

ICT usage in enterprises in 2014

Cloud computing services used by one out of every five enterprises in the EU28

Lack of knowledge main reason for not using cloud services

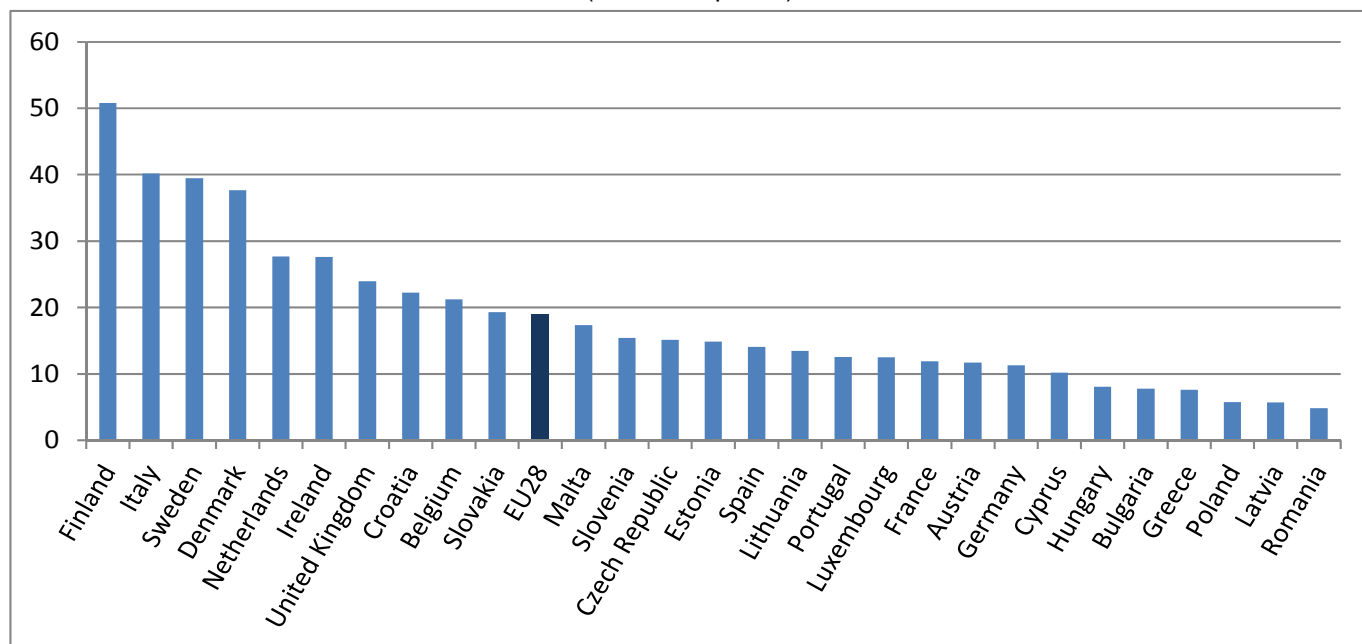
Instead of building their own IT infrastructure, enterprises have the possibility to access computing resources hosted by third parties on the internet. This shared pool of resources is most commonly known as “cloud computing¹”. As cloud computing services are delivered on-line, enterprises must have internet access to be able to use them, which was the case in 2014 for almost all enterprises² (97%) employing 10 persons or more in the **EU28**. Although the share of firms with internet access was at very similar high levels across Member States, only a fifth (19%) used cloud computing services in 2014.

Not surprisingly, the largest proportion of enterprises in the **EU28** using the cloud was by far recorded in the information & communication sector (45%), followed by the sector covering professional, scientific and technical activities (27%), while the share ranged from 14% to 20% in all other economic sectors. Enterprises relied on a cloud solution mainly for their e-mail services (66%) and for file storage (53%). Those enterprises using cloud services reported that the risk of a security breach was the main factor limiting a larger use of the cloud.

For the remaining 81% of the enterprises not using the cloud, the insufficient knowledge of cloud computing was considered as the main blocking factor.

These data come from a publication³ issued by **Eurostat, the statistical office of the European Union**, and form part of the results of a survey conducted at the beginning of 2014 on ICT (Information and Communication Technologies) usage in enterprises, with a special focus on the use of cloud computing services.

Use of cloud computing services by enterprises in the EU Member States, 2014
(% of enterprises)



Half of enterprises use cloud computing services in Finland

The highest shares of enterprises using the cloud in 2014 were observed in **Finland** (51%), **Italy** (40%), **Sweden** (39%) and **Denmark** (38%). On the opposite end of the scale, cloud computing services were used by less than 10% of enterprises in **Romania** (5%), **Latvia** and **Poland** (both 6%), **Bulgaria**, **Greece** and **Hungary** (all 8%).

