

## C ICT investment

### Investments into ICT equipment and software

Investments into ICT equipment and software (hereafter **ICT investment**) in the tables shall mean the **gross fixed capital formation** (GFCF: P.51), which includes mainly acquisitions of fixed assets (P.511) used in the production processes repeatedly or continuously for more than one year and expenses for transition of non-produced assets into ownership (P.512). The definition of GFCF follows **The European System of Regional and National Accounts (ESA 2010)**.

According to the **ESA 2010**, the investments into computer and telecommunication equipment became a part of a newly created item of non-financial assets as **ICT equipment (AN.1132)**.

**Computer software and databases (AN.1173)** involve according to this **ESA 2010** two sub-items as follows: **Computer software (AN.11731)** involves computer programs, program descriptions and supporting materials for both systems & application SW and **Databases (AN.11732)** includes data files organized so as to enable cost-effective data access and use. More about **ESA 2010** at: <http://ec.europa.eu/eurostat/web/esa-2010>

**ICT equipment** is classified to the groups of the **Classification of Products by Activity (CZ-CPA)** as follows: 26.2 Computers and peripheral equipment and 26.3 Communication equipment. **Software** is classified to the groups of the **CZ-CPA** as follows: 62.0 Computer programming, consultancy and related services and 63.1 Data processing, hosting and related services; web portals. Detail description of **CZ-CPA** is available here (only in Czech): <https://www.czso.cz/csu/czso/klasifikace-produkce-cz-cpa->

Data on investments into ICT equipment and software are available by **institutional sectors** and **economic activities** of the monitored entities according to the **CZ NACE** classification.

### Household consumption expenditures on ICT equipment and services

Data on ICT investment in this chapter are supplemented with data on the final consumption of households in the **national concept**, which includes expenditure of residents in Czechia and abroad spent on ICT dedicated to direct satisfaction of personal needs and wishes of individuals.

*ICT is classified here to the **International standard of the Classification of Individual Consumption by Purpose (CZ-COICOP)** as follows:*

- **ICT equipment:** 08.2 Telephone equipment and 09.1 Audio-visual and information processing equipment (Computers and consumer electronics).
- **ICT services:** 08.3 Telephone services that include primarily payments for calls via landline, mobile phone and payments for Internet connection.

*Note: Item **telecommunication** includes 08.2 Telephone equipment and 08.3 Telephone (ICT) services.*

Detail description of **CZ- COICOP** is available here (only in Czech): [https://www.czso.cz/csu/czso/klasifikace\\_individualni\\_spo\\_reby\\_-cz\\_coicop-](https://www.czso.cz/csu/czso/klasifikace_individualni_spo_reby_-cz_coicop-)

**The both data**, the total ICT investment and final household consumption expenditure on ICT come from the **Annual National Accounts Statistics**. **Data for the 2019** are preliminary. For more information, see: <http://apl.czso.cz/pll/rocnka/rocnka.indexnu?mylang=EN>

Data for the **international comparisons** come from the **Eurostat database** and refer to the reported or nearest available year.

**For more information on ICT investment** see (only in Czech): [https://www.czso.cz/csu/czso/investice\\_v\\_ict](https://www.czso.cz/csu/czso/investice_v_ict)

