COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES 2013

General outline of the survey

Sampling unit:	Enterprise.
Scope / Target Population:	Economic activity:
	Enterprises classified in the following categories of NACE Rev. 2: - Section C — "Manufacturing", - Section D,E — "Electricity, gas and steam, water supply, sewerage and waste management", - Section F — "Construction", - Section G — "Wholesale and retail trade; repair of motor vehicles and motorcycles", - Section H — "Transportation and storage", - Section J — "Accommodation and food service activities", - Section L — "Real estate activities", - Division 69 -74 — "Professional, scientific and technical activities", - Section N — "Administrative and support activities"; - Group 95.1 - "Repair of computers"; Optional: Valid only for modules A, B, C, D and X (X1, X2) Classes/groups 64.19 + 64.92 + 65.1 + 65.2 + 66.12 + 66.19 — "Financial and insurance activities". Enterprise size: Enterprises with 10 or more persons employed; Optional: enterprises with number of persons employed between 1 and 9. Geographic scope: Enterprises located in any part of the territory of the Country.
Reference period:	Year 2012 for the % of sales/orders data and where specified. January 2013 for the other data.
Survey period:	First quarter 2013.
Questionnaire:	The layout of the national questionnaire should be defined by the country. However, countries should follow the order of the list of variables enclosed, if possible. The background information (Module X) should be placed at the end of the questionnaire. This information can be obtained in 3 different ways: from national registers, from Structural Business Statistics or collected directly with the ICT usage survey. Every effort should be made to obtain them from the most recent SBS survey. Countries can include additional questions.
Target respondent:	A decision maker with major responsibility for IT-related issues in the enterprise (the IT manager or a senior professional in the IT department). In smaller enterprises, the respondent should be someone at the level of managing director or the owner. In any case the respondent should not be someone with responsibilities only in accounting.

Sample size, stratification:

The sampling design and the resulting sample size should be appropriate for obtaining accurate, reliable and representative results on the variables and items in the model questionnaire.

This objective should be achieved for the overall proportions as well as for the proportions for the different breakdowns of the population defined below: NACE and size class. NACE breakdown and enterprise size class breakdown are not required to be cross-tabulated.

This requirement aims at ensuring the collection of a complete dataset – without empty, confidential or unreliable cells - for these indicators – with an exception for those broken down by economic activity for the calculation of **European** NACE aggregates.

NACE breakdown:

(To be applied to: all variables; enterprises with 10 or more persons employed; whole territory of the Country.)

Data should be broken down by the following NACE Rev. 2 aggregates for possible calculation of **national** NACE Rev. 2 aggregates:

```
10 - 18
2
    19 - 23
    24 - 25
3
4
    26 - 33
5
    35 - 39
    41 - 43
6
    45 - 47
7
8
    49 - 53
9
    55
10 58 - 63
11
    68
   69 – 74
12
    77 - 82
13
14 26.1-26.4, 26.8, 46.5, 58.2, 61, 62, 63.1, 95.1
```

Optional:

```
<u>Valid only for modules A, B, C, D and X (X1, X2)</u>
15 64.19 + 64.92 + 65.1 + 65.2 + 66.12 + 66.19
```

Breakdowns for which national data should be provided with the purpose of possible calculation of **European** NACE aggregates. The production and transmission of these aggregates with an accuracy that allows the release at national level is optional. The production and transmission of these aggregates with an accuracy that may not allow the release at national level (use of flag u: unreliable) but are accurate enough to be combined with other countries' aggregates to be released at European level is mandatory.)

```
10-12
1a
     13-15
1h
     16-18
1c
4a
     26
4b
     27-28
4c
     29-30
4d
     31-33
7a
     45
7b
     46
7c
     47
9a 55 - 56
10a 58-60
10b
     61
10c
     62-63
     77-78 + 80-82
13a
13b
     79
14a
     95.1
```

Optional:

Valid only for modules A, B, C, D and X (X1, X2)

	15a 64.19 + 64.92 15b 65.1 + 65.2 15c 66.12 + 66.19
Size class breakdown:	(To be applied to: all variables; aggregate of all mandatory NACE aggregates [1 to 14 defined above]; whole territory of the Country.) Data should be broken down by the following size classes of the number of persons employed: 1 10 or more 2 10 - 49 (small enterprises) 3 50 - 249 (medium enterprises) 4 250 or more (large enterprises) Optional: 5 1-9 6 1-4 7 5-9
Weighting of results:	Results should in general be weighted by number of enterprises. Turnover/Purchases weighting should be used for sales/purchases related questions. Quantitative variables in the e-Commerce module related to sales/purchases should be weighted by total turnover/total purchases. Weighting by the Number of Persons Employed should be applied for questions A2, B4, B6 and for % using the Internet, % having broadband, % having DSL, % having a website or homepage, % sending orders via a website or EDI-type messages, % receiving orders placed over a website or via EDI-type messages.
Treatment of non-response/'Do not know':	Unit non-response: The non-respondent units should be assumed to resemble those who have responded to the survey and be treated as non-selected units. For this, the weighting or the grossing up factors should be adjusted: the design weight N_h / n_h is replaced by N_h / m_h where N_h is the size of stratum n_h is the sample size in stratum n_h and n_h is the number of respondents in stratum n_h . Item non-response: Logical corrections should be made, when information can be deduced from other variables, and priority given to further contacts with enterprises to collect the missing information. For the categorical variables (e.g. the YES/NO questions), respondents with item non response or 'do not know' should not be imputed with values from respondents who answered the question. Numerical variables shouldn't be imputed (see also Methodological Manual).
Tabulation of results:	For the categorical variables, estimates should be made for the total number of enterprises for each response category, tabulated using the breakdowns specified above. For the quantitative variables (turnover, sales, purchases and number of persons employed), when collected in absolute or percentage terms (and not in percentage classes), estimates should be made for the total values in absolute terms, tabulated using the breakdowns specified above .
Data transmission:	Results are to be sent to Eurostat following the transmission format described in another Eurostat document.

