

F ICT in Education and Digital Skills

Data on **numbers of computers at schools** per 100 pupils/students of respective school grades, as well as on school equipment with other ICTs in the Czech Republic come from data sources of the **Ministry of Education, Youth and Sports**. The Ministry collect these data at nursery, primary, secondary, and higher professional schools within the annual questionnaire called Report of Schools Headquarters (R 13-01). The data are as at **30 September of the reference year**.

More information on these fields can be found at:

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

The independent annual statistical survey called **Sample Survey on the ICT Use in Households and by Individuals** (for details see Chapter C) has been a valuable source of information on how **students aged 16+ years** use information technologies.

The **Sample Survey on the ICT Use in Households and by Individuals** is also a source of data on **online learning activities** over the internet. Within the survey, respondents were asked if they attended an online course, used online learning material or communicated with instructors using educational portals within **the last 3 months** prior the survey.

The indicators on **computer (digital) skills** of people in Czechia are also based on results from the above-mentioned Sample Survey on the ICT Use in Households and by Individuals. Within the survey, respondents were asked if they used selected digital skills in **the last 12 months**.

Definitions (sorted alphabetically)

- **Copying or moving files** between folders or between two computers (e.g. via USB flash drive) or between computers and other devices (e.g. from/to mobile phone via Bluetooth)
- **Editing photos** means using photo editing software e.g. Adobe Photoshop or GIMP. The software for editing allows to add effects, filters, overlays and use other tools.
- **Presentation software** e.g. Powerpoint or Prezi is used to create slides for presentation integrating text, pictures, tables or charts.
- **Programming** shall include the use of programming languages as Java, C, Python, Pascal, for instance, writing of scripts in PHP or JavaScript, for instance, writing of source codes, formatting and generating of tools, binary tools for compatibility analyses, tools for code checking, generators of documentation, generators of interfaces, etc.
- **School Intranet** uses most of the same technology as the internet but it is restricted only to a limited group of users within an organization, typically to students and staff of given school. The access by outsiders is excluded.
- **School Wireless Network** (school WiFi network) enables students and school staff using portable devices in a school to connect to the school computer network. An example is international roaming service Eduroam.
- **Spreadsheet software** e.g. MS Excel is used to organise and analyse data, such as sorting, filtering, using formulas or creating charts.

- **The participation in an online course** shall include a participation in course attended over the internet. Students communicate with lecturers over the internet, study materials are also sent online. Online courses may include language courses, personal development courses, computer courses and more. It also includes courses made through the applications such as Duolingo.
- **Using online learning material** includes using audio-visual materials, online learning software or electronic textbooks. Excludes downloading such material for offline use at a later point of time.
- **Word processing software** e.g. MS Word or OpenOffice Writer is used to create a document with text.

More information on these fields can be found at:

https://www.czso.cz/csu/czso/vyuzivani_informacnich_tehnologii_studenty
(in the Czech language only)

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Table F1 Computers in schools in Czechia; 2021

Number of devices per 100 students in a given school type

	Total	Desktop	Portable	Up to age of 2 years
Basic schools - first stage	30,2	14,8	15,4	12,0
Basic schools - second stage	37,5	19,4	18,0	15,3
Secondary schools	28,1	20,4	7,7	8,7

Figure F1 Computers in schools available to students
(number of devices per 100 students in a given school type)

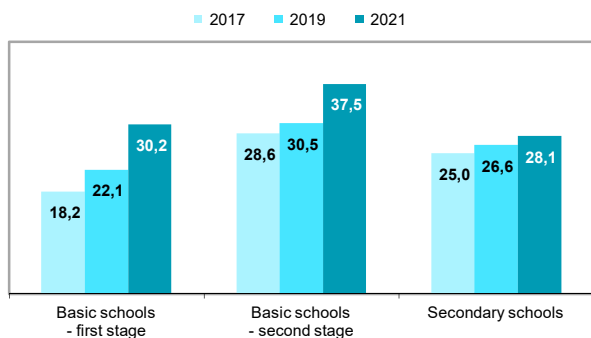
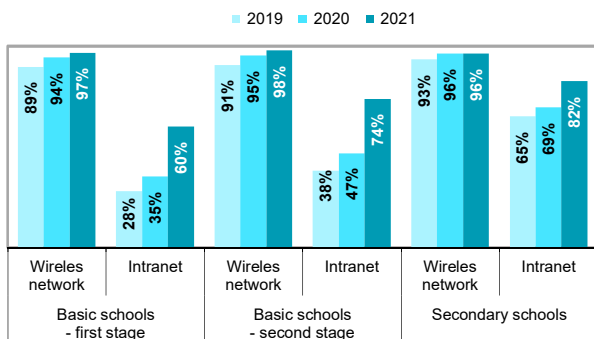


