

METHODOLOGICAL NOTES

Methodological notes comprise basic methodological information on data contained in this publication as well as for tables with regional comparisons, which are available in the electronic version of the publication on the Internet. Extended comparisons of Regions that copy the structure of regional statistical yearbooks have been put into a separate publication called *Comparison of Regions in the Czech Republic* (publication code 330205-22). To be easy to follow, tables in chapters are numbered starting from number 1 on in the printed publication and tables with regional comparisons are numbered starting from 101. In the end there are references and links to more detailed information that can be found on the Internet.

As for the territorial structure, the data are always published relating to the structure valid in the relevant year. As at 1 January 2016, the Brdy military district was abolished and territories of other military districts were reduced. It was reflected in a change to the territories of several Regions (Districts). However, that applied mainly to transfers of empty areas; no significant changes to the population numbers occurred. Since the year 2000, larger transfers were made as at 1 January 2005 between the Vysočina Region and the Jihomoravský Region and between the Moravskoslezský Region and the Olomoucký Region. As at 1 January 2007, territories of some Districts changed and as at 1 January 2021, changes occurred in some Districts and administrative districts of municipalities with extended powers. More detailed information on changes to the territories is provided in the Chapter 1 Basic characteristics, Districts.

1 BASIC CHARACTERISTICS, DISTRICTS

In long-term time series, an emphasis is put mainly on the data comparability in terms of the applied methodology. A number of changes were made over the whole period as the State Statistical Service made efforts to keep methods and results of surveys internationally comparable. The organisational structure of the national economy was gradually changing, too. Therefore it was necessary to recalculate the time series of indicators according to the methodology and organisational structure of the latest year published (i.e. 2021) in order to be able to assess the long-term development in correct manner. During the years, size of some Regions and Districts slightly changed; these changes are depicted in detail in a table at the end of the Chapter. In a time series, data pertain always to the Region's (District's) territory valid in the relevant year. All the value indicators are given at current prices because sufficiently relevant data on price developments in neither the production area nor the consumption one to carry out conversions to constant prices have been available in the regional breakdown.

If a conversion to a comparable methodology was not feasible, the fact is mentioned in methodological notes under respective tables or it is explained in the methodology sections of respective chapters. Therefore, in this section, we draw attention only to changes that concern the comparability of long-term time series.

Data on the **population** before the year 2001 followed the results of the Population and Housing Census as at 3 March 1991. From 2001, they followed the results of the Population and Housing Census as at 1 March 2001 and from 2011 they followed the results of the Population and Housing Census as at 26 March 2011. Since 2021, they have been following the results of the Population and Housing Census as at 26 March 2021 according to the registered (place of) residence. Demographic balances in a given decade follow the Census every year (births, deaths, immigrants, emigrants). In accordance with international conventions, the data also include foreigners.

In the **labour market** domain, comparability of data on the number of employees and average wages taken from business statistics is adversely affected by changes in the size threshold between larger enterprises (surveyed) and smaller ones (not surveyed). These changes are mostly reflected in the development of the number of employees and, to a lesser extent, of the average monthly wage. The development in the set of reporting units was as follows:

- 2000 to 2001 – the set includes enterprises with 20+ employees, incorporated and unincorporated, all entities classified to financial and insurance activities, all entities classified to the non-business sphere, excluding armed forces;
- 2002 to 2021 – the set includes all entities, including units of the Ministry of the Interior and the Ministry of Defence not published before.

On 1 January 2013, an indicator of the **share of unemployed persons** was introduced, the methodology of which is explained in the Chapter 9 Labour Market. A comparable time series is available from 2005. The indicator of the registered unemployment rate ceased to be used in 2012.

Since 2002, entities (agricultural holdings) that exceed the so-called “threshold values” have been measured within **agriculture**, in accordance with standards of the European Union. Smaller agricultural holdings have been classified to the household sector as “hobby activities” of the population; it is impossible to determine the extent of their activities at the regional level with sufficient reliability. A retroactive recalculation of the time series to a comparable basis is also impossible.

In **industry**, only data referring to years from 1997 on are comparable. Since that year, data have been processed on the regional level referring to enterprises with 100+ employees with registered offices in the territory concerned. In **construction**, construction work in the long-term time series is given by location of the construction site.

In **tourism**, data since 2012 have been surveyed based on results of the project of the Ministry of Regional Development called “Quality Improvement of Data on Selected Tourism Sectors”. Data before 2012 are thus incomparable.

In **education**, the secondary education cannot be clearly broken down by type of schools anymore (secondary technical schools, secondary vocational schools). All types of schools now cover pupils who were independently reported by special schools before.

In **health**, the time series is comparable since 2000, when data on health establishments falling under all ministries have been given. Detached units of the health establishments are not covered (unlike in Chapter 28). Since 2007, the number of physicians also includes contract workers.

In **social security**, data on the number of old-age pensioners and their pensions are comparable since 2010 and data on social services since 2009. The changes are explained in detail in the relevant chapter.

In the end of the Chapter, there is an **overview of changes to territories of Regions and Districts** since 2000. Territories changed as at 1 January 2005 (25 municipalities from the Vysočina Region were reclassified to the Jihomoravský Region), as at 1 January 2007 (boundaries of Districts were harmonised with boundaries of administrative districts of municipalities with extended powers), as at 1 January 2016 (territories of military districts were abolished or reduced), and as at 1 January 2021 (boundaries of some Districts were modified pursuant to the Act No 51/2020 Sb, on the Administrative Territorial Structure of the State).

2 AREA AND CLIMATE

The opening table contains basic data on the **territory of Regions and Districts of the Czech Republic**. Data on areas of Regions and Districts as at 31 December 2021 have been obtained from official data of the Czech Office for Surveying, Mapping and Cadastre in Prague.

The size structure of municipalities was processed according to the administrative territorial structure as at 31 December 2021.

Climate is presented by basic meteorological data measured at weather stations located in the territory of the Region. Data from the stations were taken over from the Czech Hydrometeorological Institute in Prague.

3 ENVIRONMENT

The environment comprises anything that creates natural conditions for the existence of organisms, including human beings, and is a prerequisite for their further evolution. Its compartments are especially air, water, rocks, soil, organisms, ecosystems, and energy.

The Act of the Czech National Council No 114/1992 Sb, on Nature Conservation and Landscape Protection, as subsequently amended, distinguishes six categories of specially protected areas as follows.

Large-size specially protected areas

- National parks are large areas unique at the national or international scales, major parts of which are occupied by natural or nature-close ecosystems where species of flora and fauna, and abiotic nature are of extraordinary scientific and educational importance;
- protected landscape areas are large areas with harmonically formed landscape, characteristic relief, significant shares of forest and permanent grassland natural ecosystems, high abundance of tree species, or, as the case may be, preserved monuments of historical settlements.

Small-size specially protected areas

- National nature monuments are smaller natural formations (including those formed by human activity besides the forces of nature), deposits of minerals or habitats of endangered species on fragments of ecosystems of the national or international environmental, scientific, or aesthetic importance;
- national nature reserves are smaller areas where ecosystems important at the national or international levels of extraordinary natural value are bound to natural relief with a typical geological structure;
- nature monuments are areas defined in a similar way as the national natural monuments yet important at the regional level only;
- nature reserves are smaller areas of concentrated natural values with represented ecosystems that are characteristic and important for the given geographical area.

On 1 March 2017, the methodology for the calculation of total land areas of protected areas changed. Since then the land areas of specially protected areas have been calculated using borders of the specially protected areas (instead of data from the respective decrees establishing the areas that were used before).

Natura 2000 is a network of protected areas (sites) designated by all Member States of the European Union on their territories under unified principles. Establishment of Natura 2000 network is assigned by two most important legal regulations of the EU for nature protection – the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds and the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. In the territory of the Czech Republic, Natura 2000 comprises of delimited Birds Directive sites (special protection areas, SPAs; in Czech “ptačí oblast”) and of declared Habitats Directive sites (sites of Community importance, SCIs; in Czech “evropsky významná lokalita”).

Environmental protection expenditure includes investment expenditure on the acquisition of tangible fixed assets and non-investment expenditure related to environmental protection activities. **Tangible fixed assets** (TFA) for environmental protection are the sum of expenditure spent by reporting units on the TFA acquisition (by a purchase or own activities) along with the total value of TFA acquired for free or by a transfer according to relevant legislation or by the reclassification from the private use to business one. The **non-investment expenditure** on environmental protection includes wages and salaries, payments for rents, energy and other material, and payments for services the principal purpose of which is environmental protection.

Economic benefits from environmental protection activities refer to revenues from sale of environmental protection services, revenues from sale of by-products, and savings generated from reuse of by-products that originated at activities related to environmental protection.

Emissions are pollutants of various states that are released into the atmosphere. Emissions are given in kilograms per hour or in tonnes per year. Amounts of the given pollutants released into the air are listed in the **Register of Emissions and Stationary Sources** (sometimes also called Air Pollution Sources Register, abbreviated REZZO in Czech). Data in tables are broken down by type of pollution sources to REZZO 1–3 (for stationary pollution sources) and REZZO 4 (for mobile pollution sources, especially road motor vehicles, railway vehicles, boats, vessels, and aircraft).

In 2022, data on emissions in the territory of the Czech Republic and by Region were recalculated because the COPERT model (which is an international methodology for estimation of air pollutant emissions from road transport) has been updated. The estimation of the share of individual types of combustion equipment in households was made based on results of the ENERGO 2015 statistical survey, the Population and Housing Census, and statistics of sale of boilers, fireplaces, and heaters. Since 2019, the emission balance of REZZO 1 sources has also been including emissions reported by the so-called movable sources, which can be operated on several places during the year. It mainly applies to recycling lines for building materials. For more about the used methodology see www.chmi. Newly published data replace data published in the previous years.

Waste means any substance or object which the holder discards or intends or is required to discard. In 2020, a planned process of modernisation of the methodology and data collection and processing was completed; it brought changes to the publication compared to the previous issues in terms of its contents and the way results are presented. Therefore, published data differ from those published in regional statistical yearbooks in previous years in terms of the contents and methodology.

Waste generation represents the volume of own waste, including secondary waste generation (waste from waste processing). It does not include the volume of waste taken from a warehouse (storage), imports of wastes or waste taken over from another entity (with the exception of waste from citizens).

A **hazardous waste** is defined as a waste that displays one or more of the hazardous properties listed in the Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives.

Municipal waste includes

- mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste;
- mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households.

Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste.

Municipal waste includes waste from:

- households; retail trade, small businesses, office buildings and institutions (such as schools, hospitals);
- businesses provided that it is similar in nature and composition to household waste and it is not originating from production;
- waste from selected municipal services, i.e. waste from park and garden maintenance, waste from street cleaning services (e.g. street sweeping, waste from cleaning of markets), provided that it is managed as waste.

The regional breakdown is made **according to the registered office of the establishments** (local units), not according to the registered office of the enterprise.

The **domain of water supply systems and sewerage systems** involves water management activities related to the management and operation of water supply and sewerage systems, i.e. production and distribution of drinking water in a sufficient amount and of good quality and wastewater collection and treatment. **Public water supply systems and sewerage systems** include water supply systems and sewerage systems established and operated in the public interest. **Water produced** includes both invoiced and non-invoiced water supply. The sum of data for invoiced and non-invoiced water may differ from amounts of the water produced for an amount of water taken from other organisations, or for water handed over to other organisations.

From 2014 onwards, there has been a more precise definition of sewerage water and of water invoiced to households due to an amendment to the Decree No 428/2001 Sb implementing the Act No 274/2001 Sb, on Water Mains and Sewerage Systems, as subsequently amended.

From 2013 onwards, “**wastewater discharged into public sewerage systems**” has been including besides sewerage, industrial, and other wastewater also **chargeable rainwater**.

The **wastewater treatment plants** (WWTPs) are premises and equipment serving for wastewater treatment and having the mechanical, biological, and/or other stage of treatment. Equipment for wastewater pre-treatment (rakes, sand traps, oil

traps, grit traps, etc.), cesspools, sumps, and simple facilities with a mechanical function, which are not regularly observed and operated, are not considered to be wastewater treatment plants.

The **capacity of WWTPs** is given as the designed capacity in m³/day. A higher capacity than the designed one is given when implemented intensification measures have been approved by the water management authority.

