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# INFORMATION SOCIETY

# **IN FIGURES**

# 2014

CZECH REPUBLIC AND EU

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### INTRODUCTION

One year on, the Czech Statistical Office has again issued the publication **Information Society in Figures**, this time with the year 2014 in the title. The aim of this publication is to provide readers with up-to-date basic statistical information about the development of use of modern information and communication technologies (ICT) in the main areas of our society.

The brochure consists of the following six chapters:

- A. The ICT Infrastructure chapter contains basic data on the available telecommunication and broadband infrastructure. New data about broadband subscriptions by speed tires are included here.
- B. The Households chapter contains information on households' access to selected ICT. Information about ICT household consumption expenditure is also 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 with a main focus on buying online. Information about use of mobile devices to access the Internet is newly included here.
- D. The Enterprises chapter provides an overview on ICT use by enterprises with a main focus on e-commerce activities. New information related to usage of social media by enterprises is also added.
- E. The Public Authorities chapter provides information on ICT use by public authorities, on the provision of services via websites of public authorities and on the use of the Internet for interaction with public authorities by individuals and enterprises.
- F. The Health establishments chapter gives an overview of how well equipped independent physicians' offices are with information technologies. Data on the selected Internet activities of independent physicians and information on the use of the Internet by individuals for seeking health-related information are also included here.

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) and size. Data on ICT use in public authorities and health establishments are available according to their types.

In addition to data for the Czech Republic, in the majority of cases this publication also presents data for **other states of the European Union**.

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 based on freely available Eurostat, OECD or ITU data sources.

For further information, please visit our website titled **Information society**: <u>http://www.czso.cz/eng/redakce.nsf/i/information\_society</u>

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 annual publication **Information economy in figures** at: http://www.czso.cz/eng/redakce.nsf//information economy in figures

If you need any further information, do not hesitate to contact us directly. Your suggestions will be incentives for future releases.

Prague, May 2014

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### A ICT Infrastructure

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

Reference period: end of the year

#### Definitions:

- Fixed telephone subscription refers to a natural person or legal entity connected to the public switched telephone network (PSTN) including usage of IP telephony (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 a natural person 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 active SIM cards. Both post-paid and active prepaid SIM cards that have been used during the last three months are included.
- 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 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.
- Fixed (wired) broadband subscription by technology includes:
  - xDSL line is a technology using digital subscriber line (DSL) and enabling connectivity over ordinary copper telephone lines. It includes all DSL lines such as ADSL or VDSL.
  - Cable modem (CATV) internet service using a modem attached to a Hybrid Fiber Coaxial wiring originally developed to carry television signals (cable television network). Like xDSL, broadband cable provides a continuous connection with an ISP.
  - Fibre (FTTx) optical connections of the type of FTTH (Fibre to the Home), when the optical fibre takes the optical connectivity to the dwelling, and FTTB (Fibre to the Building), when the optical fibre takes the optical connectivity to the building only and indoor the connection is distributed by other means.
- Fixed (wireless) broadband subscription (FWA) is the terrestrial internet connection by means of a radio system both in licensed frequency bands (e.g. WiMAX) and in frequency bands with no licence required (Wi-Fi). It is characteristic by the placing of the end point device on a fixed location. It is included only if these services are used as the transport mechanism of the Internet service provider (ISP).
- Mobile broadband subscription by technology includes:
  - Standard mobile 3G subscription via SIM cards (only active use),
  - Dedicated data subscription based on 3G (CDMA or UMTS) standards offered separately from voice services, either as an add-on data package to voice service via SIM cards or a standalone service using data cards or mobile access sticks such as USB modems, dongles or keys integrated usually into portable PCs or tablets for continuous connection with an ISP.

Statistical information from the **Czech Telecommunication Office** (<u>http://www.ctu.eu</u>) was used as main data source for the Czech Republic.

The ITU online database was used for the international comparison. More information can be found at: <u>http://www.itu.int/ITU-D/ict/</u>

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

http://www.czso.cz/eng/redakce.nsf/i/telecommunication\_infrastructure\_and\_internet

### A ICT infrastructure

		t	hous./ mil.
	2010	2011	2012
PSTN lines (thous.)	1 889	1 683	1 515
Residential	989	888	765
Business	882	778	735
Public payphones	18	17	15
VoIP lines (thous.)	462	579	617
Residential	300	319	354
Business	162	260	263
Outgoing phone traffic - PSTN lines (mil. minutes)	2 418	2 156	1 897
National	2 274	2 028	1 786
International	144	128	111
National outgoing phone traffic - VoIP lines (mil. minutes)	489	546	527

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

#### Figure A1 Fixed telephone subscriptions - PSTN lines



#### Figure A2 Fixed telephone (PSTN) lines (million)



## Figure A3 Domestic outgoing telephone traffic in fixed telephone network (mil. minutes)



Source: Czech Telecommunication Office



### Figure A4 Fixed telephone subscriptions (per 100 inhabitants, PSTN and VoIP lines)

Source: International Telecommunication Union

### A ICT infrastructure

#### Tab. A2 Mobile telephone network in the Czech Republic

			thous./ mil.
	2010	2011	2012
Subscriptions (thous. active SIM cards)	14 359	14 215	14 456
Pre-paid cards	7 072	6 620	6 548
Post-paid cards	7 287	7 595	7 908
Outgoing mobile phone traffic (mil. min.)	14 954	15 541	16 169
National	14 638	15 209	15 862
International	316	332	307

#### Figure A5 Mobile telephone subscriptions - Active SIM cards



### Figure A6 Mobile telephone subscriptions by type of used SIM card (million)







Source: Czech Telecommunication Office



### Figure A8 Mobile phone subscriptions (active SIM cards per 100 inhabitants)

Source: International Telecommunication Union

### A ICT infrastructure

Subscriptions (thous			
	2010	2011	2012
Fixed wired broadband, total	1 534	1 670	1 767
By technology:			
DSL (ADSL) lines	859	918	951
Cable modem (CATV)	481	516	523
Fibre (FTTx)	194	236	293
By connection speed:			
< 2 Mbit/s	45	38	5
≥ 2 Mbit/s < 10 Mbit/s	941	882	781
≥ 10 Mbit/s < 100 Mbit/s	538	733	938
≥ 100 Mbit/s	10	17	43
Fixed wireless broadband, total	713	847	985
By connection speed:			
< 2 Mbit/s	147	96	75
≥ 2 Mbit/s < 10 Mbit/s	514	614	641
≥ 10 Mbit/s < 100 Mbit/s	52	137	265
≥ 100 Mbit/s	0	0	4
Mobile broadband, total	.	4 569	4 643
Dedicated data subscriptions for stand-alone			
services via data cards/keys only	542	578	647
Dedicated data subscriptions via SIM cards provided independently of voice services		1 353	2 133
Internet access using standard mobile subscription via SIM cards		2 638	1 863

#### Tab. A3 Broadband network in the Czech Republic

#### Figure A9 Permanent broadband subscriptions\*



\* Does not include mobile connection via SIM cards

#### Figure A10 Fixed wired broadband subscriptions



Source: Czech Telecommunication Office



## Figure A11 Fixed wired broadband subscriptions (per 100 inhabitants)

Note: Does not include fixed wireless access (FWA, WiFi) and mobile broadband connections.

