

## A ICT specialists

---

ICT specialists are **defined** as persons who have the ability to develop, operate and maintain ICT systems and for whom ICTs constitute the main part of their job. The occupations of ICT specialists are subdivided into **two major groups** and from 2011 are **assigned** to the groups, and subgroups of the **Classification of Occupations (CZ-ISCO)** as follows:

### ICT managers, engineers and professionals

- 1330 Information and communications technology service managers;
  - 2152 Electronics engineers;
  - 2153 Telecommunications engineers;
  - 2434 Information and communications technology sales professionals;
- Note: The 1330, 2152, 2153 and 2434 subgroups are merged into one category called **ICT managers, engineers and sales professionals**.*
- 25 Information and communications technology professionals**
    - 251 Software and applications developers and analysts;
    - 252 Database and network professionals.

### ICT technicians, installers and servicers

- 3114 Electronics engineering technicians;
- 35 Information and communications technicians**
    - 351 ICT operations and user support technicians;
    - 352 Telecommunications and broadcasting technicians;
  - 742 Electronics and telecommunications (ICT) installers and repairers.

*Note: Some data for the ICT specialists, such as wages, are available only for the ICT specialists defined **rather narrow**, which includes only two sub-major groups of CZ-ISCO: **25 ICT professionals** and **35 ICT technicians**.*

Detail description of CZ-ISCO occupations is available here (*only in Czech*): [https://www.czso.cz/csu/czso/klasifikace\\_zamestnani\\_-cz\\_isco-Numbers](https://www.czso.cz/csu/czso/klasifikace_zamestnani_-cz_isco-Numbers)

### Numbers of ICT specialists

The data on the numbers of ICT specialists are taken from the **Labour Force Survey (LFS)**. *Note: In order to ensure higher reliability and to eliminate considerable year-on-year fluctuations of values for this group of employees, data is here provided as **three-year moving averages** (i.e., for example, the value for 2021 is calculated as an average from the values for 2020, 2021, and 2022).*

For further information on the **Czech LFS** see:

[https://www.czso.cz/csu/czso/employment\\_unemployment\\_ekon](https://www.czso.cz/csu/czso/employment_unemployment_ekon)

The **Eurostat LFS Database** was used for the **international comparison**. *Note: Data for the Czech Republic from Eurostat **differ slightly** from the data published by the Czech Statistical Office. For instance, data from Eurostat are given for the relevant year and not as three-year moving averages.*

### Wages of ICT specialists

Data on wages (average gross monthly wage) of the ICT specialists come from the **Structure of Earnings Survey (SES)** which is generated by merging of databases of the sample survey of the Information System on Average Earnings (ISPV) which covers the **wage sphere**, and from the database of the Salary Information System which covers the **salary sphere**. For more information see: <https://www.ispv.cz/en/homepage.aspx>.

For further information on the **Czech SES** see:

<https://www.czso.cz/csu/czso/structure-of-earnings-survey-2022>

Data about ICT specialists is available by **several breakdowns**: by occupation and industry or by individual characteristics of ICT specialists such as gender, citizenship, age or highest education attainment.

**For further information on ICT specialists see** (*only in Czech*):

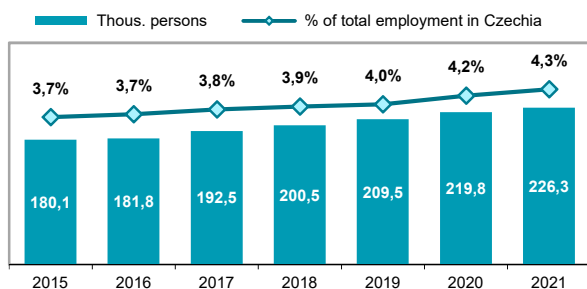
<https://www.czso.cz/csu/czso/ict-odbornici>