4 POPULATION

Data on the size and structure of the population are derived from population censuses, which are followed by annual statistical balances of data on births, marriages, divorces, deaths, and migration. Starting with 2021, the population size and structure follows from the results of the 2021 Population and Housing Census, whereas data for the previous years follow from the results of the 2011 Census. Data on the number of events come from the processing of statistical reports on marriages, births, and deaths provided by registry offices and from processing of data obtained from other information systems (administrative data sources). The information system of the Ministry of Justice is the source of data on divorces. The data on abortions and causes of death are provided to the Czech Statistical Office (CZSO) by the Institute of Health Information and Statistics of the CR (IHIS CR). The data on migration the CZSO obtains from information systems of the Ministry of the Interior and the Directorate of the Foreign Police Service.

All data refer to citizens of the Czech Republic and foreigners with permanent residence in the Czech Republic, third-country nationals with temporary residence in the territory of the Czech Republic based on a long-term visa (over 90 days) or a long-term residence permit, nationals of the EU Member States, Norway, Switzerland, Iceland, Liechtenstein, and their family members with notified temporary residence in the territory of the Czech Republic and foreigners with valid asylum status in the Czech Republic.

The data also include events (marriages, births, and deaths) of Czech citizens with the permanent residence in the Czech Republic that occurred abroad and were registered in the Czech Republic within a period that allowed their inclusion into the statistics.

The territorial breakdown of data in this chapter corresponds to the territorial structure valid as at 1 January of a relevant year.

The **mid-year population** is the population of the given territory balanced as at midnight from 30 June to 1 July of the reference year, which is based on the population balance in the given territory from the beginning of the year to the end of June. The **natural change** of the population (or natural population change) is the number of live births minus the number of deaths. The **total population change** is the sum of the natural change and net migration. The **migration** is a change of permanent residence, as for foreigners it is also a change of temporary residence (see above), across the border of a given territory.

Marriages are included in a respective territory according to the place of residence of the groom. The **mean age** at marriage and the mean age at the first marriage are calculated from the distribution of the numbers of marriages by age of the groom/bride. **Divorces** are broken down by territory according to the last common place of residence of the spouses. The **mean age** at divorce is calculated from the distribution of the numbers of divorces by age of the male/female.

Births – a born child is counted in the Region (District) according to the place of residence of the mother at the childbirth. The **mean age of mother** at childbirth is calculated from the distribution of numbers of births by age of mother. The **total fertility rate** is the average number of children that would be born alive to a woman provided that age-specific fertility rates recorded in a reference calendar year remain unchanged during her childbearing period (age 15–49 years).

Abortions are broken down, as for the territory, according to the place of residence of the woman at the time of abortion. The **total abortion rate** is the average number of abortions that a woman would have provided that age-specific abortion rates recorded in a reference calendar year remain unchanged during her childbearing period (age 15–49 years).

The **stillbirth rate** is a ratio of the number of stillbirths to all births in total (here per 1 000 births). The **infant mortality rate** is a ratio of the number of deaths among infants under 1 year of age to the number of live births in the same period (here per 1 000 live births). The **neonatal mortality rate** is a ratio of the number of deaths among infants under 28 days of age to the number of live births in the same period (here per 1 000 live births).

Data on **deaths by cause of death** are coded according to the 10th decennial revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) and its subsequent updates issued by the World Health Organization (WHO).

The **ageing index** is a ratio of the population aged 65+ years to the number of children aged 0–14 years (usually per 100 children). The **life expectancy** shows the average number of years an x-year-old individual can expect to live, given the mortality conditions of the reference year (period). It is a resulting indicator from life tables, which reflects mortality conditions of the given year (period). With regards to elimination of random deviations, life tables for Regions are processed for two-year periods and for Districts for five-year periods. The life expectancy in Table 4–1 for a given year corresponds to the life expectancy for the period ending by the given year (e.g. the 2021 column provides the life expectancy in the Region in the period of 2020–2021).

A **foreigner** is a natural person who is not a citizen of the Czech Republic.

In Tables 4–11 and 4–12, the total number of foreigners includes foreigners with permanent residence, nationals of Member States of the EU, the EEA, and Switzerland and their family members with temporary residence, third-country nationals

with a long-term residence permit or with long-term visas. Data come from the records of the Directorate of Foreign Police Service.

5 MACROECONOMIC INDICATORS

Regional accounts, the most important source of regional macroeconomic indicators, are a regional analogy to national accounts. They result from annual national accounts compiled for the Czech Republic; as for the methodology, they correspond to the European System of Accounts (**ESA 2010**) and consistently observe rules and recommendations valid for Member States of the European Union, which means that they are comparable to them – harmonized.

In accordance with the ESA 2010 methodology, indicators are surveyed by a **workplace method**, which means that indicators for enterprises are allocated to Regions according to the real location of a workplace of a unit. The gross value added for multi-regional organisations is allocated based on the volume of wage funds paid to employees in individual Regions. Indicators of household accounts are related to the place of **residence of the households**.

Gross domestic product (GDP) is a key indicator of the development of the economy. It is a set of values added of individual institutional sectors or individual industries in activities considered by the ESA to be productive (i.e. including both market and non-market services) and net taxes on products (it is thus expressed in purchase prices). From the point of view of use, the GDP is equal to the sum of final consumption (of households, general government, and non-profit institutions serving households), gross capital formation (fixed capital, balance of inventories, and acquisitions less disposals of valuables), and the external trade balance.

Gross value added (GVA) is the sum of values added of individual industries (i.e. GDP excluding net taxes on products, which cannot be divided among individual industries). The industrial structure is arranged according to the CZ-NACE classification, which corresponds as for its content to the European NACE Rev. 2 classification.

Gross fixed capital formation (GFCF) includes the value of acquisition of both tangible and intangible fixed assets (purchased, acquired free of charge, or produced by own activities), minus the value of their sale and the value of assets handed over free of charge. It also includes acquisition in the form of financial leasing. The target of the acquisition is always to use the fixed assets for a productive activity including housing in the dwelling of its owner. Only assets used in production for a period longer than one year are fixed capital. It also includes e.g. equipment for military purposes, research and development expenditure, and the like.

Net disposable income of households is an amount that households can give to final consumption, savings in the form of financial assets, and to accumulation of tangible and intangible assets. Disposable income results from the generation and distribution of income and it is the balancing item of the secondary distribution of income account.

For the needs of international comparisons, selected **indicators are converted** to euros and purchasing power standards, namely according to the coefficients issued by the Statistical Office of the European Communities (Eurostat).

Regional macroeconomic indicators are revised in harmony with revisions of annual national accounts. Up-to-date data include results of an occasional revision of the annual national accounts in 2020 applied to the whole time series. Data for 2021 are based on a notification version of the annual national accounts, for the time being.

6 LOCAL GOVERNMENT BUDGETS

The Chapter contains selected data on revenue and expenditure of Regions, municipalities, and voluntary unions of municipalities. Data are received from the Ministry of Finance, which processes the necessary data from accounting and financial statements of individual territorial units.

Revenue and expenditure are after **consolidation**, i.e. after a modification, which eliminates duplication and entries, which are not a direct part of the financial performance.

7 PRICES

Prices of agricultural products are measured in the network of selected agricultural producers. They are mostly nominal prices of selected agricultural products by main (specified) quality grades. The monthly average prices of measured products are calculated as a simple arithmetic mean of reported prices of respective producers.

Data on **prices of dwellings and family houses** are taken from the Cadastre of Real Estate, which is administered by the Czech Office for Surveying, Mapping and Cadastre (abbreviated ČÚZK in Czech); related data from the Register of Census Districts and Buildings of the CZSO and from the Registry of Territorial Identification, Addresses and Real Estate (abbreviated RÚIAN in Czech) of the ČÚZK have been added. Data of the Czech Office for Surveying, Mapping and Cadastre ČÚZK on individual proceedings on real estate purchases, in which the piece of data on the price was recorded, are the data source. A set of tables, according to possibilities of the new (data) source, with the highest possible similarity of detailed breakdown has been chosen. Average prices of dwellings and family houses in each monitored category have been calculated as a simple unweighted average of unit prices. In territorial detail, an average unit price may be burdened by unknown specific characteristics (e.g. a higher share of transfers of real estates with non-market prices). The methodology is described with more details in a new publication of the CZSO called in Czech “Ceny nemovitostí – 2019–2021” (in English it reads Real estate prices in 2019–2021), which was issued on 30 December 2022 (Czech only). Due to different sources and methodologies, data from individual years published in previous statistical yearbooks cannot be compared.

8 LIVING CONDITIONS

Based on the membership in the European Union, the Czech Statistical Office carried out further round of the EU-SILC (Statistics on Income and Living Conditions) sample survey in households called “**Living Conditions – 2021**”. The aim of the survey is to obtain, on a long-term basis, comparable data on social conditions of households that are also comparable with other EU countries thanks to a unified methodology.

The survey applies the method of a four-year sample rotation; about a quarter of the observed households is replaced every year. The survey results are representative only up to the level of Regions due to the sample size. **When interpreting and analysing the survey results it is necessary to keep in mind that they have some statistical errors** (both sample and non-sample ones). More information (e.g. tables with 95% confidence interval estimates, from which the interval, in which the real value of the estimated characteristic occurs with 95% probability, is clearly seen) can be found, along with the detailed methodology, in the publication “Household Income and Living Conditions – 2021” on the website at www.czso.cz, in the section of Statistics – Living Conditions, Household Income and Expenditure.

The survey included all persons who in the reference period had their habitual residence in the selected dwelling, including persons temporarily absent. It also applied to foreign nationals and subtenants. Data for **private households** are usually calculated to equivalent sizes of household. The recalculation to the equivalent size of household takes into account the size and demographic composition of households. The calculation is constructed the way to reflect size savings of multimember households, i.e. savings on costs of consumer durables and services serving to a higher number of the household members (as household appliances, electricity, etc.). The OECD scale assigns the weight of 1.0 to the first adult in the household; any other adult (aged 14+ years) has 0.7; and any child (aged 0–13 years) has 0.5. The OECD-modified scale weights take more into account the household size (number of members) related savings and are defined as follows: the first adult in the household has 1.0; any other adult (aged 14+ years) has 0.5; and any child (aged 0–13 years) has 0.3.

Income of persons and income of households are surveyed always for the calendar year before the survey. The **gross money income** includes all income from work (from employment or self-employment), social income, and all other kinds of regular and irregular income awarded to the household or its individual members. The **net money income** of the household was obtained by subtracting of appropriate health and social insurance contributions and income taxes. The total net income of the household includes income in kind comprising of consumption of own-account production and/or employee benefits in kind (e.g. contributions for board).

Lines for the **quintile distribution of households** by the net money income per person were calculated from the total for all households of the Czech Republic. Corresponding households and their members were categorized into five income groups determined this way for respective Regions.

9 LABOUR MARKET

The source of information on the labour market (Tables 9–1 to 9–7 and 9–101, 9–102) surveyed in the households of respondents is the **Labour Force Sample Survey (LFSS)**. The methodology of indicators measured by the LFSS is in line with the definitions and recommendations of the International Labour Organisation (ILO). Therefore, the data may serve as a basis for direct international comparability of labour market characteristics in various countries. At the same time, the implementing methodology of Eurostat, which explains the contents of particular labour market characteristics, is adhered to.

In every quarter of 2021, the sample included 23 thousand **randomly selected dwellings** on average in the whole territory of the Czech Republic (over 0.6% of all permanently occupied dwellings). All persons usually living in the sampled dwellings, irrespective of the type of their residence, are included in the LFSS. The set of chosen dwellings varies during the survey. Each quarter, 20% of newly chosen dwellings are incorporated into the panel and after five quarters they are eliminated from it.

The decisive criterion for surveyed characteristics of every respondent is the respondent's actual activity on the labour market in the reference week. If a respondent stated that he/she had worked at least one hour in the reference week for wage, salary, or for other remuneration, he/she is strictly classified as a person in employment according to the ILO methodology.

All tables give average annual data for respective years.

Reliability of data collected by the sample survey declines as the sample size decreases. The annual averages lower than 3 000 persons are considered as low reliability data and annual data for a number lower than 500 persons are not published at all as their relative standard deviation is higher than 50% (a dot is shown in tables instead of them). For all data obtained from the sample survey the 95% confidence interval can be constructed, i.e. the interval, in which the real value of the estimated indicator lies with the 95% probability. The interval size is influenced by both frequency of the surveyed characteristic in individual Regions and the sample size in the Region.