Source: ITU Database 2013





Source: ITU Database 2013

### **B** Households

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."

This survey is conducted as an annex to the Labour Force Survey (LFS) using a **Computer Assisted Personal Interviewing (CAPI)** as a collection method. In line with the LFS methodology, the results are weighted on the whole targeted population of the Czech Republic.

Reference period: 2nd quarter of a monitored year

Sample size: 5 000 households

Comparability of data published by the CZSO and Eurostat: The data for the Czech Republic published by Eurostat differ slightly from the 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. As a standard, the CZSO publishes data for all households without age restrictions. This is reason why the tables in this publication for the Czech Republic give dual values: total and total (16-74).

#### 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. Computer refers here to a desktop or
  portable (including tablets) computer. Computers that are not owned by
  the household but can be at a member's disposal for personal use at
  home (e.g. notebook from work) are also included.
- 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.
- Broadband connection includes one of the following Internet access services: xDSL (ADSL etc.) lines, Cable modem (CATV), Fixed wireless connection (FWA, Wi-Fi), Mobile connection, Fibre (FTTx) and other connections that enable a connection 256 or more kbit/s, in one or both directions. Definitions of respective types of broadband connections are given in explanatory notes to the Chapter A.

Regional data can be found in chapter 18 of each Regional yearbook. http://www.czso.cz/eng/edicniplan.nsf/aktual/ep-1#10

The CZSO's Household Budget Survey (HBS) acts as a supplementary source of information about for this chapter. From this source originates data about households with fixed and mobile telephones and ICT household expenditures. More information on the HBS can be found at: http://www.czso.cz/csu/2013edicniplan.nsf/engpubl/3001-13-eng r 2013

**ICT related expenditures** are subdivided into two main categories using Classification of individual consumption according to purpose (COICOP):

- ICT services (telecommunication) expenditures:
  - Fixed phone services (08.3.0.1)
  - Mobile phone services (08.3.0.2)
  - Internet connection services (08.3.0.3)
- ICT equipment expenditures:
  - Telephone equipment (08.2)
  - Information processing equipment (09.1.3)

The **Eurostat** online database for **Information society statistics** together with results from the Eurobarometer 362 **E-Communications Household Survey** were used for the international comparison.

#### Further information on ICT in households can be found at:

http://www.czso.cz/csu/redakce.nsf/i/domacnosti a jednotlivci http://www.czso.cz/eng/redakce.nsf/i/households expenditures on ict

			%
	2010	2011	2012
Total	24,2	23,4	21,8
Household type:			
Households without children	27,2	26,4	25,1
Households with children	18,7	18,0	15,5
Economic status of the head of househo	ld:		
Employee	18,8	17,5	16,5
Self-employed	25,2	25,2	23,7
Unemployed	15,3	16,6	10,0
Pensioner	34,0	33,3	30,6
Age of the head of household:			
Till 29 years	4,1	1,7	3,7
30 - 39 years	10,0	9,0	7,4
40 - 49 years	20,6	21,6	18,9
50 - 59 years	25,7	23,0	20,8
60 - 69 years	28,1	28,6	28,5
70 and more years	42,5	40,9	36,4

#### Tab. B1 Households with a fixed telephone in the CR

as a percentage of all households in a given group



#### Figure B1 Households with a fixed telephone line

#### Figure B2 Households with fixed and mobile telephone



as a percentage of all households





as a percentage of all households

Source: E-Communications Household Survey, Eurobarometer

Tab. B2 Households with a mo	bile phone in the	Czech Republic
------------------------------	-------------------	----------------

			%
	2010	2011	2012
Total	96,8	97,4	97,8
Own (in households ownership)	95,6	96,2	97,0
Business (from work)	10,2	10,2	10,6
Household type:			
Households without children	93,9	94,9	95,7
Households with children	98,8	98,6	99,2
Economic status of the head of household:			
Employee	98,0	97,8	98,5
Self-employed	94,4	95,4	96,5
Unemployed	94,4	94,8	96,5
Pensioner	91,6	93,8	94,3
Age of the head of household:			
Till 29 years	98,6	98,0	99,3
30 - 39 years	98,3	97,7	98,5
40 - 49 years	97,1	98,2	98,6
50 - 59 years	97,0	96,2	97,4
60 - 69 years	95,1	95,8	96,3
70 and more years	89,2	92,4	93,5

as a percentage of all households in a given group









Source: Czech Statistical Office, Household Budget Survey



Figure B6 Households with a mobile phone; 2011

as a percentage of all households

Source: E-Communications Household Survey, Eurobarometer

#### Tab. B3 Households with a computer in the Czech Republic

			%
	2011	2012	2013
Total	64,8	67,3	68,1
Total (16–74 years)	70,3	72,5	73,9
Household type:			
Households without children	56,3	58,5	58,8
Households with children	86,8	91,1	92,3
Income of household:			
the lowest income (first quartile)	26,5	26,2	30,4
second quartile	50,3	52,8	52,4
third quartile	80,4	86,0	87,6
the highest income (fourth quartile)	93,7	94,8	95,5

as a percentage of all households in a given group

#### Figure B7 Households with a computer



#### Figure B8 Households with a computer by type of household



as a percentage of all households in a given group

#### Figure B9 Type and number of computers used in households



as a percentage of all households with a computer at home



#### Figure B10 Households with a computer

as a percentage of all households with at least one member aged 16 to 74 Source: Eurostat 2014

