COMMUNITY SURVEY ON ICT USAGE AND E-COMMERCE IN ENTERPRISES

2016

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, steam and air conditioning supply"* "*Water supply, sewerage, waste management and remediation activities";* - Section F – *"Construction"*; - Section G – *"Wholesale and retail trade; repair of motor vehicles and motorcycles"*; - Section H – *"Transportation and storage"*; - Section I – *"Accommodation and food service activities"*; - Section J – *"Information and communication"*; - Section L – *"Real estate activities"*; - Division 69 - 74 – *"Professional, scientific and technical activities"*; - Section N – *"Administrative and support service activities";* - Group 95.1 – "*Repair of computers and communication equipment*" **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 2015 for the value or % of sales/orders data and where specified. Where not specified respondents should consider as reference their current situation (survey period in 2016).
Recommended survey period:	First quarter 2016.
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 ICT-related issues in the enterprise (the ICT manager or a senior professional in the ICT 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: 1 10 - 18 2 19 - 23 3 24 - 25 4 26 - 33 5 35 - 39 6 41 - 43 7 45 - 47 8 47 9 49 - 53 10 55 11 58 - 63 12 68 13 69 - 74 14 77 - 82 15 26.1 - 26.4, 26.8, 46.5, 58.2, 61, 62, 63.1, 95.1 Breakdown 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. 1a 10 - 12 1b 13 - 15 1c 16 - 18 4a 26 4b 27 - 28 4c 29 - 30 4d 31 - 33 7a 45 7b 46 10a 55 - 56 11a 58 - 60 11b 61 11c 62 - 63 14a 77 - 78 + 80 - 82 14b 79 15a 95.1
Size class breakdown:	**(To be applied to: all variables; aggregate of all mandatory NACE aggregates [1 to 15 defined above]; whole territory of the country.)** Data should be broken down by the following size classes according to 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 weighting should be used for sales related questions. Quantitative variables in the e-Commerce module related to sales should be weighted by total turnover. Weighting by the number of Persons Employed should be applied for variables related to questions A2, C2, C7 and for other variables e.g. % using the internet, % having broadband, % having a website, % sending orders via a website or EDI-type messages, % receiving orders placed over a website or via EDI-type messages, as specified in the transmission format document.
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 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 breakdowns as specified in the transmission format document.
Data transmission:	Results are to be sent to Eurostat following the transmission format described in a forthcoming Eurostat document.

ICT-Entr 2016 - Model Questionnaire V 1.0.Docx – Response burden

Module	Description	Mandatory responses	Optional responses
A	Use of computers	**1**	**1**
B	ICT specialists and skills	**12**	**0**
C	Access and use of the internet	**26**	**3**
D	Use of cloud computing services	**10**	**0**
E	Big data analysis	**0**	**6**
F	Invoicing	**8**	**0**
G	e-Commerce	**6**	**12**
X	Background characteristics	**(3)**	**(0)**
Total		**66 (63)**	**22**

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

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2016

Model Questionnaire version 1.0

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

Module A: Use of computers

(Scope: all enterprises)

A1.	**Does your enterprise use computers?** (Filter question) Computers include Personal Computers, portable computers, tablets, other portable devices such as Smartphones.	Yes ☐	No ☐ ->go to X1
A2.	**How many persons employed use computers for business purposes?** ***- Optional*** If you can't provide this value, **Please indicate an estimate of the percentage of the total number of persons employed who use computers for business purposes.** ***- Optional***	*(Number)* ☐☐☐ %	

Module B: ICT specialists and skills

(Scope: enterprises with computers)

B1.	**Does your enterprise employ ICT specialists?** ICT specialists are employees for whom **ICT is the main job.** For example, to develop, operate or maintain ICT systems or applications.	Yes ☐	No ☐
B2.	**Did your enterprise provide any type of training to develop ICT related skills of the persons employed, during 2015?**	Yes	No
	a) Training for ICT specialists *Tick "No" if your enterprise didn't employ ICT specialists during 2015.*	☐	☐
	b) Training for other persons employed	☐	☐
B3.	**Did your enterprise recruit or try to recruit ICT specialists, during 2015?** (Filter question)	Yes ☐	No ☐ ->go to B5
B4.	**During 2015, did your enterprise have vacancies for ICT specialists that were difficult to fill?**	Yes ☐	No ☐

