



**HELLENIC REPUBLIC**

**HELLENIC STATISTICAL AUTHORITY**

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## **PRESS RELEASE**

### **SURVEY ON THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES AND E-COMMERCE IN ENTERPRISES: 2016**

The Hellenic Statistical Authority announces data on the use of information and communication technologies and e-commerce in enterprises, for 2016.

#### **BACKGROUND AND PURPOSE OF THE SURVEY**

The survey is a yearly sample survey, conducted in the framework of Regulation (EC) No 808/2004 of the European Parliament and of the Council concerning information society statistics and pursuant to Commission Regulation (EU) No 2003/2015 implementing the above Regulation.

The survey helps collecting data on the use of information and communication technologies by the enterprises with 10 and more employees, specifically data on computer use, internet access and ubiquitous internet access, sharing of information electronically within the enterprise, e-commerce (receipt of orders and sales made over the internet), etc.

#### **USE OF COMMUNICATION AND INFORMATION TECHNOLOGIES (ICT) IN ENTERPRISES**

Available survey data indicate that in 2016, 19,187 out of 21,600 enterprises, or 88.8%, used computers. Computers include personal computers, portable computers, tablets, other small portable devices (PDA) and smart phones.

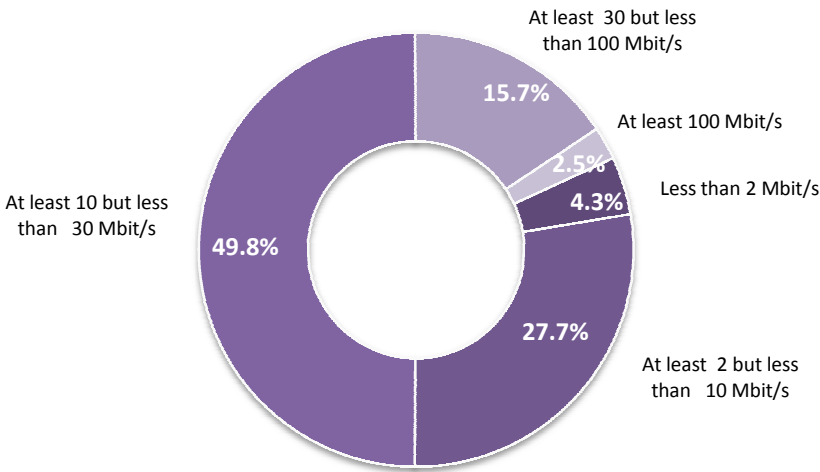
Out of a total of 19,187 enterprises that used computers, 18,936 enterprises, or 87.7%, had access to the internet.

Out of a total of 18,936 enterprises that had access to the internet in 2016, 18,283 enterprises used fixed or mobile connection to the Internet and 653 enterprises used an old type of connection to the Internet.

Out of a total of 18,936 enterprises that had access to the internet in 2016, 18,196 enterprises used DSL or any other type of fixed broadband connection (e.g. ADSL, SDSL, VDSL, FTTH –fiber optics technology, cable technology, Wi-Fi, etc.), representing 96.1% of the total number of enterprises, while 10,261 enterprises, or 54.2%, used mobile broadband connection using mobile telephony networks (3G or 4G).

As regards the maximum contracted download speed used by the enterprises for their fixed broadband connection to the Internet, the relevant data are presented in the following graph.

