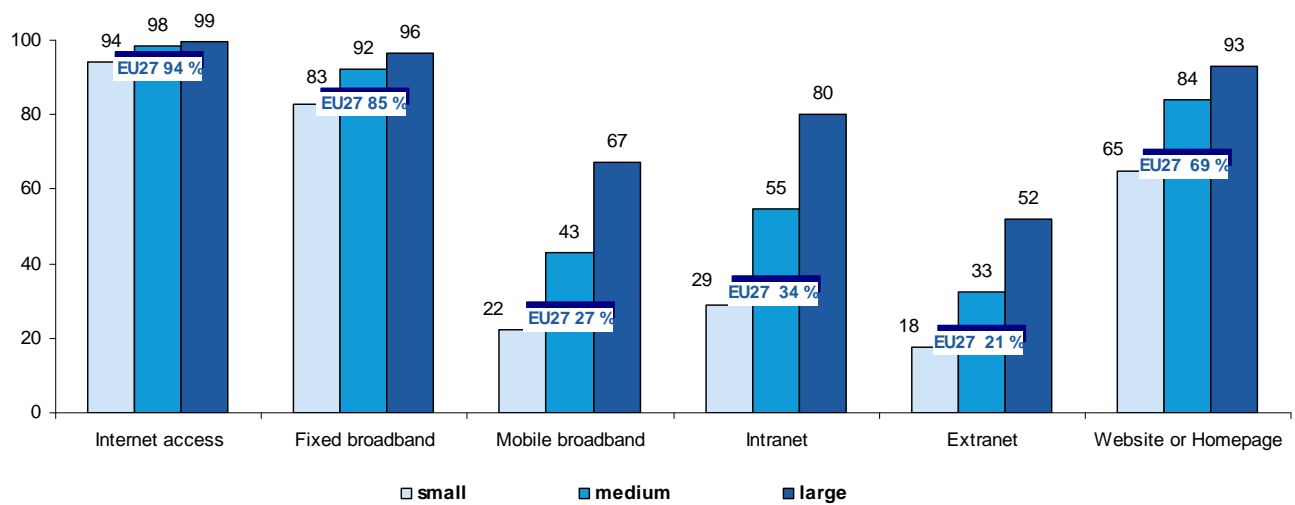# ICT usage in enterprises[1] 2010

Share of enterprises that used mobile broadband Internet connections was three times higher in large than in small enterprises.
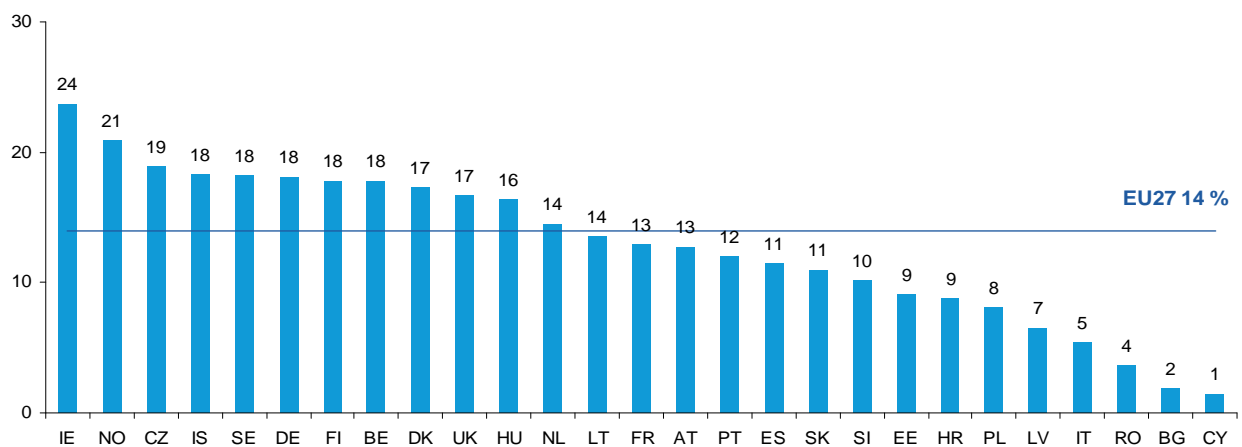
Figure 1: Internet access, fixed and mobile broadband[2] access to the Internet, use of intranet[2] and extranet[2], Website or Homepage of enterprises, by size class, EU27, January 2010 (% of enterprises)

Source: Eurostat (online data codes: isoc_ci_in_en2, isoc_ci_it_en2, isoc_ci_cd_en2)

Enterprises in Ireland realised almost one quarter of their turnover from e-commerce.

Figure 2: Enterprises' turnover from e-Commerce[3], 2009 (% of total turnover)

Source: Eurostat (online data code: isoc_ec_evaln2)

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Two out of three large enterprises used mobile broadband Internet connections.

Table 1: Internet access, fixed and mobile broadband access to the Internet, Website or Homepage of enterprises, mobile broadband by size class, January 2010 (% of enterprises)

	Internet access	Fixed broadband connection	Mobile broadband connection				Website or Homepage
			all enterprises	small	medium	large	
EU27	**94**	**85**	**27**	**22**	**43**	**67**	**69**
BE	97	89	29	24	49	70	78
BG	85	61	9	7	14	34	37
CZ	95	85	18	13	35	51	74
DK	97	84	43	39	63	81	88
DE	97	89	27	17	40	67	84
EE	96	87	9	7	13	36	70
IE	92	84	36	31	52	73	68
EL	90	80	6	5	14	20	58
ES	97	95	35	31	57	75	62
FR	97	93	28	23	46	68	58
IT	94	83	19	16	38	66	61
CY	88	85	11	9	19	39	52
LV	91	66	12	10	19	41	48
LT	96	78	20	16	32	62	65
LU	96	87	20	17	26	57	70
HU	90	78	22	18	36	57	57
MT	94	91	28	24	41	62	66
NL	98	90	28	23	47	68	81
AT	97	75	46	42	65	91	80
PL	96	66	21	16	32	64	65
PT	94	83	25	20	48	75	52
RO	79	49	8	6	14	33	35
SI	97	85	31	26	47	73	73
SK	98	71	36	32	46	67	74
FI	100	93	68	64	88	95	87
SE	96	88	55	50	76	91	89
UK	91	87	36	33	58	79	76
IS	98	95	43	36	74	78	77
NO	97	84	39	35	61	84	78
HR	95	76	32	29	41	71	61