Tab. B4 Households v	vith Internet access	in the Czech	n Republic
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			%
	2011	2012	2013
Total	61,7	65,4	67,0
Total (16–74 years)	66,6	70,6	72,6
Household type:			
Households without children	53,1	56,5	57,4
Households with children	84,2	89,6	91,5
Income of household:			
the lowest income (first quartile)	23,7	23,6	29,0
second quartile	46,3	49,7	50,5
third quartile	77,0	84,7	86,4
the highest income (fourth quartile)	92,2	93,9	94,9

as a percentage of all households in a given group

#### Figure B11 Households with Internet access



#### Figure B12 Type of internet connection(s) used by households

xDSL line Cable modem (CATV) Fixed wireless access (FWA, Wi-Fi) Dial-up, ISDN line 50% 48% 26% 23% 25% 22% 22% 3% % 8% \$ 4% 4% 2006 2008 2010 2012 2013

as a percentage of households with Internet access



Figure B13 Households with Internet access

as a percentage of all households with at least one member aged 16 to 74 Source: Eurostat 2014

#### Tab. B5 Households expenditure on ICT in the Czech Republic

Averages per household member		CZ	K per year	
	2010 2011 2012			
Total	7 062	6 731	6 511	
ICT equipment	2 091	1 774	1 556	
ICT services	4 971	4 957	4 955	
Income of household:				
With the lowest income (lowest decile)	4 347	3 939	4 318	
With the highest income (highest decile)	11 880	10 837	10 148	

#### Figure B14 Household expenditure on ICT



#### Figure B15 Household expenditure on ICT by type of product



#### Figure B16 Household expenditure on ICT services by type of service



Source: Czech Statistical Office, Household Budget Survey

### C Individuals

Since 2002 the Czech Statistical Office (CZSO) has been regularly collecting detailed information on the users of mobile telephones, personal computers and the Internet by an independent annual statistical survey titled: "Sample Survey on ICT Use in Households and by Individuals".

This survey is conducted as an annex to the Labour Force Survey (LFS) using a **Computer Assisted Personal Interviewing (CAPI)** as a collection method. In line with the LFS methodology, the results are weighted on the whole targeted population of the Czech Republic.

Since 2006, the survey has been conducted according to the annual implementing measures of the **Framework Regulation (EC) no. 808/2004** concerning statistics on the information society that ensure data harmonisation and comparability among EU countries.

**Reference period:** Unless stipulated otherwise, the data for individuals generally pertains to the last three months from the moment of the interview (since 2005 it is a 2nd quarter of a monitored year),

Sample size: 10 000 individuals aged 16+

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

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

#### Definitions:

- ICT user: person who used mobile phone/computer/Internet at least once in the last 3 months preceding the interview from any location (home, work, school, etc.) and for any purpose (personal use, work related use etc.). Computer and internet is defined in chapter B
- The Internet use shall mean any activity on the Internet carried out in an active manner, for instance, browsing of webpages, downloading of files, using emails, from any location (household, school, work, etc.) for any purpose (private, work, etc.) both on computers (including portable ones), tablets or mobile phones.
- Internet activities monitored are activities on the Internet, which
  respondents carried out for private purposes in the last three months
  before the survey implementation date. Only the cases of an on-line
  purchase and the Internet use in the interaction with public
  administration have the reference period of twelve months before the
  survey implementation date.
- A purchase over the Internet (buying on the Internet) shall mean the on-line ordering of goods or services over the Internet for private use. The placing of orders is done on websites of sellers or webshops. Delivery and payment via electronic means is not a requirement for an order via Internet.

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *Data from this database were extracted in March 2014.* 

Data on ICT use by individuals classified by **gender** of the respondents can be found in the publication titled: **"Focused on Men and Women**". http://www.czso.cz/csu/2013edicniplan.nsf/engpubl/1413-13-eng\_r\_2013

Further information on ICT use by individuals can be found at: http://www.czso.cz/csu/redakce.nsf/i/domacnosti a jednotlivcj

			70
	2011	2012	2013
Total (aged 16+)	93,9	96,0	96,0
Total (aged 16–74)	96,9	98,2	98,3
Gender:			
Males (aged 16+)	95,7	96,8	96,7
Females (aged 16+)	92,3	95,2	95,4
Age group:			
16–24 years	98,7	99,9	99,8
25–34 years	99,2	99,5	99,7
35–44 years	99,4	99,6	99,8
45–54 years	99,1	98,1	99,0
55–64 years	94,9	97,4	97,6
65 and more years	74,8	83,8	89,9
Highest education level (aged 25+):			
Basic	77,2	83,1	84,0
Lower secondary (ISCED 3C)	93,7	96,1	95,4
Upper secondary (ISCED 3A and 4)	96,1	97,7	97,9
Tertiary (ISCED 5-6)	97,5	98,8	98,3
Specific categories:			
Students (aged 16+)	98,7	99,9	99,7
Pensioners	79,6	86,6	86,7

0/

#### Tab. C1 Individuals using a mobile phone in the CR

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



#### Figure C1 Individuals using a mobile phone

#### Figure C2 Individuals using a mobile phone by gender and age



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

			%
	2011	2012	2013
Total (aged 16+)	67,1	69,5	70,2
Total (aged 16–74)	72,2	75,0	75,7
Gender:			
Males (aged 16+)	70,7	72,5	72,8
Females (aged 16+)	63,7	66,6	67,7
Age group:			
16–24 years	95,4	96,3	96,5
25–34 years	88,3	92,7	91,6
35–44 years	86,3	88,2	91,0
45–54 years	73,6	79,4	81,2
55–64 years	48,6	56,2	57,6
65 and more years	18,2	17,3	18,9
Highest education level (aged 25+):			
Basic	19,7	22,7	20,7
Lower secondary (ISCED 3C)	51,9	56,6	57,5
Upper secondary (ISCED 3A and 4)	76,7	81,5	80,2
Tertiary (ISCED 5-6)	92,4	91,3	90,3
Specific categories:			
Students (aged 16+)	98,7	99,6	98,7
Pensioners	21,4	20,9	23,5

#### Tab. C2 Individuals using a computer in the Czech Republic

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









			%
	2011	2012	2013
Total (aged 16+)	65,5	69,5	70,4
Total (aged 16–74)	73,0	75,1	76,0
Gender:			
Males (aged 16+)	69,2	72,3	73,1
Females (aged 16+)	61,9	66,8	67,9
Age group:			
16–24 years	94,8	96,2	96,9
25–34 years	87,4	92,9	91,8
35–44 years	84,1	89,0	91,2
45–54 years	72,0	79,4	81,2
55–64 years	46,3	56,0	58,0
65 and more years	16,3	16,8	19,0
Highest education level (aged 25+):			
Basic	18,6	22,3	20,3
Lower secondary (ISCED 3C)	49,6	56,8	58,2
Upper secondary (ISCED 3A and 4)	74,9	81,5	80,2
Tertiary (ISCED 5-6)	91,3	91,4	90,2
Specific categories:			
Students (aged 16+)	98,2	99,6	98,9
Pensioners	19,7	20,5	23,4

