

Information and Knowledge Society

Information and Communication Technologies Usage and e-Commerce in Enterprises

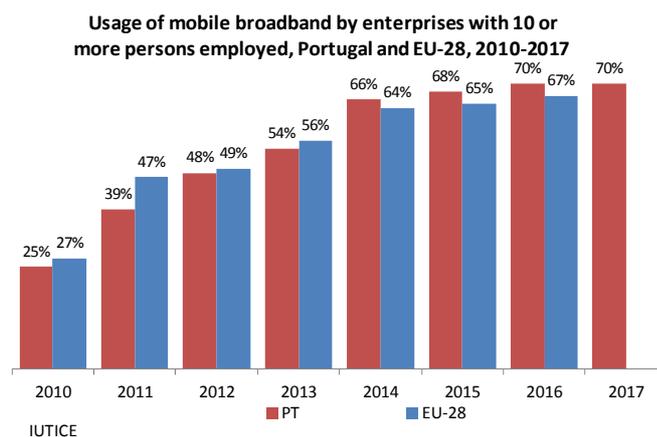
2017

In Portugal, 23% of enterprises use cloud computing services

- 23% of enterprises with 10 or more persons employed have acquired cloud computing services in 2017, 5 percentage points (p.p.) more than in the previous year;
- 70% use mobile broadband in 2017, with an increase of 45 pp in penetration rate for broadband among enterprises as from the begin of the decade;
- 65% reported having a website, a value close to the one in previous year (+ 1 pp);
- 46% use social networks as a strategy to connect to customers, suppliers or business partners, slightly above the percentage in previous year (45%);
- 29% carried out e-commerce in 2016, 2.p.p more than in 2015;
- 20% employ ICT specialists;
- 11% use Radio Frequency Identification (RFID) Technologies, mainly for person identification or access control (76%) and as part of the production and service delivery process (44%).

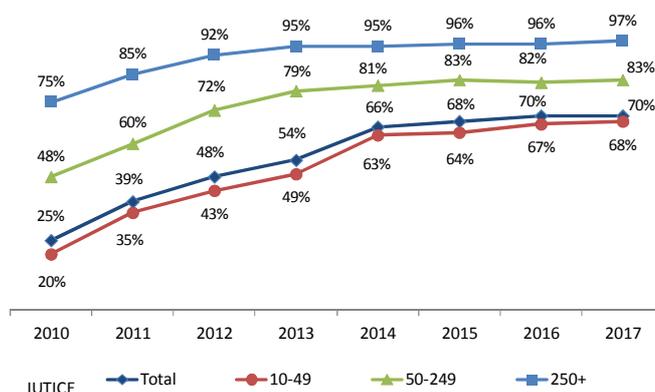
70% das empresas acedem à internet através de banda larga com tecnologia móvel

The 2017 results of the Survey on Information and Communication Technologies Usage indicate that 70% of enterprises with 10 or more persons employed use mobile broadband to connect to the Internet, with an increase of 45 pp in penetration rate for broadband among enterprises as from the begin of the decade, higher than the value for the EU-28.



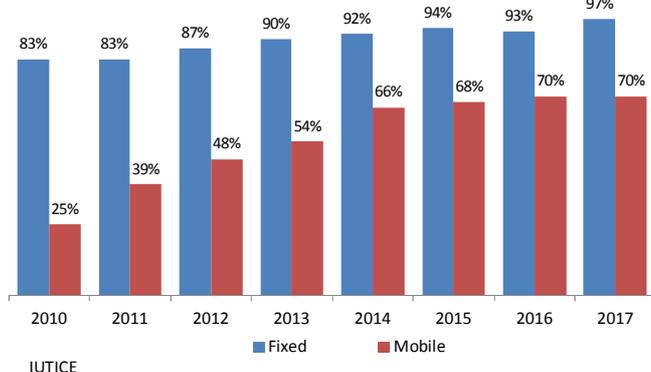
The share of enterprises using mobile broadband increases with the size of enterprises: it accounts for 68% of enterprises with 10 to 49 persons employed, 83% of medium-sized enterprises (50 to 249 persons employed) and 97% of large enterprises (250 or more persons employed). Small-sized enterprises are the ones that mostly have been increasing the use of broadband through mobile technology: an increase of 48 p.p. compared to 20% at the beginning of the decade.

