COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES 2012

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, E and X (X1, X2) Classes/groups 64.19 + 64.92 + 65.1 + 65.2 + 66.12 + 66.19 - "Financial and insurance activities". Enterprise size: Enterprise size: Enterprises with 10 or more persons employed; Optional: enterprises with number of persons employed between 1 and 9.
Reference period:	Year 2011 for the % of sales/orders data and where specified. January 2012 for the other data.
Survey period:	First quarter 2012.
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.

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:110 - 18219 - 23324 - 25426 - 33535 - 39641 - 43745 - 47849 - 53	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.
$\begin{array}{c} 9 & 55 \\ 10 & 58 \cdot 63 \\ 11 & 68 \\ 12 & 69 - 74 \\ 13 & 77 \cdot 82 \\ 14 & 26.1 \cdot 26.4, 26.8, 46.5, 58.2, 61, 62, 63.1, 95.1 \\ \hline \\ $	NACE breakdown:	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:1 $10 - 18$ 2 $19 - 23$ 3 $24 - 25$ 4 $26 - 33$ 5 $35 - 39$ 6 $41 - 43$ 7 $45 - 47$ 8 $49 - 53$ 9 55 10 $58 - 63$ 11 68 12 $69 - 74$ 13 $77 - 82$ 14 $26.1 - 26.4, 26.8, 46.5, 58.2, 61, 62, 63.1, 95.1$ Optional: Valid only for modules A, B, C, E and X (X1, X2) 1515 $64.19 + 64.92 + 65.1 + 65.2 + 66.12 + 66.19$ 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 to be released at European level is mandatory.)1a $10 - 12$ 1b $13 - 15$ 1c $16 - 18$ 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 $62 - 63$ 13a $77 - 78 + 80 - 82$ 13b 79 14a 95.1

	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) 5 1-9 6 1-4 7 5-9
Weighting of results:	Results should in general be weighted by number of enterprises. <u>Turnover/Purchases weighting</u> 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. <u>Weighting by the Number of Persons Employed</u> should be applied for questions A2, B4, B12 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 h , n_h is the sample size in stratum h and m_h is the number of respondents in stratum 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.

Module Mandatory questions Optional questions			
·	· ·	•	
A	6	2	
В	32	8	
С	5	0	
D	3	2	
E	9	0	
F	5	5	
Х	(3)	(1)	
Total	63 (60)	18 (17)	

ICT-Entr 2012 - Model Questionnaire V 1.1.Doc – Response burden

COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES 2012

Model Questionnaire version 1.1

	(Questions relating to the Benchmarking Framework 2011-2015 are marked with		
	Module A: Use of computers and computer network	S	
	(Scope: all enterprises)		
A1.	Did your enterprise use computers, in January 2012? (Filter question) Computers include Personal Computers, nettops, portable computers (e.g. laptops, notebooks, netbooks), other portable devices like Smartphones, Personal Digital Assistants (PDA)	Yes	No -> go to X1
A2.	How many persons employed used computers at least once a week, in January 2012? - <i>Optional</i>	(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 2012. – <i>Optional</i>		%
A3.	In January 2012, did your enterprise provide to the persons employed remote access to the enterprise's e-mail system, documents or applications (via fixed, mobile or wireless connection to the Internet)? -Optional	Yes	No
A4.	Did your enterprise employ ICT/IT specialists, in January 2012? Definition ICT/IT specialists : ICT specialists or IT specialists have the capability to specify, design, develop, install, operate, support, maintain, manage, evaluate and research ICT and ICT systems. ICT is the main job.	Yes	No
A5.	Did your enterprise recruit or try to recruit personnel for jobs		

requiring ICT/IT specialist skills, during 2011?

related skills of your personnel, during 2011?

ICT/IT specialist skills, during 2011?

a) Training for ICT/IT specialists

b) Training for other persons employed

Did your enterprise have hard-to-fill vacancies for jobs requiring

Did your enterprise provide training to develop or upgrade ICT

Tick No if your enterprise didn't employ ICT/IT specialists during 2011

(Filter question)

A6.