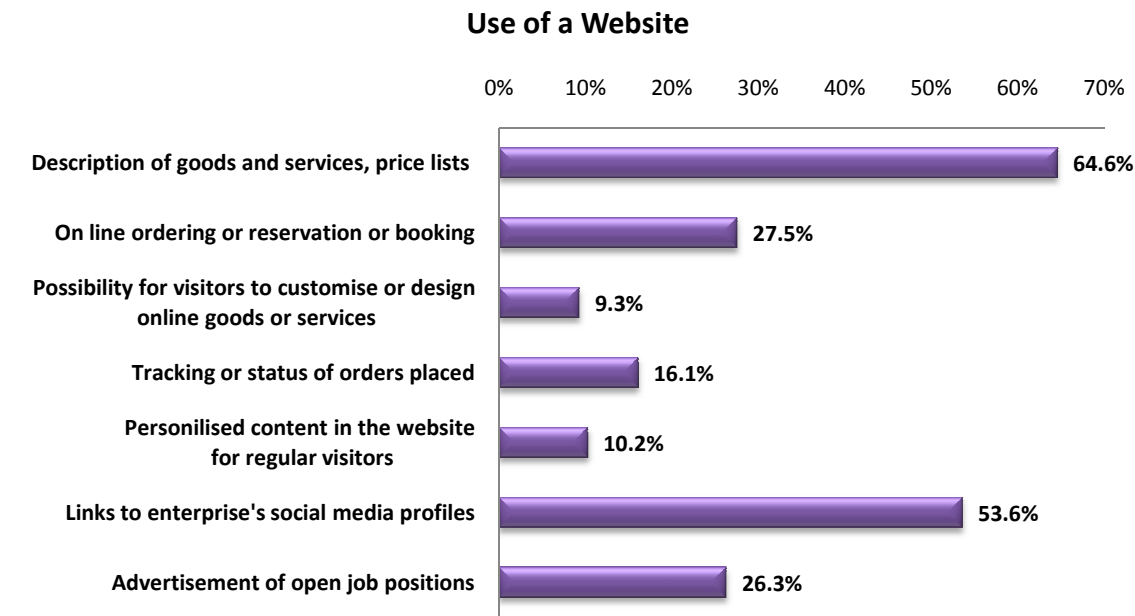
**Maximum contracted download speed**



**USE OF A WEBSITE**

Out of a total of 18,936 enterprises that had access to the internet in 2016, 14,232, enterprises, or 75.2%, had their own website.

The following graph presents data on the services provided by the websites of the surveyed enterprises.

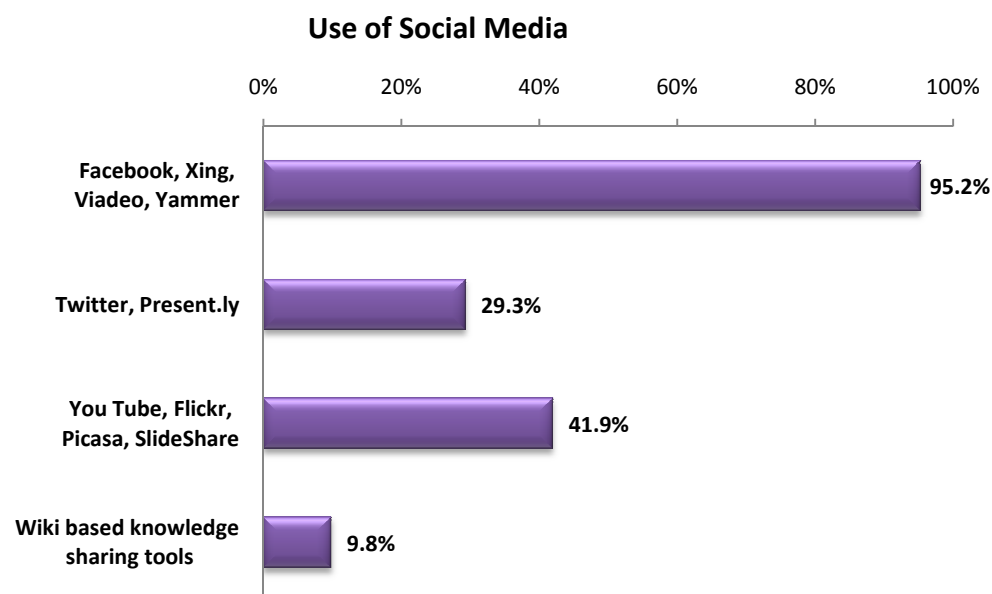


## USE OF SOCIAL MEDIA

Enterprises using social media are considered those that have a user profile, an account or a user licence depending on the requirements and the type of the social media.

Out of a total of 18,936 enterprises that had access to the internet in 2016, 9,533 enterprises used some kind of social media, amounting to 50.3%.

The following graph presents data on the use of social media by enterprises.



## EMPLOYED PERSONS WHO USE COMPUTERS AND ACCESS THE INTERNET

In 2016, out of a total of 857,282 persons employed in 19,187 enterprises that use computers, 387,378 employed persons (45.2%) used computers for business purposes. Out of this number 335,119 employed persons (39.1%) access the internet through the computers of the enterprise, while 119,844 (14.0%) have access to the internet for business purposes through portable devices allowing internet connection using mobile telephony networks.