Source: Eurostat (online data codes: isoc_ci_in_en2, isoc_ci_it_en2, isoc_ci_cd_en2)
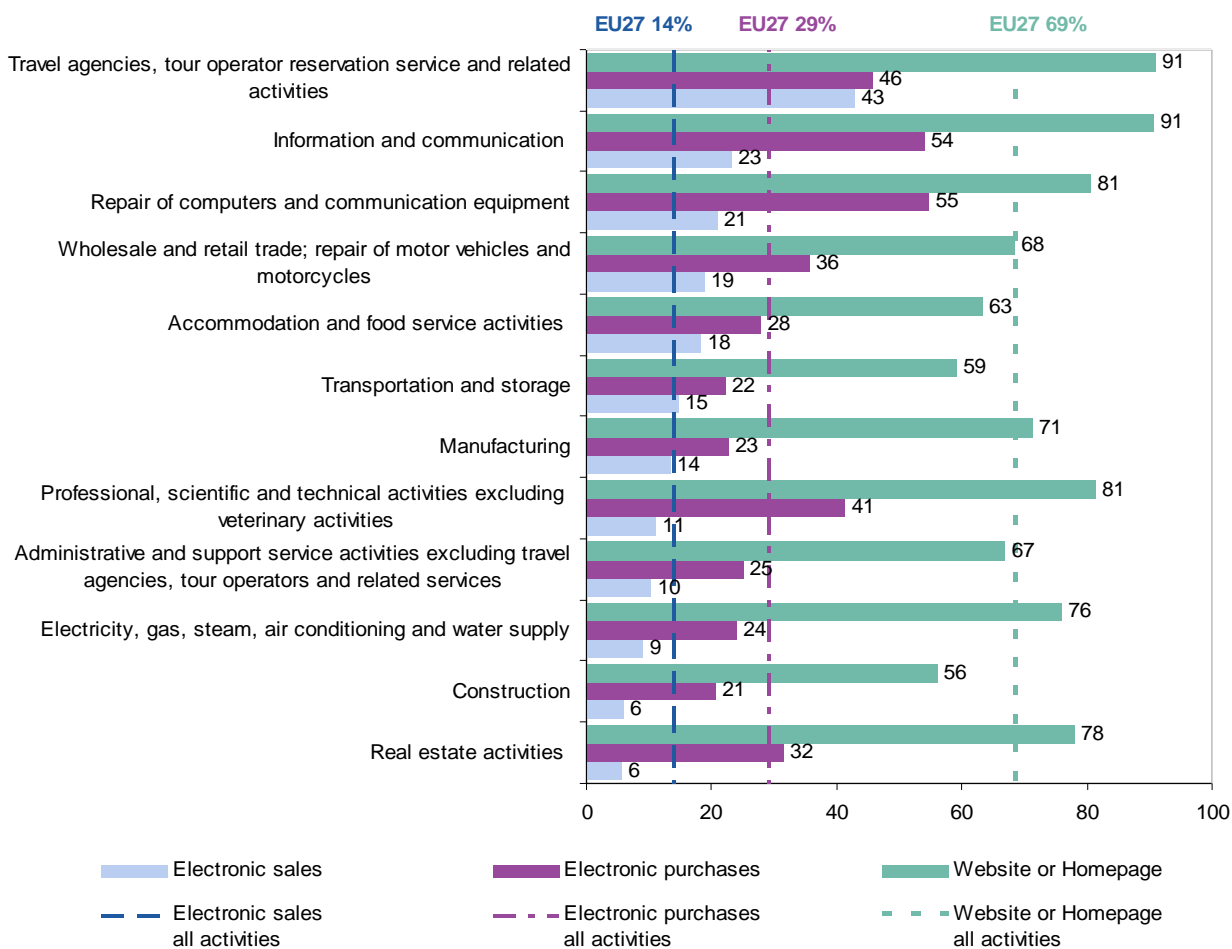
Travel agencies and tour operator reservation services had the highest proportion of electronic sales.

Figure 3: Electronic sales by economic activity, EU27, 2008-2009 (% of enterprises)
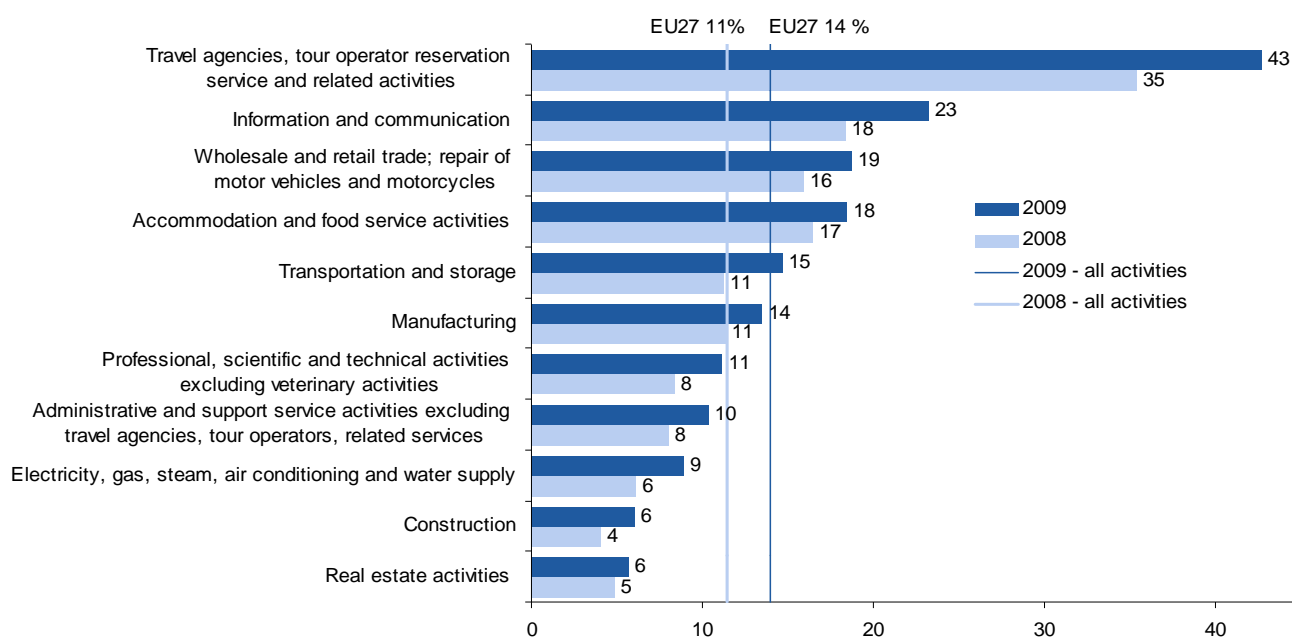
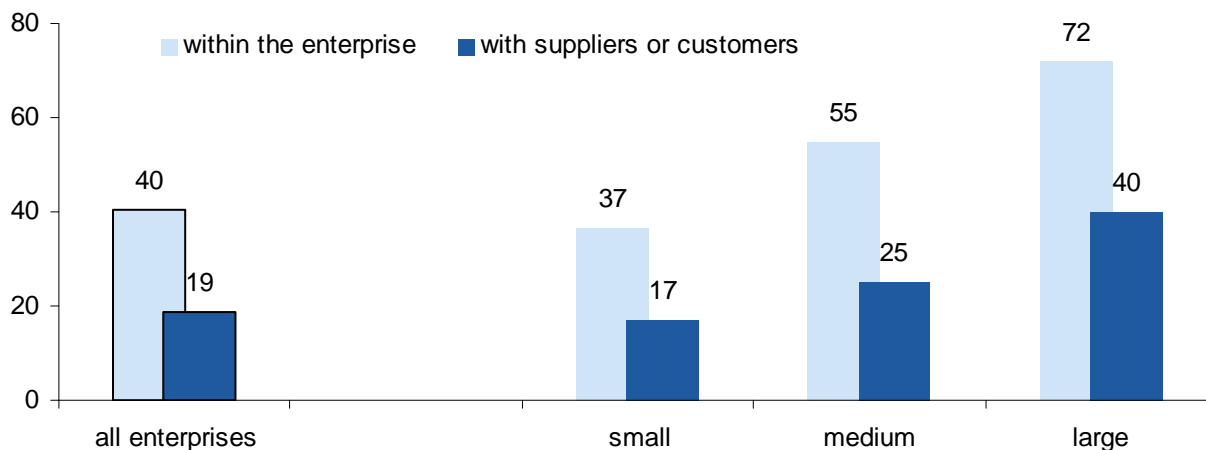*Source*: Eurostat (online data code: isoc_ec_eseln2)

