

## 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 regional comparisons that copy the structure of regional statistical yearbooks has been put into a separate publication called *Comparison of Regions in the Czech Republic* (publication code 330205-17). Therefore, a CD with regional comparisons is not enclosed to a printed form of regional statistical yearbooks anymore. 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. More detailed information on changes to the territories is provided in the Chapter 2 Area and climate.

### 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 organizational 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 organizational structure of the latest year published (i.e. 2016) in order to be able to assess the long-term development in correct manner. 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, which concern the comparability of long-term time series.

Data on the **population** before the year 2001 followed the results of the Census as at 3 March 1991. From 2001 they followed the results of the Population and Housing Census as at 1 March 2001 and since 2011 they have followed the final results of the Population and Housing Census as at 26 March 2011. Demographic balances in a given decade follow the Census every year (births, deaths, immigrants, emigrants). In accordance with international conventions, the data also include numbers of foreigners staying long-term in the country.

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 set of reporting units developed as follows:

- 2000 to 2001 - enterprises with 20+ employees, incorporated and unincorporated, all entities classified to financial intermediation, all entities classified to the non-business sphere, excluding armed forces;
- 2002 to 2016 - all entities, including units of the Ministry of the Interior and the Ministry of Defence not published before.

On 1 January 2013, an indicator was introduced: **share of unemployed persons**, the methodology of which is explained in the Labour market chapter. A comparable time series is available from 2005. Usage of the registered unemployment rate indicator stopped in 2012.

Since 2002 entities (agricultural holdings) which exceed the so-called "threshold values" have been classified to **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 and the extent of their activities at the regional level is impossible to determine with sufficient reliability. Backward recalculation of time series to a comparable basis is also impossible.

In **industry**, only data referring to years from 1997 are comparable. Since that year, data have been processed on the regional level referring to enterprises with 100+ employees with registered offices on the territory concerned. In **construction**, construction work in the long-term time series is provided by 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 any more (secondary technical schools, secondary vocational schools). All types of schools now cover pupils who were before independently reported by special schools.

In **health** the time series is comparable since 2000, when data on the health establishments falling under all ministries have been given. Detached units of the health establishments are not covered (unlike in Chapter 27). Since 2007 the number of physicians includes also contractual 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.

At the chapter end there is a sheet with an overview of changes to territories of regions and districts as at 1 January 2016 related to dismissed military ranges or reduced territories thereof. It also contains an overview of changes to territories of regions and districts, which were carried out as at 1 January 2005 and 1 January 2007.

## 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 2016 have been derived from official data of the Czech Office for Surveying, Mapping and Cadastre in Prague.

The size structure of municipalities was processed according to the territorial-administrative arrangement as at 31 December 2016.

**Climate** is presented by basic meteorological data measured at weather stations located on 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 distinguishes six categories of specially protected areas as follows.

### Large-size 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 a biotic nature are of extraordinary scientific and educational importance; and
- 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 protected areas

- National natural 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 their relief with a typical geological structure;
- Natural monuments are areas defined similar way as the national natural monuments yet important at the regional level only; and
- Natural reserves are smaller areas of concentrated natural value with represented ecosystems characteristic to and important for the given geographical area.

Since 2007 the land areas of specially protected areas has been given according to respective decrees to the Act on Nature Conservation and Landscape Protection.

**Natura 2000** is a system of protected areas which is created by every Member State of the European Union on their territory adhering to unified principles. The Natura 2000 system development was imposed by two most important European regulations on 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. The Natura 2000 system consists of two types of territories of special protection areas (for birds) and special areas of conservation (for habitats and wild fauna and flora).

**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 expended by reporting units on the TFA acquisition (by purchase or own activities) and the total value of the TFA acquired for free or by transfer according to relevant legislation or by a change from private use to business. The **non-investment expenditure** for environmental protection includes wages and salaries, payments for rent, energy and other material, and payments for services the main purpose of which is to protect the environment.

**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.

An **emission** shall mean a process in which pollutants of various states are introduced 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 Air Pollution Sources (REZZO)**. Data in tables are broken down by type of pollution sources to REZZO 1 – 3 and REZZO 4 mobile pollution sources (especially road motor vehicles, railway vehicles, boats, vessels, and aircraft).

**Waste** shall mean any movable thing which its owner disposes of or intends to dispose.

The **municipal waste** shall mean the household waste and similar waste according to the Commission Decision of 18 November 2011 establishing rules and calculation methods for verifying compliance with the targets set in Article 11(2) of Directive 2008/98/EC of the European Parliament and of the Council (notified under document C(2011) 8165). The **household waste means waste generated by households and similar waste means waste in nature and composition comparable to household waste, excluding production waste and waste from agriculture and forestry.**

The **industry of water supply and sewerage systems** involves water management activities related to the administration and operation of water supply and sewerage collection systems that means with the providing for sufficient supply of quality drinking water and for removal of waste water and its treatment. **Public water supply systems and sewerage systems** include water supply systems and sewerage systems established and run in the public interest. The **water produced** includes both invoiced and non-invoiced water. 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 organizations, or for water handed over to other organizations.

Since 2014 there has been a more precise definition of sewerage and of water invoiced to households due to an amendment to the Decree No 428/2001 Sb establishing execution of the Act No 274/2001 Sb on public water supply and sewerage systems.

Since 2013 the "**wastewater discharged into public sewerage systems**" has been including also **levied rainwater**, besides sewerage, industrial, and other wastewater.

