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INFORMATION SOCIETY

IN FIGURES

2013

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 2013 in the title. The aim of this publication is to provide readers with 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 seven chapters:

- A. The ICT Infrastructure chapter contains basic data on the available telecommunication and Internet infrastructure and its structure.
- 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. 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 ICT by employees (incl. use of ICT for doing homeworking) 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. In the **Schools** chapter the reader learns about how well equipped schools are with computers and Internet. Information on students using Internet at all and for selected activities is also included.
- G. 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) or size. Data on ICT use in public authorities, schools 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: http://www.czso.cz/eng/redakce.nsf/i/information_society

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/i/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, July 2013

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A ICT Infrastructure

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

Definitions:

- Fixed telephone subscription refers to a natural person or legal entity connected to the public switched telephone network (PSTN). Number of fixed telephone subscriptions is measured as a number of active fixed telephone lines. VoIP subscriptions are not included here.
- 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 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 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 broadband subscription by technology includes:
 - xDSL (ADSL, SDSL or VDSL) is technology using digital subscriber line (DSL) and enabling connectivity over ordinary copper telephone lines. Unlike dial-up, DSL can operate using a single phone line without preventing use of the telephone line for voice phone calls.
 - 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.
 - Fixed wireless access (FWA) the terrestrial internet connection by means of a radio systems 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).
 - 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.
- 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** was used as main data source for the Czech Republic.

The ITU, EC and OECD online databases were used for the international comparison. More information can be found at: <u>http://www.itu.int/ITU-D/ict/</u> or <u>http://www.oecd.org/sti/ict/broadband</u>

For further information on statistics about ICT infrastructure see: http://www.czso.cz/eng/redakce.nsf/i/telecommunication_infrastructure_and_internet

A ICT infrastructure

			Thous./Mill.
	2009	2010	2011
Fixed telephone lines (thous.)	2 070	1 889	1 711
Residential	1 161	989	888
Business	889	882	806
Public payphones	20	18	17
Mobile phone subscriptions			
(thous. active SIM cards)	14 217	14 359	14 215
Pre-paid cards	7 207	7 072	6 620
Post-paid cards	7 010	7 287	7 595
Outgoing fixed telephone traffic			
(mil. minutes)	2 964	2 418	2 1 4 8
National	2 793	2 274	2 028
International	171	144	120
Outgoing mobile phone traffic			
(mil. minutes)	13 824	14 954	15 541
National	13 509	14 638	15 209
International	315	316	332

Tab. A1 Telecommunication infrastructure in the Czech Rep.

Figure A1 Telephone subscriptions per 100 inhabitants



Figure A2 Domestic outgoing telephone traffic (mil. minutes)



Figure A3 Fixed telephone lines (million)



Source: Czech Telecommunication Office

A ICT infrastructure



Figure A4 Fixed telephone subscriptions (fixed telephone lines per 100 inhabitants)





Source: International Telecommunication Union

	Su	bscription	s(thous.)
	2009	2010	2011
Fixed broadband, total	2 005	2 24 0	2 508
By technology			
DSL (ADSL) lines	778	859	918
Fixed wireless access (FWA, Wifi)	680	720	839
Cable modem (CATV)	442	481	515
Fibre (FTTx)	105	180	236
By connection speed			
< 2 Mbit/s		191	132
≥ 2 Mbit/s < 10 Mbit/s		1 4 5 1	1 4 9 1
≥ 10 Mbit/s < 100 Mbit/s		588	868
≥ 100 Mbit/s		10	17
Mobile broadband (CDMA or UMTS), total			4 569
Stand-alone dedicated data subscriptions			
via data cards/modems/keys only	371	542	578
Dedicated data subscriptions via SIM cards			
provided independently of voice services			1 353
Internet access using standard			
mobile subscription via SIM cards			2 638

Tab. A2 Broadband Internet connection in the Czech Republic

Figure A6 Permanent broadband subscriptions*



* Any fixed wired broadband connection, a terrestrial fixed wireless access and dedicated data access based on 3G (CDMA or UMTS) standards offered as a standalone service using data cards or mobile access sticks integrated usually into portable PCs or tablets for continuous (permanent) connection.





Source: Czech Telecommunication Office



Figure A8 Fixed broadband subscriptions (fixed broadband lines per 100 inhabitants)

Note: Includes also connection via terrestrial fixed wireless access (FWA) by means of radio signal both in licensed frequency bands (e.g. WiMAX) and in frequency bands with no licence required (Wi-Fi) where the receiving device is placed in a fixed location (building, apartment). Sometimes this alternative is also called WLL (Wireless Local Loop).

Figure A9 Fixed broadband by technology, 2011 (number of subscriptions per 100 inhabitants)



* A fibre optic line (FTTx) and fixed wireless access (FWA)

Source: CZSO based on the EC (Communications Committee) and OECD

B Households

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

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 (since 2005)

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 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 the Internet 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 connections (FWA, Wi-Fi), Mobile connection, Fibre (FTTx) and other connections that enable a high speed internet 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. <u>http://www.czso.cz/eng/edicniplan.nsf/aktual/ep-1#10</u>

The CZSO's Household Budget Survey (HBS) acts as a supplementary source of information for this chapter. From this source originates data on the equipping of households with fixed and mobile telephones and about ICT household expenditures. More information on the HBS can be found at: <u>http://www.czso.cz/csu/2011edicniplan.nsf/engp/3001-11</u>

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

- ICT services (communication) 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 and Annual national accounts together with results from the Eurobarometer 362 E-Communications Household Survey were used for the international comparison.

For further information on ICT in households see:

http://www.czso.cz/eng/redakce.nsf/i/households expenditures on ict

Tab.	B1	Households	with	a fixed	telephone	in the	Czech	Rep.