## A ICT specialists

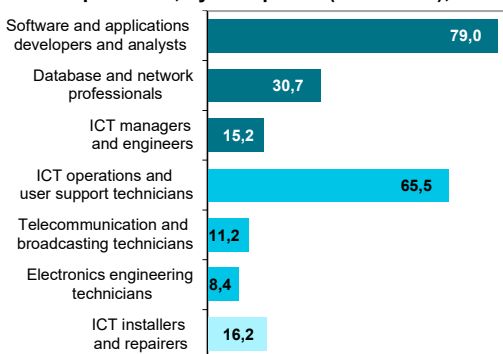
**Table A1 ICT specialists in Czechia**

	Thousand persons		
	2019	2020	2021
<b>Total</b>	<b>209,5</b>	<b>219,8</b>	<b>226,3</b>
Women	19,3	20,8	22,1
<b>Occupation</b>			
ICT managers, engineers and professionals	108,4	119,1	125,0
ICT technicians, installers and servicers	101,1	100,6	101,2
<b>Age group</b>			
Under 25 years	10,1	9,9	10,0
25–34 years	65,2	66,4	66,0
35–44 years	76,9	79,8	79,4
45–54 years	35,6	41,9	47,7
55 + years	21,7	21,8	23,1
<b>Highest level of education attainment</b>			
Tertiary	114,8	123,5	129,2
Secondary with A-level examination	84,3	86,2	87,1
Other (lower)	10,3	10,1	10,0

**Figure A1 ICT specialists**



**Figure A2 ICT specialists, by occupation (thousands); 2021**

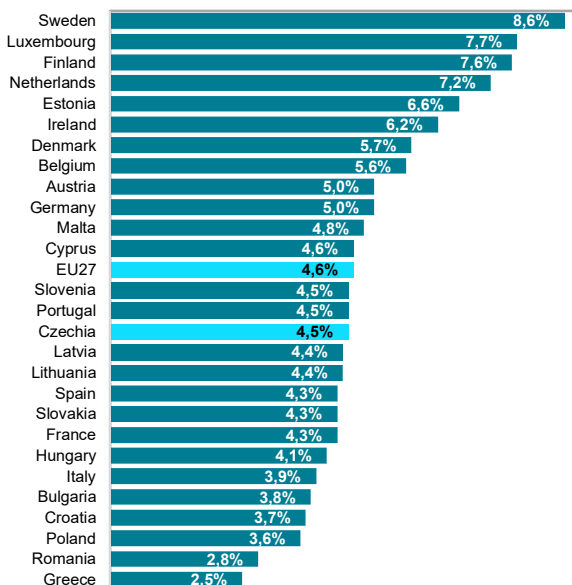


Note: The numbers of ICT experts are calculated from three-year moving averages for reasons of higher reliability (e.g. 2021 is the average of data for the years 2020 to 2022).

