

B ICT expenditure and investment

ICT investment

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. The definition of GFCF used here follows **The European System of Regional and National Accounts (ESA 2010)**.

ICT investment by asset type has **three main components**: computer equipment, communications equipment and computer software and databases (software). Software includes acquisition of pre-packaged software, customized software and software developed in-house (own-account software).

ICT assets can be also classified to the groups of the **Classification of Products by Activity (CZ-CPA)**, the national version of the European standard of the Statistical Classification of Products by Activity (CPA 2008), as follows:

- **ICT equipment**: Computers and peripheral equipment (26.2); Communication equipment (26.3) and Consumer electronics (26.4)
- **Software**: Software publishing services (58.2); Computer programming, consultancy and related services (62.0) and Data processing, hosting and related services; web portals (63.1).

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

Computer software and databases (AN.1173) newly involve according to ESA 2010 two sub-items. **Computer software (AN.11731)** involves computer programs, program descriptions and supporting materials for both systems and application software. **Databases (AN.11732)** includes data files organized so as to enable cost-effective data access and use.

Households expenditures on ICT equipment and services

Data on the total ICT investment in this chapter are supplemented with data on **Final ICT consumption expenditure of households**. The final consumption expenditure of households is recorded in international classification COICOP. This is a classification where individual items of consumption are divided according to its purpose.

ICT equipment and ICT services according to this classification include the following items:

- **ICT equipment**: Telephone and telefax equipment (08.2); Audio-visual, photographic and information processing equipment (09.1)
- **Telecommunication (ICT) services**: Telephone and telefax services (08.3). This category contains primarily payments for calls via landline, mobile phone and payments for Internet connection

The both data, the total ICT investment and final household consumption expenditure on ICT equipment and ICT services come from the **Annual National Accounts Statistics** of the Czech Statistical Office. **2018 data are preliminary**. For more information, see:

<http://apl.czso.cz/pll/rocenka/rocenka.indexnu?mylang=EN>

Data for international comparisons refer to the reported or nearest available year.

Further information on ICT investment can be found at (only in Czech):

https://www.czso.cz/csu/czso/investice_v_ict

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Table B1 ICT investment in Czechia

CZK million

	2016	2017	2018
Total	191 276	200 568	205 933
ICT equipment	87 256	90 047	83 149
Software	104 020	110 521	122 784
Industry (CZ-NACE Section)			
Agriculture, forestry and fishing	2 094	2 393	2 252
Mining and quarrying	573	665	617
Manufacturing	57 057	62 484	58 061
Electricity, gas and water supply	7 620	7 361	6 164
Construction	4 189	4 666	4 266
Wholesale and retail trade	12 633	14 600	15 153
Transportation and storage	5 437	6 339	7 379
Accommodation and food service activities	1 954	2 165	1 821
Information and communication	47 037	43 882	49 835
Financial and insurance activities	22 665	21 878	23 151
Real estate activities	1 675	1 849	1 871
Professional, scientific and technical activ.	10 061	11 817	11 479
Administrative and support service activ.	2 336	2 707	2 958
Public administration and defence	7 225	7 753	9 066
Education	2 297	2 847	4 138
Human health and social work activities	3 575	3 621	4 171
Arts, entertainment and recreation	1 282	1 326	1 610
Other services	1 566	1 710	1 941

Figure B1 ICT investment

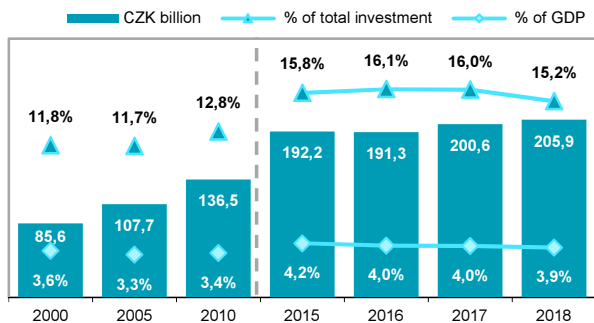
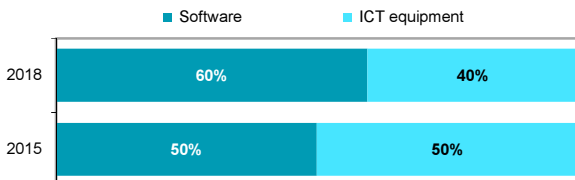