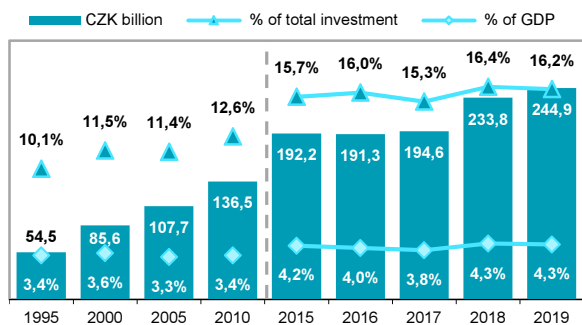
## C ICT investment

**Table C1 ICT investment in Czechia**

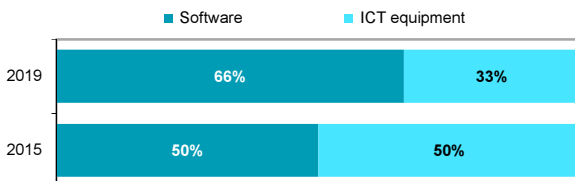
CZK million

|                                                   | 2017           | 2018           | 2019           |
|---------------------------------------------------|----------------|----------------|----------------|
| <b>Total</b>                                      | <b>194 625</b> | <b>233 830</b> | <b>244 873</b> |
| ICT equipment                                     | 76 809         | 82 840         | 83 780         |
| Software                                          | 117 816        | 150 990        | 161 093        |
| <b>Industry (CZ-NACE Section)</b>                 |                |                |                |
| Agriculture, forestry and fishing                 | 2 123          | 2 197          | 1 149          |
| Mining and quarrying                              | 455            | 578            | 230            |
| Manufacturing                                     | 54 004         | 58 101         | 65 585         |
| Electricity, gas and water supply                 | 6 003          | 6 035          | 5 918          |
| Construction                                      | 4 193          | 4 416          | 4 846          |
| Wholesale and retail trade                        | 13 643         | 16 895         | 15 602         |
| Transportation and storage                        | 5 473          | 7 739          | 7 901          |
| Accommodation and food service activities         | 1 530          | 2 030          | 1 919          |
| Information and communication                     | 51 594         | 68 858         | 70 615         |
| Financial and insurance activities                | 22 897         | 27 208         | 27 629         |
| Real estate activities                            | 1 958          | 2 466          | 2 723          |
| Professional, scientific and technical activities | 10 820         | 14 651         | 18 826         |
| Administrative and support service activities     | 2 458          | 2 919          | 2 508          |
| Public administration and defence                 | 7 863          | 9 225          | 9 817          |
| Education                                         | 2 906          | 3 708          | 3 240          |
| Human health and social work activities           | 3 327          | 4 224          | 3 915          |
| Arts, entertainment and recreation                | 1 468          | 1 905          | 1 985          |
| Other services                                    | 1 910          | 675            | 465            |

**Figure C1 ICT investment**



**Figure C2 ICT investment, by asset (%)**



Source: CZSO, Annual National Accounts Statistics

## C ICT investment

Figure C3 ICT investment (% of GDP)

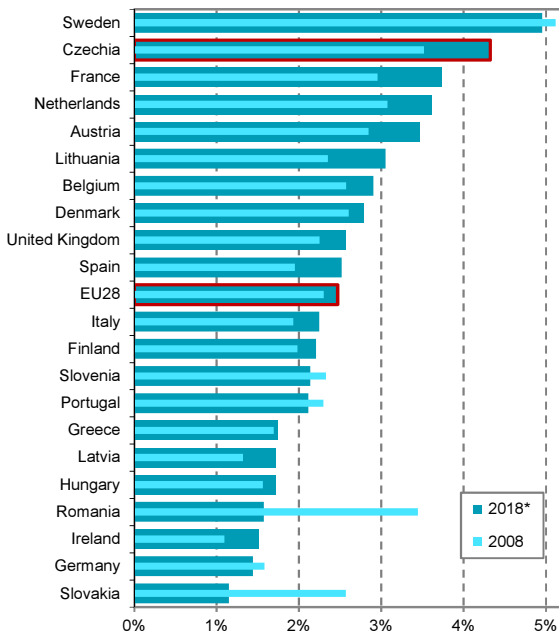
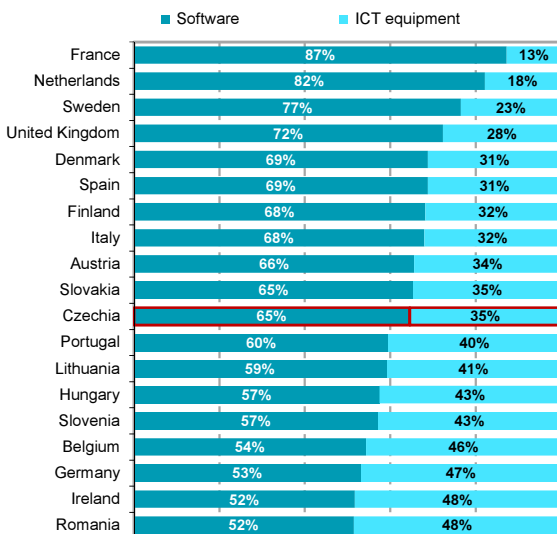