<u>Disclaimer:</u> References to third-party brands, products and trademarks are for the sake of clarification and are not intended to promote the use of such products

ICT-Entr 2013 - Model Questionnaire V 1.1.Doc - Response burden

Module	Mandatory questions	Optional questions
Α	1	2
В	37	3
С	3	0
D	1	2
E	19	6
X	(3)	(1)
Total	64 (61)	14 (13)

In parenthesis the number of questions without Module X: Background characteristics

COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES 2013

Model Questionnaire version 1.1

(Questions relating to the Benchmarking Framework 2011-2015 are marked with an asterisk *)

	Module A: Use of computers and computer network	S	
	(Scope: all enterprises)		
A1.	Did your enterprise use computers, in January 2013? (Filter question)		No
	Computers include Personal Computers, nettops, portable computers (e.g. laptops, notebooks, netbooks, tablets), other portable devices like Smartphones, Personal Digital Assistants (PDA)	Yes	-> go to X1
A2.	How many persons employed used computers at least once a week, in January 2013? - Optional	(Number)	
	If you can't provide this value, Please indicate an estimate of the percentage of the total number of persons employed who used computers at least once a week, in January 2013. – Optional		%
A3.	In January 2013, did any persons employed have remote access to the enterprise's e-mail system, documents or applications (via fixed, mobile or wireless connection to the Internet)? -Optional	Yes	No

	Module B: Access and use of the Internet		
	(Scope: enterprises with Computers)		
B1.	Did your enterprise have access to the Internet, in January 2013? (Filter question)	Yes	No -> go to C1
B2.	Did your enterprise have the following types of external connection		
	to the Internet, in January 2013?	Yes	No
*1	a) DSL connection e.g. xDSL, ADSL, SDSL, VDSL etc		
*	b) Other fixed broadband Internet connection e.g. fiber optics technology (FTTH), cable technology, etc (add national examples for public Wi-Fi, WiMax, etc)		
	c) ISDN connection or dial-up access over normal telephone line		
*	d) (2) Mobile broadband connection via a portable device using mobile telephone networks (so called 3G or 4G)		
	e.g. via a portable computer or other portable devices like Smartphone, PDA phone		
	via portable computer using mobile telephone networks (so called 3G or 4G)		
	e.g. notebook, netbook, laptop, Ultra Mobile PC-UMPC, tablet, etc - Optional		
	d2) via other portable devices like Smartphone, PDA phone using mobile telephone networks (so called 3G or 4G)		
	- Optional		
	e) Other mobile connection		
B3.	using e.g. analogue mobile phone, GSM, GPRS, EDGE What was the maximum contracted download speed of the fastest		
ы.	Internet connection of your enterprise, in January 2013? (Tick only one)		
	a) less than 2 Mbit/s		
	b) at least 2 but less than 10 Mbit/s		
	c) at least 10 but less than 30 Mbit/s		
	d) at least 30 but less than 100 Mbit/s		
	e) at least 100 Mbit/s		
B4. *3	How many persons employed used computers with access to the World Wide Web at least once a week, in January 2013?	(Numb	er)
	If you can't provide this value, Please indicate an estimate of the percentage of the total number of persons employed who used computers with access to the World Wide Web at least once a week, during January 2013.		%
	Computers include Personal Computers, nettops, portable computers (e.g. laptops, notebooks, netbooks, tablets), other portable devices like Smartphone, PDA phone.		

For indicator B11 of the benchmarking framework - annual Optional questions B2 d1), B2 d2) should start with "Mobile connection via ..." when used without B2d) For indicator B10 of the benchmarking framework – annual

	Mobile connection to the Internet for business use				
	A mobile connection to the Internet means the usage of portable devices connecting to the Internet for business use through mobile telephone networks. Enterprises provide portable devices and pay for all or at least up to a limit, the subscription and the use costs.				
B5.	In January 2013, did any persons employed have <u>portable devices</u> provi by the enterprise, that allowed a mobile connection to the Internet for business use? Tick 'No' if the devices allowed Internet connection <u>only</u> via wireless network local wireless networks or public hotspots such as [add national examples of hotspots, hotzones e.g. HotCity for Luxembourg]) and not via mobile telephor networks (filter question) (e.g. portable computers or other portable devices like Smartphone, PDA pho	etworks (i.e. ples of Wi-Fi elephone Yes No -> go to B7			
B6. * ⁵	In January 2013, how many persons employed had a <u>portable device</u> provided by the enterprise, that allowed a mobile connection to the Internet for business use? (e.g. portable computers or other portable devices like Smartphone, PDA phone)		(Number)		
	If you can't provide this value, Please indicate an estimate of the percentage of the total number of persons employed who had a <u>portable device</u> provided by the enterprise, that allowed a mobile connection to the Internet for business use, in January 2013? (e.g. portable computers or other portable devices like Smartphone, PDA phone)			%	Ò

