

D Enterprises

Since 2002, the Czech Statistical Office (CZSO) has been regularly monitoring the development in usage of information technologies by enterprises with 10 or more persons employed in selected industries with independent annual statistical survey.

Since 2006, the survey has been conducted according to the annual implementing measures of the **Framework Regulation (EC) No. 808/2004 of the European Parliament and of the Council** concerning Community statistics on the information society that ensures data harmonisation and comparability among EU countries.

In 2016 this survey was conducted in the first quarter, with the sample of approximately 7 500 enterprises with 10 or more employees. The resulting data has been then extrapolated to the entire population of enterprises with 10 or more employees in the Czech Republic (38 thousand enterprises).

Reference period: 31 December (for the years 2000–2004), since 2006 the reference period refers to January of the monitored year. In the case of electronic commerce the data pertains to the entire year.

Sample size: 7 500 enterprises with 10 and more persons employed

Data comparability:

- The data obtained in 2008 and later is not fully comparable with the data of previous years. This difference is due to implementation of a new NACE classification.
- The data for the Czech Republic presented by Eurostat may slightly differ until 2015 from data presented by the CZSO. This difference is due to the fact that Eurostat does not include enterprises from the financial sector. Data is fully comparable since 2016.

Definitions (in alphabetical order):

- **Cloud computing** - refers to **ICT services** that are used **over the internet** to access software, computing power, storage capacity etc. where the services have all the following characteristics: are delivered from servers of service providers; can be easily scaled up or down (number of users or change of storage capacity); can be used on-demand by the user, at least after the initial set up; **are paid** (either per user, by capacity used, or they are pre-paid).
- **CRM** - Customer Relationship Management is a management methodology which places the customer at the centre of the business activity, based in an intensive use of information technologies to collect, integrate, process and analyse information related to the customers.
- **E-Invoice** - an invoice where all data is in digital format suitable for automated processing. A distinctive feature of a structured e-Invoice is automation: a structured e-Invoice will be transferred automatically in inter-company invoicing from the invoice issuer's or service provider's system directly into the recipient's financial or other application. The e-Invoice data could be structured according to the XML, EDI or other similar format.
- **Electronic data interchange (EDI)** refers to the structured transmission of data or documents (messages) between organizations or enterprises by electronic means in an agreed format which allows its automatic processing (e.g. EDIFACT, XML, etc.) and without the individual message being manually typed.
- **Electronic commerce** shall mean e-purchases or e-sales (placing or accepting electronic orders) via the internet or other computer networks (proprietary networks used for market transactions) regardless of the method of payment or delivery. Value of e-purchases (e-sales) is the percentage of the total financial value of all enterprises' purchases (enterprises' turnover). Purchases (sales) implemented on the basis of orders prepared from information

obtained on the internet but placed in a traditional way (by phone, fax, or written order) or by manual typed e-mail are not included. Electronic orders are made through websites (Web e-commerce) or initiated by using the electronic data interchange (EDI e-commerce).

- **Web e-Commerce** are purchases or sales made via an online store (web shop), via web forms on a website or extranet, or “apps” regardless of how the web is accessed (computer, laptop, etc.)
- **EDI e-Commerce** are orders initiated with EDI-type messages. EDI is here used as a generic term for sending or receiving business information in an agreed format suitable for automated processing (e.g. EDIFACT, XML, etc.) and without the individual message being manually typed. “EDI e-Commerce” is limited to EDI messages placing an order.
- **ERP** - Enterprise Resource Planning consists of one or of a set of software applications that integrate information and processes across the several business functions of the enterprise. Typically ERP integrates planning, procurement, sales, marketing, customer relationship, finance and human resources.
- **Extranet** - special website/intranet extensions used to communicate with enterprises' suppliers, resellers, partners, customers, or other entities. Access to the extranet is possible only upon login.
- **E-Marketplace** - refers to websites or apps used by several enterprises for trading products e.g. Booking, eBay, Amazon.
- **Fiber optics technology** - kind of the most modern fixed internet, a frequent solution is a combination of optical fiber and Ethernet wiring used to connect devices to the internet network. Optical fiber is implemented into the building then distributed by cables. Usually provides the fastest internet connection.
- **Internal computer network** (Local Area Network; LAN) connects two or more computers to share information, files, internal emails and applications within the enterprise.
- **Intranet** - an internal company communication network using an internet protocol allowing communication within an organisation.
- **WLAN** - the use of wireless technologies such as radio-frequency, infrared, microwave, or other types of electromagnetic or acoustic waves, for the last internal link between users devices (such as computers, printers, etc) and a LAN backbone line(s) within the enterprise's working premises. It includes mainly Wi-Fi and Bluetooth technologies.
- **SCM** - Supply Chain Management means exchanging all types of information with suppliers and/or customers about the availability, production, development and distribution of goods or services.
- **Social media** use by enterprises - use of tools for conversing and creating content online and for connecting with customers, suppliers or other partners or within the enterprise. The following are the main social media communication platforms and tools for enterprises:
 - **Social networks** (e.g. Facebook or LinkedIn);
 - **Enterprise's blog or microblogs** (e.g. Twitter);
 - **Multimedia content sharing websites** (e.g. YouTube, Instagram);
 - **Wiki-based knowledge sharing tools** (e.g. Wikipedia-like sites).
- **Website** – Location on the WWW identified by a web address. Information is encoded with specific languages (e.g. HTML, XML, Java) readable with a Web browser. Enterprises that have a website containing only contact information without the ability to change the site content should be considered as not having a website.

The **Eurostat** online database for **Information society statistics** was used for the international comparison. *This database was updated in December 2017. For more information see:*

<http://ec.europa.eu/eurostat/web/information-society>

Further information on ICT usage by enterprises can be found at:

https://www.czso.cz/csu/czso/podnikatelsky_sektor (in Czech only)

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Tab. D1 Enterprises in the Czech Republic using computer networks; 2017

	%		
	Local Area Network	Intranet	Extranet
Total (10+ employees)	75,2	31,2	17,1
Small enterprises (10-49)	70,4	25,1	13,1
Medium enterprises (50-249)	91,8	48,0	29,2
Large enterprises (250+)	98,4	79,8	44,3
Industry (NACE category):			
Manufacturing	78,2	31,4	15,0
Electricity, gas and water supply	77,7	36,9	18,1
Construction	68,9	19,7	6,2
Sale and repair of motor vehicles	86,4	31,2	22,7
Wholesale trade	89,3	30,4	23,2
Retail trade	62,5	28,2	16,8
Transport and storage	63,6	31,0	14,2
Accommodation	81,9	25,7	22,8
Food and beverage services	43,6	21,9	9,5
Travel agency and related activities	83,7	45,4	32,4
Media industries incl. publishing activit.	97,3	64,8	40,1
Telecommunications	99,3	73,6	50,2
Computer programming and related act.	96,6	70,4	58,9
Real estate activities	76,9	24,3	13,6
Professional, scientific and technical act.	85,3	42,6	20,9
Administrative and support activities	61,5	28,2	14,3

as a percentage of all enterprises with 10+ employees in a given group

Figure D1 Enterprises using computer networks; 2017

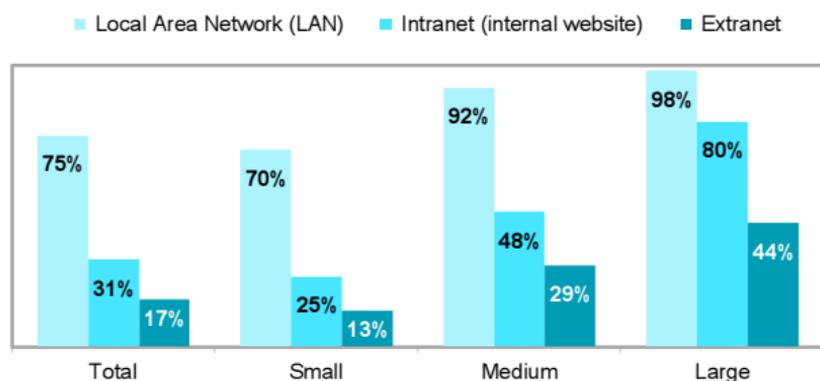
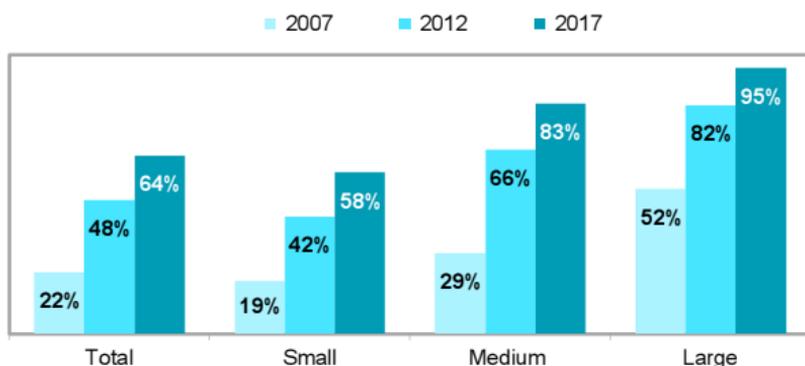


Figure D2 Enterprises with Wireless Local Area Network



as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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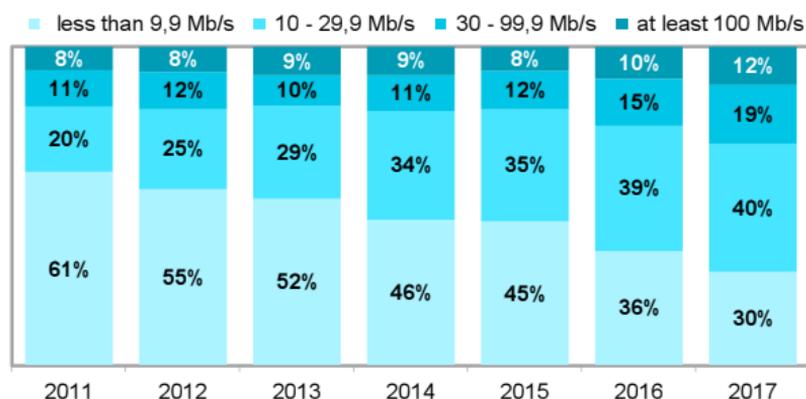
Tab. D2 Enterprises in the Czech Rep. with the internet; 2017

%

	Total	Download speed*	
		at least 30 Mb/s	at least 100 Mb/s
Total (10+ employees)	97,6	29,9	11,8
Small enterprises (10-49)	97,2	25,8	9,8
Medium enterprises (50-249)	99,2	41,3	16,5
Large enterprises (250+)	99,6	61,6	31,6
Industry (NACE category):			
Manufacturing	98,4	27,0	8,3
Electricity, gas and water supply	98,2	34,0	12,1
Construction	97,0	27,2	12,1
Sale and repair of motor vehicles	98,5	27,7	7,8
Wholesale trade	98,0	31,2	10,9
Retail trade	95,5	26,3	7,6
Transport and storage	98,2	22,7	9,4
Accommodation	98,9	37,4	17,1
Food and beverage services	94,2	21,3	7,6
Travel agency and related activities	99,1	38,6	18,9
Media industries incl. publishing activities	100,0	56,4	31,7
Telecommunications	100,0	83,9	68,0
Computer programming and related activ.	99,6	65,8	38,5
Real estate activities	96,6	32,4	14,1
Professional, scientific and technical activ.	99,2	40,2	21,4
Administrative and support activities	94,0	25,6	9,9

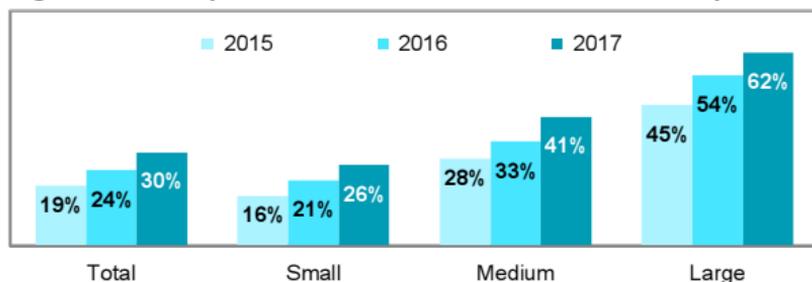
as a percentage of all enterprises with 10+ employees in a given group

Figure D3 Internet connection speed* used by enterprises



as a percentage of all enterprises with 10+ employees with the internet

Figure D4 Enterprises with at least 30 Mb/s download speed*



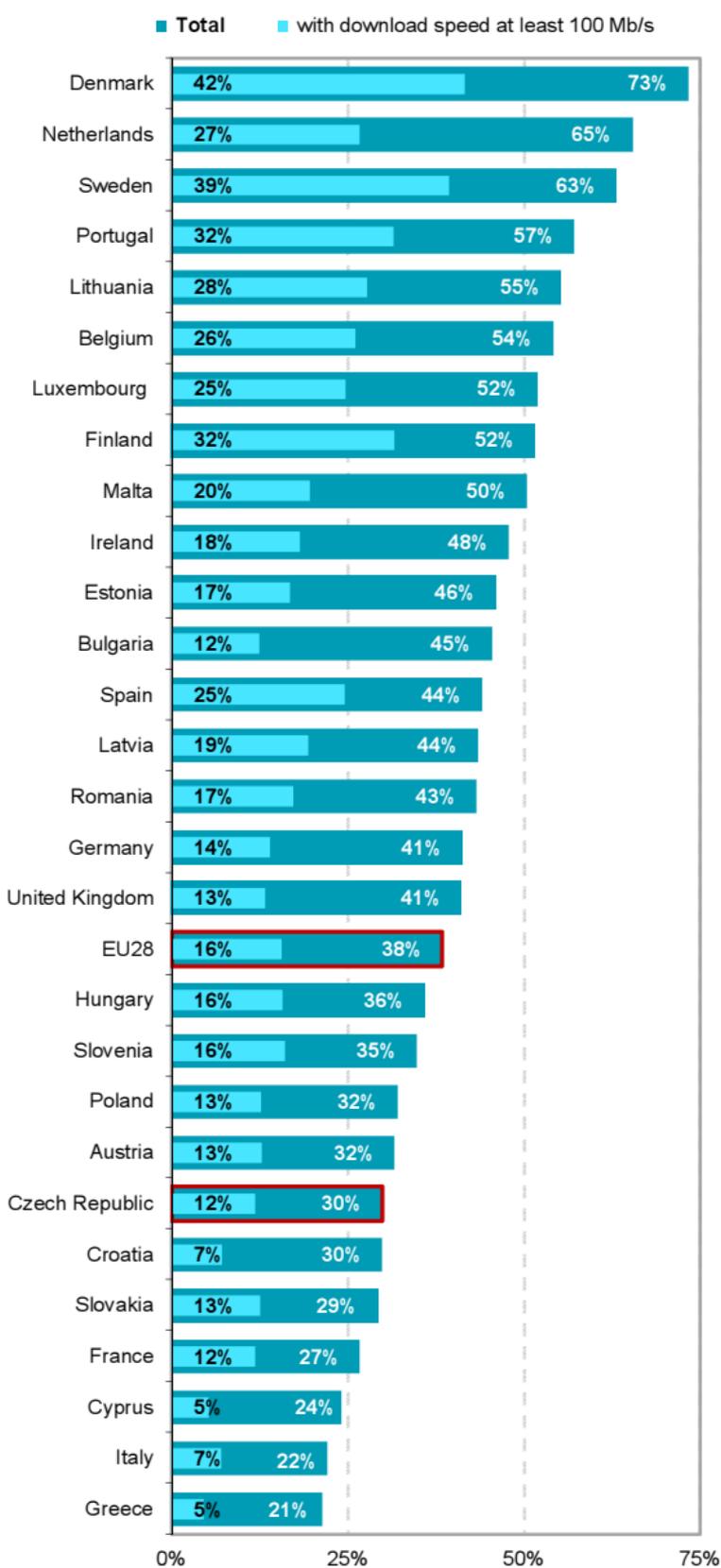
as a percentage of all enterprises with 10+ employees in a given size class