Figure C4 ICT investment, by asset (%); 2018\*



\* or the nearest available year

Source: CZSO calculations based on Eurostat data

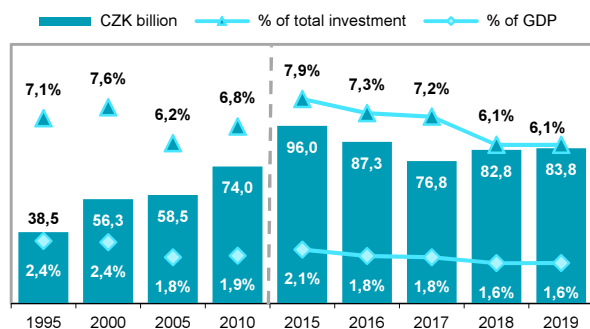
## C ICT investment

**Table C2 ICT equipment investment in Czechia**

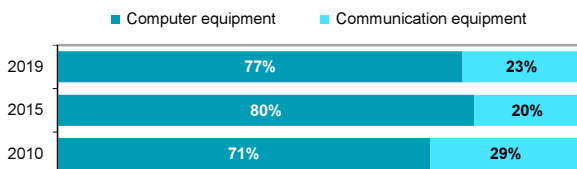
CZK million

|                                               | 2017          | 2018          | 2019          |
|-----------------------------------------------|---------------|---------------|---------------|
| <b>Total</b>                                  | <b>76 809</b> | <b>82 840</b> | <b>83 780</b> |
| Computer equipment                            | 57 302        | 63 956        | 64 845        |
| Communication equipment                       | 19 507        | 18 884        | 18 935        |
| <b>Industry (CZ-NACE Section)</b>             |               |               |               |
| Agriculture, forestry and fishing             | 1 804         | 1 726         | 628           |
| Mining and quarrying                          | 372           | 483           | 122           |
| Manufacturing                                 | 39 609        | 40 263        | 46 257        |
| Electricity, gas and water supply             | 3 798         | 3 104         | 2 802         |
| Construction                                  | 2 934         | 2 947         | 3 240         |
| Wholesale and retail trade                    | 3 860         | 3 985         | 1 072         |
| Transportation and storage                    | 1 477         | 2 252         | 2 013         |
| Accommodation and food service activities     | 1 216         | 1 615         | 1 473         |
| Information and communication                 | 7 851         | 9 549         | 6 307         |
| Financial and insurance activities            | 1 082         | 1 662         | 2 865         |
| Real estate activities                        | 655           | 715           | 872           |
| Professional, scientific and technical activ. | 3 506         | 3 491         | 6 749         |
| Administrative and support service activ.     | 623           | 615           | 80            |
| Public administration and defence             | 3 080         | 3 898         | 3 786         |
| Education                                     | 1 669         | 2 605         | 2 208         |
| Human health and social work activities       | 2 282         | 3 010         | 2 393         |
| Arts, entertainment and recreation            | 646           | 623           | 609           |
| Other services                                | 345           | 297           | 304           |