The **waste water treatment plant (WWTP)** shall mean premises and equipment serving for waste water treatment having the mechanical, biological, and/or further stage of treatment. Equipment used for coarse pre-treatment of waste water (racks, grit traps, oil traps, etc.), cesspools, sumps, and simple devices with a mechanical function, which are not monitored and operated regularly, are not considered to be waste water treatment plants.

The **WWTP capacity** refers to the design capacity (m<sup>3</sup>/day). A higher capacity than the design one is given where implemented intensification measures have been approved by the water authority.

#### 4. POPULATION

The data showing the size and distribution of the population are derived from population censuses, which are followed by annual statistical balances of data on births, marriages, divorces, deaths, and migration. Unless otherwise stated, statistical reports from registries are the data sources. Since 2011, data on the population size and distribution follow the final results of the 2011 Population and Housing Census as at 26 March 2011; they are not comparable with the data for the previous years. The territorial breakdown of data in the chapter corresponds to the territorial structure valid as at 1 January of the relevant year. Demographic data in a longer time series converted to a comparable territorial structure (valid since 1 January 2016) are provided in the publication called Demographic Yearbook of Regions of the Czech Republic (changes to the territory as at 1 January 2016 apply to the Středočeský Region, the Plzeňský Region, the Karlovarský Region, the Ústecký Region, the Jihomoravský Region, and the Olomoucký Region).

All data refer to the population permanently resident on the given territory, irrespective of their citizenship. Since 2001 the following are included: foreigners with asylum granted and foreigners with visa for stay over 90 days. Since 1 May 2004, EU nationals with temporary residence and third-country nationals with a long-term residence permit on the territory of the Czech Republic are also included.

The **mid-year population** is the population of the given territory balanced as at 1 July of the reference year. The **natural change** of the population is the difference between live births and the total 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 or long-term residence of a person across the border of a given territory. The CZSO receives the data on migration from information systems of the Ministry of the Interior and the Directorate of the Alien Police Service.

**Births** – a born child is counted in the region (district) according to the residence of the mother at the delivery. The **average 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).

Tables on **abortions** are compiled from a set of individual data received by the CZSO from the Institute of Health Information and Statistics of the CR. 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 the number of stillbirths per 1 000 births in total. The **infant mortality rate** is the number of deaths among children under 1 year of age per 1 000 live births. The **neonatal mortality rate** is the number of deaths among children under 28 days of age per 1 000 live births.

Data on **deaths by cause of death** are classified according to the 10th decennial revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) in force since 1 January 1994. Since 2013, data on causes of death are taken over from the Death certificate (Report on examination of the deceased person) via the Institute of Health Information and Statistics of the CR.



The **ageing index** is the ratio of the population aged 65+ years per 100 persons aged 0–14 years. **Life expectancy** shows the number of years to be lived by an x-year-old individual, given the mortality conditions of the reference period from the mortality table. With regards to elimination of random deviations, mortality tables for regions are processed for two-year periods and for districts for five-year periods. 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 2016 column provides life expectancy in the Region in the period of 2015–2016).

**Marriages** are included in a respective territory according to the place of residence of the groom. The **average age** at the conclusion of a marriage and the average age at the conclusion of the first marriage are calculated from the distribution of the numbers of marriages by age of the groom. **Divorces** are broken down by territory according to the last common place of residence of the spouses. The CZSO receives the data from the information system of the Ministry of Justice. The **average age** at the divorce is calculated from the distribution of the numbers of divorces by age of the male/female.

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 the Member States of the EU, the EEA, and Switzerland and their dependants 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 the Alien 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 workplace of a unit. Gross value added for multi-regional organizations is allocated based on wages paid 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 purchaser 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 and 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, taken over free of charge or produced by own activities), deducted by the value of its 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 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 includes also 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 the international comparison, selected **indicators are converted** to euro currency unit and purchasing power standard, namely according to the coefficients issued by the Statistical Office of the European Union – Eurostat.

Regional macroeconomic indicators are revised in harmony with the revisions of annual national accounts. Update data include results of an occasional revision of the annual national accounts in 2014 related to the transition to the new ESA 2010 European accounting standard. Data for 2015 and 2016 are based on a preliminary version of the annual national accounts.

## 6. LOCAL GOVERNMENT BUDGETS

The chapter contains selected data on revenue and expenditure of regions, municipalities, and voluntary unions of municipalities. Data are taken over 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 elimination of entries, which are not a direct part of the financial performance and after removal of duplicates.

## 7. PRICES

**Consumer prices** of selected price representatives are average consumer prices surveyed in the region in December of a reference year. Their arrangement in the table is based on the consumer basket structure (i.e. a set of selected kinds of goods and services paid for by the population including weights assigned to them).

Data on **prices of selected types of real estate** are derived from data of the Ministry of Finance. The data source is the real estate transfer tax returns, which owners (sellers) of real estate are bound to submit to the competent internal revenue offices by the end of the third calendar month following the month, in which the record of the property rights was entered into the Real Estate Register. Establishing of the database of price information at internal revenue offices was commenced by the processing of tax returns data for 1998 according to the Decree No 279/1997 Sb. The database covers nationwide the entire population of transactions on the real estate market and is based on real (admitted) prices. Owing to additional recalculations of data from administrative sources the data for respective years published in the preceding yearbooks may not be compared.

**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.

## 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 2016**". The aim of the survey is to obtain on a long-term basis comparable data on social conditions of households, which are comparable also with other EU countries due to the survey 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). More information (e.g. tables with 95% confidence intervals estimates, from which the interval, in which the real value of the estimated characteristic occur with 95% probability, is clearly seen) can be found, along with the detailed methodology, **in the publication** "Household Income and Living Conditions 2015" on the webpages [www.czso.cz](http://www.czso.cz), in section Statistics – Living Conditions, Household Income and Expenditure.