	Use of a Website or Home Page		
В7.	In January 2013, did your enterprise have a Website or Home Page? (Filter question)	Yes	No -> go to B9
B8.	In January 2013, did the Website or Home Page have any of the		
	following?	Yes	No
	*6 a) Online ordering or reservation or booking, e.g. shopping cart		
	b) A privacy policy statement, a privacy seal or certification related to website safety		
	c) Product catalogues or price lists		
	d) Order tracking available on line		
	e) Possibility for visitors to customise or design the products		
	f) Personalised content in the website for regular/repeated visitors		
	g) Advertisement of open job positions or online job application - Optional		

⁴ For indicator B12 of the benchmarking framework - annual ⁵ For indicator B13 of the benchmarking framework - annual ⁶ For indicator D7 of the benchmarking framework - annual

	Use of the Internet in contact with public authorities		
	Public authorities refer to both public services and administration activities, e.g. tax, customs, business registration, social security, public health, environment or commune administrations. (please add national examples). Public authorities can be at local, regional or national level.		
B9.			
^-	public authorities to: (excluding any interaction via e-mails)	Yes	No
	a) obtain information from public authorities' websites or home pages?		
	b) obtain forms from public authorities' websites or home pages? e.g. tax declaration		
	c) submit completed forms electronically? e.g. forms for customs or VAT declaration		
	d) declare VAT completely electronically without the need for paper work? (including electronic payment, if required)		
	e) declare social contributions completely electronically without the need for paper work? (including electronic payment, if required)		
		•	•

	Public electronic Procurement refers to the use of the Internet by enterprises to offer goods or services to public authorities at national level or in other EU countries. The eProcurement process is based on a number of stages from the notification process (online availability of procurement notices and tender specifications) through tendering , awarding, to payment.		
	eTendering is the stage of an eProcurement process dealing with the preparation and submission of tenders or proposals online; this includes bids submitted through open, restricted, or negotiate procedures, as well as Framework Agreements and Dynamic Purchasing Systems (DPS). Submission of bids by e-mail is excluded.		
B10.	During 2012, did your enterprise use the Internet for accessing tender documents and specifications in electronic procurement systems of public authorities?	Yes	No
B11. *	During 2012, did your enterprise use the Internet for offering goods or services in public authorities' electronic procurement systems		
	(eTendering)?	Yes	No
	a) in your own country		

b) in other EU countries

⁷ For indicator E3 of the benchmarking framework ⁸ For indicator E3 of the benchmarking framework

Use of Social Media

Use of Social Media refers to the enterprise's use of applications based on Internet technology or communication platforms for connecting, creating and exchanging content online, with customers, suppliers, or partners, or within the enterprise.

- Enterprises <u>using</u> social media are considered those that have a user profile, an account or a user license depending on the requirements and the type of the social media.

B12.	In January 2013, did your enterprise use any of the following social media? (add national examples; replace existing examples if necessary)	Yes	No
	a) Social networks (e.g. Facebook, LinkedIn, Xing, Viadeo, Yammer, etc)		
	b) Enterprise's blog or microblogs (e.g. Twitter, Present.ly, etc)		
	c) Multimedia content sharing websites (e.g. YouTube, Flickr, Picassa, SlideShare, etc)		
	d) Wiki based knowledge sharing tools		
	e) The enterprise <u>did not</u> use any of the above mentioned social media <u>or</u> used them <u>only</u> for posting <u>paid adverts</u>	-> go to C1	
B13.	In January 2013, did your enterprise use social media to:	Yes	No
	a) Develop the enterprise's image or market products (e.g. advertising or launching products, etc)		
	b) Obtain or respond to <u>customer</u> opinions, reviews, questions		
	c) Involve <u>customers</u> in development or innovation of goods or services		
	d) Collaborate with <u>business partners</u> (e.g. suppliers, etc.) or <u>other</u> <u>organisations</u> (e.g. public authorities, non governmental organisations, etc.)		
	e) Recruit employees		
	f) Exchange views, opinions or knowledge within the enterprise		
B14.	In January 2013, did your enterprise have a formal policy for using social media? (e.g. objectives, rules, procedures, etc)	Yes	No

	Module C: Electronic invoicing		
	(Scope: enterprises with Computers)		
	An electronic invoice is an electronic transaction document that contains billing information.		
	Two different types of electronic invoices are distinguished:		
	 e-invoices are electronic invoices in a standard structure (suitable for a that may be processed automatically. They may be directly exchanged customers, via service operators or via an electronic banking system. 		
	- Invoices in electronic format not suitable for automatic processing.		
C1.	In January 2013, did your enterprise send electronic invoices?	Yes	No
	a) e-invoices in a standard structure suitable for automatic processing e.g. EDI, UBL, XML, (please add national examples)		
	b) Electronic invoices not suitable for automatic processing e.g. emails, email attachment in PDF format		
C2. * ¹⁰	In January 2013, did your enterprise <i>receive</i> e-invoices in a standard structure suitable for automatic processing? e.g. EDI, UBL, XML, (please add national examples)	Yes	No
	, y	1	1

	Module D: Automatic share of information within the enterprise		
	(Scope: enterprises with Computers)		
	An ERP (Enterprise Resource Planning) is a software package used sharing information among different functional areas (e.g. accountin marketing, etc)		
D1. *11	In January 2013, did your enterprise use an ERP software package?	Yes	No
	CRM (Customer Relationship Management) refers to any software a information about business' customers	pplication for	managing
D2. * ¹²	In January 2013, did your enterprise use CRM software to manage: - Optional	Yes	No
	a) the collection, storing and making available information about customers to various business functions		
	(*) b) the analysis of information about customers for marketing purposes. (e.g. setting prices, sales promotion, choosing distribution channels, etc.)		