**Figure C5 ICT equipment investment**



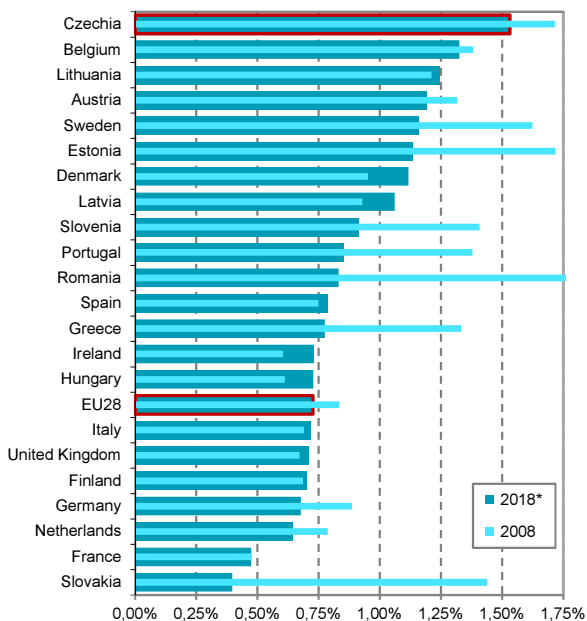
**Figure C6 ICT equipment investment, by asset**



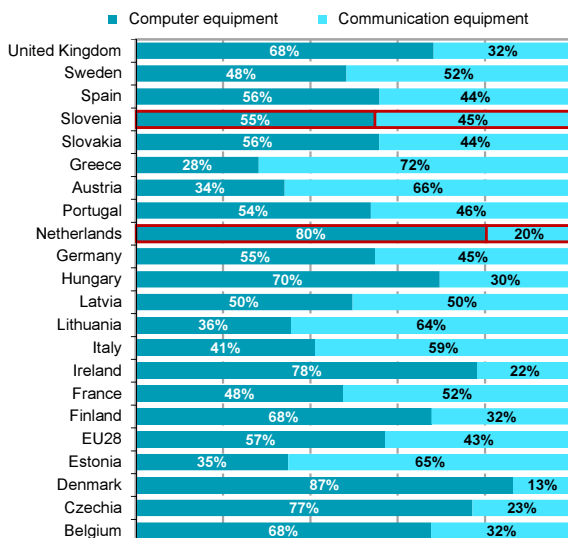
Source: CZSO, Annual National Accounts Statistics

## C ICT investment

**Figure C7 ICT equipment investment (% GDP)**



**Figure C8 ICT equipment investment, by asset (%); 2018\***



\* or the nearest available year

Source: CZSO calculations based on Eurostat data

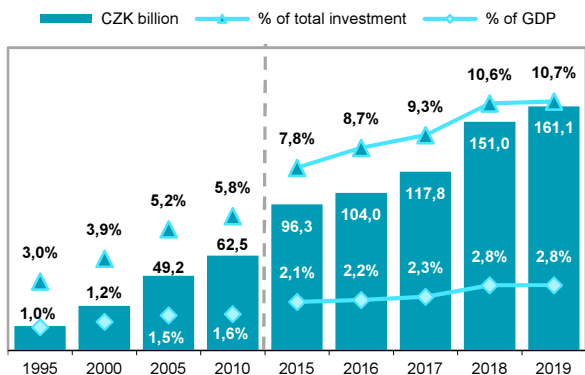
## C ICT investment

**Table C3 Software investment in Czechia**

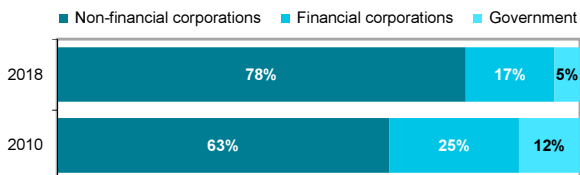
CZK million

|                                                   | 2017           | 2018           | 2019           |
|---------------------------------------------------|----------------|----------------|----------------|
| <b>Total</b>                                      | <b>117 816</b> | <b>150 990</b> | <b>161 093</b> |
| <b>Industry (CZ-NACE Section)</b>                 |                |                |                |
| Agriculture, forestry and fishing                 | 319            | 471            | 521            |
| Mining and quarrying                              | 83             | 95             | 108            |
| Manufacturing                                     | 14 395         | 17 838         | 19 328         |
| Electricity, gas and water supply                 | 2 205          | 2 931          | 3 116          |
| Construction                                      | 1 259          | 1 469          | 1 606          |
| Wholesale and retail trade                        | 9 783          | 12 910         | 14 530         |
| Transportation and storage                        | 3 996          | 5 487          | 5 888          |
| Accommodation and food service activities         | 314            | 415            | 446            |
| Information and communication                     | 43 743         | 59 309         | 64 308         |
| Financial and insurance activities                | 21 815         | 25 546         | 24 764         |
| Real estate activities                            | 1 303          | 1 751          | 1 851          |
| Professional, scientific and technical activities | 7 314          | 11 160         | 12 077         |
| Administrative and support service activities     | 1 835          | 2 304          | 2 428          |
| Public administration and defence                 | 4 783          | 5 327          | 6 031          |
| Education                                         | 1 237          | 1 103          | 1 032          |
| Human health and social work activities           | 1 045          | 1 214          | 1 522          |
| Arts, entertainment and recreation                | 822            | 1 282          | 1 376          |
| Other services                                    | 1 565          | 378            | 161            |