Figure B2 ICT investment, by asset



Source: CZSO, Annual National Accounts Statistics

B ICT expenditure and investment

Figure B3 ICT investment; 2017 (% of GDP)

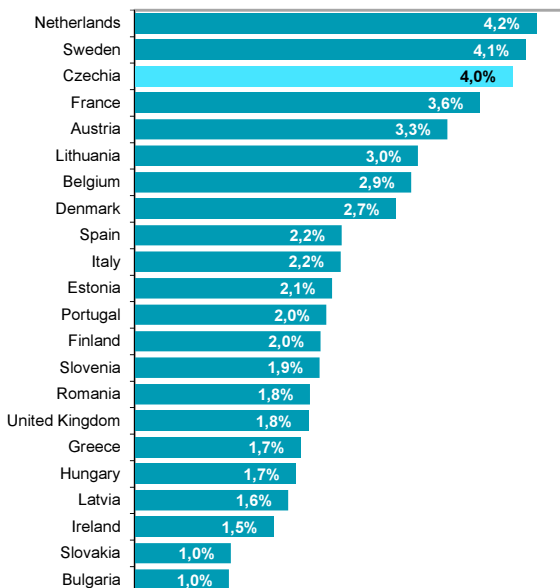
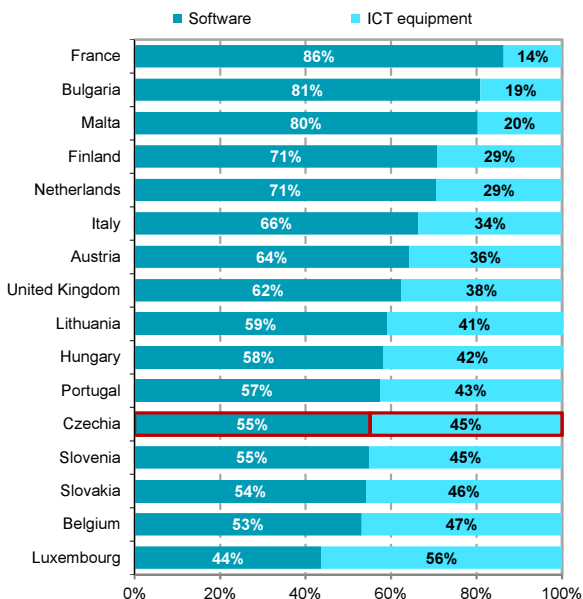


Figure B4 ICT investment, by asset; 2017



Source: CZSO calculations based on Eurostat data

B ICT expenditure and investment

Table B2 ICT equipment investment in Czechia

CZK million

	2016	2017	2018
Total	87 256	90 047	83 149
Computer equipment	64 221	67 087	62 111
Communication equipment	23 035	22 960	21 038
Industry (CZ-NACE Section)			
Agriculture, forestry and fishing	1 809	2 033	1 849
Mining and quarrying	454	539	479
Manufacturing	43 374	47 793	42 733
Electricity, gas and water supply	5 441	4 879	3 784
Construction	3 162	3 579	3 067
Wholesale and retail trade	4 057	5 225	4 643
Transportation and storage	1 743	2 037	2 568
Accommodation and food service activities	1 694	1 878	1 490
Information and communication	11 564	5 812	4 971
Financial and insurance activities	1 148	1 256	1 669
Real estate activities	685	816	736
Professional, scientific and technical activ.	3 377	4 425	3 414
Administrative and support service activ.	861	1 122	1 025
Public administration and defence	3 009	3 120	3 914
Education	1 346	1 730	2 680
Human health and social work activities	2 573	2 594	3 071
Arts, entertainment and recreation	684	651	714
Other services	275	331	342