Table F2 Schools in Czechia with wireless network and school intranet

Percentage

	Wireless Network		Intranet	
	2015	2021	2015	2021
Basic schools - first stage	78,7	96,6	14,3	59,8
Basic schools - second stage	81,6	97,7	20,3	73,7
Secondary schools	87,0	97,2	46,1	82,4

Figure F2 Schools with wireless network and school Intranet



as a percentage of all schools of a given stage

Source: Ministry of Education, Youth and Sports

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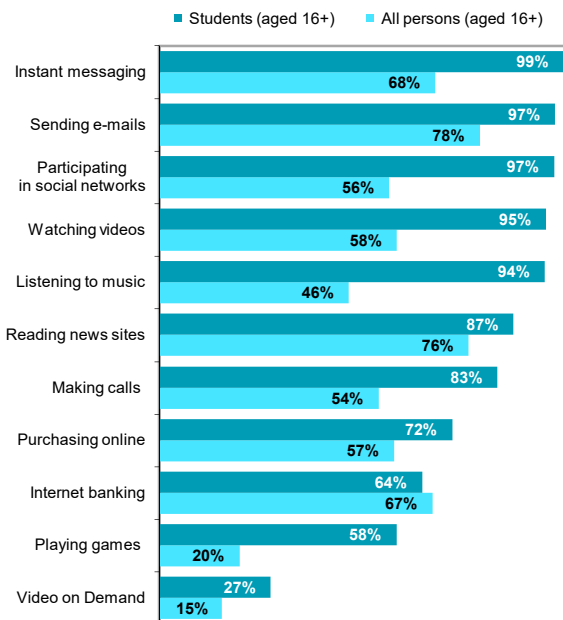
Tab. F3 Students aged 16+ in Czechia using the internet; 2021

	Percentage		
	Total	Men	Women
Using the internet, total	100,0	100,0	100,0
Using the internet several times a day	94,2	96,2	92,2
Using the internet on a mobile phone, total	99,5	99,5	99,5
of which via a mobile network (e. g. LTE)*	87,7	86,0	89,5
Using the internet for selected activities			
Instant messaging	98,9	100,0	97,8
Sending e-mails	96,9	98,5	95,3
Participating in social networks	96,6	97,2	96,1
Watching videos	94,7	97,4	92,0
Listening to music	94,4	94,6	94,2
Reading news sites	86,7	84,6	88,8
Making calls	82,8	83,2	82,3
Purchasing online	71,7	69,2	74,3
Internet banking	64,3	56,1	72,5
Playing games	58,1	71,9	44,3
Watching Video on Demand (e.g. Netflix)	27,3	26,4	28,2

as a percentage of all students (men/women) aged 16+

* Mobile network stands here for the use of both prepaid and postpaid monthly tariff data and voice subscription from the mobile phone operators.

Figure F3 Students and persons aged 16+ using the internet for selected activities; 2021



Source: Czech Statistical Office, ICT use survey in households

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Figure F4 Students aged 16+ in Czechia and other EU countries using the internet for selected activities; 2021