* maximum contracted download speed of the fastest fixed internet connection

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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Figure D5 Enterprises in EU countries with at least 30 Mb/s internet connection speed; 2017



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

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Tab. D3 Enterprises in the Czech Republic using selected types of fixed connection to the internet; 2017

	%		
	xDSL technology	fiber optics	leased line
Total (10+ employees)	57,5	21,4	19,2
Small enterprises (10-49)	58,1	17,2	14,7
Medium enterprises (50-249)	53,2	33,2	30,9
Large enterprises (250+)	64,4	54,5	58,1
Industry (NACE category):			
Manufacturing	58,2	17,3	18,5
Electricity, gas and water supply	54,5	27,4	23,6
Construction	55,1	21,3	14,8
Sale and repair of motor vehicles	62,5	22,9	22,3
Wholesale trade	62,6	25,4	22,5
Retail trade	68,1	16,5	16,0
Transport and storage	56,7	17,6	16,3
Accommodation	63,2	23,1	20,7
Food and beverage services	58,2	10,7	10,2
Travel agency and related activities	66,5	26,9	24,5
Media industries incl. publishing activities	52,2	41,0	26,0
Telecommunications	30,6	70,7	44,9
Computer programming and related activ.	46,1	50,0	37,5
Real estate activities	47,6	27,2	20,9
Professional, scientific and technical activ.	52,1	31,3	24,9
Administrative and support activities	50,8	15,6	16,6

as a percentage of all enterprises with 10+ employees in a given group

Figure D6 Enterprises using xDSL technology

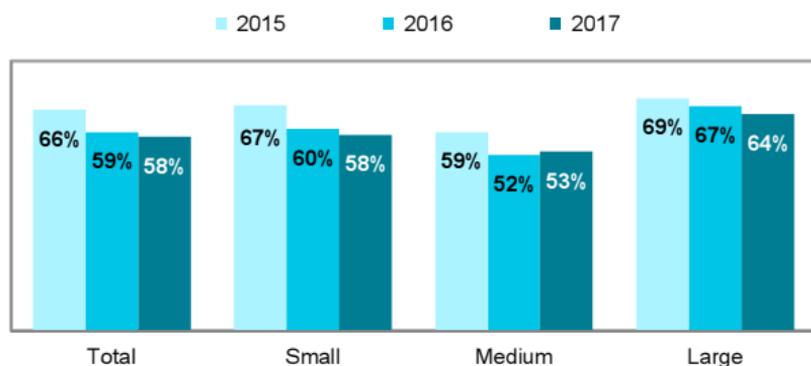
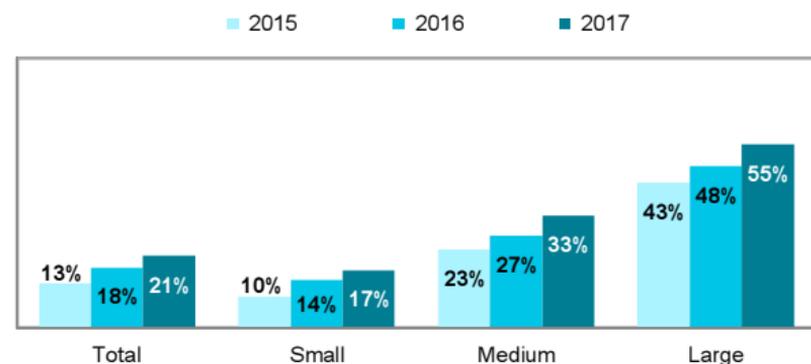


Figure D7 Enterprises using fiber optics technology

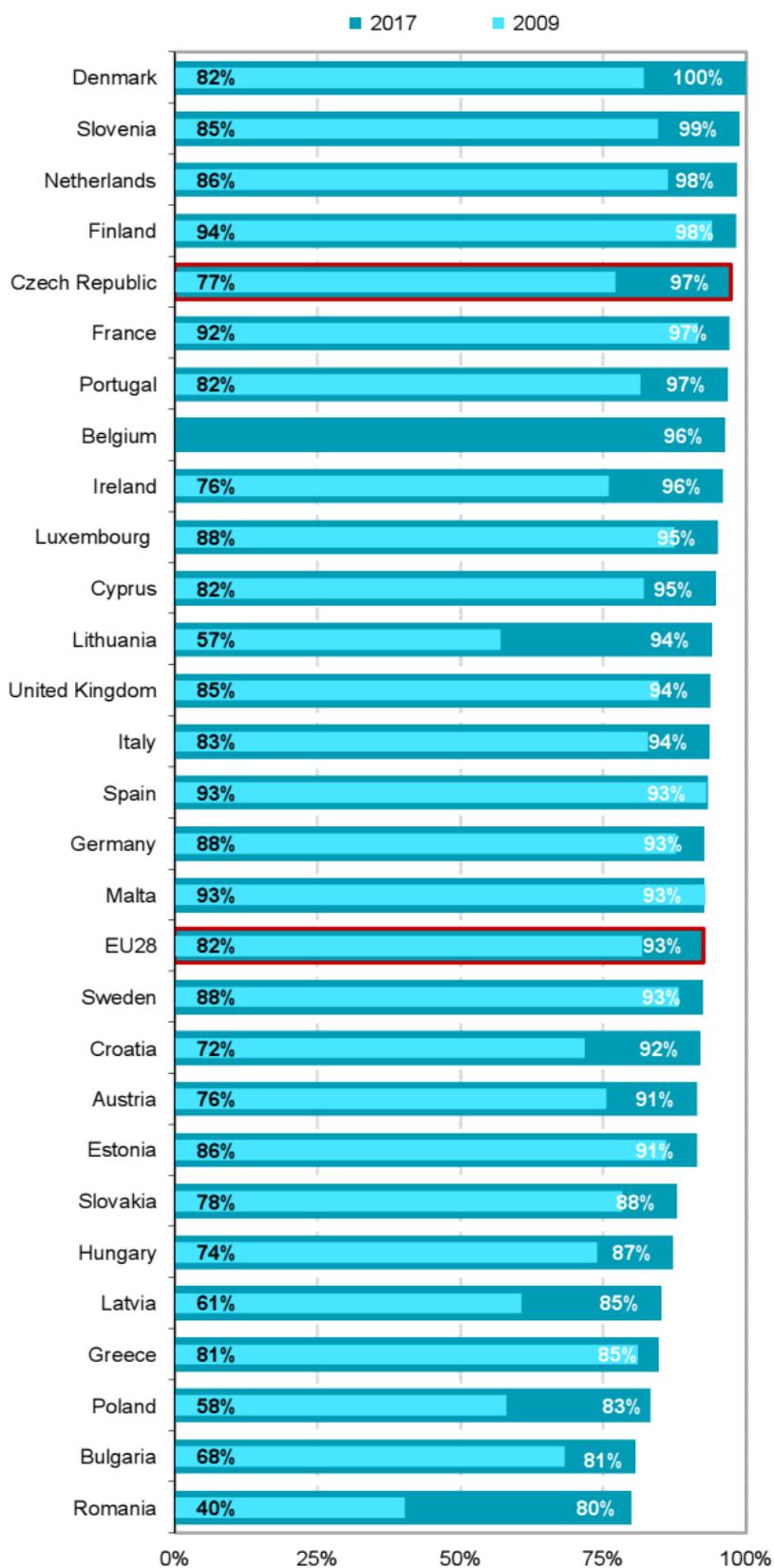


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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Figure D8 Enterprises in EU countries with fixed connection to the internet



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

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Tab. D4 Enterprises in the Czech Republic with a website; 2017

	Total	of which customized for mobiles
Total (10+ employees)	82,9	42,5
Small enterprises (10-49)	80,4	40,3
Medium enterprises (50-249)	91,8	48,3
Large enterprises (250+)	94,2	59,2
Industry (NACE category):		
Manufacturing	84,4	38,9
Electricity, gas and water supply	88,2	43,0
Construction	83,3	40,6
Sale and repair of motor vehicles	92,2	50,9
Wholesale trade	89,9	46,3
Retail trade	63,4	39,9
Transport and storage	70,9	29,9
Accommodation	97,3	69,9
Food and beverage services	72,8	44,4
Travel agency and related activities	96,6	65,4
Media industries incl. publishing activities	98,4	64,1
Telecommunications	96,4	64,2
Computer programming and related activities	96,0	65,4
Real estate activities	88,2	39,0
Professional, scientific and technical activities	88,9	46,3
Administrative and support activities	72,9	39,5

as a percentage of all enterprises with 10+ employees in a given group

Figure D9 Enterprises with a website

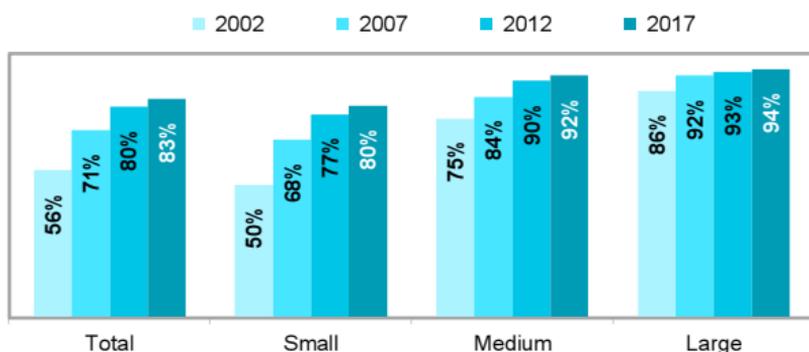
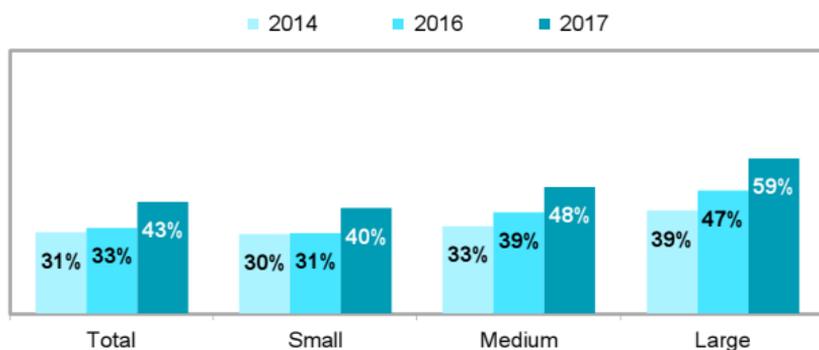


Figure D10 Enterprises with a website customized for mobiles

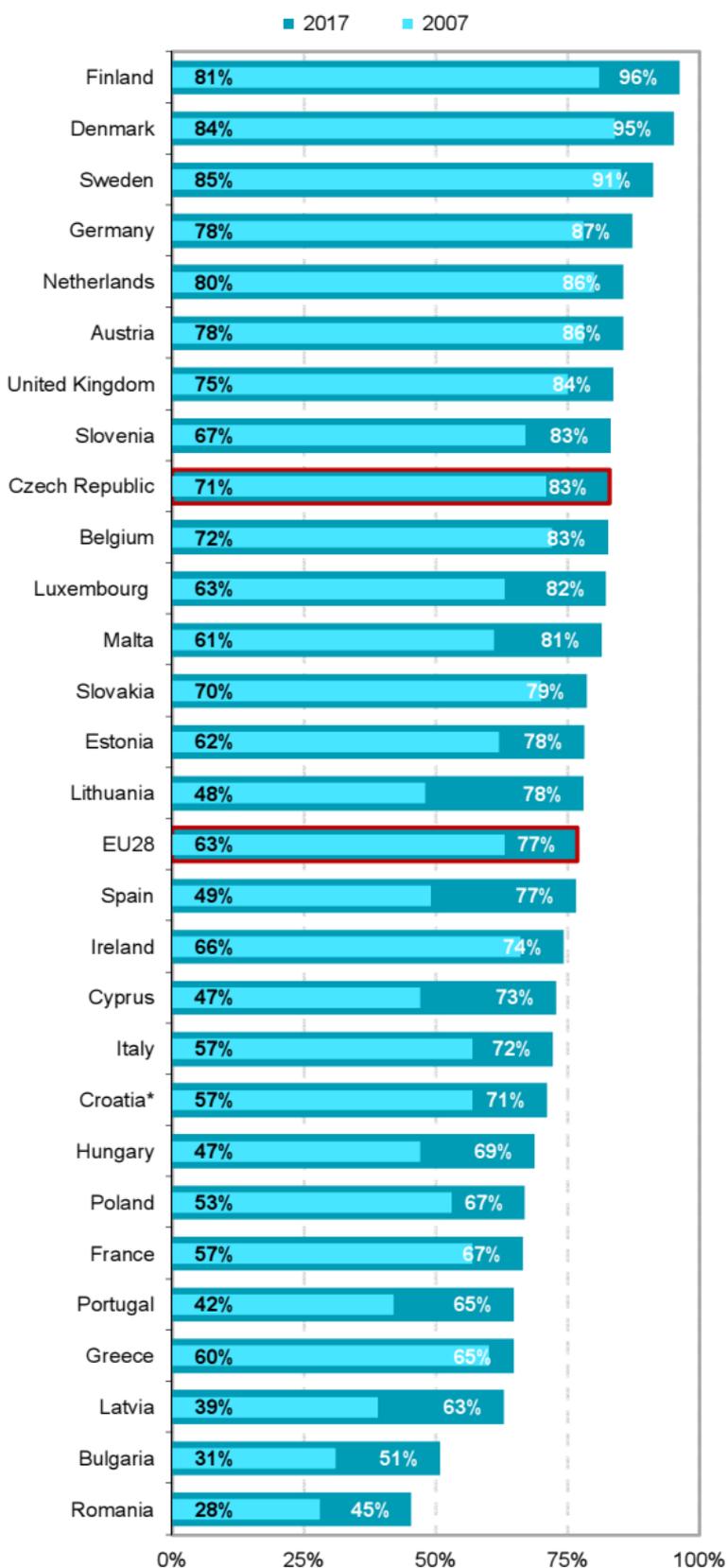


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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Figure D11 Enterprises in EU countries with a website



