37,6
Age group:			
16-24 year-olds	96,3	95,0	81,1
25-34 year-olds	94,5	85,3	73,6
35-44 year-olds	94,8	75,2	54,7
45-54 year-olds	89,7	63,9	36,7
55-64 year-olds	69,0	45,9	17,6
65 year-olds and over	32,5	18,7	5,5
Education attainment level (aged 2	5+):		
Basic	30,9	16,3	12,1
Secondary without A-level exam.	65,9	42,1	24,8
Secondary with A-level exam.			
or Higher professional	86,7	69,8	43,8
University	94,1	85,4	63,2
Specific groups:			
Women on maternity leave	94,1	83,3	64,2
Students (aged 16+)	98,6	98,0	82,2
Pensioners	35,0	19,5	5,6

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

Figure C3 Individuals aged 16+ using the Internet



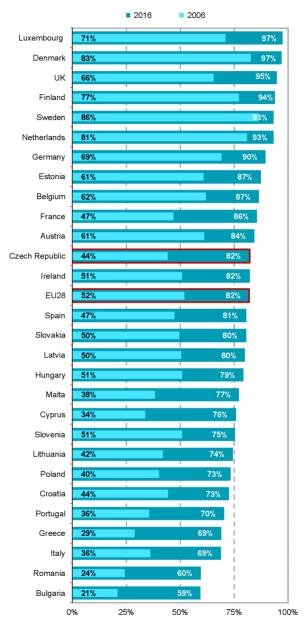
Figure C4 Individuals using the Internet by sex and age



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

<sup>\*</sup> Usage of the Internet at least once in the last 3 months (Internet users) - main indicator used for international comparison.

Figure C5 Individuals in EU countries aged 16-74 using the Internet - Internet users



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

Tab. C3 Individuals in the Czech Republic using different types of computers to access the Internet; 2016

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			70
	Desktop	Laptop	Tablet
Total (aged 16+)	39,0	49,8	14,0
Total (aged 16-74)	41,7	53,9	15,3
Gender:			
Males (aged 16+)	40,2	51,5	14,4
Females (aged 16+)	37,7	48,2	13,6
Age group:			
16-24 year-olds	34,2	78,7	27,5
25-34 year-olds	37,2	69,8	20,4
35-44 year-olds	50,7	64,9	20,3
45-54 year-olds	52,4	54,4	14,0
55-64 year-olds	42,2	35,1	6,5
65 year-olds and over	19,8	14,1	2,3
Education attainment level (aged 25	5+):		
Basic	17,2	12,6	2,7
Secondary without A-level exam.	32,5	35,8	8,1
Secondary with A-level exam.			
or Higher professional	46,7	55,1	16,5
University	55,0	73,6	20,1
Specific groups:			
Women on maternity leave	35,3	68,7	22,5
Students (aged 16+)	37,7	82,2	28,3
Pensioners	20,9	15,3	2,7

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

# Figure C6 Individuals accessing the Internet only via desktop computer by sex and age; 2016

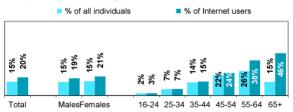
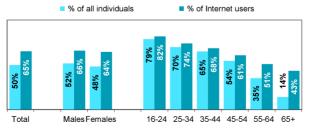
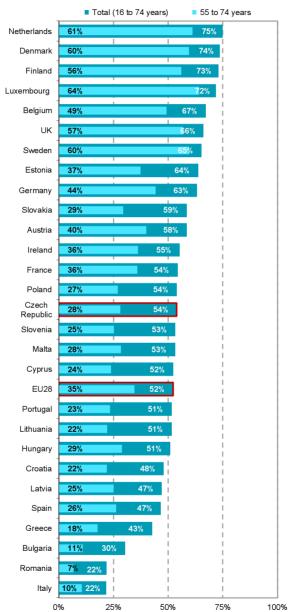


Figure C7 Individuals accessing the Internet via laptop computer by sex and age; 2016



# Figure C8 Individuals in EU countries accessing the Internet via laptop computer; 2016



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

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

·			%
	2014	2015	2016
Total (aged 16+)	28,5	37,0	41,2
Total (aged 16-74)	30,9	40,1	44,8
Gender:			
Males (aged 16+)	34,3	41,7	45,0
Females (aged 16+)	23,0	32,5	37,6
Age group:			
16-24 year-olds	64,8	77,1	81,1
25-34 year-olds	52,9	68,0	73,6
35-44 year-olds	34,0	48,6	54,7
45-54 year-olds	22,6	28,1	36,7
55-64 year-olds	9,9	14,2	17,6
65 year-olds and over	2,5	3,1	5,5
Education attainment level (aged 25+)			
Basic	4,0	9,2	12,1
Secondary without A-level exam. Secondary with A-level exam.	13,8	20,5	24,8
or Higher professional	28,7	34,8	43,8
University	44,6	59,1	63,2
Specific groups:			
Women on maternity leave	32,8	51,2	64,2
Students (aged 16+)	69,0	80,1	82,2
Pensioners	2,5	3,3	5,6

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 accessing the Internet via a mobile phone by sex and age; 2016

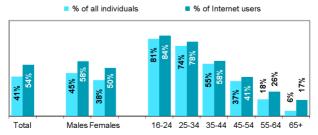
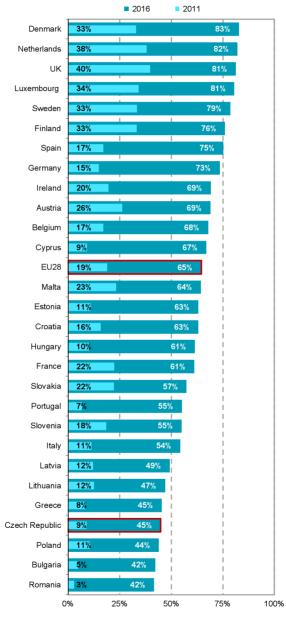


Figure C11 Individuals in EU countries aged 16-74 accessing the Internet via a mobile phone



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

Tab. C5 Individuals aged 55-74 years using the Internet in the Czech Republic; 2016

			70
	Total	Males	Females
Total (Internet users)*	57,4	59,4	55,5
Regularly (at least once a week)	52,2	54,1	50,4
By type of device used for access to the Internet			
Desktop	34,9	37,2	32,7
Laptop	28,1	29,8	26,5
Tablet	5,1	6,1	4,2
Mobile phone	13,1	14,7	11,7

0/

Figure C12 Individuals aged 55-74 years using the Internet

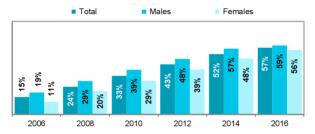
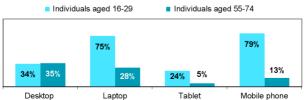


Figure C13 Individuals aged 55-74 years using the Internet by frequency of use

- Individuals that never used the Internet
- Occasional Internet users (less than once a week at least once in the past)
- Regular Internet users (at least once a week)



Figure 14 Devices used to access the Internet by individuals in selected age groups; 2016

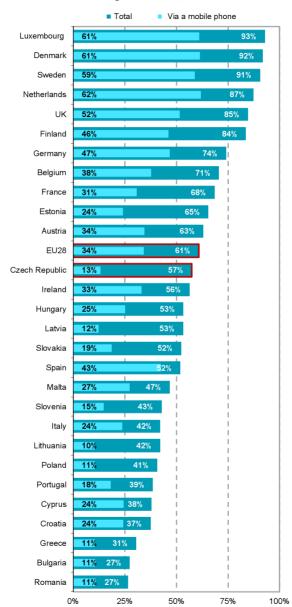


as a percentage of all individuals in a given age group

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

<sup>\*</sup> Usage of the Internet at least once in the last 3 months.

Figure C15 Individuals in EU countries aged 55-74 using the Internet; 2016



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

Tab. C6 Individuals in the Czech Republic using social networks

			%
	2012	2014	2016
Total (aged 16+)	30,3	36,9	41,4
Total (aged 16-74)	32,8	40,0	45,1
Gender:			
Males (aged 16+)	31,3	37,7	40,7
Females (aged 16+)	29,4	36,1	42,1
Age group:			
16-24 year-olds	79,4	90,1	91,4
25-34 year-olds	57,9	71,7	77,8
35-44 year-olds	32,4	43,1	53,0
45-54 year-olds	17,0	23,9	33,0
55-64 year-olds	7,9	10,5	14,1
65 year-olds and over	1,3	3,5	4,9
Education attainment level (aged 25+):			
Basic	6,7	8,3	13,2
Secondary without A-level exam. Secondary with A-level exam.	16,6	20,7	26,8
or Higher professional	30,8	35,4	44,1
University	38,4	46,8	51,3
Specific groups:			
Women on maternity leave	47,9	65,2	72,1
Students (aged 16+)	84,9	93,5	94,0
Pensioners	1,6	4,1	5,5

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

Figure C16 Individuals aged 16+ using social networks

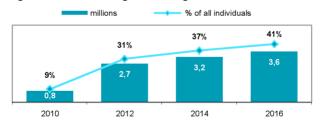
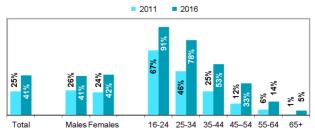
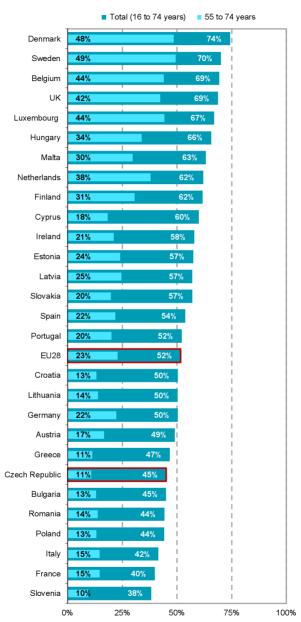


Figure C17 Individuals using social networks by sex and age



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

Figure C18 Individuals in EU countries using social networks; 2016



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

Tab. C7 Individuals in the Czech Republic making phone calls over the Internet

%

			70
	2012	2014	2016
Total (aged 16+)	36,5	33,6	30,7
Total (aged 16-74)	39,5	36,2	33,2
Gender:			
Males (aged 16+)	37,9	34,6	29,8
Females (aged 16+)	35,3	32,7	31,5
Age group:			
16-24 year-olds	66,9	65,9	58,4
25-34 year-olds	57,2	52,1	44,8
35-44 year-olds	43,7	37,7	35,3
45-54 year-olds	32,1	28,0	29,6
55-64 year-olds	23,1	22,0	20,0
65 year-olds and over	6,2	10,1	10,8
Education attainment level (aged 25+)	:		
Basic	8,7	7,3	8,7
Secondary without A-level exam.	22,9	18,5	19,8
Secondary with A-level exam.			
or Higher professional	42,1	36,3	34,0
University	54,7	51,5	42,8
Specific groups:			
Women on maternity leave	47,2	47,7	44,5
Students (aged 16+)	72,8	69,9	62,3
Pensioners	9,2	11,9	11,7

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

Figure C19 Individuals aged 16+ making phone calls over the Internet



Figure C20 Individuals making phone calls over the Internet by sex and age; 2016

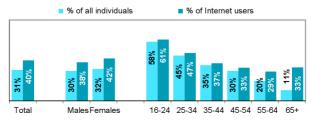
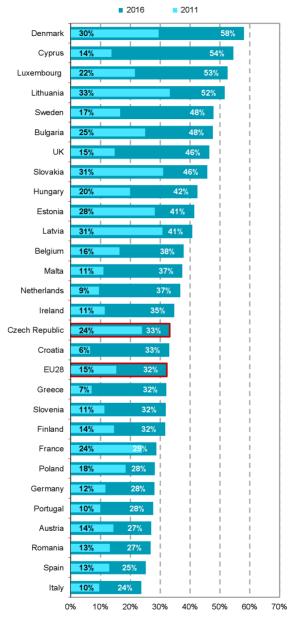


Figure C21 Individuals in EU countries aged 16-74 making phone calls over the Internet



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

Tab. C8 Individuals in the Czech Republic reading on-line news\*

			70
	2012	2014	2016
Total (aged 16+)	58,9	64,0	62,2
Total (aged 16-74)	62,2	68,7	67,0
Gender:			
Males (aged 16+)	63,3	67,7	64,4
Females (aged 16+)	54,8	60,4	60,0
Age group:			
16-24 year-olds	80,6	84,5	80,1
25-34 year-olds	80,2	83,9	78,2
35-44 year-olds	74,7	78,6	79,5
45-54 year-olds	67,8	73,2	71,8
55-64 year-olds	47,8	54,7	54,5
65 year-olds and over	13,2	22,9	24,2
Education attainment level (aged )	25+) <i>:</i>		
Basic	16,6	16,7	21,2
Secondary without A-level exam. Secondary with A-level exam.	46,2	48,9	49,7
or Higher professional	70,3	73,9	72,0
University	82,2	89,0	83,5
Specific groups:			
Women on maternity leave	67,2	83,3	80,2
Students (aged 16+)	83,2	85,4	81,1
Pensioners	16,7	25,9	25,9

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

Figure C22 Individuals aged 16+ reading on-line news\*

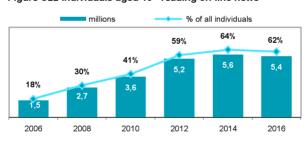
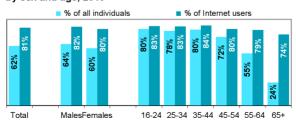
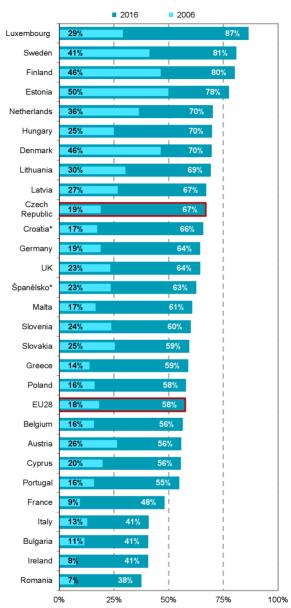