Usage of mobile broadband by enterprises with 10 or more persons employed, by employment size class, Portugal, 2010-2017



In 2017, the penetration rate for fixed broadband (97%) among enterprises increased by 4 pp compared to the previous year, while the penetration rate for mobile broadband remained stable.

Usage of broadband by enterprises with 10 or more persons employed, by type of connection, Portugal, 2010-2017

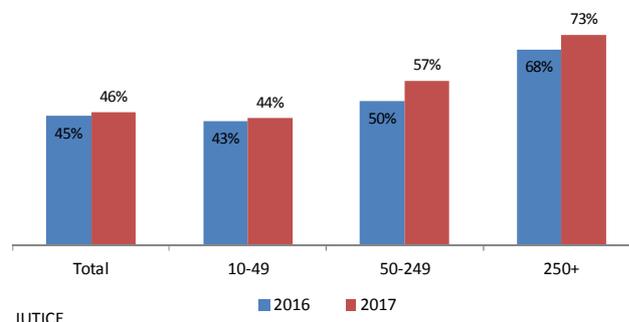


The percentage of enterprises using social media as a strategy to connect to the market remained very similar to 2016

In 2017, 46% of enterprises use internet-based applications or communication platforms designed to connect, create and exchange content online with customers, suppliers or business partners, around 1 pp above the previous year.

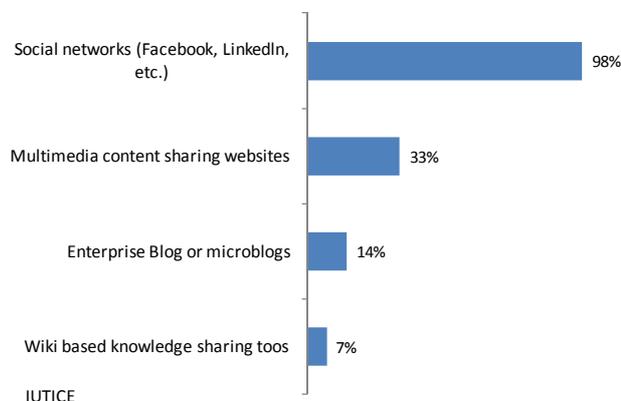
The percentage of enterprises using these social media increases with the size of the enterprise, varying from 44% in enterprises with 10 to 49 persons employed, 57% in medium-sized enterprises and 73% in large enterprises. The highest increase (7 p.p. compared to 50% in 2016) was registered by medium-sized enterprises.

Use of social media by enterprises with 10 or more persons employed, by employment size class, Portugal, 2016-2017

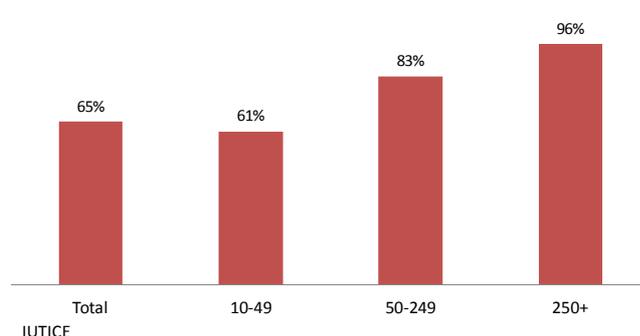


The use of a social network (Facebook, LinkedIn, Xing, Viadeo, etc.) prevails among the enterprises using social media, accounting for 98% of users. In turn, the use of multimedia content-sharing websites (Youtube, Flickr, Picasa, etc.) is mentioned in 2017 by 33% of enterprises and the use of enterprise's blogs or microblogs (Twitter, Present.ly, etc.) by 14%. The use of wiki-based knowledge-sharing tools is the least used tool, accounting for 7% of the enterprises.