The survey included all persons, who in the reference period had their regular residence in the selected dwelling, including persons temporarily absent. This also held 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 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). Thus 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 market characteristics, is adhered to.

The sample includes over 24 thousand **random selected dwellings** on the territory of the entire 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 being on the panel they are dismissed from.

**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, according to the ILO methodology, as a person in employment.

All tables give average annual data for respective years.

**Reliability of data collected by sample methods is becoming lower 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 less than 500 persons are not published at all as their relative standard deviation is higher than 50% (represented by dots in tables). 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 affected by both frequency of the characteristic surveyed in respective region and the sample size in the region.

Data on the **number of employees** (as headcount) and on **average gross monthly wages in 2013 to 2015** (Tables 9-8., 9-9., 9-103., and 9-104.) are drawn from results of the processing of annual statistical questionnaires. They cover all businesses and non-commercial organisations with no regard of 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 districts, is impossible. The data breakdown by industry 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 by principal activity of the whole enterprise.

In 2016 data on **numbers of employees and average wages** (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 converted to the **full-time equivalent** 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 (as, for instance, 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, employees of businesses, which are not statistically measured.

The data on **wages by sex and by classification of occupations** (Tables 9-10., 9-106., and 9-107.) were obtained by merging of data from the **Information System on Average Earnings (ISAE)** of the Ministry of Labour and Social Affairs; which covers the wage sphere by sample surveys, and from administrative data source of the **Information System on Salaries (ISS)** of the Ministry of Finance, which covers exhaustively the salary sphere. The **average wage** of the employee is calculated from the paid working hours of the employee (unpaid absence, illness, etc. are not included) and therefore is not identical with the average wage from the business surveys of the CZSO, which is calculated from the registered number of employees (headcount) (Tables 9-8. and 9-9. or Tables 9-103. to 9-105.).

Since 2011 the **Structural Earnings Survey** has cover **the whole employee population of the Czech Republic** because newly employees of businesses with less than 10 employees and also employees of non-profit organizations and employees of the self-employed have been included (Tables 9-10., 9-106., and 9-107.). This change means the statistical data are more representative and also data for 2011 are not comparable to the previous years. 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.

The **median wage** is the value of the employee's wage in the middle of the wage distribution. This means that one half of wage values is below the median wage, while the other half is above it.

The data on the number and structure of unemployed **job applicants kept in the labour office register** and on the vacancies kept in the labour office register are taken 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 and while they have complied with conditions established by law and 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 and 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 Section 35 cancels the so far applied obligations of the 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 shall mean newly created or vacated jobs, which the employer intends to acquire employees or to occupy them with temporary employees from a **labour agency** (Section 35).

## 10. ORGANIZATIONAL STATISTICS

Organizational statistics draws data from the **Statistical Business Register (RES)**. 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 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 (ROS) became the main source for updates of the Statistical Business Register.

The Statistical Business Register keeps records of **legal persons** including organizational 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. **Business companies and partnerships** include general commercial partnerships, limited liability companies, limited partnerships, joint-stock companies and since 2010 also European economic interest groupings and European companies (Societas Europaea, SE). **Cooperatives** include also European cooperative societies (Societas Cooperativa Europaea, SCE).

On 1 January 2014, in relation to the new Civil Code, there was a huge change in the keeping of records on **civic associations**. Active civic associations were transferred to new legal forms – most frequently an association (previously a legal form in English also called an association) and a subsidiary association (formerly an organizational unit of an association), which are incorporated in the Register of Associations.

As at the same date, entities with legal form "**foreign entity**" (in previous Statistical Yearbooks called "the rest of the world (non-residents)") were transferred to new forms: a branch of a foreign legal person, an organizational component of a foreign endowment fund, an organizational component of a foreign foundation, and especially a foreign natural person and further a branch of a foreign natural person. The more detailed breakdown enabled to distinguish between foreign natural persons and foreign legal persons (since 1 January 2014).

The breakdown of the Statistical Business Register by **principal 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 reports economic activity according to information from statistical surveys or administrative data sources.

## 11. AGRICULTURE

The data are mostly sample surveyed and respondents are businesses engaged in the agricultural primary production recorded in the statistical **Farm Register**. The **results found are grossed-up to the whole agricultural sector** (excluding households outside the agricultural industry). The reporting unit in the agricultural statistics is an entity with agriculture as principal activity complying with at least one of **threshold values** (for instance, 1 hectare of utilised agricultural area, or a minimum of 1 head of cattle reared, etc.).

The **agricultural output** of the region is measured in the so-called regional economic accounts for agriculture, which represent the overall final production of agricultural industry of the given regions in terms of value.

The **utilised agricultural area** shall mean land utilised for the agricultural production and also land, which has been and shall be utilised for agriculture, yet temporarily is not in such usage.

**Areas under crops**, measured by their surveys taken as at 31 May, shall mean the spring production area, of which harvest is expected in the reference year. Besides crops sown on arable land areas, it also includes potential areas under crops in orchards and gardens, and areas of permanent grasslands temporarily ploughed and used for sowing. Areas under crops do not include the item of "set-aside arable land", i.e. fallows and arable land, which is not sown or planted for various reasons.

The **harvest** represents the total quantity of a crop harvested at standard moisture and purity, including inferior portions of the crop that can be used as livestock fodder. The **per hectare yield** is the ratio of harvest to the harvested area. The **harvested area** is equal to the areas under crops, except for grain maize, green maize, maize for silage, and permanent grasslands areas. The number of fruit trees and bushes and the **fruit** harvest are measured by means of questionnaires on final harvests of crops as at the end of the year.