			%
	2009	2010	2011
Total	27,6	24,2	23,4
Household type			
Households without children	31,0	27,2	26,4
Households with children	21,6	18,7	18,0
Economic status of the head of household	1		
Employee	21,5	18,8	17,5
Self-employed	30,5	25,2	25,2
Unemployed	18,5	15,3	16,6
Pensioner	37,2	34,0	33,3
Age of the head of household			
Till 29 years	6,8	4,1	1,7
30 - 39 years	13,1	10,0	9,0
40 - 49 years	22,3	20,6	21,6
50 - 59 years	30,4	25,7	23,0
60 - 69 years	32,5	28,1	28,6
70 years and over	45,9	42,5	40,9

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

Source: Czech Statistical Office, Household Budget Survey





as a percentage of all households

Source: EC, E-Communications Household Survey, Eurobarometer 362

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

		%
2009	2010	2011
95,7	96,8	97,4
94,6	95,6	96,2
10,0	10,2	10,2
92,1	93,9	94,9
98,9	98,8	98,6
*		
97,7	98,0	97,8
93,7	94,4	95,4
94,5	94,4	94,8
88,6	91,6	93,8
98,4	98,6	98,0
98,1	98,3	97,7
97,4	97,1	98,2
96,4	97,0	96,2
93,6	95,1	95,8
85,3	89,2	92,4
	2009 95,7 94,6 10,0 92,1 98,9 97,7 93,7 94,5 88,6 98,4 98,4 98,1 97,4 96,4 93,6 85,3	2009 2010 95,7 96,8 94,6 95,6 10,0 10,2 92,1 93,9 98,9 98,8 97,7 98,0 93,7 94,4 94,5 94,4 98,6 91,6 98,1 98,3 97,4 97,1 96,4 97,0 93,6 95,1 85,3 89,2

* This breakdown is available only for mobile phones owned by households as a percentage of all households in a given group





1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011





Source: Czech Statistical Office, Household Budget Survey

Total Both fixed and mobile telephone 96% Sweden 94% Netherlands 85% 96% Denmark 52% 96% 15% Czech Republic 96% Finland 17% Latvia 45% 95% Cyprus 80% 94% Luxembourg 84% Slovenia 77% 94% 93% Malta 90% Greece 78% United Kingdom 76% Italy 59%

Figure B6 Households with a mobile phone; 2011



as a percentage of all households

Source: EC, E-Communications Household Survey, Eurobarometer 362

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

			%
	2010	2011	2012
Total	59,3	64,8	67,3
Total (16–74 years)	64,1	70,3	72,5
Household type			
Households without children	49,9	56,3	58,5
Households with children	84,8	86,8	91,1
Income of household			
the lowest income (first quartile)	21,2	26,5	26,2
second quartile	46,8	50,3	52,8
third quartile	75,1	80,4	86,0
the highest income (fourth quartile)	91,8	93,7	94,8

as a percentage of all households in a given group

Figure B7 Households with a computer



Figure B8 Households with a PC by type of household; 2012



as a percentage of all households in a given group

Figure B9 Type and number of PCs used in households



as a percentage of all households with a computer at home

Source: CZSO, Household Survey on ICT Use, Census for 1991 and 2001



Figure B10 Households with a computer

as a percentage of all households with at least one member aged 16 to 74 Note: Instead of year 2012: Denmark, the Netherlands - 2011, instead of year 2005: Austria, Belgium, Bulgaria, Romania - 2006; France - 2007

Source: Eurostat, 2013

Tab.	B4	House	holds	with	the	I nte rnet	in	the	Czech	Republic
------	-----------	-------	-------	------	-----	------------	----	-----	-------	----------

			%
	2010	2011	2012
Total	56,0	61,7	65,4
Total (16–74 years)	60,5	66,6	70,6
Household type			
Households without children	47,2	53,1	56,5
Households with children	79,8	84,2	89,6
Income of household			
the lowest income (first quartile)	18,8	23,7	23,6
second quartile	42,0	46,3	49,7
third quartile	71,7	77,0	84,7
the highest income (fourth quartile)	89,1	92,2	93,9

as a percentage of all households in a given group

Figure B11 Households with the Internet



as a percentage of all households in a given group

Figure B12 Internet connection(s) used by households



as a percentage of households with Internet access

Source: CZSO, Household Survey on ICT Use, Census for year 2001



Figure B13 Households with the Internet

as a percentage of all households with at least one member aged 16 to 74 * year 2011 instead of 2012

Source: Eurostat, 2013

Tab. B5 Household expenditure on ICT in the Czech Republic

Averages per household member		CZ	K per year
	2009	2010	2011
Total	7 1 7 2	7 062	6 731
ICT equipment	2 193	2 091	1 774
ICT services	4 979	4 971	4 957
income of household			
With the lowest income (lowest decile)	4 4 4 3	4 347	3 939
With the highest income (highest decile)	12 503	11 880	10 837

Figure B14 Household expenditure on ICT



Figure B15 ICT household expenditure by income



* annual averages per household member

** as % of total household consumption expenditure

Figure B16 ICT household expenditure by type of product



Source: Czech Statistical Office, Household Budget Survey



Figure B17 Household expenditure on ICT; 2011

as a percentage of total households expenditures

Source: Eurostat based on data from Annual National Accounts, 2013

Tab. B6 Household expenditure on ICT services in the CR

Averages per household member		CZ	K per year
	2009	2010	2011
Total	4 979	4 971	4 957
Fixed telephone services	694	518	435
Mobile phone services	3 222	3 24 8	3 214
Internet provider services	1 063	1 205	1 308
Income of household			
With the lowest income (lowest decile)	3 4 2 0	3 390	3 24 5
With the highest income (highest decile)	7 932	7 463	7 291

Figure B18 Household expenditure on ICT services



Figure B19 Household expenditure on ICT services by household's income



* annual averages per household member

** as % of total household consumption expenditure

Figure B20 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 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 2013.*

Data on ICT use by individuals classified by **gender** of the respondents can be found in the publication titled:"**Focused on Men and Women**". <u>http://www.czso.cz/csu/2012edicniplan.nsf/engp/1413-12</u>

For further information on ICT use by individuals see (only in Czech): <u>http://www.czso.cz/csu/redakce.nsf/i/domacnosti_a_iednotlivci</u>

			%
	2009	2011	2012
Total (aged 16+)	90,6	93,9	96,0
Total (aged 16–74)	94,3	96,9	98,2
Gender:			
Males (aged 16+)	92,6	95,7	96,8
Females (aged 16+)	88,7	92,3	95,2
Age group:			
16–24 years	98,0	98,7	99,9
25–34 years	98,6	99,2	99,5
35–44 years	98,5	99,4	99,6
45–54 years	97,0	99,1	98,1
55–64 years	90,4	94,9	97,4
65 years and over	63,2	74,8	83,8
Highest education level (aged 25+):			
Basic	67,5	77,2	83,1
Lower secondary (ISCED 3C)	89,5	93,7	96,1
Upper secondary (ISCED 3A and 4)	95,3	96,1	97,7
Tertiary (ISCED 5-6)	96,9	97,5	98,8
Specific categories:			
Students (aged 16+)	98,5	98,7	99,9
Pensioners	67,7	79,6	86,6