Use of social media by enterprises with 10 or more persons employed, by type of network, Portugal, 2017



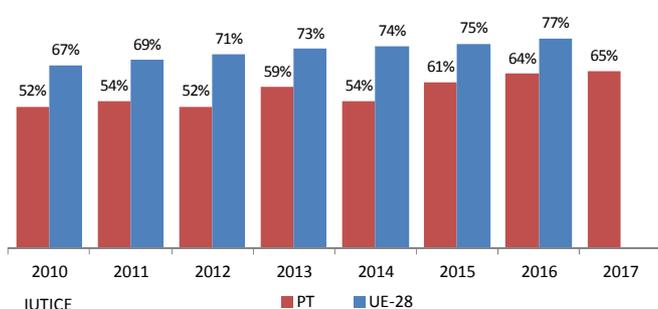
Enterprises with 10 or more persons employed having a website, by employment size class, Portugal, 2017



The share of enterprises with a website remained very similar to 2016

In 2017, 65% of the enterprises reported having a website, around 1 pp more than in the previous year (64%).

Enterprises with 10 or more persons employed having a website, PT e EU-28, 2010-2017



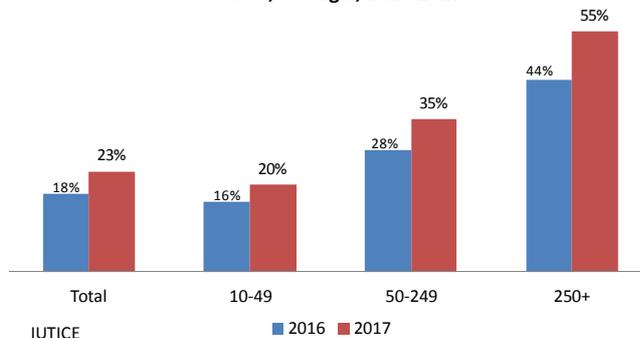
However, by 2016, the improvements were not enough to get a relevant convergence of the national indicator to the European figure.

The percentage of enterprises with a website increases with the size of the enterprises: 61% for enterprises with 10 to 49 persons employed, 83% for enterprises with 50 to 249 persons employed, and 96% for large enterprises.

There are more enterprises purchasing cloud computing services over the internet

In 2017, 23% of enterprises reported purchasing cloud computing services over the internet, 5 pp higher than in 2016. This proportion also increases with the size of the enterprise, being mentioned by 20% of small-sized enterprises, 35% of medium-sized enterprises and 55% of enterprises with 250 or more persons employed.

Enterprises with 10 or more persons employed purchasing cloud computing services, by employment size class, Portugal, 2016-2017

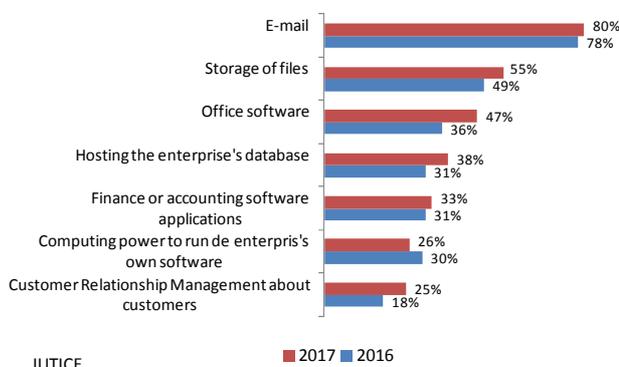


Among the enterprises with 10 or more persons employed who have purchased cloud computing services, 80% acquired e-mail, 55% files storage, and 47% office software as cloud computing services. The acquisition of hosting enterprises' and the acquisition of finance or accounting software applications were referred by, respectively, 38% and 33% of enterprises, while acquiring computing power for running the enterprise's own software and the acquisition of

Customer Relationship Management (CRM) as a cloud computing services were indicated by 26% and 25% of enterprises.

Among the various types of cloud computing services, the share of enterprises purchasing office software as cloud computing services increased the most (11 pp vis-à-vis 2016).

Types of cloud computing services purchased by enterprises with 10 or more persons employed, Portugal, 2017



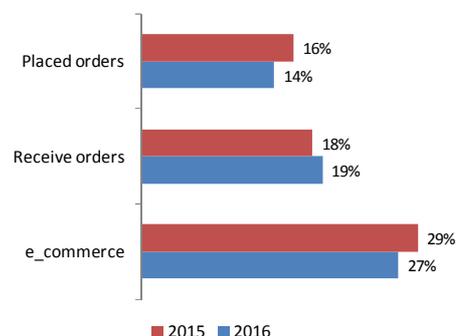
Almost 30% of enterprises carried out e-commerce¹ in 2016

According to the survey carried out in 2017, 29% of enterprises report carrying out e-commerce in 2016², 2 pp more than in previous year. By type of transaction, 18% referred having received orders for goods or services that were placed in 2016 via a website or Electronic Data Interchange, 2 p.p. more than in 2015. In turn, 16% of enterprises have placed orders for goods or services via a website or Electronic Data Interchange in 2016 (14% in 2015).