The **number of livestock** is given according to livestock surveys. **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 shall mean the amount (as live weight) of livestock which was sold to market for to be slaughtered. Includes also livestock, which was in-house slaughtered or slaughtered in own slaughterhouses on in other slaughterhouses for reimbursement, or potentially slaughtered outside slaughterhouses. The **milk production** shall mean 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.

The **meat production** (except for poultry meat) includes data on slaughter from all registered slaughterhouse operations. It is given in the carcass weight, which is the weight of carcasses processed in slaughters as defined in regulations of the Council of the European Union. It includes meat (from forced slaughters as well) that was recognised as suitable for human consumption. 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 fertilizers** is given per 1 hectare of reported utilised agricultural area for reporting units covered by the sample survey (with 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.

The stable section of this charter is supplemented with selected results of the **Farm Structure Survey**, which was carried out as a sample survey in autumn 2016. Appropriate methodological notes for this survey are given in the CZSO publication of Farm Structure Survey in Regions 2016 (Code 270166-17)

## 12. FORESTRY

Forestry includes data for businesses with 20+ employees and having forestry and logging as their principal activity and, furthermore, businesses managing forest land areas of 200+ hectares.

**Afforestation/reforestation** shall mean the artificial afforestation, i.e. planting and sowing of forests (the natural forest regeneration is excluded), which includes, besides areas forested for the first time, 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 the so-called self-production felling. The **salvage felling** includes data on salvage felling and disasters of all types. The overall roundwood removals include also dry trees, sporadic 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, purpose of which is to reduce the stand density and to adjust health and quality of the stand. **Thinnings** refer to intentional silvicultural measures in premature stands. 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 keeping and wildlife management** - spring game numbers and game hunting. Data published are data for reporting units covered by the ministerial statistical surveys of the Ministry of Agriculture and the Ministry of Environment.

## 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** having their **registered office on the relevant territory**, including their establishments, plants, and units located in other regions. An exhaustive survey is carried out to obtain data from enterprises with 100+ employees.

**Sales of goods and services incidental to industry** are at current basic prices, which are invoiced by a producer to a purchaser. They exclude the value added tax (VAT), the excise duty, and the customs duty. 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.

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 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 (direct wages and salaries, personal bonuses and other bonuses, company profit sharing, and wage compensations) charged to be paid to registered employees in compliance with regulations on wages and salaries.

## 14. ENERGY

**Information on the operation of the Czech electricity and gas grid** is published regularly by the **Energy Regulatory Office** ([www.eru.cz](http://www.eru.cz)). 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 Public Administration in the Energy Sectors and amending certain acts (the Energy Act)**, as 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 the consumption of natural 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.

**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.

**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 plus consumption of generators (producers) and 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** does not include own consumption, losses, an accumulation change in distribution systems, and own consumption of natural gas producers at natural gas mining.

#### **ENERGO 2015 survey**

Data come from the ENERGO 2015 survey (a sample survey on energy consumption in households), which was carried out by the Czech Statistical Office pursuant to the Act No 89/1995 Sb., on the State Statistical Service, as amended. Collection of data from households took place from 7 July 2015 to 15 January 2016. The survey was carried out on the territory of the entire Czech Republic in about 20 000 households. Results and detailed methodological notes on the survey are in a separate CZSO publication called Consumption of fuels and energies in households (publication code: 150189-16; Czech only).

**Occupied dwelling** is a household consisting of persons living together and usually dwelling together in a selected dwelling. A place of usual residence means the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, visits, business trips and where the person is a member of a particular household.

**Solid fuels** comprise lignite / brown coal, coking coal / other bituminous coal, coke-oven coke, and briquettes. The consumption is measured most often in weight units (kg, q, t). Based on heating values, the consumption can be converted to energy units (joule).

**Renewable energy sources** comprise fuelwood, wood briquettes, wood pellets, plant-based fuels, and agrofuels. Similarly as for solid fuels, their consumption is measured most often in weight units (kg, q, t). Based on heating values, the consumption is then converted to energy units (joule). Regarding fuelwood consumption, also length of storage has to be taken into account when converting to energy units. Further, this category includes utilisation of heat pumps, photovoltaic systems, and solar thermal systems.

**Liquid fuels** consist of propane/butane, gas oil, and fuel oil. Their consumption is mostly measured in litres and then it is converted to tonnes and via the heating value further to joule.

## **15. CONSTRUCTION, HOUSING CONSTRUCTION**

The **construction enterprise** shall mean an enterprise with construction as principal activity (it corresponds with divisions 41, 42, and 43 of the CZ-NACE).

**Construction work** refers to work done on construction, reconstruction, extension, renovation, repair and maintenance of permanent or temporary buildings and structures. It also includes assembly work on construction structures and the value of built-in material and structures. **General construction work** represents the volume of construction work performed by the unit workers, which are in its registered number of employees (headcount) plus productive work of apprentices and the volume of construction work carried out to its own tangible fixed assets. **Construction work "S" (according to delivery contracts)** represents the total value of outputs from construction activity of the reporting unit (including built-in material) performed on the basis of a delivery contract for the final user (developer), including the value of subcontracts for construction work received from other contractors in order to fulfil the delivery contract for the final user. The **public ordering party** (party placing an order for a public project) shall mean 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).