⁹ For indicator D5 of the benchmarking framework
10 For indicator D5 of the benchmarking framework
11 For indicator D1 of the benchmarking framework
12 For indicator D8 of the benchmarking framework (biennial 2012, optional in 2013)

Module E: e-Commerce (Scope: enterprises outside the financial sector with Computers) An e-Commerce transaction 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 goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. e-Commerce transactions exclude orders made by manually typed e-mail messages. e-Commerce Sales Web sales Web sales are sales made via an online store (web shop) or via web forms on your enterprise's website or extranet, regardless of how the web is accessed (computer, laptop, mobile phone ...). E1. During 2012, did your enterprise receive orders for goods or services placed via a website? Yes (excluding manually typed e-mails) -> go to E5 (Filter question) E2. *14 Please state the value of the turnover resulting from orders received (National currency) that were placed via a website (in monetary terms, excluding VAT), in 2012. If you can't provide this value, Please indicate an estimate of the percentage of the total turnover resulting from orders received that were placed via a website, in 2012. In 2012, did your enterprise receive orders placed via a website by E3. customers located in the following geographic areas? Yes No a) Own country b) Other EU countries c) Rest of the world Please provide a percentage breakdown of the turnover from orders E4. received that were placed via a website in 2012 by type of customer (estimates in percentage of the monetary values, excluding VAT) a) **B2C** (Sales to private consumers) % b) **B2B** (Sales to other enterprises) and **B2G** (Sales to public authorities) % c) TOTAL 0 0 % E5. Did any of the following obstacles limit or prevent your enterprise from selling via a website? Yes, No, I agree I disagree a) The enterprise's goods or services were not suitable for web sales b) Problems in web sales related to logistics (shipping of goods or delivery of services) c) Problems in web sales related to payments d) Problems in web sales related to ICT security or data protection e) Problems in web sales related to the legal framework f) The cost of introducing web sales was, or would have been, too high compared to the benefits

¹³ For indicators D10, D11 of the benchmarking framework

¹⁴ For indicator D9 of the benchmarking framework

¹⁵ For indicator D12 of the benchmarking framework (biennial - 2013)

¹⁶ Please note that respondents go through E5 by responding either "Yes" or "No" to E1

	EDI-type sales			
	EDI-type sales are sales made via EDI-type messages (EDI: Electronic Data interchange) meaning:			
	- in an agreed or standard format which allows their automatic processing (e.g. EDIFACT, UBL, XML,)			
	- without the individual messages being typed manually			
E6.	During 2012, did your enterprise <i>receive</i> orders for goods or services placed via EDI-type messages? (Filter question)	Yes	No -> go to E9	
E7. * ¹⁸	Please state the value of the turnover resulting from orders received that were placed via EDI-type messages (in monetary terms, excluding VAT), in 2012.	(National currency)		
	If you can't provide this value,			
	Please indicate an estimate of the percentage of the total turnover resulting from orders <i>received</i> that were placed via EDI-type messages, in 2012.		%	

E8. * ¹⁹	In 2012, did your enterprise <i>receive</i> orders placed via EDI-type messages by customers located in the following geographic areas?		
		Yes	No
	a) Own country		
	b) Other EU countries		
	c) Rest of the world		

¹⁷ For indicator D10, D11, D3 of the benchmarking framework
18 For indicator D9 of the benchmarking framework
19 For indicator D12 of the benchmarking framework (biennial - 2013)

	e-Commerce Purchases				
	e-Commerce Purchases are purchases made via any of the following ways:				
	 via an online store (web shop) or via web forms on a website or an extranet of another enterprise, or via EDI-type messages (EDI: Electronic Data Interchange) which means messages in an agreed or standard format allowing their automatic processing (e.g. EDIFACT, UBL, XML etc.) without the individual messages being typed manually. 				
	 Purchases of goods or services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods the consumption of which is registered as consumption of fixed capital. 				
E9. * ²⁰	During 2012, did your enterprise send orders for goods or services via a website or EDI-type messages? (Excluding manually typed e-mails)		Yes	No -> go to X1	
E10.	During 2012, did your enterprise <i>place</i> orders for goods or services via a website? -Optional		Yes	No	
E11. * ²¹	During 2012, did your enterprise <i>place</i> orders for goods or services via EDI-type messages? -Optional		Yes	No	
E12.	Please indicate for 2012 the value of orders that were sent electronically in relation to the total purchases' value (in monetary terms, excluding VAT)				
	-Optional	Less than 1%			
		1% or more and less than 5%			
		5% or more and less than 10%			
		10% or more and less than 25%			
		25% or more and less than 50%			
	50% or more and less than 7		75%		
	75% or more				
-	Alternative Question				
	Please state the value of the purchases resulted from orders <i>placed</i> electronically (in monetary terms, excluding VAT), in 2012Optional			Currency)	
	If you can't provide this value Please provide an estimate of the percentage of the total purchases that resulted from orders <i>placed</i> electronically, in 2012. -Optional			%	
E13.	In 2012, did your enterprise <i>place</i> orders via a we	bsite or EDI-type			
*23	messages to suppliers located in the following geographic areas? -Optional		Yes	No	
	a) Own country				
	b) Other EU countries				
	c) Rest of the world				