* Croatian data for 2009 and 2017

as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

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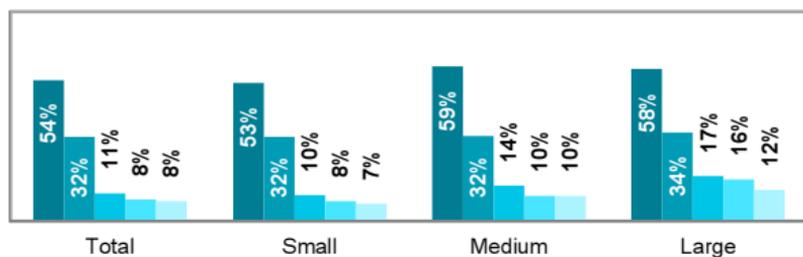
Tab. D5 Applications available on enterprise's websites in the Czech Republic; 2017

	Description of products	Online ordering	Online payment
Total (10+ employees)	53,9	32,2	7,5
Small enterprises (10-49)	52,6	32,1	6,7
Medium enterprises (50-249)	58,9	32,4	9,7
Large enterprises (250+)	57,9	33,9	12,0
Industry (NACE category):			
Manufacturing	53,8	26,3	4,2
Electricity, gas and water supply	54,8	24,9	2,7
Construction	43,0	20,6	1,9
Sale and repair of motor vehicles	71,0	51,7	4,6
Wholesale trade	73,4	48,8	16,6
Retail trade	48,7	41,9	22,7
Transport and storage	33,9	25,2	3,2
Accommodation	88,9	87,0	23,2
Food and beverage services	62,7	41,2	5,4
Travel agency and related activities	89,4	78,6	34,4
Media industries incl. publishing activities	81,4	69,3	38,0
Telecommunications	84,9	65,9	18,2
Computer programming and related act.	59,2	34,7	12,8
Real estate activities	47,4	20,4	2,0
Professional, scientific and technical act.	46,8	23,9	4,3
Administrative and support activities	40,4	23,3	2,9

as a percentage of all enterprises with 10+ employees in a given group

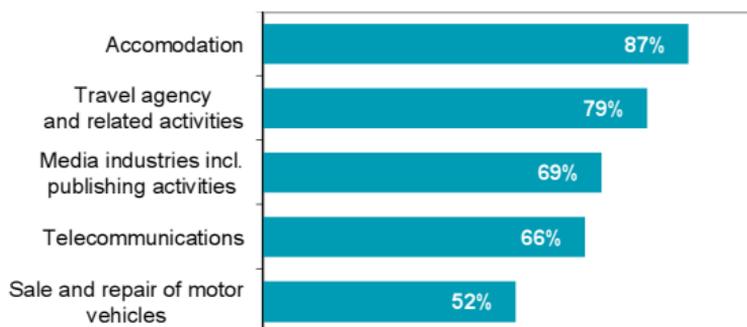
Figure D12 Apps available on enterprise's websites; 2017

■ Description of products
 ■ Online ordering
 ■ Product configuration
■ Online tracking
 ■ Online payment



as a percentage of all enterprises with 10+ employees in a given size class

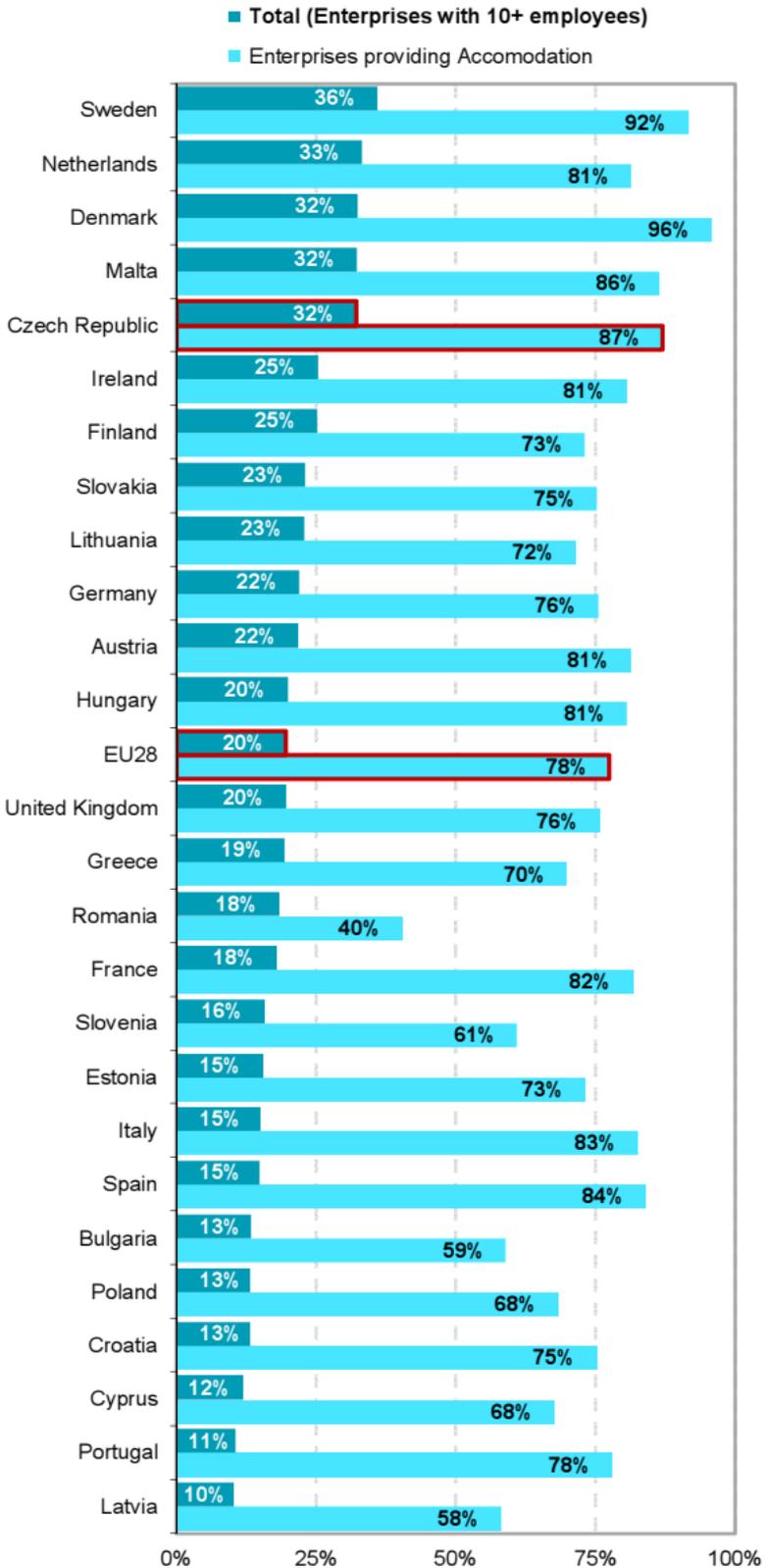
Figure D13 Enterprises in TOP 5 industries with a website enabling online ordering; 2017



as a percentage of all enterprises with 10+ employees in a given industry

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Figure D14 Enterprises in EU countries with online ordering/reservation application; 2017



as a percentage of all enterprises with 10+ employees (in a given industry) in a given country

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Tab. D6 Enterprises in the Czech Republic selling via a website; 2016

	Total	via:	
		their own website	e-commerce marketplace
Total (10+ employees)	19,1	18,6	2,7
Small enterprises (10-49)	18,0	17,6	2,6
Medium enterprises (50-249)	22,4	21,8	3,2
Large enterprises (250+)	27,0	26,1	4,0
Industry (NACE category):			
Manufacturing	15,3	14,8	1,1
Electricity, gas and water supply	8,4	8,2	0,8
Construction	6,9	6,5	0,8
Sale and repair of motor vehicles	27,1	26,3	4,5
Wholesale trade	37,4	36,5	4,3
Retail trade	32,8	32,7	4,8
Transport and storage	10,0	9,7	2,3
Accommodation	60,0	58,8	25,8
Food and beverage services	20,9	19,5	4,1
Travel agency and related activities	63,4	62,7	10,4
Media industries incl. publishing activities	59,3	59,3	3,7
Telecommunications	53,5	52,2	5,6
Computer programming and related activit.	27,5	27,2	6,3
Real estate activities	10,0	10,0	1,1
Professional, scientific and technical activit.	10,4	10,4	1,5
Administrative and support activities	8,8	8,7	0,8

as a percentage of all enterprises with 10+ employees in a given group

Figure D15 Enterprises selling via a website

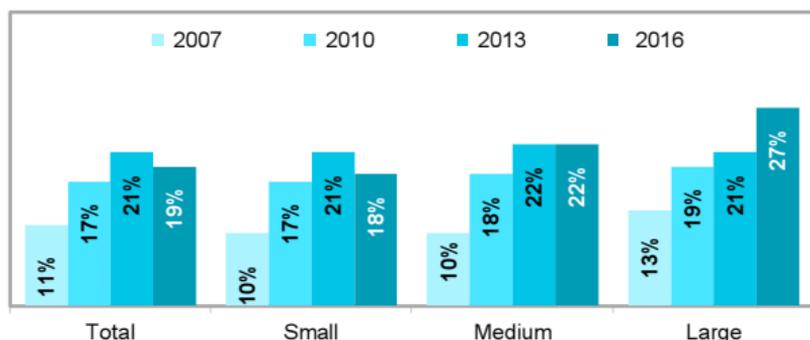
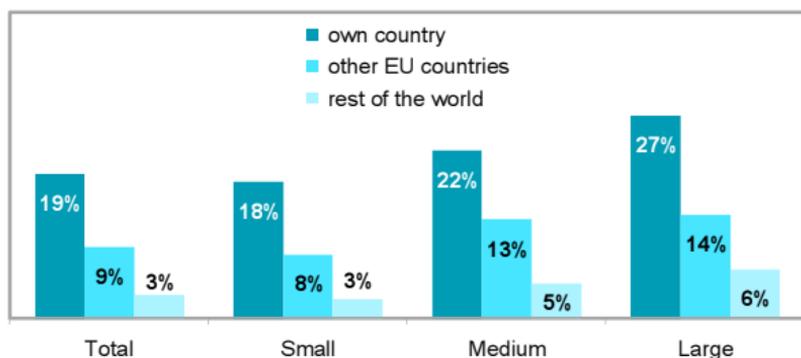


Figure D16 Enterprises selling via a website by customers' locations; 2016

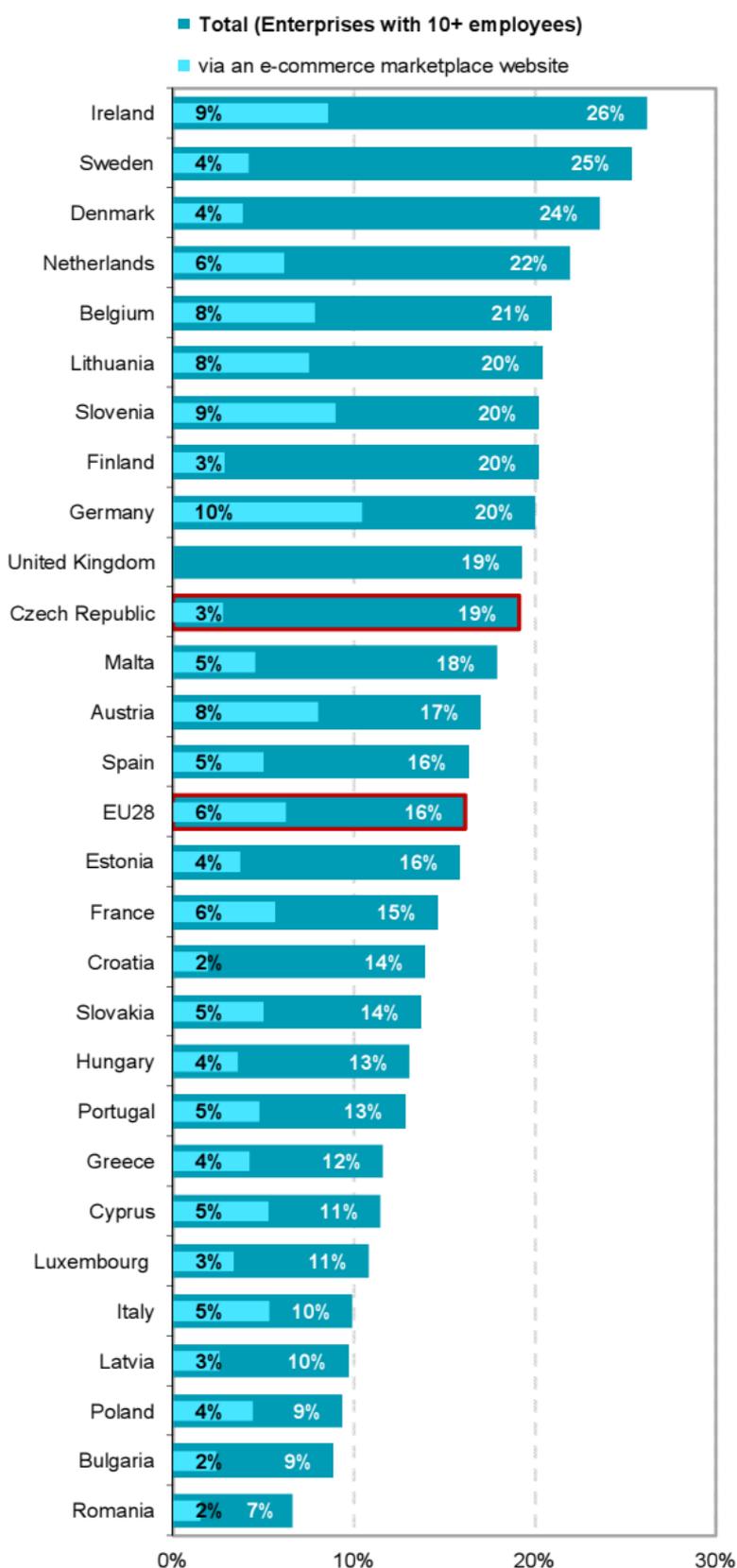


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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Figure D17 Enterprises in EU countries selling via a website; 2016