Figure 4: Electronic sales and purchases, Website or Homepage of enterprises, by economic activity, EU27, 2009 (% of enterprises)

Source: Eurostat (online data codes: isoc_ec_eseln2, isoc_ec_ebuyn2, isoc_ci_cd_en2)

Large enterprises were more likely to share information with suppliers or customers than small and medium enterprises.
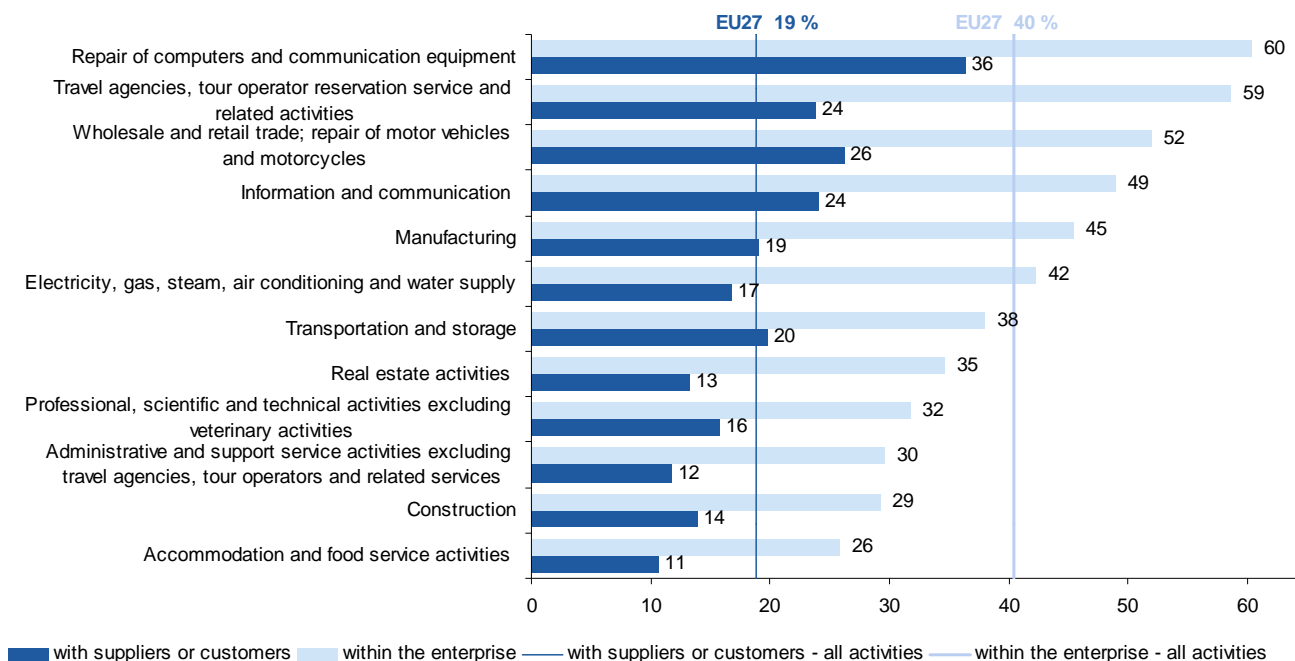
Figure 5: Enterprises sharing information electronically and automatically within the enterprise[4] between different functions and outside the enterprise[5] on the Supply Chain Management, by size class, EU27, January 2010 (% of enterprises)

Source: Eurostat (online data codes: isoc_pibi_ibpn2, isoc_pibi_iscn2)

Twice as many enterprises shared information electronically within the enterprise than with suppliers or customers.

Figure 6: Enterprises sharing information electronically and automatically within the enterprise between different business functions and outside the enterprise on the Supply Chain Management, by economic activity, EU27, January 2010 (% of enterprises)

One in three enterprises shared information electronically within the enterprise for both sales and purchases.

Figure 7: Enterprises sharing electronically and automatically information between different business functions within the enterprise for sales and purchases[4], January 2010 (% of enterprises)
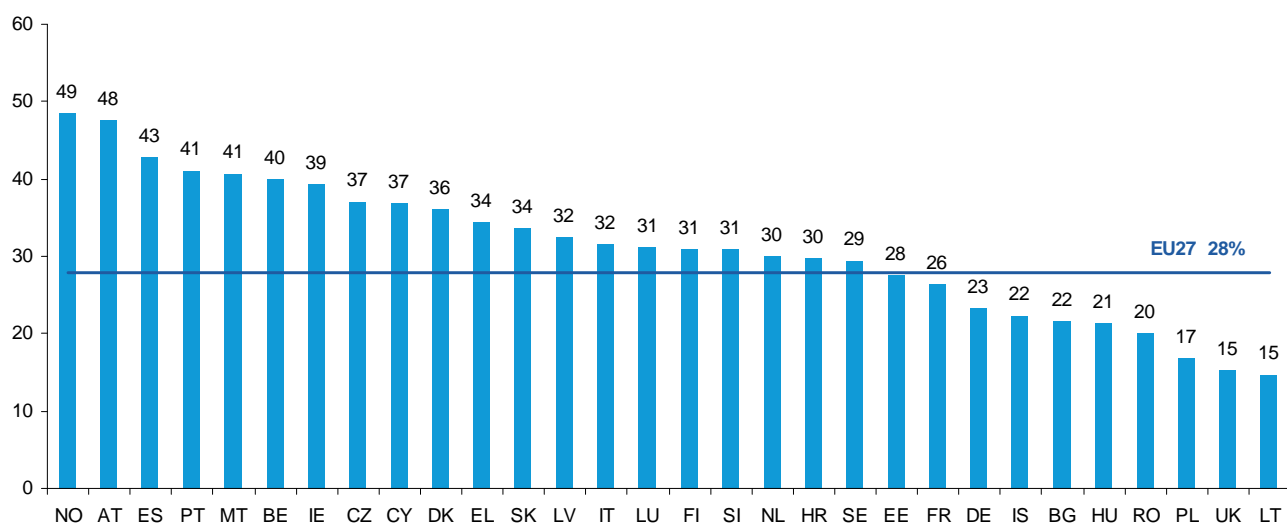
Enterprises in information and communication, repair of computers, travel agencies and tour operator services made more use of CRM than other economic sectors.