A7.

No

No

No

-> go to A7

Yes

Yes

Yes

	Module B: Access and use of the Internet		
	(Scope: enterprises with Computers)		
B1.	Did your enterprise have access to the Internet, in January 2012? (Filter question)	Yes	No -> go to C1
B2.	Did your enterprise have the following types of external connection		
	to the Internet, in January 2012?		
*1		Yes	No
	a) DSL connection e.g. xDSL, ADSL, SDSL etc		
*	 b) Other fixed broadband Internet connection, e.g. cable, leased line (e.g. E1 or E3 at level 1 and ATM at level 2), Frame Relay, Metro-Ethernet, PLC - Powerline communication, etc, fixed wireless connections 		
	c) Dial-up access over normal telephone line or ISDN connection		
*	 d) (²)Mobile broadband connection (via at least 3G modem or 3G handset) using e.g. UMTS, CDMA2000 1xEVDO, HSDPA 		
	 d1) via portable computer with at least 3G modem e.g. notebook, netbook, laptop, Ultra Mobile PC-UMPC, tablet PC using e.g. UMTS, CDMA2000 1xEVDO, HSDPA Optional 		
	 d2) via handset with at least 3G technology e.g. Smartphone, PDA phones using e.g. UMTS, CDMA2000 1xEVDO, HSDPA - Optional 		
	e) Other mobile connection using e.g. analogue mobile phone, GSM, GPRS, EDGE		
B3.	What was the maximum contracted download speed of the fastest		
	Internet connection of your enterprise, in January 2012? (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 2012?	(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 2012.		%
	Computers include Personal Computers, nettops, portable computers (e.g. laptops, notebooks, netbooks), other portable devices like Smartphones, Personal Digital Assistants (PDA).		
B5.	Did your enterprise have a Website or Home Page, in January 2012? (Filter question)	Yes	No -> go to B7
B6	Did the Website or Home Page have any of the following facilities, in		
	January 2012?	Yes	No
* 4		1 00	INU
	a) Online ordering or reservation or booking, e.g. shopping cart		
O P T	b) A privacy policy statement, a privacy seal or certification related to website safety		
	c) Product catalogues or price lists	1	1

¹ For indicator B11 of the benchmarking framework ² Optional questions B2 d1), B2 d2) should start with "Mobile connection via ..." when used without B2d)

 ³ For indicator B10 of the benchmarking framework – annual (optional in MQ2011)
 ⁴ For indicator D7 of the benchmarking framework - annual

1	d) Order tracking available on line	
O N	e) Possibility for visitors to customise or design the products	
AL	f) Personalised content in the website for regular/repeated visitors	
	g) Advertisement of open job positions or online job application	

B7.* ⁵	 Public authorities refer to both public services and administration activities business registration, social security, public health, environment or comm (please add national examples). Public authorities can be at local, regional or national level. During 2011, did your enterprise use the Internet for interaction with 		
	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) return filled in forms electronically?		
	e.g. forms for customs or VAT declaration		
	d) treat the following administrative procedures completely electronically without the need for paper work ? (including electronic payment, if required)		
	d1) declaration of VAT		
	d2) declaration of social contributions		

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 negotiated procedures, as well as Framework Agreements and Dynamic Purchasing Systems (DPS). Submission of bids by e-mail is excluded. B8. *6 During 2011, did your enterprise use the Internet for accessing tender documents and specifications in electronic procurement systems of Yes No public authorities? During 2011, did your enterprise use the Internet for offering goods or B9. * services in public authorities' electronic procurement systems (eTendering)? Yes No a) in your own country b) in other EU countries