Tab. C1 Individuals using a mobile phone in the Czech Republic

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



2007

۵

8,3

2012

Figure C1 Individuals using a mobile phone

2003

2005



2009

2011



as a percentage of all individuals in a given socio-demographic group Source: Czech Statistical Office, Household Survey on ICT Use



Figure C3 Individuals using a mobile phone, 2012

as a percentage of all individuals aged 16 to 74

			70
	2010	2011	2012
Total (aged 16+)	64,1	67,1	69,5
Total (aged 16–74)	68,7	72,2	75,0
Gender:			
Males (aged 16+)	67,8	70,7	72,5
Females (aged 16+)	60,6	63,7	66,6
Age group:			
16–24 years	94,5	95,4	96,3
25–34 years	85,2	88,3	92,7
35–44 years	83,2	86,3	88,2
45–54 years	67,9	73,6	79,4
55–64 years	44,4	48,6	56,2
65 years and over	14,5	18,2	17,3
Highest education level (aged 25+):			
Basic	17,0	19,7	22,7
Lower secondary (ISCED 3C)	47,5	51,9	56,6
Upper secondary (ISCED 3A and 4)	76,1	76,7	81,5
Tertiary (ISCED 5-6)	89,1	92,4	91,3
Specific categories:			
Students (aged 16+)	98,7	98,7	99,6
Pensioners	18,2	21,4	20,9

Tab. C2 Individuals using a computer in the Czech Republic

07

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









Source: Czech Statistical Office, Household Survey on ICT Use





as a percentage of all individuals aged 16 to 74

Note: Instead of year 2012: Denmark and the Netherlands - 2011; instead of year 2005: Belgium, Bulgaria, France and Romania -2006

Source: Eurostat, 2013

			%
	2010	2011	2012
Total (aged 16+)	61,8	65,5	69,5
Total (aged 16–74)	66,4	73,0	75,1
Gender:			
Males (aged 16+)	65,8	69,2	72,3
Females (aged 16+)	58,1	61,9	66,8
Age group:			
16–24 years	92,3	94,8	96,2
25–34 years	83,1	87,4	92,9
35–44 years	79,7	84,1	89,0
45–54 years	65,8	72,0	79,4
55–64 years	42,1	46,3	56,0
65 years and over	13,2	16,3	16,8
Highest education level (aged 25+):			
Basic	15,3	18,6	22,3
Lower secondary (ISCED 3C)	44,9	49,6	56,8
Upper secondary (ISCED 3A and 4)	73,5	74,9	81,5
Tertiary (ISCED 5-6)	87,9	91,3	91,4
Specific categories:			
Students (aged 16+)	97,5	98,2	99,6
Pensioners	16,5	19,7	20,5

Tab. C3 Individuals using Internet in the Czech Republic

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



Figure C7 Individuals using Internet

Figure C8 Individuals using Internet by gender and age



Source: Czech Statistical Office, Household Survey on ICT Use



Figure C9 Individuals using Internet

as a percentage of all individuals aged 16 to 74 * year 2011 instead of 2012

Source: Eurostat, 2013

			70
	2010	2011	2012
Total (aged 16+)	25,4	28,0	30,6
Total (aged 16–74)	27,4	30,2	33,2
Gender:			
Males (aged 16+)	28,0	29,0	31,5
Females (aged 16+)	23,0	26,9	29,8
Age group:			
16–24 years	38,8	40,5	46,3
25–34 years	44,5	48,0	54,3
35–44 years	34,7	39,3	43,1
45–54 years	22,1	25,3	27,9
55–64 years	10,5	13,1	15,7
65 years and over	3,0	3,7	3,9
Highest education level (aged 25+):			
Basic	4,2	5,4	6,0
Lower secondary (ISCED 3C)	14,0	16,4	18,7
Upper secondary (ISCED 3A and 4)	32,7	32,9	38,5
Tertiary (ISCED 5-6)	43,8	51,3	50,7
Specific categories:			
Students (aged 16+)	40,7	40,9	46,9
Pensioners	3,7	4,4	4,2

Tab. C4 Individuals buying on the Internet in the Czech Rep.

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

Figure C10 Individuals buying on the Internet



Figure C11 Individuals who bought selected products over the Internet; 2012



as a percentage of individuals that bought any product over the Internet

Source: Czech Statistical Office, Household Survey on ICT Use



Figure C12 Individuals buying on the Internet

as a percentage of all individuals aged 16 to 74 * year 2011 instead of 2012

Source: Eurostat, 2013

Tab.	C5 Internet	activities	of individuals	in the	Czech	Republic
						0/

			70
	2010	2011	2012
Communication activities			
Sending or receiving e-mails	55,3		65,0
Making telephone calls over the Internet	25,4	31,7	37,3
Using webcam for video calls	8,6	14,8	
Participation in social networks		24,6	31,0
Writing messages to any chat rooms (chatting)	19,6	20,6	24,0
Information search on			
Goods and services	49,8	51,6	58,2
Travel and accommodation	24,9	35,0	40,6
Culture	32,6	35,0	41,7
Health	19,2	29,0	36,2
Leisure activities			
Reading on-line news, newspaper, magazines	41,1	49,5	58,9
Watching movies, short films, videos or images	20,1	27,3	32,2
Playing or downloading games	12,5		16,4
Listening to Web radios	16,4	19,1	21,6
Watching Web television	14,2	17,4	20,0
Internet services			
Internet banking	21,0	27,4	32,3
Downloading computer software	11,2	10,7	
Selling of goods or services	7,9	10,1	11,3
Job searching	7,2	6,7	8,2

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

Figure C13 Individuals using social networks; 2012



Figure C14 Individuals using internet banking; 2012



Source: Czech Statistical Office, Household Survey on ICT Use

Figure C15 Individuals using internet banking and telephoning over the Internet, 2012



as a percentage of all individuals aged 16 to 74

C Individuals

Tab. C6 Individuals using mobile or portable devices to access the Internet in the Czech Republic, 2012

			%
	Total	mobile*	portable**
Total (aged 16+)	19,1	13,1	12,3
Total (aged 16–74)	20,8	14,2	13,4
Gender:			
Males (aged 16+)	24,5	18,1	15,0
Females (aged 16+)	14,2	8,3	9,8
Age group:			
16–24 years	48,8	34,0	32,1
25–34 years	34,4	25,1	21,9
35–44 years	20,8	14,7	12,1
45–54 years	12,5	7,3	8,7
55–64 years	7,1	3,3	5,3
65 years and over	1,6	0,8	0,8
Highest education level (aged 25+):			
Basic	1,9	1,7	
Lower secondary (ISCED 3C)	7,5	5,4	3,6
Upper secondary (ISCED 3A and 4)	19,1	13,0	11,9
Tertiary (ISCED 5-6)	36,1	22,9	27,2
Specific categories:			
Students (aged 16+)	58,8	39,8	40,0
Pensioners	2,1	0,4	0,4