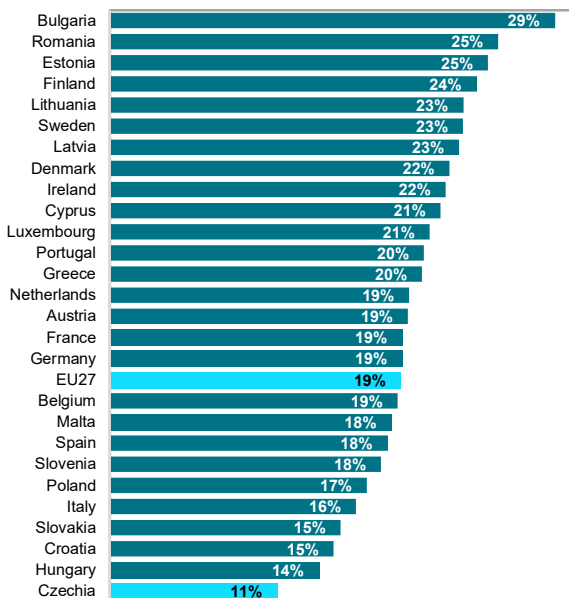
Source: CZSO, Labour Force Survey

## A ICT specialists

**Figure A3 ICT specialists; 2022**  
(% of total employment)



**Figure A4 Share of women among ICT specialists; 2022**



Source: CZSO calculation based on the Eurostat LFS Database

## A ICT specialists

Table A2 ICT managers, engineers and professionals in Czechia

	Thousand persons		
	2019	2020	2021
<b>Total</b>	<b>108,4</b>	<b>119,1</b>	<b>125,0</b>
Women	11,2	13,0	14,6
<b>Occupation</b>			
<b>ICT professionals, total</b>	<b>95,8</b>	<b>106,1</b>	<b>109,8</b>
analysts	67,8	76,2	79,0
Database and network professionals	27,9	29,8	30,7
<b>ICT managers, engineers and sales professionals</b>	<b>12,7</b>	<b>13,0</b>	<b>15,2</b>
<b>Age group</b>			
25–34 years	35,2	38,3	38,6
35–44 years	41,8	44,0	45,1
45–54 years	18,1	23,1	27,4
55 + years	10,4	11,0	11,6
<b>Highest level of education attainment</b>			
Master's and Doctoral	72,0	77,6	82,5
Bachelor's and Higher professional	16,1	19,9	22,0
Other (lower)	20,1	21,4	20,3

Figure A5 ICT professionals

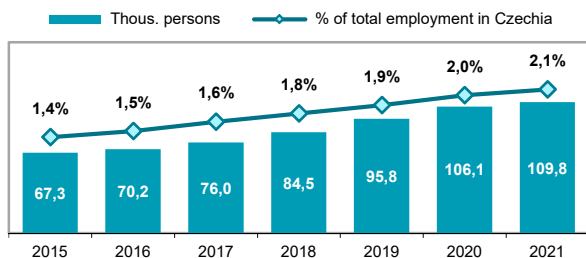


Figure A6 ICT professionals, by gender

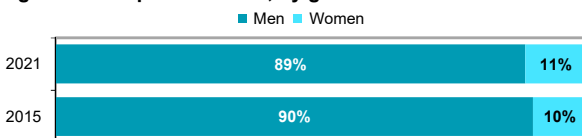
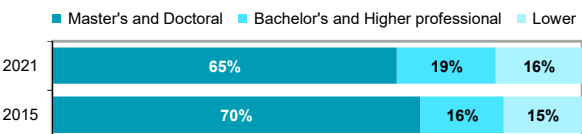


Figure A7 ICT professionals, by level of education

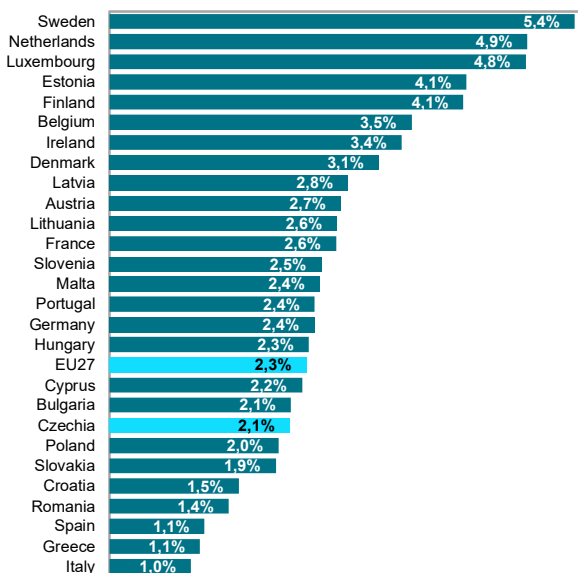


Note: The numbers of ICT experts are calculated from three-year moving averages for reasons of higher reliability (e.g. 2021 is the average of data for the years 2020 to 2022).