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

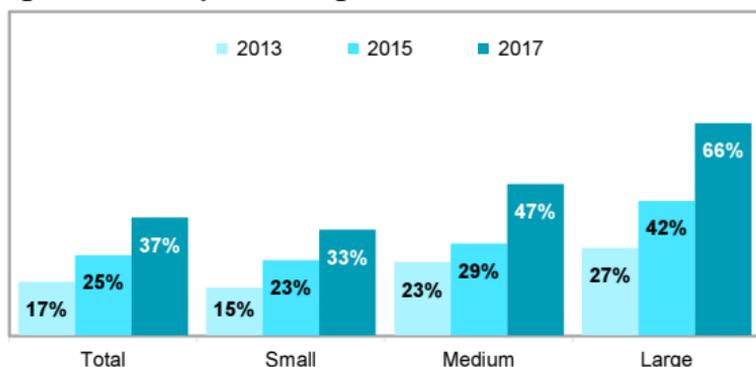
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Tab. D7 Enterprises in the Czech Rep. using social media; 2017 %

	Total	of which:	
		Social networks	Other types
Total (10+ employees)	36,5	34,1	15,2
Small enterprises (10-49)	32,7	30,4	12,4
Medium enterprises (50-249)	46,8	44,1	22,4
Large enterprises (250+)	65,6	62,3	40,4
Industry (NACE category):			
Manufacturing	29,8	26,5	12,9
Electricity, gas and water supply	26,3	22,5	13,5
Construction	21,6	17,8	5,7
Sale and repair of motor vehicles	52,0	51,1	22,4
Wholesale trade	44,6	43,2	21,3
Retail trade	45,8	45,1	17,3
Transport and storage	25,0	23,9	7,4
Accommodation	78,5	78,5	23,2
Food and beverage services	52,7	52,3	8,3
Travel agency and related activities	84,2	84,2	47,1
Media industries incl. publishing activities	82,2	78,9	60,8
Telecommunications	72,8	69,4	42,1
Computer programming and related activities	68,9	62,1	54,1
Real estate activities	24,6	22,3	8,8
Professional, scientific and technical activities	39,9	37,7	21,1
Administrative and support activities	30,1	28,5	8,8

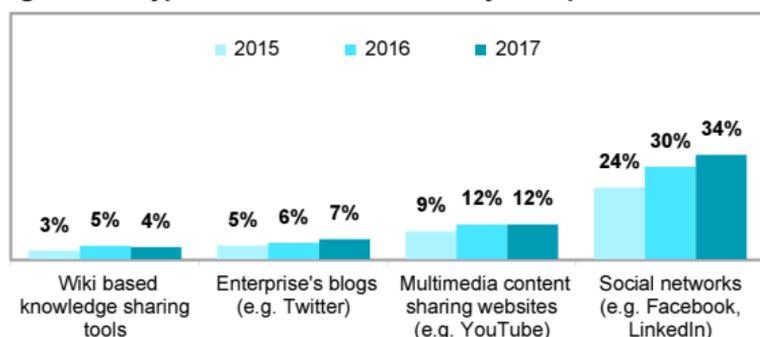
as a percentage of all enterprises with 10+ employees in a given group

Figure D18 Enterprises using social media



as a percentage of all enterprises with 10+ employees in a given size class

Figure D19 Types of social media used by enterprises

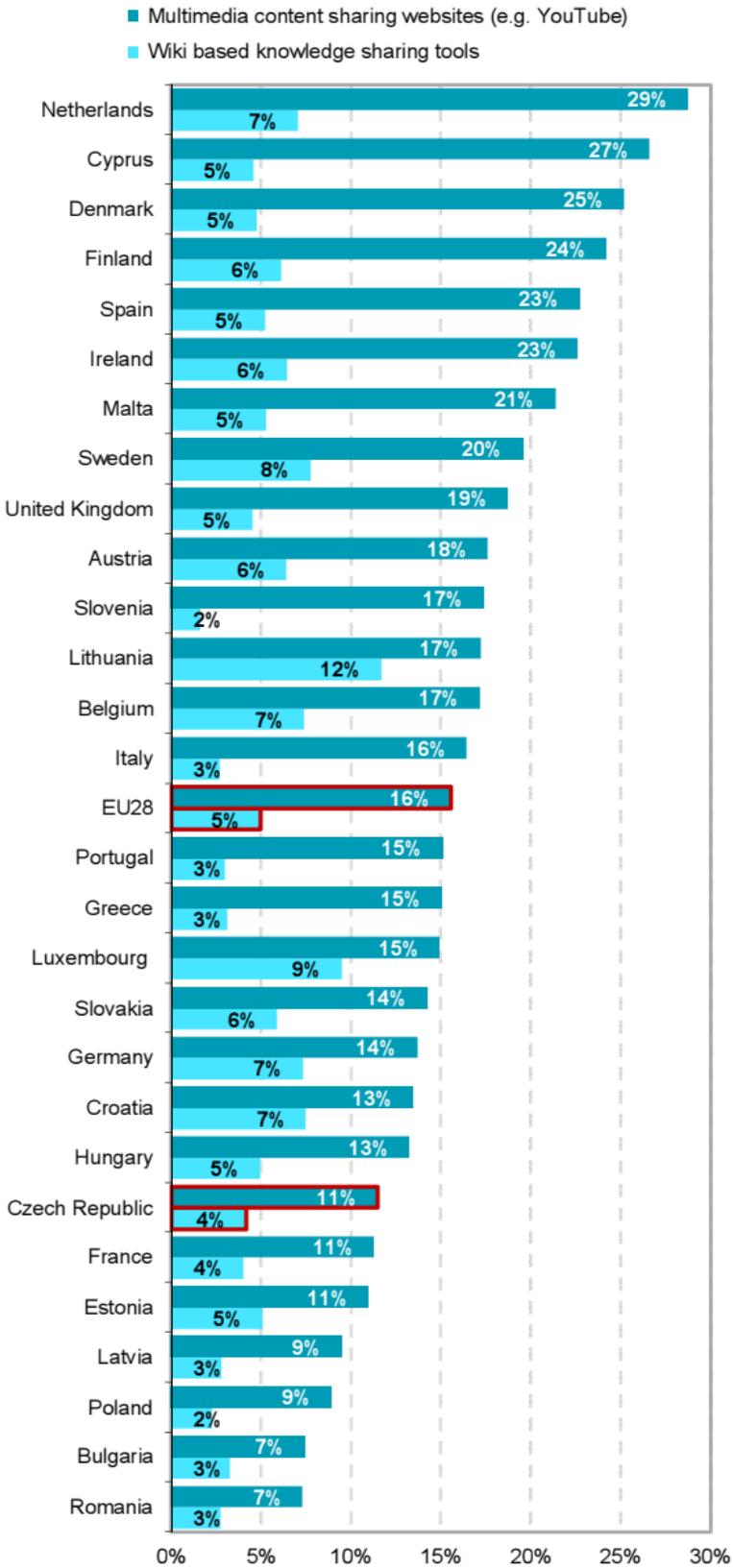


as a percentage of all enterprises with 10+ employees in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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Figure D20 Enterprises in EU countries using selected types of social media; 2017



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

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Tab. D8 Enterprises in the Czech Rep. using social networks*

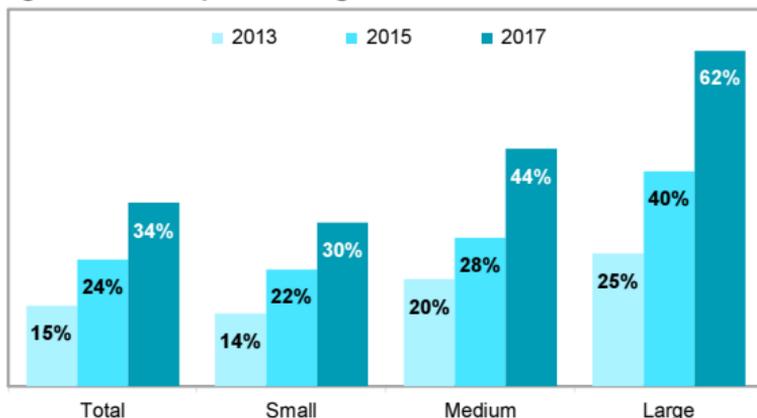
%

	2015	2016	2017
Total (10+ employees)	23,5	30,3	34,1
Small enterprises (10-49)	21,7	27,7	30,4
Medium enterprises (50-249)	27,6	37,5	44,1
Large enterprises (250+)	39,9	53,2	62,3
Industry (NACE category):			
Manufacturing	17,3	22,8	26,5
Electricity, gas and water supply	13,2	16,0	22,5
Construction	10,7	17,3	17,8
Sale and repair of motor vehicles	36,7	51,7	51,1
Wholesale trade	30,8	35,3	43,2
Retail trade	28,9	37,0	45,1
Transport and storage	13,2	20,6	23,9
Accommodation	66,1	78,2	78,5
Food and beverage services	40,5	48,6	52,3
Travel agency and related activities	72,9	78,4	84,2
Media industries incl. publishing activities	69,9	75,8	78,9
Telecommunications	55,8	67,8	69,4
Computer programming and related activities	45,2	55,3	62,1
Real estate activities	18,0	25,9	22,3
Professional, scientific and technical activities	28,0	35,0	37,7
Administrative and support activities	21,9	27,6	28,5

as a percentage of all enterprises with 10+ employees in a given group

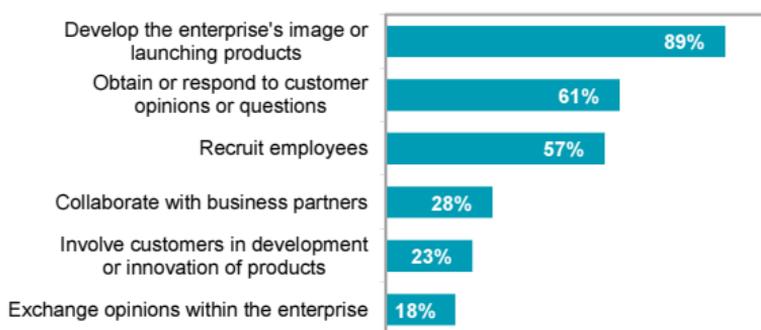
* enterprise has a user profile/ an account on social networks (e.g. Facebook)

Figure D21 Enterprises using social networks



as a percentage of all enterprises with 10+ employees in a given size class

Figure D22 Reasons for using social networks by enterprises; 2017

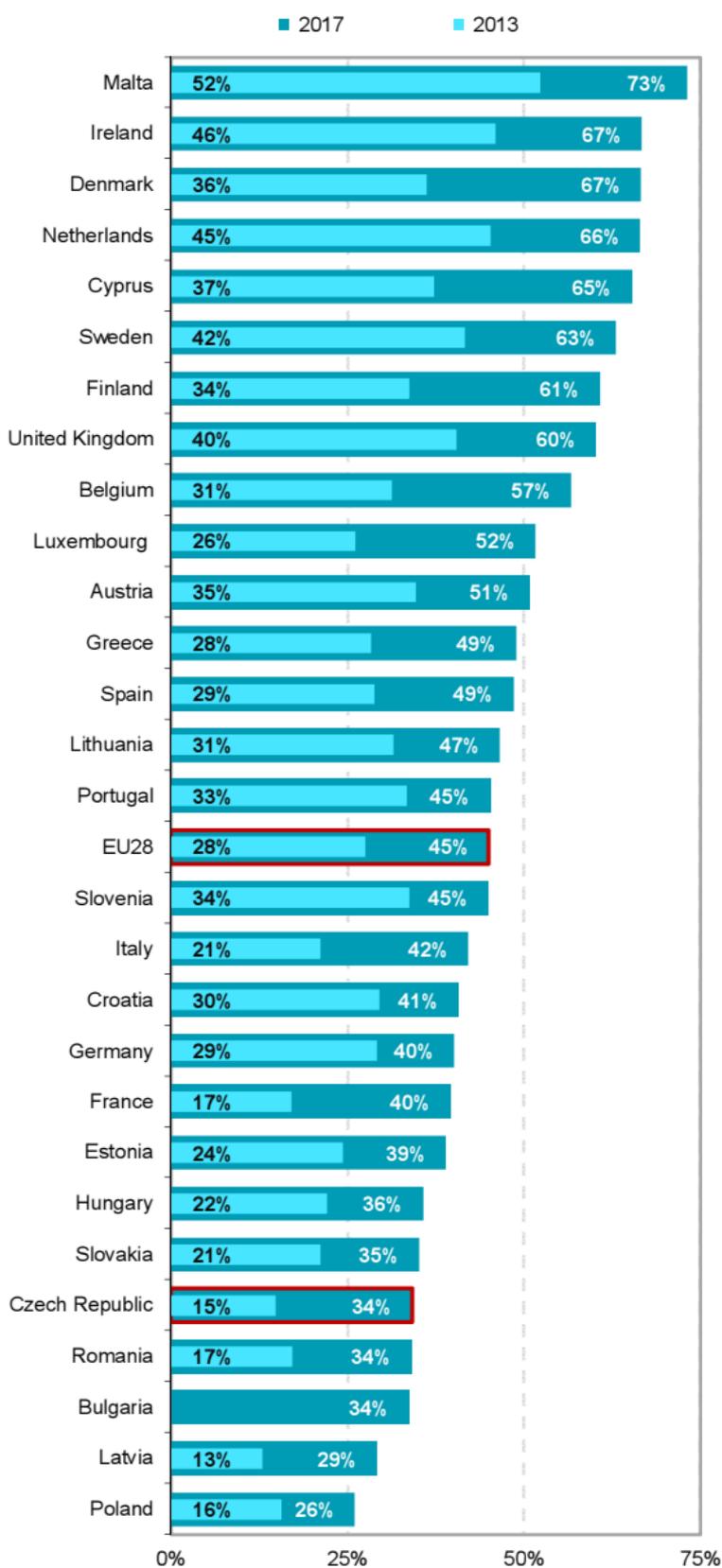


as a percentage of all enterprises with 10+ employees using social networks

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

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Figure D23 Enterprises in EU countries using social networks



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

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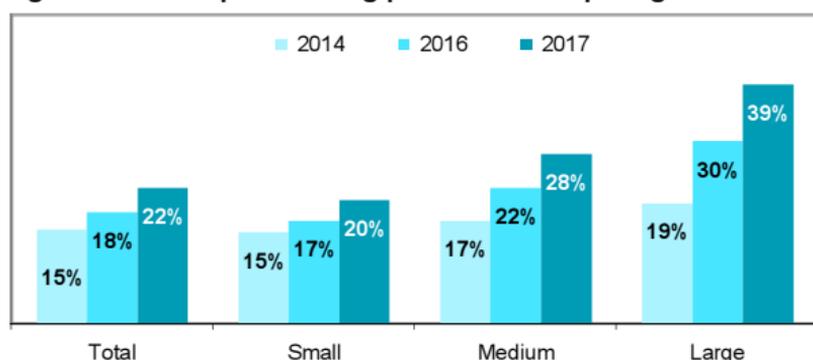
Tab. D9 Enterprises in the Czech Republic using paid cloud computing services