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

Figure C16 Frequency of accessing Internet from mobile or portable devices by individuals; 2012



Figure C17 Individuals using mobile devices* for selected Internet activities; 2012





as a percentage of individuals accessing Internet from any mobile device * any mobile phone or other mobile device such as e-Book reader, MP3 player ** any portbale computer (notebook, netbook) or tablet

Source: Czech Statistical Office, Household Survey on ICT Use
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 2012 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 (46 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 the 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 electronic mail are not included.
- 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 2013.*

Further information on ICT usage by enterprises can be found at: http://www.czso.cz/csu/redakce.nsf/i/podnikatelsky_sektor Tab. D1 Enterprises with an internal computer network and related technologies in the Czech Republic; 2012

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			70
	Total	WLAN	Intranet
Total (10 and more employees)	69,3	47,7	32,6
Small enterprises (10-49)	63,5	42,3	26,9
Medium enterprises (50-249)	90,9	65,6	49,8
Large enterprises (250+)	97,3	82,0	77,9
NACE category:			
Manufacturing	70,0	47,2	32,2
Electricity, gas and water supply	77,7	44,9	42,5
Construction	64,8	44,3	24,7
Sale and repair of motor vehicles	79,6	62,9	36,9
Wholesale trade	81,7	60,3	35,3
Retail trade	59,2	37,5	24,6
Transport and storage	56,9	35,0	28,0
Accommodation	74,7	65,8	31,0
Food and beverage services	34,6	24,2	20,3
Travel agency and related activities	86,0	60,7	40,3
Media industries incl. publishing activ.	92,6	6,6	57,1
Telecommunications	95,2	84,9	72,3
Computer programm. and related activ.	96,1	81,3	78,0
Financial and insurance activities	92,1	61,9	72,0
Real estate activities	74,5	40,2	30,3
Professional, scientific activities	86,8	57,3	38,3
Administrative and support activities	55,1	39,4	35,0

as a percentage of all enterprises in a given group

WLAN - wireless local area network

Figure D1 Enterprises using wireless access within their internal computer network (WLAN)



Figure D2 Enterprises with intranet



as a percentage of all enterprises in a given size class Source: Czech Statistical Office, Enterprise Survey on ICT Use

Figure D3 Enterprises with internal computer network; 2010



Total With Intranet (internal websites)

as a percentage of all enterprises

Source: Eurostat, 2011

Tab. D2 Enterprises with Internet in the Czech Rep.;	201	2
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			%
	Total	Any broadband	Mobile broadband
Total (10 and more employees)	96,6	92,0	28,9
Small enterprises (10-49)	95,9	90,6	23,1
Medium enterprises (50-249)	99,1	97,0	47,4
Large enterprises (250+)	99,8	99,4	71,6
NACE category:			
Manufacturing	97,7	92,6	26,2
Electricity, gas and water supply	99,4	96,9	32,3
Construction	96,1	90,9	24,6
Sale and repair of motor vehicles	98,6	94,6	26,4
Wholesale trade	98,4	95,9	43,8
Retail trade	91,7	85,9	19,7
Transport and storage	96,8	91,2	22,3
Accommodation	96,9	95,6	20,2
Food and beverage services	89,6	82,7	10,3
Travel agency and related activities	98,5	95,6	40,9
Media industries incl. publishing activ.	99,0	98,2	44,5
Telecommunications	98,9	98,9	61,5
Computer programm. and related activ	99,6	98,4	59,1
Financial and insurance activities	99,2	98,3	63,9
Real estate activities	98,5	95,2	30,3
Professional, scientific activities	99,5	97,0	42,4
Administrative and support activities	91,7	84,9	23,8

as a percentage of all enterprises in a given group

Figure D4 Speed of Internet connection used by enterprises*



* Maximum contracted download speed

Graf D5 Broadband connection(s) used by enterprises; 2012



Note: Multiple responses allowed

as a percentage of enterprises with Internet access

Source: Czech Statistical Office, Enterprise Survey on ICT Use



Figure D6 Enterprises with broadband access; 2012

as a percentage of all enterprises

Source: Eurostat, 2013

Tab. D3 Enterprises with a Website in the Czech	Rep.; 2	2012
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			%
	Total	Available in foreign language	Created by external company
Total (10 and more employees)	79,8	32,6	64,9
Small enterprises (10-49)	77,1	26,5	62,8
Medium enterprises (50-249)	89,9	54,1	73,6
Large enterprises (250+)	93,1	69,7	72,6
NACE category:			
Manufacturing	80,2	44,9	65,8
Electricity, gas and water supply	81,1	20,5	66,1
Construction	83,8	13,5	68,9
Sale and repair of motor vehicles	94,9	18,5	87,7
Wholesale trade	86,8	34,1	72,6
Retail trade	63,3	12,5	51,5
Transport and storage	63,1	25,9	48,8
Accommodation	93,3	79,8	86,1
Food and beverage services	70,7	25,9	60,7
Travel agency and related activities	93,3	42,7	77,5
Media industries incl. publishing activ.	96,9	42,8	61,3
Telecommunications	96,2	30,5	56,0
Computer programm. and related activ	93,9	56,0	40,1
Financial and insurance activities	93,2	52,1	81,0
Real estate activities	79,9	33,1	71,0
Professional, scientific activities	87,5	42,6	71,4
Administrative and support activities	71,5	27,4	55,4

as a percentage of all enterprises in a given group

Figure D7 Enterprises with a Website



Figure D8 Sales related applications available on enterprises' websites; 2012



as a percentage of all enterprises in a given size class Source: Czech Statistical Office, Enterprise Survey on ICT Use



Figure D9 Enterprises with a Website; 2012

as a percentage of all enterprises

Source: Eurostat, 2013

			70
	Total	Via websites	Using EDI
Total (10 and more employees)	26,8	6,6	20,2
Small enterprises (10-49)	16,7	7,1	9,6
Medium enterprises (50-249)	21,8	10,2	11,6
Large enterprises (250+)	33,4	4,6	28,8
NACE category:			
Manufacturing	25,1	5,0	20,1
Electricity, gas and water supply	39,7	5,4	34,3
Construction	10,6	5,3	5,3
Sale and repair of motor vehicles	38,8	12,5	26,3
Wholesale trade	22,8	8,6	14,1
Retail trade	39,5	7,3	32,2
Transport and storage	11,3	5,7	5,6
Accommodation	10,3	6,8	3,5
Food and beverage services	17,7	5,6	12,1
Travel agency and related activities	35,8	10,2	25,6
Media industries incl. publishing activ.	14,5	9,8	4,7
Telecommunications	38,9	5,2	33,7
Computer programm. and related activ	45,7	23,0	22,7
Real estate activities	21,2	7,4	13,9
Professional, scientific activities	14,3	9,0	5,3
Administrative and support activities	23,3	8,8	14,6