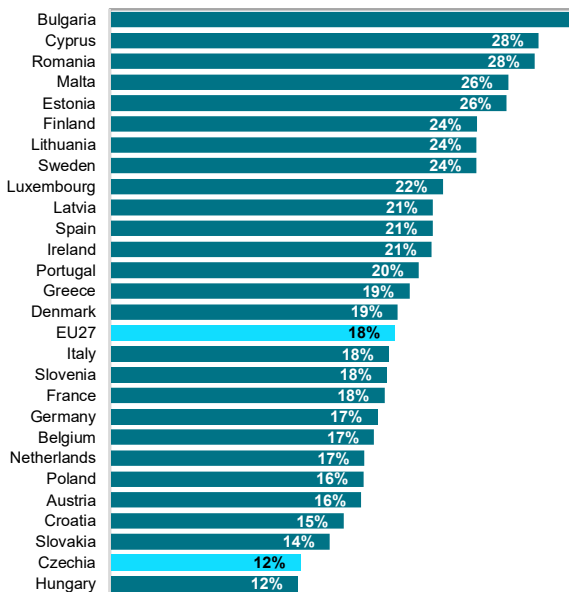
Source: CZSO, Labour Force Survey

## A ICT specialists

**Figure A8 ICT professionals; 2022**  
(% of total employment)



**Figure A9 Share of women among ICT professionals; 2022**



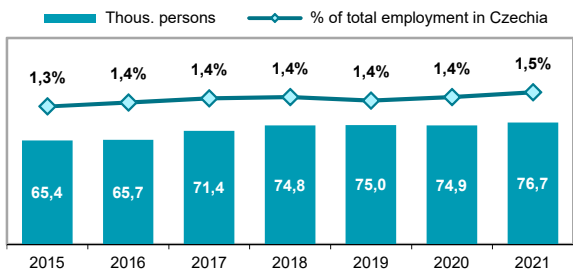
Source: CZSO calculation based on the Eurostat LFS Database

## A ICT specialists

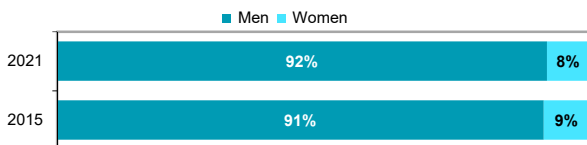
**Table A3 ICT technicians, installers and servicers in Czechia**

	Thousand persons		
	2019	2020	2021
<b>Total</b>	<b>101,1</b>	<b>100,6</b>	<b>101,2</b>
Women	8,1	7,8	7,5
<b>Occupation</b>			
ICT operations and user support technicians	62,7	63,4	65,5
Telecomm. and broadcasting technicians	12,2	11,5	11,2
Electronics engineering technicians	8,1	8,6	8,4
ICT installers and repairers	18,0	17,1	16,2
<b>Age group</b>			
Under 25 years	7,2	7,2	7,6
25–34 years	30,0	28,1	27,4
35–44 years	35,1	35,8	34,3
45–54 years	17,5	18,8	20,4
55 + years	11,3	10,8	11,5
<b>Highest level of education attainment</b>			
Tertiary	26,7	26,0	24,7
Secondary with A-level examination	64,2	64,8	66,8
Other (lower)	10,1	9,8	9,8

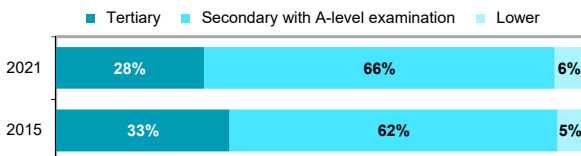
**Figure A10 ICT technicians**



**Figure A11 ICT technicians, by gender**



**Figure A12 ICT technicians, by level of education**

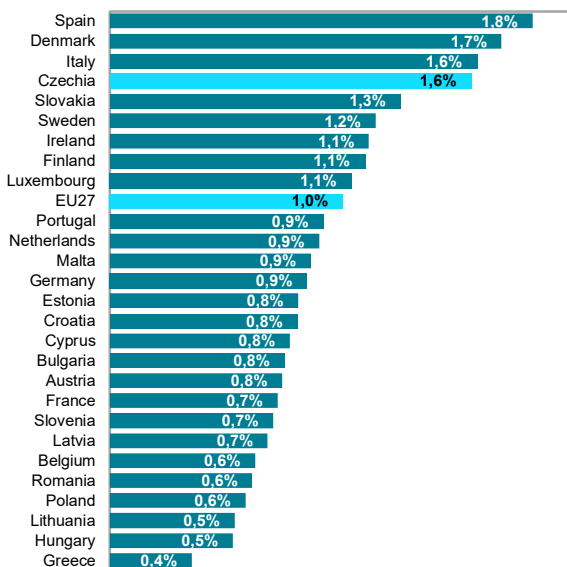


Note: The numbers of ICT experts are calculated from three-year moving averages for reasons of higher reliability (e.g. 2021 is the average of data for the years 2020 to 2022).