#### Tab. C3 Individuals using Internet in the Czech Republic

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



#### Figure C5 Individuals using Internet

#### Figure C6 Individuals using Internet by gender and age





#### Figure C7 Individuals using Internet

as a percentage of all individuals aged 16 to 74

Source: Eurostat 2014

### C Individuals

Tab. C4 Individuals using mobile or portable devices to access the Internet in the Czech Republic, 2013

			%
	Mobile	Notebook	Tablet
	phone		
lotal (aged 16+)	20,7	15,4	1,6
Total (aged 16–74)	22,4	16,7	1,7
Gender:			
Males (aged 16+)	26,4	18,5	1,8
Females (aged 16+)	15,3	12,5	1,4
Age group:			
16–24 years	50,5	36,5	5,0
25–34 years	38,6	23,5	3,2
35–44 years	25,5	20,9	1,8
45–54 years	14,2	12,4	0,8
55–64 years	4,9	6,2	
65–74 years	2,0	1,1	
Highest education level (aged 25+):			
Basic	1,5	1,7	
Lower secondary (ISCED 3C)	8,9	4,7	0,7
Upper secondary (ISCED 3A and 4)	19,7	15,6	1,3
Tertiary (ISCED 5-6)	37,2	32,8	2,2
Specific categories:			
Students (aged 16+)	54,3	45,3	5,4
Pensioners	1,3	1,2	

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

#### Figure C8 Individuals using mobile phone to access the Internet



## Figure C9 Individuals using mobile phone to access the Internet by gender and age; 2013







as a percentage of all individuals aged 16 to 74

Source: Eurostat 2014

			%
	2011	2012	2013
Total (aged 16+)	28,0	30,6	34,4
Total (aged 16–74)	30,2	33,2	37,3
Gender:			
Males (aged 16+)	29,0	31,5	35,6
Females (aged 16+)	26,9	29,8	33,4
Age group:			
16–24 years	40,5	46,3	53,9
25–34 years	48,0	54,3	58,3
35–44 years	39,3	43,1	46,9
45–54 years	25,3	27,9	32,4
55–64 years	13,1	15,7	19,8
65 and more years	3,7	3,9	4,5
Highest education level (aged 25+):			
Basic	5,4	6,0	5,4
Lower secondary (ISCED 3C)	16,4	18,7	21,3
Upper secondary (ISCED 3A and 4)	32,9	38,5	41,4
Tertiary (ISCED 5-6)	51,3	50,7	53,8
Specific categories:			
Students (aged 16+)	40,9	46,9	54,4
Pensioners	4,4	4,2	6,2

#### Tab. C5 Individuals buying on the Internet in the CR

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

#### Figure C11 Individuals buying on the Internet



## Figure C12 Individuals buying on the Internet by gender and age; 2013





Figure C13 Individuals buying on the Internet

as a percentage of all individuals aged 16 to 74

Source: Eurostat 2014

			%
	2011	2012	2013
Communication activities			
Sending or receiving e-mails		65,0	66,0
Making telephone calls over the Internet	31,7	37,3	
Participation in social networks	24,6	31,0	34,3
Writing messages to any chat rooms (chatt)	20,6	24,0	
Information search on			
Goods and services	51,6	58,2	60,0
Travel and accommodation	35,0	40,6	41,3
Culture	35,0	41,7	
Health	29,0	36,2	38,5
Leisure activities			
Reading on-line news, newspaper, magaz.	49,5	58,9	60,1
Watching movies, short films, videos	27,3	32,2	36,3
Playing or downloading games		16,4	17,3
Listening to Web radios	19,1	21,6	21,5
Watching Web television	17,4	20,0	20,7
Internet services			
Internet banking	27,4	32,3	39,3
Selling of goods or services	10,1	11,3	15,9

#### Tab. C6 Internet activities of individuals in the Czech Republic

as a percentage of all individuals aged 16+

#### Figure C14 Individuals using social networks; 2013



#### Figure C15 Individuals using internet banking; 2013



### D Enterprises

Since 2002, the Czech Statistical Office (CZSO) has been regularly monitoring developments in usage of information technologies by enterprises with 10 and more employees in selected industries by using an independent annual statistical survey titled: "Survey on the Use of ICT in the Business Enterprise Sector".

In 2013 this survey was conducted in the first quarter, with the response size of approximately **6 500 enterprises with 10 or more employees**. The resulting data was then extrapolated to the entire population of enterprises in the Czech Republic (40 thousands enterprises).

Since 2006, the survey has been conducted according to the annual implementing measures of the **Framework Regulation (EC) no. 808/2004** concerning statistics on the information society that ensure data harmonisation and comparability among EU countries.

**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: 8 000 enterprises with 10 and more persons employed

#### Data comparability:

- The data since 2008 (January 2009) are not fully comparable with data for previous years. This difference is due to implementation of new NACE classification.
- The data for the Czech Republic presented by Eurostat may differ slightly from data presented by the CZSO. This difference is due to the fact that Eurostat does not include, as part of the data it publishes, enterprises from the financial sector.

#### Definitions:

- Broadband see definitions in Chapter A of this publication
- Electronic commerce shall mean purchases or sales (placing or accepting orders) via Internet or other computer networks through websites (Web e-commerce) or using the electronic data interchange (EDI e-commerce), regardless the method of payment or delivery. Purchases (sales) implemented on the basis of orders prepared from information obtained on the Internet but placed in a traditional way (by phone, fax, or written order) or by e-mail are not included.
- 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.)
- 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.
- Homeworker is defined here as a person working at least half day per week from their homes (home office) or from other premises of their choosing other than the workplace, for remuneration, by using ICT to conduct and deliver results of a product or service specified by the employer.
- Intranet is an internal company communications network using Internet protocol allowing communications within an organisation.