Figure B5 Total ICT equipment investment

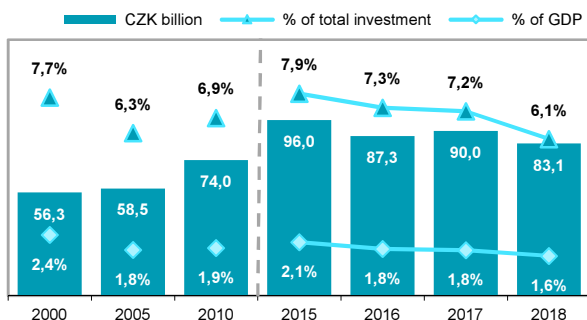
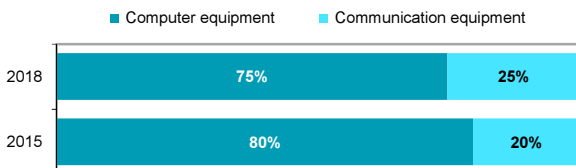


Figure B6 ICT equipment investment, by asset



Source: CZSO, Annual National Accounts Statistics

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Figure B7 ICT equipment investment; 2017
(% of total investment)

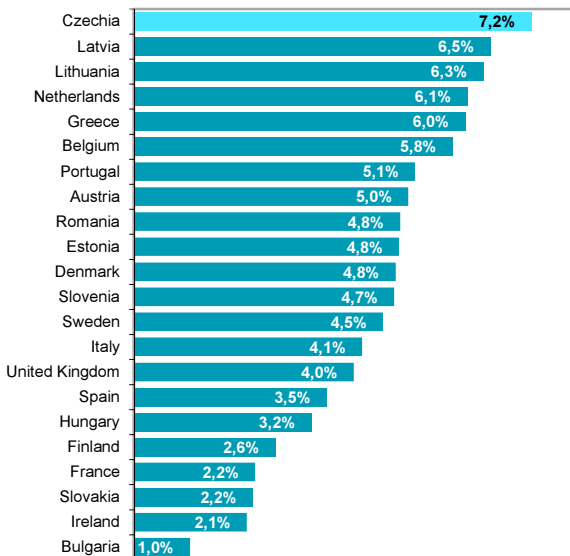
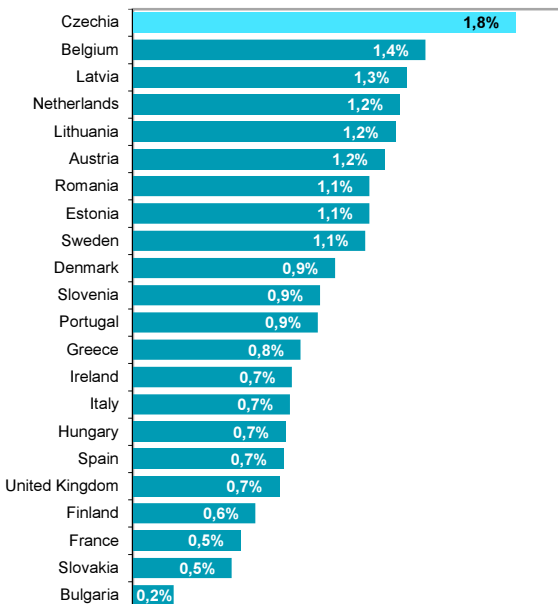


Figure B8 ICT equipment investment; 2017
(% of GDP)