## CLOUD COMPUTING SERVICES

Cloud computing refers to ICT services that are used over the Internet to access software, computing power, storage capacity, etc. These services have the following characteristics:

- are delivered from servers of service providers;
- can be easily scaled up or down (e.g. number of users or change of storage capacity);
- can be used on-demand by the user, at least after the initial set up (without human interaction with the service provider);
- are paid for, either per user, by capacity used, or they are pre-paid.

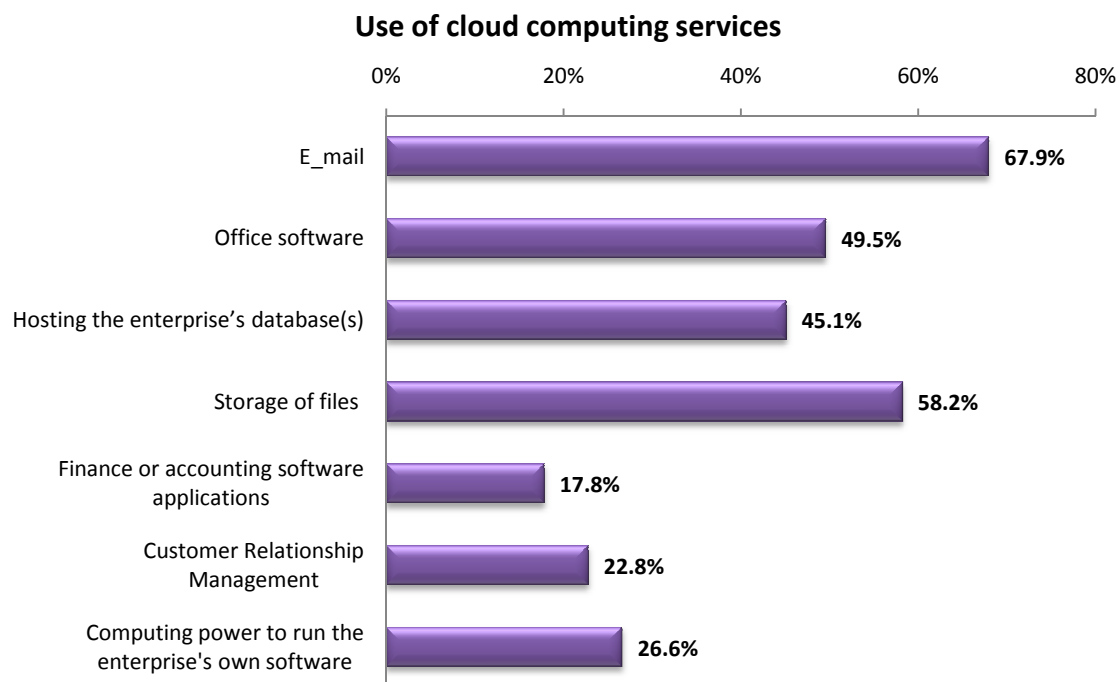
Cloud computing may include connections via Virtual Private Networks (VPN).

Out of 18,936 enterprises reporting having access to the Internet, 1,990 enterprises, or 10.5%, reported having bought cloud computing services.

As regards the distribution of cloud computing services bought by the enterprises (excluding services provided for free) by type of service bought, the following are observed:

The cloud computing services mostly used by enterprises are “e-mails” with 67.9%, followed by “storage of files” with 58.2%. On the contrary, the least used cloud computing service is “Finance or accounting software applications” with 17.8%.

It should be noted that the enterprises could give more than one answers to the relevant question.



## BIG DATA ANALYSIS

Big data are generated from activities that are carried out electronically and from machine-to-machine communications (e.g. data produced from social media activities, from production processes, etc.)

The main characteristics of big data are as follows:

- Significant volume, referring to vast amounts of data generated over time.
- Variety, referring to the different format of complex data, either structured or unstructured (e.g. text, video, images, voice, docs, sensor data, activity logs, click streams, coordinates, etc.).
- Velocity, referring to the high speed at which data is generated, becomes available and changes over time.

Big data analysis refers to the use of techniques, technologies and software tools for analysing big data extracted from the enterprise's data sources or other data sources.

Out of a total of 18,936 enterprises that had access to the internet, 2,466 enterprises, or 13.0%, reported to have performed big data analysis.