B5. **Please indicate who mainly performed the following ICT functions of your enterprise in 2015:**	Mainly own employees incl. those employed in parent or affiliate enterprises	Mainly external supplier	Not applicable
a) Maintenance of ICT infrastructure (servers, computers, printers, networks)	☐	☐	☐
b) Support for office software (e.g. word processors, spreadsheets, etc.)	☐	☐	☐
c) Development of business management software/systems (e.g. **ERP** - Enterprise Resource planning used to	☐	☐	☐

	manage resources by sharing information among different functional areas such as accounting, planning, production, marketing; **CRM** software application for managing information about customers; **H**uman **R**esources information management, databases)			
	d) Support for business management software/systems (e.g. ERP, CRM, HR, databases)	☐	☐	☐
	e) Development of web solutions (e.g. websites, e-commerce solutions)	☐	☐	☐
	f) Support for web solutions (e.g. websites, e-commerce solutions)	☐	☐	☐
	g) Security and data protection (e.g. security testing, security software)	☐	☐	☐

Module C: Access and use of the internet

(Scope: enterprises with computers)

C1.	**Does your enterprise have access to the internet?** (Filter question)	Yes ☐	No ☐ ->go to **E1**[1]
C2. ***[2]**	**How many persons employed use computers with access to the internet for business purposes?** If you can't provide this value, **Please indicate an estimate of the percentage of the total number of persons employed who use computers with access to the internet for business purposes.** Computers include Personal Computers, portable computers, tablets, other portable devices such as Smartphones.	*(Number)* ☐☐☐ %	

Use of a fixed broadband connection to the internet for business purposes

C3. ***[3]**	**Does your enterprise use DSL or any other type of fixed broadband connection to the internet?** (e.g. ADSL, SDSL, VDSL, fiber optics technology (FTTP), cable technology, etc.) *(add national examples for public Wi-Fi, WiMax*, etc) (Filter question)	Yes ☐	No ☐ ->go to C5

C4.	**What is the maximum contracted download speed of the fastest fixed internet connection of your enterprise?** *(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	☐

[1] Routing to E1. Module D: Use of cloud computing services is only for enterprises with C1=Yes i.e. enterprises with access to the internet. Module D is mandatory.
[2] For indicator B10 of the benchmarking framework – annual
[3] For indicator B11 of the benchmarking framework - annual

Use of a mobile connection to the internet for business purposes

A mobile connection to the internet means the usage of portable devices connecting to the internet through mobile telephone networks for business purposes. Enterprises provide portable devices and pay for all or at least up to a limit, the subscription and the use costs.

C5. *[4]	**Does your enterprise use a mobile broadband connection to the internet via a portable device using mobile telephone networks (3G or 4G)?** e.g. via portable computers or other portable devices such as Smartphones	Yes ☐	No ☐
C6. *[5]	**Does your enterprise use a mobile broadband connection to the internet via the following portable devices?** ***- Optional***	Yes	No
	a) via **portable computer** using mobile telephone networks (3G or 4G) e.g. notebook, netbook, laptop, tablet, etc. ***- Optional***	☐	☐
	b) via **other portable devices** such as Smartphones, using mobile telephone networks (3G or 4G) ***- Optional***	☐	☐
C7. *[6]*[7]	**How many persons employed use a portable device provided by the enterprise, that allows internet connection via mobile telephone networks, for business purposes?** (Filter question) (e.g. portable computers, tablets or other portable devices such as Smartphones) *(Please enter a value, field cannot be left blank)*	*(Number)*	
	If you can't provide this value, **Please indicate an estimate of the percentage of the total number of persons employed who use a portable device provided by the enterprise, that allows internet connection via mobile telephone networks, for business purposes?** (Filter question) (e.g. portable computers, tablets or other portable devices such as Smartphones) *(Please enter a value, field cannot be left blank)*	☐☐☐ %	
		If C7 = 0 go to C9	
C8.	**Does your enterprise provide the persons employed with portable devices that allow mobile connection to the internet for business use to:**	Yes	No
	a) access the enterprise's e-mail system?	☐	☐
	b) access and modify enterprise's documents?	☐	☐
	c) use dedicated business software applications? (e.g. for orders or sales management, ERP (Enterprise Resource Planning) related applications, etc.)	☐	☐