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *Data from this database were extracted in March 2014.* 

Further information on ICT usage by enterprises can be found at: http://www.czso.cz/csu/redakce.nsf/i/podnikatelsky\_sektor

			%
		downloa	d speed
	Total	at least 2	at least 30
		Mb/s	Mb/s
Total (10 and more employees)	96,3	90,4	18,0
Small enterprises (10-49)	95,6	88,9	17,7
Medium enterprises (50-249)	99,1	96,1	17,6
Large enterprises (250+)	99,7	97,7	27,8
NACE category:			
Manufacturing	97,8	91,4	14,4
Electricity, gas and water supply	95,3	89,6	16,6
Construction	96,9	90,6	17,5
Sale and repair of motor vehicles	97,2	93,5	18,8
Wholesale trade	98,0	91,2	17,9
Retail trade	89,8	82,3	14,1
Transport and storage	97,4	91,4	17,7
Accommodation	97,1	90,9	21,2
Food and beverage services	88,9	83,9	17,9
Travel agency and related activities	99,0	97,0	29,9
Media industries incl. publishing activ.	99,0	98,0	32,0
Telecommunications	99,1	99,1	68,1
Computer programm. and related activ.	99,2	98,1	34,9
Financial and insurance activities	99,3	97,8	34,9
Real estate activities	97,6	89,4	22,0
Professional, scient. and technical activ.	98,3	93,7	25,2
Administrative and support activities	92,3	88,1	19,3

#### Tab. D1 Enterprises with Internet access in the CR; 2013

as a percentage of all enterprises in a given group

#### Figure D1 Speed of Internet connection used by enterprises\*



\* Maximum contracted download speed of the fastest fixed Internet connection used by enterprise

## Figure D2 Type of broadband connection(s) used by enterprises; 2013



Note: Multiple responses allowed

as a percentage of enterprises with Internet access

Source: Czech Statistical Office, Enterprise Survey on ICT Use



Figure D3 Enterprises with broadband access; 2013

Source: Eurostat 2014

as a percentage of all enterprises

Tab. D2 Ente	rprises with	a Website in	the CR; 2013
--------------	--------------	--------------	--------------

			%
	Total	Available in foreign language	Created by external company
Total (10 and more employees)	80,2	34,0	67,1
Small enterprises (10-49)	77,0	27,6	64,4
Medium enterprises (50-249)	92,5	56,2	79,1
Large enterprises (250+)	92,4	71,2	73,5
NACE category:			
Manufacturing	82,2	45,6	68,7
Electricity, gas and water supply	80,5	24,3	68,4
Construction	80,1	12,8	69,7
Sale and repair of motor vehicles	91,4	19,7	80,1
Wholesale trade	91,6	36,3	77,7
Retail trade	57,0	11,8	48,4
Transport and storage	66,1	30,5	56,1
Accommodation	94,0	79,7	86,5
Food and beverage services	70,0	28,0	62,1
Travel agency and related activities	97,0	50,8	80,6
Media industries incl. publishing activ.	96,9	45,0	65,7
Telecommunications	95,2	28,6	50,3
Computer programm. and related activ.	93,8	61,9	43,8
Financial and insurance activities	94,3	56,4	81,6
Real estate activities	84,7	23,2	71,0
Professional, scient. and technical activ.	84,8	47,6	68,9
Administrative and support activities	71,8	23,8	63,9

as a percentage of all enterprises in a given group

#### Figure D4 Enterprises with a Website



### Figure D5 Sales related applications available on enterprises' websites; 2013



as a percentage of all enterprises in a given size class

Source: Czech Statistical Office, Enterprise Survey on ICT Use



#### Figure D6 Enterprises with a Website

as a percentage of all enterprises

Source: Eurostat 2014

			70
	Total	Via websites	Using EDI
Total (10 and more employees)	30,2	8,7	21,5
Small enterprises (10-49)	17,0	8,2	8,7
Medium enterprises (50-249)	22,5	11,3	11,2
Large enterprises (250+)	38,8	7,7	31,1
NACE category:			
Manufacturing	31,4	8,0	23,4
Electricity, gas and water supply	40,8	7,1	33,7
Construction	12,7	7,4	5,4
Sale and repair of motor vehicles	61,3	20,0	41,3
Wholesale trade	21,4	9,1	12,4
Retail trade	53,8	12,1	41,6
Transport and storage	7,3	5,0	2,3
Accommodation	11,7	7,7	3,9
Food and beverage services	13,3	8,4	4,9
Travel agency and related activities	35,1	18,4	16,7
Media industries incl. publishing activ.	19,1	14,2	4,9
Telecommunications	49,7	4,0	45,7
Computer programm. and related activ.	45,0	23,7	21,3
Real estate activities	9,1	7,8	1,3
Professional, scient. and technical activ.	11,8	8,9	2,9
Administrative and support activities	25,3	13,6	11,6

Tab. D3 Value of e-purchases in the Czech Republic; 2012

07

as a percentage of the total financial value of all enterprises' purchases

#### Figure D7 Enterprises placing e-orders\*



\* Includes all enterprises that during the reference year placed at least one electronic order over the Internet or any other computer network to buy any good or service.

as a percentage of all enterprises in a given size class

#### Figure D8 Value of enterprises' e-purchases



as a percentage of the total financial value of all enterprises' purchases Source: Czech Statistical Office, Enterprise Survey on ICT Use



#### Figure D9 Enterprises placing e-orders; 2012

as a percentage of all enterprises

Tab. I	D4 Value	of e-sales	in the	Czech	Republic:	2012

			%
	Total	Via websites	Using EDI
Total (10 and more employees)	24,6	5,0	19,6
Small enterprises (10-49)	11,7	4,7	7,0
Medium enterprises (50-249)	15,9	6,5	9,3
Large enterprises (250+)	33,3	4,5	28,9
NACE category:			
Manufacturing	34,3	2,1	32,2
Electricity, gas and water supply	31,0	4,4	26,6
Construction	4,2	0,9	3,3
Sale and repair of motor vehicles	30,5	9,9	20,5
Wholesale trade	22,4	9,3	13,1
Retail trade	9,4	6,8	2,6
Transport and storage	20,7	5,9	14,8
Accommodation	31,3	23,1	8,1
Food and beverage services	3,2	2,3	0,9
Travel agency and related activities	37,2	20,8	16,5
Media industries incl. publishing activ.	17,7	10,5	7,2
Telecommunications	54,7	54,2	0,5
Computer programm. and related activ.	15,3	6,9	8,4
Real estate activities	3,6	2,4	1,2
Professional, scient. and technical activ.	2,7	1,7	1,0
Administrative and support activities	14,5	7,2	7,3

as percentage of turnover

#### Figure D10 Enterprises receiving e-orders\*



\* Includes all enterprises that during the reference year received at least one electronic order over the Internet or any other computer network. as a percentage of all enterprises in a given size class

#### Figure D11 Value of enterprises' e-sales



Source: Czech Statistical Office, Enterprise Survey on ICT Use



## Figure D12 Enterprises receiving e-orders via computer networks; 2012

as a percentage of all enterprises

Source: Eurostat 2014

Tab. D5 Employees	using selected ICT	at work in the CR; 2013
-------------------	--------------------	-------------------------