Figure 8: Enterprises using Customer Relationship Management software, Enterprise Resource Planning software package[6], by economic activity, EU27, January 2010 (% of enterprises)
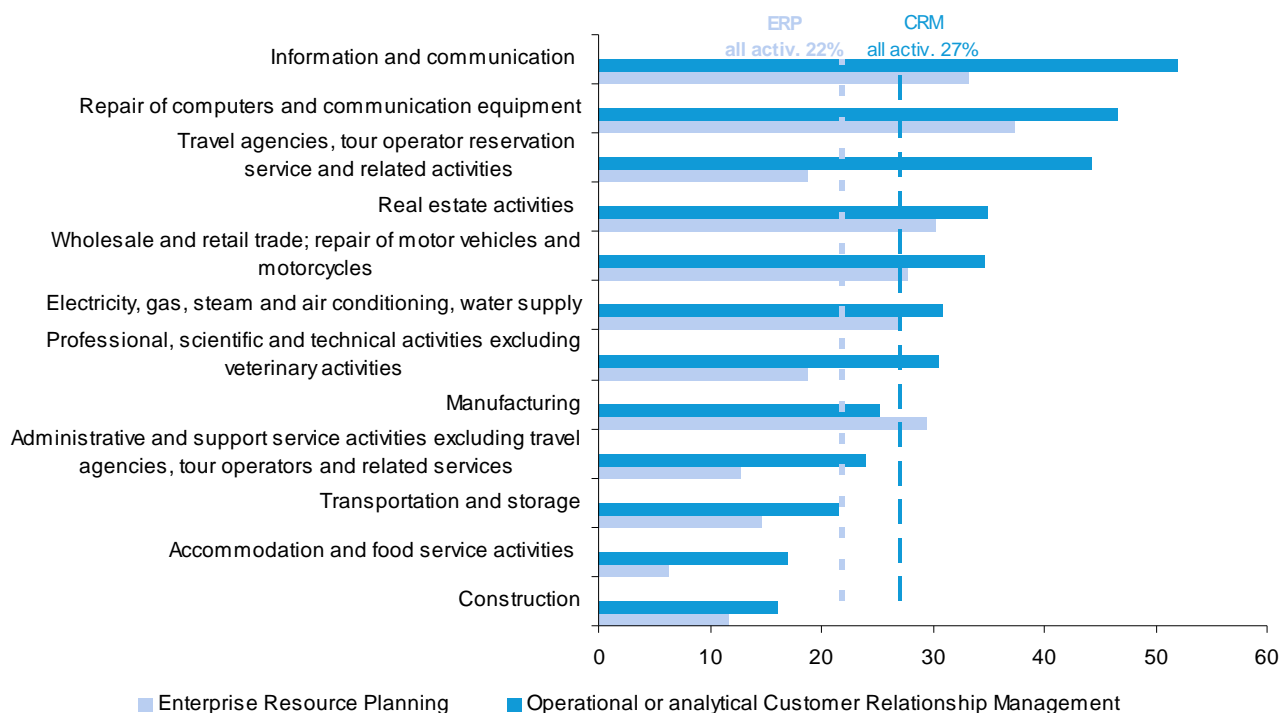
Source: Eurostat (online data codes: isoc_bde15dip,_isoc_bde15dec)

More than half of the enterprises in most economic activities used electronic transmission of data suitable for automatic processing.

Figure 9: Electronic transmission[7] of data between enterprises, by economic activity, EU27, January 2010, (% of enteprises)
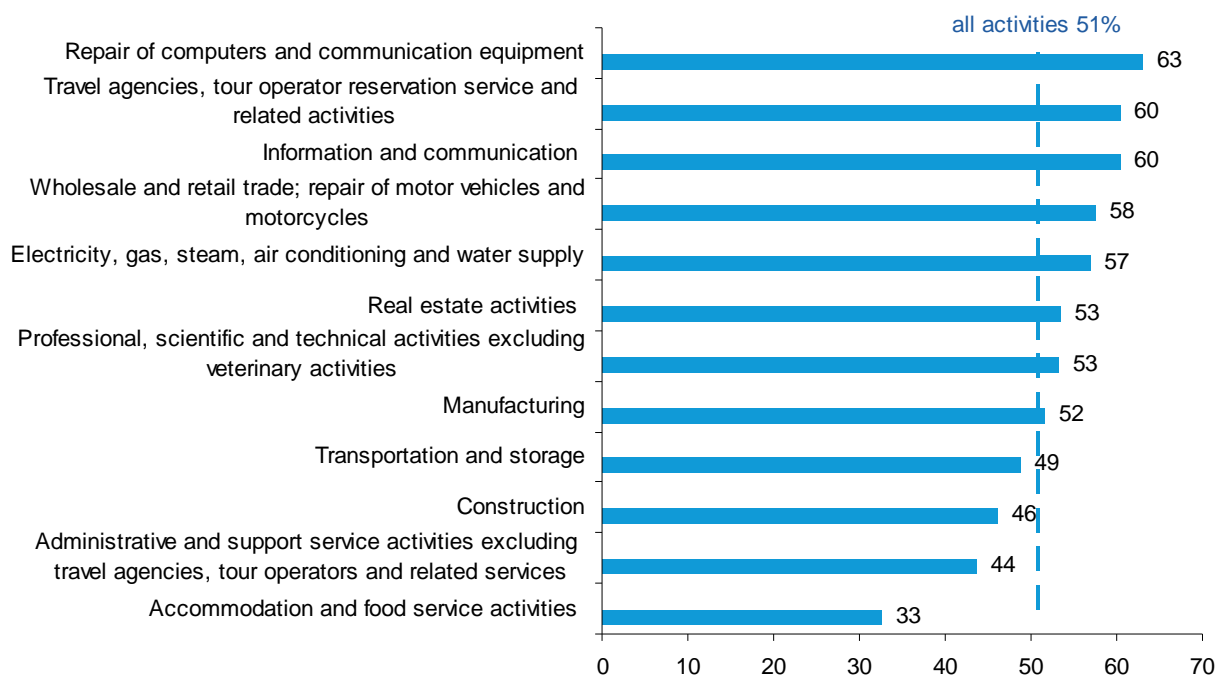
Source: Eurostat (online data codes: isoc_bde15disc)