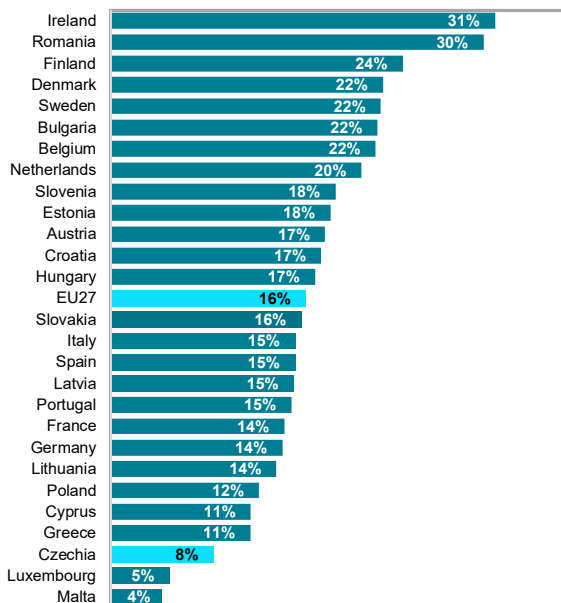
Source: CZSO, Labour Force Survey

## A ICT specialists

**Figure A13 ICT technicians; 2022**  
(% of total employment)



**Figure A14 Share of women among ICT technicians; 2022**



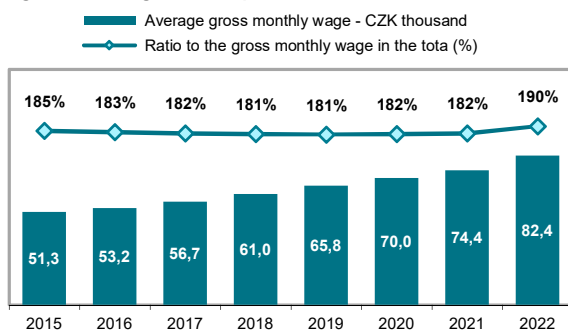
Source: CZSO calculation based on the Eurostat LFS Database

## A ICT specialists

**Table A4 Wages of ICT professionals in Czechia**

	Average gross monthly wage in CZK		
	2020	2021	2022
<b>Total</b>	<b>70 018</b>	<b>74 357</b>	<b>82 441</b>
Men	71 707	76 360	84 526
Women	59 507	62 499	70 492
<b>Citizenship</b>			
Czech citizens	67 204	70 733	78 013
Foreigners	85 220	92 688	104 184
<b>Sphere of activity (remuneration)</b>			
Business (wage) sphere	71 258	75 718	84 052
Government (salary) sphere	47 347	47 968	49 736
<b>Age group</b>			
25–34 years	64 022	67 447	74 824
35–44 years	78 322	83 448	92 140
45–54 years	75 550	79 959	89 164
55 + years	60 666	64 402	72 319
<b>Highest level of education attainment</b>			
Master's and Doctoral	76 933	81 694	90 757
Bachelor's and Higher professional	66 575	70 524	78 783
Secondary with A-level examination	59 895	62 720	69 472