			%
		Computer	Portable
	Computer	with	computer
	Computer	Internet	or Smart
		access	phone
Total (10 and more employees)	44,3	36,9	13,5
Small enterprises (10-49)	44,7	41,8	15,4
Medium enterprises (50-249)	42,3	37,3	13,2
Large enterprises (250+)	45,3	34,2	12,9
NACE category:			
Manufacturing	38,8	29,1	9,6
Electricity, gas and water supply	47,6	43,3	14,2
Construction	37,7	36,1	16,4
Sale and repair of motor vehicles	64,0	57,4	15,4
Wholesale trade	62,4	57,1	24,0
Retail trade	43,0	28,9	4,6
Transport and storage	37,4	25,6	7,5
Accommodation	34,3	30,9	5,4
Food and beverage services	21,1	17,0	4,5
Travel agency and related activities	72,0	71,4	17,2
Media industries incl. publishing activ.	80,0	78,9	32,3
Telecommunications	84,4	84,4	73,2
Computer programm. and related activ.	88,6	87,9	56,3
Financial and insurance activities	78,3	74,9	26,5
Real estate activities	49,4	48,0	12,6
Professional, scient. and technical activ.	75,6	73,5	30,8
Administrative and support activities	21,1	19,5	6,5

as a percentage of all employees in a given enterprise group

#### Figure D13 Employees using a computer at work



as a percentage of all employees in a given enterprise group

## Figure D14 Enterprises providing employees with access to selected ICT; 2013



e of all enterprises in a given size class

Source: Czech Statistical Office, Enterprise Survey on ICT Use

			To:	tal	V	lith In	ternet	acces	SS		
Finland	F		-	-	-	-	- 1				
Finiand	-	1	1	1	1	1	1	1			
Sweden									1	1	
Denmark								i.	÷	1	
Denindik	-		1		-				1		
Netherlands								i.	÷	÷	
Germany			-		-			1	1		
,	-	1	I	I	I	1		i.	i	i.	
Belgium					-						
United Kingdom				-			i.	- i	i	- i	
-					1	-					
France	_						- ! · ·	1	1	1	
Ireland							i.	÷	÷	1	
0		- 1	1		1		1	1		1	
Spain		1	1	1	1			÷.	÷	1	
Slovenia							1	1		1	
EI 128							i	÷.	i	÷.	
E028			1	i.	1		1	1	1		
Luxembourg							÷.	- i -	÷.	- i -	
Austria		_	_	_	_						
Austria	-	1	1	1	1		÷.	÷.	i.	- i -	
Malta					_						
Slovakia						i.	i	i.	i	i.	
oloralia	-	1	1	1			1	1	1		
Estonia						i.	i	i.	i	i	
Italv		_	1	_							
	-		I	1	!	÷.	i.	÷.	i.	1	
Croatia		1	1	1	1						
Poland						1	1	1	1	1	
	-	1	1	1	1	÷	÷	÷	÷	1	
Greece						1		1		1	
Lithuania						÷.	÷	÷.	÷	÷	
O		I	I	I	1	1	1	1	1		
Czech Republic			1	1		i.	i	i.	i	÷.	
Hungary											
Cuprus		- : -	1	1		÷.	÷.	÷.	i.	- i -	
Cyprus			1	1							
Latvia						i.	i	i.	i	i.	
Portugal	1										
i onagai		1	1	1		i	i	i	i	1	
Romania					1						
Bulgaria				į.	I	Ì	i	Ì	i	į.	
Daigana					I	1	1	1	1	1	
C	1%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

#### Figure D15 Employees using a computer at work; 2013

as a percentage of all employees in enterprises

		70
	user profile,	for posting paid
	account etc.	adverts
Total (10 and more employees)	16,7	7,9
Small enterprises (10-49)	14,9	7,5
Medium enterprises (50-249)	22,8	9,2
Large enterprises (250+)	27,1	11,5
NACE category:		
Manufacturing	12,6	6,0
Electricity, gas and water supply	10,0	3,7
Construction	5,7	3,9
Sale and repair of motor vehicles	24,5	14,9
Wholesale trade	20,2	10,9
Retail trade	19,8	7,9
Transport and storage	8,6	5,1
Accommodation	50,4	17,6
Food and beverage services	26,2	10,1
Travel agency and related activities	64,7	29,2
Media industries incl. publishing activ.	62,3	21,5
Telecommunications	41,8	18,3
Computer programm. and related activ.	42,4	10,6
Financial and insurance activities	31,0	18,9
Real estate activities	17,7	8,4
Professional, scient. and technical activ.	20,2	8,7
Administrative and support activities	16,7	11,2

Tab. D6 Enterprises in the CR using social media; 2013

07.

as a percentage of all enterprises in a given group

#### Figure D16 Types of social media used by enterprises; 2013



### Figure D17 Reasons for the use of social media by enterprises; 2013

Develope the enterprise's image or. Obtain/respond to customer opinions Involve customers in develop. of goods Colilaborate with business partners Recruit employees Exchange opinions within the ent.



as a percentage of all enterprises in a given size class

Source: Czech Statistical Office, Enterprise Survey on ICT Use

### E Public authorities

In order to monitor the development of e-government in the Czech Republic, the Czech Statistical Office (CZSO) developed a short module related to **ICT usage in the public administration sector**.

The latest survey in regards to this issue was conducted in the first half of 2012 in respect of the **reference period of 31 December 2011**. A total of 364 of the state's organisational branches, 13 regional offices and 6 301 municipal offices were surveyed.

In order to measure better how public administration uses their websites as one of the key tool in bringing public administration closer to the general public, the CZSO since 2005 annually carried out: **"Web site content survey of public authorities"** as a supplementary source of information for measuring e-Government in the Czech Republic.

The latest web site content survey was conducted in **August 2013**. All (14) regional offices, all (25) offices of central state administration and all (205) municipalities with extended powers were included in this survey.