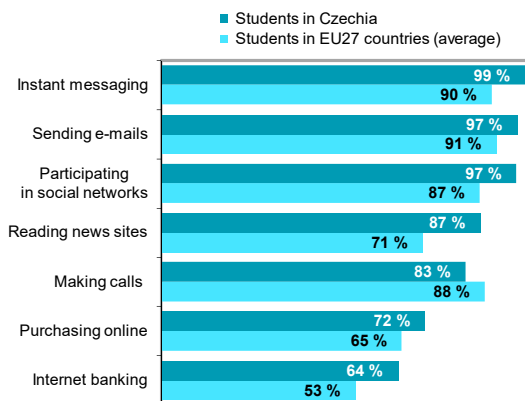
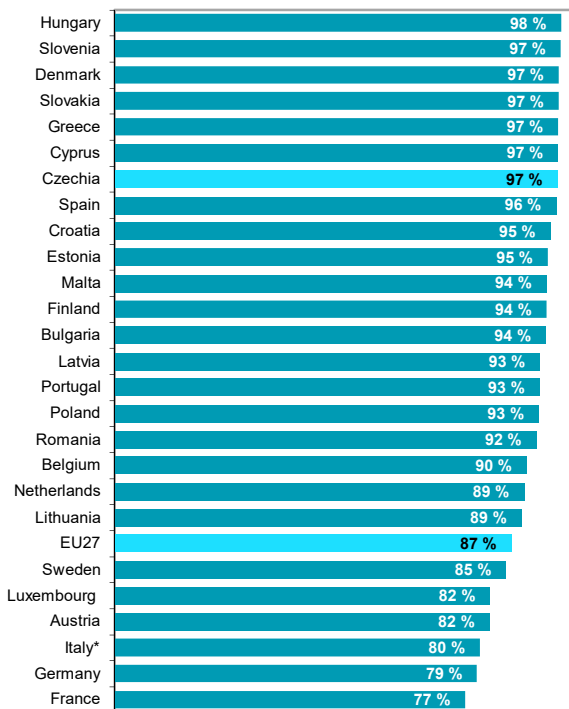


Figure F5 Students aged 16+ in EU countries participating in social networks; 2021



* data for 2020

Source: Eurostat

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Table F4 Persons in Czechia using the internet for selected learning activities; 2nd quarter 2021

	Percentage	
	Doing an online course	Using online learning materials
Total (aged 16+)	16,0	15,5
Men	15,5	15,2
Women	16,5	15,8
Age group (years)		
16–34	35,6	34,9
35–54	15,2	14,0
55+	4,1	4,4
Education attainment (aged 25–64)		
Primary	2,6	2,5
Secondary without A-level examination	3,4	3,0
Secondary with A-level examination	14,6	14,0
Tertiary	36,5	34,3

as a percentage of all persons in a given socio-demographic group

Figure F6 Persons aged 16+ doing an online course; 2021

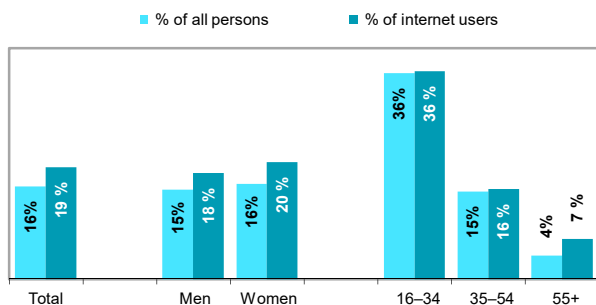
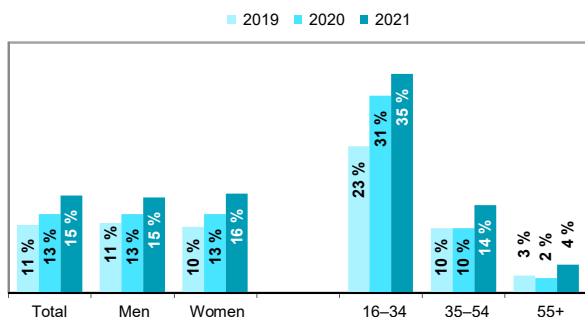


Figure F7 Persons aged 16+ using online learning materials



as a percentage of all students (men/women) aged 16+

Source: Czech Statistical Office, ICT use survey in households

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Figure F8 Persons aged 16–74 years in EU countries who attended an online course; 2nd quarter 2021