Use of a Website

C9.	**Does your enterprise have a Website?** (Filter question)	Yes ☐	No ☐ ->go to C11

[4] For indicator B11 of the benchmarking framework - annual
[5] For indicator B11 of the benchmarking framework - annual
[6] For indicator B12 of the benchmarking framework - annual
[7] For indicator B13 of the benchmarking framework - annual

C10.	Does the Website have any of the following?	Yes	No
	a) Description of goods or services, price lists	☐	☐
	*[8] b) Online ordering or reservation or booking, e.g. shopping cart	☐	☐
	c) Possibility for visitors to customise or design online goods or services	☐	☐
	d) Tracking or status of orders placed	☐	☐
	e) Personalised content in the website for regular/recurrent visitors	☐	☐
	f) Links or references to the enterprise's social media profiles	☐	☐
	g) Advertisement of open job positions or online job application ***- Optional***	☐	☐

Use of Social Media

Enterprises **using** social media are considered those that have a user profile, an account or a user licence depending on the requirements and the type of the social media.

C11.	**Does your enterprise use any of the following social media?** **(not solely used for paid adverts)** *(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, Picasa, SlideShare, etc.)	☐	☐
	d) Wiki based knowledge sharing tools	☐	☐

Other use of the internet

C12.	**Do any persons employed have remote access to the enterprise's e-mail system, documents or applications?**	Yes ☐	No ☐
C13.	**Does your enterprise pay to advertise on the internet?** (e.g. adverts on search engines, on social media, on other websites, etc.) (Filter question)	Yes ☐	No ☐ go to D1

C14.	**Does your enterprise pay to advertise on the internet using any of the following targeted advertising methods?**	Yes	No
	a) Based on webpages' content or keywords searched by users	☐	☐
	b) Based on the tracking of internet users' past activities or profile	☐	☐
	c) Based on the geolocation of internet users	☐	☐
	d) Any other method of targeted advertising on the internet not specified above	☐	☐

[8] For indicator D7 of the benchmarking framework - annual

Module D: Use of cloud computing services

(Scope: enterprises with access to the internet)

Cloud computing refers to **ICT services** that are used **over the internet** to access software, computing power, storage capacity etc.;

where the services have all of the following characteristics:

- are delivered from **servers** of service providers

- can be easily **scaled** up or down (e.g. number of users or change of storage capacity)

- can be used **on-demand by the user,** at least after the initial set up (without human interaction with the service provider)

- are **paid** for, either per user, by capacity used, or they are pre-paid

Cloud computing may include connections via Virtual Private Networks (VPN).

D1.	**Does your enterprise buy any cloud computing services used over the internet?** (Please refer to the definition of cloud computing above, exclude free of charge services.) (Filter question)	Yes ☐	No ☐ ->go to **E1**
D2.	**Does your enterprise buy any of the following cloud computing services used over the internet?** (Please refer to the definition of cloud computing above, exclude free of charge services.)	Yes	No
	a) E-mail (as a cloud computing service)	☐	☐
	b) Office software (e.g. word processors, spreadsheets, etc.) (as a cloud computing service)	☐	☐
	c) Hosting the enterprise's database(s) (as a cloud computing service)	☐	☐
	d) Storage of files (as a cloud computing service)	☐	☐
	e) Finance or accounting software applications (as a cloud computing service)	☐	☐
	f) Customer Relationship Management (CRM, software application for managing information about customers) (as a cloud computing service)	☐	☐
	g) Computing power to run the enterprise's own software (as a cloud computing service)	☐	☐
D3.	**Does your enterprise buy any cloud computing services delivered from:** (Please refer to the definition of cloud computing above, exclude free of charge services.)	Yes	No
	a) **shared servers** of service providers	☐	☐
	b) **servers** of service providers **exclusively reserved for your enterprise**	☐	☐