The data on the **number of employees** (as headcount) and on **average gross monthly wages in 2018 through 2020** (Tables 9–8, 9–9, 9–103, and 9–104) come from results of the processing of **annual statistical questionnaires**. They cover all businesses regardless their number of employees. The territorial breakdown of the data by Region is obtained directly from the reporting units and is carried out depending on the location of actual workplaces of employees, by the so-called **workplace method**. However, a more detailed territorial breakdown, for example, by District, is impossible. The data breakdown by industry (economic activity) has been **processed according to the national version of the Statistical**

Classification of Economic Activities in the European Community (CZ-NACE). Data are classified to industries (economic activities) by principal (prevailing) activity of the whole business.

Information on **numbers of employees and average wages in 2021** (Table 9–105) are drawn from the results of the processing of **quarterly statistical questionnaires** and are published by **workplace location**. Data are given for all enterprises with the numbers of employees as headcount and also converted to the **full-time equivalent persons**, which reflects the length of worked hours. The data are preliminary.

The data on numbers of employees and on average gross monthly wages do not cover persons at public offices (e.g. deputies, senators, full-time members of assemblies at all levels), judges, women on maternity leave, persons on parental leave (unless they simultaneously work in a main (one) job), trainees of voluntary training, persons working for companies on the basis of the agreement on work performed out of the employment contract.

The data on **wages by sex and by classification of occupations** (Tables 9–10, 9–106, and 9–107) were obtained from the **structural employee wage statistics**, which is currently generated by merging of resulting databases of the sample survey of the Information System on Average Earnings (ISAE; ISPV in Czech) of the Ministry of Labour and Social Affairs, which covers the wage sphere, and of the administrative data source of the Salary Information System (ISP in Czech) of the Ministry of Finance, which exhaustively covers the salary sphere.

Since 2011, the results cover the whole population of employees in the Czech Republic using a sampling method, because previously non-surveyed employees of enterprises with less than 10 employees and also employees of non-profit institutions and employees of the self-employed have newly been included.

The **breakdown by occupation** has been processed according to the **national version of the International Standard Classification of Occupations (CZ-ISCO)**, effective since 1 January 2011.

Nevertheless, the **average wage calculated from data of structural (employee) wage statistics** is not and cannot be identical with the average wage obtained by means of the CZSO's business surveys (in Tables 9–8 and 9–9 or in Tables 9–103 through 9–105), in which the total wage bill (payroll) is measured against the registered number of employees of the business, in which, however, sick employees or those with unpaid absence from work shorter than 4 weeks are also included. Further differences in the wage level in comparison to other statistical sources can result (besides the influence of unpaid absence from work and a different population of the survey) from the fact that the results of structural statistics do not include employees with contracted hours of work below 30 hours per week.

The **median wage** is the value of the employee's wage in the middle of the wage distribution. It means that a half of wage values is lower than the median wage, whereas the other half is higher than the median wage.

The data on the number and structure of unemployed **job applicants kept in the labour office register** and on the job vacancies kept in the labour office register are obtained from the information system of the Ministry of Labour and Social Affairs.

Job applicants kept in the labour office register are natural persons who have asked in person for an arrangement of a suitable job at a regional office of the Labour Office of the CR in the Region where they have residence; after they have complied with conditions established by law, the regional office of the Labour Office of the CR have entered them into the register of job applicants.

Available job applicants kept in the labour office register are registered job applicants (including the EU nationals and the EEA citizens) ready to take a job immediately, when an appropriate one is offered, because there is no objective obstacle for them to become employed.

The **partly unemployed** are registered job applicants with additional earnings (coming from an activity based on employment or service relationship, or under contracts for work carried out outside contracts of employment provided that their monthly earnings or remunerations per month do not exceed a half of the minimum wage).

The **share of unemployed persons** expresses the share of available job applicants kept in the labour office register aged 15–64 years in the whole population of the same age.

Since 1 January 2012, there has been effective an amendment to the Act No 435/2004 Sb, on Employment, which in the Section 35 cancels the so far applied obligations of employers to report **job vacancies**. The employer **may** report job vacancies and their characteristics to a regional labour office (Section 37). Job vacancies kept in the labour office register mean newly created or vacated jobs, for which the employer intends to acquire employees or to occupy them with temporary employees from an **employment agency** (Section 35).

Data on **employed foreigners** are based on two separate registers as follows:

- the register kept by the **Ministry of Labour and Social Affairs**, exactly by the **Administration of Employment Services**, which collects data from registers of labour offices as follows:
 - the number of valid work permits of third-country nationals (i.e. citizens from non-EU countries);
 - the number of pieces of information on citizens of the EU/EEA and Switzerland starting to perform work in employment (these citizens and their family members do not need a work permit; however, their employers are obliged to inform the competent labour office in writing on the day they started to perform work in employment, at the latest);
 - the number of granted employee cards (they are only issued to third-country nationals; they have property of both a residence permit and a work permit);

- the number of granted blue cards (a residence permit and a work permit for highly qualified third-country nationals for the performance of highly qualified employment that is demanded in the Czech Republic);
- the number of pieces of information on commencement of the performance of work of foreigners from third countries (third-country nationals) who do not need a work permit to enter the labour market in the Czech Republic, however, who have a duty to inform (categories of those foreigners are enumerated in the Employment Act; it applies, inter alia, to foreigners with permanent residence or to foreigners who have been granted asylum status or subsidiary protection);
- the register kept by the **Ministry of Industry and Trade**, which collects data on foreigners having valid trade licence (they can do business in the territory of the Czech Republic provided that they comply with conditions specified by the Act No 455/1991 Sb, on Trade Licences).

The data on the number of residing foreigners and on the number of employed foreigners cannot be directly compared. In some cases (in some citizenships), the number of employed foreigners may be higher than the number of residing foreigners, i.e. those registered by the Foreign Police. It mainly applies to the numbers of foreigners – EU nationals who do not register for temporary residence in the Czech Republic (the law defines the duty of those citizens to register for residence, however, it does not set any sanctions for cases when a foreigner – EU national does not do so); however, they are registered by labour offices as employees.

10 ECONOMIC ENTITIES

Data in this chapter are compiled from data kept in the **(Statistical) Business Register** (abbreviated RES in Czech). The (Statistical) Business Register is a public list, which is made and maintained by the CZSO pursuant to the Act No 89/1995 Sb, on the State Statistical Service, as subsequently amended. It serves mainly for preparation and conducting of statistical surveys. It is kept updated with data from statistical surveys and data from the Commercial Register, trade licensing offices, and other administrative sources. After basic registers of public administration were put into operation on 1 July 2012, the **(Administrative) Business Register** (abbreviated ROS in Czech), also called the **Basic Register of Legal and Natural Persons**, became the main source for updates of the (Statistical) Business Register.

The (Statistical) Business Register keeps records of **legal persons** including organisational units of the state and **natural persons** with the status of an entrepreneur. **Natural persons** include private entrepreneurs in business under the Trade Act, agricultural entrepreneurs – natural persons, natural persons in business under other acts, and since 2014 foreign natural persons and branches of foreign natural persons. In tables, foreign natural persons also include branches of foreign natural persons. **Business companies and partnerships** include general commercial partnerships, limited liability companies, limited partnerships, joint-stock companies and since 2010 also European Companies (Societas Europaea, SE) and European Economic Interest Groupings. **Cooperatives** also include European Cooperative Societies (Societas Cooperativa Europaea, SCE). **Foundations and endowment funds** also include organisational units of foreign endowment funds and organisational units of foreign foundations. Associations and subsidiary associations also include foreign subsidiary associations.

In relation to an amendment to the Trade Act according to which activities of independent loss adjusters became a new regulated trade, in the beginning of 2019 activities of insurance brokers (insurance intermediaries) kept according to the Act No 38/2004 Sb under the legal form of “natural persons in business under other acts” (than the Trade Act and the Act on Agriculture) were terminated. Those who intended to continue in their activities and notified of their regulated trade were included in the legal form of “natural persons in business under the Trade Act”.

The breakdown of the (Statistical) Business Register by **principal** (prevailing) **activity** corresponds to sections of the **Classification of Economic Activities** (CZ-NACE). Businesses are classified to **institutional sectors** in accordance with the **Classification of Institutional Sectors and Subsectors** (according to the ESA 2010). Individual sectors (subsectors) include entities (businesses), which have similar basic activities, functions, and economic behaviour and belong to the same type of producer. The **households** sector includes individuals or groups of individuals as final consumers and small entrepreneurs producing market goods and services (craftsmen, agricultural entrepreneurs – natural persons, private medical doctors, lawyers, tax advisors, etc.), dwelling unit owners associations, and since 2014 also foreign natural persons (previously classified to foreign-controlled private enterprises).

A **business with identified activity** is that, which according to information from statistical surveys or administrative data sources reports economic activity.

11 AGRICULTURE

The agricultural “industry” comprises agricultural primary production enterprises engaged in crop production, animal production, and providing services for agriculture (according to the Classification of Economic Activities (CZ-NACE), division 01, except for data on gamekeeping covering economic activities given in the CZ-NACE 01.7 group, which are provided under statistics on Forestry because they are more closely related to forest management).

Usually an agricultural holding, which is a part of the **Farm Register** and fulfils at least one of **threshold values** (e.g. area of 1 ha of utilised agricultural area or farming of livestock from 1 head of cattle, etc.) is a basic register unit in agricultural statistics. The data are mainly obtained by a sample survey and the **results found are grossed-up to the whole agricultural sector** (excluding households outside the agricultural industry).

The **agricultural output** of the Region is a total of agricultural products and agricultural services produced by agricultural entities of the Region and inseparable non-agricultural secondary activities. The basic methodological tool to measure the output is so-called regional economic accounts for agriculture.

The **utilised agricultural area** is land regularly utilised for cultivation of agricultural crops. It includes arable land including fallows, hop gardens, vineyards, gardens, orchards, permanent grasslands, and other permanent crops. A fallow is arable land that lies fallow; during the surveyed year, it is not used for production of agricultural crops.

Areas under crops (sometimes also called sowing areas) include agricultural land areas, which have been sown or planted in spring of the given year, areas of winter crops sown in autumn of the previous year, and areas of multiple-year crops cultivated on lands sown in previous years. They are obtained by a survey as at 31 May (the same as the land area of the utilised agricultural area).

The **harvest** represents the total production of crops at standard moisture and purity. The fodder crops harvest has been given with the determined moisture content since 2017; it is 15% for clover, 15% for lucerne, and 65% for green and silage maize. The **per hectare yield** is the ratio of a harvest to the harvested area. The **harvested area** is equal to the areas under crops, except for grain maize, green maize, maize for silage, permanent grasslands areas, and also vegetables since 2018. The number of fruit trees and bushes includes fruit trees and bushes of all age categories dedicated for the fruit production.

The **number of livestock** is given according to livestock surveys as at 1 April of the given year. **Cows and sows** are breeding dams calved or farrowed, respectively, at least once. **Poultry** includes hens and cocks, geese and ganders, ducks and drakes, turkey hens and cocks (including young ones).

The **production of livestock for slaughter** (cattle, pigs) and **poultry for slaughter** is the amount of livestock (as live weight), which was sold to market to be slaughtered. It also includes livestock, which was in-house slaughtered or slaughtered in own slaughterhouses or in other owner slaughterhouses for reimbursement, or potentially slaughtered outside slaughterhouses. The **milk production** is the amount of milk that have been milked and sucked by sucking calves of milked dairy cows and does not include milk sucked by calves of meat cows. **Production/Yield of eggs for consumption** is surveyed for laying hens, which are hens who reached laying maturity and are kept for production of eggs not intended for hatching.

The **meat production** (except for poultrymeat) is the carcass weight of livestock for slaughter which were slaughtered at registered slaughterhouses no matter if they were reared in the Czech Republic or imported as livestock from abroad. It includes meat, from forced slaughters as well, that was recognised as suitable for human consumption. The **carcass weight** is the weight of carcasses processed in slaughters as defined in regulations of the Council of the European Union. Veal is the meat from cattle slaughtered at the age of up to eight months and lamb is the meat of sheep slaughtered at the age of up to one year. The **live weight** is the weight of livestock for slaughter prior they are slaughtered. The average live weight of pigs for slaughter excludes sows and boars.

The **consumption of fertilisers** is given per 1 hectare of reported utilised agricultural area for reporting units covered by the sample survey. There is no grossing up to the whole agricultural industry, that means it does not cover small farmers. The crop year is the period from 1 July of the previous year to 30 June of the current year.