Figure C23 Individuals reading on-line news\* by sex and age; 2016



\* 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 C24 Individuals in EU countries aged 16-74 reading on-line news



<sup>\*</sup> data for 2007

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

Tab. C9 Individuals in the Czech Republic using the Internet for activities connected to travelling; 2016

%

	Looking for	Accomoda-	Travel
	info. about	tion	tickets
	travelling	purchase	purchase
Total (aged 16+)	47,0	8,7	8,0
Total (aged 16-74)	51,0	9,5	8,7
Gender:			
Males (aged 16+)	45,7	9,6	8,7
Females (aged 16+)	48,3	7,9	7,4
Age group:			
16-24 year-olds	61,6	7,4	12,9
25-34 year-olds	65,4	14,4	15,1
35-44 year-olds	60,7	13,6	10,2
45-54 year-olds	54,2	9,8	7,7
55-64 year-olds	38,6	6,4	4,4
65 year-olds and over	14,7	1,5	1,2
Education attainment level (aged 2	5+) <i>:</i>		
Basic	9,4	0,5	0,6
Secondary without A-level exam. Secondary with A-level exam.	32,5	4,3	2,9
or Higher professional	58,0	12,2	9,8
University	71,2	17,8	17,4
Specific groups:			
Women on maternity leave	59,6	7,1	8,5
Students (aged 16+)	63,0	7,5	16,4
Pensioners	16,8	1,7	1,6

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

Figure C25 Individuals aged 16+ looking for information about travelling or accomodation

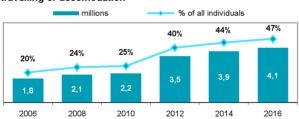


Figure C26 Individuals looking for information about travelling or accomodation by sex and age; 2016

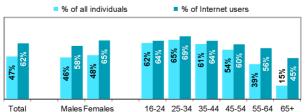
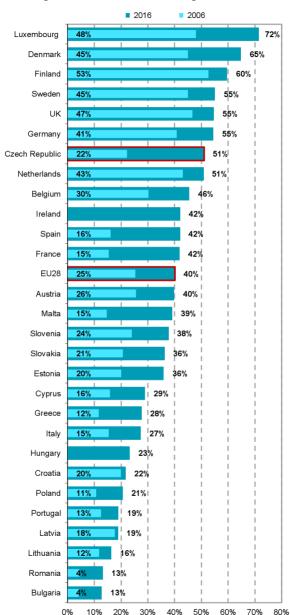


Figure C27 Individuals in EU countries aged 16-74 looking for information about travelling or accomodation



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

Tab. C10 Individuals in the Czech Republic using the Internet for listening to music, watching TV or playing games; 2016

	-		%
	Listening to music	Watching TV	Playing games
Total (aged 16+)	35,3	23,8	19,5
Total (aged 16-74)	38,3	25,8	21,2
Gender:			
Males (aged 16+)	38,1	25,3	28,1
Females (aged 16+)	32,5	22,3	11,2
Age group:			
16-24 year-olds	79,4	37,5	57,9
25-34 year-olds	62,9	33,2	33,8
35-44 year-olds	40,1	31,4	20,6
45-54 year-olds	32,4	26,9	12,0
55-64 year-olds	14,5	17,4	7,8
65 year-olds and over	5,5	5,6	2,8
Education attainment level (aged 25	+):		
Basic	10,8	6,3	7,4
Secondary without A-level exam. Secondary with A-level exam.	21,8	16,5	13,9
or Higher professional	36,1	26,9	16,4
University	48,0	35,3	18,8
Specific groups:			
Women on maternity leave	47,8	32,0	12,3
Students (aged 16+)	83,1,	40,4	60,4
Pensioners	6,0	7,0	3,1

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

Figure C28 Individuals aged 16+ watching Internet streamed TV

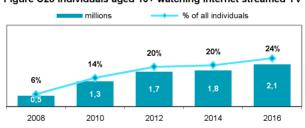
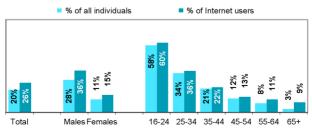
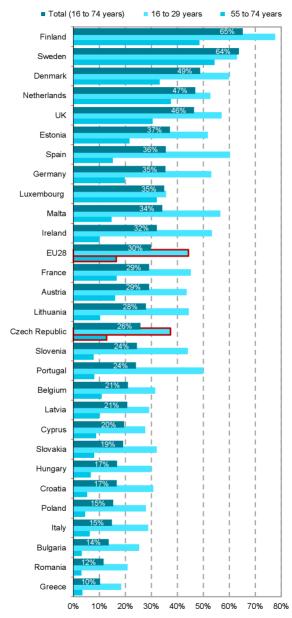


Figure C29 Individuals playing games over the Internet by sex and age; 2016



## Figure C30 Individuals in EU countries watching Internet streamed TV by age; 2016



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

Tab. C11 Individuals in the Czech Republic using specialized websites for watching videos; 2016

0/\_

			%
	Websites intended for sharing (e.g. YouTube)	Free video catalogs (e.g. Stream)	Paid video catalogs (e.g. Netflix)
Total (aged 16+)	39,4	21,1	2,9
Total (aged 16-74)	42,8	22,9	3,2
Gender:			
Males (aged 16+)	42,5	23,6	3,6
Females (aged 16+)	36,4	18,7	2,2
Age group:			
16-24 year-olds	78,6	45,9	8,0
25-34 year-olds	63,1	37,6	4,9
35-44 year-olds	49,5	26,0	3,5
45-54 year-olds	37,5	17,7	2,3
55-64 year-olds	21,8	8,4	1,1
65 year-olds and over	7,4	3,8	0,2
Education attainment level (aged	1 25+) <i>:</i>		
Basic	11,1	4,5	0,3
Secondary without A-level exam. Secondary with A-level exam.	26,3	13,5	1,4
or Higher professional	43,3	22,5	2,8
University	51,2	28,3	4,8
Specific groups:			
Women on maternity leave	53,6	31,7	4,5
Students (aged 16+)	80,5	46,4	7,7
Pensioners	8,9	4,1	0,3

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

Figure C31 Individuals watching videos on websites intended for sharing (e.g. YouTube); 2016

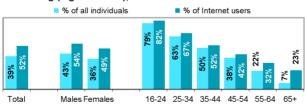


Figure C32 Individuals watching video from free video catalogs (e.g. Stream) by sex and age; 2016

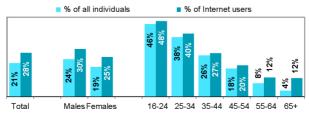
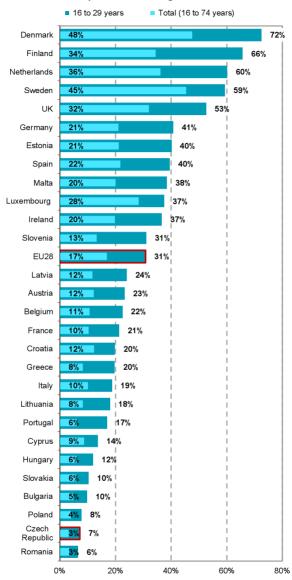


Figure C33 Individuals in EU countries watching videos from paid video catalogs\*; 2016



<sup>\*</sup> 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

Tab. C12 Individuals in the Czech Republic using the Internet for uploading pictures/videos\* or creating a blog; 2016

%

		70
	Uploading pictures/video	Creating a blog
Total (aged 16+)	30,6	3,6
Total (aged 16-74)	33,2	3,9
Gender:		
Males (aged 16+)	32,1	5,2
Females (aged 16+)	29,1	2,1
Age group:		
16-24 year-olds	72,6	9,6
25-34 year-olds	56,3	6,7
35-44 year-olds	38,1	4,0
45-54 year-olds	22,5	2,4
55-64 year-olds	10,6	1,6
65 year-olds and over	4,0	0,3
Education attainment level (aged 25+):		
Basic	7,6	0,2
Secondary without A-level exam.	17,3	1,0
Secondary with A-level exam.		
or Higher professional	31,6	3,4
University	43,0	7,9
Specific groups:		
Women on maternity leave	48,4	2,9
Students (aged 16+)	76,4	10,2
Pensioners	4,3	0,5

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

Figure C34 Individuals uploading pictures/videos or other content on websites by sex and age; 2016

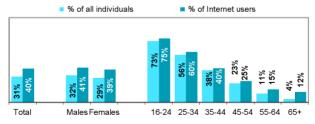
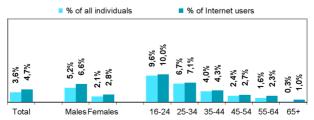
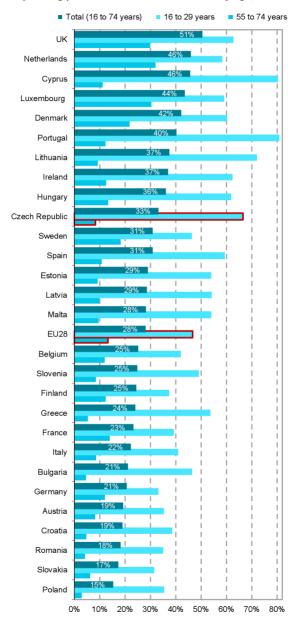


Figure C35 Individuals creating blogs by sex and age; 2016



<sup>\*</sup> Uploading pictures/videos or other content on websites intended for sharing (eg. Facebook, YouTube, Instagram, Flickr).

Figure C36 Individuals in EU countries using the Internet for uploading pictures/videos or other content by age; 2016



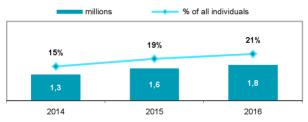
as a percentage of all individuals in a given age group and country

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

			%
	2014	2015	2016
Total (aged 16+)	15,1	18,5	20,6
Total (aged 16-74)	16,4	20,0	22,3
Gender:			
Males (aged 16+)	19,0	22,0	23,5
Females (aged 16+)	11,3	15,2	17,8
Age group:			
16-24 year-olds	32,9	39,3	48,2
25-34 year-olds	32,1	33,9	37,7
35-44 year-olds	15,7	22,0	24,6
45-54 year-olds	11,6	14,7	15,6
55-64 year-olds	5,1	8,2	8,3
65 year-olds and over	1,4	2,0	3,0
Education attainment level (aged 25+):			
Basic	1,5	4,0	3,3
Secondary without A-level exam. Secondary with A-level exam.	4,2	5,1	8,1
or Higher professional	18,4	17,7	21,3
University	35,8	41,8	38,6
Specific groups:			
Women on maternity leave	18,2	23,0	27,8
Students (aged 16+)	37,8	44,5	52,9
Pensioners	1,5	2,1	2,8

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

Figure C37 Individuals aged 16+ using Internet storage



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

Figure C38 Individuals using Internet storage

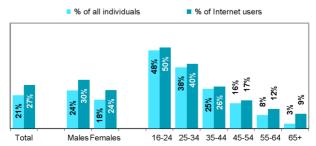
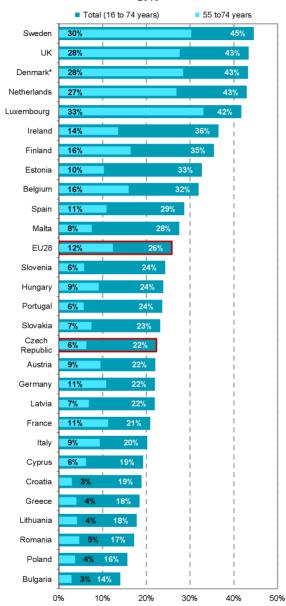


Figure C39 Individuals in EU countries using Internet storage; 2016



<sup>\*</sup> data for 2015

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

Tab. C14 Individuals in the Czech Rep. using Internet banking

			70
	2012	2014	2016
Total (aged 16+)	32,3	42,6	47,4
Total (aged 16-74)	34,2	46,0	51,4
Gender:			
Males (aged 16+)	34,3	45,4	48,8
Females (aged 16+)	30,4	40,0	46,0
Age group:			
16-24 year-olds	26,0	38,5	40,3
25-34 year-olds	57,2	68,6	69,4
35-44 year-olds	46,6	62,0	71,0
45-54 year-olds	38,6	49,8	58,5
55-64 year-olds	22,3	31,1	36,7
65 year-olds and over	3,7	9,2	12,3
Education attainment level (aged 25+	) <i>:</i>		
Basic	5,8	6,9	9,8
Secondary with A level exam.	20,1	27,1	36,2
Secondary with A-level exam. or Higher professional	45.6	55.5	61.1
÷ ,	45,6	55,5 76.0	61,1
University	62,8	76,0	73,7
Specific groups:			
Women on maternity leave	50,6	69,0	68,5
Students (aged 16+)	22,6	28,9	33,6
Pensioners	5,2	10,5	12,9

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

Figure C40 Individuals aged 16+ using Internet banking

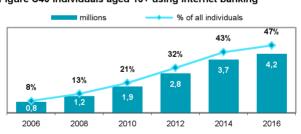


Figure C41 Individuals using Internet banking by sex and age; 2016

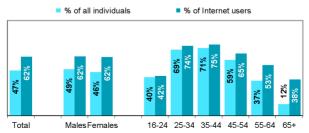
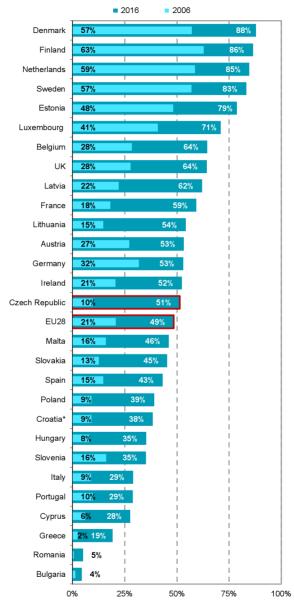


