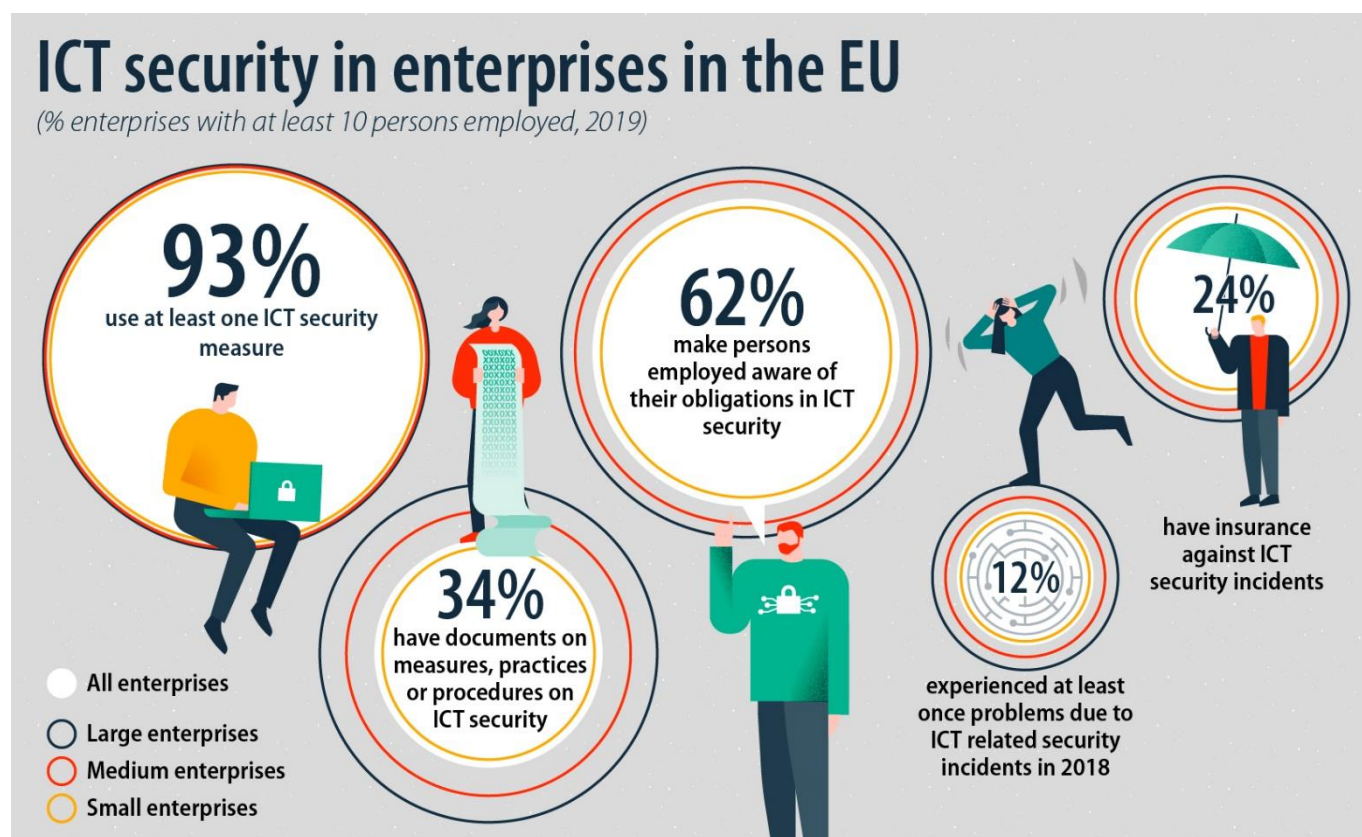6/2020 - 13 January 2020

ICT usage in enterprises in 2019

ICT security measures taken by vast majority of enterprises in the EU

1 in 8 enterprises affected by ICT related security incidents

In 2019, 93% of EU enterprises with 10 or more persons employed used at least one ICT security measure, control or procedure in order to ensure integrity, authenticity, availability and confidentiality of data and ICT systems. One in three enterprises (34%) reported having documents on measures, practices or procedures on ICT security. 62% of enterprises made staff aware of their obligations in ICT security related issues. One in four enterprises (24%) was insured against ICT security incidents.