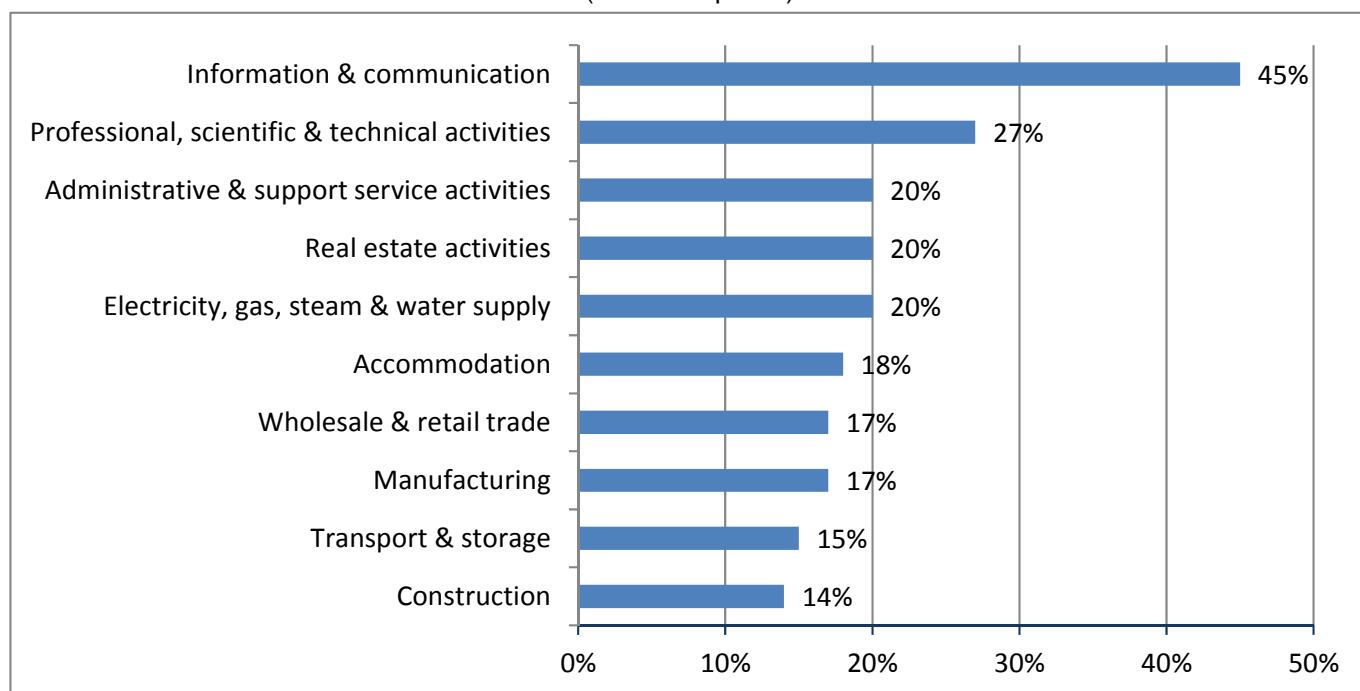
In sixteen Member States, the most common use of cloud computing was for e-mail services, especially in **Italy** (86%), **Croatia** (85%) and **Slovakia** (84%). Cloud computing services were principally used for the storage of files in eleven other Member States, with the highest proportions being observed in **Ireland** (74%), the **United Kingdom** (71%), **Denmark** and **Cyprus** (both 70%), while hosting the enterprises' database was the most common use in the **Netherlands** (64%).

Uses of cloud computing services in EU28 enterprises, 2014

	Use of cloud computing	E-mail	Storage of files	Hosting the database(s)	Office software	Financial or accounting software applications	CRM* software applications	Computing power for own software
	% of all enterprises	% of enterprises using the cloud						
EU28	19	66	53	39	34	31	21	17
Belgium	21	52	62	45	31	33	26	23
Bulgaria	8	74	50	53	58	50	24	16
Czech Republic	15	79	41	34	38	35	18	20
Denmark	38	63	70	55	42	49	34	34
Germany	11	46	56	33	21	25	18	20
Estonia	15	58	41	18	41	47	17	7
Ireland	28	57	74	37	36	25	23	17
Greece	8	67	50	36	31	32	25	26
Spain	14	61	69	54	28	21	24	25
France	12	62	61	49	32	26	23	14
Croatia	22	85	49	46	52	50	13	26
Italy	40	86	32	28	41	33	14	8
Cyprus	10	68	70	26	39	23	29	16
Latvia	6	58	58	55	42	47	19	26
Lithuania	13	70	50	47	34	45	33	38
Luxembourg	13	46	61	41	32	19	18	14
Hungary	8	64	46	33	43	35	25	20
Malta	17	60	57	44	31	17	19	19
Netherlands	28	55	63	64	40	52	37	18
Austria	12	51	54	31	33	23	23	16
Poland	6	69	54	41	31	27	22	19
Portugal	13	78	49	31	36	31	18	30
Romania	5	76	36	37	37	33	0	19
Slovenia	15	67	44	39	35	33	20	29
Slovakia	19	84	34	31	46	54	13	22
Finland	51	66	54	38	39	39	29	13
Sweden	39	55	65	43	32	37	26	25
United Kingdom	24	51	71	44	29	25	24	22
Iceland	43	69	74	73	45	62	25	26
Norway	29	63	66	54	41	41	33	31
Former Yug. Rep. of Macedonia	12	74	48	47	57	63	27	31