Module E: Big data analysis

(Scope: enterprises with computers)
- Optional

Big data are generated from activities that are carried out electronically and from machine-to-machine communications (e.g. data produced from social media activities, from production processes, etc.)

Big data typically have characteristics such as:

- Significant **volume** referring to vast amounts of data generated over time.

- **Variety** referring to the different format of complex data, either structured or unstructured (e.g. text, video, images, voice, docs, sensor data, activity logs, click streams, coordinates, etc.).

- **Velocity** referring to the high speed at which data is generated, becomes available and changes over time.

Big data analysis refers to the use of techniques, technologies and software tools for analysing **big data** extracted from your own enterprise's data sources or other data sources.

E1.	**During 2015, did your enterprise analyse big data from any of the following data sources?** *(Please refer to the definition of big data above; include big data analysis conducted by external service providers)* ***- Optional***	Yes	No
	a) Enterprise's own data from smart devices or sensors (e.g. Machine to Machine -M2M- communications, digital sensors, Radio frequency identification tags RFID[9], etc.) *(in the context of big data)*	☐	☐
	b) Geolocation data from the use of portable devices (e.g. portable devices using mobile telephone networks, wireless connections or GPS) *(in the context of big data)*	☐	☐
	c) Data generated from social media (e.g. social networks, blogs, multimedia content sharing websites, etc.) *(in the context of big data)*	☐	☐
	d) Other big data sources not specified above	☐	☐

If E1 has at least one positive answer then continue to E2, else go to F1.

E2.	**During 2015, who performed big data analysis for your enterprise?** ***- Optional***	Yes	No
	a) Enterprise's own employees **(**incl. those employed in parent or affiliate enterprises**)**	☐	☐
	b) External service provider	☐	☐

[9] A **Radio Frequency identification-RFID** tag is a device that can be applied to or incorporated into a product or an object and transmits data via radio waves.

Module F: Invoicing

(Scope: enterprises with computers)

There are invoices in **paper form** and **electronic form.** Invoices in **electronic form** are of two types:

- **eInvoices** in a standard structure **suitable for automated processing.**

(EDI (e.g. EDIFACT), XML (e.g. UBL), *[please add national examples]*). They are exchanged either directly or via service operators or via an electronic banking system.

- **Invoices** in electronic form **not suitable for automated processing.**

(e.g. e-mails, e-mail attachment as pdf, images in TIF, JPEG or other format)

If you cannot provide the exact percentages an approximation will suffice.

F1.	**During 2015, did your enterprise issue/send any type of invoices, whether in electronic or in paper form, to:** (Filter question)	**Yes**	**No**
	a) other enterprises	☐	☐
	b) public authorities	☐	☐
	c) private consumers	☐	☐

If F1 has a) <u>or</u> b) answered with "Yes" then continue, else go to F3.

F2[10].*	**Of all invoices your enterprise issued/sent to <u>other enterprises or public authorities</u> during 2015, what percentage was <u>issued/sent</u> as:**	**(%)**			
	a) **Invoices in electronic form**, in a standard structure <u>suitable</u> for automated processing (**eInvoices**)? (EDI (e.g. EDIFACT), XML (e.g. UBL), *[please add national examples]*)	␣	␣	␣	**%**
	b) **Invoices in electronic form**, <u>not suitable</u> for automated processing? (e.g. e-mails, e-mail attachment as pdf, images in TIF, JPEG or other format)	␣	␣	␣	**%**
	c) Invoices only in paper form?	␣	␣	␣	**%**
	TOTAL	**1**	**0**	**0**	**%**
F3.*	**Of all invoices your enterprise <u>received</u> during 2015, what percentage was <u>received</u> as:**	**(%)**			
	a) **Invoices in electronic form**, in a standard structure <u>suitable</u> for automated processing **(eInvoices)**? (EDI (e.g. EDIFACT), XML (e.g. UBL), *[please add national examples]*)	␣	␣	␣	**%**
	b) Invoices in paper form or in electronic form <u>not suitable</u> for automated processing? (e.g. e-mails, e-mail attachment as pdf, images in TIF, JPEG or other format)	␣	␣	␣	**%**
	TOTAL	**1**	**0**	**0**	**%**

