

STRICTLY CONFIDENTIAL

SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES OF THE FINANCIAL SECTOR 2007

FOR OFFICIAL USE ONLY		
S/N		
Legal Status		
Enterprise Size		
NACE		

GENERAL INFORMATION:

- 1. The aim of the survey is to collect data on ICT usage, Internet usage and electronic commerce in enterprises. These data are necessary for the implementation of policy programmes of both the Government and the Private Sector.
- 2. All requested information must be supplied by the **IT manager of the enterprise**. Regarding the enterprise's background information (Module X), these should be provided by the General Manager or by any other person responsible.
- 3. An authorised employee of the Statistical Service will contact the IT manager of the enterprise by phone in order to arrange a visit for the completion of the questionnaire.
- 4. Definitions of the terms used in the questionnaire can be found in the glossary attached.
- 5. The reference period for the data is **January 2007**, unless the question refers to other specific period.
- 6. The collection of data is carried out in accordance with the Statistics Law 15(I)/2000. The Statistical Service is bound by the Statistics Law to treat all information obtained as <u>STRICTLY</u> <u>CONFIDENTIAL</u>. Your responses will be used solely for statistical purposes.

P. Philippides Director Statistical Service

12 January, 2007.

Module A: General information about ICT systems

A1.	Did your enterprise use computers, during January 2007?	Yes	;	No □ → Go to X
A2.	How many persons employed used computers at least once a week, during January 2007?			
	If you can't provide this value, Please indicate an estimate of the percentage of the number of persons employed used computers at least once a week, during January 2007.	l		%
A3.	Did your enterprise have the following information and communication technologies, during January 2007?	Yes	;	No
	a) Wireless LAN ⁽¹⁾			
	b) Wire based LAN ⁽¹⁾			
	c) Intranet ⁽²⁾			
	d) Extranet ⁽³⁾			
A4.	Did your enterprise have in use, in January 2007, any software application to manage the placing and/or receipt of orders?	Yes		No □ → Go to A6
A5.	Did that software application to manage orders link automatically with any of the following, as of January 2007?			
		Yes	5	No
	a) Internal system for re-ordering replacement supplies			
	b) Invoicing and payment systems			
	c) Your system for managing production, logistics or service operations			
	d) Your suppliers' business systems (for suppliers outside your enterprise group)			
	e) Your customers' business systems (for customers outside your enterprise group)			
A6.	Did your enterprise have in use, in January 2007, an ERP ⁽⁴⁾ software package to share information on sales and purchases with other internal functional areas (for example, finance, planning, marketing, etc.)?	Yes	No	Don´t know
A7.	Did your enterprise have in use, in January 2007, any software application for managing information about clients (so called CRM ⁽⁵⁾) that allows it to:	Y	es	No
	a) Capture, store and make available to other business functions the information about its clients?]	
	b) Make analysis of the information about clients for marketing purposes (setting prices, make sales promotion, choose distribution channels, etc.)?]	

	operating systems, such as Linux ? (i.e. with its source code available, no copyright cost, and the possibility to modify and/or (re)distribute it)		
A9.	Was your enterprise, in January 2007, <u>sending</u> e-invoices ⁽⁷⁾ in a digital format which allows its automatic processing?	Yes	No
A10.	Was your enterprise, in January 2007, <u>receiving</u> e-invoices in a digital format which allows its automatic processing?	Yes	No
A11.	Was your enterprise, in January 2007, using a digital signature ⁽⁸⁾ in any message sent, i.e. using encryption methods that assure the authenticity and integrity of the message (uniquely linked to and capable of identifying the signatory and where any subsequent change to the message is detectable)?	Yes	No