For indicator D11 of the benchmarking framework
For indicators D3 and D4 of the benchmarking framework
For indicator D11 of the benchmarking framework
For indicator D12 of the benchmarking framework (optional biennial - 2013)

	Module X: Background information* ²⁴ (X1-X4) available in some countries from SBS, the business register or administrative data and thus not to be included; latest available information should be provided		
X1.	Main economic activity of the enterprise, during 2012		
X2.	Average number of persons employed, during 2012		
Х3.	Total purchases of goods and services (in value terms, excluding VAT), for 2012 - Optional / conditional		
X4.	Total turnover (in value terms, excluding VAT), for 2012		

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²⁴ For background information of the benchmarking framework

COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES 2013

Glossary

3G, 3rd Generation 4G, 4th Generation 3G or 3rd Generation, is a family of standards for mobile telecommunications (W-CDMA, CDMA2000, etc) defined by the International Telecommunication Union (ITU). 3G devices allow simultaneous use of speech and data services and higher data transmission rates. Cellular mobile services were initially offered using analogue radio technologies and these were considered as the first generation systems (1G). 2G technology replaced analogue radio networks with digital ones (2G networks) in the 1990's.

4G is the fourth generation of cellular wireless standards. It is a successor of the 3G and 2G families of standards. The ITU-R organization specified the International Mobile Telecommunications Advanced requirements for 4G standards, setting peak speed requirements for 4G service at 100 Mbit/s for high mobility communication (such as from trains and cars) and 1 Gbit/s for low mobility communication (such as pedestrians and stationary users).

Source: http://en.wikipedia.org/wiki/; http://www.itu.int

Business process

A business process or business method is a collection of related, structured activities or tasks that produce a specific service or product (serve a particular goal) for a particular customer or customers. Business processes can be of three types: *Management processes* (e.g. corporate governance, strategic management), *Operational processes* (e.g. purchasing, manufacturing, marketing and sales etc) and *Supporting processes* (e.g. accounting, recruitment, technical support etc).

Source: http://en.wikipedia.org/wiki/Business process

Counterfeiting

A counterfeit is an imitation, usually one that is made with the intent of fraudulently passing it off as genuine. Counterfeit products are often produced with the intent to take advantage of the established worth of the imitated product. The word counterfeit frequently describes both the forgeries of currency and documents, as well as the imitations of products or goods (e.g. clothing, software, pharmaceuticals, jeans, watches, electronics, etc.).

Source: http://en.wikipedia.org/wiki/Counterfeiting

CDMA2000

Code Division Multiple Access is a channel access method utilized by various radio communication technologies. CDMA2000 refers to the mobile phone standards which use CDMA as an underlying channel access method and is an ITU approved 3G standard (3G, UMTS).

One of the basic concepts in data communication is the idea of allowing several transmitters to send information simultaneously over a single communication channel. This allows several users to share a bandwidth of different frequencies. This concept is called multiplexing. CDMA employs spread-spectrum technology and a special coding scheme (where each transmitter is assigned a code) to allow multiple users to be multiplexed over the same physical channel. By contrast, time division multiple access (TDMA) divides access by time, while frequency-division multiple access (FDMA) divides it by frequency. CDMA is a form of "spread-spectrum" signalling, since the modulated coded signal has a much higher data bandwidth than the data being communicated.

Source: http://en.wikipedia.org/wiki/CDMA

An analogy to the problem of multiple access is a room (channel) in which people wish to communicate with each other. To avoid confusion, people could take turns speaking (time division), speak at different pitches (frequency division), or speak in different languages (code division). CDMA is analogous to the last example where people speaking the same language can understand each other, but not other people. Similarly, in radio CDMA, each group of users is given a shared code. Many codes occupy the same channel, but only users associated with a particular code can understand each other.

Source: http://en.wikipedia.org/wiki/CDMA; http://www.umtsworld.com/umts/faq.htm#f26

CRM

Customer Relationship Management (CRM) is a management methodology which places the customer at the centre of the business activity, based in an intensive use of information technologies to collect, integrate, process and analyse information related to the customers.

One can distinguish between:

- 1. Operational CRM Integration of the front office business processes that are in contact with the customer.
- 2. Analytical CRM Analysis, through data mining, of the information available in the enterprise on its customers. This aims to gather in depth knowledge of the customer and how to answer to its needs.

Data

Representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means. Any representations such as characters or analogue quantities to which meaning is or might be assigned.

Source: http://www.its.bldrdoc.gov/projects/devglossary/ data.html

DSL

Digital Subscriber Line (DSL) is a family of technologies that provides digital data transmission over the wires of a local telephone network. DSL is widely understood to mean Asymmetric Digital Subscriber Line (ADSL), the most commonly installed technical varieties of DSL. DSL service is delivered simultaneously with regular telephone on the same telephone line as it uses a higher frequency band that is separated by filtering.

Source: http://en.wikipedia.org/wiki/DSL

DPS

Dynamic Purchasing System. A completely electronic procedure which may be established by a contracting authority to purchase commonly used goods, works or services. It is limited in duration and open throughout its validity. Source: http://www.ogc.gov.uk/documents/Guide dynamic purchasing.pdf

EDI, EDI-type

Electronic Data Interchange (EDI) refers to the structured transmission of data or documents between organizations or enterprises by electronic means. It also refers specifically to a family of standards (EDI-type) and EDI-type messages which can be automatically processed.