¹ E-commerce data refers to orders received representing at least 1% of turnover and to orders placed representing at least 1% of purchases.

² Data on e-commerce refers to the year prior to the survey.

Enterprises with 10 or more persons employed carrying out e-commerce (at least 1%), by type of transaction, Portugal, 2015-2016



E-commerce usage increases with the size of the enterprise: 26% in enterprises with 10 to 49 persons employed, 41% in enterprises with 50 to 249 persons employed and 58% in large enterprises (250 or more persons employed).

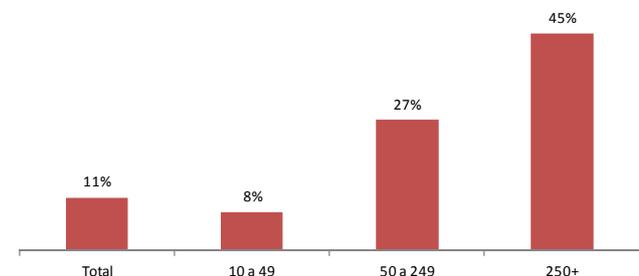
Enterprises with 10 or more persons employed carrying out e-commerce (at least 1%), by employment size class and type of transaction, Portugal, 2016



11% of enterprises use Radio Frequency Identification (RFID) technologies

In 2017, 11% of enterprises use Radio Frequency Identification (RFID) technologies, a use mentioned by 8% of small-sized enterprises, 27% of medium-sized enterprises, and 45% of enterprises with 250 or more persons employed.

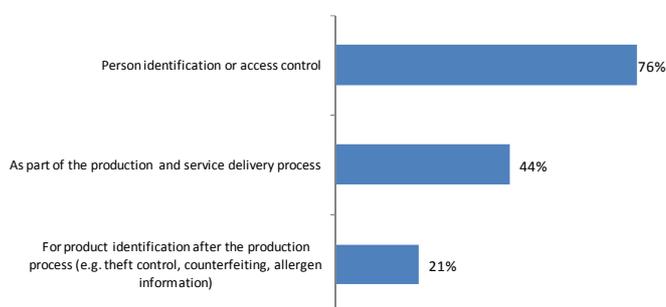
Enterprises with 10 or more persons employed using Radio Frequency Identification (RFID) technologies, by employment size class, Portugal, 2017



IUTICE

Among the enterprises using RFID Technologies, 76% did it for person identification or access control, 44% as part of the production and service delivery process, and 21% for product identification after the production process (e.g. theft control, counterfeiting, allergen information).

Enterprises with 10 or more persons employed using Radio Frequency Identification (RFID) technologies, by purpose, Portugal, 2017

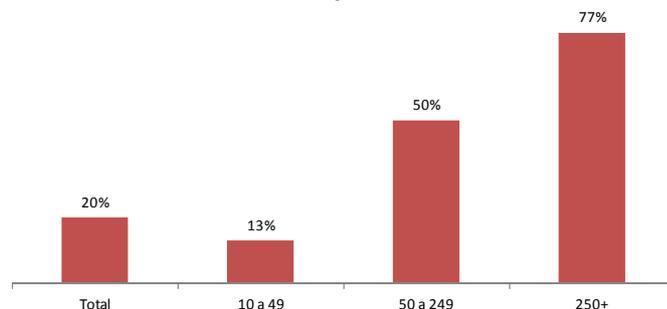


IUTICE

20% of enterprises with 10 or more persons employed have ICT specialists

In 2017, 20% of enterprises mentioned employing ICT specialists, a percentage that increases with business employment size: 13% for enterprises with 10 to 49 employees, 50% for businesses with 50 to 249 people in service, and 77% in large enterprises.

Enterprises with 10 or more persons employed having ICT specialists, by employment size class, Portugal, 2017



IUTICE

Among the enterprises providing any type of training to develop ICT related skills of the persons employed in 2016, 11% did it for ICT specialists and 18% for other persons employed.