[10] For indicator D5 of the benchmarking framework – annual (based on F2(a), F3(a))

Module G: e-Commerce

(Scope: enterprises with computers)

e-Commerce 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 payment and the 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

In the following questions please report separately for web sales and EDI-type sales.

Web sales

Web sales are sales made via an online store (web shop), via web forms on a website or extranet, or via "apps".

G1. *[11]	**During 2015, did your enterprise *receive* orders for goods or services placed via a website or "apps"?** (excluding manually typed e-mails) (Filter question)	Yes ☐	No ☐ -> go to G5 or G6[12]
G2. *[13]	**Please state the value of the turnover resulting from orders *received* that were placed via a website or "apps" (in monetary terms, excluding VAT), in 2015.** 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 or "apps", in 2015.**	(National currency) _____ ___ ___ ___ %	

G3. **Please provide a percentage breakdown of the turnover from orders *received* that were placed via a website or "apps" in 2015 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	**1 0 0** %

G4.	**Which of the following means of payment are accepted for sales via a website or "apps"?** ***-Optional***	Yes	No
	a) Online payment, i.e. payment integrated in the ordering transaction (e.g. credit, debit card, direct debit authorisation, via 3rd party accounts)	☐	☐
	b) Offline payment, i.e. payment process is not included in the ordering transaction (e.g. cash on delivery, bank transfer, cheque payment, other not online payment)	☐	☐

[11] For indicators D10, D11 of the benchmarking framework
[12] Routing to Question **G5** that is **optional** or **G6** if **G5** is not asked
[13] For indicator D9 of the benchmarking framework

G5.	Did any of the following obstacles limit or prevent your enterprise from selling via a website or "apps"? [14] *-Optional*	Yes, I agree	No, 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	☐	☐

EDI-type sales

EDI-type sales are sales made via EDI-type messages (EDI: Electronic Data interchange) meaning:

- in an agreed or standard format suitable for automated processing (e.g. (EDI (e.g. EDIFACT), XML (e.g. UBL), *[please add national examples]*)
- without the individual messages being typed manually

G6. *[15]	During 2015, did your enterprise *receive* orders for goods or services placed via EDI-type messages? (Filter question)	Yes ☐	No ☐ -> go to G8
G7. *[16]	**Please state the value of the turnover resulting from orders *received* that were placed via EDI-type messages (in monetary terms, excluding VAT), in 2015.**	(National currency) _____	
	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 EDI-type messages, in 2015.**	___ ___ ___ %	

e-Commerce purchases

-Optional

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, via "apps",

  or
- via EDI-type messages (EDI: Electronic Data Interchange) which means messages in an agreed or standard format suitable for automated processing (e.g. (EDI (e.g. EDIFACT), XML (e.g. UBL), *[please add national examples]*) ,
- 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.]