**Figure C9 Software investment**



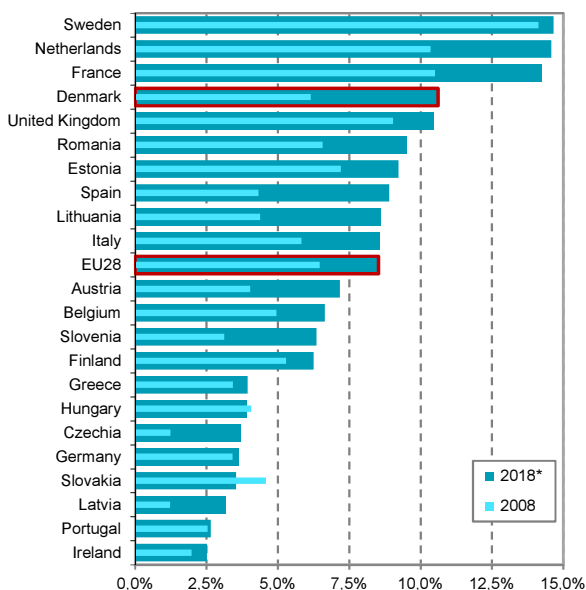
**Figure C10 Software investment, by institutional sectors**



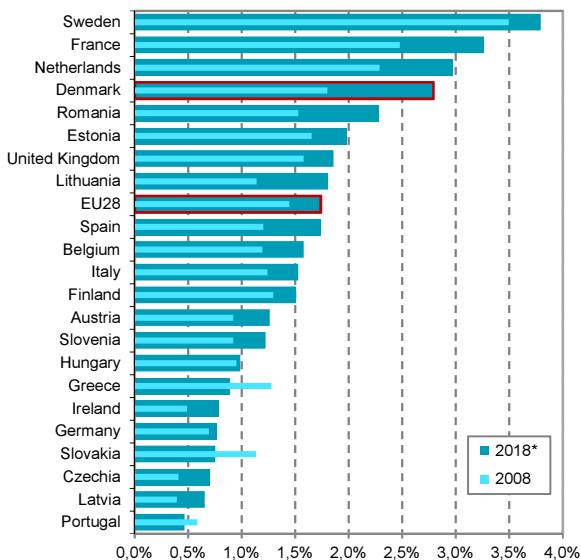
Source: CZSO, Annual National Accounts Statistics

## C ICT investment

**Figure C11 Software investment**  
(% of total investment)



**Figure C12 Software investment (% of GDP)**



\* or the nearest available year

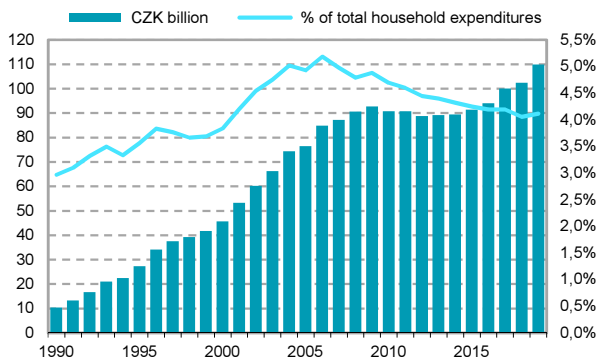
Source: CZSO calculations based on Eurostat data