Figure C42 Individuals in EU countries aged 16-74 using Internet banking



<sup>\*</sup> data for 2007

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

Tab. C15 Individuals in the Czech Republic purchasing over the Internet: 2016

0/

			%
	At least once	In the last 12	In the last 3
	in the past	months*	months
Total (aged 16+)	58,6	43,6	26,7
Total (aged 16-74)	63,4	47,4	29,0
Gender:			
Males (aged 16+)	58,8	42,3	25,8
Females (aged 16+)	58,4	44,9	27,5
Age group:			
16-24 year-olds	71,4	58,7	39,3
25-34 year-olds	85,2	72,0	44,0
35-44 year-olds	79,2	59,4	36,6
45-54 year-olds	66,3	46,6	29,1
55-64 year-olds	44,8	28,3	15,4
65 year-olds and over	18,2	9,7	5,0
Education attainment level (aged 25+):			
Basic	16,3	8,3	3,5
Secondary without A-level exam.	45,1	30,5	15,7
Secondary with A-level exam.			
or Higher professional	72,2	55,2	34,1
University	79,3	61,5	42,3
Specific groups:			
Women on maternity leave	86,1	72,4	50,3
Students (aged 16+)	69,2	58,3	37,0
Pensioners	20,2	11,4	5,8

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

Figure C43 Individuals 16+ who have never purchased over the Internet



Figure C44 Individuals who have purchased over the Internet at least once in the past by sex and age; 2016

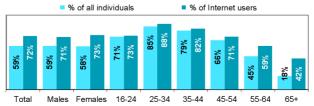
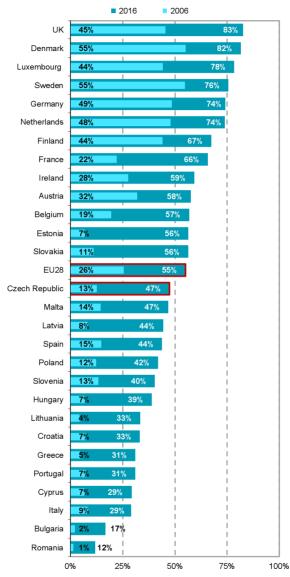


Figure C45 Individuals in EU countries aged 16-74 purchasing over the Internet\*



<sup>\*</sup>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

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

0/.

			%
	2012	2014	2016
Total (aged 16+)	30,6	39,3	43,6
Total (aged 16-74)	32,5	42,5	47,4
Gender:			
Males (aged 16+)	31,5	40,5	42,3
Females (aged 16+)	29,8	38,1	44,9
Age group:			
16-24 year-olds	46,3	62,2	58,7
25-34 year-olds	54,3	63,2	72,0
35-44 year-olds	43,1	52,6	59,4
45-54 year-olds	27,9	40,1	46,6
55-64 year-olds	15,7	21,7	28,3
65 year-olds and over	3,9	7,6	9,7
Education attainment level (aged 25+)	:		
Basic	6,0	6,3	8,3
Secondary without A-level exam.	18,7	23,5	30,5
Secondary with A-level exam.			
or Higher professional	38,5	45,9	55,2
University	50,7	61,4	61,5
Specific groups:			
Women on maternity leave	51,0	64,6	72,4
Students (aged 16+)	46,9	62,5	58,3
Pensioners	4,2	8,2	11,4

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

Figure C46 Individuals aged 16+ purchasing over the Internet

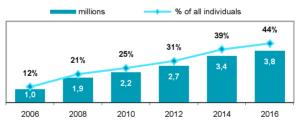
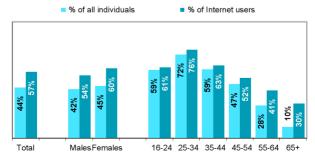
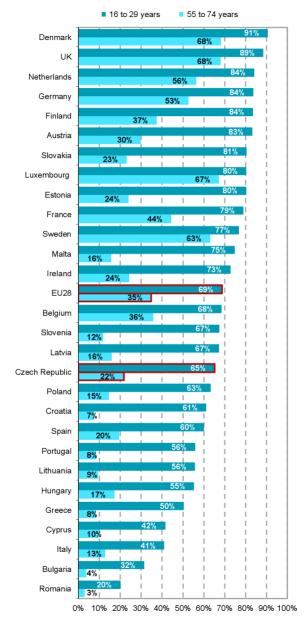


Figure C47 Individuals purchasing over the Internet by sex and age; 2016



# Figure C48 Individuals in EU countries purchasing over the Internet by age; 2016



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

Tab. C17 Individuals in the Czech Republic using specialised on-line services to purchase over the Internet; 2016

%

			70
	Price/product	Discount	Payment by
	comparison*	platform	card
Total (aged 16+)	37,1	16,9	7,7
Total (aged 16-74)	40,4	18,3	8,4
Gender:			
Males (aged 16+)	36,6	14,8	8,4
Females (aged 16+)	37,6	18,9	7,1
Age group:			
16-24 year-olds	51,4	26,8	8,4
25-34 year-olds	62,5	32,2	16,0
35-44 year-olds	49,8	19,6	11,6
45-54 year-olds	40,1	16,8	8,6
55-64 year-olds	23,1	9,3	2,5
65 year-olds and over	7,6	3,7	0,8
Education attainment level (aged	25+) <i>:</i>		
Basic	6,6	3,4	0,5
Secondary without A-level exam.	25,1	10,7	3,1
Secondary with A-level exam.			
or Higher professional	46,8	22,2	10,5
University	53,8	21,8	16,8
Specific groups:			
Women on maternity leave	59,6	33,6	13,3
Students (aged 16+)	52,2	24,8	9,6
Pensioners	9,0	3,8	0,9

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

# Figure C49 Individuals aged 16+ purchasing over a discount platform

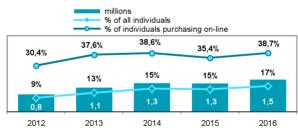
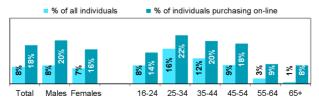


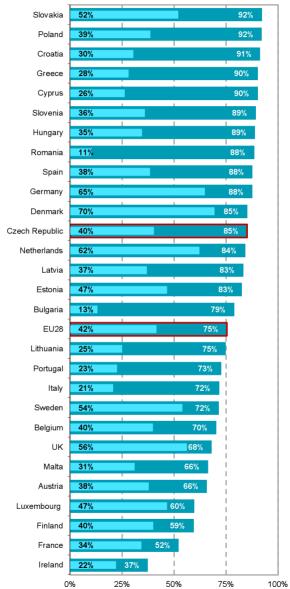
Figure C50 Individuals using debit/credit card for payment over the Internet by sex and age; 2016



<sup>\*</sup> Price or product comparison websites or apps (e.g. Heureka, Trivago).

Figure C51 Individuals in EU countries using specialised websites/apps to compare products and prices; 2016

- % of individuals (16-74) purchasing over the Internet
- % of individuals (16-74)



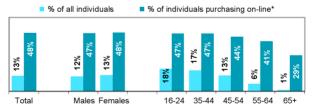
Tab. C18 Individuals in the Czech Republic purchasing over the Internet in 1.Q. 2016

%

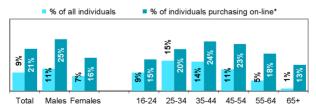
	Total*	3x or more	for 5 000 CZK or more
Total (aged 16+)	26,7	12,7	8,9
Total (aged 16-74)	29,0	13,8	9,8
Gender:			
Males (aged 16+)	25,8	12,1	10,8
Females (aged 16+)	27,5	13,2	7,3
Age group:			
16-24 year-olds	39,3	18,4	9,0
25-34 year-olds	44,0	24,4	14,7
35-44 year-olds	36,6	17,2	14,3
45-54 year-olds	29,1	12,9	10,6
55-64 year-olds	15,4	6,3	5,1
65 year-olds and over	5,0	1,4	1,2
Education attainment level (aged 25	+):		
Basic	3,5	1,8	0, 1
Secondary without A-level exam. Secondary with A-level exam.	15,7	5,3	4,3
or Higher professional	34,1	16,6	12,1
University	42,3	23,8	18,5
Specific groups:			
Women on maternity leave	50,3	28,5	12,6
Students (aged 16+)	37,0	17,5	7,1
Pensioners	5,8	1,7	1,6

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

# Figure C52 Individuals who purchased over the Internet 3x or more in 1.Q 2016 by sex and age



# Figure C53 Individuals who spent on on-line purchases 5 000 CZK or more in 1.Q 2016 by sex and age



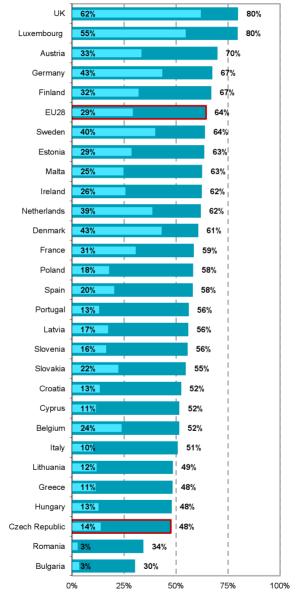
\*Individuals who purchased (ordered a good or a service) over the Internet at least once in the last 3 months.

Source: Czech Statistical Office, ICT use survey in households

Figure C54 Individuals in EU countries who in the last 3 months purchased over the Internet 3x or more; 2016

■ % of individuals (16-74) purchasing over the Internet





Tab. C19 Individuals in the Czech Republic using selected types of protection of personal data on the Internet; 2016

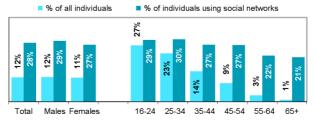
		%
	Change in settings of cookies	Limitation of access to content on social networks
Total (aged 16+)	14,0	11,6
Total (aged 16-74)	15,2	12,6
Gender:		
Males (aged 16+)	17,0	11,8
Females (aged 16+)	11,2	11,4
Age group:		
16-24 year-olds	22,2	26,8
25-34 year-olds	23,0	23,0
35-44 year-olds	16,8	14,4
45-54 year-olds	16,3	8,9
55-64 year-olds	9,8	3,1
65 year-olds and over	2,2	1,0
Education attainment level (aged 25+):		
Basic	1,3	2,3
Secondary without A-level exam. Secondary with A-level exam.	7,0	5,1
or Higher professional	15,7	13,2
University	28,5	17,7
Specific groups:		
Women on maternity leave	15,1	16,2
Students (aged 16+)	23,8	28,0
Pensioners	2,7	0,9

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

# Figure C55 Individuals who changed settings of cookies by sex and age; 2016

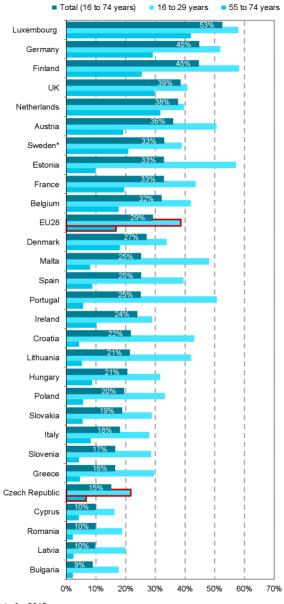


Figure C56 Individuals who limited access to their content on social networks by sex and age; 2016



Source: Czech Statistical Office, ICT use survey in households

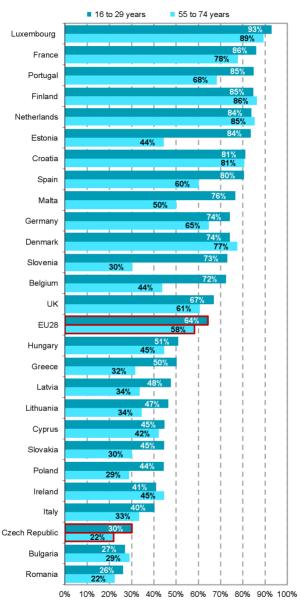
Figure C57 Individuals in EU countries who changed settings of cookies by age; 2016



<sup>\*</sup> data for 2015

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

Figure C58 Individuals in EU countries who limited access to their content on social networks by age; 2016



as a percentage of individuals who use social networks in a given age group and country

Since 2002, the Czech Statistical Office (CZSO) has been regularly monitoring 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 and using the Internet for interaction with public authorities, 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 are not fully comparable with the data of previous years. This difference is due to implementation of a new NACE classification.
- The data for the Czech Republic presented by Eurostat may slightly differed until 2015 from data presented by the CZSO. This difference was due to the fact that Eurostat does not include, as part of the data it publishes, enterprises from the financial sector. Data are fully comparable since 2016.

#### Definitions:

- Internal computer network (Local Area Network; LAN) connects two
  or more computers to share information, files, internal emails and
  applications within the enterprise.
- 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
- Intranet an internal company communication network using an Internet protocol allowing communications within an organisation.
- 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.
- Domain (Top-Level Domain) unique identifier (name) of a computer or computer network connected to the Internet. Toplevel domain describes the division of the country (national ccTLDs) or the general category of organizations or entities (generic domains).
- B2C sales Sales to private customers.
- B2B sales Sales to other enterprises.
- 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 or Flickr);
- Wiki based knowledge sharing tools (e.g. Wikipedia-like sites).
- 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 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 ondemand by the user, at least after the initial set up; are paid for
  (either per user, by capacity used, or they are pre-paid).
- Cloud computing on shared servers the enterprise uses a paid cloud computing shared servers of service providers.
   Cloud computing on servers exclusively reserved for the enterprise - the enterprise uses a paid cloud computing services from servers of service providers exclusively reserved for the company (for one customer) and are not shared with other clients.
- Big Data are generated from activities that are carried out electronically and from M2M communications. They typically have following characteristics: significant volume (vast amounts of data generated over time); variety (different format of complex data, either structured or unstructured); velocity (high speed at which data is generated, becomes available and changes over time).
- Contextual advertising a type of paid internet advertising that appears after evaluation (primarily verbal) of viewed webpages' content or keywords searched by Internet users.
- Remote access to the enterprise's e-mail system the possibility of using enterprise's email from outside (e.g. from home), regardless of the type of used device.
- 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 the method of payment or delivery. Value of e-purchases (e-sales) is a 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, mobile phone 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.
- 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.

