

B. INFORMATION SOCIETY

Information society is a term used in connection with the introduction and development of new information and communication technologies and systems (the Internet, mobile phones, electronic commerce, etc.) in the most various areas of everyday life.

Information society statistics aim at describing the production (supply) of advanced information and communication technologies (ICT goods and services, ICT sector) on the one hand, and the spread, degree and forms of using these technologies and systems in individual sectors of society (enterprises, households, public administration, education and health) on the other hand.

Information and communication technologies (ICT) generally refer to technologies, systems, activities and processes that participate in display, processing, storage and transmission of information and data in electronic form.

Notes on tables

Table 13-18. Telecommunication and Internet infrastructure: key indicators

Internet subscribers – the number of clients who use at least one web service irrespective of the type of connection. They are natural or legal persons connected to the World Wide Web who use Internet access services on the basis of a contract with Internet Service Providers (ISP), including, e.g., Internet cafés and public information terminals.

Internet subscribers using dial-up connection – dial-up connection is provided mostly via analogue telephone lines, but also via digital lines (ISDN) or mobile telephone network (GSM). Dial-up connection belongs to the types of narrowband access.

CATV (Cable TV) – Internet access over cable TV networks.

WiFi (Wireless Fidelity) – connection via wireless technologies.

Domain – an Internet domain (or domain name) is a unique name (identifier) of a computer or computer network connected to the Internet. The domain is registered with a registration authority authorized to administer respective top level domains.

Table 13-19. IT professionals

IT professionals, as defined by Eurostat and OECD and on the basis of the ISCO-88 classification (CZ-ISCO in the Czech Republic), are divided into two main groups:

– Computing professionals (CZ-ISCO code 213)

– Computer associate professionals (CZ-ISCO code 312)

Persons educated in computer science are persons who completed education in the field of study **ISCED 48 – Computing** (system design, computer programming, data processing, networks, operating systems).

The data come from the Labour Force Sample Survey of the CZSO (the table presents average annual data).

Tables 13-20 and 13-21. Investment in ICT equipment and software

Investment in ICT equipment and software in the tables refers to gross fixed capital formation (P.51), which comprises acquisitions less disposals of tangible (P.511) and intangible (P.512) fixed assets and addition to the value of non-produced non-financial assets (P.513). ICT equipment and software are classified to the following CZ-CPA divisions:

30 – Office machinery and computers

32 – Radio, television and communication equipment and apparatus

72 – Computer and related services

The data come from the annual national accounts statistics. More detailed information is available in Chapter 5. National accounts.

Table 13-22. External trade in ICT goods

According to OECD definition, ICT goods are goods specifically designed for communication or information processing, including information transmission and display in electronic form. It is also equipment which uses electronic processing to detect, measure and/or record physical phenomena or to control a physical process.

ICT goods, as defined by the OECD, are divided into five basic groups according to the Harmonised System, classification used for international trade.

The data on exports and imports of high-tech goods used to be received from the Ministry of Finance of the CR – Directorate General of Customs. Since 2004 they have been from data sources of the CZSO (External Trade Statistics Database).

Table 13-23. External trade in ICT services

The **receipts and payments** data obtained in the framework of **external trade in ICT services** (telecommunication services and computer and related services) indicate the level of the Czech Republic's involvement in international trade in this field. They also allow the measurement of economic development, preparation and application of common trade policy, and assessment of competitiveness and liberalisation of the ICT services market. The methodology and concept of these statistics are built on respective international standards such as the UN Manual on Statistics of International Trade in Services and the IMF Balance of Payments Manual.

Starting from 2005, the data come from the CZSO direct survey among respondents on exports and imports of services. The individual TBP items are defined in compliance with individual receipt and payment items and corresponding international codes (BPM5).

Tables 13-24 and 13-25. ICT sector: key indicators

The **ICT sector** is defined as a combination of economic activities producing goods (technologies) or services specifically designed for processing, communication and distribution of information in electronic form, including information capture, storage, transmission and display (OECD 1998, 2002, 2007). The ICT sector in the Czech Republic is defined in the Industrial Classification of Economic Activities (CZ-NACE):

1. ICT manufacturing sector

- 30 – Manufacture of office machinery and computers
- 32 – Manufacture of radio, television and communication equipment and apparatus
- 332 – Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
- 333 – Manufacture of industrial process control equipment

2. ICT services sector:

- 642 – Telecommunications
- 72 – Computer and related activities

Average registered number of employees, value added and turnover data come from the annual structural survey in businesses classified to selected production industries, R&D expenditure data from the annual R&D survey.

Tables 13-26 to 13-30. ICT in the business sector

The data in this part of the Statistical Yearbook come from the annual ICT use survey in the Czech business sector. The survey is comparable in terms of methodology and contents with the surveys conducted in EU member states.

As there are shortened forms of CZ-NACE divisions and groups in the tables, the full forms are presented:

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| 15-37 | – Manufacturing |
| 40+41 | – Electricity, gas, steam and hot water supply; Collection, purification and distribution of water |
| 45 | – Construction |
| 50 | – Sale, maintenance and repair of motor vehicles and motorcycles; retail of automotive fuel |
| 51 | – Wholesale trade and commission trade, except of motor vehicles and motorcycles |
| 52 | – Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods |
| 551+552 | – Hotels; Camping sites and other provisions of short-stay accommodation |
| 60-63 | – Land transport; transport via pipelines; Water transport; Air transport; Supporting and auxiliary transport activities; activities of travel agencies |
| 64 | – Post and telecommunications |
| 65-67 | – Financial intermediation, except insurance and pension funding; Insurance and pension funding, except compulsory social security; Activities auxiliary to financial intermediation |
| 70+71+73 | – Real estate activities; Renting of machinery and equipment without operator and of personal and household goods; Research and development |
| 72 | – Computer and related activities |
| 74 | – Other business activities |
| 921+922 | – Motion picture and video activities; Radio and television activities |
| 923-927 | – Other entertainment activities; News agency activities; Library, archives, museum and other cultural activities; Sporting activities; Other recreational activities |
| 93 | – Other service activities |

The data before 2005 refer to 31 December of the respective year; starting from 2005 the data come from the survey taken in January of following year.