12 FORESTRY

Forestry encompasses all entities activities of which consist in afforestation/reforestation and forest regeneration, forest cultivation, felling, and other forestry activities. Figures on the forestry are reported on the CZSO annual questionnaires (forms/reports) completed and submitted by businesses with 20+ employees and having forestry and logging as their principal (prevailing) activity, as classified in the division 02 of the Classification of Economic Activities (CZ-NACE), and by businesses, which manage forest land with the area of 200 hectares and larger.

Afforestation/reforestation means the afforestation and forest restoration carried out by man – by sowing and planting (i.e. sowing and planting of forests while the area of natural forest regeneration is excluded). This includes, besides areas forested for the first time and repeatedly, also improvements and additions to forest cultures and natural seeding areas converted to the area of fully forested land. **Roundwood removals** involve logged timber (excluding bark) as volume of large timber and a portion of small-diameter timber (felling residues are not included), counted irrespective of what kind of thinning or felling it has been acquired from and includes salvage felling as well as the so-called self-production felling. The **salvage felling** includes data on salvage felling and disasters of all types. The overall roundwood removals also include dry trees, windfalls, blowdowns, and all wood used in beetle traps to catch bark beetles, and also tree specimen that serve as a wintering refuge of harmful insects (bark beetles, etc.). The wood volume processed in a given year is counted in.

Cleanings are treatments of young stands, the purpose of which is mainly to reduce the stand density and to adjust health and quality of the stand. **Thinnings** shall mean tending of premature forest stands to optimise stand properties in terms of wood production, resistance, and stability. The **thinning** is carried out by removing from the stand the trees, which are economically inappropriate and undesirable in favour of the crop trees.

The Chapter also contains data on **game management** – spring stock of game and hunting of game. Data published are for reporting units covered by the statistical surveys of the Ministry of Agriculture and the Ministry of the Environment, including data for hunting grounds acknowledged on lands designated for defence of the state.

13 INDUSTRY

Data are published for enterprises, which have industry as their principal (prevailing) activity (CZ-NACE B, C, and D sections, i.e. mining and quarrying, manufacturing, and electricity, gas, steam and air conditioning supply) **with 100+ employees** and surveyed by the enterprise method, i.e. for enterprises having their **registered office in the relevant territory**, including their establishments, plants, and units located in other Regions. As for the category of enterprises with 100+ employees, it is an exhaustive survey.

Sales of goods and services incidental to industry are at current basic prices, which are invoiced by a producer to a purchaser. They include only sales (revenues) from the sale of products and services according to the CZ-CPA 05–39, i.e. sales adjusted for non-industrial activities of an enterprise. Trade in and transmission, distribution, and supply of energies also belong to services incidental to industry. The difference between the value of the purchased energy and the value of sold (delivered) one is the sales (revenue) for the service. Sales (revenues from sales) include sale of own tangible and intangible output valued at current prices. These sales exclude the VAT, excise duty, and customs duty.

The **average registered number of employees** (headcount) includes all permanent, seasonal, and temporary employees who have a contract of employment with an employer and receive wage from the employer for their work done. It is calculated as a sum of the number of natural persons (headcount) in individual days of a reported month (including non-working days / public holidays / rest days and days off), which is divided by the number of all calendar days of the month.

The **average gross monthly wage** per employee includes all incomes from employment (basic wages and salaries, personal bonuses and other bonuses, company profit sharing, and compensations for wages and salaries) charged to be paid to registered employees in compliance with relevant regulations on wages and salaries. Compensation of wages or salaries for temporary incapacity to work for disease or injury and quarantine paid by the employers are not included.

Comparison of data in the year-on-year development can be influenced by the fact that it applies to sets of entities that fulfil set criteria (prevailing activity, registered office in the Region, threshold for the number of employees) always in the relevant year. Conversions to a comparable organisation structure are not made.

14 ENERGY

Information on the energy sector about the operation of the Czech electricity and gas grid is published regularly by the **Energy Regulatory Office** (www.eru.cz/en/). Basic data are published in the Yearly report on the operation of the Czech electricity grid and in the Yearly report on the operation of the Czech gas grid, which are published by the Energy Regulatory Office based on the Section 17, paragraph 7(m) of the **Act No 458/2000 Sb, on Business Conditions and Performance of State Administration in the Energy Sectors and amending certain acts** (the Energy Act), as subsequently amended. Data on the electric power industry come directly from producers of electricity, distribution system and transmission system operators, data on renewable sources from the OTE, a. s. company. Data on gas are processed by the Energy Regulatory Office from producers, operators of gas storage facilities, the transmission system operator, distribution system operators, natural gas traders, and the market operator OTE, a. s. company. All data are based on source materials from licensed entities.

Installed capacity of electricity sets is a sum of rated outputs of individual electricity sets (blocks) as at the last day of the reference period. It is the highest theoretical active output of a set.

Gross electricity production is the total electricity production at generator terminals. **Net electricity production** is the difference between the total electricity production and own consumption for the production of electricity.

Gross electricity production **from renewable (energy) sources** comprises electricity production from hydroelectric power plants, wind power plants, photovoltaic (solar) power plants, biogas (including sewage and landfill gases), biomass, and from biodegradable municipal waste.

Consumption of electricity is published by the Energy Regulatory Office since 2014 **as the net consumption of electricity**, which is the consumption of electricity at the supply points of regional distribution system operators plus consumption of entities directly connected to the respective generating plant. In the previous years, it published consumption of electricity only **as the gross consumption of electricity** (the sum of the net consumption of electricity, own consumption for the production of electricity, consumption for pumping at pumped storage plants, and network losses).

Consumption of natural gas is the volume of natural gas supplied to end customers. It does not include own consumption of natural gas during distribution, losses, an accumulation change in distribution systems, own consumption of natural gas producers at natural gas mining, and natural gas to drive compressors in compression stations in the transmission system; those values cannot be broken down by Region.

The **number of compressed natural gas (CNG) filling stations** and consumption of CNG have been measured separately since 2017. In the previous years, the data were included in other consumption categories.

15 CONSTRUCTION, HOUSING CONSTRUCTION

The **construction enterprise** is a business with construction as principal (prevailing) activity (classified to divisions 41, 42, and 43 of the Classification of Economic Activities (CZ-NACE)).

The **construction work** mainly refers to works carried out on the construction, reconstruction, extension, renovation, repair and maintenance of permanent as well as temporary buildings and structures. They also include assembly works on

structures and the value of built-in materials and structures. The value of construction work is given excluding the value added tax (VAT). The **general construction work** represents the volume of construction work of the reporting unit performed by workers included in its registered number of employees plus productive work of apprentices and the volume of construction work on own tangible fixed assets. The **construction work "S" (according to delivery contracts)** represents the total value of own outputs of construction activities of the reporting unit (including built-in materials) implemented on the basis of a delivery contract for the end user (building investor), including the value of potential subdeliveries of construction work received from other sub-contractors in order to implement the delivery contract for the end user. The **public ordering party** (contracting authority, i.e. a party placing an order for a public project) is a legal person which, in accordance with valid regulations on financial management, utilises, in full or in part, public resources for funding of public projects (public work).

The **building permit** means the total number of building permits (including joint building permits), building notifications, constructions permitted on the basis of a contract governed by public law, and constructions permitted in a shortened building permit process by an approved building inspector, which were granted and registered according to the Building Act by the planning and building control authority in charge. The **approximate value of constructions** includes total costs, including technology, (at current prices) incurred for the preparation, implementation, and putting of the construction into commission.

Housing construction includes construction of new dwellings in the given territory by means of all types of construction activities. The **dwelling** means a room or a set of rooms that had been determined for residential use by a decision of the planning and building control authority and that may serve to that purpose as independent dwelling units (housing units). **Dwellings started** are dwellings in buildings, for which building permits have been granted in the reference period, no matter whether these dwellings were completed in the reference period or not. **Dwellings completed** are dwellings located in new buildings that have been allocated a description/registration house number or newly completed dwellings in already existing buildings.

The **living floor area of a dwelling** is the floor area of habitable rooms. The living floor area does not include the floor area of ancillary rooms (e.g. an entrance hall) and facilities (e.g. a toilet, a bathroom). The **useful floor area of a dwelling** is the area of all habitable and ancillary rooms, including facilities of the dwelling. It excludes floor areas of non-residential areas. The **energy performance of a building** is only monitored for newly erected buildings.

16 TOURISM

Tourism statistics includes data on capacity and outputs of collective tourist accommodation establishments and also data from a sample survey among households on travel behaviour of residents. Besides data by Region and District, data for certified tourist areas of the Destination Management Organisation (DMO) are published. The DMO ensures coordination, cooperation, and communication of providers of tourism services on a given territory in order to manage tourism more effectively.

Collective accommodation establishments are establishments with at least five rooms and at the same time ten beds that on a regular (or irregular) basis provide guests (including children) with temporary accommodation for a holiday, a tour, a spa treatment, a business trip, a training, a course, a congress, a symposium, stays of children at schools in nature, and in summer and winter holiday camps. They are divided by category determining the type of accommodation establishment and the class defining requirements for the equipment, level, and range of services connected with the accommodation. The collective accommodation establishments include hotels, boarding houses, hostels, holiday dwellings, campsites, and other accommodation establishments.

Bed places in accommodation establishments only include bed places serving to tourism (excluding extra beds). **Places for tents and caravans** mean the number of places for tents, caravans, and campers. The number of rooms, bed places, and places for tents and caravans includes maximum capacity of each collective accommodation establishment in the given year.

Provided data on the number of guests in collective accommodation establishments are a summary of data from processed questionnaires and estimated non-response. **Guests** in an accommodation establishment are all persons (including children and excluding operating personnel and owners of the accommodation establishment) who have used services of the accommodation establishment for their temporary accommodation. Persons that use an accommodation establishment for their temporary accommodation for the purpose of employment or full-time studies are not included. The length of the temporary accommodation must not exceed 1 year for the guest to be considered a tourist.

A person with a permanent residence in the Czech Republic is considered a **resident**. It can therefore be a citizen of the Czech Republic as well as a foreign national permanently living in the Czech Republic. A **non-resident** is a person who permanently lives in other country (including citizens of the Czech Republic permanently living abroad).

The **average length of stay** is by one day longer than the average number of overnight stays. The **net occupancy rate of bed places** is the net occupancy rate of permanent bed places and it is calculated as the number of overnight stays for the reference period divided by the multiplication of the average number of bed places available and the number of operating days. The **occupancy rate of rooms** means the net occupancy rate of rooms and it is calculated as the number of room-days (i.e. the number of occupied rooms for individual days of the reference period) divided by the multiplication of the average number of rooms available and the number of operating days.

A **conference** is a formal meeting of a higher number of people with some specialization the subject of which are presentations, lectures, discussions, and consultations. It can be a congress of academics, a meeting of diplomatic representatives of individual states, and the like; there is usually an accompanying programme.

Based on the results of the project of the Ministry of Regional Development called "Quality Improvement of Data on Selected Tourism Sectors" and a subsequent update of the Register of Collective Accommodation Establishments of the CZSO, data on capacities and on the number of guests for the years 2012 and 2013 have been revised; data for the previous years are incomparable.

A **tourism sample survey (TSS)** is the source of data on outbound and inbound tourism of residents of the Czech Republic. The survey is carried out monthly in a randomly selected sample of households and persons aged 15+ years are enquired. Data on private trips (with the purpose to spend leisure time, to recreate, to improve health, to visit relatives or friends) and on business trips, which took place during the last three months, are surveyed among all members of a household. Using weight coefficients, survey results are grossed up to the population of 15+ years and for that age group they are also published.

A **long trip** is a private trip, at which a person stayed overnight for at least 4 successive nights outside his or her usual environment. A **short trip** is a private trip (including weekend stays), at which a person stayed overnight at least for 1 night and for 3 successive nights as a maximum outside his or her usual environment. A **business trip** is a trip of a business/working character outside the usual environment with at least one overnight stay (it includes: congresses, conferences, fairs and exhibitions, business meetings, company missions, and the like).

Summary data on an economic status of tourism industry are given in the **Tourism Satellite Account**. The most requested information is as follows: the **share of tourism in the gross value added (GVA)** and the **number of persons employed in tourism**, which gives an annual average of the number of all natural persons who work in the tourism industry in their main job or who are temporarily not working but are in the so-called formal employment (including the self-employed persons).

Since 2020, data from online international accommodation platforms (Airbnb, Booking, Expedia, and Tripadvisor) have been available. Via the intermediating platforms, information is captured on a digital footprint of the accommodated in the form of the advertised listings or through the actual bookings.