⁵ For indicator E3 of the benchmarking framework

⁶ For indicator E3 of the benchmarking framework

	Mobile connection to the Internet for business use		
	(Scope: enterprises with access to the Internet)		
	- Enterprises in the scope of the following questions are those that provide to the portable devices that allow a mobile connection to the Internet for business use,		
	least up to a limit, the subscription and the use costs.		
	- A mobile connection to the Internet means the usage of portable devices conn	ecting to th	e Internet
	through mobile telephone networks.		
	 Portable devices that allow a mobile connection to the Internet refer to: Portable computers (e.g. notebook, netbook, laptop, Ultra Mobile PC-UMPC, ta 	ablat DC at	o)
	- Portable computers (e.g. notebook, netbook, haptop, onta mobile PC-oniPC, ta		()
B10. * ⁷	In January 2012, did your enterprise provide to the persons employed portable devices that allowed a mobile connection to the Internet for business use?		No
	Tick 'No' if the devices allowed Internet connection only via wireless networks and not via mobile telephone networks	Yes	-> go to B14
	<i>(filter question)</i> (e.g. portable computers or other portable devices like Smartphone, PDA phone)		
B11.	Did your enterprise provide to the persons employed any of the following portable devices that allowed a mobile connection to the Internet for business use?	Yes	No
	 a) <u>Portable computers</u>? (e.g. Notebook, netbook, laptop, Ultra Mobile PC-UMPC, tablet PC etc) 		
	b) Other portable devices like Smartphone, PDA phone?		
B12.	How many persons employed were provided with a <u>portable device</u>		
*8	that allowed a mobile connection to the Internet for business use, in January 2012? (e.g. portable computers or other portable devices like Smartphone, PDA	(Numb	er)
	phone)		
	If you can't provide this value, Please indicate an estimate of the percentage of the total number of persons employed who were provided with a <u>portable device</u> that allowed a mobile connection to the Internet for business use, in		%
	January 2012? (e.g. portable computers or other portable devices like Smartphone, PDA phone)		
B13.	In January 2012, did your enterprise provide the persons employed with portable devices that allowed a mobile connection to the Internet for business use to:	Yes	No
	a) access publicly available information on the Internet?		
	b) access the enterprise's e-mail system?		
	c) access and modify documents of the enterprise?		
511	d) use dedicated business software applications? e.g. for orders or sales management, ERP (enterprise resource planning) related applications etc		
B14.	In January 2012, did the following obstacles limit or prevent your enterprise from using a mobile connection to the Internet?		1
		Yes	No
	a) Connectivity problems to mobile telephone networks for accessing the Internet		
	b) High costs for the subscription or use of the Internet		
	c) Security related risks (disclosure, destruction or corruption of data)		
	 d) Technical obstacles or high costs for integrating mobile connection to the Internet in the enterprise's business software applications (e.g. incompatibility problems) 		
	 e) Other obstacles (e.g. adaptability of employees to new working practices, lack of skills or knowledge, contractual or legal barriers) 		
	f) Limited or no need for a mobile connection to the Internet for business use		

⁷ For indicator B12 of the benchmarking framework ⁸ For indicator B13 of the benchmarking framework

Module C: Sending/receiving of messages suitable for automatic processing to/from systems outside the enterprise (EDI)

(Scope: enterprises with Computers)

Electronic transmission of data suitable for automatic processing - often called Electronic Data Interchange (EDI) - 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
- to or from other enterprises, public authorities or financial institutions - without the individual message being typed manually
- via any computer network

	[national examples]		
C1.*	In January 2012, did your enterprise send or receive electronically such information in a format that allowed its automatic processing? (Filter question)	Yes	No -> go to D1
C2.	Did your enterprise send or receive electronically such information for		
	the following purposes?	Yes	No
*	a) Sending payment instructions to financial institutions		
*	b) Sending or receiving product information (e.g. catalogues, price lists)		
*	c) Sending or receiving transport documents (e.g. consignment notes)		
*	 d) Sending or receiving data to/from public authorities (e.g. tax returns, statistical data, import or export declarations [national examples]) 		