Tab. D4 Value of e-purchases in the Czech Republic; 2011

07

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

Figure D10 Enterprises placing e-orders via any computer network*



Total

Small enterprises Medium enterprises Large enterprises

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

Figure D11 Value of enterprises' e-purchases via any computer network



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





as a percentage of all enterprises

			70
	Total*	Via websites	Using EDI
Total (10 and more employees)	24,3	5,9	18,4
Small enterprises (10-49)	14,0	4,9	9,1
Medium enterprises (50-249)	15,7	4,8	11,0
Large enterprises (250+)	32,5	6,8	25,8
NACE category:			
Manufacturing	32,3	5,6	26,7
Electricity, gas and water supply	31,2	2,3	28,8
Construction	4,0	0,6	3,4
Sale and repair of motor vehicles	20,8	12,9	7,9
Wholesale trade	18,6	7,4	11,2
Retail trade	6,3	3,3	3,0
Transport and storage	28,4	9,7	18,7
Accommodation	31,7	18,8	12,9
Food and beverage services	5,7	1,8	3,9
Travel agency and related activities	37,5	27,7	9,8
Media industries incl. publishing activ.	15,4	6,0	9,4
Telecommunications	34,4	29,4	5,0
Computer programm. and related activ	23,6	13,3	10,3
Real estate activities	16,7	2,9	13,8
Professional, scientific activities	8,2	3,8	4,4
Administrative and support activities	16,5	8,0	8,5

Tab. D5 Value of e-sales in the Czech Republic; 2011

07

as percentage of the total turnover of all enterprises in a given group

Figure D13 Enterprises receiving e-orders via any computer network*



Total Small enterprises Medium enterprises Large enterprises * Includes any enterprise that during the reference year placed at least one electronic order over Internet or other computer network to buy any product. as a percentage of all enterprises in a given size class

Figure D14 Value of enterprises' turnover from e-sales via any computer network



as percentage of the total turnover of all enterprises

Source: Czech Statistical Office, Enterprise Survey on ICT Use

Figure D15 Enterprises receiving electronic orders via any computer network; 2011



as a percentage of all enterprises

Source: Eurostat, 2013

Tab. D6 Employees using ICT at work in the Czech Rep., 2012

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			%
	Any computer	PC with Internet access	Notebook or Smart phone
Total (10 and more employees)	43,2	35,5	12,8
Small enterprises (10-49)	43,1	40,3	15,9
Medium enterprises (50-249)	41,5	36,4	12,5
Large enterprises (250+)	44,3	32,8	11,5
NACE category:			
Manufacturing	38,1	27,8	8,8
Electricity, gas and water supply	44,7	40,9	13,8
Construction	36,3	35,5	15,7
Sale and repair of motor vehicles	61,9	57,5	13,8
Wholesale trade	62,2	56,2	25,6
Retail trade	40,4	25,7	4,5
Transport and storage	37,6	26,5	8,3
Accommodation	34,9	31,2	5,5
Food and beverage services	23,1	19,6	4,7
Travel agency and related activities	75,1	74,5	13,4
Media industries incl. publishing activ.	76,5	75,9	25,4
Telecommunications	87,3	87,0	82,6
Computer programm. and related activ.	89,6	88,0	53,5
Financial and insurance activities	80,1	75,3	19,5
Real estate activities	50,5	48,4	16,2
Professional, scientific activities	75,3	72,5	29,7
Administrative and support activities	19,5	18,2	6,7

as a percentage of all employees in a given enterprise group

Figure D16 Employees using a computer at work



as a percentage of all employees

Figure D17 Enterprises providing employees with access to selected ICT, 2012



as a percentage of all enterprises in a given size class Source: Czech Statistical Office, Enterprise Survey on ICT Use

Figure D18 Employees using a computer at work; 2012



as a percentage of all employees in enterprises

	Enterprises enabling this possibility (1)	Employees using this possibility (2)
Total (10 and more employees)	30,0	3,6
Small enterprises (10-49)	25,3	5,2
Medium enterprises (50-249)	46,6	3,4
Large enterprises (250+)	57,9	2,9
NACE category:		
Manufacturing	27,8	1,9
Electricity, gas and water supply	29,9	2,8
Construction	23,5	4,4
Sale and repair of motor vehicles	24,9	2,4
Wholesale trade	46,5	9,8
Retail trade	19,4	1,3
Transport and storage	24,3	2,1
Accommodation	25,1	2,2
Food and beverage services	6,5	1,1
Travel agency and related activities	49,1	6,6
Media industries incl. publishing activ.	60,2	12,7
Telecommunications	65,5	10,4
Computer programm. and related activ.	76,4	19,3
Financial and insurance activities	56,7	4,3
Real estate activities	27,2	3,7
Professional, scientific activities	41,8	10,3
Administrative and support activities	28,7	2,6

Tab. D7 Use of homeworking in Czech enterprises; 2012

%

(1) as a percentage of all enterprises in a given group

(2) as a percentage of all employees of enterprises in a given group

Figure D19 Homeworking in enterprises

% of enterprises enabling their employees working from home by using ICT

% of employees working from home by using ICT at least half a day per week



Figure D20 Homeworking in enterprises by size of enterpr.; 2012

% of enterprises enabling their employees working from home by using ICT



Total Small enterprises

Medium enterprises Source: Czech Statistical Office, Enterprise Survey on ICT Use

Large enterprises

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 2012**. All (14) regional offices, all (25) offices of central state administration and all (205) municipalities with extended powers were included in this survey.

Definitions:

- Broadband see definition in Chapter A of this publication
- Blind friendly website accessibility for users with serious vision impairment (the first page contains the Blind Friendly icon, or a "For Visually Impaired" link)
- 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.
- Homeworking see definition in Chapter D of this publication

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

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* 2013.