**Figure A15 Wages of ICT professionals**



**Figure A16 Wages of ICT professionals, by sphere**



Source: CZSO, Structural Earnings Statistics

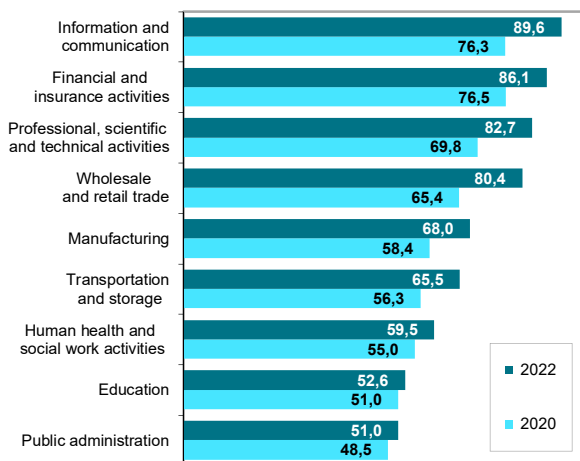


## A ICT specialists

**Table A5 Wages of ICT professionals in Czechia by occupation and industry**

	Average gross monthly wage in CZK		
	2020	2021	2022
<b>Total</b>	<b>70 018</b>	<b>74 357</b>	<b>82 441</b>
<b>Occupation</b>			
<b>Software and app. developers &amp; analysts</b>	<b>73 719</b>	<b>78 049</b>	<b>86 473</b>
Systems analysts	73 181	76 980	82 521
Software developers	78 136	84 925	93 017
Web and multimedia developers	68 922	59 692	63 172
Applications programmers	68 899	72 915	81 813
Other software developers and analysts	66 959	71 415	84 542
<b>Database and network professionals</b>	<b>60 715</b>	<b>64 829</b>	<b>72 033</b>
Database designers	69 303	68 113	73 234
Systems administrators	57 329	62 082	68 462
Computer network professionals	69 570	70 574	81 458
Data security professionals	73 289	79 419	83 350
<b>Industry (CZ-NACE Section)</b>			
Manufacturing (C)	58 447	61 486	68 028
Wholesale and retail trade (G)	65 435	72 415	80 375
Transporting and storage (H)	56 268	59 176	65 510
Information and communication (J)	76 344	81 184	89 641
Financial and insurance activities (K)	76 476	77 515	86 134
Professional, scientific and techn. act. (M)	69 778	76 211	82 735
Public administration (O)	48 516	49 029	51 040
Education (P)	50 999	50 788	52 567
Human health and social work act. (Q)	54 968	57 417	59 473
Arts, entertainment and recreation (R)	52 094	56 843	60 769

**Figure A17 Average gross monthly wage of ICT professionals in selected industries (CZK thousand)**



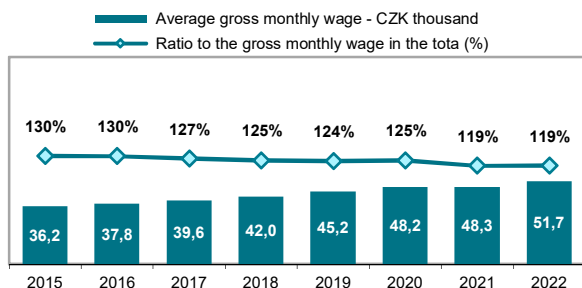
Source: CZSO, Structural Earnings Statistics

## A ICT specialists

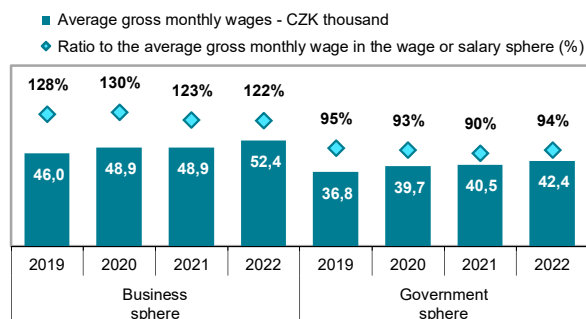
**Table A6 Wages of ICT technicians in Czechia**

	Average gross monthly wage in CZK		
	2020	2021	2022
<b>Total</b>	<b>48 175</b>	<b>48 322</b>	<b>51 688</b>
Men	48 503	49 046	52 428
Women	45 710	43 312	46 823
<b>Citizenship</b>			
Czech citizens	46 649	47 031	50 296
Foreigners	62 263	59 890	64 620
<b>Sphere of activity (remuneration)</b>			
Business (wage) sphere	48 906	48 923	52 368
Government (salary) sphere	39 692	40 527	42 379
<b>Age group</b>			
25–34 years	45 476	45 525	49 129
35–44 years	52 992	51 697	55 204
45–54 years	52 598	53 203	56 255
55 + years	44 403	45 724	48 372
<b>Highest level of education attainment</b>			
Master's and Doctoral	59 284	57 542	60 426
Bachelor's and Higher professional	51 049	52 228	55 333
Secondary with A-level examination	43 888	43 658	47 467
Other (lower)	37 337	39 776	43 568
<b>Occupation</b>			
ICT operations and user support technicians	49 269	48 979	52 489
Telecomm. and broadcasting technicians	40 889	43 047	45 505

**Figure A18 Wages of ICT technicians**



**Figure A19 Wages of ICT technicians, by sphere**



Source: CZSO, Structural Earnings Statistics