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *This database was updated in December 2016. 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/podnikate/sky\_sektor

Tab. D1 Enterprises in the Czech Republic with Local Area Network; 2016

%

			70	
	Total	usi	ng:	
	rotui	WLAN	Intranet	
Total (10+ employees)	74,5	61,0	31,6	
Small enterprises (10-49)	69,4	55,1	25,9	
Medium enterprises (50-249)	92,0	80,4	46,6	
Large enterprises (250+)	99,0	94,2	79,9	
Industry (NACE category):				
Manufacturing	76,2	63,2	32,4	
Electricity, gas and water supply	79,2	59,6	38,5	
Construction	69,5	54,7	22,7	
Sale and repair of motor vehicles	89,8	77,3	32,4	
Wholesale trade	88,5	72,9	32,9	
Retail trade	59,6	42,1	29,1	
Transport and storage	63,6	50,2	21,5	
Accommodation	79,9	72,5	22,7	
Food and beverage services	41,9	35,6	22,6	
Travel agency and related activities	89,0	71,2	51,0	
Media industries incl. publishing activities	96,4	87,6	62,1	
Telecommunications	100,0	90,2	73,9	
Computer programming and related activities	96,7	90,9	73,6	
Real estate activities	83,6	60,7	36,2	
Professional, scientific and technical activities	85,7	73,3	37,9	
Administrative and support activities	64,9	53,0	34,3	

as a percentage of all enterprises with 10+ employees in a given group WLAN = wireless local area network

Figure D1 Enterprises with Wireless Local Area Network

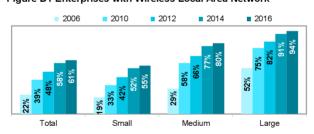
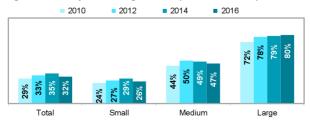


Figure D2 Enterprises using Intranet (internal website)



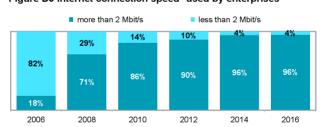
as a percentage of all enterprises with 10+ employees in a given size class

Tab. D2 Enterprises in the Czech Rep. with the Internet; 2016

			%
	Do	ownload sp	eed
	at least	at least	at least
	2 Mbit/s	30 Mbit/s	100 Mbit/s
Total (10+ employees)	93,9	24,3	9,9
Small enterprises (10-49)	92,8	20,8	8,3
Medium enterprises (50-249)	97,5	33,3	13,4
Large enterprises (250+)	99,4	54,4	25,7
Industry (NACE category):			
Manufacturing	94,6	19,7	7,7
Electricity, gas and water supply	95,5	31,1	12,4
Construction	92,6	20,9	8,7
Sale and repair of motor vehicles	95,9	22,9	6,8
Wholesale trade	96,1	24,4	9,0
Retail trade	93,1	21,7	5,8
Transport and storage	93,6	21,8	8,4
Accommodation	94,2	30,0	12,8
Food and beverage services	83,8	17,6	6,1
Travel agency and related activities	95,4	31,5	14,9
Media industries incl. publishing activities	98,1	51,9	26,9
Telecommunications	100,0	83,2	67,6
Computer programming and related activities	98,3	54,6	30,8
Real estate activities	95,3	37,2	14,9
Professional, scientific and technical activities	96,3	33,6	15,2
Administrative and support activities	90,7	26,7	13,3

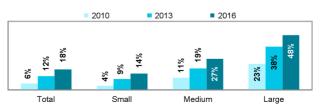
as a percentage of all enterprises with 10+ employees in a given group

Figure D3 Internet connection speed\* used by enterprises



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

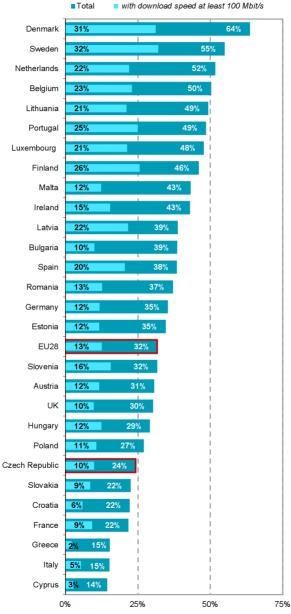
Figure D4 Enterprises using fiber optics technology



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

<sup>\*</sup> Maximum contracted download speed of the fastest fixed internet connection.

Figure D5 Enterprises in EU countries with at least 30 Mbit/s internet connection speed; 2016



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

Tab. D3 Enterprises in the Czech Republic with a Website; 2016

			%
	Total	Available in foreign language(s)	Customized for mobiles
Total (10+ employees)	82,2	34,6	32,8
Small enterprises (10-49)	79,3	28,1	30,8
Medium enterprises (50-249)	92,8	55,6	38,6
Large enterprises (250+)	95,2	72,7	46,7
Industry (NACE category):			
Manufacturing	83,4	45,8	29,4
Electricity, gas and water supply	87,8	21,9	30,6
Construction	82,4	10,2	27,5
Sale and repair of motor vehicles	94,2	20,7	42,8
Wholesale trade	91,2	35,6	36,1
Retail trade	64,5	18,9	31,8
Transport and storage	63,3	28,0	25,6
Accommodation	96,4	77,6	53,8
Food and beverage services	70,8	24,8	35,9
Travel agency and related activities	97,2	59,8	49,6
Media industries incl. publishing activities	98,5	48,4	55,9
Telecommunications	97,6	28,4	52,1
Computer programming and related act.	94,7	64,1	52,3
Real estate activities	84,2	29,6	31,5
Professional, scientific and technical act.	91,8	47,2	36,4
Administrative and support activities	80,0	29,2	35,5

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

Figure D6 Enterprises with a web presence (Website)

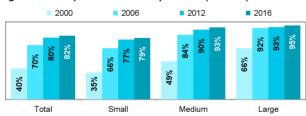
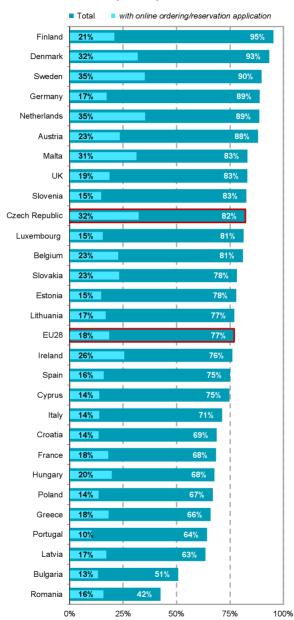


Figure D7 Applications available on enterprise's websites; 2016



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

Figure D8 Enterprises in EU countries with a web presence (Website); 2016



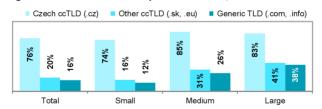
as a percentage of all enterprises with 10+ employees in a given country

Tab. D4 Top-level domains used for enterprises' Websites; 2016

			%
	Czech ccTLD (.cz)	Other ccTLD (.eu, .sk etc.)	Generic TLD (.com, .info etc.)
Total (10+ employees)	76,4	19,8	15,8
Small enterprises (10-49)	74,1	16,3	12,4
Medium enterprises (50-249)	85,4	31,3	25,9
Large enterprises (250+)	83,0	40,6	38,1
Industry (NACE category):			
Manufacturing	76,0	20,9	16,5
Electricity, gas and water supply	85,1	14,3	7,9
Construction	79,0	7,7	7,2
Sale and repair of motor vehicles	90,3	18,5	14,6
Wholesale trade	84,5	38,9	23,5
Retail trade	63,3	13,6	8,3
Transport and storage	57,3	12,3	8,8
Accommodation	92,6	18,7	22,0
Food and beverage services	67,1	4,7	6,8
Travel agency and related activities	86,7	43,4	39,5
Media industries incl. publishing activities	89,8	41,3	35,2
Telecommunications	94,6	27,2	30,2
Computer programming and related act.	83,8	47,7	42,9
Real estate activities	81,7	14,2	13,5
Professional, scientific and technical act.	82,6	21,9	26,1
Administrative and support activities	73,7	19,1	14,4

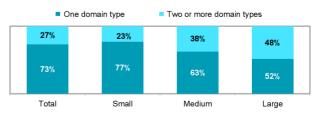
as a percentage of all enterprises with 10+ employees in a given group

Figure D9 TLDs used for enterprises' Websites; 2016



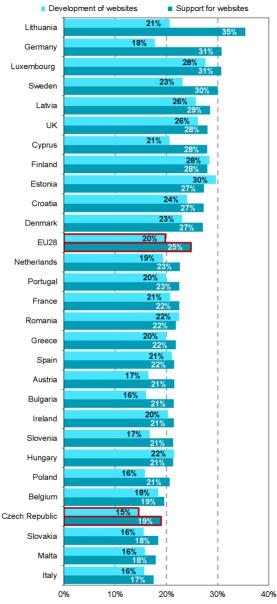
as a percentage of all enterprises with 10+ employees in a given size class

Figure D10 Number of TLDs used for enterprises' Websites\*; 2016



<sup>\*</sup> as a percentage of all enterprises (10+) with a Website in a given size class

Figure D11 Support and development of enterprises' websites mainly performed by own employees; 2016



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

Tab. D5 Enterprises in the Czech Rep. selling via a website\*; 2015

			%
		by type of	customer:
	Total	Private	Other
		customers	enterprises
		(B2C)	(B2B)
Total (10+ employees)	20,2	17,3	16,8
Small enterprises (10-49)	20,2	17,5	16,8
Medium enterprises (50-249)	19,4	15,6	16,1
Large enterprises (250+)	24,6	18,7	20,5
Industry (NACE category):			
Manufacturing	17,8	14,2	15,2
Electricity, gas and water supply	7,9	5,2	7,1
Construction	6,4	5,9	4,5
Sale and repair of motor vehicles	33,8	29,5	32,6
Wholesale trade	36,4	30,8	32,7
Retail trade	31,2	31,0	21,8
Transport and storage	9,1	7,7	8,3
Accommodation	60,3	59,7	46,6
Food and beverage services	19,3	19,1	13,4
Travel agency and related activities	68,4	65,4	48,5
Media industries incl. publishing activities	60,3	53,7	54,0
Telecommunications	55,5	52,8	43,7
Computer programming and related act.	28,1	17,6	25,2
Real estate activities	12,5	9,7	9,5
Professional, scientific and technical act.	12,5	9,6	10,9
Administrative and support activities	18,0	13,3	13,4

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

Figure D12 Enterprises selling via a website\*



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

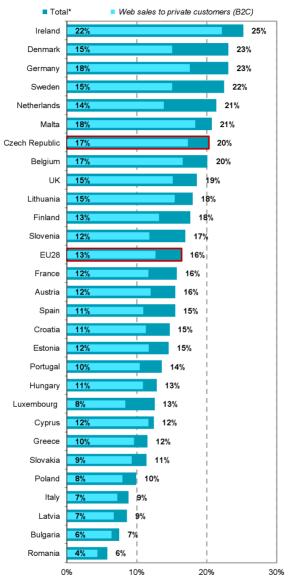
Figure D13 Enterprise's web sales by type of customer



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

<sup>\*</sup> Includes any enterprises that during the reference year placed at least one electronic order for goods or services via a website (via an online store, via web forms on a website or extranet or via apps).

Figure D14 Enterprises in EU countries selling via a website; 2015



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

\*Includes any enterprises that during the reference year placed at least one electronic order for goods or services via a website (via an online store, via web forms on a website or extranet or via apps).

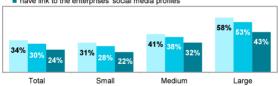
Tab. D6 Enterprises in the Czech Rep. using social networks\*

			%
	2014	2015	2016
Total (10+ employees)	21,8	23,5	30,3
Small enterprises (10-49)	19,9	21,7	27,7
Medium enterprises (50-249)	27,2	27,6	37,5
Large enterprises (250+)	35,6	39,9	53,2
Industry (NACE category):			
Manufacturing	15,4	17,3	22,8
Electricity, gas and water supply	12,4	13,2	16,0
Construction	7,7	10,7	17,3
Sale and repair of motor vehicles	33,4	36,7	51,7
Wholesale trade	29,1	30,8	35,3
Retail trade	32,9	28,9	37,0
Transport and storage	10,2	13,2	20,6
Accommodation	60,8	66,1	78,2
Food and beverage services	36,9	40,5	48,6
Travel agency and related activities	74,7	72,9	78,4
Media industries incl. publishing act.	63,3	69,9	75,8
Telecommunications	51,6	55,8	67,8
Computer programming and related act.	44,2	45,2	55,3
Real estate activities	18,4	18,0	25,9
Professional, scientific and technical act.	25,2	28,0	35,0
Administrative and support activities	21,9	21,9	32,2

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

#### Figure D15 Enterprises using social media; 2016

- use at least one type of the social media
- have a user profile/an account on social networks (e.g. Facebook, LinkedIn)
- have link to the enterprises' social media profiles



as a percentage of all enterprises in a given size class

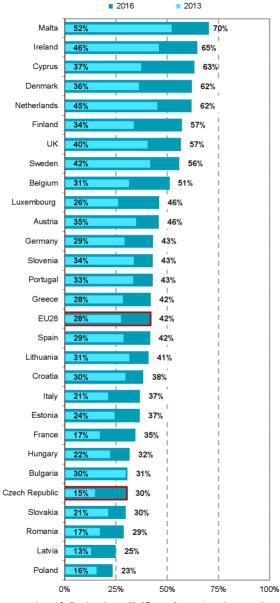
#### Figure D16 Types of social media used by enterprises; 2016

- Wiki based knowledge sharing tools (e.g. Wikipedia)
- Enterprise's blog or microblog (e.g. Twitter)
- Multimedia content sharing websites (e.g. You Tube or Flickr)
- Social networks (e.g. Facebook or LinkedIn)