Source: http://en.wikipedia.org/wiki/Electronic Data Interchange

EDI e-Commerce

Orders initiated with EDI. EDI (electronic data interchange) is an e-business tool for exchanging different kinds of business messages. EDI is here used as a generic term for sending or receiving business information in an agreed format which allows its automatic processing (e.g. EDIFACT, XML, etc.) and without the individual message being manually typed. "EDI e-Commerce" is limited to EDI messages placing an order.

Source: OECD, DSTI/ICCP/IIS(2009)5/FINAL

e-Invoice

An e-invoice is an invoice where all data is in digital format and it can be processed automatically. A distinctive feature of an e-invoice is automation. E-invoice will be transferred automatically in inter-company invoicing from the invoice issuer's or service provider's system directly into the recipient's financial or other application.

E-invoicing, comprises billing and payment information exchanged between the parties - businesses, the public sector, consumers - involved in commercial transactions, transmitted via the Internet or other electronic means.

Source: http://ec.europa.eu/enterprise/sectors/ict/e-invoicing/

The transmission protocol might be XML, EDI or other similar format.

Electronic commerce (e-Commerce)

An e-Commerce transaction 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 goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-Commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations. E-Commerce comprises orders made in Web pages, extranet or EDI and excludes orders made by telephone calls, facsimile, or manually typed e-mail. The type is defined by the method of making the order.

Source: OECD, DSTI/ICCP/IIS(2009)5/FINAL

E-mail

Electronic transmission of messages, including text and attachments, from one computer to another located within or outside of the organisation. This includes electronic mail by Internet or other computer networks.

ERP

Enterprise Resource Planning (ERP) consists of one or of a set of software applications that integrate information and processes across the several business functions of the enterprise. Typically ERP integrates planning, procurement, sales, marketing, customer relationship, finance and human resources.

ERP software can be customised or package software. These latter are single-vendor, enterprise wide, software packages, but they are built in a modular way allowing enterprises to customise the system to their specific activity implementing only some of those modules.

ERP systems typically have the following characteristics:

- 1. are designed for client server environment (traditional or web-based);
- 2. integrate the majority of a business's processes;
- 3. process a large majority of an organization's transactions;
- 4. use enterprise-wide database that stores each piece of data only once;
- allow access to the data in real time.

eTendering

eTendering is the stage of an eProcurement process dealing with the preparation and submission of tenders or proposals online; this includes bids submitted through open, restricted, or negotiated procedures, as well as Framework Agreements and Dynamic Purchasing Systems (DPS).

EDGE

Enhanced Data rates for GSM technology represent further enhancements to GSM networks providing up to three times the data capacity of GPRS. EDGE networks rely on Time Division Multiple Access transmission (TDMA) and General Packet Radio Service (GPRS).

Source: http://gsmworld.com/technology/edge.htm

EVDO (1xEVDO)

Evolution-Data Optimized or Evolution-Data only, abbreviated as EV-DO or EVDO and often EV, is a telecommunications standard for the wireless transmission of data through radio signals, typically for broadband Internet access. It uses multiplexing techniques including code division multiple access (CDMA) as well as time division multiple access (TDMA) to maximize both individual user's throughput and the overall system throughput. It is standardized by 3rd Generation Partnership Project 2 (3GPP2) as part of the CDMA2000 family of standards and has been adopted by many mobile phone service providers around the world – particularly those previously employing CDMA networks.

http://en.wikipedia.org/wiki/1xEVDO

Extranet

A closed network that uses Internet protocols to securely share enterprise's information with suppliers, vendors, customers or other businesses 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.

GSM

Global System for Mobile Communications. GSM is a digital cellular technology used for transmitting mobile voice and data services. It is the most popular standard for mobile telephone systems in the world. GSM differs from its predecessor technologies in that both signalling and speech channels are digital, and thus GSM is considered a second generation (2G) mobile phone system.

Source: http://en.wikipedia.org/wiki/GSM

GPRS

General Packet Radio Service is a very widely deployed wireless data service, available with most GSM networks. GPRS offers throughput rates of up to 40 kbit/s, so that users have a similar access speed to a dial-up modem, but with the convenience of being able to connect from almost anywhere.

Source: http://www.gsmworld.com/technology/qprs.htm

HSDPA

High-Speed Downlink Packet Access is an enhanced 3G (third generation) mobile telephony communications protocol in the High-Speed Packet Access (HSPA) family, also coined 3.5G, 3G+ or turbo 3G, which allows networks based on Universal Mobile Telecommunications System (UMTS) to have higher data transfer speeds and capacity.

Source: http://en.wikipedia.org/wiki/HSDPA

HUSPA

High-Speed Uplink Packet Access (HSUPA) is a 3G mobile telephony protocol in the HSPA family with up-link speeds up to 5.76 Mbit/s. The name HSUPA was created by Nokia. The technical purpose of the Enhanced Uplink feature is to improve the performance of uplink dedicated transport channels, i.e. to increase capacity and throughput and reduce delay according to the ITU Rel.6 standard published by the 3rd Generation Partnership Project (3GPP).

Source: http://en.wikipedia.org/wiki/HSUPA

Information

- 1) Facts, data, or instructions in any medium or form.
- 2) The meaning that a human assigns to data by means of the known conventions used in their representation.