**Building permit** shall mean the total number of building permits, building notifications, constructions permitted on the basis of a public contract, and constructions permitted in the shortened building proceedings by an authorised inspector, which have been granted and registered by a competent building authority in the sense of the Act No 183/2006 Sb. On land-use planning and Construction Code (Construction Act). The **approximate value of constructions** involves total costs, including technologies (at current prices) incurred for the preparation, implementation, and putting of the construction into operation. **Environmental protection structures** mean constructions for protection of water, soil, and climate, for air pollution control, nature conservation, for environmentally friendly waste management, and to reduce environmental impacts of physical factors.



Data on **housing construction** include construction of new dwellings on the given territory by means of all types of construction activities. The **dwelling** shall mean one room or a set of rooms designed for living by the planning and building control authority decisions and can serve the purpose as independent dwelling units. **Dwellings started** are since 2006 dwellings in buildings which construction was permitted in the reference period by building permits have been granted. Since 2007 these shall mean dwellings construction of which commenced on the basis of building permit granted or building notifications. It does not matter whether they were completed in the reference period or not. **Dwellings completed** are dwellings, for which the authorised planning and building control authorities issued approvals pursuant to the Construction Act, as amended by the end of the reference period.

The **living floor area of the dwelling** shall mean the floor area of habitable rooms. The living floor area includes neither areas of ancillary rooms (as an entrance hall, for instance) nor facilities (as a toilet and bathroom, for instance). The **useful floor area of the dwelling** shall mean the area of all habitable and ancillary rooms, including facilities of the dwelling. It excludes floor area of non-dwelling rooms.

## 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, also data on tourist areas and tourist regions are published. These areas were officially defined by the CzechTourism agency in 2005; in 2010 the definition was revised.

**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 include only permanent 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 owners and operating personnel of the accommodation establishment) who have used services of the accommodation establishment for their temporary accommodation. Persons, who 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 shall 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 and on the territory of the Czech Republic stays for a period shorter than 1 year (including citizens of the Czech Republic).

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 the following update of the Register of Collective Accommodation Establishments of the CZSO, data on capacities and number of guests have been refined since 2012 and therefore cannot be compared to those for previous years.

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 stays 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).

## 17. TRANSPORT

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

**Motorways** are roads dedicated to fast long-distance and international transport by means of road motor vehicles and built without any at-grade crossroad. Depending on their dedication and importance to transport, they are classified to motorways of 1<sup>st</sup> and 2<sup>nd</sup> class. **Roads** are surface communications open to the public and dedicated to the use by road and other vehicles and pedestrians. They form a road network. Depending on their dedication and importance to transport, they are classified to roads of 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> class, including sections in cities and municipalities which are involved into the road network.

The length of operated **railway lines** is the length of continuous rail tracks. It does not include other transport, marshalling, and handling tracks. The total **length of navigable inland waterways** for regular transport since 2015 includes also inland waterways on reservoirs and lakes 0 class and non-classified serving mostly for transport by means of passenger boats and navigation for sport.

The numbers of road vehicles are taken over from the Central Register of 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 license plates as at 31 December.

## 18. INFORMATION SOCIETY

The term of **information and communication technologies (hereinafter as ICT)** generally refers to technologies, systems, activities, and processes that participate in the imaging, processing, storage, and transmitting of information and data in an electronic form.

Data on the penetration of **selected information technologies in households** and their **use by individuals** come from a separate annual survey carried out as personal interview of a sample of approx. 10 000 individuals aged 16+ years. Results thereof are then grossed up to the whole population of the Czech Republic. As for data on households, current state is surveyed (for the second quarter of the reference year); data on individuals are for the last three months of the survey period. In order to have more representative data sets the data breakdowns by region are published as three-year moving averages.

**Households with PC/Internet** include all households, which stated that, at least, one member of the household had access to a PC/Internet in time of the survey.

**Individuals using a personal computer and/or the Internet** are persons, who have used a personal computer and/or the Internet at least once in the last three months, that means used them anywhere (at home, at school, in the library) and for any reason (private or job duty).

Data on **broadband Internet subscriptions** are based on data sources of the Czech Telecommunication Office. Fixed broadband Internet subscriptions in this publication include fixed connections with the nominal transmission speed of 256 kbit/s and higher by means of a DSL technology, connections via cable TV modem (CATV), fixed wireless connections by means of WiFi technology.

The data on information technologies accessible to the public **in libraries** come from sources of the National Information and Consulting Centre for Culture (NIPOS). Data on equipment and usage of information technologies by **health establishments** in the Czech Republic are taken from the annual report, which is developed by the Institute of Health Information and Statistics of the Czech Republic (IHIS) in cooperation with the Ministry of Health and the Czech Statistical Office. Data on **information technology equipment of schools** in the Czech Republic come from data sources of the Ministry of Education, Youth and Sports, which collects data on available IT infrastructure at basic, secondary, and higher professional schools.

The Labour Force Sample Survey (LFSS) of the CZSO is used as the data source for **statistics on ICT professionals**. Tables always give average data for the given year. If the figure is smaller than 3 000 persons, data are considered to be of low reliability. Since 2011 ICT professionals have been defined on the basis of the classification of occupations of CZ-ISCO-08 and are subdivided into two major groups as follows:

- Managers, engineers, and other specialists in ICT abbreviated as ICT professionals (CZ-ISCO sub-major groups 25, 133, 2434, 2152 and 2153); and
- Technicians, mechanics, and repair workers in ICT abbreviated as ICT technicians (CZ-ISCO sub-major groups 35 and 7422).

Data on **wages of ICT professionals** come from results of the **structural statistics on wages of employees**, which is published by the Czech Statistical Office in cooperation with the Ministry of Labour and Social Affairs.