Further information on eGovernment statistics can be found at:

http://www.czso.cz/csu/redakce.nsf/i/vereina_sprava

			%
	LAN	Internet	Broadband
State administration offices	99,0	100,0	98,0
Regional offices	100,0	100,0	100,0
Municipalities, total	59,4	99,8	88,2
Size class of municipalitie	s:		
20 000 or more citizens	100,0	100,0	100,0
5 000 - 19 999 citizens	99,5	100,0	99,5
2 000 - 4 999 citizens	97,3	100,0	95,5
1 000 - 1 999 citizens	87,9	100,0	93,6
500 - 999 citizens	70,2	99,8	90,4
less than 500 citizens	40,8	99,6	84,3

Tab. E1 ICT in public authorities in the Czech Republic; 2011

LAN - Internal computer network

Figure E1 Municipalities with a broadband access



as a percentage of all public offices in a given group





as a percentage of all municipalities in each region Source: Czech Statistical Office, Government Survey on ICT Use

E Public authorities

Tab. E2 Internet use by public authorities in the Czech Republic; 2011

			70	
	Public authorities using Internet for:			
	Internet banking	Telephoning (VolP)	Training of employees	
State administration offices	87,2	23,2	52,3	
Regional offices	100,0	53,8	92,3	
Municipalities, total	89,8	14,1	25,7	
Size class of municipalities				
20 000 or more citizens	97,5	30,4	84,8	
5 000 - 19 999 citizens	99,5	25,6	73,5	
2 000 - 4 999 citizens	98,3	22,6	36,7	
1 000 - 1 999 citizens	95,9	16,7	29,4	
500 - 999 citizens	92,4	13,9	28,3	
less than 500 citizens	85,6	11,4	18,0	

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Figure E3 Municipalities with Public Internet Access Point



as a percentage of all public offices in a given group



Figure E4 Municipalities providing free wireless Internet access on their territory by Czech regions (%); 2011

as a percentage of all municipalities in each region Source: Czech Statistical Office, Government Survey on ICT Use

			70
	2009	2010	2011
State administration offices	91,2	91,7	95,0
Regional offices	100,0	100,0	100,0
Municipalities, total	94,0	96,8	97,9
Size class of municipalities:			
20 000 or more citizens	100,0	100,0	100,0
5 000 - 19 999 citizens	100,0	100,0	100,0
2 000 - 4 999 citizens	99,2	100,0	99,8
1 000 - 1 999 citizens	99,2	99,1	99,3
500 - 999 citizens	98,3	99,3	99,2
less than 500 citizens	90,0	94,6	96,7

Tab. E3 Public authorities with a Website in the Czech Republic

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as a percentage of all public offices in a given group

Figure E5 Development and management of public authorities' websites; 2011



Note: Multiple responses allowed

as a percentage of public offices with a Website

Figure E6 Municipalities with a Website by Czech regions (%); 2011



as a percentage of all municipalities in each region

Source: Czech Statistical Office, Government Survey on ICT Use

Tab. E4 Applications on public authorities' websites in the Czech Republic; 2011

07

			70
	Forms for downloading	Forms for on-line completion	Forms for full electronic case handling
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 E7 Public authorities providing on their websites forms for downloading



Figure E8 Public authorities providing on their websites forms for online completion



as a percentage of public offices with a Website

Source: Czech Statistical Office, Government Survey on ICT Use

Tab E5 Public authorities in the Czech Republic enablingemployees remote access and homeworking; 2011

07

		70
	Remote access (to the email account)	Homeworking (working from home by using ICT)
State administration offices	77,9	46,3
Regional offices	100,0	38,5
Municipalities, total	43,5	18,7
Size class of municipalities:		
20 000 or more citizens	91,1	35,4
5 000 - 19 999 citizens	70,2	34,4
2 000 - 4 999 citizens	42,2	17,1
1 000 - 1 999 citizens	30,7	12,9

Figure E9 Public authorities enabling employees accessing their business email account remotely; 2011



Figure E10 Public authorities enabling employees working from home by using ICT (homeworking); 2011



as a percentage of all public offices in a given group

Source: Czech Statistical Office, Government Survey on ICT Use

E Public authorities

Tab E6 Employees of public authorities in the Czech Rep. having at work own e-mail account and Internet access:; 2011

		78
	Own business e-mail account	Computer with Internet access
State administration offices	66,8	68,4
Regional offices	83,0	83,1
Municipalities, total	56,3	55,6
Size class of municipalities:		
20 000 or more citizens	60,8	59,3
5 000 - 19 999 citizens	65,2	65,3
2 000 - 4 999 citizens	43,0	43,3
1 000 - 1 999 citizens	34,0	33,8

as a percentage of all employees of public authorities in a given group

Figure E11 Employees of public authorities taking part in any computer course provided by their employer; 2011



Figure E12 Employees of public authorities regurarly working from home by using ICT (homeworking); 2011



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

Tab.	E7 Individual	s using the internet fo	or interaction with
publi	ic authorities	in the Czech Republic	c; 2012

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			%
	Information search	Downloadin g forms	Submitting forms
Total (aged 16+)	25,6	14,1	12,5
Total (aged 16–74)	27,7	15,3	13,5
Gender:			
Males (aged 16+)	25,9	15,0	13,5
Females (aged 16+)	25,3	13,3	11,5
Age group:			
16–24 years	18,9	10,3	9,1
25–34 years	41,7	25,0	20,5
35–44 years	36,9	20,0	19,6
45–54 years	31,7	17,3	15,0
55–64 years	20,1	10,0	8,3
65 years and over	4,5	2,1	2,1
Highest education level (aged 25+):			
Basic	5,9	2,3	1,9
Lower secondary (ISCED 3C)	16,0	7,1	6,3
Upper secondary (ISCED 3A and 4)	35,8	20,2	17,6
Tertiary (ISCED 5-6)	52,9	32,7	29,7
Specific categories:			
Students (aged 16+)	18,9	9,6	9,3
Pensioners	6,3	2,6	2,4

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

Figure E13 Individuals using the Internet for interaction with public authorities