⁹ For indicator D3 of the benchmarking framework

¹⁰ For indicator D3, D4 of the benchmarking framework

	Module D: Sharing electronically information on Su	pply Chair	า
	Management		
	(Scope: enterprises outside the financial sector with Computers)		
	 Sharing electronically information on supply chain management means: exchanging all types of information with suppliers and/or custome the availability and delivery of products or services to the final condition information on demand forecasts, inventories, production, dist development; via computer networks between computers of different enterprises. it can be from your enterprise to its suppliers/customers or the other wa This information may be exchanged via websites or other means of ele but it excludes manually typed e-mail messages. 	nsumer; ribution or proc y around.	duct
D1.* ¹¹	In January 2012, did your enterprise share information electronically on supply chain management with its suppliers or customers? (Filter question)	Yes	No -> go to E1
D2.*	Did your enterprise share the information electronically with its <u>suppliers</u> , in January 2012? On Inventory levels, production plans, demand forecasts or progress of deliveries (i.e. distribution of raw materials or finished products)	Yes	No
D3.*	Did your enterprise share the information electronically with its <u>customers</u> , in January 2012? On Inventory levels, production plans, demand forecasts or progress of deliveries (i.e. distribution of raw materials or finished products)	Yes	No
D4.	Were the following methods used for the electronic exchange of this information, in January 2012?	I	
	- Optional	Yes	No
	a) Websites (yours, those of your business partners or web portals)		
	 b) Electronic transmission allowing automatic processing methods (e.g. EDI-type systems, XML, EDIFACT, etc.) 		

¹¹ For indicator D4 benchmarking framework (biennial – 2012)

	(Scope: enterprises with Computers)		
E1.* ¹²	 Sharing information electronically and automatically between different function means any of the following: Using one single software application to support the different functions (Enterprise Resource planning) software; data linking between the software applications that support the different enterprise; using a common database or data warehouse accessed by the software the different functions of the enterprise; within this enterprise, sending or receiving electronically information that cautomatically. 	of the enterpris ht functions of t e applications th	e, e.g. ERI he nat suppor
	electronically or not), was the relevant information about it shared electronically and automatically with the software used for the following functions?	Yes	No
	a) Your management of inventory levels		
	b) Your accounting		
	c) Your production or services management		
	d) Your distribution management		
E2.* ¹³	In January 2012, when your enterprise sent a purchase order (either electronically or not), was the relevant information about it shared electronically and automatically with the software used for the following functions?	Yes	No
	a) Your management of inventory levels		
	b) Your accounting		
		1	1
E3. * ¹⁴	In January 2012, did your enterprise have in use an ERP (enterprise resource planning) software package to share information between different functional areas (e.g. accounting, planning, production, marketing)?	Yes	No

E4. * ¹⁵	In January 2012, did your enterprise have in use any software application for managing information about clients (so called-			
	Customer Relationship Management – CRM software) that allows it to:	Yes	No	
	a) Capture, store and make available to other business functions the information about its clients?			
	(*) b) Analyse the information about clients for marketing purposes (setting prices, making sales promotion, choosing distribution channels, etc.)?			

 ¹² For indicator D1 of the benchmarking framework
 ¹³ For indicator D1 of the benchmarking framework
 ¹⁴ For indicator D1 of the benchmarking framework (biennial – 2012)
 ¹⁵ For indicator D8 of the benchmarking framework (biennial – 2012)

	Module F: e-Commerce					
	(Scope: enterprises outside the financial sector with Computers)					
	An e-Commerce transaction is the sale or purchase of goods or services connetworks by methods specifically designed for the purpose of receiving or plator services are ordered by those methods, but the payment and the ultimate of services do not have to be conducted online. e-Commerce transactions exclude orders made by manually typed e-mail methods.	icin deli	g of very	orders of the	s. The	goods
	e-Commerce Sales					
	Web sales Web sales are sales made via an online store (web shop) or via web forms of website or extranet, regardless of how the web is accessed (computer, lapto					
F1. *	During 2011, did your enterprise <i>receive</i> orders for products or services placed via a website? (excluding manually typed e-mails) (Filter question)	Y	es		No -> go	to F4
F2. *	Please state the value of the turnover resulting from orders <i>received</i> that were placed via a website (in monetary terms, excluding VAT), in 2011.	I	(N	ationa	l curre	ency)
	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 a website, in 2011.					_ %
F3.	Please provide a percentage breakdown of the turnover from orders received that were placed via a website in 2011 by type of customer (estimates in percentage of the monetary values, excluding VAT) - Optional					
	a) B2C (Sales to private consumers)					%
	b) B2B (Sales to other enterprises) and B2G (Sales to public authorities)					%
	c) TOTAL		1	0	0	%
	 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 					
F4. * ¹⁸	During 2011, did your enterprise <i>receive</i> orders for products or services placed via EDI-type messages? (Filter question)		(es		No -> go	o to F6
F5. * ¹⁹	Please state the value of the turnover resulting from orders <i>received</i> that were placed via EDI-type messages (in monetary terms, excluding VAT), in 2011.	a EDI-type messages (in monetary (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 2011.					%