**University students** (ISCED levels 5A and 6) specialised in informatics are defined according to the International Standard Classification of Education (ISCED 97) in the narrow defined field of education No. 48 Computing. Data were acquired from data sources of Ministry of Education, Youth and Sports, being concrete from the database SIMS.



## 19. SCIENCE AND RESEARCH

The terms **research and development**(R&D) in the Czech Republic are defined in the Act on R&D Support from Public Funds. **R&D** is defined as systematic creative work conducted for the purpose of broadening of existing knowledge (including knowledge of humans, culture, and society), obtaining new pieces of knowledge or application of pieces of knowledge in practice using methods allowing their confirmation, addition, or refutation.

**Reporting units** in the R&D statistical survey are all legal and natural persons conducting R&D on the territory of the Czech Republic as their principal (CZ-NACE 72) or secondary economic activity, irrespective of the number of their personnel, sector, or CZ-NACE activity they are active in. The **breakdown of data by region** has been available since 2001 and is processed by the location of R&D workplaces of respective reporting units. In the case of the higher education sector it applies mainly to respective faculties of public universities. Data for districts were made according to addresses of R&D workplaces.

**R&D personnel** by occupation are:

- **researchers**: professionals engaged in or managing projects that include the concept or generation of new pieces of knowledge, products, processes, methods, and systems;
- **technicians and associate professionals**(hereinafter as "technicians") who participate in R&D activities by performing scientific and technical tasks, applying concepts and operating methods (usually under the supervision of researchers);
- **other supporting staff** participating or involved in R&D activities (as craftsmen, secretaries, and clerks).

The **average registered number of employees converted to full-time equivalent (FTE) devoted to research and development activities** brings information about real time devoted to research and development activities. One FTE is equal to one year of full-time work of an employee fully dedicated to R&D activities. This indicator is important especially at R&D personnel whose job content consists also of other activities than R&D (e.g. academics), because it counts only that part of their hours worked, which is devoted to R&D.

**R&D expenditure** represents total expenditure (current and capital expenditure) designated to own research and development carried out within the reporting unit or the economic sector irrespective of the source of funds. Expenditure incurred outside the reporting unit (external expenditure on R&D) is included in the total R&D expenditure only on condition that it directly serves to support own R&D (e.g., purchase of supplies for R&D).

Data on the **direct government support of research and development** result from information contained in the R&D Information System (secretariat of the Research and Development Council) and in the closing account of the State Budget of the CR for the area of the R&D (Ministry of Finance).

Data on **indirect (tax) government support of research and development** result from data stated in tax returns of legal persons.

Data on **patents and utility models** were processed on the basis of data sources of the Industrial Property Office of the Czech Republic (IPO CR), which is responsible for the patent protection in the Czech Republic. Tables contain only data on patent activity of entities doing their business on the territory of the Czech Republic.

The Labour Force Sample Survey (LFSS), in which individuals and households are basic reporting units, is the data source for the **numbers of professionals and technicians and associate professionals**. Data in tables are annual averages. If the figure is smaller than 3 000 persons, data are considered to be of low reliability. Since 2011, professionals and technicians and associate professionals are defined based on the CZ-ISCO-08 classification (CZ-ISCO major groups 2 and 3). Under the major group of professionals, there is a more detailed group of science and engineering professionals (CZ-ISCO 21); under the major group of technicians and associate professionals there is a group of science and engineering associate professionals (CZ-ISCO 31).

Data on **wages of professionals** are from results of the structural statistics on wages of employees published by the Czech Statistical Office in cooperation with the Ministry of Labour and Social Affairs.

Data on **students at universities** refer to students of bachelor, master, follow-up master, and doctoral study programmes in public and private universities (they do not include students of two state universities, which make different reporting). Master study programmes denote a group of master and follow-up master study programmes. Tables show students of two fields of education (according to the ISCED 97 classification) separately. It applies to broad group 4, i.e. the group of fields of education of **science, mathematics and computing** (it includes life science, physical science, mathematics and statistics, computing) and broad group 5, i.e. the group of fields of education of **engineering, manufacturing and construction** (it includes engineering and engineering trades, manufacturing and processing, architecture and building). Data are taken from the SIMS database (i.e. Union Information from Students' Registers) and refer to the database status as at 20 January 2017. Since a field of education with the same code may have various contents at different universities and thus it is problematic to classify students to relevant groups of fields of education according to the ISCED 97, expert estimates are given for the breakdown by field of education, which were made for the Czech Statistical Office by experts of the Ministry of Education, Youth, and Sports. Data breakdown by territory is made based on the **permanent residence** of students.

The population size and numbers of females with tertiary education are calculated from data collected within the Labour Force Sample Survey. Data are allocated to regions according to the place of residence of respondents at the time of data collection.

## 20. EDUCATION

Data on **education** are taken from sources of the ministerial 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 include also data on schools for children/pupils/students with special education needs. They are children/pupils/students with disabilities or with health or 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 pre-school education, which is organized for children usually from three to six years of age. Besides nursery schools, pre-school education is ensured 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 and in 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 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 in tables separately.

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. This education is implemented in two basic types of 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 determined 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 years long as full-time studies, are 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 years long as full-time studies, determined for graduates, who earned secondary education with an A-level examination in a different field of education.

Another type of schools is **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 (determined 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).

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 entire school year. The source SIMS database is continually completed and updated; the data presented in this Statistical Yearbook refer to the database status as at 20 January 2017. Two state universities founded by the Ministry of Defence (University of Defence, which is in the City of Brno) 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 combined type of education. Fields of education correspond to the Classification of Fields of Education (CZ-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 the 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 involving contractual workers, who perform the work on the basis of a contract for work, agreement on work activities, and agreement on work, as well.