Figure E14 Individuals using the Internet for interaction with public authorities for selected activities



as a percentage of all individuals aged 16+

Figure E15 Individuals using Internet for interaction with public authorities; 2011



as a percentage of all individuals aged 16 to 74 * year 2010

			%
	Information search	Downloading forms	Sending filled in forms
Total (10 and more employees)	88,6	86,8	73,5
Small enterprises (10-49)	86,6	84,7	69,4
Medium enterprises (50-249)	95,9	94,3	88,4
Large enterprises (250+)	98,9	97,8	93,8
NACE category:			
Manufacturing	89,3	87,7	77,7
Electricity, gas and water supply	94,9	94,4	88,2
Construction	90,6	90,2	73,9
Sale and repair of motor vehicles	94,0	88,4	78,1
Wholesale trade	90,4	90,4	82,1
Retail trade	77,6	74,6	54,4
Transport and storage	89,1	85,9	67,7
Accommodation	89,6	88,0	71,1
Food and beverage services	74,4	67,9	45,5
Travel agency and related activities	93,4	93,4	71,7
Media industries incl. Publish. activ.	94,1	92,4	83,2
Telecommunications	96,9	96,8	93,9
Comp. programm. and related activ.	97,7	94,7	81,3
Financial and insurance activities	96,6	94,8	87,5
Real estate activities	93,7	90,4	76,0
Professional, scientific activities	96,6	95,8	81,8
Administrative and support activities	80,3	79,8	64,6

Tab. E8 Enterprises using the Internet for interaction with public authorities in the Czech Republic; 2011

Figure E16 Enterprises using the Internet for sending filled in forms (submitting completed forms)



Figure E17 Enterprises using the Internet for treating choosen administrative procedure fully electronically, 2011



as a percentage of all enterprises in a given group

Source: Czech Statistical Office, Enterprise Survey on ICT Use

Figure E18 Enterprises using Internet for interaction with public authorities; 2011



For downloading forms

For treating an administrative procedure completely electronically

as a percentage of all enterprises

Source: Eurostat, 2013

E Public authorities

Tab. E9 Municipalities with an extended competence having a Website in the Czech Republic

			%
	2010	2011	2012
Total	100,0	100,0	100,0
of which available also in foreign			
language version	71,7	74,0	74,1
Available websites' applications:			
Blind friendly version	35,1	37,0	37,1
Website Traffic	25,4	35,0	27,8
Access registration	40,5	38,0	44,4
On-line contact	48,3	53,2	50,7
FAQ	36,1	44,9	39,0
Discussion forum	25,9	24,9	24,4
Opinion poll	30,2	33,7	24,4
Information available:			
Job opportunities	74,6	80,0	71,7
Municipality development plan	26,8	33,0	39,0

Figure E19 Municipalities with an extended competence having foreign language version of their websites; 2012



Figure E20 Services available on web sites of municipalities with an extended competence; 2012



as a percentage of all municipalities with an extended competence Source: Czech Statistical Office, Website content survey of municipalities

F Schools

Information technologies in schools play an important role in the dissemination of information, and therefore are very useful sources of new knowledge. The Czech Statistical Office uses **two main sources** to monitor ICT use in schools.

The main source originates from the Ministry of Education, Youth and Sports, which collects data on computer and internet use (mainly on available IT infrastructure) in basic, secondary, and higher professional schools. Data on the number of computers per 100 students in the Czech schools originates from this source.

Reference period: September 30th of the monitored year

Comparability of data: Due to the methodology the total average numbers for the Czech Republic are lower than appropriate numbers of respective stages of schools. The reason is that in many school buildings classes are taught to multiple stages and/or types of schools and therefore the same computer is often available to and thus counted for pupils of several stages and/or types. Yet the computer is counted into the average of all school stages and/or types only once.

Definitions:

- Broadband: see definition in Chapter A of this publication
- Primary (basic schools 1st stage): 1st 5th year of primary schools; ISCED 1
- Lower secondary (basic schools 2nd stage): 6th 9th year of primary schools and lower years of 6 and 8-year grammar schools; ISCED 2
- Upper secondary schools: schools providing secondary vocational or completed general secondary education (ISCED 3) and schools providing post-graduation education (these are not tertiary or tertiary vocational schools) - ISCED 4
- Higher professionals schools, non tertiary: ISCED 5B (also includes conservatories)

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

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

For international comparisons data from the OECD Programme for International Students Assessment, **PISA 2000 and 2009** questionnaires were used. Due to different methodology data for the Czech Republic on the number of computers per 100 students from the Institute for Information in Education IIE are not fully comparable with data from PISA project. For more information see PISA 2009 Results: **Students On Line**.

The second data source: "Sample Survey on ICT Use in Households and by Individuals" is carried out by the Czech Statistical Office. Information on the Internet use by students is available from this survey since 2005. For more information see Chapter C of this publication

- A student is here an individual aged 16 years and over who studies and simultaneously is economically inactive i.e. may be classified neither as an employed nor an unemployed person.
- ICT user is a student 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 **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 2013.*

Further information on eEducation statistics can be found at: http://www.czso.cz/eng/redakce.nsf/i/information_technologies_in_schools

	2010	2011	2012
Total	13,5	14,7	15,5
Primary (basic schools - 1st stage)	16,8	18,1	
Lower secondary (basic schools - 2nd st	22,8	24,9	22,1
Upper secondary schools	16,2	17,7	20,2
Higher professional schools	34,2	34,7	37,2
With Internet access	12,8	14,2	15,1
Primary (basic schools - 1st stage)	15,6	17,2	
Lower secondary (basic schools - 2nd st	22,0	24,2	21,4
Upper secondary schools	15,7	17,3	19,8
Higher professional schools	31,8	32,2	34,6
With a broadband access	12,2	13,5	14,3
Primary (basic schools - 1st stage)	14,5	15,9	
Lower secondary (basic schools - 2nd sta	20,8	22,8	20,1
Upper secondary schools	15,3	16,9	19,4
Higher professional schools	31.3	31.9	34 1

Tab. F1 Number of computers in schools per 100 students in the Czech Republic

Note: The total number of computers per 100 students for overall levels of schools (total) is lower than for the individual level of schools. The reason for this is the fact that more than one school level (e.g. 1st and 2nd stage of basic schools) is often being taught in a single school building, with one computer often being available and counted towards the students of several levels of education. However for overall levels of education (total) is each computer counted only once.

Figure F1 Number of computers with Internet access in schools per 100 students



Figure F2 Number of computers with broadband access in secondary schools per 100 students in Czech regions; 2012



Source: Ministry of Education, Youth and Sports of the Czech Republic, 2012

Figure F3 Computers available to 15 year old students (per 100 students)



Source: OECD, PISA 2009

			70
	2010	2011	2012
Total (aged 16+)	97,5	98,2	99,6
Males	97,4	97,5	99,4
Females	97,6	98,9	99,8
By level of attended schools:			
Upper secondary schools	97,2	99,1	99,5
Higher education institutions (universities	99,5	98,9	99,6
Place of internet use			
Home	89,5	91,9	97,3
School	87,7	91,6	96,2
Another person's home	50,9	44,7	64,9
Elsewhere (office, cafe, library, etc.)	34,2	20,0	40,3

Tab F2 Students aged 16+ using the Internet in the Czech Rep.