%

	2016	2017
Total (10+ employees)	18,0	22,0
Small enterprises (10-49)	16,6	20,0
Medium enterprises (50-249)	21,9	27,5
Large enterprises (250+)	29,5	38,7
Industry (NACE category):		
Manufacturing	14,7	19,1
Electricity, gas and water supply	13,5	24,6
Construction	16,9	17,0
Sale and repair of motor vehicles	18,3	22,9
Wholesale trade	25,6	28,4
Retail trade	15,9	23,1
Transport and storage	13,6	12,6
Accommodation	13,9	24,3
Food and beverage services	9,1	9,6
Travel agency and related activities	34,2	33,6
Media industries incl. publishing activities	34,1	44,0
Telecommunications	24,5	30,4
Computer programming and related activities	45,4	56,4
Real estate activities	17,0	18,3
Professional, scientific and technical activities	23,8	30,9
Administrative and support activities	19,6	24,4

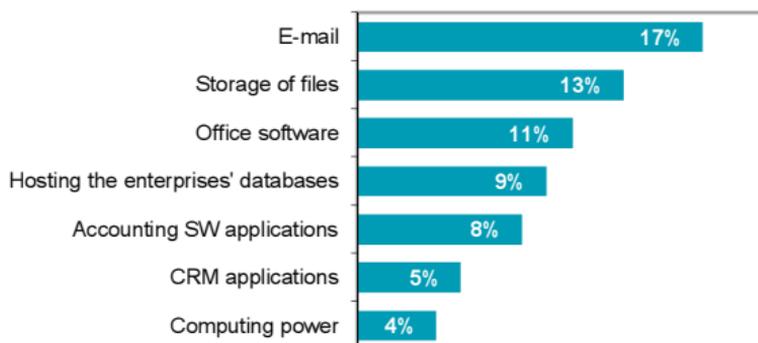
as a percentage of all enterprises with 10+ employees in a given group

Figure D24 Enterprises using paid cloud computing services



as a percentage of all enterprises with 10+ employees in a given size class

Figure D25 Enterprises using paid cloud computing by type of service; 2017

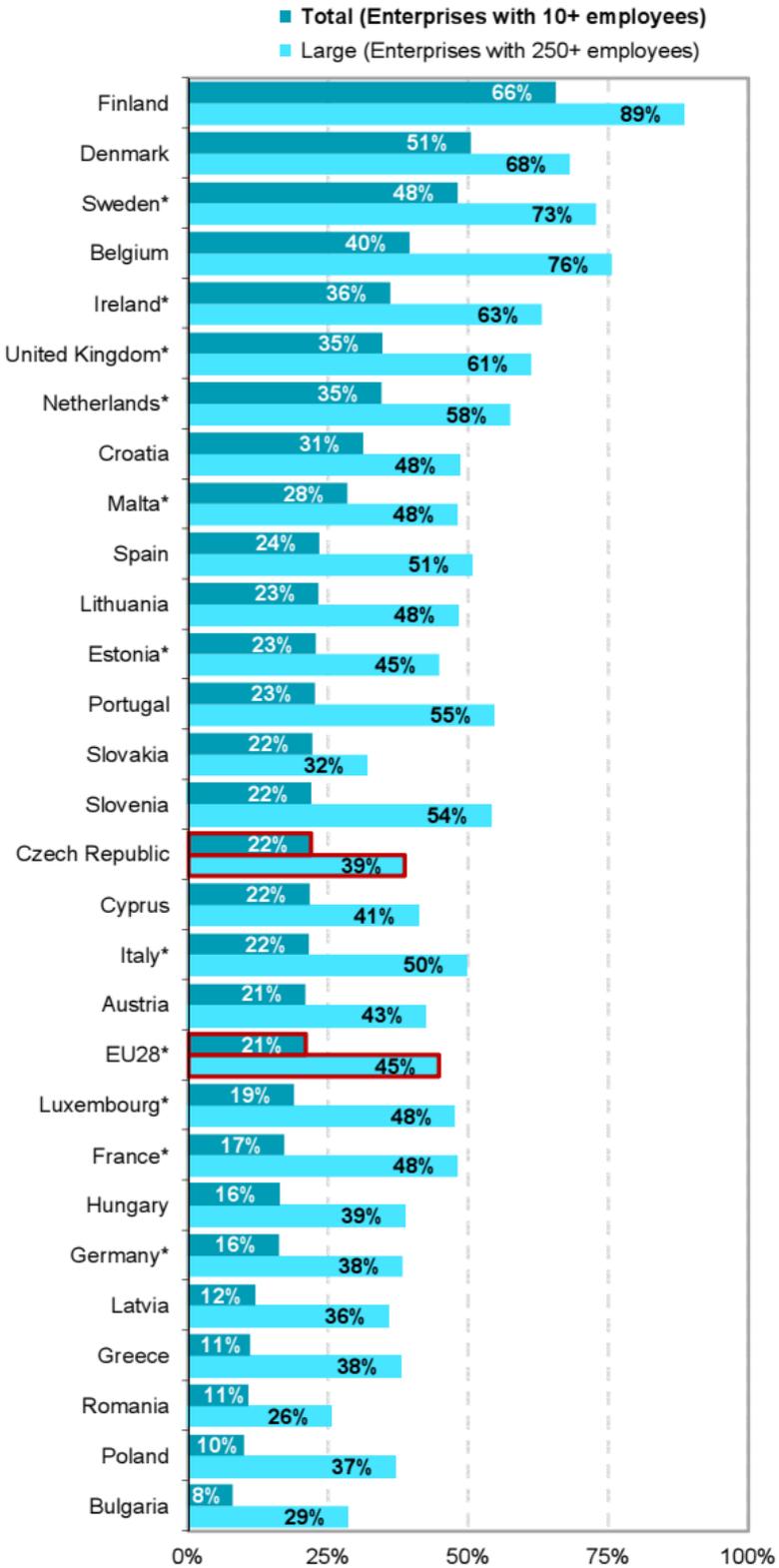


as a percentage of all enterprises with 10+ employees

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D26 Enterprises in EU countries using paid cloud computing services; 2017



* data for 2016

as a percentage of all enterprises with 10+ employees (250+ employees) in a given country

D Enterprises

Tab. D10 Enterprises in the Czech Republic using ERP, CRM and SCM software application; 2017

	ERP	CRM	SCM
Total (10+ employees)	27,7	20,8	2,4
Small enterprises (10-49)	19,7	16,6	1,7
Medium enterprises (50-249)	53,0	34,3	4,3
Large enterprises (250+)	77,4	45,7	9,2
Industry (NACE category):			
Manufacturing	36,6	22,1	2,8
Electricity, gas and water supply	25,4	21,5	0,9
Construction	14,8	8,7	1,1
Sale and repair of motor vehicles	35,0	32,5	10,4
Wholesale trade	44,1	34,3	2,3
Retail trade	19,6	16,6	3,3
Transport and storage	14,1	10,7	3,3
Accommodation	20,2	18,4	1,2
Food and beverage services	5,9	3,7	0,5
Travel agency and related activities	24,1	26,4	.
Media industries incl. publishing activities	32,1	45,6	.
Telecommunications	37,4	56,1	.
Computer programming and related activities	44,6	58,8	1,8
Real estate activities	19,2	12,4	.
Professional, scientific and technical activities	24,0	24,4	1,8
Administrative and support activities	18,7	13,4	1,4

as a percentage of all enterprises with 10+ employees in a given group

Figure D27 Enterprises using an ERP software application

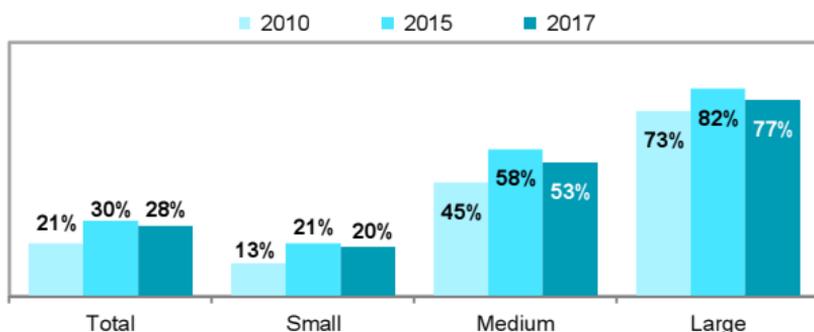
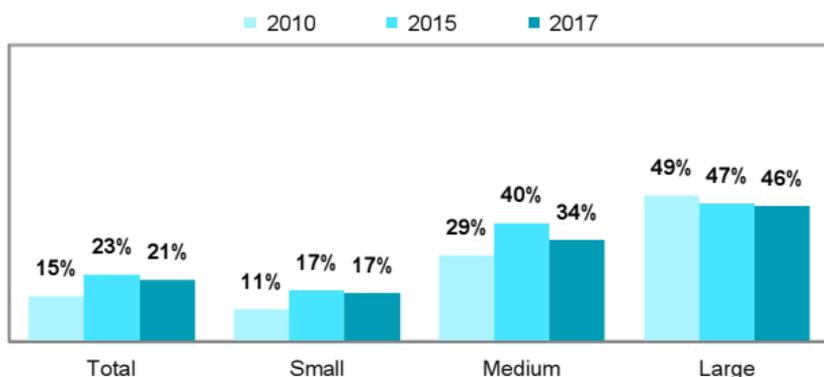


Figure D28 Enterprises using a CRM software application

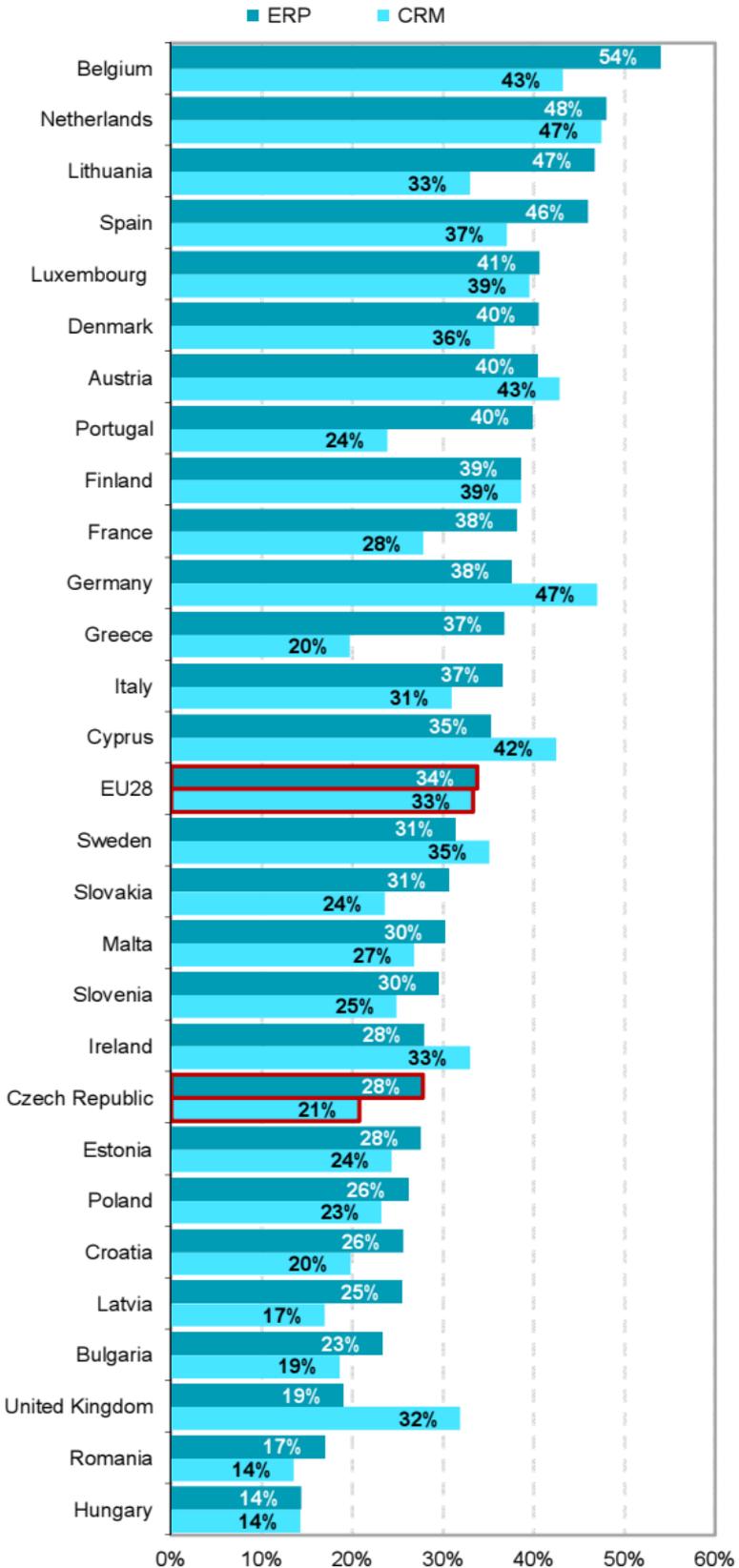


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D29 Enterprises in EU countries using ERP and CRM software application; 2017



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

D Enterprises

Tab. D11 Enterprises in the Czech Republic sending invoices in electronic form; 2017

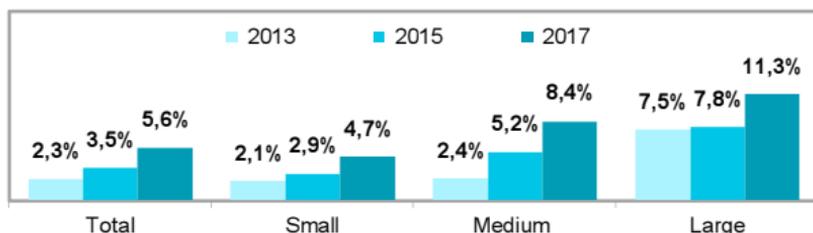
	Total	of which:	
		e-Invoices*	Other types**
Total (10+ employees)	74,8	18,4	69,4
Small enterprises (10-49)	72,0	16,1	67,0
Medium enterprises (50-249)	83,9	24,0	77,6
Large enterprises (250+)	89,1	38,6	82,2
Industry (NACE category):			
Manufacturing	79,8	21,8	72,8
Electricity, gas and water supply	78,7	20,8	71,3
Construction	68,7	13,9	65,2
Sale and repair of motor vehicles	81,7	20,7	76,4
Wholesale trade	84,0	24,3	79,0
Retail trade	62,3	20,0	56,9
Transport and storage	57,8	13,5	53,9
Accommodation	83,3	16,1	78,1
Food and beverage services	58,7	12,8	54,9
Travel agency and related activities	88,2	16,7	84,8
Media industries incl. publishing activities	90,2	22,0	84,4
Telecommunications	94,5	25,9	87,3
Computer programming and related activit.	87,6	23,3	79,4
Real estate activities	63,7	8,3	60,3
Professional, scientific and technical activit.	80,8	11,5	76,1
Administrative and support activities	70,0	15,7	65,5

as a percentage of all enterprises with 10+ employees in a given group

* invoices in electronic form in a standard structure suitable for automated processing (e.g. EDI, XML, ISDOC form)