Due to international comparability, all the totals for the Czech Republic cover enterprises with 10+ employed persons. Despite, there may be slight discrepancies between data presented for the Czech Republic by Eurostat and data published by the CZSO. Eurostat does not include enterprises of the section financial intermediation and some of the CZ-NACE divisions whose coverage is only recommended by Regulation (EC) No. 808/2004.

Electronic commerce (e-commerce), as defined by the OECD, is electronic **purchase** or electronic **sale** of goods or services between businesses, households, individuals, governments and other public or state organisations via the Internet or other computer networks. Goods and/or services are ordered via these networks, but the payment and delivery can be made on-line or off-line. Orders received or sent by fax, phone or traditional non-interactive electronic mail are not included.

Tables 13-31 and 13-32. Household consumption expenditure on ICT equipment and services and Households with fixed line and mobile phone

The data come from the Household Budget Survey (HBS) which provides information on household expenditure and structure of household consumption. The HBS households are currently selected by purposive quota sampling. The sampling unit and the reporting unit is a private household, i.e. a set of persons who share room(s) and basic expenditures (on food, keeping the household running, maintenance of the dwelling, etc.). More detailed information is available in Chapter 9. Income, expenditure and consumption of the population.

Tables 13-33 to 13-36. Use of ICT by households and individuals

As from 2003, the survey is taken (on a separate questionnaire) in the framework of the Labour Force Sample Survey of the CZSO, which allows the link with socio-demographic characteristics of persons in individual households. The survey uses CAPI (Computer Assisted Personal Interviewing), and the sample comprises about 10 000 individuals aged 16+. In line with the LFSS methodology, the results were weighted to the whole population of the Czech Republic.

The reference period is (i) the survey period (2nd quarter of reference year since 2005) for data on households, and (ii) mostly last three months preceding the interview for data on individuals.

PC/Internet user refers to an individual who used PC/Internet in the last three months.

Table 13-37. Municipal offices with Internet connection and websites

The data come from the statistical survey on ICT use in the Czech public administration sector, which is a supplement to the annual questionnaire for organisational units of the state, territorial self-governing units, partially budget-funded organisations and similar government institutions.

Table 13-38. Use of IT for interaction with citizens: municipal offices

The data come from the statistical survey on ICT use in the Czech public administration sector, like in Table 13-37.

Information kiosk – a terminal in a public place providing for continuous transmission of information to the citizen. Information kiosk gives information concerning public administration, transport, culture, news service as well as business information, business and other presentations, navigation information and the like.

WiFi – free access to the Internet via WiFi technology in the municipality. Internet connection speed depends on the number of users connected, at least 64 kbps.

Electronic registry – a workplace established by the office to receive and send data messages which is connected to the public data network and makes possible to use the electronic signature.

E-mail/SMS messages – information service provided by municipal offices to citizens (e-mail address or telephone number of the recipient needs to be registered).

Table 13-41. Personal computers in schools: by type of schools

Due to methodology the totals for all schools ISCED 1-5B are below the totals for individual types of schools. The underlying reason is that in many school buildings computer training is given to pupils attending different types of schools and one PC is often calculated as being used so. PCs in schools total are single counted.

Table 13-44. Internet in independent surgeries of physicians: by type of use

The data come from the annual questionnaire on employers, registered number of employees, and contracted staff, which is prepared by the Institute of Health Information and Statistics of the CR in cooperation with the Ministry of Health of the CR and the CZSO.

Other information – legislation and general information from various areas relating to work in health establishments.

Other administration – tax authority, municipal office, regional office, the Czech Social Security Administration, the Czech Statistical Office, the Institute of Health Information and Statistics of the CR, medical chambers, dental chambers, pharmaceutical associations.

Keeping health records on the Internet – the use of health books via the Internet (e.g., the implementation of the IZIP project – Internet-based Access to Patient Health Information).

Making online appointments – making appointments through the health establishment's website, using online form – e-mail is not included.

Online consultation – a possibility to ask health-related questions, which the health establishment answers by e-mail or may publish the response on its website.

The data in the tables are comparable with those published in previous Statistical Yearbooks. Discrepancies, if any, are pointed out in notes on respective tables.

The following tables are new:

13-32. *Households with fixed line and mobile phone*

13-38. *Use of IT for interaction with citizens: municipal offices*

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More detailed figures on information society are available in other CZSO publications published in accordance with the Catalogue of Publications 2009 in thematic group 9 – SERVICES, subgroup 97 – Information Society:

– 9701-09 *“Use of ICT by Households and Individuals in 2009” (Czech-English) – November 2009*

– 9704-09 *„Informační a komunikační technologie v českých domácnostech a mezinárodní srovnání“ – July 2009*

and in publication not included in the Catalogue of Publications 2009:

– *“Information Society in Figures 2009” (Czech-English) – June 2009*

Further data can be found on the website of the Czech Statistical Office at:

– http://czso.cz/eng/redakce.nsf/i/information_society