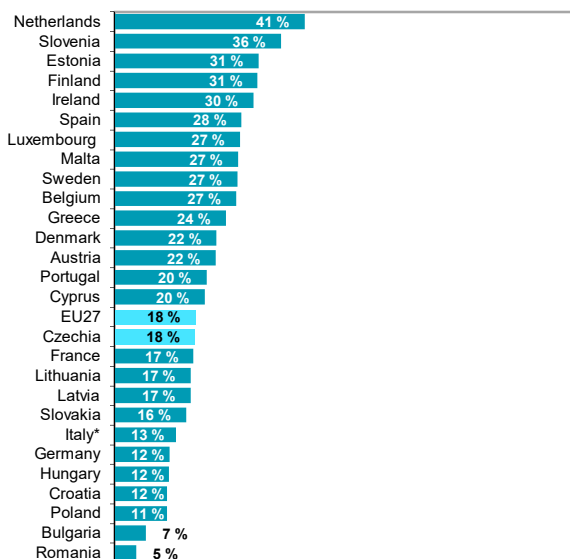
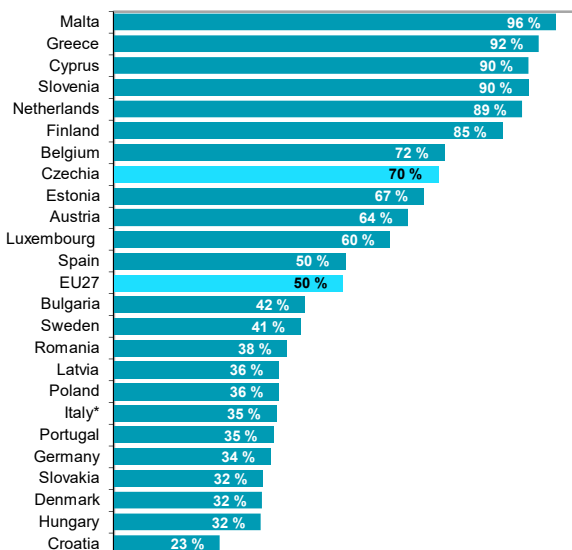


Figure F9 Students aged 16+ in EU countries who attended an online course; 2nd quarter 2021



* data for 2020

Source: Eurostat

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Table F5 Persons in Czechia with selected digital skills; 2021

	Percentage		
	Copying files	Editing photos	Program-ming
Total (aged 16+)	52,2	26,0	4,9
Men	54,7	27,2	7,8
Women	49,9	24,9	2,1
Age group (years)			
16–24	84,2	54,1	11,9
25–34	76,2	45,4	10,7
35–44	67,5	36,8	6,8
45–54	58,0	19,8	3,0
55–64	43,5	15,3	1,5
65+	13,0	5,2	0,3
Education attainment (aged 25–64)			
Primary	25,5	12,9	0,8
Secondary without A-level examination	37,5	16,3	0,8
Secondary with A-level examination	70,4	31,0	5,2
Tertiary	90,9	49,5	13,7

as a percentage of all persons in a given socio-demographic group

Figure F10 Installing software and change of settings by gender and age; 2021

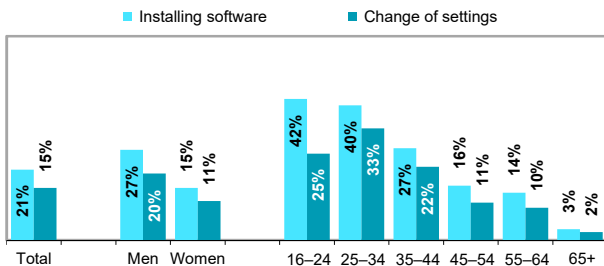
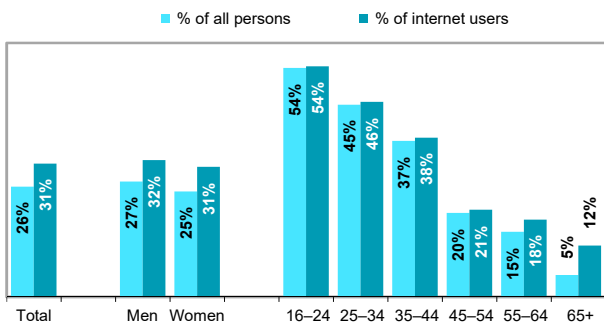


Figure F11 Using photo editing software or apps by gender and age; 2021



as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

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Figure F12 Persons aged 16–74 years in EU countries who do programming; 2021