** other invoices in electronic form not suitable for automated processing (e.g. e-mail attachment as pdf, images or other format)

Figure D30 Enterprises using data boxes for sending invoices



as a percentage of all enterprises with 10+ employees in a given size class

Figure D31 Enterprises in TOP 5 industries sending e-Invoices; 2017

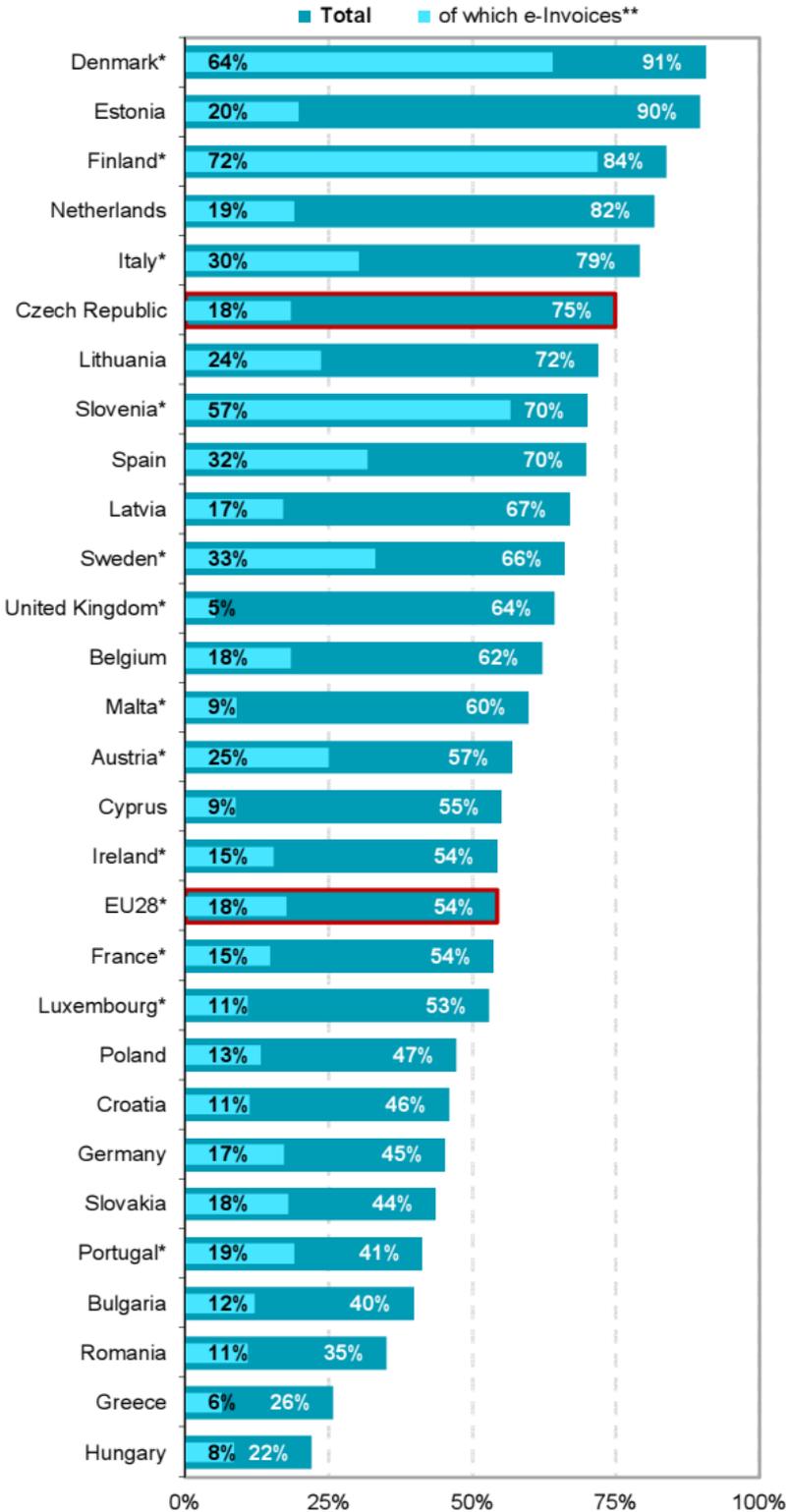


as a percentage of all enterprises with 10+ employees in a given industry

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D32 Enterprises in EU countries sending invoices in electronic form; 2017



* data for 2016

** invoices in electronic form in a standard structure suitable for automated processing (e.g. EDI, XML, ISDOC form)

as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

D Enterprises

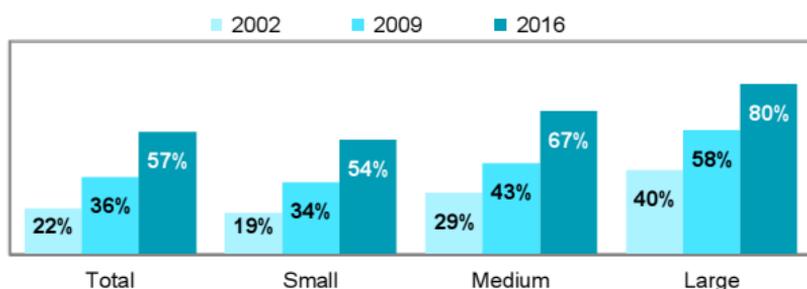
Tab. D12 Value of enterprises' purchases in the Czech Republic from conducting e-Commerce; 2016

	Total	via EDI messages*	via a website
Total (10+ employees)	41,0	25,7	15,3
Small enterprises (10-49)	20,8	7,5	13,4
Medium enterprises (50-249)	33,5	18,1	15,5
Large enterprises (250+)	51,0	35,2	15,8
Industry (NACE category):			
Manufacturing	43,6	27,1	16,5
Electricity, gas and water supply	58,2	49,0	9,2
Construction	9,6	2,8	6,8
Sale and repair of motor vehicles	53,4	32,6	20,8
Wholesale trade	31,4	16,0	15,5
Retail trade	57,3	44,0	13,3
Transport and storage	18,0	7,4	10,6
Accommodation	24,1	5,3	18,8
Food and beverage services	27,5	11,1	16,4
Travel agency and related activities	27,9	6,4	21,5
Media industries incl. publishing activities	40,4	11,3	29,1
Telecommunications	75,8	60,0	15,8
Computer programming and related activ.	54,8	13,4	41,4
Real estate activities	18,8	1,8	17,0
Professional, scientific and technical activ.	27,2	6,2	20,9
Administrative and support activities	41,2	28,9	21,5

as a percentage of the total purchases' value of enterprises in a given group

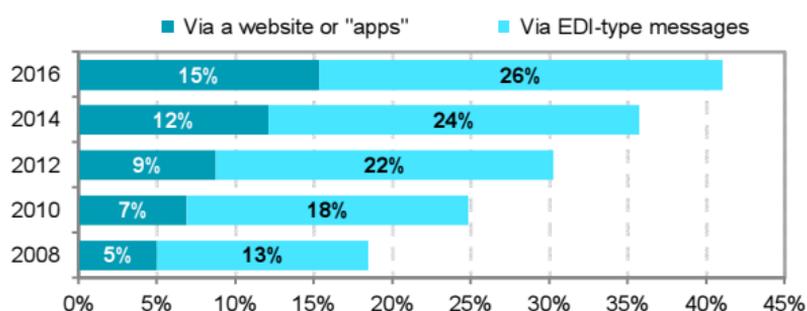
* electronic transmission of messages suitable for automated processing, i.e. using EDI, XML for business-to-business e-Commerce

Figure D33 Enterprises purchasing via electronic networks



as a percentage of all enterprises with 10+ employees in a given size class

Figure D34 Value of enterprises' electronic purchases

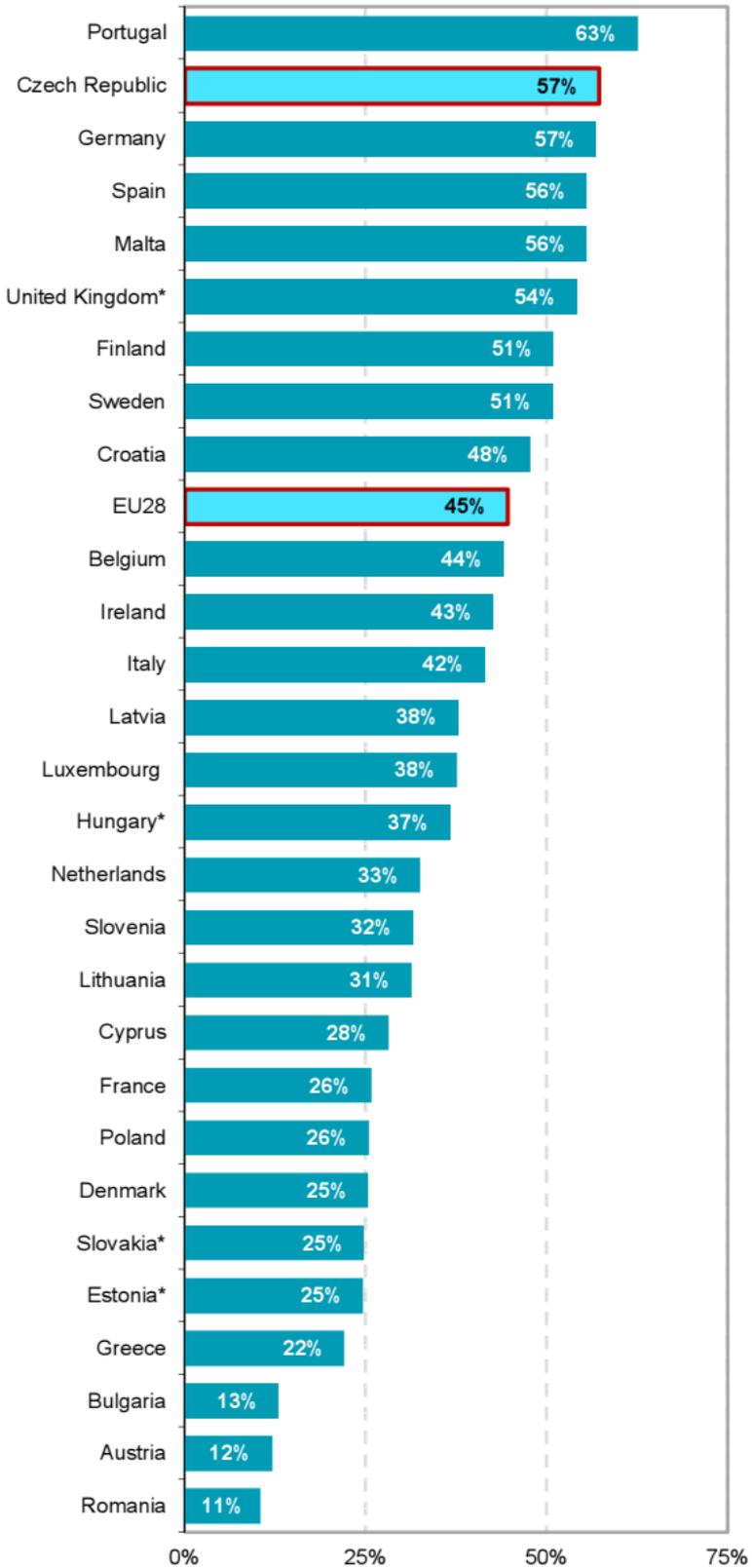


as a percentage of the total purchases' value of enterprises with 10+ employees in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D35 Enterprises in EU countries purchasing via electronic networks; 2016



* data for 2015

as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

D Enterprises

Tab. D13 Value of enterprises' electronic sales in the Czech Republic from conducting e-Commerce; 2016

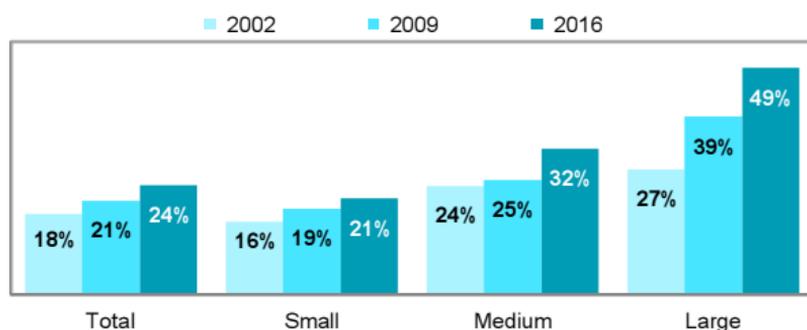
%

	Total	via EDI-type messages*	via a website
Total (10+ employees)	31,1	22,5	8,6
Small enterprises (10-49)	11,6	5,8	5,9
Medium enterprises (50-249)	19,5	12,6	6,8
Large enterprises (250+)	42,9	32,6	10,3
Industry (NACE category):			
Manufacturing	40,8	34,0	6,8
Electricity, gas and water supply	39,6	35,1	4,5
Construction	1,8	1,1	0,7
Sale and repair of motor vehicles	30,7	16,2	14,4
Wholesale trade	27,5	14,5	13,0
Retail trade	17,0	2,8	14,2
Transport and storage	17,7	9,1	8,6
Accommodation	29,6	7,0	22,6
Food and beverage services	5,6	1,3	4,4
Travel agency and related activities	47,4	5,7	41,7
Media industries incl. publishing activities	28,2	5,1	23,2
Telecommunications	31,7	16,1	15,6
Computer programming and related activit.	23,5	8,9	14,6
Real estate activities	4,4	2,1	2,4
Professional, scientific and technical activ.	8,7	6,4	2,3
Administrative and support activities	21,7	15,5	6,2

as a percentage of total enterprises' (10+) turnover in a given group

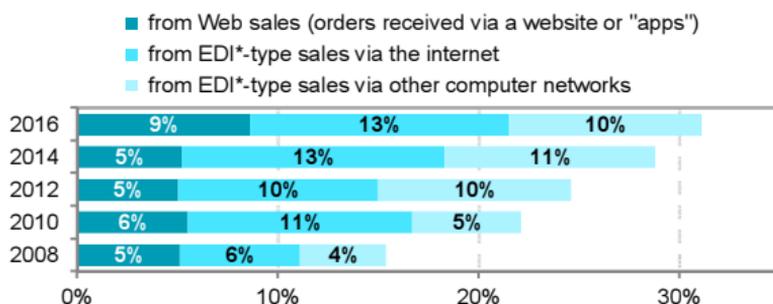
* electronic transmission of messages suitable for automated processing, i.e. using EDI, XML for business-to-business e-Commerce