	Module B: Use of Internet ⁽⁹⁾		
	(asking enterprises with ICT)		
B1.	Did your enterprise have access to Internet, during January 2007?	Yes	No
			\rightarrow Go to C1
B2.	How many persons employed used computers connected to the World Wide Web at least once a week, during January 2007?		
	If you can't provide this value,		
	Please indicate an estimate of the percentage of the number of persons employed used computers connected to the World Wide Web at least once a week, during January 2007.		%
B3.	Did your enterprise have the following types of external connection to the Internet, during January 2007?		
		Yes	Νο
	a) Traditional Modem ⁽¹⁰⁾ (dial-up access over normal telephone line)		
	b) ISDN ⁽¹¹⁾ connection		
	c) DSL ⁽¹²⁾ (xDSL ⁽¹³⁾ , ADSL, SDSL etc) connection		
	d) Other fixed 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)		
	e) Mobile connection (analogue mobile phone, GSM, GPRS, UMTS, EDGE, CDMA2000 1xEVDO)		

B4.	Did your enterprise use the Internet for the following purposes, during January
	2007?

	(as consumer of Internet services)	Yes	No
	a) Banking and financial services		
	b) Training and education		
	c) Market monitoring (e.g. prices)		
B5.	Did your enterprise use the Internet for interaction with public authorities, during 2006?	Yes	No
			\rightarrow Go to B7
B6.	Did your enterprise interact with public authorities in the following ways, during 2006?		-
		Yes	No
	a) For obtaining information		
	b) For obtaining forms, e.g. tax forms		
	 c) For returning filled in forms, e.g. provision of statistical information to public authorities 		
	d) Submitted a proposal in an electronic tender system (e-procurement)		
B7.	Did your enterprise have a Web Site ⁽¹⁴⁾ / Home page, during January 2007?	Yes	No
	If yes, give the address of your website:		
B8.	Did the Web Site of your enterprise provide the following facilities, during January 2007?		
	(your enterprise <u>as provider</u> of Internet services)		
		Yes	No
	a) Marketing the enterprise's products		
	b) Facilitating access to product catalogues and price lists		
	c) Providing after sales support		

Module C: e-Skills (15)

C1.	Did your enterprise employ ICT/IT specialists ⁽¹⁶⁾ , in January 2007?	Yes	No □ →Go to C3
C2.	How many ICT/IT specialists were employed by your enterprise, during January 2007?		
	If you can't provide this value,		
	Please indicate an estimate of the percentage of the number of ICT/IT specialists in relation to the total number of persons employed, during January 2007.		%
C3.	Did your enterprise recruit or try to recruit personnel for jobs requiring ICT specialist skills, during 2006?	Yes	No □ →Go to C6
C4.	Did your enterprise have hard-to-fill vacancies for jobs requiring ICT specialist skills, during 2006?	Yes	No □ →Go to C6
C5.	What do you believe were the main reasons of having hard-to-fill vacancies for jobs requiring ICT specialist skills, during 20062		
		Yes	No
	a) Lack or too low number of applicants with ICT specialist skills		
	b) Lack of ICT related qualifications from education and/or training		
	c) Lack of work experience in the field of ICT		
	d) Salary requests too high		
	e) Other		
C6.	Did your enterprise recruit or try to recruit personnel for jobs requiring skills in the use of ICT ⁽¹⁷⁾ , during 2006?	Yes	No □ →Go to C8
C7.	Did your enterprise have hard-to-fill vacancies due to applicants' lack of skills in the use of ICT, during 2006?	Yes	No
C8.	Did your enterprise provide training to develop or upgrade ICT related skills of your personnel, during 2006?		
		Yes	No
	a) Training for ICT/IT specialists		
	b) Training for users of ICT		