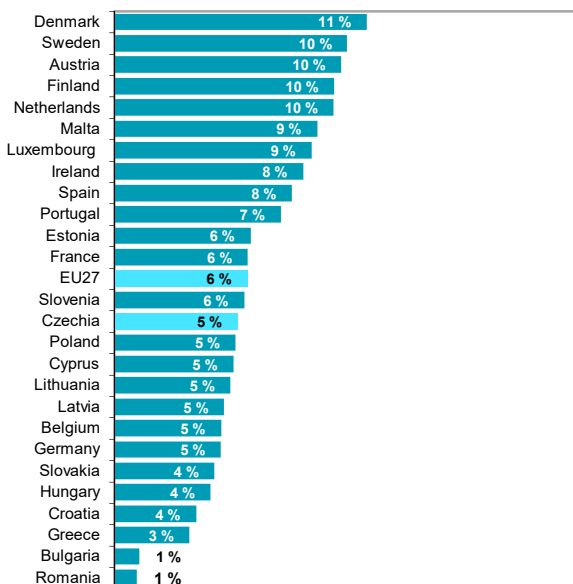
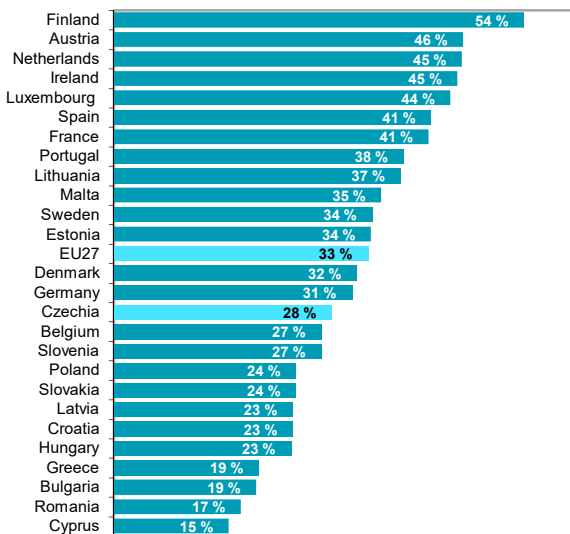


Figure F13 Persons aged 16–74 years in EU countries who used photo editing software or apps; 2021



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Tab. F6 Persons in Czechia using office software; 2021

	Percentage		
	Word processing software	Spreadsheet software	Presentation software
Total (aged 16+)	48,9	36,8	16,5
Men	49,9	38,8	18,3
Women	47,9	34,9	14,9
Age group (years)			
16–24	80,1	67,5	55,6
25–34	66,4	52,6	22,9
35–44	64,0	48,4	21,8
45–54	53,9	40,2	12,4
55–64	43,5	30,4	7,0
65+	12,6	6,5	1,2
Education attainment (aged 25–64)			
Primary	18,9	6,9	4,0
Secondary without A-level examin.	29,6	16,7	3,5
Secondary with A-level examination	67,9	51,7	14,5
Tertiary	89,3	76,2	39,9

as a percentage of all persons in a given socio-demographic group

Figure F14 Using word processing software; 2021

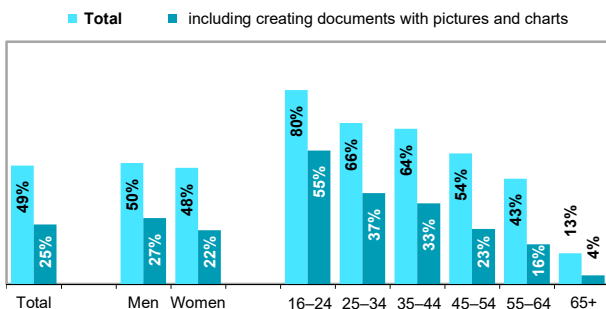
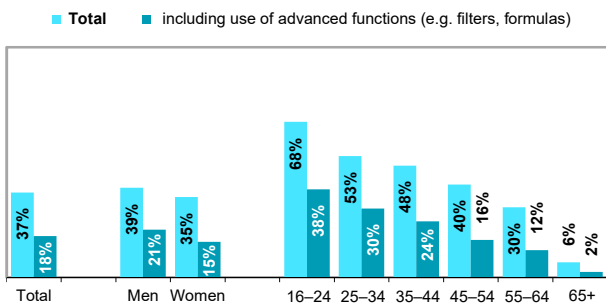


Figure F15 Using spreadsheet software; 2021



as a percentage of all persons in a given socio-demographic group

Source: Czech Statistical Office, ICT use survey in households

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Figure F16 Persons aged 16–74 years in EU countries who used word processing software; 2021