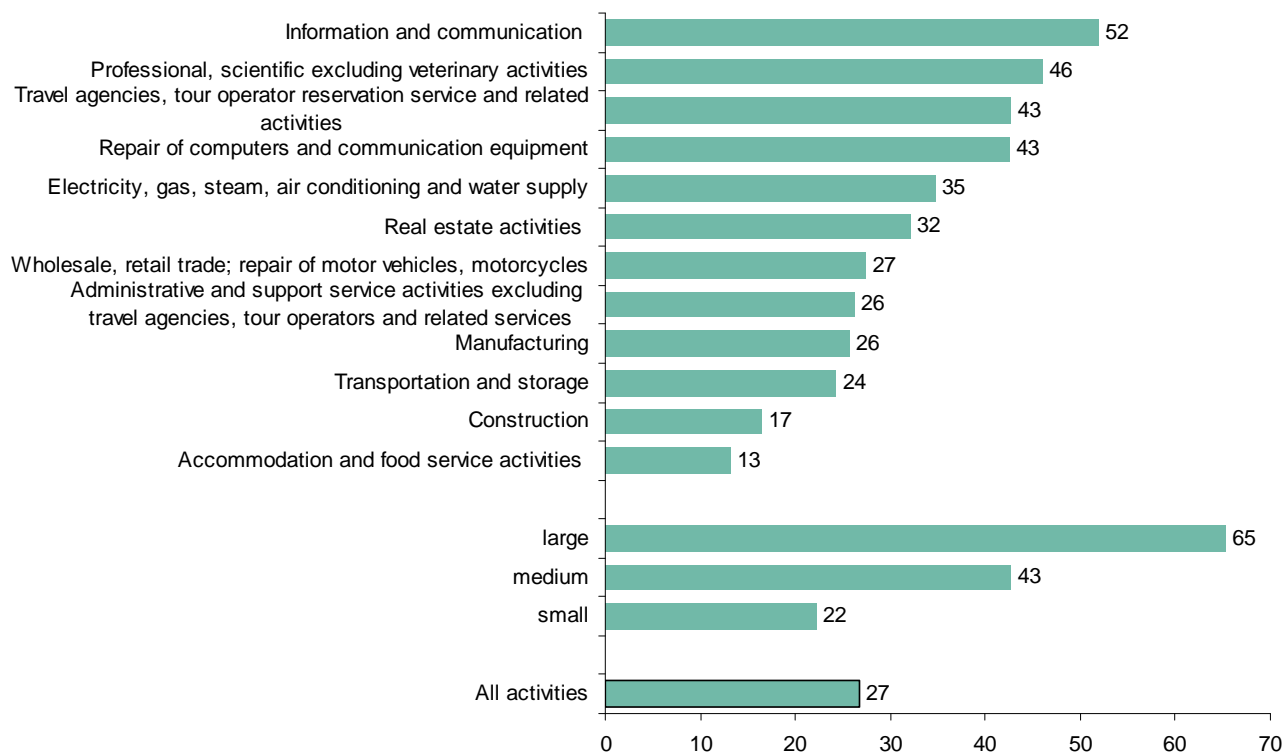**Three times more large than small enterprises had a formally defined ICT security policy.**

Figure 10: Enterprises having a formally defined ICT security policy with a plan of regular review, by economic activity and size class, EU27, January 2010 (% of enterprises)

Risks addressed in the ICT security policy did not vary much among enterprises of different size classes.

Figure 11: Enterprises with a formally defined ICT security policy addressing relevant risks, by risk and size class, EU27, January 2010 (% of enterprises having a security policy)

destruction or corruption of data due to attack or by unexpected incident
disclosure of confidential data due to intrusion, pharming, phishing attacks of by accident
unavailability of ICT services due to attack from outside (e.g. denial of service attack)
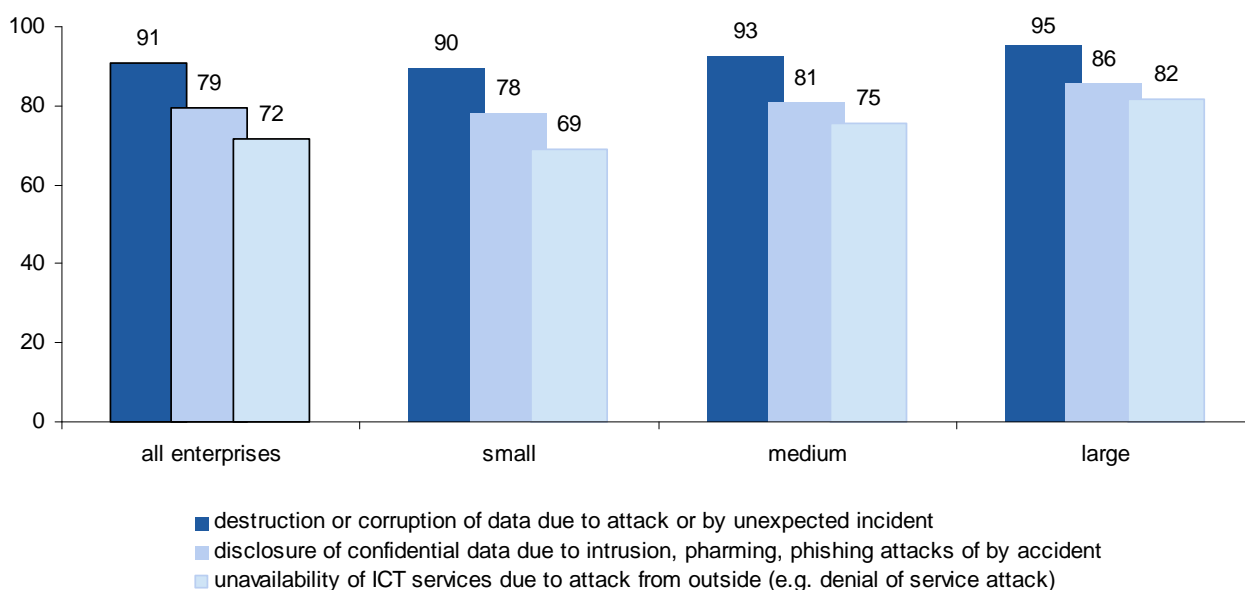
Almost 3 out of 10 enterprises had a formally defined ICT security policy while 7 out of 10 had a Website and 5 out of 10 used automatic share of information within the enterprise.