## C ICT investment

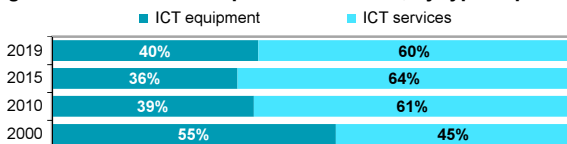
**Table C4 Household consumption expenditures on ICT equipment and services in Czechia**

|                                    | CZK million   |                |                |
|------------------------------------|---------------|----------------|----------------|
|                                    | 2017          | 2018           | 2019           |
| <b>Total</b>                       | <b>99 995</b> | <b>102 372</b> | <b>109 874</b> |
| <b>ICT equipment</b>               | <b>37 170</b> | <b>38 837</b>  | <b>43 734</b>  |
| Telephone equipment                | 6 587         | 8 119          | 9 452          |
| Computers and consumer electronics | 30 583        | 30 718         | 34 282         |
| <b>ICT (telephone) services</b>    | <b>62 825</b> | <b>63 535</b>  | <b>66 140</b>  |

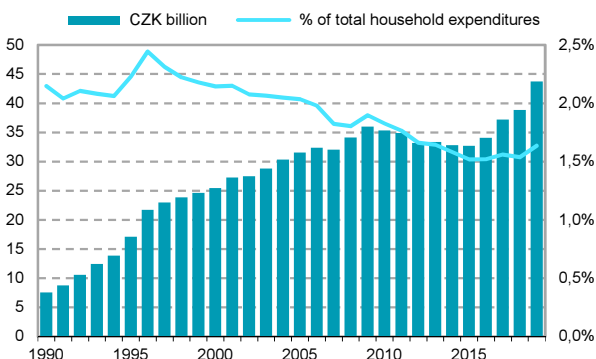
**Figure C13 Household consumption expenditures on ICT**



**Figure C14 Household expenditures on ICT, by type of product**



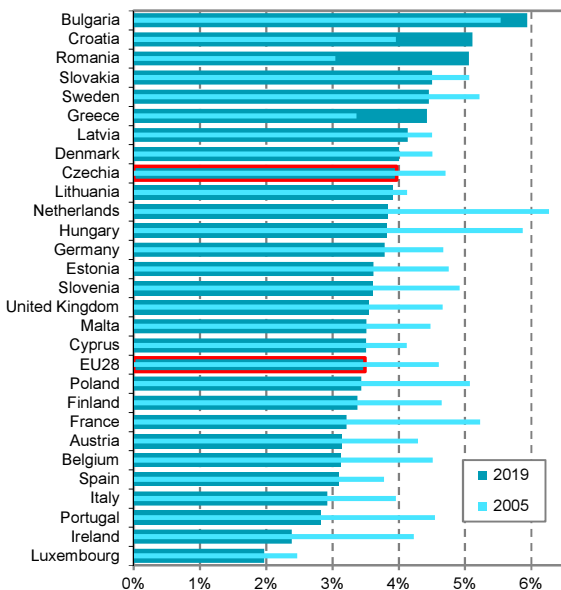
**Figure C15 Households expenditures on ICT equipment**