 ¹⁶ For indicator D10, D11 of the benchmarking framework
 ¹⁷ For indicator D9 of the benchmarking framework
 ¹⁸ For indicator D10, D11, D3 of the benchmarking framework
 ¹⁹ For indicator D9 of the benchmarking framework

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 Int standard format allowing their automatic processing individual messages being typed manually. 			
F6.* ²⁰	During 2011, did your enterprise send orders for	products or services		No
	via a website or EDI-type messages?		Yes	-> go to
	(Excluding manually typed e-mails)			X1
F7.	During 2011, did your enterprise place orders for	products or services		
	via a website?		Yes	No
	-Optional			
F8.* ²¹	During 2011, did your enterprise place orders for	products or services		
	via EDI-type messages? -Optional		Yes	No
F9.* 22	Please indicate for 2011 the value of orders that w	were sent electronically i	n 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 2	25%	
		25% or more and less than 5	50%	
		50% or more and less than 7	75%	
		75% or more		
	Alternative Question			
Please state the value of the purchases resulted from orders placed			Currency)	
			%	

 ²⁰ For indicator D11 of the benchmarking framework
 ²¹ For indicators D3 and D4 of the benchmarking framework
 ²² For indicator D11 of the benchmarking framework

	Module X: Background information* ²³	
	(X1-X4) available in some countries from SBS, the business register or administrative da latest available information should be provided	ta and thus not to be included;
X1.	Main economic activity of the enterprise, during 2011	
X2.	Average number of persons employed, during 2011	
X3.	Total purchases of goods and services (in value terms, excluding VAT), for 2011 - Optional / conditional	
X4.	Total turnover (in value terms, excluding VAT), for 2011	

²³ For background information of the benchmarking framework

COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES

2012

Glossary

3G, 3 rd 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 standards' aim is to unify the world's mobile computing devices through a single, worldwide radio transmission standard. 3G devices allow simultaneous use of speech and data services and higher data 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. Source: http://en.wikipedia.org/wiki/; http://www.itu.int; http://www.three-g.net/3g standards.html
	http://www.three-g.net/3g_standards.ntml

- Business 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: <u>http://www.its.bldrdoc.gov/projects/devglossary/ data.html</u>
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: <u>http://en.wikipedia.org/wiki/DSL</u>
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: <u>http://www.ogc.gov.uk/documents/Guide_dynamic_purchasing.pdf</u>
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: <u>http://en.wikipedia.org/wiki/Electronic Data Interchange</u>
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. Einvoice 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 An e-Commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the commerce purpose of receiving or placing of orders. The goods or services are ordered (e-Commerce) 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;
- 5. 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 Dara 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/gprs.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: <u>http://www.its.bldrdoc.gov/projects/devglossary/ information.html</u>)
- Internal An internal computer network is a group of at least two computers connected together using a telecommunication system for the purpose of communicating computer network 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.
- MessageAny 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
- MobileMobile 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

OfficeOffice (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** Open Source operating system software refers to computer software under an operating open Source license. An open-Source license is a copyright license for computer software that makes the Source code available under terms that systems 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 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 Procurement countries. The eProcurement process is based on a number of stages from the eProcurement 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 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 website (web sales) 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
- SSL/TLS 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.
- UBL 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.

UMTS	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
Web e-	Orders made at an online store (webshop) or via web forms on the Internet or

- Commerce 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: <u>http://www.xcbl.org/</u>
- **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.
- The Extensible Markup Language is a markup language for documents XML 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/