#### Definitions:

- A free wireless Internet connection shall mean the Internet access free of charge by means of a WiFi technology on the territory of a municipality. It is intended primarily for sending e-mails and viewing websites, with access to select websites is blocked.
- A form for downloading shall mean the form is available (most often in the PDF format) at a webpage of the organisation. A citizen/enterprise may download the form or print it out. To be counted, the public authority shall have at least one downloadable or printable official form for provided public services (administrative procedures) available on its websites.
- A form for on-line completion shall mean a web application where citizen/enterprise can fill in the form right at the webpage of an organisation. A rule accuracy of filling is often automatically included. To be counted, the public authority should offer on its websites at least one public service (administrative procedure) for online completion.
- A form for full electronic case handling shall mean that the public authority offer through their websites to treat at least one of the provided public services (administrative procedures) completely electronically without the need for paper work or personal visit of the authority.
- An electronic submission (submitting completed forms) 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.
- A data mailbox is by definition intended for secure transmission of messages and documents. It is not intended to store messages or for other operations with them. Data mailboxes allow communication with public administration and replace the use of ordinary paper contacts with electronic contacts. An important element of the law is the recognition of electronic documents as equals of paper documents and the ensuring of their security.

Regional data can be found in chapter 18 of each Regional yearbook. http://www.czso.cz/eng/edicniplan.nsf/aktual/ep-1#10

Information on Internet usage by individuals and enterprises for interaction with government comes from annual surveys of the CZSO on ICT usage by individuals and enterprises (see Chapters C and D).

The **Eurostat** online database for **Information society statistics** was used to obtain international data on Internet use by individuals/enterprises in interaction with public authorities. *Data from this database were extracted in March 2014.* 

Further information on eGovernment statistics can be found at:

http://www.czso.cz/csu/redakce.nsf/i/verejna sprava

			70
	LAN	Internet	Websites
State administration offices	99,0	100,0	95,0
Regional offices	100,0	100,0	100,0
Municipalities, total	59,4	99,8	97,9
Size class of municipalities			
20 000 or more citizens	100,0	100,0	100,0
5 000 - 19 999 citizens	99,5	100,0	100,0
2 000 - 4 999 citizens	97,3	100,0	99,8
1 000 - 1 999 citizens	87,9	100,0	99,3
500 - 999 citizens	70,2	99,8	99,2
less than 500 citizens	40,8	99,6	96,7

#### Tab. E1 Selected ICT used by Czech public authorities; 2011

• /

LAN - local area network

#### Figure E1 Municipalities with a broadband and websites



#### Figure E2 Internet use by municipalities; 2011



## Figure E3 Municipalities with public Internet access point/centre (PIAC)



as a percentage of all public offices in a given group Source: Czech Statistical Office, Government Survey on ICT Use

## Tab. E2 Applications on public authorities' websites in the Czech Republic; 2011

. .

			%
	Forms for downloading	Online completion of forms	Full electronic case
State administration offices	64,0	32,2	38,9
Regional offices	100,0	84,6	69,2
Municipalities, total	50,5	14,3	13,0
Size class of municipalities:			
20 000 or more citizens	97,5	34,2	20,3
5 000 - 19 999 citizens	98,1	18,6	19,5
2 000 - 4 999 citizens	82,1	19,9	21,9
1 000 - 1 999 citizens	62,3	16,3	15,4
500 - 999 citizens	50,2	14,8	12,0
less than 500 citizens	39,6	12,3	11,1

#### Figure E4 Municipalities providing on their websites forms for downloading



## Figure E5 Municipalities with a web application for online filling-in forms



as a percentage of public offices with a Website

## Figure E6 Services available on web sites of municipalities with an extended competence; 2013

Information about service only
Forms for downloading



as a percentage of all municipalities with an extended competence Source: CZSO,Gov.survey on ICT Use and Website content survey of municip.

			%
	Searching for information	Downloading forms	Sending filled in forms
Total (aged 16+)	26,1	11,7	6,6
Total (aged 16–74)	27,6	12,3	6,9
Gender:			
Males (aged 16+)	26,9	12,9	7,6
Females (aged 16+)	25,3	10,5	5,6
Age group:			
16–24 years	23,2	8,5	3,9
25–34 years	37,7	15,8	9,4
35–44 years	41,6	21,3	12,2
45–54 years	30,1	15,3	7,9
55–64 years	19,7	7,7	4,5
65 and more years	6,7	1,5	1,0
Highest education level (aged 25+):			
Basic	3,9	1,4	0,8
Lower secondary (ISCED 3C)	14,6	5,1	2,4
Upper secondary (ISCED 3A and 4)	37,1	16,8	9,7
Tertiary (ISCED 5-6)	49,0	26,9	16,9
Specific categories:			
Students (aged 16+)	21,4	7,7	3,4
Pensioners	6,2	1,8	0,9

Tab. E3 Individuals using the Internet for interaction with public authorities in the Czech Republic; 2013

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

#### Figure E7 Individuals using the Internet for interaction with public authorities



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



as a percentage of all individuals aged 16+

#### Figure E9 Individuals using Internet for interaction with public authorities; 2013



as a percentage of all individuals aged 16 to 74

-	•		%
	Searching for information	Downloading forms	Sending filled in forms
Total (10 and more employees)	92,1	89,9	80,7
Small enterprises (10-49)	90,6	88,0	77,7
Medium enterprises (50-249)	97,5	96,9	91,6
Large enterprises (250+)	99,5	99,1	95,7
NACE category:			
Manufacturing	94,4	92,1	82,8
Electricity, gas and water supply	93,0	92,3	86,3
Construction	93,9	92,2	84,0
Sale and repair of motor vehicles	93,7	91,9	87,4
Wholesale trade	94,0	92,2	84,0
Retail trade	79,0	76,1	69,0
Transport and storage	92,4	91,7	77,7
Accommodation	95,2	91,2	80,7
Food and beverage services	79,8	74,2	59,3
Travel agency and related activities	97,0	94,8	83,7
Media industries incl. publishi. activ.	97,4	94,0	87,7
Telecommunications	97,2	98,1	91,7
Computer progr. and related activ.	98,4	98,0	93,2
Financial and insurance activities	99,3	96,9	87,9
Real estate activities	97,1	94,9	88,7
Profes., scient. and technical activ.	94,6	93,1	83,1
Administrative and support activ.	88,0	85,1	72,3

## Tab. E4 Enterprises using the Internet for interaction with public authorities in the Czech Republic; 2012

#### Figure E10 Enterprises using the Internet for online filling of forms



## Figure E11 Enterprises using the data mailbox for sending documents to public authorities



as a percentage of all enterprises in a given group

Source: Czech Statistical Office, Enterprise Survey on ICT Use



## Figure E12 Enterprises using the Internet for interaction with public authorities; 2012

as a percentage of all enterprises

Tab.	E5	Enter	prises	using	the	Internet	for	treating
adm	inis	trativ	e proc	edure f	ully	electror	nica	lly