Figure 12: Enterprises with a formally defined ICT security policy, having a Website or Homepage, sharing information within the enterprise, January 2010 (% of enterprises)
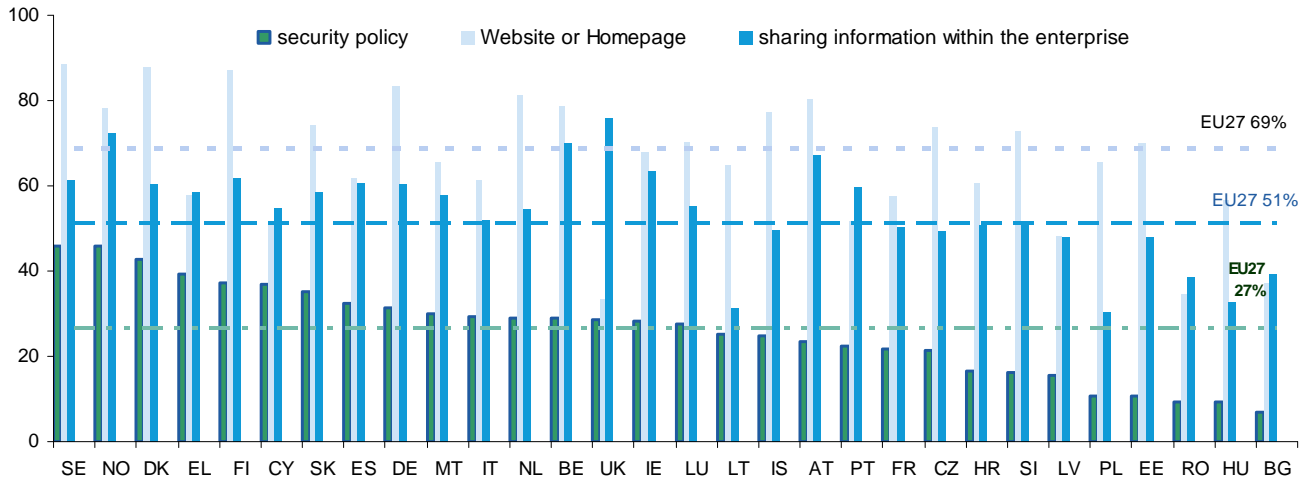
Source: Eurostat (online data codes: isoc_cisce_ra, isoc_ci_cd_en2, isoc_bde15dip)

Voluntary training or generally available information were mostly used to make staff aware of their ICT related security obligations.

Figure 13: Enterprises raising awareness among staff of their obligations in ICT security related issues, by type of approach and economic activity, EU27, January 2010 (% enterprises)
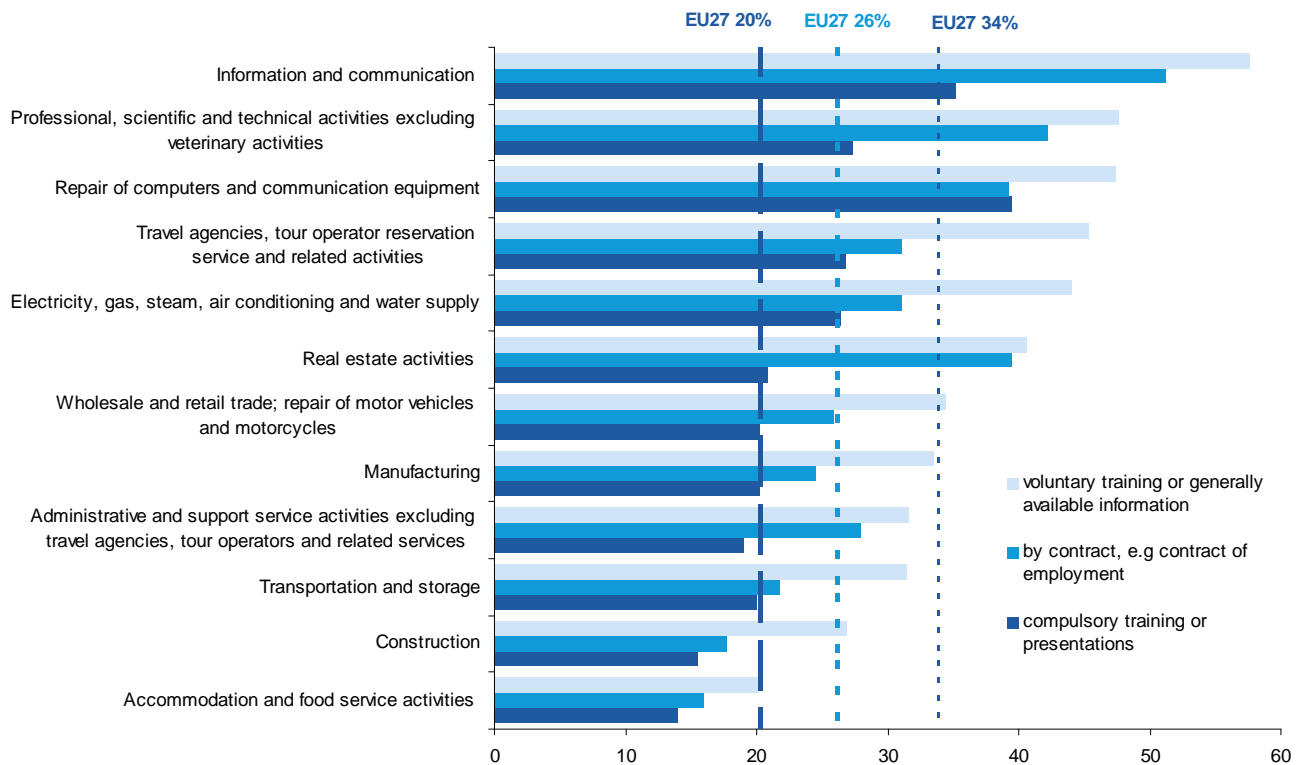
Note: EU27 without EE.

Source: Eurostat (online data code: isoc_cisce_ra)

3 out of 20 enterprises experienced an ICT related security incident.