Data for the **statistics of temporary incapacity for work due 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.

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

Tables 21-2, 21-5, 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, 21-6, 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 21-11 and 21-110 were obtained from the a further national round of the EU-SILC (Statistics on Income and Living Conditions) sample survey in households called Living Conditions 2016 and describe how is the population self-perceived **their own health status**.

Tables 21-12 and 21-111 bring selected results of the **European Health Interview Survey (EHIS)**, which was in the Czech Republic implemented by the IHIS CR in cooperation with the Czech Statistical Office. The survey data collection was carried out from 15 June 2014 to 31 January 2015. The data given are representative for the population aged 15+ years and were collected from a sample of approx. 6 700 respondents. When using them for respective regions it must be kept in mind the sample is rather limited.

A **long-term disease or health problem** shall mean 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.

**Categories of persons in terms of their weight** are determined based on the body mass index (BMI), the ratio of a person weight to their height to the second power, as follows:

- Overweighed persons with BMI within the interval 25-30 kg/m<sup>2</sup>; and
- Obese persons with BMI 30+ kg/m<sup>2</sup>

**Daily consumption of fruit and vegetables** here means consumption of any type of fruit (including frozen, as compote, or pressed, except for fruit juices from concentrates), or vegetables (including vegetable juices and salads, except for potatoes and juices prepared from concentrates), at least once per day.

## 22. SOCIAL SECURITY

Data on social security are taken mostly from administrative sources of the Ministry of Labour and Social Affairs, for certain selected indicators also from the information system of the Czech Social Security Administration and from proprietary sources of the Czech Statistical Office.

The **social security scheme** includes pension insurance, sickness insurance, state social support benefits, foster care benefits, material need benefits, 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. Before 2009 disability pensions were provided as full and partial ones. Effective since 1 January 2010 full disability pensions were partly transformed into disability pensions, third level and partly were subdivided into disability pensions of first level and second level depending on percentage of the working ability reduction of the insured person due to long-term adverse condition. Data starting from 2010 show, on the contrary to the previous years, the numbers of recipients, average monthly amount of old-age pensions, partial old-age pensions (after a shorter insurance period has been reached) from other standpoint. They are newly based on the Ministry methodology, in which partial pensions granted pursuant to Section 29 2) of the Act No 155/1995 Sb on pension insurance, are strictly classified as partial old-age pensions. In the approach applied to that time they were classified as a part of the old-age pensions. Furthermore, since 2010 disability pensions paid 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 given in as a single-received pension, that is not combined with widow's or widower's pension.

The **sickness insurance** system of benefits comprises four **benefits**, namely sickness benefit, carer's allowance, maternity benefit, and pregnancy and maternity compensation benefit. Sickness insurance benefits are provided per calendar day of a given period of time. The sickness insurance of the self-employed without employees is voluntary. The self-employed without employees are entitled to two of the benefits only – the sickness benefit and the maternity benefit. Job applicants are not sickness insured, but they are paid the maternity benefit from sickness insurance. Tables relating to sickness 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 **state social support system** provides for targeted assistance 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 paid as applicant and jointly assessed persons income tested benefits, i.e. child allowance, housing allowance, and birth grant. Other are provided as non-income-tested benefits as parental allowance and funeral grant. **Foster care benefits** have been regulated by a separate legal regulation since the beginning of 2013 and have not been included into state social benefits. They are used to contribute to needs related to care of a child, whose parents may not or does not want to care of and who is in foster care; since 2013 these benefits have included new established allowance at the foster care termination.

Data on holders of the ID of disabled person cannot be compared in full with the data published previously, last time for 2011. A person aged 1+ year with a physical, sensory, or mental disability which has 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 disabled person ID can be acquired only on the basis of a separate proceedings and an evaluation of health status carried out by a consultative physician of the district administration of the Czech Social Security Administration. Depending on the level of disability of mobility and cognitive functions the type of the ID can be marked either with the code of TP – for a person with medium disability, ZTP – for a person with heavy disability, or ZTP/P – for a person with especially heavy disability of functions, or a person with completely disabled mobility or cognitive functions that requires the person to be accompanied with a guide.

**Material need benefits** serve as an aid to natural persons, who have insufficient income, providing for their basic living conditions. The benefits meaning is to motivate persons to make active efforts to acquire finances to satisfy their basic living needs and to prevent their social exclusion. The system of material need benefits involves living allowance, supplementary housing allowance, and extraordinary immediate assistance. **Care benefit** is for persons older than 1 year who for reasons of long-term adverse health conditions are in need for assistance of other natural person when managing their basic life needs in the extent as determined by law. The persons may, upon their own free will, reimburse professional social services or use it to cover inevitable expenses while providing the care needed within the family.

In context of the adoption of the Act No. 108/2006 Sb. on social services, as amended, in 2007 a change was carried out to classification 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 provided social services. Since 2008 a **different methodology 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 capacity of social service establishments are based on actual allocation of the services provided. Data on social care establishments in table for regions and districts (Table 22-6) may not correspond to regional data given elsewhere (Tables 22-1 and 22-101) due to the source data were generated on different dates.



The source of data on house with home care services for 2016 is the CZSO statistical survey, extraordinary annex to the questionnaire VI 1-01 for municipalities (annual questionnaire of selected government institutions). It covers solely the houses with home care services, dwellings in which are property of municipality/city, city district / city part.

### 23. CULTURE, SPORT

Data on **culture** are taken over from the National Information and Consulting Centre for Culture (NIPOS), established by the Ministry of Culture, and capture the status as at 31 December or the total for a given calendar year.