C9.	Were any ICT functions requiring ICT/IT specialists performed by external suppliers ⁽¹⁸⁾ (fully or partly), during 2006?	Yes			0
C10.	Were any ICT functions requiring ICT/IT specialists performed by suppliers in a foreign country ⁽¹⁹⁾ (fully or partly), during 2006?	Yes, by foreign affiliates established by the enterprise	by fc ente	Yes, other oreign erprises	No → Go to C13
C11.	Which ICT functions were performed by suppliers' ICT/IT specialists <u>in a</u> <u>foreign country</u> , during 2006?	Γ		Γ	
		Yes		N	0
	a) ICT management (includes e-business and ICT systems management)				
	 b) ICT development and implementation (includes business software development, programming, web development, database development, communication network development, systems integration and installation) 				
	 c) ICT operations (includes technical support, user help and support, network administration, web administration, database administration) 				
	d) Other ICT functions			E	
C12.	From which of the following geographical regions did your enterprise engage suppliers' ICT/IT specialists, during 2006?				
		Yes		N	ο
	a) other EU Member States			E	
	b) Non-EU Countries				
C13.	Were any business functions requiring users of ICT performed by external suppliers (fully or partly), during 2006?	Yes	Yes No		o
C14.	Were any business functions requiring users of ICT performed by suppliers <u>in a foreign country</u> (fully or partly), during 2006?	Yes,		Yes,	No
		by foreign affiliates established by the enterprise	by fc ente	v other preign erprises	
					→Go to X

C15.	Which business functions (non-ICT) were performed by suppliers' ICT users in a foreign country, during 2006?		
		Yes	No
	a) Sales and marketing, customer services		
	b) Research and development, product design and engineering		
	c) Other (non-ICT) business functions		
C16.	Please indicate the geographical regions from where you engaged		
	business services requiring ic i users, during 2006.	Yes	No
	a) other EU Member States		
	b) Non-EU Countries		

	Module X: Background information	
X1.	Main economic activity of the enterprise, during 2006	
X2.	Average number of persons employed, during 2006	

	Module Z: General Information	
Z1.	If you have any comments about the survey, please write down below:	
Z2.	Name of the person who answered the questionnaire:	
	Position in the enterprise:	
	Telephone:	
	Fax:	
	E-mail:	
Z3.	Name of the person who completed the questionnaire:	
	Signature:	
	Date:	

TO BE COMPLETED BY THE ENUMERATOR:

Z4.	Completion of the questionnaire:	
	a) The questionnaire is completed	1
	b) The enterprise has closed	2
	c) The enterprise can not be located	3
	d) The enterprise refuses to cooperate	4
	e) The enterprise was closed during the collection of the data	5
	f) Merge with another enterprise	6
	g) Other reasons for no completion	
	(please specify)	7

Glossarv ⁽¹⁾ 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. ⁽²⁾ Intranet An internal company communications network using Internet protocol allowing communications within an organisation. ⁽³⁾ Extranet A secure extension of an Intranet that allows external users to access some parts of an organisation's Intranet. ⁽⁴⁾ 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 singlevendor, 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. ⁽⁵⁾ 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. ⁽⁶⁾ Free / Open Source Open source 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.

Related to the Open Source Definition is the Free Software definition by the Free Software Foundation, which attempts to capture what is required for a program license to qualify as being free-libre software. In practice, licenses meet the open source definition almost always also meet the Free software definition. All licenses reported to meet the free software definition as of 2005 also meet the open source definition.

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.

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

⁽⁸⁾ e-Signature

An **e-signature** is some kind of electronic information attached to or associated with a contract or another message used as the <u>legal</u> equivalent to a written signature. **Electronic signature** is often used to mean either a signature imputed to a text via one or more of several electronic means, or cryptographic means to add non-repudiation and message integrity features to a document. **Digital signature** usually refers specifically to a cryptographic signature, either on a document, or on a lower-level data structure.

For either of them to be considered a signature they must have a legal value, otherwise they are just a piece of communication.

Some web pages and software EULAs claim that various electronic actions are legally binding signatures, and so are an instance of electronic signature. For example, a web page might announce that, by accessing the site at all, you have agreed to a certain set of terms and conditions. The legal status of such claims is uncertain.

An electronic signature can also be a digital signature if it uses cryptographic methods to assure both message integrity and authenticity. Because of the use of message integrity mechanisms, any changes to a digitally signed document will be readily detectable if tested for, and the attached signature cannot be taken as valid.