17 TRANSPORT

The data on **transport** are obtained from external sources – the Ministry of Transport and the Road and Motorway Directorate of the CR.

Motorways are roads designed for fast long-distance and international transport by means of road motor vehicles and built without junctions at grade. Depending on their purpose and importance to transport, they are classified to class I and class II motorways. **Roads** are surface communications open to the public and designed for the use by road and other vehicles and pedestrians. They form a road network. Depending on their purpose and importance to transport, they are classified to class I, class II, and class III roads (including sections in towns and municipalities included in the road network).

The length of operated **railway lines** is the length of running (main/open) tracks. It does not include other tracks (loops, sidings) and service (marshalling/handling) tracks. Since 2015, the total **length of navigable inland waterways** for regular transport also includes class 0 and non-classified inland waterways on reservoirs and lakes serving mostly for transport by means of passenger ships and for navigation for sport.

The **numbers of road vehicles** are obtained from the Register of Road Vehicles updated according to the registers of municipal authorities of municipalities with extended powers. There are road motor vehicles and semi-trailers and trailers having valid licence plates as at 31 December.

18 INFORMATION SOCIETY

The term of **information and communication technologies** (hereinafter only referred to as the ICT) generally includes technologies as mobile phones, computers, and the Internet and systems, activities, and processes related to them, which contribute to the display, processing, storage/warehousing, and transmission of information and data in an electronic form.

Data on (fixed broadband) **Internet infrastructure** are based on data sources of the Czech Telecommunication Office; they are related to 31 December of the reference year.

The **broadband (high-speed) internet access** enables to download with the minimum speed of 2 Mbps. A fast broadband connection enabling to transmit data with the speed of 30–99.9 Mbps is considered to be standard nowadays and an ultra-fast broadband with the speed over 100 Mbps is considered to be ideal. The service subscriber can be both a natural or a legal person that has a contract concluded with a service provider. The number of subscribers to this service is measured on the basis of the number of access points where subscribers are provided with the service for one of the below mentioned technologies used for connection to the Internet. Data given in tables on the Internet infrastructure only apply to services provided on a retail trade level, i.e. it applies to services provided to end users.

The broadband internet access by means of a **digital subscriber line (DSL)** technology enables broadband connectivity by means of a metallic line (telephone line). At present, the most frequently used types of this connection are an asymmetric digital subscriber line (ADSL) and, most of all, a very high bit rate digital subscriber line (VDSL). Since 2013, it also includes access by means of VDSL technology in combination with optical line of the FTTCab type (Fiber To The Cabinet).

The broadband internet access by means of a **cable television network** (CATV) is expressed as the number of **cable modems** by means of which subscribers are provided with the service of broadband internet access.

The broadband internet access by means of **optical fibre** (fiber to the x – FTTx) includes the optical connection of the fibre to the home (FTTH) type, when the optical fibre delivers optical connectivity up to the subscriber's dwelling (flat) and the optical connection of the fibre to the building (FTTB) type, when the optical fibre only delivers optical connectivity to the building and the indoor distribution to the subscriber's dwelling (flat) is ensured in a different way (e.g. by a radio network or a fixed local area network).

Fixed wireless access (FWA) at a fixed place includes connection to the Internet in the licensed (including fixed LTE/5G) and non-licensed (including fixed WiFi) frequency bands.

Data on **information and communication technologies in households and their usage by individuals** are based on the Sample Survey on ICT Usage in Households and by Individuals, which has been carried out within the Integrated Household Surveys (IHS). The survey is carried out using the computer assisted personal interviewing (CAPI) method on the sample of about 10 000 individuals (persons) aged 16+ years. Results have been grossed up to the whole population in Regions of the Czech Republic aged 16+ years. Concerning data on households, the current status in the survey period (the 2nd quarter of the reference year) is surveyed; data on individuals (persons) are for the last three months in the survey period, except for the indicator on purchasing on the Internet, which is surveyed for the reference period of 12 months before the interviewing. In order to be more representative, data, which are broken down by Region, are published as three-year moving averages.

Households with a computer / internet access include all households, which at the time of the survey stated that at least one of the household members had an access to a personal computer / the Internet at home.

Households having a WiFi router are households, which at the time of the survey stated that they distribute the internet signal (from the fixed connection to the Internet) across the household by means of a WiFi router. A WiFi router is a device enabling persons in the given household to get connected to the Internet from multiple devices concurrently and also from any location, which is within the WiFi network range.

Individuals (persons) **using information and communication technologies** are such individuals (persons) who have used a computer or the Internet at least once in the last three months anywhere (e.g. at home, at work, at school) and for whatever purpose (private or work).

Individuals (persons) **using a mobile phone to access the Internet** are individuals (persons) who stated that they had used a mobile phone to access the Internet at least once during the last three months. It does not matter whether the phone was a private one or an employer's one as well as it does not matter what type of connection was used to access the Internet (mobile networks, WiFi).

Individuals (persons) **using social networks** (social networking) **on the Internet** are those who in the last three months at least once logged into their user profile on such networks and used available services as, for example, browsing through posts of other users, communication with other users, and/or sharing of their own posts.

Individuals (persons) **purchasing** (shopping) **on the Internet** are individuals (persons) who in the last twelve months purchased or ordered any goods or services on a website or via applications. A purchase means a purchase for private purposes. This does not include a purchase for the employer, a school, or other organisations. The goods or services could be paid over as "cash on delivery" or at personal pickup.

The data on the **numbers of ICT specialists** are from the Labour Force Sample Survey (LFSS). In order to ensure higher reliability and to eliminate considerable year-on-year fluctuations of values for this group of employees, data in the table are provided as three-year moving averages (e.g. the value for 2020 is calculated as an average of values for the years 2019, 2020, and 2021). (The occupations of) **ICT specialists** are subdivided into two major groups, namely to ICT managers, engineers and professionals (ICT professionals) and ICT technicians, installers and servicers (ICT technicians). Their classification is based on the Classification of Occupations (CZ-ISCO), the corresponding national classification in the Czech Republic based on the International Standard Classification of Occupations (ISCO-08) developed by the International Labour Organization (ILO). From 2011, ICT specialists are defined and assigned to the major groups, groups, and subgroups of the CZ-ISCO based on recommendations of Eurostat and the International Labour Organization.

Data on **wages of ICT specialists** come from the structural employee wage statistics, which is generated by merging of databases of the sample survey of the Information System on Average Earnings of the Ministry of Labour and Social Affairs, which covers the wage sphere, and of the administrative data source of the Salary Information System of the Ministry of Finance, which exhaustively covers the salary sphere. Data on wages of ICT specialists in this publication are only available for the ICT specialists defined rather narrowly, which includes two sub-major groups of the CZ-ISCO: 25 Information and communications technology professionals (hereinafter only referred to as the ICT professionals) and 35 Information and communications technicians (hereinafter only referred to as the ICT technicians).

Data on **students of and graduates from ICT fields of education** were obtained from data sources of the Ministry of Education, Youth, and Sports, namely from the Union Information from Students' Registers (the "SIMS" database). Data are continually added to the source SIMS database and the database is continually updated, including retrospective corrections. Data published in this Yearbook correspond to the state of processing as at 20 January 2021. Data on university students are always as at 31 December of the relevant year; data on graduates are for the whole school year. Information and communication technology studies are defined by the international classification of the ISCED-F 2013, class 06 Information and Communication Technologies. Numbers of students and graduates are given as headcount, i.e.

each student is included in a particular piece of data only once, including students who study in more study programmes concurrently. The total numbers of students and graduates thus do not have to be equal to the sums of students and graduates of respective types of study programmes.

Data on **ICT equipment in schools** come from data sources of the Ministry of Education, Youth, and Sports, which collects data on available IT infrastructure in basic, secondary, and higher professional schools. Data are as at September of a given year.

Data on **equipment penetration and usage of information technologies in health** in the Czech Republic, namely in independent surgeries of physicians, come from a survey of the Institute of Health Information and Statistics of the CR.

Electronic medical prescription (ePrescription) makes it possible for physicians (medical practitioners) to issue a medical prescription on their computer. The Central Repository of Electronic Prescriptions then assigns an identification code to the prescription and after that the physician tells the code to the patient. Based on the code, a pharmacist afterwards obtains the electronic prescription from the central repository.

Drug interaction alerts serve to a physician to find out whether a certain patient is not prescribed drugs that interact with each other.

Laboratory tests ordering and receiving of the results means that a physician sends an electronic order for a laboratory test from his/her computer in the surgery and afterwards he/she receives the test results in the form of a secure protocol.

19 SCIENCE AND RESEARCH

Research and experimental development (hereinafter only referred to as R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge (OECD 2015, Frascati Manual). For an activity to be a R&D activity, it must satisfy five core criteria; it must be: novel, creative, uncertain in its outcome, systematic, transferable and/or reproducible.

Characteristics of research and development are surveyed by the **Annual report (questionnaire) on research and development**, which includes questions on human and financial resources earmarked for R&D activities realized in the territory of the Czech Republic in respective sectors of R&D performance and types of entities, in which R&D is performed. **Reporting units** in the R&D survey are all legal and natural persons performing R&D in the territory of the Czech Republic as their principal (CZ-NACE 72 – Scientific research and development) or secondary economic activity, irrespective of the number of personnel, sector, or CZ-NACE activity, in which they work.

Sector of research and development performance is a basic category used in R&D statistics, which groups all institutional units performing R&D based on their main functions, behaviour, and objectives. R&D indicators are usually measured and published, also at an international level, in four sectors of R&D performance (hereinafter referred to as sectors): business enterprise, government, higher education, and private non-profit sector. These sectors were defined based on the Nomenclature of Institutional Sectors and Subsectors used in the national accounts (the European System of National and Regional Accounts (ESA 2010)) and definitions given in the Frascati Manual.

Business enterprise sector (S.11: Non-financial corporations; S.12: Financial corporations; S.141: Employers, and S.142: Own-account workers), which comprises all companies, organisations, and institutions, principal (prevailing) activity of which is market production of goods or services for sale to the general public at an economically significant price.

Entities and workplaces performing R&D in the business enterprise sector are broken down by type of workplace based on the ownership, namely to the following three categories: **public enterprises (corporations), private national enterprises (corporations), and foreign-controlled enterprises (corporations)**.

Government sector (S.13: General government) comprises bodies of central and local government, except for publicly managed higher education institutions (CZ-NACE 85.4). This sector includes in the Czech Republic especially **workplaces of the Czech Academy of Sciences** and other public research institutions (legal form 661), places of research under the competence of ministries, which perform R&D as their main activity (CZ-NACE 72). Other types of R&D workplaces in the government sector performing R&D most frequently as their secondary activity are **cultural establishments** (CZ-NACE 91) such as public libraries, archives, museums, **public health establishments** (except for teaching hospitals) with prevailing income coming from the public health insurance (CZ-NACE 86), and **other workplaces** (units).

Higher education sector (CZ-NACE 85.4: Higher education) comprises all public and private universities and all research institutes, experimental facilities and clinics, work of which is directly controlled or managed by higher education institutions. R&D workplaces in the higher education sector in the Czech Republic comprise mainly **individual faculties of 26 public and 2 state universities** and, since 2005, in accordance with the OECD methodology, also **12 teaching hospitals**.

Private non-profit sector (S.15: Non-profit institutions serving households) comprises private institutions, including private persons and households, primary aim of which is not generation of profit but providing of non-market services to households. They include, e.g., associations of research organisations, associations, unions, federations, movements, or foundations. The private non-profit sector is insignificant as for R&D performance.

Research and development activities are measured (especially in the government sector and the higher education sector) in six **broad fields of science** (broad knowledge domains) defined according to the Fields of Research and Development Classification (FORD classification) based on prevailing field of R&D workplaces surveyed. They are as follows: Natural sciences, Engineering and technology, Medical and health sciences, Agricultural and veterinary sciences, Social sciences, Humanities and the arts.

Persons working in research and development (hereinafter referred to as **R&D personnel**) are persons working at R&D workplaces in individual reporting units who ensure direct services for those workplaces. R&D personnel (R&D workers) are broken down according to the **activity** they perform to three categories. **Researchers**, who are engaged in the conception or creation of new knowledge, products, processes, methods, and systems or who manage such projects. **Technicians and equivalent staff** (hereinafter referred to as **technicians**) who participate in R&D by performing scientific and technical tasks involving the application of concepts and operational methods. **Other supporting staff** in R&D are managers, administrative, secretarial, and clerical staff, and craftsmen participating in R&D activities or involved in such activities.