		-	%
	2010	2011	2012
Total (10 and more employees)	48,2	59,1	65,9
Small enterprises (10-49)	41,0	53,5	61,2
Medium enterprises (50-249)	75,2	78,6	82,9
Large enterprises (250+)	87,7	90,6	91,4
NACE category:			
Manufacturing	58,5	70,2	71,8
Electricity, gas and water supply	56,3	74,2	74,8
Construction	33,2	44,6	70,4
Sale and repair of motor vehicles	50,2	62,3	64,7
Wholesale trade	64,2	72,4	66,1
Retail trade	33,7	41,3	52,3
Transport and storage	49,0	51,5	62,8
Accommodation	31,5	46,9	57,5
Food and beverage services	21,4	31,2	42,7
Travel agency and related activities	33,9	40,6	54,1
Media industries incl. publishi. activ.	49,5	63,0	69,5
Telecommunications	64,0	67,1	79,8
Computer progr. and related activ.	58,6	71,9	77,2
Financial and insurance activities	57,8	59,9	72,6
Real estate activities	42,3	52,5	66,4
Profes., scient. and technical activ.	33,9	40,6	54,1
Administrative and support activities	34,9	49,8	53,6

## Figure E13 Enterprises using the Internet for treating administrative procedure fully electronically



## Figure E14 Enterprises using the Internet for treating choosen administrative procedure fully electronically; 2012



as a percentage of all enterprises in a given group

Source: Czech Statistical Office, Enterprise Survey on ICT Use

### F Health establishments

Information technologies are a very important corner stone of more effective health care. Not only as a tool saving costs, but also to increase the quality of health care and patients' security. Czech Statistical Office (CZSO) has been collecting data on the adoption and use of information technologies in health care since 2003. To manage that, CZSO uses three main data sources.

Since 2003 the CZSO in cooperation with the Institute of Health Information and Statistics of the Czech Republic (IHIS CR) has used results from a short module related to ICT usage in the health-care facilities as a main data source for measuring development of eHealth in the Czech Republic. This module is conducted annually as part of a mandatory yearly statement on employers, employees and other contracted workers.

**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 population of the survey covers all health care facilities and providers in the Czech Republic. However, in this chapter, data are published only for practices of independent physicians. In 2012, the most recent period of data available, a total of 20 221 practices of independent physicians were surveyed, and 99,7% of them answered the questionnaire.

Available breakdowns: Data on the use of Internet and web sites by independent physicians are available by their type of practice. Independent doctor's practices include GPs for adults and youth, dentists, gynaecologiest and specialists. Special doctor's practices include offices such as of dermatologists, urologists, ophthalmologists etc.

#### Definitions:

- Broadband see definition in Chapter A of this publication
- GPs general practitioner
- Electronic health record is the use of internet-based medical documentation.
- Online appointment system offers the possibility to make appointments through the health establishment's website, using online form (e-mail is not included).
- Online 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.
- Seeking health related information seeking information about diseases, treatment, diagnostics, nutrition etc. on internet at least once in the last 3 months preceding the interview for personal nonbusiness use.

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

http://www.czso.cz/eng/edicniplan.nsf/aktual/ep-1#10

The second source **Hospitals' web survey** is carried out by the Czech Statistical Office, and focuses on information and on-line services available or accessible on hospitals' web sites.

Information about individuals reporting seeking health related information on the internet 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** was used to obtain international data on Internet use by students. *Data from this database were extracted in March 2014.* 

Further information on eHealth statistics can be found at:

http://www.czso.cz/eng/redakce.nsf/i/information\_technologies\_in\_the\_cze\_ch\_health\_sector\_

### Tab. F1 Selected ICT used by independent physicians in the Czech Republic; 2012

			%
	Computer	Internet	Websites
Total	90,8	81,5	26,5
GPs for adults	90,8	89,8	23,4
GPs for children	89,9	83,8	40,7
Stomatologist	88,5	76,3	15,0
Gynecologist	93,7	86,7	39,6
Specialists	92,4	82,8	31,5

as a percentage of all independent physicians' offices in a given category

## Figure F1 Independent physicians with Internet access and websites



## Figure F2 Independent physicians with Internet access in their office by type of practice

2006 2012



#### Figure F3 Independent physicians with a websites by type of practice



#### as a percentage of all independent physicians' offices in a given category Source: Institute of Health Information and Statistics of the Czech Republic

## Tab. F2 Applications on Independent physicians' websites in the Czech Rep.; 2012

		%			
	Online Online				
	appointment	consultation			
Total	8,5	9,7			
GPs for adults	8,9	7,5			
GPs for children	13,7	17,0			
Stomatologist	4,1	3,9			
Gynecologist	11,4	19,1			
Specialists	9,9	12,1			

as a percentage of all independent physicians' offices in a given category

#### Figure F4 Applications on independent physicians' websites



#### Figure F5 Independent physicians enabling online appointments via their websites



#### Figure F6 Independent physicians enabling online consultations via their websites



as a percentage of all independent physicians' offices in a given category Source: Institute of Health Information and Statistics of the Czech Republic

Tab. F3 Individuals using Internet for seeking health-related
information in the Czech Republic

			%
	2011	2012	2013
Celkem 16+	29,0	36,2	38,5
Total 16-74	31,1	39,0	41,6
Gender:			
Males (aged 16+)	20,0	26,7	28,6
Females (aged 16+)	37,5	45,2	47,7
Age group:			
16–24 years	18,4	30,0	38,1
25–34 years	37,9	48,6	52,1
35–44 years	42,0	47,3	51,7
45–54 years	36,9	48,3	46,8
55–64 years	25,0	33,8	34,3
65 and more years	11,5	11,0	12,0
Highest education level (aged 25+):			
Basic	8,9	12,4	10,9
Lower secondary (ISCED 3C)	19,1	26,2	28,6
Upper secondary (ISCED 3A and 4)	41,6	49,6	49,5
Tertiary (ISCED 5-6)	52,2	59,3	58,9
Specific categories:			
Students (aged 16+)	17,7	30,0	37,0
Women on maternity or parental leave	63,7	77,4	72,2
Pensioners	13,5	14,3	15,2

as a percentage of al individuals aged 16+ in a given category

### Figure F7 Individuals using Internet for seeking health-related information



## Figure F8 Individuals using Internet for seeking health-related information by gender and age; 2013



#### Figure F9 Individuals using Internet for seeking health-related information by gender; 2013



as a percentage of all individuals aged 16 to 74 in a given category and country Source: Eurostat 2014

#### Figure F10 Individuals using the Internet for consultation with physicians; 2012



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

Source: Eurostat 2014