(Source: http://www.its.bldrdoc.gov/projects/devglossary/ information.html)

Internal computer network

An internal computer network is a group of at least two computers connected together using a telecommunication system for the purpose of communicating and sharing resources within an enterprise. It typically connects personal computers, workstations, printers, servers, and other devices. It is used usually for internal file exchange between connected users; intra business communications (internal e-mail, internal web based interface etc), shared access to devices (printers etc) and other applications (databases) or for joint business processes.

LAN (Local Area Network) - A network for communication between computers confined to a single building or in closely located group of buildings, permitting users to exchange data, share a common printer or master a common computer, etc.

Internet

The Internet is a global system of interconnected computer networks that use the standard Internet Protocol Suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public, academic, business, and government networks of local to global scope that are linked by a broad array of electronic and optical networking technologies. The Internet carries a vast array of information resources and services, most notably the inter-linked hypertext documents of the World Wide Web (WWW) and the infrastructure to support electronic mail.

Source: http://en.wikipedia.org/wiki/Internet

Relates to Internet Protocol based networks: www, Extranet over the Internet, EDI over the Internet, Internet-enabled mobile phones.

Intranet

An internal company communications network using Internet protocol allowing communications within an organisation.

ISDN

Integrated Services Digital Network.

Message

Any thought or idea expressed briefly in a plain or secret language, prepared in a form suitable for transmission by any means of communication. Source: http://www.its.bldrdoc.gov/projects/devglossary/ message.html

Mobile broadband Mobile broadband (Mobile connection to the Internet) is the name used to describe various types of wireless high-speed Internet access through a portable modem, telephone or other device. (viz. 3G) Source: http://en.wikipedia.org/wiki/Mobile broadband

Modem

Device that modulates outgoing digital signals from a computer or other digital device to analogue signals for a conventional copper twisted pair telephone line and demodulates the incoming analogue signal and converts it to a digital signal for the digital device. (MODEM: MOdulator DEModulator)

Nettop

Nettops are a classification of low cost desktop computer systems that use low power processors designed for internet devices use instead of traditional desktop components. These energy efficient systems are designed for basic computing such as surfing the Internet, accessing web-based applications, document processing, audio/video playback etc at very low cost and power consumption. The hardware specifications and processing power are usually reduced and hence make nettops less appropriate for running complex or resource intensive applications Certain nettops still may require a monitor.

Source: http://en.wikipedia.org/wiki/Nettop

Odette (standards, organisation) Odette International is an organisation, formed by the automotive industry for the automotive industry. It sets the standards for e-business communications, engineering data exchange and logistics management, which link the 4000 plus businesses in the European motor industry and their global trading partners.

Source: http://www.odette.org/html/home.htm

Office (automation) software

Office (automation) software is a generic type of software comprising (grouped together) usually a word processing package, a spreadsheet, presentations' software etc.

Online payment

An online payment is an integrated ordering-payment transaction

Open Source operating systems

Open Source operating system software refers to computer software under an open Source license. An open-Source license is a copyright license for computer software that makes the Source code available under terms that allow for modification and redistribution without having to pay the original author. Such licenses may have additional restrictions such as a requirement to preserve the name of the authors and the copyright statement within the code.

PDA phone (new)

A Personal Digital Assistant (PDA) is a portable device that combines computing, telephone/fax, Internet and networking features. A typical PDA phone can function as a cellular phone, fax sender, Web browser and personal organizer. Originally PDA devices did not offer the possibility to be used as telephones.

Source: http://www.webopedia.com/TERM/P/PDA.html

Public Electronic Procurement eProcurement Public electronic Procurement refers to the use of the Internet by enterprises to offer goods or services to public authorities at national level or in other EU countries. The eProcurement process is based on a number of stages from the notification process (online availability of procurement notices and tender specifications) through tendering, awarding, to payment.

RFID

Radio-frequency identification (RFID) is an automatic identification method, relying on storing and remotely retrieving data using devices called RFID tags or transponders.

An RFID tag is an object that can be applied to or incorporated into a product for the purpose of identification using radiowaves. Some tags can be read from several meters away and beyond the line of sight of the reader.

Sales via website (web sales) A part of the e-Commerce activities, sales via website (web application) are orders made in an online store or filled in and sent by an electronic form on the www or extranet. Web sales are distinguished from EDI sales. In particular, the type of e-Commerce transaction is defined by the method of making the order. This approach should mitigate the interpretation problems where both types, EDI and Web, are used in the process. An example is a situation where an order is made by the customer through a web application but the information is transmitted to the seller as an EDI-message. Here the type of selling application is however web, EDI is only a business application to transmit information about the sale. Web-sales can be done by mobile phones using an Internet-browser.

Source: OECD, DSTI/ICCP/IIS(2009)5/FINAL

Social media

In the context of the ICT usage survey, the central point of the social media is to establish and maintain social relationships within and around the enterprise. From that aspect we refer to the use of social media (as applications based on Internet technology or communication platforms) and the use of Web 2.0 technologies and tools for connecting, conversing and creating content online, with customers, suppliers, or other partners, or within the enterprise. It is not simply the use of Web 2.0 platform (although it is the enabling technology) but the use of social media implies the development of new forms of collaboration and information management within the enterprises as well as helping employees, customers and suppliers to collaborate, to innovate, to share, and to organize knowledge and experiences.

The following are the main social media communication platforms and tools for enterprises:

Social networks or websites are applications based on Internet technologies that enable users to connect by creating personal information profiles, share interest and/or activities, share ideas, invite others to have access to their profile and create communities of people with common interests.