One in eight enterprises (12%) at least once experienced problems due to ICT related security incidents in 2018.

ICT security in enterprises in the EU
(% enterprises with at least 10 persons employed, 2019)

93% use at least one ICT security measure

34% have documents on measures, practices or procedures on ICT security

62% make persons employed aware of their obligations in ICT security

12% experienced at least once problems due to ICT related security incidents in 2018

24% have insurance against ICT security incidents

- All enterprises
- Large enterprises
- Medium enterprises
- Small enterprises

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Almost all large enterprises used at least one ICT measure (99% of enterprises employing 250 persons or more), whilst this share was slightly smaller for medium (97% of enterprises employing 50 to 249 persons) and small enterprises (92% of enterprises employing 10 to 49 persons).

A wider spread is observed among enterprises for having documents on measures, practices or procedures on ICT security, from 76% for large, through 54% for medium to 30% for small enterprises.
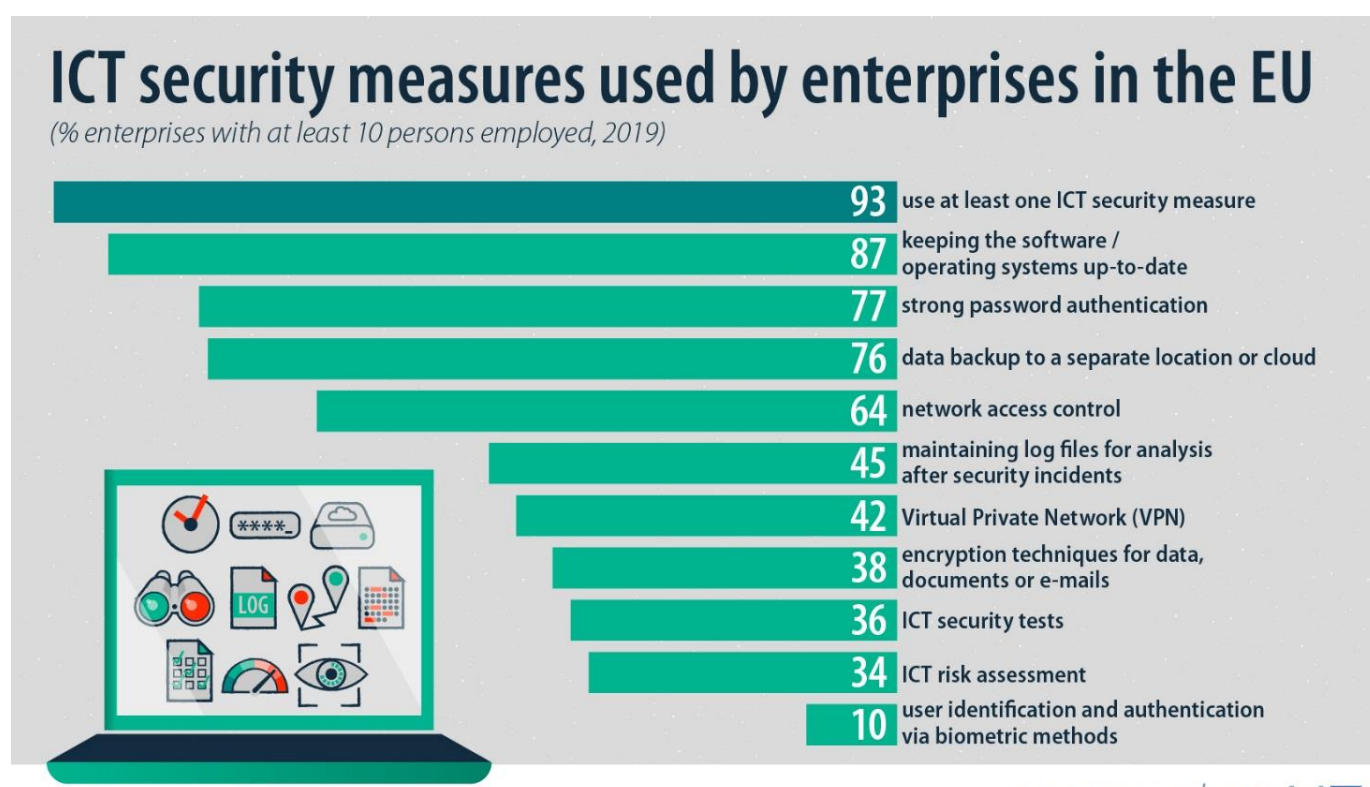
The vast majority (91%) of large enterprises made their employees aware of their obligations in ICT security related issues, while 78% of medium and 58% of small enterprises did so in 2019.