**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 organizational unit managed directly by the library. **Loans, total** refer to loans of 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 (magnetic tape cassette, CD, etc.), which is registered as a separate item in the item register.

**Museums, monuments, and galleries** include all establishments which were **in operation**, regardless 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 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 and educational purposes** include castles, chateaux, churches, monasteries, cloisters, ruins, mills, towers, and other historical monuments accessible to visitors for an admission fee and are not managed by a museum or a gallery. The data given refer to all these facilities, irrespective of their founder.

Published data from the area of **sport** are obtained from the registry of membership of the Czech Union of Sports (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 traffic accidents were compiled from sources of the Police Presidium of the CR.

The data on registered and solved **criminal offences** (offences, crimes, and criminal acts) include also criminal offences at railway and criminal offences registered by the Alien 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. The numbers of killed, seriously injured, and slightly injured refer to the status within 24 hours after the accident. Property damage includes damage to vehicles, their cargos, or to roads and their equipment.

Data on **fires** and main reasons for interventions of fire and rescue services were taken over from back grand materials processed by the fire and rescue services. A **fire** – any undesirable combustion, in which people or animals were killed or injured or in 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.

**Technical emergencies, total** comprise:

- a technical emergency (e.g. imminent building collapse);
- a technical assistance (e.g. rescue of persons or extrication of objects, emergency opening, unlocking of locked premises, rescue of persons and animals; drawing, closing, and delivering of water, temporary or other repairs, and the like);
- a technological assistance (e.g. emergency supply of air, water, electricity; fire assistance, support of efforts to extinguish centres of a forest fire, and the like);
- other assistance (e.g. taking down, carrying away or transporting of a patient or a physician, searching for missing persons, monitoring of watercourses, of used scum baffles, control of traffic capacity of roads, and the like).

**Killed persons, total** – all killed persons found on the site of fire. The piece of data includes also 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.

**Killed persons in direct connection with fires** – persons, who died as a result of burn, combustion gas intoxication, and the like.

## 25. ELECTIONS

On 20 and 21 October 2017, based on the Decision of the President of the CR No 135/2017 Sb, **elections to the Chamber of Deputies of the Parliament of the Czech Republic** were held. Execution of the elections was governed by the Act No 247/1995 Sb., on Elections to the Parliament of the Czech Republic and on Amendments to Some Other Acts, as amended. Results from abroad were added to results of the Středočeský electoral region as decided by a lot drawn by the State Electoral Committee. Pursuant to the Constitution of the Czech Republic, 200 deputies were elected for a four-year term.

Complete results of the elections to the Chamber of Deputies of the Parliament of the CR are available at [www.volby.cz/index\\_en.htm](http://www.volby.cz/index_en.htm) and in publications issued according to the Catalogue of Products of the CZSO.

**Registered voters** are voters 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 voting 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. **Turnout** is calculated as the share of the number of voting voters (persons who were issued an official envelope in the polling station) in registered voters (persons included in the electoral rolls). The **number of candidates** is the number of candidates that can be voted for (except for the removed and those who have withdrawn). The **number of seats** is the number of deputies to be elected to the Chamber of Deputies of the Parliament of the CR; **elected deputies** are those who won a seat in the elections. Data on the percentage of valid votes are not rounded off and are provided to two decimal places.

## 26. ADMINISTRATIVE DISTRICTS, MUNICIPALITIES

The Act No 314/2002 Sb. of 13 June 2002, which became effective on 1 January 2003, laid down the list of **municipalities with extended powers** and **municipalities with authorized municipal authority**. In relation to this Act, the Ministry of the Interior issued its Decree No 388/2002 Sb. establishing administrative districts of these municipalities. The Decree No 388/2004 Sb. of 24 June 2004 and effective on 1 January 2005 modified the classification of municipalities to administrative districts by amending the decree of 2002.

A **town** means a municipality, which has been granted the status of town pursuant to the Act on Municipalities. Tables 26-10 and 26-11 give an overview of towns in the respective regions in an alphabetical order. Table 26-12 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 defined by boundaries. Table 26-13 gives 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 2016). The figure in brackets following the name of an administrative district is an official numerical code corresponding to the 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 businesses, which have their seat (not only a branch) on the given territory.

## 27. 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 this Act and 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 the 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 the EU Structural Funds.

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 characterized by their population size and area. At lower levels so-called Local Administrative Units (LAUs) have been introduced. Prague is not broken down into LAU levels. The EU legislation instruments, however, do not introduce the LAU system.

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

LAU 1 ..... refers to **districts**, i.e. to 76 districts and Prague (Hl. m. Praha, Capital City of Prague)

LAU 2 ..... refers to **municipalities**, i.e. to 6 258 municipalities (as at 1 January 2017)



**Overview of NUTS 2 cohesion regions and NUTS 3 regions:**

<b>Praha</b>	– Hl. m. Praha <i>Region</i>
<b>Střední Čechy</b>	– Středočeský <i>Region</i>
<b>Jihozápad</b>	– Jihočeský <i>Region</i> and Plzeňský <i>Region</i>
<b>Severozápad</b>	– Karlovarský <i>Region</i> and Ústecký <i>Region</i>
<b>Severovýchod</b>	– Liberecký <i>Region</i> , Královéhradecký <i>Region</i> , and Pardubický <i>Region</i>
<b>Jihovýchod</b>	– Vysočina <i>Region</i> and Jihomoravský <i>Region</i>
<b>Střední Morava</b>	– Olomoucký <i>Region</i> and Zlínský <i>Region</i>
<b>Moravskoslezsko</b>	– Moravskoslezský <i>Region</i>

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