Figure 14: Enterprises having experienced ICT related security incidents[8] which affected their ICT systems, by type of incident, EU27, 2009 (% enterprises)

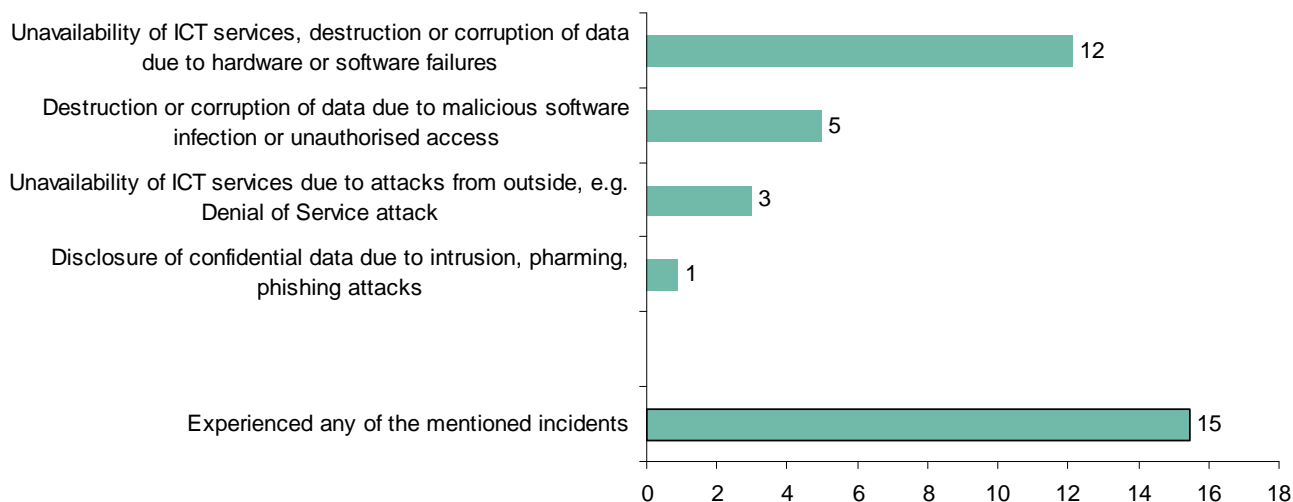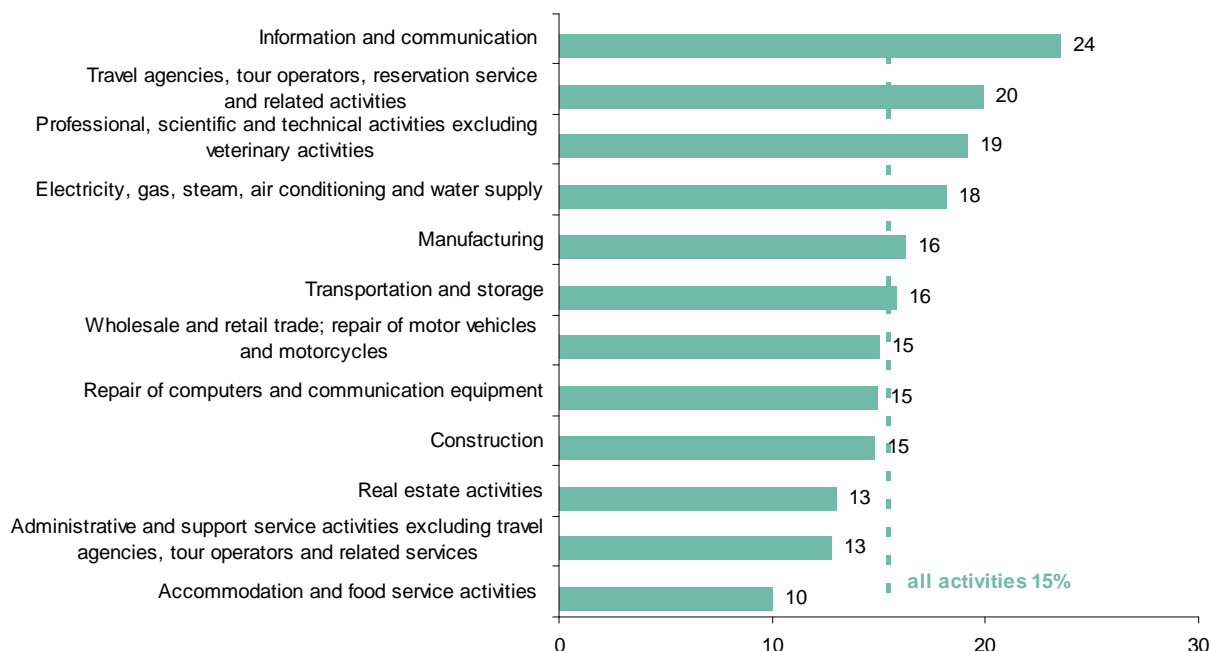| Type of incident	%
Unavailability of ICT services, destruction or corruption of data due to hardware or software failures	12
Destruction or corruption of data due to malicious software infection or unauthorised access	5
Unavailability of ICT services due to attacks from outside, e.g. Denial of Service attack	3
Disclosure of confidential data due to intrusion, pharming, phishing attacks	1
Experienced any of the mentioned incidents	15

Note: EU27 without EE.
Source: Eurostat (online data code: isoc_cisce_ic)

The lowest share of enterprises having experienced at least one ICT related security incident was for enterprises in accommodation and food service activities.

Figure 15: Enterprises having experienced at least one ICT related security incident which affected their ICT systems, by economic activity, EU27, 2009 (% enterprises)

| Economic activity	%
Information and communication	24
Travel agencies, tour operators, reservation service and related activities	20
Professional, scientific and technical activities excluding veterinary activities	19
Electricity, gas, steam, air conditioning and water supply	18
Manufacturing	16
Transportation and storage	16
Wholesale and retail trade; repair of motor vehicles and motorcycles	15
Repair of computers and communication equipment	15
Construction	15
Real estate activities	13
Administrative and support service activities excluding travel agencies, tour operators and related services	13
Accommodation and food service activities	10

all activities 15%

Note : EU27 without EE.
Source: Eurostat (online data code: : isoc_cisce_ic)

Offsite data backup and strong password authentication were the most common internal security procedures.