G8. *[17]	During 2015, did your enterprise place orders for goods or services via a website, "apps", or EDI-type messages? (Excluding manually typed e-mails) *-Optional*	Yes ☐	No ☐ -> go to X1

[14] If **G5** is included in the national questionnaire then it should be asked to all respondents i.e. **G1** either "Yes" or "No"
[15] For indicator D10, D11, D3 of the benchmarking framework
[16] For indicator D9 of the benchmarking framework
[17] For indicator D11 of the benchmarking framework

G9.	**During 2015, did your enterprise *place* orders for goods or services via a website or "apps"?** ***-Optional***	Yes ☐	No ☐
G10. *[18]	**During 2015, did your enterprise *place* orders for goods or services via EDI-type messages?** ***-Optional***	Yes ☐	No ☐
G11 *[19]	**During 2015, was the value of the orders that your enterprise placed electronically <u>equal or more than 1%</u> of the total purchases' value? (in monetary terms, excluding VAT)** ***-Optional***	Yes ☐	No ☐

	Module X: Background information*[20] (X1-X3) 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 2015**	
X2.	**Average number of persons employed, during 2015**	
X3.	**Total turnover (in monetary terms, excluding VAT), for 2015**	

[18] For indicators D3 and D4 of the benchmarking framework
[19] For indicator D11 of the benchmarking framework
[20] For background information of the benchmarking framework

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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

App(s)

A mobile app, short for mobile application or just app, is application software designed for a specific purpose (e.g. entertainment, shopping, etc.), downloaded and used on computers depending on their operating system. (e.g. portable devices such as tablets, Smartphones, etc.)

Further information: http://en.wikipedia.org/wiki/Mobile_app; http://www.techopedia.com/definition/2953/mobile-application-mobile-app

Big data

The term "big data" refers to large amounts of different types of data produced with high velocity from a high number of various types of sources. Handling today's highly variable and real-time datasets requires new tools and methods, such as powerful processors, software and algorithms.
Source: Commission Communication COM(2014) 442 final "Towards a thriving data-driven economy"

Activities that are carried out electronically and machine-to-machine communications produce "big data" characterised by significant *volume*, *velocity* and *variety*, the usage of which is of important social and economic *value*. In the literature there is additionally mentioned a 5th "V" that stands for veracity.

Volume refers to vast amounts of data generated every second (e.g. Mega-, Giga-, Terra-, Peta-, etc. bytes of data). Data volume is the primary attribute of big data.

Velocity refers to the speed, at which data is generated, becomes available, is processed in real time and most importantly changes over time (e.g. annual, monthly, weekly, daily, hourly, real time data).

Variety refers to the different types (of electronic format) of data that becomes available, either structured or unstructured (text, video, images, voice, docs, sensor data, activity logs, click streams, coordinates, etc.).

Value refers to what happens after big data has been accessed and integrated. The use of big data for taking informative decisions eventually represents *value* for the enterprises - and not only – that would be capable of exploiting them.

Veracity refers to trustworthiness of data with reference to quality, authenticity and accuracy including inherent uncertainty in data like a weather forecast.

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
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 automated 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
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 suitable for automated processing. Source: http://en.wikipedia.org/wiki/Electronic_Data_Interchange
EDI e-Commerce	Orders initiated with EDI-type messages. 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 suitable for automated 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
eInvoice	Electronic invoices comprises payment information exchanged between business parties – enterprises, public authorities - involved in commercial transactions, transmitted via the internet or other electronic means. A structured eInvoice is an invoice where all data are in digital format suitable for automated processing. A distinctive feature of a structured eInvoice is automation: a structured 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. The eInvoice data could be structured according to the XML, EDI or other

similar format.

Unstructured invoices in an electronic form are not suitable for automated processing (e.g. emails, e-mail attachment as pdf, images in TIF, JPEG or other 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 or "apps", 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.

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.

Geolocation

Geolocation refers to the process of identifying the geographical location when accessing the internet by using information such as the IP address, the wireless network connection, the cell tower a mobile phone is connected to (independently of using the internet), or dedicated GPS hardware that receives latitude and longitude information from satellites.

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

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.
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 over telephone networks) 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
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
Sales via website (web sales)	Web sales are sales made via an online store (web shop), via web forms on a website or extranet, or "apps". 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-type 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.

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.

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

Web e-Commerce

Web (e-commerce) sales are sales made via an online store (web shop), via web forms on a website or extranet, or "apps" 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/Webform

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, such as Firefox Mozilla, Microsoft's internet Explorer, Google's Chrome, etc.
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.
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/