Enterprises with 10 or more persons employed having ICT specialists, by type of employed, Portugal, 2017



IUTICE

TECHNICAL NOTE

Indicators in this press release were based on data from the Survey on Information and Communication Technologies Usage in Enterprises (IUTICE), carried out by Statistics Portugal annually as from 2001 (since 2006 in accordance with specific Community regulations and pursuant to Regulation (EC) No 808/2004 of the European Parliament and of the Council of 21 April 2004).

IUTICE is an annual survey based on a representative sample of enterprises in Portugal carrying out their main economic activity in manufacturing, energy, construction, trade and repair, hotels and restaurants, transport and communication, and other services (excluding education and health activities and, as from 2015 onwards, financial activities).

A sample of 3,275 units was selected among the population of enterprises with 10 or more persons employed and whose economic activity is classified in one of the following NACE Rev.2 sections: C, D and E, F, G, H, I, J, L, M (division 69-74), N, S (group 95.1).

The reference period for the information is 2016 for the majority of variables, with the exception of the ones related to e-commerce, invoicing and ICT training, which refer to 2015. In the case of e-commerce indicators, only orders received representing at least 1% of turnover and orders placed representing at least 1% of purchases are taken into account.

From 2015 onwards enterprises covered by the IUTICE do not include those mainly carrying out on financial or insurance activities, in line with the criteria established for EU countries. In this context, historical series have been rebuilt for the same scope of activities aiming to ensure comparability over time.

Main concepts:

ECONOMIC ACTIVITY - Combination of resources such as labour, raw materials, equipment, etc., are joined, leading to the creation of specific goods or services. Regardless of the factors of production integrating the good or service produced, all activities generically imply an input of products (goods or services), a production process and an output of products (goods or services).

MAIN ACTIVITY - The activity which contributes most to the total value added of a unit under consideration. It is ranked according to the gross value added at factor cost which it generates. If no value-added figures are available, other criteria must be used, and then the principal or main activity shall be considered the one that accounts for the highest turnover or alternatively the one that occupies the greatest number of employees on a permanent basis.

BROADBAND - A connection that makes possible the transmission, at a high speed, of considerable quantities of information, such as television images. The types of broadband connection are: XDSL (ADSL, SDSL, etc.), cable, UMTS or other such as satellite.

E-COMMERCE - Business process conducted via Internet Protocol-based networks or via other computer-mediated networks. The goods and services are ordered over those networks, but the payment and the ultimate delivery of the good or service may be conducted on or off-line. Orders received via telephone, facsimile, or manually typed e-mails are not counted as electronic commerce. Note: if the e-mail system is used for the transmission of an automatic message, i.e. computer-to-computer without human intervention, then it is considered an e-commerce transaction.

CUSTOMER RELATIONSHIP MANAGEMENT (CRM) - Management methodology that is based on the intensive use of information technologies to collect, integrate, process and analyze the information related to customers and which aims to put the customer at the center of the business process.

EDI (ELECTRONIC DATA INTERCHANGE) - The standardised exchange of information between computers, which may use the internet as a platform (EDI on TCP/IP) or closed computer networks between institutions. It can be used for the paper-free exchange of documents (invoices, receipts, contracts, order forms).

INTERNET (www access) - The connection to the set of global computer networks interlinked by the TCP/IP protocol (Transmission Control Protocol/Internet Protocol), where data and service servers are located (FTP, WWW, email, etc.).

CLOUD - System/network of remote servers hosted on the Internet and used to store, manage, and process data in place of local servers or personal computers.

SOCIAL NETWORK - Set of sites which favour the formation of virtual communities with common interests.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) - A branch of computing science and its practical uses which aims at classifying, preserving and disseminating information. Information systems and special knowledge are applied to businesses and learning. Hardware and software create the electronic structure to support the information logic.

RADIO FREQUENCY IDENTIFICATION (RFID) TECHNOLOGIES - Automatic identification technology for storing and retrieving data using remote identifiers or electronic tags.

WEBSITE - A programmed webpage or set of web pages viewed using a browser (Internet Explorer, Netscape, etc.). Each webpage has its own www address (e.g., www.organismo.pt), known as a URL (Uniform Resource Locator).

WIKI - Website oriented to provide and share knowledge in some domain, where content is created by anyone wanting to enter or change information or comment anyone else's contribution.