The number of R&D personnel is usually **expressed** (measured) by means of **two main measurement units**:

- **Headcount (HC)** of R&D personnel refers to the **registered number of persons fully or partially active** (engaged) in research and development activities, employed in main or secondary employment **as at the end of the reference year** in entities, in which R&D is performed.

Note: Primarily in the higher education sector and partially also in the government sector, a huge amount of R&D personnel, especially researchers, have an employment contract **in more entities concurrently**. Therefore, in these sectors, the indicator is overestimated and does not provide the real number of persons working in R&D, but rather a number of jobs (working times) of persons performing R&D as at the end of the reference year. For both the national and international comparisons it is therefore **recommended** to use the below mentioned indicator.

- **Full-time equivalent (FTE)** of R&D personnel – this indicator clearly describes the **actual time** devoted to R&D. One FTE equals one-year of full-time work of an employee, who is 100% engaged in R&D activities. The indicator is important mainly as for R&D personnel (R&D workers) whose job content also consists of other activities than R&D (e.g. academics), because it includes only that part of their working hours/times, which they devote to R&D activities

Research and development expenditure includes all current expenditure (wages and salaries and other current (non-investment) expenditure) and capital (investment) expenditure spent during the reference year on R&D performed within a reporting unit (intramural R&D) in the territory of a given country regardless the source or the way of funding.

Note: Surveyed (intramural) R&D expenditure **does not include** extramural expenditure on R&D performed outside a reporting unit, sector, or country. The intramural R&D expenditure thus excludes expenditure spent on purchase of external R&D from other entities, sources transferred to other experts within a common R&D project, and subsidies or contributions (financial transfers) provided to third persons for R&D performed by them.

The amount of R&D expenditure made in individual sectors of performance is measured by the following **main sources of funding** of R&D activities. Funds from the **business enterprise sector** comprising mainly of own (internal) sources of surveyed enterprises earmarked for R&D performed within these enterprises and sources of parent companies funding R&D in their foreign affiliations in the Czech Republic. At the government sector and the higher education sector, funding from business enterprise sources includes mainly income from sale of R&D services (orders for R&D) and income from royalties and licence fees for intangible results of R&D. Funds from the **government sector – national** that come from the state budget or budgets of Regions are earmarked for R&D performed in the territory of the Czech Republic. Funds from the **government sector – from abroad**, which include especially revenue from the European Structural Funds. They include also other sources from the EU budget and sources from international organisations outside the EU (CERN, ILL, NATO, UNO, WHO, Norway grants and EEA grants, etc.). Besides the aforementioned main sources, also **other national sources** contribute to R&D funding, which comprise mainly own sources of universities and private non-profit institutions originating neither from the state budget, the business enterprise sector, nor from abroad. These sources are insignificant in the CR within the total R&D expenditure.

Statistics of **direct government support of R&D** provides detailed information on the financing of research and development from the state budget according to **socio-economic objectives** based on administrative data taken over from the R&D Information System. Data are partially also obtained directly from individual providers of public support of R&D.

Direct government support of R&D includes in the case of the Czech Republic all **financial sources provided from the state budget to support R&D**, including sources flowing to the R&D abroad. All data on the total direct government support of R&D from the state budget for the area of research, development, and innovations result from data provided in the State Final Account of the Czech Republic for the area of R&D. It applies to expenditure, which was really drawn for R&D from the state budget in the given year (not to amounts approved in the Act on the State Budget of the CR for the given year). Besides breakdown by socio-economic objectives, detailed data are also available as follows: by type of funding (project support versus institutional), by main provider, and beneficiary of the support.

Statistics on indirect government support of R&D (government tax relief for R&D expenditure) measures use of tax deductions for indirect funding of R&D performed in enterprises. This type of support was introduced in the Czech Republic in 2005. The CZSO has been publishing detailed data on the indirect government support since the reference year of 2007, namely based on data from tax returns of legal persons. The amount of an indirect government support of R&D (tax relief) is calculated as a financial volume of R&D expenditure deducted from the income tax base of legal persons multiplied by the income tax rate valid in the relevant year. The following are measured: data on the number of private enterprises, which made a tax deduction of R&D expenditure, data on the amount of the tax deduction, and data on the amount of the tax relief, namely broken down by ownership, size, and economic activity (industry) of the enterprise.

Patent statistics brings information about results and successfulness of research, development, and innovation activity in selected areas of technology. Data in the Chapter were processed by the CZSO based on data sources of the Industrial Property Office of the Czech Republic (IPO CR), which ensures patent protection for the territory of the Czech Republic.

Patents are granted for inventions, which are novelties, they are a result of activity of inventors, and are industrially applicable. Tables contain only data on patent activity of entities doing their business in the territory of the Czech Republic. Since the reference year 1995, the CZSO has been processing and publishing detailed statistical data on patent activity of domestic entities by means of data on patent applications submitted at (filed with) the IPO CR, patents granted in the given year, and on valid patents for the territory of the Czech Republic as at 31 December. Data on patents are classified (broken down) using the so-called fractional method and are available by type of applicants and in the case of enterprises also by their size, ownership, and economic activity (industry).

Data on (university) **students of and graduates from science and engineering fields of education** were obtained from data sources of the Ministry of Education, Youth, and Sports, namely from the Union Information from Students' Registers (the "SIMS" database). Data are continually added to the source SIMS database and the database is continually updated, including retrospective corrections. Data published in this Yearbook correspond to the state of processing as at 20 January 2022. Data on university students are always as at 31 December of the reference year; data on graduates are for the whole school year. **Studies of science and engineering fields of education** are defined based on the international classification of the ISCED-F 2013, broad fields 05 and 07. Numbers of students and graduates are given as headcount, i.e. each student is included in a particular piece of data only once, including students, who study in more study programmes concurrently. The total numbers of students and graduates thus do not have to be equal to the sums of students and graduates of respective types of study programmes.

Education at universities presented in this publication belongs to the tertiary level of education and includes a bachelor, follow-up master, master, and doctoral study programme. The follow-up master and master study programmes are given in tables together as master study programmes.

Science and engineering professionals are a narrow group of experts. Within their work activities, they conduct research, improve or develop concepts, theories and operational methods, or apply scientific knowledge relating to fields such as physics, astronomy, meteorology, chemistry, geophysics, geology, biology, ecology, pharmacology, medicine, mathematics, statistics, architecture, engineering, design, and technology. Science and engineering professionals are defined since 2011 based on the Classification of Occupations (CZ-ISCO) containing all groups of **occupations of the CZ-ISCO sub-major group 21**, which are sources of their main income.

Data on the numbers of science and engineering professionals come from the Labour Force Sample Survey (LFSS). In order to ensure higher reliability and to eliminate considerable year-on-year fluctuations of values for this group of employees, data in the table are provided as three-year moving averages (for example, the value for 2020 is calculated as an average of values for the years 2019, 2020, and 2021).

Data on **wages of science and engineering professionals** come from the structural employee wage statistics, which is generated by merging of databases of the sample survey of the **Information System on Average Earnings** of the Ministry of Labour and Social Affairs, which covers the **wage sphere**, and from the administrative data source of the **Salary Information System** of the Ministry of Finance, which exhaustively covers the **salary sphere**.

20 EDUCATION

Data on **education** are received from sources of a workplace of the State Statistical Service of the Ministry of Education, Youth, and Sports.

Data on all the below mentioned types of schools (except for universities) include all schools included in the Register of Schools and School Facilities regardless their founder and are published for the school year and reported according to the status as at 30 September of the reference year. Data are allocated to Regions (Districts) according to headquarters of the relevant schools. The totals also include data on schools for children/pupils/students with special education needs. They are children/pupils/students with disabilities or with a health or a social handicap who need to be taken a special care of. They can attend schools founded separately for them or, eventually, can be integrated within common classes in regular schools, or included in special classes in regular schools.

Children/pupils/students in nursery schools up to higher professional schools are given as the number of studies. New entrants to the 1st grade include all pupils admitted to the 1st grade excluding pupils who repeat the 1st grade and excluding pupils who resume their studies after having them interrupted.

The numbers of **teachers** (including headmasters, their deputies, guidance counsellors, and vocational trainers) are converted to full-time equivalent persons.

Nursery schools provide early childhood education, which is organized for children usually from three to six years of age. Besides nursery schools, early childhood education is provided by preparatory classes at basic schools and a preparatory stage at special basic schools, both founded at basic schools (these children/pupils, however, are not included in the number of children in nursery schools nor in the number of pupils in basic schools).

Basic schools provide primary education, which is part of the compulsory school education. Children start their compulsory school education in the age of 6 years (or 8 years as a maximum in cases of children with postponed compulsory school education). The compulsory school education usually lasts for nine years: five years at the first stage and four years at the second stage of basic schools. Primary education in a special basic school has ten grades; the first stage consists of the first to the sixth grade and the second stage of the seventh to the tenth grade. Pupils may leave the basic school earlier and complete their compulsory school education in lower grades of several-year grammar schools or in an eight-year specialism of dance in conservatoires.

Secondary schools are designated for obtaining secondary education. It can be attained in schools teaching programmes of grammar schools, i.e. providing general education with an A-level examination and programmes of technical education in secondary schools, i.e. providing (lower) secondary education, secondary vocational education with an apprenticeship certificate, including shortened studies, secondary technical education with an A-level examination, including shortened studies, and follow-up courses. Technical education within the follow-up courses is given separately in tables.

Characteristics of individual **types of education** in secondary schools:

- secondary education – (in full-time studies) two-year education programmes finished by a closing examination;
- secondary education with an apprenticeship certificate – (in full-time studies) two-year or three-year education programmes, by successful finishing of which a graduate acquires an apprenticeship certificate;
- secondary education with an A-level examination – education programmes with an A-level examination, graduates from which acquire an A-level certificate. There are two basic types of the programmes:
 - general education – a non-professional (non-specialised) type of education dedicated mainly to preparation for further studies. These programmes are usually provided by grammar schools, which have two types of education programmes – four-year grammar schools joined by basic school leavers after a successful completion of the ninth grade of basic schools and several-year grammar schools (eight-year or six-year grammar schools) for pupils of lower grades of basic schools (from the fifth and the seventh grade, respectively);
 - technical education – focuses on the professional side of education, lasts for four years;
- follow-up courses – in full-time studies they last for two years and are finished by an A-level examination. They are designed for graduates who earned secondary education with an apprenticeship certificate from three-year full-time studies in a field, which is related to that from which they want to pass their A-level examination;
- shortened studies to earn secondary education with an apprenticeship certificate – one to two year long as full-time studies for graduates who earned secondary education with an A-level examination or secondary education with an apprenticeship certificate from a different field of education;
- shortened studies to earn secondary education with an A-level examination – one to two year long as full-time studies, designed for graduates who earned secondary education with an A-level examination in a different field of education.

Another type of schools are **conservatoires**, in which pupils can earn secondary education with an A-level examination, namely no sooner than after four years in full-time studies of a six-year education programme (for basic school leavers) or after eight years in full-time studies of an eight-year education programme in the specialism of dance (in the first four grades pupils admitted after the fifth grade of basic schools fulfil their compulsory school education). By passing the final (graduate) examination called “absolutorium” at a conservatoire a pupil receives higher professional education in a conservatoire.

Higher professional schools offer education in three-year up to three-and-half year fields (distance studies are lasting for up to four years) to graduates with an A-level examination. This type of education is completed by passing the final (graduate) examination called “absolutorium”.

All types of secondary education and higher professional education may be arranged as full-time studies or in other types of education (evening, extramural, distance, and combined studies). Groups of fields of education are stated according to the Classification of Basic Branches of Education.

The system of schools providing higher education comprises public, private, and state **universities**. Information on public and private universities is drawn from the SIMS database (i.e. Union Information from Students’ Registers). Numbers of schools and students are reported according to the status as at 31 December and numbers of graduates for the whole school year. Data are continually added to the source SIMS database and the database is continually updated, including retrospective corrections; the data presented in this Yearbook refer to the database status as at 21 January 2022. Two state universities founded by the Ministry of Defence (University of Defence) and by the Ministry of the Interior (Police Academy of the Czech Republic in Prague) do not have the duty to send information on their students to the central SIMS database and therefore they are not included in the tables.

Students and graduates from public and private universities are published as headcount, i.e. each student is counted only once, including students studying concurrently in more universities or faculties. The total number of students and graduates from universities thus may differ from the sums for individual universities, types of education, or types of study programmes.