Source: CZSO calculations based on Eurostat data

B ICT expenditure and investment

Table B3 Software investment in Czechia

CZK million

	2016	2017	2018
Total	104 020	110 243	122 784
Own-account software	25 592	26 885	28 252
Industry (CZ-NACE Section)			
Agriculture, forestry and fishing	285	360	403
Mining and quarrying	119	126	138
Manufacturing	13 683	14 691	15 328
Electricity, gas and water supply	2 179	2 482	2 380
Construction	1 027	1 087	1 199
Wholesale and retail trade	8 576	9 375	10 510
Transportation and storage	3 694	4 302	4 811
Accommodation and food service activities	260	287	331
Information and communication	35 473	38 070	44 864
Financial and insurance activities	21 517	20 622	21 482
Real estate activities	990	1 033	1 135
Professional, scientific and technical activ.	6 684	7 392	8 065
Administrative and support service activ.	1 475	1 585	1 933
Public administration and defence	4 216	4 633	5 152
Education	951	1 117	1 458
Human health and social work activities	1 002	1 027	1 100
Arts, entertainment and recreation	598	675	896
Other services	1 291	1 379	1 599

Figure B9 Software investment

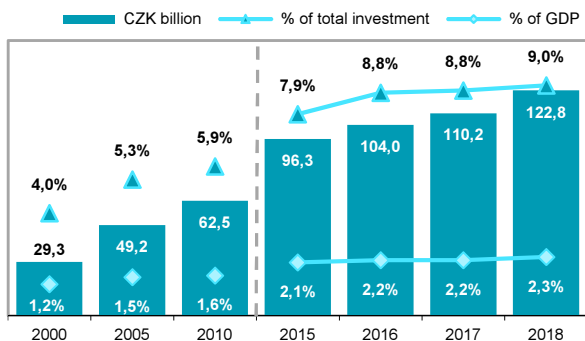
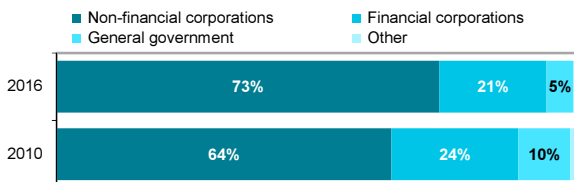


Figure B10 Software investment, by sector



Source: CZSO, Annual National Accounts Statistics

B ICT expenditure and investment

Figure B11 Software investment; 2017
(% of total investment)

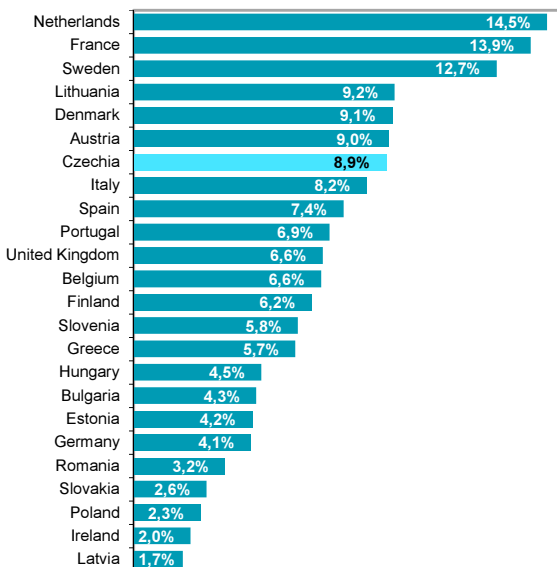
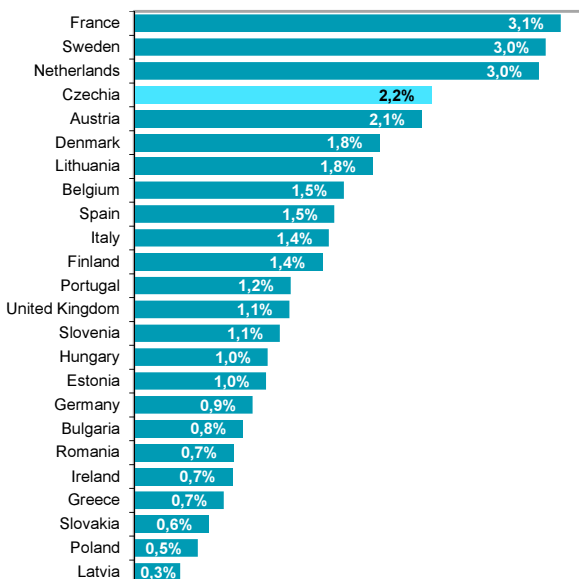