Blogs: A blog is a website or a part of a website, that is updated frequently, either owned by individuals, interest groups of individuals or corporate (in the current context it is the blog of the enterprise and not other blogs to which

employees contribute). An update (called an entry or a post) is usually quite short and readers can respond, share, comment or link to the entry online. Blogs can be used either within an enterprise (corporate blog) or for communicating with customers, business partners or other organisations.

Content communities offer the possibility of sharing media content between users. Photo and video services / Podcasting: A podcast (or non-streamed webcast) is a series of digital media files (either audio or video in various file format e.g. .aiff, .wav, .midi etc for the former and .mov, .avi etc for the latter) that are released episodically. The mode of delivery differentiates podcasting from other means of accessing media files over the Internet, such as direct download, or streamed webcasting. Presentation sharing websites offer the possibility to share presentations, documents and professional videos over the Internet (share publicly or privately among colleagues, clients, intranets, networks etc). These websites offer the possibility to upload, update and access presentations and/or documents. Very often, presentation sharing websites are linked to blogs and other social networking services or websites.

Microblogging refers to the posting of very short updates about oneself. It is in contrast to long-form blogging, where there are usually at least a few hundred words. Microblog posts usually involve a few hundred characters or less. For example, in the context of microblogging services Tweets (Twitter) are text-based posts of up to 140 characters displayed on the user's profile page.

Wiki: A wiki is a website that allows the creation and editing of any number of interlinked web pages via a web browser using a simplified markup language or a WYSIWYG text editor. Wikis are typically powered by wiki software and are often used collaboratively by multiple users. Examples include community websites, corporate intranets, and knowledge management systems.

Secure Sockets Layer (SSL) and its predecessor Transport Layer Security (TLS) are cryptographic protocols which provide secure communications on the Internet. SSL provides endpoint authentication and communications privacy over the Internet using cryptography. In typical use, only the server is authenticated (i.e. its identity is ensured) while the client remains unauthenticated; mutual authentication requires Public Key Infrastructure (PKI) deployment to clients. The protocols allow client/server applications to communicate in a way designed to prevent eavesdropping, tampering, and message forgery.

Universal Business Language (UBL) is a library of standard electronic XML business documents such as purchase orders and invoices. UBL was developed by an OASIS Technical Committee with participation from a variety of industry data standards organizations. UBL is designed to plug directly into existing business, legal, auditing, and records management practices. It is designed to eliminate the re-keying of data in existing fax- and paper-based business correspondence and provide an entry point into electronic commerce for small and medium-sized businesses.

Source: http://en.wikipedia.org/wiki/Universal Business Language

Universal Mobile Telecommunications System (UMTS) is one of the third-generation (3G) mobile telecommunications technologies being developed within the ITU's (International Telecommunication Union) IMT-2000 framework (International Mobile Telecommunications-2000). It is a realisation of a new generation of broadband multi-media mobile telecommunications technology.

UMTS relies on the Wideband Code Division Multiple Access (W-CDMA) transmission for handling data transmission traffic and uses High Speed Packet Access at transmission rates that support large file transfers and mobile data-intensive Internet activities like video and music streaming. Source:

http://en.wikipedia.org/wiki/Universal Mobile Telecommunications System

SSL/TLS

UBL

UMTS

Web e-Commerce

Orders made at an online store (webshop) or via web forms on the Internet or extranet regardless of how the web is accessed (computer, laptop, mobile

phone etc.)

Source: OECD, DSTI/ICCP/IIS(2009)5/FINAL

Webform

A webform on a web page allows a user to enter data that is sent to a server for processing. Webforms resemble paper forms because Internet users fill out the forms using checkboxes, radio buttons, or text fields. For example, webforms can be used to enter shipping or credit card data to order a product or can be used to retrieve data.

Source: http://en.wikipedia.org/wiki/

Webserver

A Web server is a computer program that delivers (serves) content, such as Web pages, using the Hypertext Transfer Protocol (HTTP), over the World Wide Web. The term Web server can also refer to the computer or virtual machine running the program.

http://en.wikipedia.org/wiki/Web_server

Website

Location on the World Wide Web identified by a Web address. Collection of Web files on a particular subject that includes a beginning file called a home page. Information is encoded with specific languages (Hypertext mark-up language (HTML), XML, Java) readable with a Web browser, like Netscape's Navigator or Microsoft's Internet Explorer.

Wireless access

The use of wireless technologies such as radio-frequency, infrared, microwave, or other types of electromagnetic or acoustic waves, for the last internal link between users devices (such as computers, printers, etc) and a LAN backbone line(s) within the enterprise's working premises. It includes mainly Wi-fi and Bluetooth technologies.

xCBL

XML Common Business Library (xCBL) is the pre-eminent XML component library for business-to-business e-Commerce.

Source: http://www.xcbl.org/

xDSL

Digital Subscriber Line. DSL technologies are designed to increase bandwidth available over standard copper telephone wires. Includes IDSL, HDSL, SDSL, ADSL, RADSL, VDSL, DSL-Lite.

XML

The Extensible Markup Language is a markup language for documents containing structured information. Structured information contains both content (words, pictures, etc.) and some indication of what role that content plays (for example, content in a section heading has a different meaning from content in a footnote, which means something different than content in a figure caption or content in a database table, etc.). Almost all documents have some structure. A markup language is a mechanism to identify structures in a document. The XML specification defines a standard way to add markup to documents.

Source: http://www.xml.com/