Universities offer bachelor, master, follow-up master, and doctoral study programmes. Studies can be delivered in full-time, distance, or a combined type of education. Fields of education correspond to the International Standard Classification of Education: Fields of Education and Training 2013 (ISCED-F 2013).

21 HEALTH

Selected data on health are taken over from source materials of the Institute of Health Information and Statistics of the Czech Republic (IHIS CR), which is the administrator of the National Health Information System (NHIS) authorised by the Ministry of Health. The data published are for **health establishments of all ministries**, i.e. including health establishments of the Ministry of Defence, Ministry of the interior, and Ministry of Justice.

Data on the **number of physicians** (full-time equivalent working persons) are calculated as the sum of all full-time and part-time jobs of individual physicians of health establishments converted according to the full number of working hours per week laid down for a given establishment or workplace. Since 2007, the numbers of physicians (including dentists)

have been given including contract workers working under various contracts for work (an agreement on work performance and an agreement on work activity).

Data for the **statistics of temporary incapacity for work due to disease or injury** are provided by the Czech Statistical Office by processing of data from the administrative data source of the Information System of the Czech Social Security Administration. Numbers of fatal occupational injuries are taken from the State Labour Inspection Office.

The **average percentage of incapacity for work** = the number of calendar days of incapacity for work due to disease or injury × 100 / (the average number of the sickness-insured persons × the number of calendar days in a reference period).

Tables 21–2, 21–7, and 21–105 show **data on congenital malformations in children** born in the given year, notified in the year of birth, or in the next year up to one year of the child age. The source is data from the National Register of Congenital Malformations, administered by the IHIS CR.

Tables 21–3, 21–8, and 21–106 contains numbers of newly found neoplasms, the **incidence of malignant neoplasms**. The main data source on neoplasms is the Czech National Cancer Registry, administered by the IHIS CR.

Data in Tables 21–13 and 21–113 were obtained from the Living Conditions – 2021 (a national round of the EU-SILC (Statistics on Income and Living Conditions) sample survey in households). They apply to **self-perceived health** of the population.

A **long-term disease or a health problem** means a disease or problem, which lasted or it is assumed to last for six months, at least. The indicator of **long-term limitations in common activities** presents a share of persons who stated they were limited in activities they usually carry out for health related reasons for the period of previous six months, at least.

Expenditure of health insurance companies includes expenditure on health care guaranteed by the Act No 48/1997 Sb, on the Public Health Insurance and amendments to certain related acts as subsequently amended. The main source of data related to expenditure of health insurance companies are data on health care reported by health establishments and recognised by health insurance companies. Data in Tables 21–5 and 21–110 are based on the System of Health Accounts of the Czech Republic. Tables 21–6, 21–111 and 21–112 contain selected diagnoses of the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD–10) or rather chapters of the ICD–10, which represent groups bearing the largest costs for health insurance companies.

22 SOCIAL SECURITY

Data from the domain of social security are obtained mostly from sources of the Ministry of Labour and Social Affairs; for selected indicators, outputs from information systems of the Czech Social Security Administration are also used.

The **social security scheme** includes schemes of pension insurance, sickness insurance, state social support benefits, foster care benefits, benefits of assistance in material need, providing of social services (including the care benefit), and other systems of benefits and allowances. The **pension insurance scheme** provides old-age, disability, widows', widowers', and orphans' pensions. The full old-age pension may be received either once the age limit for retirement has been reached (regular old-age pension) or before the age limit for retirement has been reached, in the period determined by law (early old-age pension, sometimes called "premature"). Before 2010, disability pensions were provided as full and partial ones. Effective since 1 January 2010, full disability pensions were partly transformed into disability pensions of the third degree and partly were subdivided into disability pensions of the first degree and the second degree (depending on percentage of the working ability reduction of the insured person due to long-term adverse health condition). Unlike in the previous years, data starting from 2010 show another view on the number of recipients and the average monthly amount of (full) old-age pensions and proportional old-age pensions (after a determined shorter insurance period and the higher age determined by law have been reached). They are newly based on the methodology of the Ministry of Labour and Social Affairs, in which proportional pensions granted pursuant to the Section 29 (2) of the Act No 155/1995 Sb, on Pension Insurance, are strictly classified as proportional old-age pensions. In the approach applied up to that time, they were classified as a part of the (full) old-age pensions. Furthermore, since 2010, disability pensions disbursed on the day when 65 years of age is reached are converted into old-age pensions on that day. Average old-age and disability pensions are always given as a single pension, that is not combined with a widow's or a widower's pension.

The system of benefits of the **sickness insurance scheme** consists of six types of benefits as follows: the sickness benefit, the attendance allowance (till 2008 as a support benefit for a family member care taking), the maternity benefit, the pregnancy and maternity compensation benefit, and then benefits, which have been newly introduced in the course of 2018 – the paternity benefit and the long-term attendance allowance. Sickness insurance benefits are provided for calendar days for a determined period of time. The sickness insurance of the own-account workers (the self-employed) is voluntary. The own-account workers are entitled to four of the benefits – the sickness benefit, the maternity benefit, the paternity benefit, and the long-term attendance allowance. Tables relating to sickness insurance and pension insurance do not include data concerning the armed forces of the Ministry of Defence, the Ministry of the Interior, and the Ministry of Justice.

The system of state social support provides for targeted assistance, first of all, to families with dependent children in determined social conditions, which the families are not able to cope with using their own resources and strength. Some of the **state social support benefits** are means-tested, i.e. they are paid depending on the amount of income of the applicant and jointly assessed persons (the child allowance, the housing allowance, and the birth grant). As for other benefits (the parental allowance and the funeral grant), the entitlement to them is not limited by the amount of income. **Foster care benefits** have been regulated by a separate legal regulation since the beginning of 2013 (they were moved

to be governed by the Act No 359/1999 Sb, on Social and Legal Protection of Children, as subsequently amended) and are not included in the state social support benefits anymore. They are used to contribute to needs related to the care of a child whom parents cannot or are not willing to care for and who is in foster care; since 2013, these benefits have included a newly established allowance at the foster care termination.

Data on **disability badge holders** (regulated by the Act No 329/2011 Sb, on Providing Benefits for People with Disabilities, valid since 2012) are not fully comparable to the data published before (last available for 2011). Such a person is entitled to a disability badge, who is aged 1+ year with a physical, sensory, or mental disability (impairment), which has the nature of a long-term adverse health status that substantially limits the person's ability to move or to get oriented, including the persons having an autism spectrum disorder. Since the beginning of 2014, the disability badge can only be acquired on the basis of a separate proceedings and an evaluation of health status carried out by an assessment physician of the district administration of the Czech Social Security Administration. Depending on how much the person's movability and orientation (cognitive functions) are afflicted in their function, the disability badge can be marked either with letters TP (a moderate disability badge for a person with medium disability), ZTP (a severe disability badge for a person with heavy disability), or ZTP/P (an extremely severe disability badge requiring accompanying person for a person with especially heavy disability of functions, or a person with completely disabled movability or cognitive functions that requires to be accompanied with a guide). The system of **benefits for people with disabilities** includes the mobility allowance and the grant for special aid.

The system of **assistance in material need** serves as a form of assistance to natural persons having insufficient income to help them secure basic needs. It is intended to motivate the persons to make active efforts to acquire resources to satisfy their basic needs of life and to prevent their social exclusion. The system of assistance in material need includes allowance for living, supplementary housing allowance (sometimes called "housing supplement"), and extraordinary immediate assistance.

The **care benefit** is designated for persons aged 1+ year(s) who due to their long-term bad health need the assistance of another natural person when managing their basic needs of life in the scope defined by law according to the level of the person's dependence. The persons may, upon their own free will, use the care benefit to pay for professional social services or use it to cover inevitable expenses while the care is provided within the family.

In relation to the adoption of the Act No 108/2006 Sb, on Social Services, as subsequently amended, a change was made in 2007 to division of **social services provided** and the Register of Social Service Providers was established. Before 2007, the data were collected for respective social service establishments when the establishment reported detailed figures solely on the prevailing type of the social service provided and merely additional information on other social services provided. Since 2008, a **different methodological approach has been applied** consisting in the observation of data on each registered social service in a separate statistical report. This approach has enabled to obtain more detailed and precise data on the registered social services provided. For this reason, some data for the years from 2007 to 2009 are not comparable with the data for the previous years and, moreover, the data for 2007 cannot be compared to those for the following years. Data on capacities of social service establishments are based on actual allocation of the services provided. Data on social care establishments in the table for Regions and Districts (Table 22–7) may not correspond to regional data given elsewhere (Tables 22–1 and 22–101) because the source data were generated on different dates.

23 CULTURE, SPORT

Data on **culture** were received from external sources – the National Information and Consulting Centre for Culture (NIPOS) established by the Ministry of Culture; data on the number and structure of cinemas from the Film Distributors Union.

Public libraries are: the National Library of the Czech Republic and Moravian Library in Brno, which are directly managed by the Ministry of Culture, regional scientific libraries established by regional authorities, and furthermore libraries established by municipalities and towns. A branch is a separated part of a library (as for its location); it is an organisational unit managed directly by the library. **Loans** refer to all library items and other documents used in-house and outside the library. A **library item** is each separate volume of a document i.e. every printed volume or a part of multi-volume piece, a complete volume or several issues of a periodical bound or inserted into a folder, each separate map, a graphic sheet, a carrier of special-type documents (a magnetic tape cassette, a CD, etc.), which is registered as a separate item in the item register.

Museums, monuments, and galleries include all establishments that were **in operation**, irrespective of their founder. A detached section, which is out of the museum or gallery headquarters, yet forms an organisational unit of a reporting unit, is considered a **branch**. A **monument** is a room or premises, in which an exposition or an exhibition is installed. In the case of **galleries** the statistical survey covers those, which own collections, so-called museums of fine art, not sale galleries. The most important form of activities of museums is exhibitions – either short-term, occasional, **exhibitions** or long-term (permanent) **expositions**.

Historical and other monuments used for cultural purposes include castles, chateaux, churches, monasteries, cloisters, ruins, mills, towers, and other historical monuments made accessible to visitors for an admission fee and not managed by a museum or a gallery. The data given refer to all the facilities, irrespective of their founder.

A **cinema** is a cultural establishment the main activity of which is film screenings. The numbers of cinemas do not include touring cinema initiatives. A multiplex cinema is a cinema, which operates three or more cinema auditoriums.

Published data from the area of **sport** are obtained from the registry of membership of the Czech Union of Sport (CUS) as at 31 December of the given year. The data collection was organised according to instructions of the Chairman of the Czech Union of Sports in all entities associated in the CUS.

24 CRIME AND ACCIDENTS

Data on crime and on traffic accidents were compiled from sources of the Police Presidium of the Czech Republic.

The data on registered and solved **criminal offences** (non-indictable offences, indictable offences, and crimes) include also criminal offences at railway and criminal offences registered by the Foreign Police Service. Solved criminal offences include criminal offences committed and solved in the reported year.

General crime includes crimes of violence, sexual crimes, property crimes, frauds, embezzlements, other property crimes, and other criminal offences. Economic crime includes mainly criminal offences in business and financial relations.

Traffic accidents encompass all accidents reported to the Police of the Czech Republic; in 2009 rules for their reporting changed. Numbers of the killed, seriously injured, and slightly injured persons refer to the status within 24 hours of the accident. Property damage includes damage to vehicles, their cargos, or to roads and their equipment.

Drivers who received penalty points are drivers who committed a traffic offence (criminal offence) counted within the penalty point system and therefore accumulated penalty points in their driving licence record. Such a driver thus has at least one point.

Data on **fires and interventions of fire units** were received from source materials of the Fire and Rescue Service of the CR. A **fire** is any undesirable combustion, at which people or animals were killed or injured, or at which property or the environment were damaged. A fire is also any undesirable combustion, which poses an imminent threat to human or animal life, property, or the environment.

A **natural disaster** is a large-scale emergency caused by adversely acting forces and phenomena in a global or a local manner that jeopardise lives, health, property, or the environment, such as floods, spates, heavy rains, influence of snow and icing (ice accretion), windstorms, landslides, and earthquakes.

Natural disasters are registered by means of an attribute always in connection with the type of the emergency the consequences of which were eliminated. This category incorporates mainly events connected with the declaration of a state of emergency, level of flood control activities, etc.