Figure B12 Software investment; 2017
(% of GDP)



Source: CZSO calculations based on Eurostat data

B ICT expenditure and investment

Table B4 Household consumption expenditures on ICT products in Czechia

	CZK million		
	2016	2017	2018
Total	91 577	95 945	104 095
ICT equipment	33 925	36 520	41 149
Telephone equipment, total	4 921	5 355	5 781
Computers and consumer electronics	29 004	31 165	35 368
Telecommunication (ICT) services	57 652	59 425	62 946

Figure B13 Household consumption expenditures on ICT

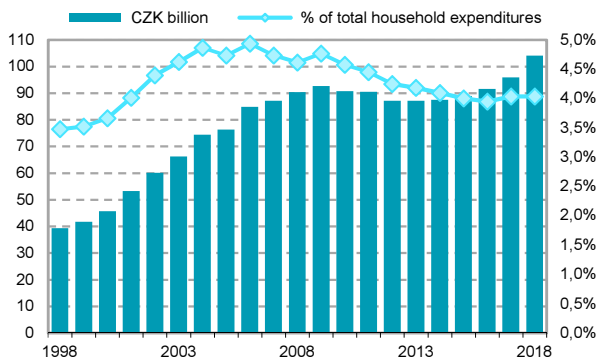


Figure B14 Household expenditures on ICT, by type of product

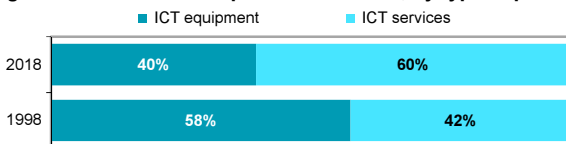
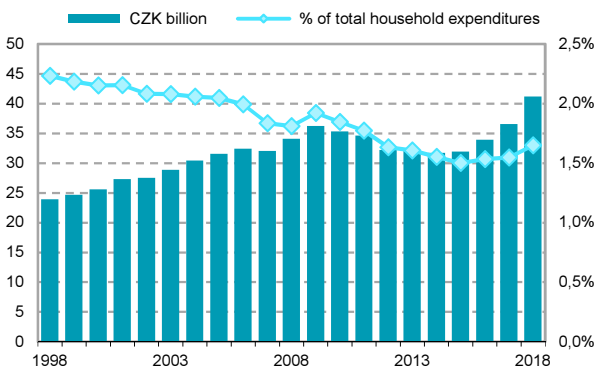


Figure B15 Households expenditures on ICT equipment



Source: CZSO, Annual National Accounts Statistics

B ICT expenditure and investment

Figure B16 Household consumption expenditures on ICT; 2018
(% of total households consumption expenditures)