<sup>\*</sup> Includes any enterprises which have a user profile / an account on Facebook or LinkedIn

Figure D17 Enterprises in EU countries using the Internet for participating in social networks (have a user profile/ an account on Facebook or LinkedIn)



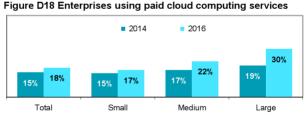
as a percentage of all enterprises with 10+ employees in a given country

Tab. D7 Enterprises in the Czech Republic using paid cloud computing services; 2016

%

		by type	of server
	Total	shared	exclusively reserved
Total (10+ employees)	18,0	13,6	7,0
Small enterprises (10-49)	16,6	12,5	6,2
Medium enterprises (50-249)	21,9	17,4	8,7
Large enterprises (250+)	29,5	20,6	15,8
Industry (NACE category):			
Manufacturing	14,7	10,5	5,9
Electricity, gas and water supply	13,5	12,7	3,7
Construction	16,9	14,3	3,7
Sale and repair of motor vehicles	18,3	14,1	6,3
Wholesale trade	25,6	19,3	10,0
Retail trade	15,9	10,7	6,9
Transport and storage	13,6	10,5	5,4
Accommodation	13,9	11,3	6,3
Food and beverage services	9,1	4,8	5,0
Travel agency and related activities	34,2	29,2	11,0
Media industries incl. publishing activities	34,1	28,1	16,3
Telecommunications	24,5	18,8	12,2
Computer programming and related act.	45,4	35,6	23,1
Real estate activities	17,0	15,7	5,7
Professional, scientific and technical act.	23,8	18,5	9,6
Administrative and support activities	20,9	15,5	9,1

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



as a percentage of all enterprises in a given size class

Figure D19 Enterprises using paid cloud computing by type of service; 2016

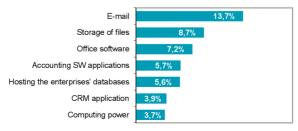
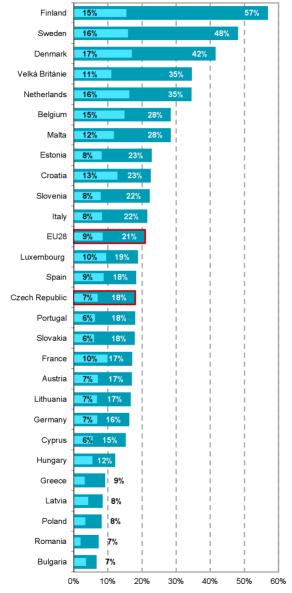


Figure D20 Enterprises in EU countries using paid cloud computing services; 2016





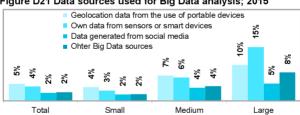
as a percentage of all enterprises with 10+ employees in a given country

Tab. D8 Enterprises in the Czech Rep. analysing Big data; 2015

			%
		from data	sources:
	Total	Geolocation data from the use of portable devices	Data generated from social media
Total (10+ employees)	8,5	4,6	2,2
Small enterprises (10-49)	6,7	3,8	1,7
Medium enterprises (50-249)	13,5	6,9	3,6
Large enterprises (250+)	22,0	9,8	4,7
Industry (NACE category):			
Manufacturing	6,7	2,8	1,1
Electricity, gas and water supply	12,3	6,1	0,0
Construction	9,0	7,2	0,5
Sale and repair of motor vehicles	6,1	5,1	2,4
Wholesale trade	8,7	4,4	3,6
Retail trade	8,0	1,2	4,4
Transport and storage	14,1	13,1	1,3
Accommodation	4,4	2,2	2,7
Food and beverage services	3,0	0,7	2,5
Travel agency and related activities	10,7	2,6	8,6
Media industries incl. publishing activities	17,5	4,3	10,4
Telecommunications	20,1	8,5	7,7
Computer programming and related act.	20,2	6,3	7,3
Real estate activities	5,5	0,4	2,4
Professional, scientific and technical act.	11,0	4,3	3,4
Administrative and support activities	8,0	6,9	2,2

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

#### Figure D21 Data sources used for Big Data analysis; 2015



as a percentage of all enterprises in a given size class

#### Graf D22 Who\* performed enterprises' Big Data analysis; 2015

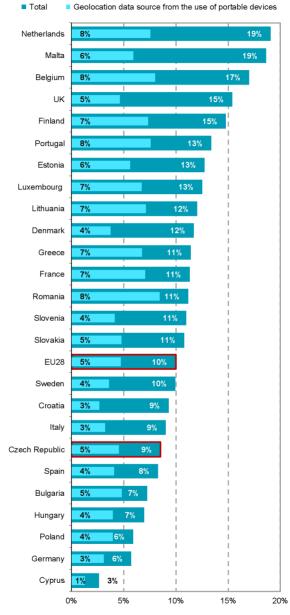
- Enterprises' own employees only
- Enterprises' own employees or external service providers

External service providers only

	,		
Total	58%	21%	21%
Small	61%	17%	22%
Medium	51%	29%	20%
Large	59%	29%	12%

\*as a percentage of all enterprises (10+) analysing Big Data in a given group

Figure D23 Enterprises in EU countries analysing Big data; 2015



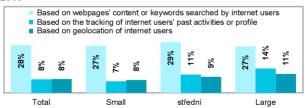
as a percentage of all enterprises with 10+ employees in a given country

Tab. D9 Enterprises in the Czech Republic paying to advertise on the Internet; 2016

			%
		targeted adve methods	
	Total	Contextual advertising*	Based on geolocation of internet users
Total (10+ employees)	31,2	27,7	8,0
Small enterprises (10-49)	30,6	27,3	7,5
Medium enterprises (50-249)	33,9	29,4	9,3
Large enterprises (250+)	32,3	26,9	10,9
Industry (NACE category):			
Manufacturing	28,2	25,3	5,0
Electricity, gas and water supply	23,8	21,9	4,2
Construction	25,2	22,3	7,6
Sale and repair of motor vehicles	52,0	46,8	16,5
Wholesale trade	46,2	41,5	11,5
Retail trade	32,3	30,4	9,6
Transport and storage	14,8	13,8	3,3
Accommodation	56,2	49,6	24,2
Food and beverage services	27,5	22,0	7,1
Travel agency and related activities	57,5	55,2	23,8
Media industries incl. publishing act.	59,0	51,1	21,9
Telecommunications	46,9	37,1	25,8
Computer programming and relat. act.	40,2	35,2	12,0
Real estate activities	28,4	24,1	6,8
Professional, scientific and tech. act.	27,7	23,8	7,9
Administrative and support activities	34,2	27,7	10,0

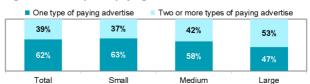
as a percentage of all enterprises with 10+ employees in a given group

# Figure D24 Targeted advertising methods used by enterprises; 2016



as a percentage of all enterprises in a given size class

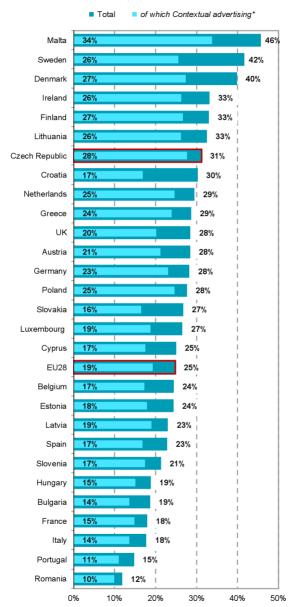
Figure D25 Enterprises paying to advertise on the Internet\*\*; 2016



\*\* as a percentage of all enterprises paying to advertise on the Internet

<sup>\*</sup> Based on webpages' content or keywords searched by internet users

Figure D26 Enterprises in EU countries paying to advertise on the Internet; 2016



<sup>\*</sup> Based on webpages' content or keywords searched by internet users as a percentage of all enterprises with 10+ employees in a given country

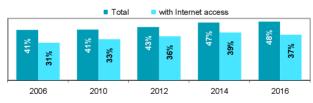
Tab. D10 Employees in the Czech Rep. using ICT at work; 2016

			%
	Computer	Internet	Portable or mobile device*
Total (10+ employees)	47,6	36,9	19,3
Small enterprises (10-49)	47,3	44,2	26,4
Medium enterprises (50-249)	50,3	34,8	16,9
Large enterprises (250+)	45,9	35,0	17,7
Industry (NACE category):			
Manufacturing	46,4	29,1	14,1
Electricity, gas and water supply	51,2	45,1	22,1
Construction	42,6	41,8	26,0
Sale and repair of motor vehicles	67,7	64,7	29,6
Wholesale trade	65,7	62,3	34,9
Retail trade	47,7	33,8	10,6
Transport and storage	39,2	29,1	13,8
Accommodation	37,8	34,4	12,1
Food and beverage services	28,3	25,6	9,6
Travel agency and related activities	70,9	70,2	30,0
Media industries incl. publishing act.	81,5	80,0	46,7
Telecommunications	86,7	86,4	77,7
Computer programming and related act.	88,2	87,9	68,1
Real estate activities	49,6	48,6	24,3
Professional, scientific and technical act.	78,0	75,3	45,0
Administrative and support activities	18,4	16,3	9,0

<sup>\*</sup> laptop, tablet, smartphone etc.

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

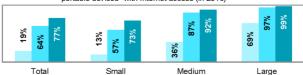
Figure D27 Employees using a computer at work



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

#### Figure D28 Enterprises providing employees with:

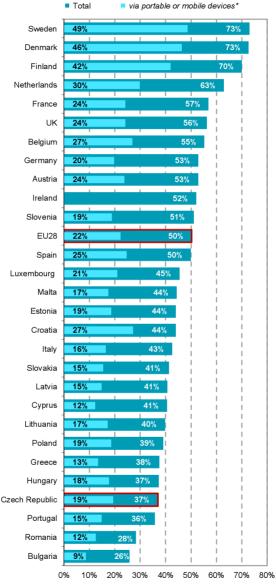
- training to develop ICT related skills (in 2015)
- remote access to the enterprise's e-mail box (in 2016)
- portable devices\* with Internet access (in 2016)



<sup>\*</sup> laptop, tablet, smartphone etc.

as a percentage of all enterprises in a given size class

Figure D29 Employees in EU countries using at work the Internet; 2016



<sup>\*</sup> laptop, tablet, smartphone etc.

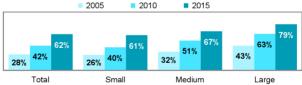
as a percentage of all employees in enterprises with 10+ employees of a given country

Tab. D11 Value of enterprises' purchases in the Czech Republic from conducting e-Commerce; 2015

			70
	Total	via EDI*	via a
	1 Otal	messages	website
Total (10+ employees)	42,4	26,9	15,4
Small enterprises (10-49)	21,6	8,1	13,5
Medium enterprises (50-249)	39,3	21,4	17,9
Large enterprises (250+)	49,6	34,9	14,6
Industry (NACE category):			
Manufacturing	40,7	24,6	16,1
Electricity, gas and water supply	65,6	55,3	10,3
Construction	12,4	4,8	7,6
Sale and repair of motor vehicles	58,8	42,1	16,7
Wholesale trade	41,4	21,8	19,6
Retail trade	45,2	36,0	9,3
Transport and storage	27,1	7,5	19,6
Accommodation	23,0	6,7	16,2
Food and beverage services	22,3	12,2	10,1
Travel agency and related activities	36,6	16,6	20,0
Media industries incl. publishing activities	28,5	2,8	25,7
Telecommunications	78,0	63,2	14,8
Computer programming and related activities	55,1	26,2	28,8
Real estate activities	30,1	2,4	27,7
Professional, scientific and technical activities	22,5	7,8	14,8
Administrative and support activities	25,1	10,8	14,3

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

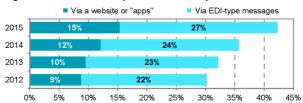
Figure D30 Enterprises purchasing via electronic networks\*



<sup>\*</sup> Includes any enterprises that during the reference year placed at least one electronic order over the Internet or other computer network via a website (online store/web shop/apps) or via EDI-type message.

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

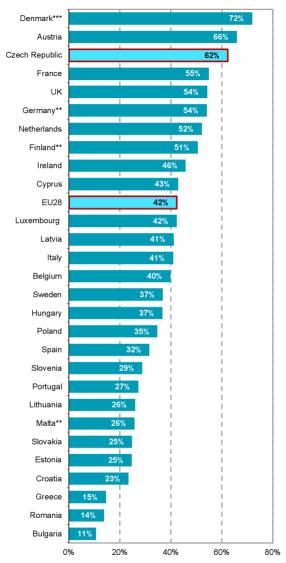
Figure D31 Value of enterprises' electronic purchases



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

<sup>\*</sup> Electronic transmission of messages suitable for automated processing, i.e. using EDI, XML fof business-to-business e-Commerce.

Figure D32 Enterprises in EU countries purchasing via electronic networks\*; 2015



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

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

<sup>\*\*</sup> data for 2014, \*\*\* data for 2013

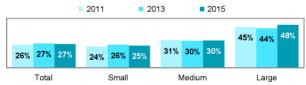
Tab. D12 Value of enterprises' electronic sales in the Czech Republic from conducting e-Commerce; 2015

0/\_

			70
	Total	via EDI*	via a
	. ota.	messages	website
Total (10+ employees)	30,5	23,7	6,9
Small enterprises (10-49)	12,0	6,0	6,0
Medium enterprises (50-249)	26,8	17,5	9,3
Large enterprises (250+)	37,6	31,7	5,9
Industry (NACE category):			
Manufacturing	32,7	30,3	2,4
Electricity, gas and water supply	45,2	43,6	1,6
Construction	2,2	1,2	1,1
Sale and repair of motor vehicles	28,7	17,6	11,1
Wholesale trade	39,0	22,3	16,7
Retail trade	13,5	2,7	10,8
Transport and storage	28,5	16,0	12,5
Accommodation	30,7	8,7	22,0
Food and beverage services	4,6	1,4	3,1
Travel agency and related activities	45,8	14,6	31,2
Media industries incl. publishing activities	27,4	3,5	24,0
Telecommunications	29,8	14,8	15,0
Computer programming and related activities	13,8	4,0	9,7
Real estate activities	8,1	3,8	4,3
Professional, scientific and technical activities	5,8	3,3	2,5
Administrative and support activities	29,9	16,4	13,5

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

Figure D33 Enterprises selling via electronic networks\*\*

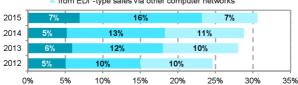


<sup>\*\*</sup> Includes any enterprises that during the reference year received at least one electronic order over the Internet or other computer network via a website (on-line store/web shop/apps) or via EDI-type message.