Technical emergencies are interventions in emergencies resulting in removals of dangers or hazardous conditions. The interventions comprise:

- a technical emergency – a removal of dangers or hazardous conditions of a large scale or of huge consequences for health of persons, animals or property (e.g. an imminent building collapse);
- a technical assistance – a removal of dangers or hazardous conditions out of technological operation or plants (excluding traffic accidents). It applies to assistance with equipment of fire units without connection to any technological operation or manufacture (e.g. an extrication of persons or objects, emergency opening, unlocking of locked premises, a rescue of persons and animals; drawing, closing, and delivering of water, temporary or other repairs, and the like);
- a technological assistance – a removal of dangers or hazardous conditions especially in technologies or operations. It applies to assistance with equipment of fire units (e.g. an emergency supply of air, water, electricity; fire assistance, support of efforts to extinguish centres of a forest fire, and the like);
- other assistance – it cannot be classified to the previous categories of technical emergencies. It applies e.g. to taking down, carrying away, or transporting of a patient or a physician, searching for missing persons, monitoring of watercourses, placing of containment booms (scum baffles, scum boards), road capacity (traffic flow) checks, and the like, assistances upon request of another entity (directly or indirectly provided assistance).

Killed persons, total are all killed persons found at the site of fire. The piece of data also includes persons the death of whom provably did not occur in direct connection with fire, e.g. as a result of a heart attack, murder, and the like.

Persons killed in direct connection with fires are persons who died as a result of burns, combustion gas intoxication, and the like as well as persons regarding whom it was impossible to find out whether they have provably died in direct connection with a fire.

25 ELECTIONS

On 23 and 24 September 2022, based on the Decision of the President of the Czech Republic No 81/2022 Sb, elections to **local councils**, city districts and city sections, and to the Prague City Assembly and councils of city sections were held. The execution of the elections was governed by the Act No 491/2001 Sb, on Elections to Local Councils, as subsequently amended.

Concurrently with elections to local councils, pursuant to the same Decision of the President of the Czech Republic, **elections to the Senate of the Parliament of the Czech Republic** were also held on the same days. The execution of the elections was governed by the Act No 247/1995 Sb, on Elections to the Parliament of the Czech Republic, and on amending certain other acts, as subsequently amended. Pursuant to the same Act, a week later, on 30 September and 1 October 2022, the second round of the elections was held in those districts, in which a senator was not elected in the first round. The elections took place in all of the 27 electoral districts, in which the electoral term of senators has expired.

Complete results of voting in the elections to local councils and to the Senate of the Parliament of the Czech Republic are available at www.volby.cz/index_en.htm and in publications issued according to the Catalogue of Products of the CZSO.

The number of **registered voters** is the number of persons registered in the electoral rolls (lists of persons who meet statutory conditions for execution of their active right to vote). The number of **issued official envelopes** is equal to the number of voters who came to vote and were given an official envelope in the polling station to put their ballot paper in. The number of **returned official envelopes** is the number of official envelopes cast by the voting voters to ballot boxes. The **turnout** is calculated as the share of the number of voting voters (persons who were issued an official envelope in a polling station) in registered voters (persons included in electoral rolls). The **number of candidates** is the number of candidates that can be voted for (except for the removed ones and those who have withdrawn). Names of election parties, which are too long, may be shortened in the tables. The **number of seats** is the number of elected representatives for the type of council being elected. Data on the percentage of valid votes are not rounded off and are provided to two decimal places.

26 POPULATION AND HOUSING CENSUS

The Population and Housing Census as at 26 March 2021 was carried out in the whole territory of the Czech Republic based on the Act No 332/2020 Sb, on the 2021 Population and Housing Census. Data were surveyed according to the state as at the decisive moment, which was the midnight from 26 March to 27 March 2021. The following were the subject to the Census: every natural person who had on the decisive moment a permanent or permitted temporary residence in the territory of the Czech Republic, each house and dwelling (including the unoccupied ones). The house was understood as a building containing premises determined for housing or accommodation. A dwelling was defined as a set of rooms (or one room), which was determined for housing by a planning and building control authority.

The content of the Census (the set of surveyed data) was stipulated by the Act No 332/2020 Sb. All persons were obliged to provide data surveyed by the Census in the scope and way stipulated by the Act. As usually, a self enumeration method has been used, in which people filled in the census forms (questionnaires) by themselves. Data on a dwelling were provided by its user, in the case of an unoccupied dwelling by the owner or caretaker of the house or dwelling. Besides data obtained from the population by means of the census forms (traditional census) also administrative data sources have been used for the first time in a larger extent – i.e. the Register of Census Districts and Buildings, the Information System of Population Records, and many other sources.

All data from the 2021 Population and Housing Census (as well as from the previous censuses) are provided according to the territorial and administrative breakdown of the Czech Republic valid as at 26 March 2021.

Census results were processed (in compliance with the European methodology) according to the usual residence and are gradually published on the website www.czso.cz/csu/scitani2021/home, in the Public database, in the form of open data, and also in special publications.

The **place of usual residence** is defined as the place where a person predominantly resides, spends his/her daily rest time, regardless of temporary absence due to recreation, visits, business trips, stay in a health facility, etc., and where he/she is a member of a particular household. To derive the place of usual residence (sometimes also called usual place of residence) of a person, it was important what was declared on the census form (questionnaire) as to the actual residence of a person (regardless the place of permanent residence or permitted temporary residence).

Population, total (number of inhabitants) includes all usually resident population of the Czech Republic. For the inclusion of a person in the usually resident population of the Czech Republic, the criterion of length of stay of at least 12 months or the intention of long-term residence is decisive. The **mean age** is an arithmetic mean of the ages of all population, with the addition of a constant of 0.5 years to correct data on the completed age of a person, of which the mean age is calculated.

The **marital status** is the *de jure* status, i.e. the legal conjugal status of an individual. Registered partnership is the *de jure* status, i.e. the legal status – registered partnership of persons of the same sex concluded pursuant to the Act No 115/2006 Sb, on Registered Partnership, or pursuant to other legal regulations abroad. The difference between the sum for individual categories of marital status and the total number also lies – besides the persons with not identified marital status – in persons with registered partnership that has ceased to exist.

The **educational attainment** was surveyed only for persons aged 15+ years according to the highest school completed. Persons who received their education in a private or foreign educational institution without accreditation by the Ministry of Education, Youth, and Sports reported the corresponding level of education in the Czech education system.

Information on the **citizenship** – data include all usually resident population of the Czech Republic with one or multiple citizenship. A person with dual or multiple citizenship is only allocated to one country of citizenship in the following order: the Czech Republic, other EU Member State, other European country, other country outside Europe.

The **nationality/ethnicity** – pertaining to a nation, a national or an ethnic minority. It was not obligatory to fill in the information on the nationality/ethnicity; it was even possible to fill in two nationalities/ethnicities. The “not filled in” category includes persons who did not answer the question about their nationality/ethnicity.

Information on the **religious belief** everybody filled in upon their decision; it was not obligatory to fill in this piece of data. The “not filled in” category includes persons who did not answer the question about their religious belief.

The **economically active** aged 15+ years are all persons representing labour force – the employed (working persons) and the unemployed.

The **number of houses** includes family houses, multi-dwelling buildings, service buildings with a dwelling (e.g. a school with a flat), and various establishments intended for housing - e.g. youth hostels, children's homes, social welfare

institutions (nursing homes), community care homes (retirement homes and boarding houses for pensioners), monasteries and convents, asylums for foreigners, hostels, etc.

A **family house** has three separate dwellings as a maximum and two above-ground floors and one underground floor as a maximum and a loft. There are the following types of family houses: a detached house, a semi-detached house, or a terraced house. A **multi-dwelling building** has four or more dwellings usually accessible from a common corridor or staircase, the number of floors is not decisive. **Other buildings** include all other types of buildings except for family houses and multi-dwelling buildings.

An **occupied house** is a house intended for housing, in which at least one person has his or her usual place of residence (also called place of usual residence). An **occupied dwelling** is a dwelling, in which at least one person has his or her usual place of residence.

A **tenure status (of a dwelling)** refers to the status of the occupant of the dwelling, i.e. of a household, which lives in the dwelling. A dwelling in own house is a dwelling the occupant of which is concurrently an owner or a co-owner of the house. A dwelling in private ownership is a dwelling the owner of which is individually listed in the Cadastre of Real Estate of the Czech Republic (land registry) as the owner of the unit.

27 ADMINISTRATIVE DISTRICTS, MUNICIPALITIES

The Act No 314/2002 Sb, on Determination of Municipalities with Authorised Municipal Authority and Determination of Municipalities with Extended Powers of 13 June 2002 that became effective on 1 January 2003 laid down the list of **municipalities with extended powers** and **municipalities with authorised municipal authority**. Following the Act, the Ministry of the Interior issued its Decree No 388/2002 Sb establishing administrative districts of these municipalities. Belonging of municipalities to administrative districts was provided for as at 1 January 2005 by the Decree No 388/2004 Sb of 24 June 2004, which modified the Decree No 388/2002 Sb, on Determination of Administrative Districts of Municipalities with Authorised Municipal Authority and Administrative Districts of Municipalities with Extended Powers.

A **town** is a municipality that was granted the status of a town pursuant to the Act on Municipalities. Tables 27–10 and 27–11 give an overview of towns in the respective Regions in alphabetical order. Table 27–12 contains selected data on regional towns of the Czech Republic in the order by their population size.

A **municipality** is a basic territorial self-governing community of citizens. It forms a territorial unit, which is defined by boundaries. Table 27–13 contains selected data on respective municipalities pooled together to make administrative districts of municipalities with extended powers (according to the territorial structure valid as at 31 December 2021). The figure in brackets following the name of an administrative district is an official numerical code corresponding to the code list (previously called nomenclature) issued by the CZSO.

Selected types of establishments in municipalities were surveyed by a territorial method (including detached workplaces) regardless of the seat of the operator. A municipality is considered to be equipped with a given type of establishment if at least one part of the municipality is equipped with it. The number of businesses includes those businesses, which have their seat in the given territory (not just their establishment / operational unit).

28 TERRITORIAL COMPARISONS

Based on the Constitutional Act No 347/1997 Sb, on the Establishment of Higher Territorial Self-Governing Units of 3 December 1997, the Czech Republic was divided into 14 Regions on 1 January 2000. The Czech Statistical Office introduced the **Classification of Territorial Statistical Units (CZ-NUTS)** according to the Act and to the Resolution of the Government of the Czech Republic No 707/1998 and Section 19, paragraph 1 of the Act No 89/1995 Sb, on the State Statistical Service, and following an agreement with the Statistical Office of the European Communities (Eurostat).

The NUTS classification (from the French version Nomenclature des Unités Territoriales Statistiques) is a fundamental systematic tool for the needs of statistics, analyses, and needs of providing of statistical information to the European Union. It is used for the statistical monitoring and analyses of social and economic conditions in Regions, as well as for the preparation, implementation, and evaluation of regional policies. At the NUTS 2 level, it is used mainly for drawing of funds from Structural Funds of the EU.

The Classification of Territorial Statistical Units (CZ-NUTS) was updated by the Communication of the CZSO No 201/2007 Sb effective from 1 January 2008. At present, the Classification has four NUTS levels, which are characterised by their population size and area. At lower levels, so-called local administrative units (LAUs) are used. Prague is not divided into LAU levels. The LAU system, however, has not been introduced by legal instruments of the EU.

NUTS 0 ...refers to **the state of the Czech Republic**

NUTS 1 ...refers to **the territory of the Czech Republic**

NUTS 2 ...refers to **cohesion regions**, i.e. to 8 groupings of Regions

NUTS 3 ...refers to **Regions**, i.e. to 14 higher territorial self-governing units

LAUrefers to **municipalities**, i.e. to 6 258 municipalities (as at 1 January 2021)

Overview of NUTS 2 cohesion regions and NUTS 3 Regions:

Praha	– Hl. m. Praha Region
Střední Čechy	– Středočeský Region
Jihozápad	– Jihočeský Region and Plzeňský Region

Severozápad	– Karlovarský <i>Region</i> and Ústecký <i>Region</i>
Severovýchod	– Liberecký <i>Region</i> , Královéhradecký <i>Region</i> , and Pardubický <i>Region</i>
Jihovýchod	– Vysočina <i>Region</i> and Jihomoravský <i>Region</i>
Střední Morava	– Olomoucký <i>Region</i> and Zlínský <i>Region</i>
Moravskoslezsko	– Moravskoslezský <i>Region</i>