* CRM: Customer Relationship Management.

Use of cloud computing services in the EU28, by economic activity, 2014 (% of enterprises)



Security issues are the main factor limiting the further use of cloud computing services

Enterprises already using cloud computing services reported several factors limiting a further usage of such services. The risk of a security breach was mentioned by 39% of these enterprises in the **EU28** as the main limiting factor, although with some differences between large enterprises⁴ (57%) and small and medium sized enterprises⁴ (38%). Large enterprises and SMEs differed also somewhat as regards other limiting factors. The uncertainty about applicable law (46%, compared with 31% for SMEs) and the location of data (46%, compared with 29% for SMEs) completed the top 3 of the factors limiting large enterprises from using the cloud. The cost of cloud computing services (32% for both SMEs and large enterprises) and the lack of knowledge around these services (32%, compared with 17% for large enterprises) came second among small and medium enterprises.

Factors that limit enterprises in the EU28 from using cloud computing services, 2014 (% of enterprises using the cloud)

	Risk of a security breach	High cost of buying cloud computing services	Uncertainty about applicable law	Insufficient knowledge of cloud computing	Uncertainty about the location of data	Difficulties in unsubscribing or changing service provider	Problems accessing data or software
Total	39	32	32	31	30	28	27
Large enterprises	57	32	46	17	46	34	35
Small and medium enterprises	38	32	31	32	29	27	27

Lack of knowledge is the main factor preventing EU enterprises from using the cloud

For those enterprises in the **EU** not yet using cloud services, insufficient knowledge was the main factor in 2014 preventing enterprises from using the cloud computing (this reason was invoked by 42% of all enterprises not using the cloud), followed by the risk of a security breach (37%). These two top blocking factors can be found in all economic sectors, except in the information & communication sector and in professional, scientific & technical activities. For enterprises in the latter two economic sectors the risk of security breach was reported as the main blocking factor while reasons linked to uncertainties about applicable law and about the location of data came second among the factors preventing them from using the cloud.

Factors that prevent enterprises in the EU* from using cloud computing services, 2014
(% of enterprises not using the cloud)

	Insufficient knowledge of cloud computing	Risk of a security breach	Uncertainty about the location of data	Uncertainty about applicable law	High cost of buying cloud services
Total business economy*	42	37	33	32	31
Manufacturing	45	40	36	35	33
Electricity, gas, steam & water supply	39	41	37	37	30
Construction	46	33	31	30	32
Wholesale & retail trade	41	36	33	31	31
Transport & storage	42	33	30	29	29
Accommodation	47	34	31	31	33
Information & communication	21	44	37	37	27
Real estate activities	38	40	37	36	29
Professional, scientific & technical activities	33	46	38	38	27
Administrative & support service activities	40	32	29	28	28

* EU28, excluding the Czech Republic, France, Malta and the United Kingdom. This question of the survey was optional.

** Business economy (sectors B to N of the NACE rev.2 classification), except sectors B (Mining & quarrying) and K (Financial & insurance activities).

1. Cloud computing is one of the strategic digital technologies considered important enablers for productivity and better services. The European Commission's main innovation policy is the "broad-based innovation strategy for the EU": http://ec.europa.eu/enterprise/policies/innovation/policy/index_en.htm.
2. The survey covered **enterprises** with at least 10 persons employed in manufacturing, electricity, gas and steam, water supply, construction, wholesale and retail trades, 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.
3. **Eurostat**, Statistics explained article "**Cloud computing - Statistics on the use by enterprises**". Available on the Eurostat website: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Cloud_computing_-_statistics_on_the_use_by_enterprises
The full set of data can be found in the dedicated section: <http://ec.europa.eu/eurostat/ict> under "Data", "Comprehensive databases".
4. Small enterprises (10-49 persons employed), medium (50-249) and large (250 or more).

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