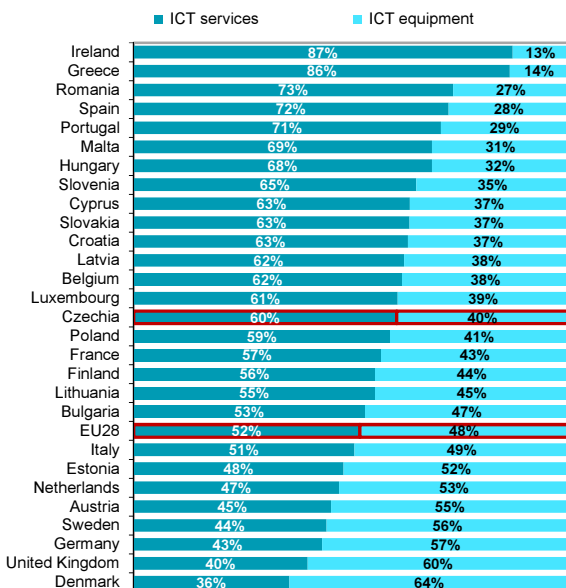


## C ICT investment

**Figure C16 Household consumption expenditures on ICT**  
(% of total households consumption expenditures)



**Figure C17 Household consumption expenditures on ICT, by type of product; 2019 (%)**



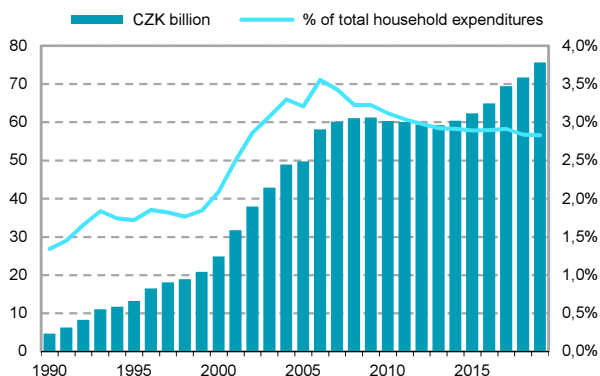
Source: CZSO calculations based on Eurostat data

## C ICT investment

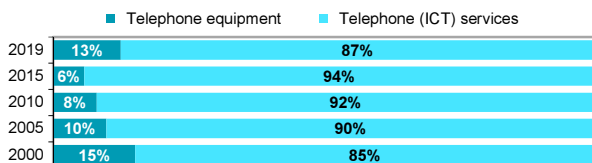
**Table C5 Household consumption expenditures on telecommunication in Czechia**

|                          | CZK million   |               |               |
|--------------------------|---------------|---------------|---------------|
|                          | 2016          | 2017          | 2018          |
| <b>Total</b>             | <b>62 573</b> | <b>64 780</b> | <b>68 727</b> |
| Telephone equipment      | 4 921         | 5 355         | 5 781         |
| Telephone (ICT) services | 57 652        | 59 425        | 62 946        |

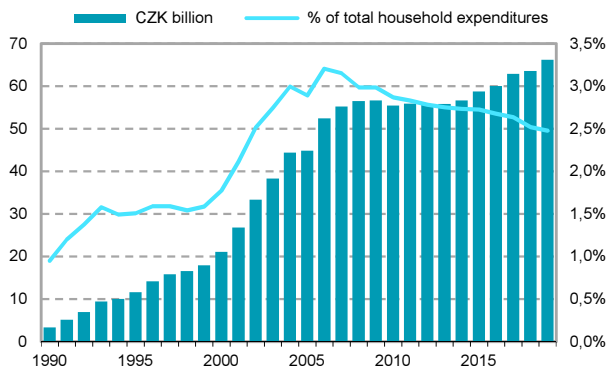
**Figure C18 Household expenditures on telecommunication**



**Figure C19 Household expenditures on telecommunication, by type of product**



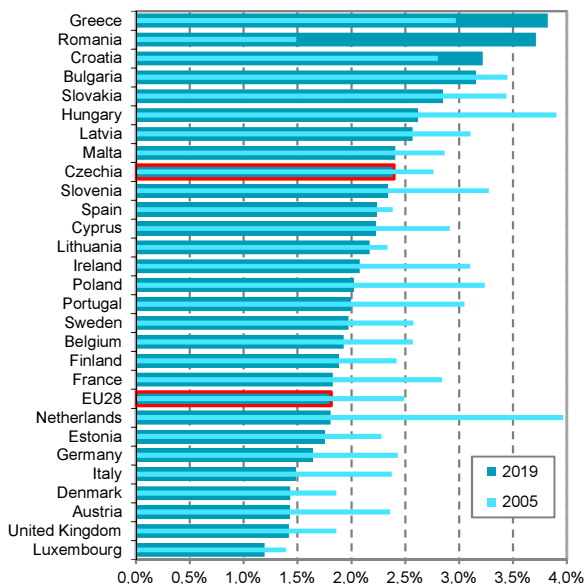
**Figure C20 Household expenditures on ICT services**