Figure D36 Enterprises selling via electronic networks



as a percentage of all enterprises with 10+ employees in a given size class

Figure D37 Value of enterprises' electronic sales

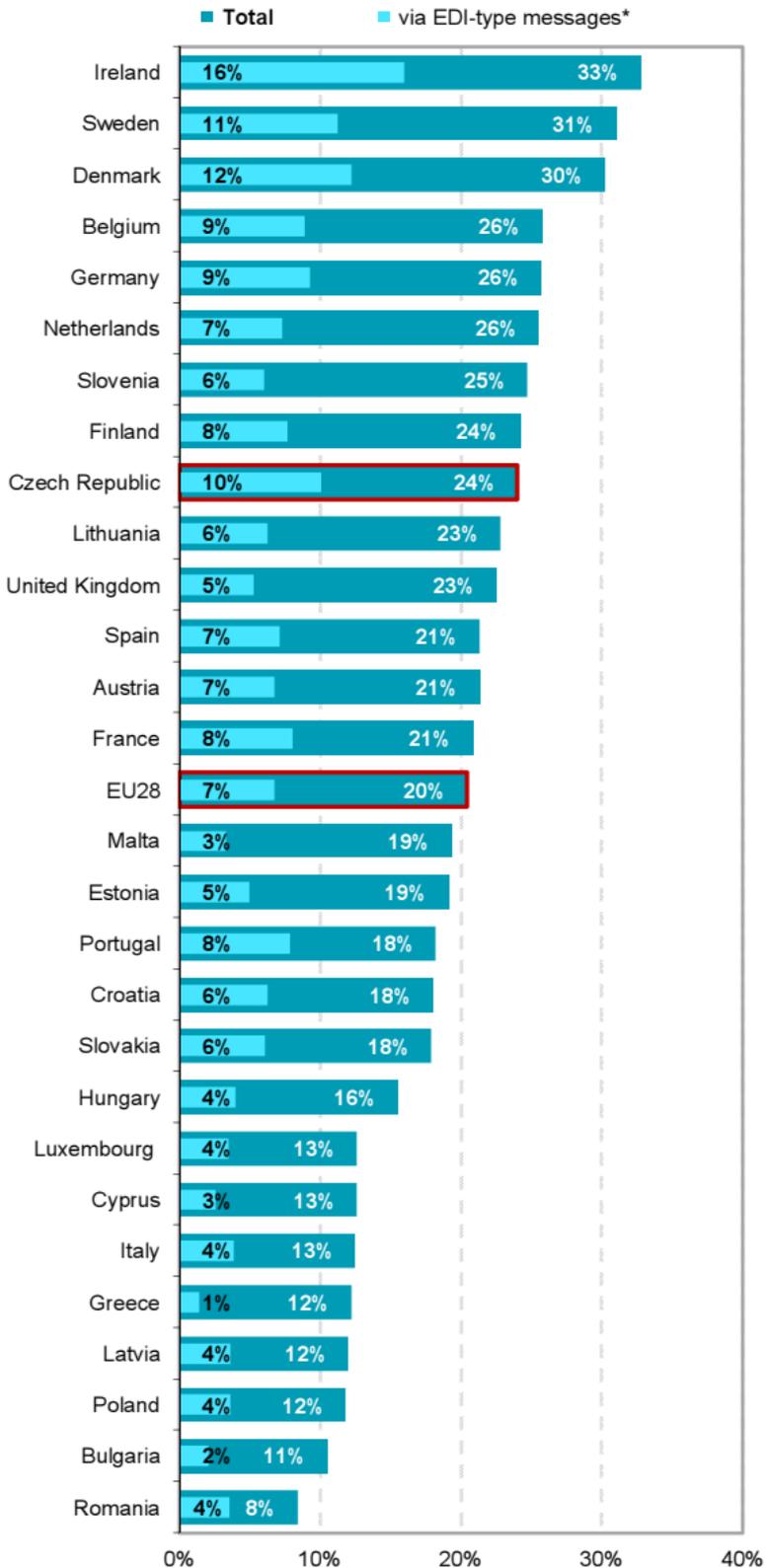


as a percentage of total enterprises' (10+) turnover in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D38 Enterprises in EU countries selling via electronic networks; 2016



* electronic transmission of messages suitable for automated processing, i.e. using EDI, XML for business-to-business e-Commerce.

as a percentage of all enterprises with 10+ employees in a given country

D Enterprises

Tab. D14 Enterprises in the Czech Rep. providing employees with portable devices that allow internet connection; 2017

%

	Total	Portable computers/ tablets	Smartphones
Total (10+ employees)	79,6	64,8	75,1
Small enterprises (10-49)	75,9	58,9	71,0
Medium enterprises (50-249)	91,9	84,3	88,9
Large enterprises (250+)	98,4	96,1	97,3
Industry (NACE category):			
Manufacturing	79,8	64,3	75,7
Electricity, gas and water supply	85,0	68,5	81,4
Construction	81,0	65,7	78,4
Sale and repair of motor vehicles	85,3	74,9	80,8
Wholesale trade	90,1	81,0	86,5
Retail trade	59,9	40,4	54,9
Transport and storage	81,3	55,8	77,9
Accommodation	71,4	54,2	66,2
Food and beverage services	51,6	35,3	41,5
Travel agency and related activities	89,2	82,3	81,5
Media industries incl. publishing activ.	89,3	84,9	84,5
Telecommunications	98,5	95,6	97,2
Computer programming and relat.act.	98,5	95,3	93,1
Real estate activities	75,7	60,5	70,1
Professional, scientific and tech.activ.	87,5	76,8	83,2
Administrative and support activities	75,6	60,2	69,6

as a percentage of all enterprises with 10+ employees in a given group

Figure D39 Enterprises providing employees with selected portable devices that allow internet connection; 2017

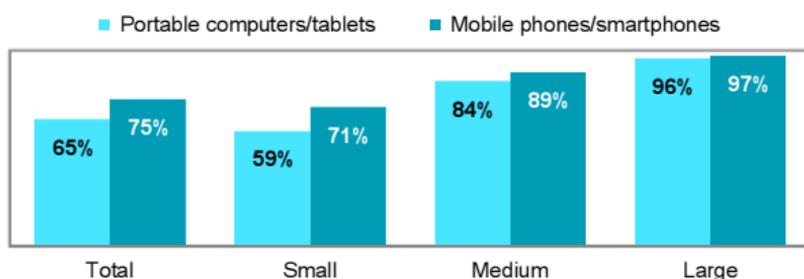
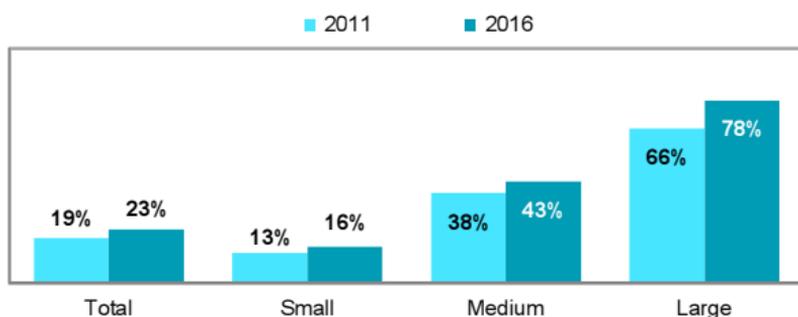


Figure D40 Enterprises providing training for employees to develop their ICT related skills

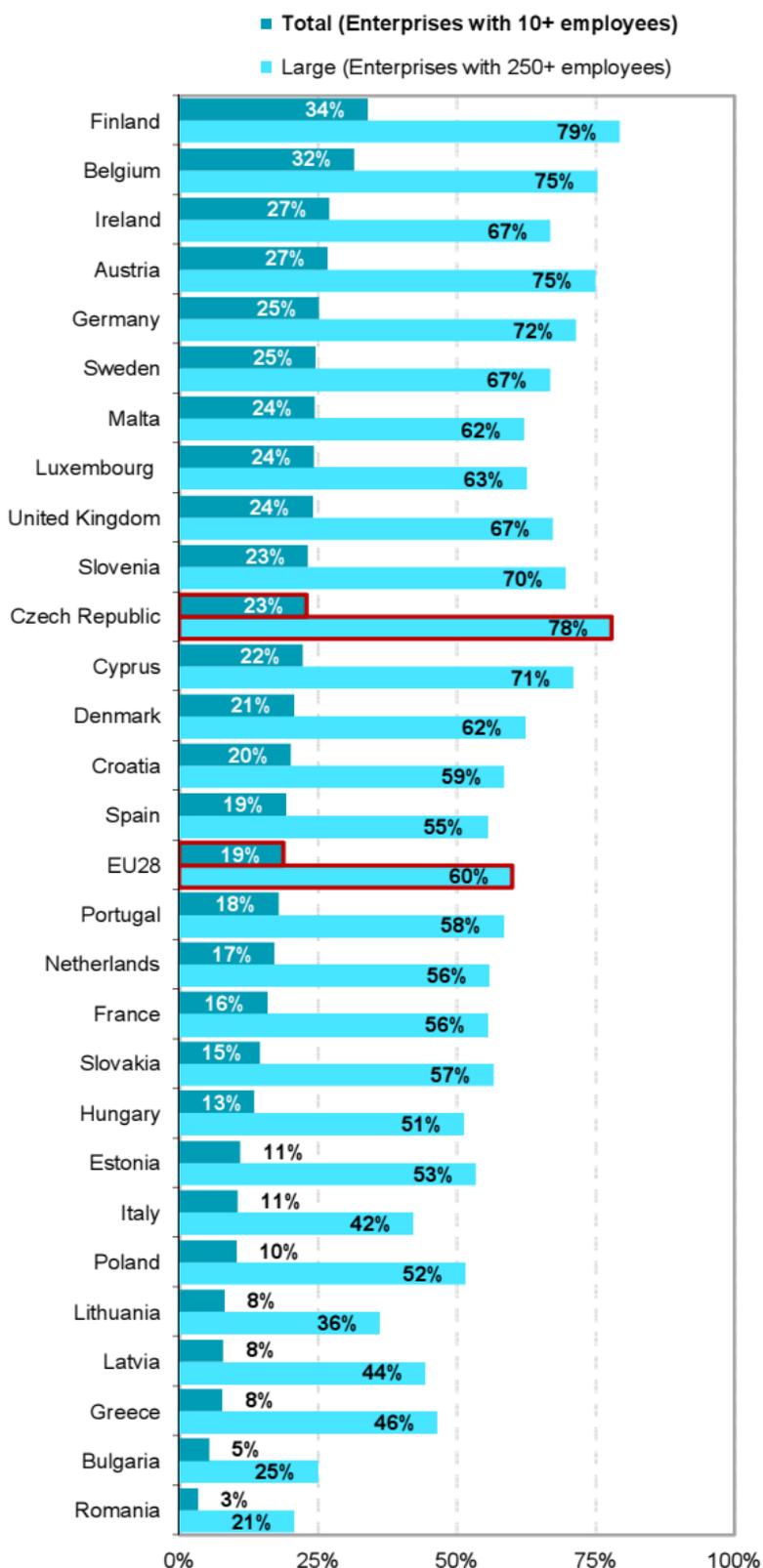


as a percentage of all enterprises with 10+ employees in a given size class

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D41 Enterprises in EU countries providing training for employees to develop their ICT related skills; 2016



as a percentage of all enterprises with 10+ employees (250+ employees) in a given country

D Enterprises

Tab. D15 Employees in the Czech Republic using selected ICT for business purposes; 2017

%

	Computer	Computer with internet	Portable devices*
Total (10+ employees)	48,7	41,6	24,6
Small enterprises (10-49)	45,9	43,5	30,0
Medium enterprises (50-249)	46,8	42,0	23,8
Large enterprises (250+)	51,3	40,4	22,4
Industry (NACE category):			
Manufacturing	44,1	34,1	17,8
Electricity, gas and water supply	54,8	49,3	26,7
Construction	41,4	40,9	30,6
Sale and repair of motor vehicles	67,3	63,8	32,9
Wholesale trade	72,1	66,5	42,6
Retail trade	52,0	38,8	13,1
Transport and storage	40,5	30,9	20,7
Accommodation	42,0	39,1	17,7
Food and beverage services	26,5	23,7	12,7
Travel agency and related activities	79,6	78,7	31,3
Media industries incl. publishing activ.	90,6	90,0	51,3
Telecommunications	95,4	95,0	85,7
Computer programming and related act.	95,0	94,8	77,7
Real estate activities	61,8	60,2	29,4
Professional, scientific and technical act.	81,6	80,3	61,1
Administrative and support activities	22,0	20,9	11,5

* laptops, tablets, smartphones or other portable devices that allow internet connection

as a percentage of all employees in enterprises with 10+ employees in a given group

Figure D42 Employees using computers for business purposes

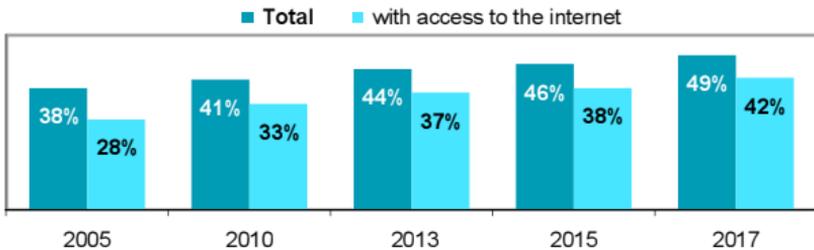
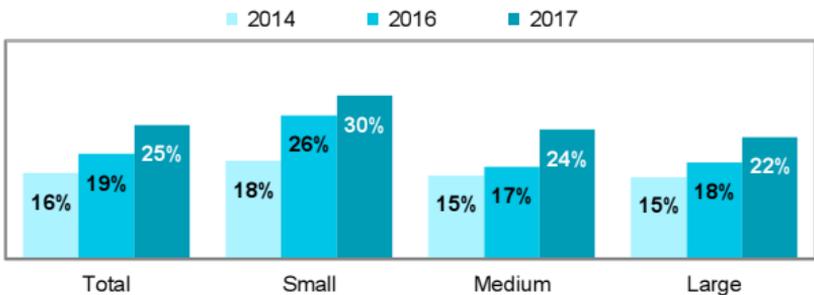