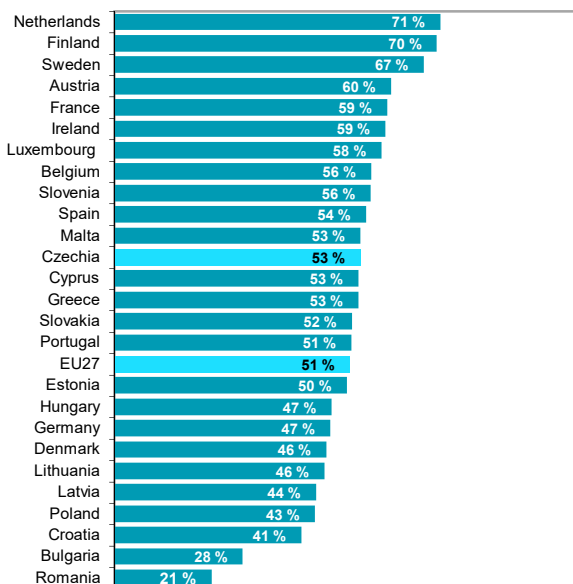
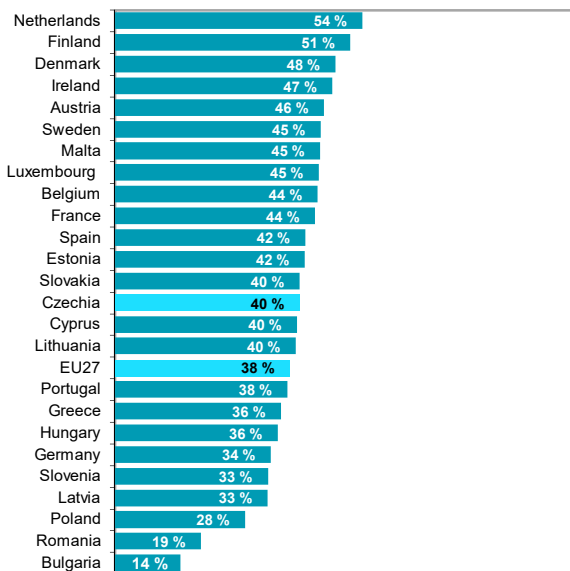


Figure F17 Persons aged 16–74 years in EU countries who used spreadsheet software; 2021



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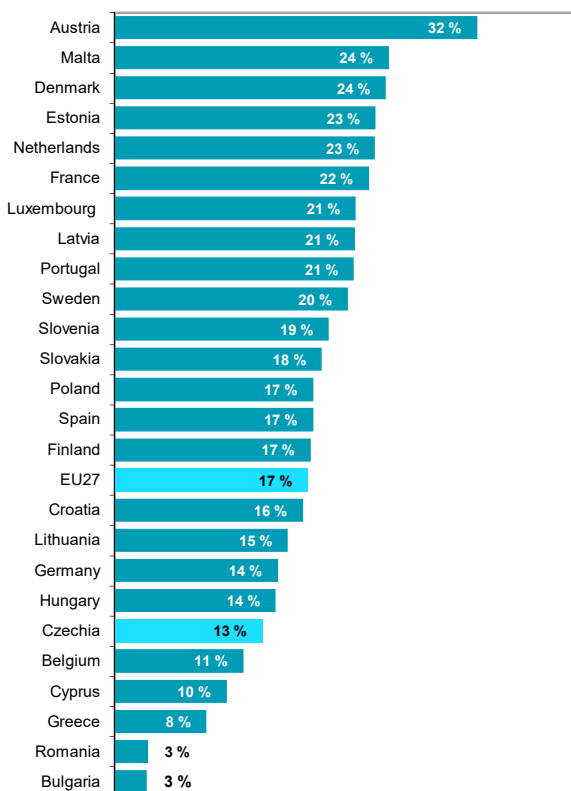
Table F7 Students aged 16+ in Czechia using selected software; 2021

	Percentage		
	Total	Men	Women
Word processing software, total	91,0	90,7	91,3
advanced functions (e.g. inserting pictures or charts)	66,0	65,9	66,2
Spreadsheet software, total	79,5	80,6	78,5
advanced functions (e.g. filtering, formulas usage)	47,7	47,7	47,6
Presentation software	67,2	70,7	63,8
Photo/ video editing software and apps	59,9	56,3	63,5
Programming	12,9	17,2	8,5

as a percentage of all students (men/women) aged 16+

Source: Czech Statistical Office, ICT use survey in households

Figure F18 Students aged 16+ in EU countries who do programming; 2021



Source: Eurostat