It is important to understand the cryptographic signatures are much more than an error checking technique akin to checksum algorithms, or even high reliability error detection and correction algorithms such as Reed-Solomon. These can offer no assurance that the text has not been tampered with, as all can be regenerated as needed by a tamperer. In addition, no message integrity protocols include error correction, for to do so would destroy the tampering detection feature.

Popular electronic signature standards include the OpenPGP standard supported by PGP and GnuPG, and some of the S/MIME standards (available in Microsoft Outlook). All current cryptographic digital signature schemes require that the recipient have a way to obtain the sender's public key with assurances of some kind that the public key and sender identity belong together, and message integrity measures (also digital signatures) which assure that neither the attestation nor the value of the public key can be surreptitiously changed. A secure channel is not required.

A digitally signed text may also be encrypted for protection during transmission, but this is not required when the digital signature has been properly carried out. Confidentiality requirements will be the guiding consideration.

⁽⁹⁾ Internet	Relates to Internet Protocol based networks: www, Extranet over the Internet, EDI over the Internet, Internet-enabled mobile phones.
⁽¹⁰⁾ 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.
⁽¹¹⁾ ISDN	Integrated Services Digital Network.

⁽¹²⁾ DSL (Digital Subscriber Line)	A high-bandwidth (broadband), local loop technology to carry data at high speeds over traditional (copper) telephone lines.
	Broadband No generally accepted definition of broadband can be given. Common definitions refer to either: a) the connection speeds measured in kbps or mbps (in at least the downstream direction) or bandwidth measured by the amount of digital bits that one can transmit per second, measured in kbps or mbps; b) the type of connection, of which the following provide broadband access: xDSL (ADSL, SDSL, etc), Cable TV network (cable modem), UMTS (mobile phone), or other (e.g. satellite, fixed wireless); c) the content that is provided with the examples of high definition movie trailers, short films, flash animation, three dimensional video games, video on demand, internet radio, streaming video, video conferencing and so on.
⁽¹³⁾ 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.
⁽¹⁴⁾ Web site	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.
⁽¹⁵⁾ e-Skills / ICT Skills	Two main types of e-skills can be distinguished: -ICT specialists skills: specifying, designing, developing, installing, operating, supporting, maintaining, managing, evaluating and researching ICT systems. -ICT users skills: apply systems to support own work, use of generic software tools and use of specialised tools supporting business functions within industry (see for more details below <i>ICT user skills</i>).
⁽¹⁶⁾ 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. Related ISCO-88 classification codes: 1236 Computing services managers 2131 Computer systems designers, analysts and programmers 2139 Computing professionals not elsewhere classified 2144 Electronics and telecommunications engineers 3114 Electronics and telecommunications engineering technicians 3121 Computer assistants 3122 Computer equipment operators 3132 Broadcasting and telecommunications equipment operators
⁽¹⁷⁾ ICT User Skills	Capabilities enabling the effective use of common, generic software tools (basic user skills) or advanced, often sector-specific, software tools (advanced user skills). ICT is an important tool for the job and is used to produce work output and/or is used intensively at work (in day-to-day activities)

⁽¹⁸⁾ e-Skills / External Suppliers / (Outsourcing e-skills)

Other enterprises, includes also foreign enterprises/legal entities, associated or not associated to a group of enterprises.

(e-skills sourced from external suppliers address the phenomena of outsourcing, i.e. activities are contracted out to other enterprises in the same country or abroad.)

 ⁽¹⁹⁾ e-Skills / Foreign Suppliers / Suppliers in a foreign country / (Offshoring e-skills)

Suppliers in a foreign country can be

1. foreign affiliates, usually legal entities, established by the enterprise (internal suppliers from abroad) or

2. other foreign enterprises (external suppliers from abroad).

(e-skills sourced from suppliers in a foreign country address the phenomena of offshoring. E-skills sourced from foreign affiliates address offshore insourcing. E-skills sourced from other foreign enterprises address offshore outsourcing.)