Figure D43 Employees using portable devices that allow internet connection for business purposes

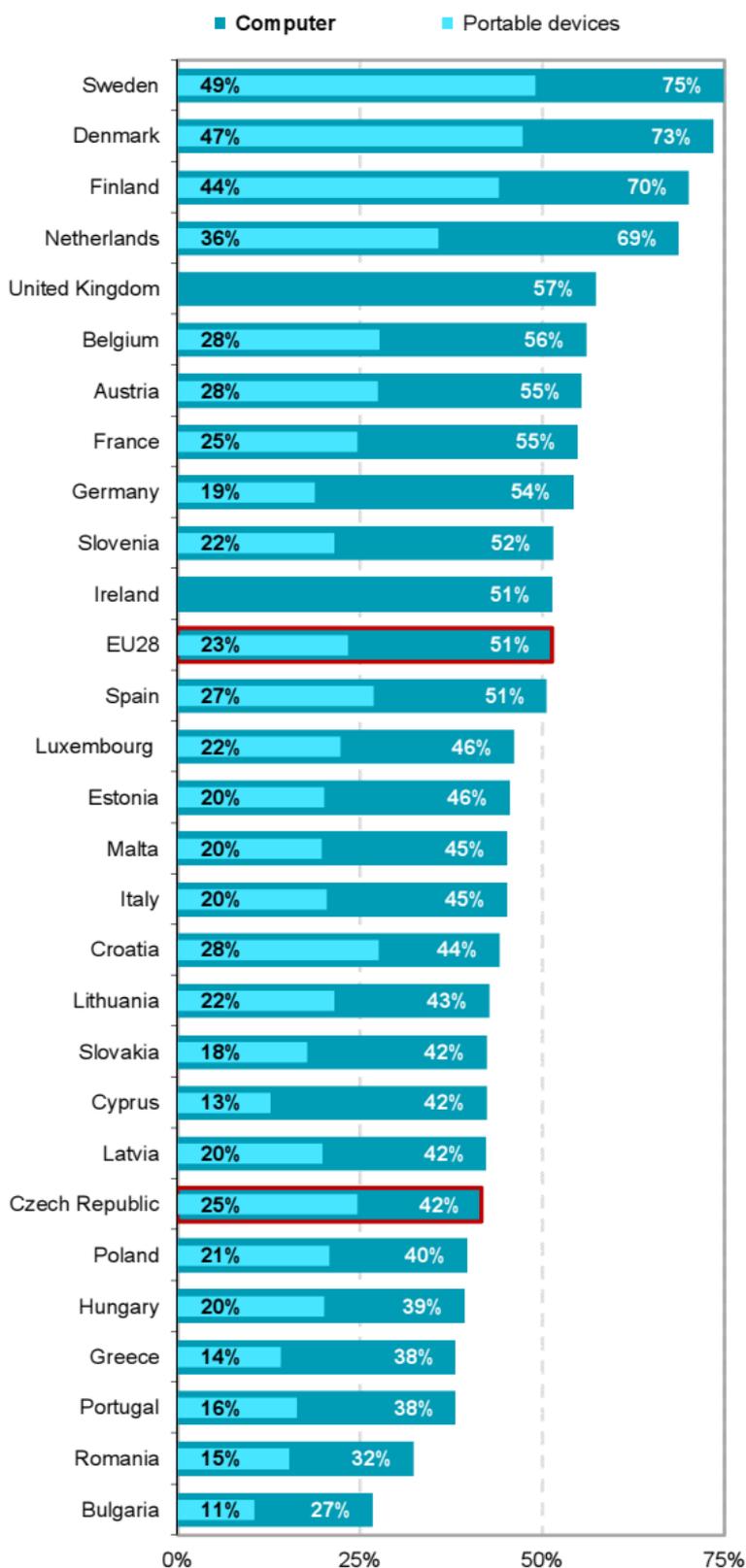


as a percentage of all employees in enterprises with 10+ employees in a given size class in a given year

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018

D Enterprises

Figure D44 Employees in EU countries using ICT with access to the internet for business purposes; 2017



as a percentage of all employees in enterprises with 10+ employees in a given country

D Enterprises

Tab. D16 Enterprises in the Czech Republic employing ICT specialists

	Total 2017	Recruiting during 2016	Vacancies difficult to fill 2016
Total (10+ employees)	20,4	6,7	6,0
Small enterprises (10-49)	13,1	4,1	4,2
Medium enterprises (50-249)	39,7	12,1	8,8
Large enterprises (250+)	81,1	35,1	28,3
Industry (NACE category):			
Manufacturing	23,4	5,7	3,9
Electricity, gas and water supply	22,0	3,4	1,7
Construction	5,9	0,3	0,6
Sale and repair of motor vehicles	14,4	2,9	3,1
Wholesale trade	22,3	5,4	5,7
Retail trade	16,7	7,4	4,6
Transport and storage	9,2	2,2	1,5
Accommodation	9,5	2,3	0,8
Food and beverage services	4,1	0,8	0,2
Travel agency and related activities	28,6	5,6	7,1
Media industries incl. publishing activities	55,9	25,1	27,7
Telecommunications	84,6	43,3	55,6
Computer programming and related activities	92,5	66,3	73,9
Real estate activities	18,2	4,5	4,4
Professional, scientific and technical activ.	27,3	10,4	8,6
Administrative and support activities	16,7	5,0	3,4

as a percentage of all enterprises with 10+ employees in a given group

Figure D45 Enterprises having vacancies for ICT specialists that were difficult to fill

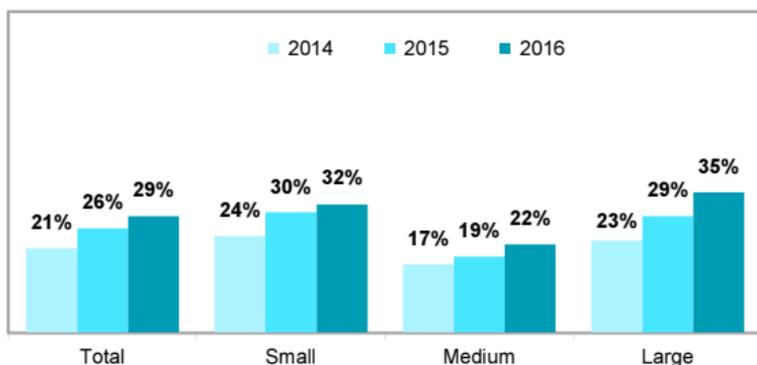
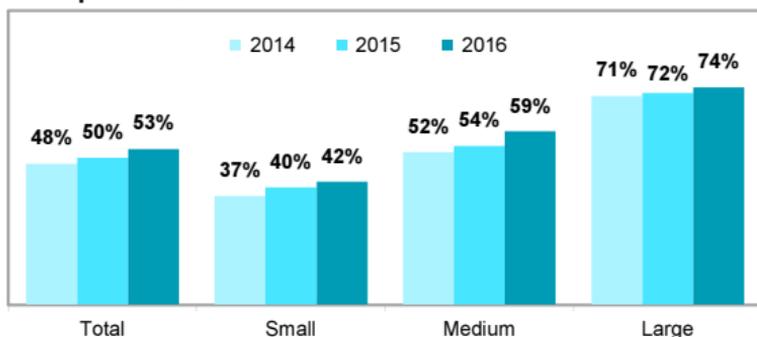


Figure D46 Enterprises providing training for ICT specialists to develop their ICT related skills

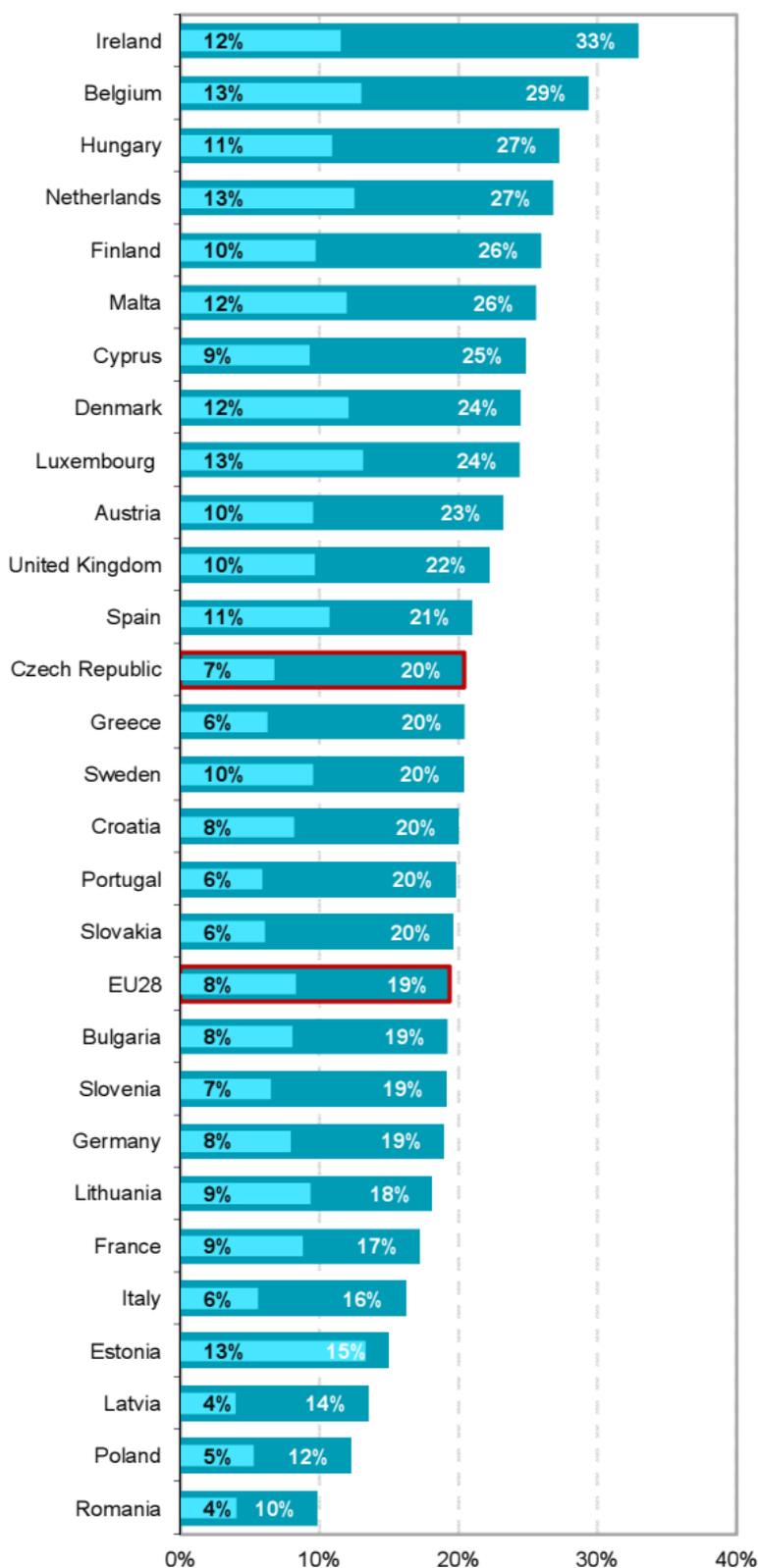


as a percentage of all enterprises with 10+ employees employing ICT specialists in a given size class and year

D Enterprises

Figure D47 Enterprises in EU countries employing ICT specialists

■ Total (data for 2017) ■ Enterprises which recruited ICT specialists during 2016



as a percentage of all enterprises with 10+ employees in a given country

Source: Eurostat, 2018

D Enterprises

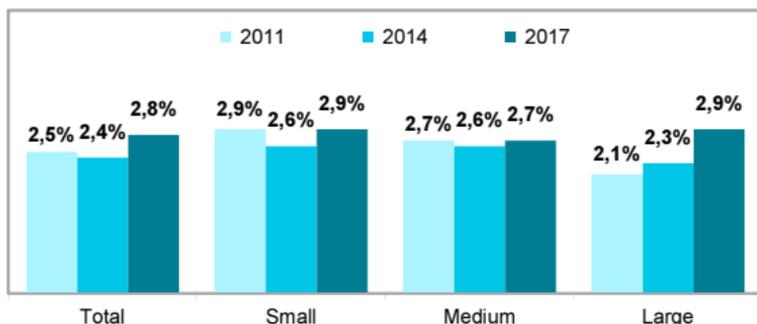
Tab. D17 Share of ICT specialists on all employees in enterprises in the Czech Republic; 2017

	Total	of which programmers*
Total (10+ employees)	2,8	0,8
Small enterprises (10-49)	2,9	1,2
Medium enterprises (50-249)	2,7	0,8
Large enterprises (250+)	2,9	0,6
Industry (NACE category):		
Manufacturing	0,9	0,3
Electricity, gas and water supply	0,9	0,1
Construction	0,4	0,1
Sale and repair of motor vehicles	1,0	0,4
Wholesale trade	1,9	0,7
Retail trade	0,9	0,3
Transport and storage	0,7	0,1
Accommodation	0,3	0,1
Food and beverage services	0,3	0,1
Travel agency and related activities	3,2	1,8
Media industries incl. publishing activities	10,8	5,4
Telecommunications	18,7	5,3
Computer programming and related activities	59,8	14,0
Real estate activities	1,5	0,6
Professional, scientific and technical activities	3,6	1,3
Administrative and support activities	0,5	0,2

as a percentage on all employees in enterprises with 10+ employees in a given group

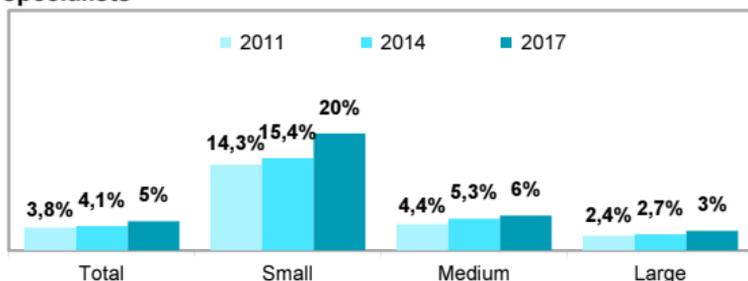
* programmers developing corporate SW/information systems designed for the company's internal needs

Figure D48 ICT specialists employed in enterprises in the Czech Republic



% of ICT specialists on all employees in enterprises with 10+ employees

Figure D49 ICT specialists in enterprises employing ICT specialists



% of ICT specialists on all employees in enterprises employing ICT specialists

Source: Czech Statistical Office, Survey on ICT usage in enterprises, 2018