Figure 16: Enterprises using internal security facilities or procedures[9], by size class, EU27, January 2010 (% enterprises)
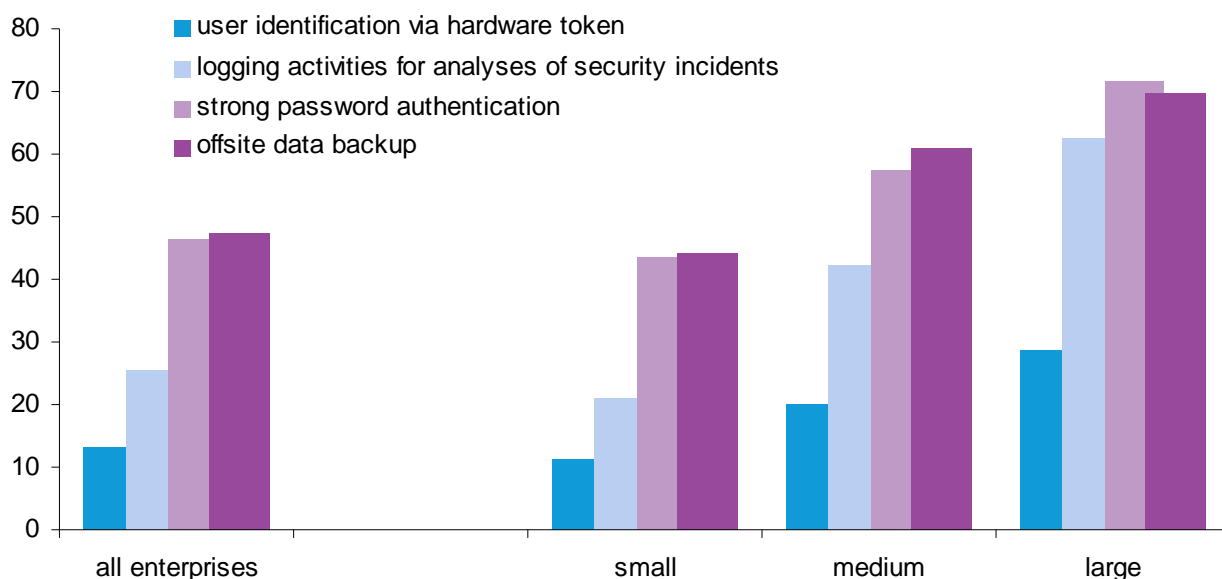
Note : EU27 without EE.

Source: Eurostat (online data code: isoc_cisce_fp)

Methodology

Source: Data presented in this publication are based on the results of the 2010 Community survey on "ICT usage and e-commerce in enterprises".

Sample size: In 2010, 149 900 enterprises out of 1.6 million in EU27 were surveyed.

Aggregates: For a small number of countries, data in some figures may be confidential, not available or flagged as unreliable depending on the breakdown. Data flagged as unreliable are included in the calculation of European aggregates. When comparing with the previous year, the total refers to the comparable total of the economic activities (i.e. excluding repair of computers and communication equipment).

The following notes explain the main concepts referred to in this publication.

1.   The survey covered **enterprises** with at least 10 persons employed. The reference period was January 2010 or for some questions the year 2009. Economic activities correspond to the classification NACE Revision 2. The sectors covered are 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 and repair of computers and communication equipment. Enterprises are

broken down by size; small (10-49), medium (50-249) and large enterprises (250 and more persons employed).

2.   **Mobile broadband connection** refers to the connection to the Internet via portable computer using 3G modem or via 3G handset, e.g. smartphone. **Intranet** is an internal company communications network using Internet protocol allowing communications within an organisation. **Extranet** refers to a closed network that uses Internet protocols to securely share enterprise's information with suppliers, vendors, customers or other business partners. It can take the form of a secure extension of an Intranet that allows external users to access some parts of the enterprise's Intranet. It can also be a private part of the enterprise's website, where business partners can navigate after being authenticated in a login page.

3.   **e-Commerce means** the placement of orders (an order is a commitment to purchase goods or services) via computer networks, not only Internet but also other connections between computers of different enterprises and where payment and delivery are not necessarily done via computer networks.

e-Commerce may be effectively done via websites or via electronic transmission of messages allowing automatic processing; it excludes normal e-mail messages that are manually typed.

4.   **Sharing information electronically and automatically within the enterprise** may refer to any of the following:

- using one single software application to support the different functions of the enterprise,

- data linking between the software applications that support the different functions of the enterprise,

- using a common database or data warehouse accessed by the software applications that support the different functions,

- sending or receiving electronically information within the enterprise that can be automatically processed.

Figures 5 and 6 refer to enterprises receiving a sales order <u>or</u> sending a purchase order, and sharing this information electronically and automatically with the software used for at least one of the following relevant business functions: management of inventory levels, accounting, production or services management, distribution management. The latter three are only relevant for sales orders.

Figure 7 refers to enterprises receiving a sales order <u>and</u> sending a purchase order, and sharing this information electronically and automatically with the software used for relevant business functions as for Figure 5.

5. Sharing information outside the enterprise refers to sharing information electronically on the Supply Chain Management in the following cases:

– exchanging all types of information with suppliers and/or customers in order to coordinate the availability and delivery of products or services to the final consumer;
– including information on demand forecasts, inventories, production, distribution or product development;
– via computer networks between computers of different enterprises, via websites or other means of electronic data transfer;
– excluding manually typed e-mail messages.

6. Enterprise Resource Planning (ERP) refers to software applications which allow sharing information between different functional areas (e.g. accounting, planning, production and marketing). **Customer Relationship Management (CRM)** refers to software applications for managing information about clients that allows capturing, storing and sharing the information about the clients with other business functions or analysing the information for marketing purposes.

7. Electronic transmission of data suitable for automatic processing means:

– sending and/or receiving of messages (e.g. orders, invoices, payment transactions, product descriptions, transport documents, tax declarations)

– in an agreed or standard format which allows their automatic processing, e.g. EDI, EDIFACT, ODETTE, TRADACOMS, XML , xCBL, cXML, ebXML

– without the individual message being manually typed

– via any computer network(s).

8. ICT related security incidents affect the ICT system of an enterprise and may cause different problems. The following security incidents were covered in the survey:

a) Unavailability of ICT services, destruction or corruption of data due to hardware or software failures.

b) Unavailability of ICT services due to attack from outside e.g. Denial of Service attack.

c) Destruction or corruption of data due to malicious software infection or unauthorised access.

d) Disclosure of confidential data due to intrusion, pharming, phishing. Pharming is an attack which redirects the traffic of a website to another, bogus website in order to acquire sensitive information. Phishing is a criminally fraudulent attempt to acquire sensitive information such as usernames, passwords and credit card details by masquerading as a trustworthy entity in an electronic communication.

9. User identification refers to the ability to identify and distinguish between individual users. **Authentication** means to assure the identity of a certain user. Authentication and identification of users are used in the context of authorisation, to define access and usage rights related to specific information or services. A **strong password authentication** means a minimum length of 8 mixed characters, a maximum duration of 6 months, encrypted transmission and storage. **Offsite data backup** is part of the off-site data protection strategy of sending critical data from the main site to another location, by means of removable storage media, e.g. magnetic type, external hard disks, or electronically via remote backup services. A **hardware token** is a physical device that authorises the access of the owner of the token to a computer or a network. Hardware tokens provide an extra level of assurance in addition to the personal identification number (PIN), which authorises users as the owner of that particular device; the device generates a number which uniquely identifies the user to the service, and allows logging in.

The full set of data can be found on the Eurostat website, under Statistics / Industry, trade and services / Information society / Data and in the dedicated section on Information society statistics / Data / Comprehensive databases (http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/comprehensive_databases).

Further information

Eurostat Website: http://ec.europa.eu/eurostat

Data on "Information society statistics"
http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/data/database

More information about "Information society statistics"
http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/introduction

European Statistical Data Support:

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