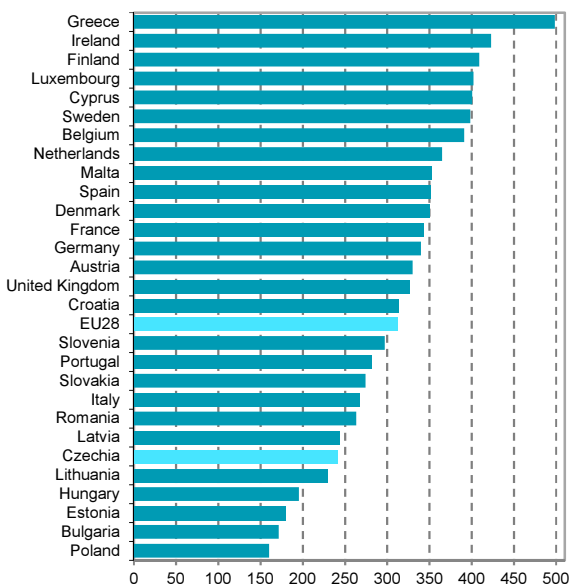
Source: CZSO, Annual National Accounts Statistics

## C ICT investment

**Figure C21 Household consumption expenditures on ICT services (% of total households consumption expenditures)**



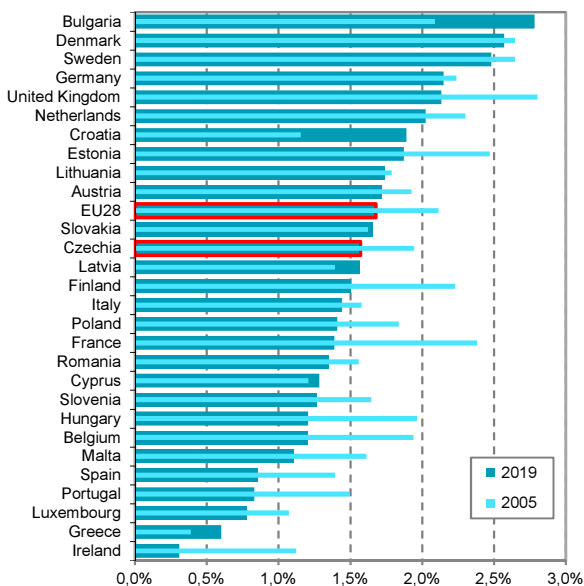
**Figure C22 Household consumption expenditures on ICT services; 2019 (EUR per capita)**



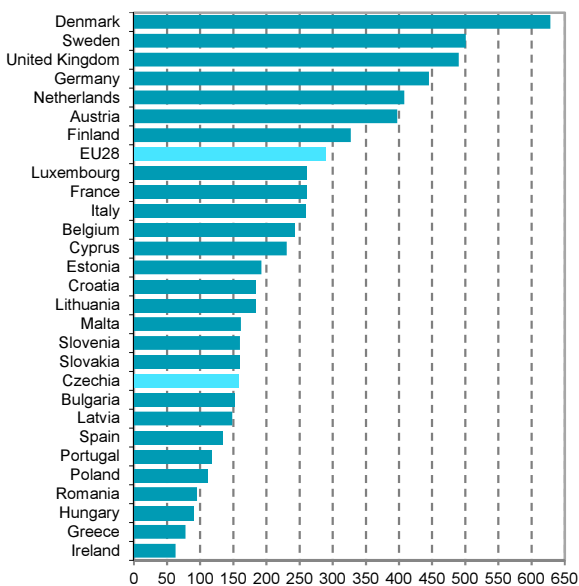
Source: CZSO calculations based on Eurostat data

## C ICT investment

**Figure C23 Household consumption expenditures on ICT equipment (% of total households consumption expenditures)**



**Figure C24 Household consumption expenditures on ICT equipment; 2019 (EUR per capita)**



Source: CZSO calculations based on Eurostat data