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

#### Figure D34 Value of enterprises' electronic sales

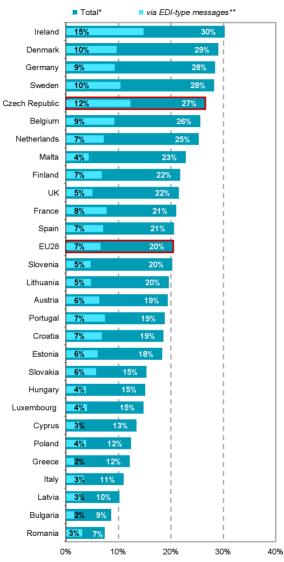
- from Web sales (orders received via a website or "apps")
- from EDI\*-type sales via the Internet
- from EDI\*-type sales via other computer networks



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

<sup>\*</sup> Electronic transmission of messages suitable for automated processing, i.e. using EDI, XML fof business-to-business e-Commerce.

Figure D35 Enterprises in EU countries selling via electronic networks: 2015

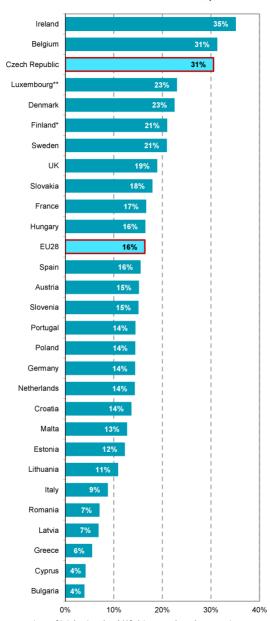


<sup>\*</sup> Includes any enterprises that during the reference year received at least one electronic order over the Internet or other computer network via a website (on-line store/web shop/apps) or via EDI-type message.

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

<sup>\*\*</sup> Electronic transmission of messages suitable for automated processing, i.e. using EDI, XML fof business-to-business e-Commerce.

Figure D36 Total value of electronic sales of enterprises in EU countries - Turnover from e-Commerce; 2015



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

<sup>\*</sup> data for 2014, \*\* data for 2013

The Czech Statistical Office (CZSO), in order to monitor the development of ICT usage by public authorities in the Czech Republic, used to collect data with a short module focused on ICT usage in the public administration sector. The latest survey on this issue was conducted in the first half of 2012 with reference period of 31 December 2011.

Since then the Czech Statistical Office has been focusing more on data on e-government services than on data on ICT equipment. Nowadays it gathers administrative data from several institutions, mainly from the Ministry of the Interior of the Czech Republic and from the General Financial Directorate of the Financial Administration.

Data about the number of issued official documents by using **Czech Point services** and the number of **Electronic submissions** for the Financial Administration are included in this publication since 2015 and for the first time also data about electronic Data Boxes are part of this chapter.

Czech Point (an acronym which stands for Czech Filing Verification Information National Terminal in Czech) 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) or where each citizen is able to fill any application to public authorities.

**Electronic submission for the Financial Administration** is an application which allows e-filing of tax returns (eTax services) such as personal or corporate income taxes returns, value added tax return and sending other documents electronically to the public authorities.

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).

Individuals/Enterprises have used Internet, in the last 12 months/ in the last calendar year before the survey, for interaction with public authorities includes obtaining information from public authorities web sites, OR downloading official forms OR sending filled in forms.

- Obtaining information from web sites that includes searching to obtain any type of information from public authority web sites
- Downloading official forms includes downloading official forms mostly in the PDF format) from public authorities' websites for any purpose of use (e.g. for information or for requesting a service).
- Sending filled in (submitting completed) forms (an electronic submission) include completed forms sent via Internet (to public authorities' websites) only. 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/enterprise does not need to visit the authority personally. Forms downloaded, printed, filled in and sent by post or email should not be included in this category.

Information on the Internet use for interaction of individuals and enterprises with public authorities comes from two annual surveys of the CZSO on ICT use by individuals and by enterprises (for additional information see Chapters C and D of this publication).

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *Data from this database were extracted in April 2017. For more information see:* 

http://ec.europa.eu/eurostat/web/information-society and http://ec.europa.eu/eurostat/web/information-society/methodology

Tab. E1 Number of issued documents from the Czech Point

			thous.
	2014	2015	2016
Total	2 061	2 044	2 105
Verified copies, total	1 604	1 552	1 585
from the Criminal Records	755	808	900
from the Land (Real Estate) Register	376	349	320
from the Commercial Register	295	241	211
from the Driver Register	99	91	95
from the Trade License Register	78	62	60
Authorized conversion of documents, total	406	441	444
from electronic to paper form	310	302	284
from paper to electronic form	96	139	160
Other issued documents, total	51	51	76
Notification about Data Box activation	34	35	57

Figure E1 Number of issues from the Czech Point (thous.)

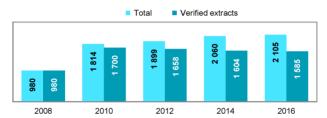
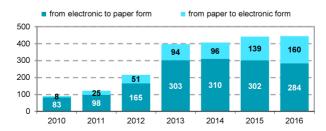


Figure E2 Verified copies from the Czech Point (thous.; %)



Figure E3 Czech Point - document conversions (thous.; %)



Source: Ministry of the Interior of the Czech Republic - www.czechpoint.cz, 2016

Tab. E2 Electronic Submissions for the Czech Financial Administration - E-Tax submissions in the Czech Republic

			thous.
	2014	2015	2016
Value Added Tax declaration	1 502	1 645	2 156
Road Tax declaration	86	147	204
Personal Income Tax declaration	72	147	227
Corporate Income Tax declaration	43	155	186
Real Estate Tax declaration	17	25	37

Figure E4 E-Tax submissions (thous.)

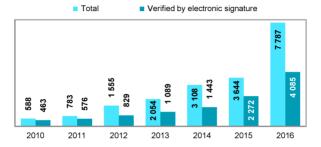
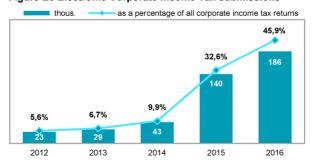


Figure E5 Electronic Personal Income Tax submissions



Figure E6 Electronic Corporate Income Tax submissions



Source: Czech Financial Administration, 2017

Tab. E3 Individuals in the Czech Republic using the Internet for interaction with public authorities; 2016

·	-		%
	Total	Downloading forms	Submitting forms on-line
Total (aged 16+)	34,0	14,8	11,3
Total (aged 16-74)	36,7	16,1	12,3
Gender:			
Males (aged 16+)	34,8	16,3	12,7
Females (aged 16+)	33,2	13,4	10,0
Age group:			
16-24 year-olds	26,7	8,3	6,7
25-34 year-olds	45,5	19,9	14,6
35-44 year-olds	48,2	24,2	17,2
45-54 year-olds	44,5	19,3	15,8
55-64 year-olds	29,9	12,9	10,6
65 year-olds and over	11,3	3,7	3,0
Education attainment level (aged 25	+):		
Basic	6,3	1,6	0,8
Secondary without A-level exam.	22,8	7,7	5,9
Secondary with A-level exam.			
or Higher professional	45,1	20,9	15,1
University	59,5	31,5	25,8
Specific groups:			
Women on maternity leave	46,6	21,0	14,5
Students (aged 16+)	24,3	8,4	6,0
Pensioners	11,4	3,1	2,5

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

Figure E7 Individuals using the Internet for interaction with public authorities by sex and age

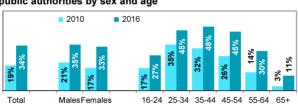
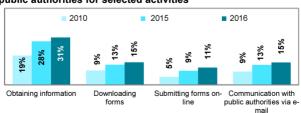


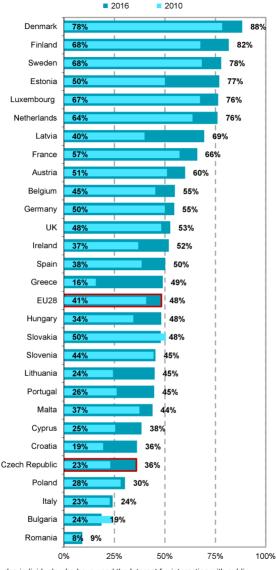
Figure E8 Individuals using the Internet for interaction with public authorities for selected activities



as a percentage of all individuals aged 16+

Source: Czech Statistical Office, ICT use survey in households

Figure E9 Individuals in EU countries using the Internet for interaction with public authorities\*; 2016



<sup>\*</sup>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

Tab. E4 Reasons why individuals in the Czech Republic did not submit forms to public authorities on-line; 2016

%

			70
	Do not use the Internet	Did not need to submit any form	Other reasons
Total (aged 16+)	25,4	50,8	23,8
Total (aged 16-74)	19,1	55,2	25,6
Gender:			
Males (aged 16+)	23,7	51,3	24,9
Females (aged 16+)	26,9	50,3	22,7
Age group:			
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
Education attainment level (aged	25+):		
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
Specific groups:			
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 E10 Reasons why individuals did not submit forms to public authorities on-line; 2016

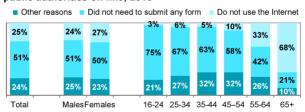
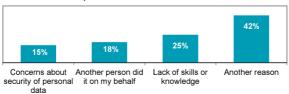


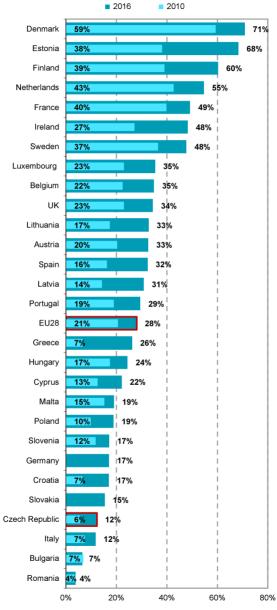
Figure E11 Other reasons for not submitting forms to public authorities on-line; 2016



as a percentage of individuals who had "other reasons" to not submit forms to public authorities on-line

Source: Czech Statistical Office, ICT use survey in households

Figure E12 Individuals in EU countries who submitted forms to public authorities on-line; 2016



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

Tab. E5 Enterprises in the Czech Republic using full electronic submissions for interaction with public administration

			%
	2013	2014	2015
Total (10+ employees)	78,5	86,3	88,3
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
Industry (NACE category):			
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 E13 Enterprises using the full electronic submissions for interaction with public administration

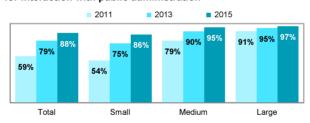
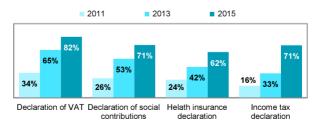


Figure E14 Enterprises treating the following administrative procedures completely electronically



as a percentage of all enterprises with 10+ employees

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

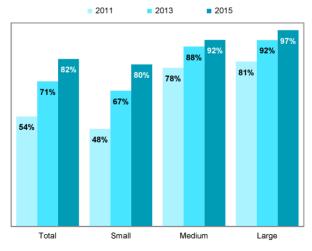
Tab. E6 Enterprises in the Czech Republic using Data Boxes for submitting forms to public authorities on-line

0/6

			%
	2013	2014	2015
Total (10+ employees)	71,3	80,5	82,3
Small enterprises (10-49)	66,7	77,3	79,6
Medium enterprises (50-249)	88,4	91,3	91,7
Large enterprises (250+)	91,6	95,6	96,5
Industry (NACE category):			
Manufacturing	72,8	80,5	83,4
Electricity, gas and water supply	72,4	88,4	90,8
Construction	68,6	84,7	78,1
Sale and repair of motor vehicles	83,0	90,0	92,0
Wholesale trade	78,8	85,7	87,3
Retail trade	55,0	62,7	69,1
Transport and storage	65,8	76,5	79,0
Accommodation	74,7	83,3	83,1
Food and beverage services	47,4	62,3	66,1
Travel agency and related activities	75,0	85,4	90,6
Media industries incl. publishing activities	85,4	93,9	95,9
Telecommunications	92,7	94,1	96,3
Computer programming and related activities	85,5	91,3	93,3
Real estate activities	82,5	87,3	91,6
Professional, scientific and technical activities	79,7	82,8	86,4
Administrative and support activities	65,5	78,5	86,4

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

Figure E15 Enterprises using Data Boxes for submitting forms to public authorities on-line



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

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

Tab. E6 Data Boxes newly registered in the Czech Republic

thous.

	2013	2014	2015
Total	55,9	66,7	65,4
Established by law	25,2	31,0	28,5
Established upon request	30,7	35,7	36,8
by type of entity			
Enterprise	26,0	32,6	30,4
Self-employed person	17,7	20,1	17,7
Other individual (citizen)	12,1	14,0	17,2
Public authority	0,0	0,1	0,1

Figure E16 Registration of Data Boxes by obligation (thous.)

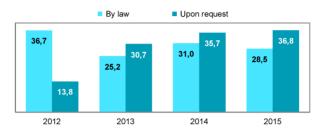


Figure E17 Registration of Data Boxes by entity/subject (thous.)