Overall, large enterprises were more likely to experience problems due to ICT related security incidents, as almost a quarter (23%) experienced at least once problems due to such incidents in 2018, compared with one in six medium enterprises (17%) and one in ten small enterprises (11%). In 2019, 40% of large, 33% of medium and 22% of small enterprises reported being insured against ICT security incidents.

This information, issued by **Eurostat, the statistical office of the European Union**, is part of the results of a survey conducted in 2019 on ICT (Information and Communication Technologies) usage and e-commerce in enterprises.

1 in 10 enterprises used biometric methods for user identification and authentication

In 2019, the most common ICT security measure used by EU enterprises was keeping their software or operating systems up-to-date (87% of enterprises), followed by strong password authentication (77%), data backup to a separate location or cloud (76%) and network access control (64%). Less than half of enterprises reported maintaining log files for analysis after security incidents (45%) and use of Virtual Private Network (VPN, 42%). Enterprises less frequently used encryption techniques for data, documents or e-mails (38%), ICT security tests (36%), ICT risk assessment (34%) and user identification and authentication via biometric methods (10%).

ICT security measures used by enterprises in the EU
(% enterprises with at least 10 persons employed, 2019)

Value	Measure
93	use at least one ICT security measure
87	keeping the software / operating systems up-to-date
77	strong password authentication
76	data backup to a separate location or cloud
64	network access control
45	maintaining log files for analysis after security incidents
42	Virtual Private Network (VPN)
38	encryption techniques for data, documents or e-mails
36	ICT security tests
34	ICT risk assessment
10	user identification and authentication via biometric methods

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2 in 3 enterprises made their staff aware about their obligations in ICT security related issues

In 2019, almost two thirds of enterprises (62%) made their employees aware of their obligations in ICT security related issues. Voluntary training or internally available information for instance on the intranet was the most common form used (44% of enterprises), followed by contracts such as employment contracts (37%) and by compulsory training courses or viewing compulsory material (24%).

Enterprises that make employees aware of their obligations in ICT security related issues, EU

(% enterprises with at least 10 persons employed, 2019)

44% by voluntary training or internally available information

37% by contract (e.g. contract of employment)

62% Enterprises make employees aware of their obligations in ICT security related issues

24% by compulsory training courses or viewing compulsory material

1 in 8 enterprises affected by ICT related security incidents

In 2018, one in eight enterprises (12%) experienced at least once problems due to ICT related security incidents. The most commonly reported problem caused by ICT security incidents was unavailability of ICT services, such as hardware or software failures (excl. mechanical failure and theft), denial of service attacks, ransomware attacks, affecting 9% of enterprises. It was followed by destruction or corruption of data due to infection with malicious software, hardware or software failures or unauthorised intrusion (5% of enterprises) and less frequently enterprises (1%) reported disclosure of confidential data for instance due to intrusion, pharming or phishing attack.

Enterprises that experienced at least once problems due to ICT related security incidents, EU

(% enterprises with at least 10 persons employed, 2018)

9% — Unavailability of ICT services

5% — Destruction or corruption of data

1% — Disclosure of confidential data

12% experienced at least once problems due to ICT related security incidents

<u>Geographical information</u>

The **European Union** (EU) includes Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom.