As regards the sources of information used for performing big data analysis, the following findings are observed: 721 (29.2%) enterprises analyzed the enterprise's own data from smart devices or sensors, 1,456 (59.0%) enterprises analyzed geolocation data from the use of portable devices, 1,091 (44.2%) enterprises analyzed data generated from social media and 934 (37.9%) enterprises analyzed data from other data sources.

## **E-COMMERCE**

“E-Commerce” is the sale or purchase of goods or services conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders.

The payment and the delivery of the goods or services do not have to be conducted, necessarily, online.

E-Commerce transactions exclude orders made by manually typed e-mail messages.

The enterprises belonging to the financial sector are out of the scope of the survey as regards e-commerce.

### **1. Web sales**

Web sales are sales made via a website - irrespective the mode of internet access- or via EDI-type messages.

#### **Web sales via a website**

Web sales are sales made via an online store (web shop), via web forms on a website or extranet, or via “apps”.

Out of 21,600 enterprises surveyed in 2016, with a total turnover amounting to 199,9 billion euro, 2,488 enterprises, or 11.5%, reported having received orders via a website and the turnover for these sales amounted to 10,2 billion euro, representing 5.1% of total turnover.

#### **EDI-type sales**

EDI-type sales are sales made via EDI-type messages (EDI: Electronic Data Interchange), i.e. messages in an agreed or standard format suitable for automated processing.

Out of 21,600 enterprises surveyed in 2016, with a total turnover amounting to 199,9 billion euro, 340 enterprises, or 1.6%, reported having received orders via EDI-type messages and the turnover for these sales amounted to 870,9 million euro, representing 0.4% of total turnover.

### **2. E-commerce purchases**

E-commerce purchases are the purchases made via a website- irrespective the mode of internet access- or via EDI-type messages, without the individual messages being typed manually.

Out of 21,600 enterprises surveyed in 2016, 3,138 enterprises, or 14.5%, reported having made e-purchases.

## EXPLANATORY NOTES

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|--|---|
| <b>Survey on the Use of Information and Communication Technologies and e-Commerce in enterprises</b> | <p>The Survey on the Use of Information and Communication Technologies and e-Commerce in enterprises is part of the European Statistical Programme, in which all EU-countries participate. The main purpose of this survey is to study, at European and national level, the degree of ICT usage in enterprises. A significant part of the survey data are used for decision making for the Information Society. The survey was conducted by means of sending by post the survey questionnaire to the enterprises and by personal visits paid by external statistical interviewers to the enterprises that had not responded. In addition, a relevant web application is available on the website of ELSTAT for the electronic submission of data.</p> |
| <b>Legal basis</b>   | <p>The survey is conducted in the framework of Regulation (EC) No 808/2004 of the European Parliament and of the Council concerning statistics on the information society and pursuant to Commission Regulation (EU) No 2003/2015 implementing the above Regulation.</p>  |
| <b>Reference period</b>  | <p>01/01/2016 to 15/09/2016.</p>  |
| <b>Coverage</b>  | <p>The survey covered all the enterprises in Greece, employing 10 persons and over.</p>   |
| <b>Methodology</b>   | <p>The one-stage stratified sampling was implemented for the survey. The primary sampling unit was the enterprise employing 10 persons and over.</p> <p>The main stratification criteria are the following :</p> <ul style="list-style-type: none"><li>• The Region (NUTS 2)</li><li>• NACE Rev.2 classes,</li><li>• Size class of the enterprise (1, 2, 3, 4 and 5)</li></ul>  |
| <b>Variables of the survey</b>   | <p>The main variables of the survey are:</p> <ul style="list-style-type: none"><li>• Use of computers</li><li>• ICT specialists employed by the enterprise</li><li>• Access and use of the Internet</li><li>• Enterprise website and use of this website</li><li>• Cloud computing services</li><li>• Web sales</li><li>• E-commerce purchases</li></ul>  |
| <b>References</b>  | <p>More information on the survey Use of Information and Communication Technologies and e-Commerce in enterprises (tables, graphs, methodology, etc) is available on the webpage of the Hellenic Statistical Authority, <a href="http://www.statistics.gr">www.statistics.gr</a>, Section: Industry, Commerce, Services, Transport &gt; Use of Information and Communication Technologies (ICT).</p>  |