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

Figure F4 Place of Internet use by students aged 16+



Figure F5 Students aged 16+ using any mobile device* for selected Internet activities; 2012



* any mobile phone or other mobile device such as e-Book reader or MP3 player

as a percentage of all individuals aged 16+

Source: Czech Statistical Office, Household Survey on ICT Use





as a percentage of all individuals aged 16+

Source: Czech Statistical Office, Household Survey on ICT Use





as a percentage of all individuals aged 16+

Source: Eurostat, 2012

G 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 and pharmacies. In 2011, the most recent period of data available, a total of 20 121 practices of independent physicians were surveyed, and 19 996 of them answered the questionnaire. The response rate reached 99,4 % for practices of independent physicians.

Available breakdowns: Data on the use of Internet and web sites by independent physicians are available by their type of practice.

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

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 2013.*

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_

G Health establishments

Tab. G1 Independent physicians with access to selected ICT in the Czech Republic; 2011

%				
	Computer	Internet	Broadband	
Total	90,0	77,2	51,3	
GPs for adults	90,3	79,5	53,5	
GPs for children	88,5	80,8	54,5	
Stomatologist	88,7	72,3	44,5	
Gynaecologist	92,0	85,8	61,5	
Specialists	90,8	77,2	52,6	

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

Figure G1 Independent physicians with Internet access in their office



Figure G2 Independent physicians with Internet access in their office by type of practice



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

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

G Health establishments

Tab. G2 Independent physicians using the Internet for selected activities in the Czech Republic

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			%
	2009	2010	2011
Obtaining information on:			
Practical medicine	64,9	67,2	66,6
Theoretical medicine	59,9	62,2	63,8
Pharmacology	60,1	62,9	64,8
For communication with:			
Business partners	49,6	52,7	54,6
Health insurance companies	55,8	62,1	61,8
Other health establishments	42,5	46,7	49,4
Patients	33,4	38,8	40,9
Pharmacies	13,8	16,3	18,7
For keeping health records	8,3	9,5	10,7

* it includes use of the Internet both in the office or at home as a percentage of all independent physicians' offices

Figure G3 Independent physicians using the Internet for communication with patients by type of practice



Figure G4 Independent physicians keeping health records on the Internet by type of practice



as a percentage of all independent physicians' offices in a given category Source: CZSO based on data of Institute of Health Information and Statistics

Tab.	G3 Individuals	using Int	ternet for	seeking	health-related	
info	rmation in the C	zech Rep	public			

			%
	2010	2011	2012
Total 16+	19,2	29,0	36,2
Total 16-74	20,5	31,2	39,0
Gender:			
Males (aged 16+)	12,6	20,0	26,7
Females (aged 16+)	25,5	37,5	45,2
Age group:			
16–24 years	13,1	18,4	30,0
25–34 years	25,0	37,9	48,6
35–44 years	29,3	42,0	47,3
45–54 years	23,4	36,9	48,3
55–64 years	16,3	25,0	33,8
65 years and over	6,7	11,5	11,0
Highest education level (aged 25+):			
Basic	4,1	8,9	12,4
Lower secondary (ISCED 3C)	12,3	19,1	26,2
Upper secondary (ISCED 3A and 4)	27,8	41,6	49,6
Tertiary (ISCED 5-6)	37,7	52,2	59,3
Specific categories:			
Students (aged 16+)	13,2	17,7	30,0
Women on maternity or parental leave	50,4	63,7	77,4
Pensioners	8,2	13,5	14,3

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

Figure G5 Individuals using Internet for seeking health-related information



Figure G6 Individuals using Internet for seeking health-related information by gender and age; 2012



Source: Czech Statistical Office, Household Survey on ICT Use
Figure G7 Individuals using Internet for seeking health-related information by gender; 2011



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

Source: Eurostat, 2012

G Health establishments

Tab. G4 Independent physicians with a Website in the Czech Republic

			%
	2009	2010	2011
Total	16,7	20,2	22,7
GPs for adults	12,8	16,5	19,4
GPs for children	22,4	26,8	31,8
Stomatologist	8,0	10,9	13,3
Gynaecologist	24,2	31,2	35,1
Specialists	23,1	26,2	27,6

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

Figure G8 Independent physicians and pharmacies with a Website



Figure G9 Independent physicians with a Website by type of practice



as a percentage of all independent physicians' offices in a given category Source: CZSO based on data of Institute of Health Information and Statistics

Tab. G5 Independent physicians using their websites for selected activities in the Czech Republic; 2011

		70	
	Online	Online	
	appointment	consultation	
Total	7,6	8,2	
GPs for adults	8,3	6,5	
GPs for children	11,1	13,6	
Stomatologist	3,2	3,3	
Gynaecologist	10,6	16,8	
Specialists	9,2	10,1	

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

Figure G10 Independent physicians enabling online appointments via their websites



Figure G11 Independent physicians enabling online consultations via their websites



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

Figure G12 Individuals using the Internet for interaction (consultation or making appoitment) with physicians, 2012



Source: IHIS and CZSO

Tab. G6 Hospitals with a Website in the Czech Republic

•		•	%		
	2009	2010	2012		
Total ¹⁾	96,8	99,4	100,0		
Websites available in foreign language ²⁾					
English	20,1	21,9	22,4		
German	5,4	7,1	7,1		
Russian	2,0	2,6	2,6		
Information available on the websites	2)				
Contact information (address)	97 <u>,</u> 3	99,4	99,4		
Information about the hospital (about us	89,9	94,2	99,4		
Visiting hours	81,9	83,9	92,9		
Regulatory fees	49,0	54,2	85,3		
Patients' rights	53,7	61,3	76,3		
Map of hospital departments	54,4	57,4	58,3		
Sitemap	32,2	36,8	44,9		
QR code		1,3	5,8		
Information and services ²⁾					
Poll of satisfaction with a hospital	4,0	6,5	21,8		
Watching news via RSS	10,1	14,2	12,8		
Website traffic measurement	16,1	14,8	10,3		
Sending information by e-mail	5,4	5,2	5,8		
Journal downloadable in PDF form			21,2		
On-line service ²⁾					
On-line form (contact us)			30,8		
On-line appointment form	6,0	12,3	12,8		
On-line consultation	2,0		7,1		

1) as a percentage of all hospitals

2) as a percentage of hospitals with a Website

Figure G13 Hospitals with a Website



Graf G14 Hospitals having a profile on social networks; 2012