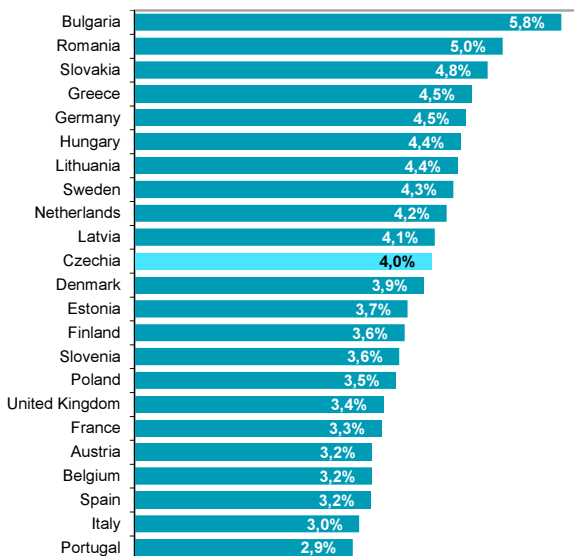
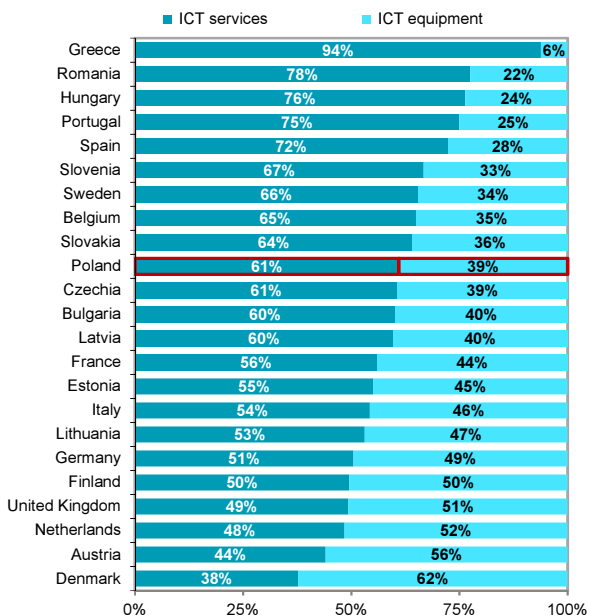


Figure B17 Household consumption expenditures on ICT, by type of product; 2018



Source: CZSO calculations based on Eurostat data

B ICT expenditure and investment

Table B5 Household consumption expenditures on telecommunication in Czechia

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

Figure B18 Household expenditures on telecommunication

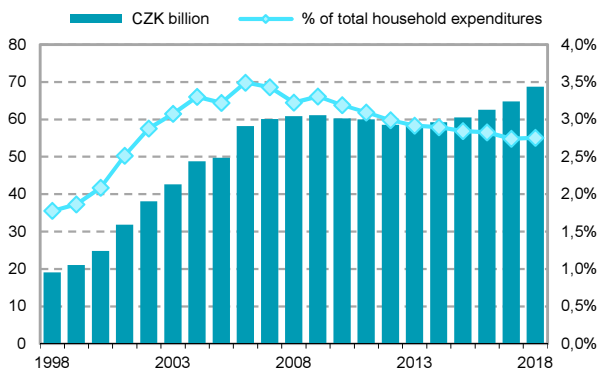


Figure B19 Household expenditures on telecommunication, by type of product

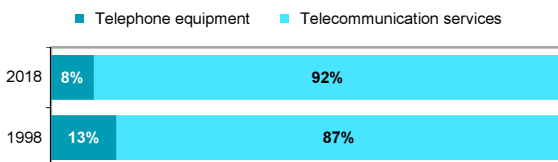
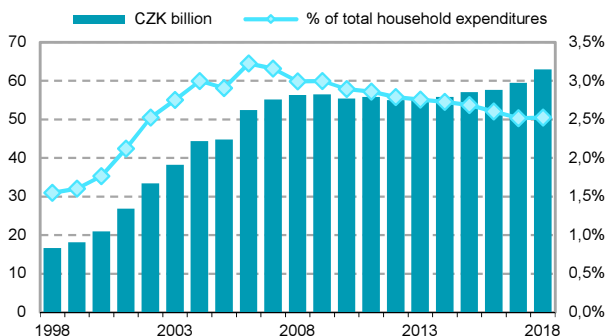


Figure B20 Household expenditures on telecommunication services



Source: CZSO, Annual National Accounts Statistics