<u>Methods and definitions</u>

Data presented in this News Release are based on the results of the 2019 European Union survey on 'ICT usage and e-commerce in enterprises'. This survey covered 160 000 enterprises with 10 or more persons employed out of 1.7 million in the EU-28 in manufacturing; electricity, gas and steam; water supply; construction; wholesale and retail trade, repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities; information and communication; real estate; professional, scientific and technical activities; administrative and support activities; repair of computers and communication equipment.

ICT security means measures, controls and procedures applied on ICT systems in order to ensure integrity, authenticity, availability and confidentiality of data and systems.

ICT security measures refer to any of the following: strong password authentication (minimum length of 8 mixed characters, periodical change); keeping the software (including operating systems) up-to-date; user identification and authentication via biometric methods implemented by the enterprise (e.g. based on fingerprints, voice, faces); encryption techniques for data, documents or e-mails; data backup to a separate location (including backup to the cloud); network access control (management of access by devices and users to the enterprise's network); Virtual Private Network (VPN that extends a private network across a public network to enable secure exchange of data over public network); maintaining log files for analysis after security incidents; ICT risk assessment (periodical assessment of probability and consequences of ICT security incidents); or ICT security tests (e.g. performing penetration tests, testing security alert system, review of security measures, testing of backup systems).

Enterprises are classified in different categories according to the number of persons employed.
- small enterprises: 10 to 49 persons employed;
- medium sized enterprises: 50 to 249 persons employed;
- large enterprises: 250 or more persons employed.
Results on ICT security refer to the year 2019, those on enterprises that experienced problems due to ICT related security incidents refer to 2018.

<u>Timetable</u>

A news release on ICT usage in households and by individuals is scheduled for 16 January 2020.

<u>For more information</u>

Eurostat <u>website section</u> on digital economy and society statistics

Eurostat <u>database</u> on digital economy and society

Issued by: **Eurostat Press Office**

Natalia PETROVOVA
Tel: +352-4301-33 444
eurostat-pressoffice@ec.europa.eu

[www] ec.europa.eu/eurostat

@EU_Eurostat

EurostatStatistics

Media requests: Eurostat media support / Tel: +352-4301-33 408 / eurostat-mediasupport@ec.europa.eu

Production of data:

Maria SMIHILY
Tel: +352-4301-34 666
maria.smihily@ec.europa.eu

Eleni GIANNOPOULOU
Tel: +352-4301-31 988
eleni.giannopoulou@ec.europa.eu

ICT security in enterprises, 2019

(% enterprises with at least 10 persons employed)

	Use at least one ICT security measure	Have documents on measures, practices or procedures on ICT security	Make persons employed aware of their obligations in ICT security	Experienced at least once problems due to ICT related security incidents in 2018	Have insurance against ICT related incidents
EU	93	34	62	12	24
Belgium	94	34	57	22	25
Bulgaria	85	18	51	16	3
Czechia	94	32	76	21	8
Denmark	97	56	70	10	56
Germany	97	37	68	11	20
Estonia	86	27	55	8	7
Ireland	93	54	76	18	39
Greece	74	15	33	7	25
Spain	92	33	54	12	33
France	94	26	55	15	39
Croatia	90	41	47	19	7
Italy	93	34	73	10	13
Cyprus	83	32	59	11	13
Latvia	98	42	68	12	12
Lithuania	93	36	67	16	4
Luxembourg	93	27	52	17	26
Hungary	86	17	48	15	4
Malta	92	32	59	24	29
Netherlands	96	42	56	11	26
Austria	91	36	63	12	18
Poland	87	23	49	13	11
Portugal	98	28	54	8	10
Romania	73	17	49	11	5
Slovenia	84	35	53	14	4
Slovakia	90	28	64	15	8
Finland	97	44	66	18	28
Sweden	95	52	66	35	39
United Kingdom	94	48	69	6	46
Norway	94	32	61	11	33
Montenegro	69	14	48	17	18
Serbia	94	27	51	17	15
Bosnia and Herzegovina	88	9	43	17	17

The source dataset can be found here for the indicators on enterprises affected by ICT related security incidents and on enterprises having an insurance against ICT related incidents, here for the other indicators.
The dimension "Time" refers to the survey year.