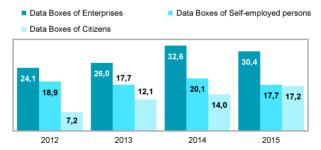
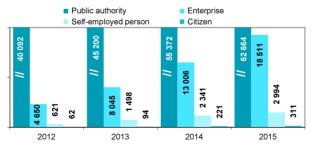


Figure E18 Number of transactions carried out via Data Boxes by type of entity/subject (thous.)



Source: Ministry of the Interior of the Czech Republic, 2016

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 nursery, basic, secondary and higher professional schools every year since 2005 (nursery school since 2014).

Reference period: 30/9 of the reference year

PISA 2015, survey conducted by OECD, have been used for international comparison. Questionnaires targeted on schools and questionnaires targeted on students have been used. Data presented in this chapter come from questionnaire targeted on 15-year-old students and present information on their usage of the Internet at schools.

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 present 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 were extracted in March 2017.

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 data for the whole adult population aged 16 and over. This is the reason why the tables in this publication give for the Czech Republic dual total values: total of 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)

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 ICT field of education come from the Ministry of education, youth and sports in the Czech Republic data sources.

ICT professionals (ISCO 25) refer to comprising analysts and software and computer applications developers and specialists in the field of databases and computer networks. ICT professionals are part of ICT specialists which include also ICT technicians (ISCO 35). Data on the numbers and structure of ICT professionals come from the Labour Force Sample Survey (LFS) of the Czech Statistical Office.

#### For more information on Eurostat database see:

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

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

Further information on Education and digital skills can be found at:

https://www.czso.cz/csu/czso/informacni technologie ve skolstvi

https://www.czso.cz/csu/czso/digitalni-dovednosti

https://www.czso.cz/csu/czso/lidske zdroje pro informacni technologie

Tab. F1 Computers available to students in the Czech Republic in the school year 2016/17

Number of devices per 100 students\*

	Desktop computer	Portable computer	Tablet
Total	11,6	1,8	1,5
First stage of basic schools	13,4	2,2	2,1
Second stage of basic schools	22,4	3,1	3,5
Secondary schools	20,2	2,5	1,6
Higher professional schools	39,1	3,4	1,1
with Internet access			
First stage of basic schools	13,2	2,2	2,1
Second stage of basic schools	22,3	3,1	3,4
Secondary schools	19,9	2,4	1,6
Higher professional schools	37,7	3,3	1,0

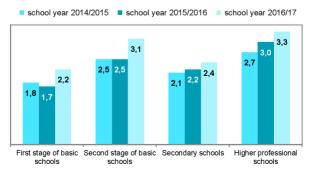
<sup>\*</sup> devices privately owned by students are not included

Tab. F2 Schools equipped with School wireless network (Wi-Fi) and Intranet during the school year 2016/17

	Number of schools	% of schools*
School wireless network (Wi-fi)		
First stage of basic schools	3 372	81,7
Second stage of basic schools	2 272	83,6
Secondary schools	1 168	89,4
Higher professional schools	169	90,9
School Intranet		
First stage of basic schools	835	20,2
Second stage of basic schools	775	28,5
Secondary schools	744	56,9
Higher professional schools	127	68,3

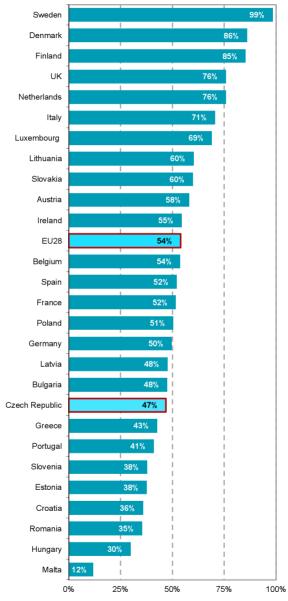
<sup>\*</sup> percentage of all schools of a given type

Figure F1 The number of portable computers with internet connection (per 100 students) in a given type of schools



Source: Ministry of Education, Youth and Sports of the Czech Republic, 2017

Figure F2 Schools in EU countries equipped with laptops or tablets (devices accesible for 15 years old students); 2015



as a percentage of all schools in a given country where are educated 15 years old students

Source: OECD, survey PISA, 2016

Tab. F3 15 years old students in the Czech Republic who has access to selected ICTs; 2015

%

	70
at home	at school
98,7	90,4
93,1	
87,5	28,6
82,9	79,5
68,4	22,7
26,2	12,9
70,8	
78,1	
	98,7 93,1 87,5 82,9 68,4 26,2 70,8

Figure F3 15 years old students having access to selected ICTs; 2015

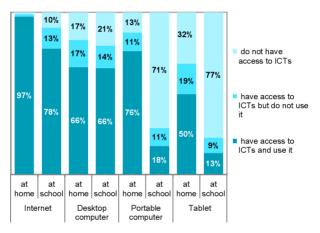
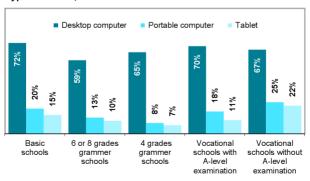


Figure F4 15 years old students using a computer at school by type of school; 2015



as a percentage of all 15 years old students in the Czech Republic

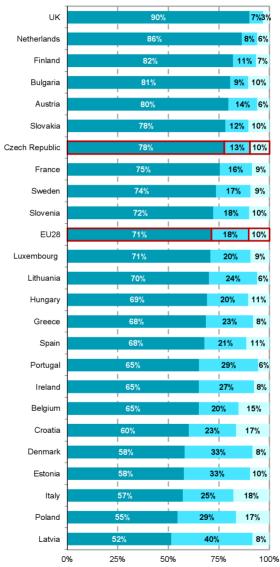
Source: OECD, survey PISA, 2016

Figure F5 15 years old students in EU countries with the Internet access at school; 2015



Have access to the Internet but do not use it

Do not have access to the Internet



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

Source: OECD, survey PISA, 2016

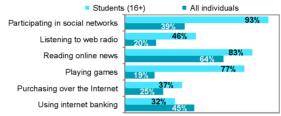
Tab. F4 Students in the Czech Republic aged 16+ using the Internet for selected activities: 2014-2016\*

0/

			%
	Total	Males	Females
Using the Internet	99,1	98,9	99,4
Using mobile connections	78,3	75,6	77,0
Using the Internet for learning activities:			
On-line course	5,8	4,6	7,1
Using on-line learning material	30,7	26,0	35,5
Communication with instructors or other students	27,1	25,1	29,2
Using the Internet for other activities:			
Participating in social networks	93,0	94,2	93,6
Listening to web radio	45,9	46,5	46,2
Reading online news	82,5	83,9	83,2
Telephoning over the Internet	65,4	65,0	65,2
Playing games	77,4	47,6	62,7
Searching for travel-related information	55,0	65,4	60,1
Watching TV	45,9	44,2	45,1
Purchasing over the Internet	37,0	36,9	36,9
Internet banking	32,4	33,8	33,1

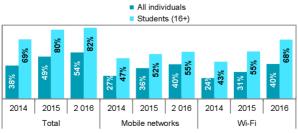
as a percentage of all students aged 16+ in a given group

Figure F6 Students and individuals aged 16+ using the Internet for selected activities; 2014-2016\*



<sup>\*</sup> numbers are moving average calculated for years 2014-2016 as a percentage of students and all individuals who have used the Internet in the last 3 months

Figure F7 Students and individuals aged 16+ accessing the Internet via mobile phone by type of connection



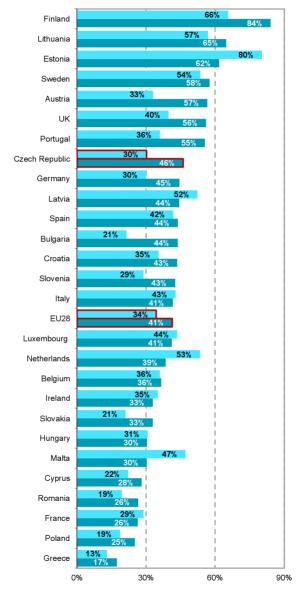
as a percentage of students and all individuals who have used the Internet in the last 3 months

Source: Czech Statistical Office, ICT use survey in households

120

Figure F8 Students in EU countries aged 16+ using the Internet for selected activities; 2016

- Communication with instructors or other students
- Using on-line learning material



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

Tab. F5 Individuals in the Czech Republic with selected computer skills; 2016

%

	70			
	Copying	Editing	Program-	
	files	photos*	ming	
Total (aged 16+)	52,8	19,3	2,9	
Total (aged 16-74)	57,0	21,0	3,2	
Gender:				
Males (aged 16+)	55,6	23,8	5,0	
Females (aged 16+)	50,1	15,0	0,9	
Age group:				
16-24 year-olds	83,1	41,3	5,6	
25-34 year-olds	74,2	30,8	5,1	
35-44 year-olds	65,6	25,5	3,7	
45-54 year-olds	56,3	15,5	3,1	
55-64 year-olds	41,4	10,4	1,1	
65 year-olds and over	16,0	3,3	0,4	
Education attainment level (aged 25+	):			
Basic	11,1	2,8	0,3	
Secondary without A-level exam. Secondary with A-level	31,6	8,7	0,6	
exam. or Higher professional	63,7	21,1	2,5	
University	83,6	34,4	8,8	
Specific groups:				
Women on maternity leave	68,1	23,8	1,0	
Students (aged 16+)	89,3	48,9	6,9	
Pensioners	16,7	3,6	0,3	

<sup>\*</sup> using software to edit photos, video or audio files as a percentage of all individuals in a given socio-demographic group

Figure F9 Photo editing software use by sex and age; 2016

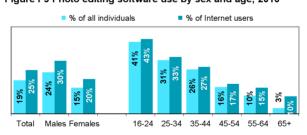
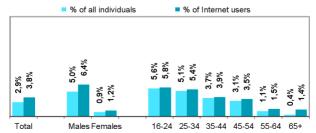
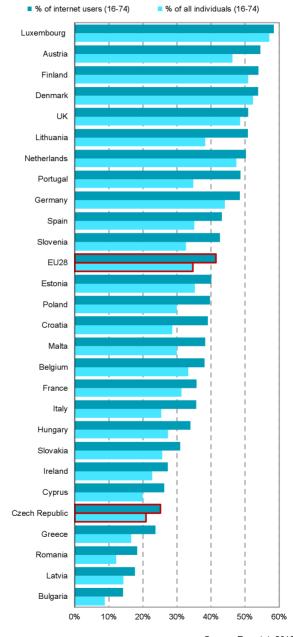


Figure F10 Programming by sex and age; 2016



Source: Czech Statistical Office, ICT use survey in households

Figure F11 Individuals in EU countries, who used specialised software to edit photos, video or audio files; 2016



Tab. F6 Individuals in the Czech Republic who declared they used selected Office software; 2016

	Word	Spread	Presentation		
	process.	sheet			
	software	software	software		
Total (aged 16+)	48,3	36,2	23,8		
Total (aged 16-74)	52,2	39,1	25,8		
Gender:					
Males (aged 16+)	49,8	38,6	26,4		
Females (aged 16+)	46,9	33,8	21,2		
Age group:					
16-24 year-olds	78,6	67,8	59,8		
25-34 year-olds	66,8	49,6	35,5		
35-44 year-olds	61,2	45,9	27,3		
45-54 year-olds	51,5	37,9	21,3		
55-64 year-olds	37,4	26,0	13,7		
65 year-olds and over	13,7	7,7	3,1		
Education attainment level (aged 25-	·):				
Basic	7,7	3,8	1,2		
Secondary without A-level exam.	26,2	14,8	6,3		
Secondary with A-level					
exam. or Higher professional	59,3	43,3	23,4		
University	80,5	68,2	52,7		
Specific groups:					
Women on maternity leave	58,2	38,4	23,0		
Students (aged 16+)	87,1	79,5	71,9		
Pensioners	13,7	7,1	2,6		

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

Figure F12 Word processing software use by sex and age; 2016

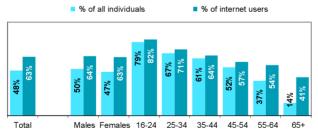
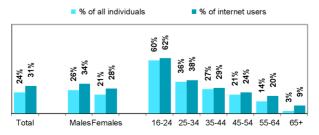
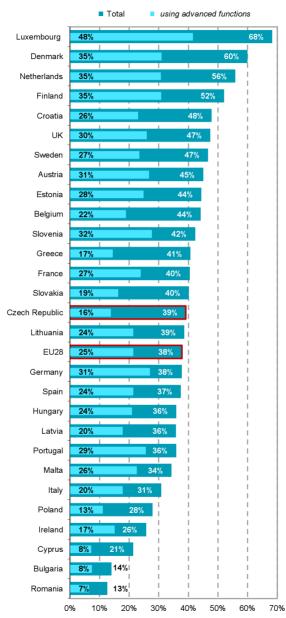


Figure F13 Presentation software use by sex and age; 2016



Source: Czech Statistical Office, ICT use survey in households

Figure F14 Individuals in EU countries who used spread sheet software (e.g. Excel); 2016



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

Tab. F7 Tertiary education students in the field of ICT (Computing) in the Czech Republic

number of students 2013 2014 2015 Total 23 897 22 899 21 935 Women 3 913 3 982 3 830 Field of education Computer science 18 416 17 770 17 122 Computers usage 5 521 5 159 4 832 Education level Higher professional 1 260 1 173 1 000 Bachelor programmes 15 876 14 976 14 295 Master programmes 5 681 5 683 5 576 Doctoral programmes 1 096 1 081 1 077 Nationality of students Czech Republic 20 042 18 803 17 559 Foreign 3 855 4 096 4 376

Figure F15 Tertiary education students of Computing

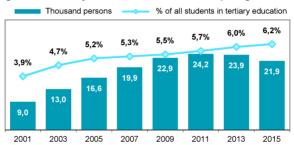


Figure F16 Tertiary students of Computing by education level

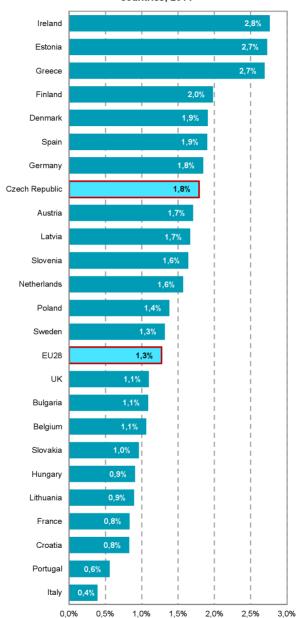


Figure F17 Tertiary students of Computing by sex



Source: The Ministry of Education, Youth and Sports in the Czech Rep., 2016

Figure F18 Tertiary education students of Computing in EU countries; 2014



as a percentage of total population aged 20 to 29 years in a given country

Tab. F8 ICT professionals in the Czech Republic

thousand of persons

	and define of percent			
	2014	2015	2016	
Total	63,3	66,3	71,8	
Women	6,8	6,7	6,5	
Occupation				
Software and apps developers				
and analysts	44,9	44,9	46,6	
Database and network professionals	18,4	21,4	25,2	
Age group:				
20-29 years	14,5	15,8	15,3	
30-39 years	25,4	25,5	28,2	
40-49 years	12,1	15,3	17,7	
50+ years	11,6	10,0	10,4	
Highest level of education attainment				
Secondary with A-level examination	10,0	10,6	11,2	
Bachelor's and Higher professional	11,1	9,9	10,3	
Master's and Doctoral	42,2	45,7	50,3	

Figure F19 ICT professionals

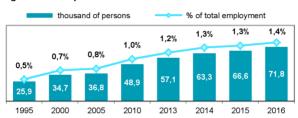


Figure F20 ICT professionals by sex



Figure F21 ICT professionals by level of education attainment



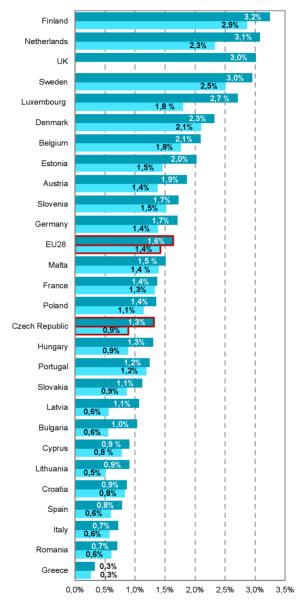
Figure F22 ICT professionals by age



Source: CZSO, Labour Force Survey

Figure F23 ICT professionals in EU countries; 2015

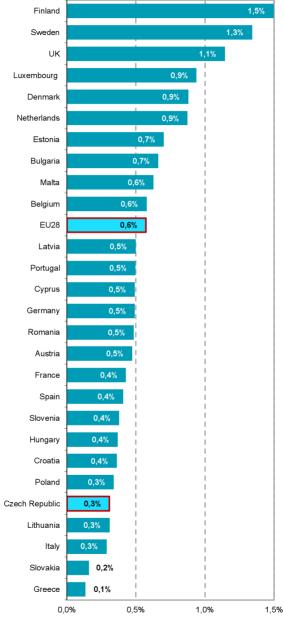
- ICT professionals, total (ISCO 25)
- Software and apps developers and analysts (ISCO 251)



as a percentage of total employment in a given country

Source: Eurostat, European Labour Force Survey, 2016

Figure F24 Women as ICT professionals in EU countries; 2015



as a percentage of all women employed in a given country

Source: Eurostat, European Labour Force Survey, 2016

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 CZSO in cooperation with the Institute of Health Information and Statistics of the Czech Republic (IHIS). This module has been conducted annually as a part of a mandatory yearly statement on employers, employees and other contracted workers.

#### Notes:

**Reference period:** End of the monitored year for ICT equipment of health establishments and entire reference year for internet activities undertaken by independent physicians.

Target facilities: Practices of independent physicians who answered the electronic questionnaire.

**Available breakdowns:** Data on the use of information and communication technologies by independent physicians are available by the type of practice.

#### 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).
- The Internet user any person who used the Internet at least once
  in the last three months preceding the interview anywhere (at
  home, at work, at school etc.) and for whatever reason (e.g.
  browsing of websites, downloading of files, using emails, private or
  work reasons) and using any devices (desktop computers,
  laptops, tablets or smartphones).
- Using the Internet for looking for health related information seeking information about diseases, treatment, diagnosis, prevention, healthy nutrition etc. on the Internet (at least once in the last 3 months and for personal use only).
- Storing of medical patient data on a computer or via the Internet - electronic medical documentation stored in a computer of physician or via the Internet which enables healthcare providers and professionals to exchange medical patient data.

Detailed regional breakdown data on ICT in health establishments can be found in chapter 18 of each **Regional yearbook**.

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

Data for international comparison of general practitioners comes from The **European Commission** online database. For more information see:

http://ec.europa.eu/digital-agenda/en/scoreboard

Information about **individuals** using Internet in relation to heath 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.

The **Eurostat** online database for **Information society statistics** has been used for the international comparison. *Data from this database were extracted in March 2017.* For more information see:

http://ec.europa.eu/eurostat/web/information-society and http://ec.europa.eu/eurostat/web/information-society/methodology

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

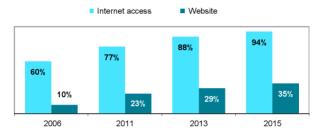
https://www.czso.cz/csu/czso/information\_technologies\_in\_the\_czech\_hea\_lth\_sector\_

Tab. G1 Selected ICTs used by independent physicians; 2015

	Computer	Internet	Website
Total	96,8	94,4	34,8
General practitioners (GP) for adults	97,2	95,4	33,5
General practitioners (GP) for children	96,8	96,4	50,7
Dentists	96,4	93,3	20,9
Gynecologists	97,8	96,9	55,9
Specialists	96,6	93,6	38,6

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

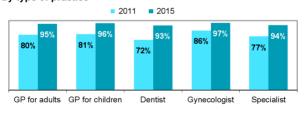
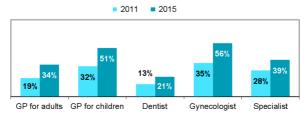


Figure G3 Independent physicians with a Website by type of practice



as a percentage of all independent physicians of a given practice

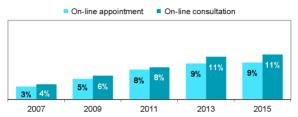
Source: Institute of Health Information and Statistics of the Czech Republic

Tab. G2 Applications for making appointments or consultation on independent physicians' websites in the Czech Rep.; 2015

		70
	On-line appointment	On-line consultation
Total	9,4	11,4
General practitioners (GP) for adults	11,2	10,2
General practitioners (GP) for children	16,1	22,4
Dentists	3,5	4,4
Gynecologists	19,6	27,0
Specialists	9,4	11,9

as a percentage of all independent physicians of a given practice

Figure G4 Applications on independent physicians' websites



as a percentage of all independent physicians

Figure G5 Applications for making on-line appointments on independent physicians' websites by type of practice

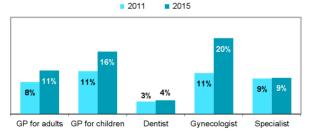
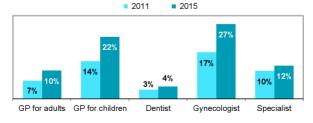


Figure G6 Applications for making on-line consultation on independent physicians' websites by type of practice



as a percentage of all independent physicians of a given practice

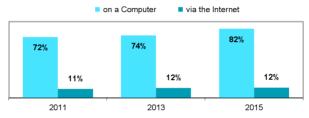
Source: Institute of Health Information and Statistics of the Czech Republic

Tab. G3 Independent physicians storing medical patient data on a computer or via the Internet in the Czech Republic; 2015

		70
	on a Computer	via the Internet
Total	81,6	12,3
General practitioners (GP) for adults	86,7	13,9
General practitioners (GP) for children	74,9	12,6
Dentists	74,8	9,6
Gynecologists	88,9	16,4
Specialists	84,5	12,5

as a percentage of all independent physicians of a given practice

Figure G7 Independent physicians storing medical patient data on a computer or via the Internet



as a percentage of all independent physicians

Figure G8 Independent physicians storing medical patient data on a computer by type of practice

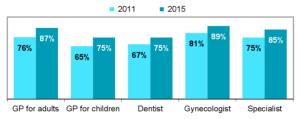
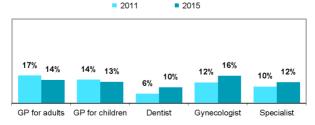


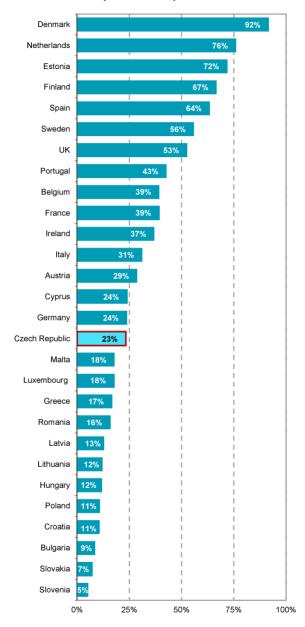
Figure G9 Independent physicians storing medical patient data via the Internet by type of practice



as a percentage of all independent physicians of a given practice

Source: Institute of Health Information and Statistics of the Czech Republic

Figure G10 GPs exchanging medical patient data with other healthcare providers and professionals; 2013



as a percentage of all general practitioners in a given country

Source: European Commission, 2015

Tab. G4 Individuals in the Czech Republic using on-line services in healthcare: 2016

%

	Looking for health related info	On-line consultation	On-line appointment	
Total (aged 16+)	42,7	4,0	8,1	
Total (aged 16-74)	45,8	4,3	8,8	
Gender:				
Males (aged 16+)	31,0	2,6	5,2	
Females (aged 16+)	53,8	5,3	10,9	
Age group:				
16-24 year-olds	33,8	2,7	7,2	
25-34 year-olds	50,3	5,0	11,8	
35-44 year-olds	53,4	6,5	12,2	
45-54 year-olds	53,6	4,9	10,3	
55-64 year-olds	43,9	3,0	6,1	
65 year-olds and over	22,8	1,6	1,9	
Education attainment level (aged 25+):				
Basic	15,1	0,8	1,5	
Secondary without A-level exam. Secondary with A-level exam.	33,5	2,1	3,4	
or Higher professional	56,2	5,4	11,4	
University	59,8	8,5	17,0	
Specific groups:				
Women on maternity leave	75,5	11,8	20,7	
Students (aged 16+)	34,3	1,7	7,0	
Pensioners	25,6	1,2	1,9	

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

Figure G11 Individuals looking for health related information via the Internet

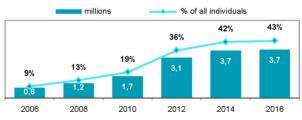
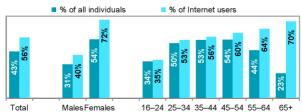
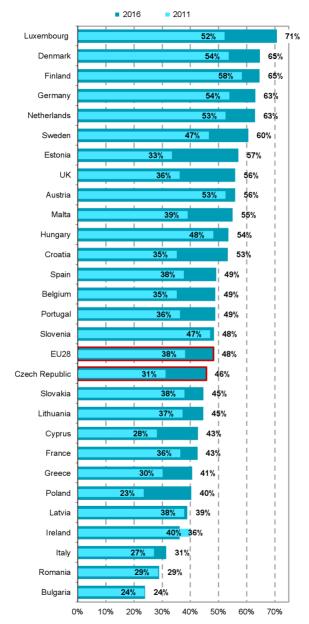


Figure G12 Individuals looking for health related information by sex and age; 2016



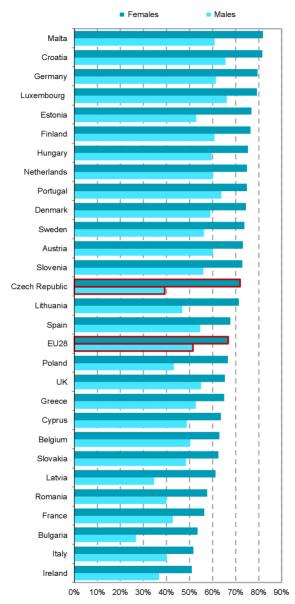
Source: Czech Statistical Office, ICT use survey in households

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



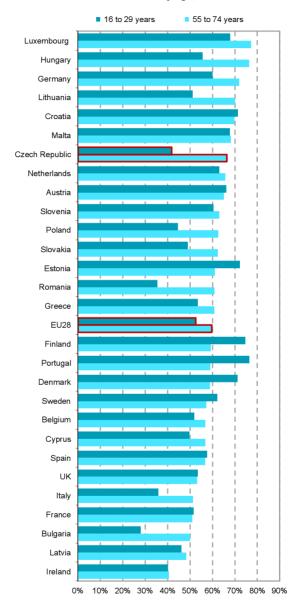
as a percentage of all individuals aged 16 to 74 in a given country

Figure G14 Internet users in EU countries looking for health related information by sex; 2016



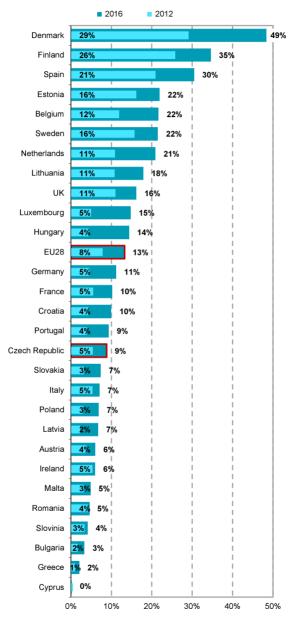
as a percentage of women and men internet users aged 16 to 74 in a given country

Figure G15 Internet users in EU countries looking for health related information by age; 2016



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

Figure G16 Individuals in EU countries, who made an on-line appointment with a practitioner



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