



Presidency of the Council of Ministers

ICT Indicators for Lebanon

May 2012

“Official” Set of ICT Indicators for Lebanon

This framework for ICT indicators has been developed by the National ICT Strategy Office at the Presidency of the Council of Ministers in partnership with the Central Administration of Statistics. The list has been presented to the various stakeholders at a workshop held at the Grand Serail on 14 April 2011.

The framework contains the minimum number of indicators needed to measure the Lebanese digital economy and to measure the policy effect of the strategy on the ICT sector and the economy at large. It is recommended that the ICT indicators be populated once a year, and that the results are disseminated to stakeholders and to International Organizations.

PCM and CAS graciously acknowledge the contribution and help provided by Dr. Huub Meijers, Professor at Maastricht University in the Netherlands that prepared the framework during a mission funded by the EU TAEIX program. (huub.meijers@maastrichtuniversity.nl)

The National ICT Strategy Coordination Office has commissioned Infopro (Statistics Company) to conduct two surveys in order to populate the ICT indicators for the households and individual use, and the ICT indicators for the business sector. The surveys were launched in July 2011 according to the methodology of the: “Partnership on Measuring ICT for Development”. In particular for the household questionnaire, Infopro used the International Telecommunication Union (ITU) Manual, and for the business survey the United Nations Conference on Trade and Development (UNCTAD) Manual.

The National ICT Strategy Coordination Office has also commissioned the Center for Education and Research Development (CERD) to conduct one survey to populate the ICT indicators for the education sector.

Quality reports are available at: www.ict.pcm.gov.lb

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Legend		
A: Administrative Data	S: Survey	C: Annual country-level school census

I. Channel 1 – The impact of ICT investment by all sectors of industry

This is by far the most difficult Channel to measure as what is needed is to measure the level of capital investment in ICT. This can only be done as part of the National Accounts and a specialized team.

The National Accounts team can provide the 2010 data.

Code	Description	Indicator
	GDP (available)	LBP 55,965 Billion
	Value Add by Sector (available) <i>Transportation and communication</i>	LBP 3,084 Billion
	Labor input by Sector (not available)	
	ICT investments, also called Gross Fixed Capital Formation (GFCF) and Non ICT Investment	Total Investment LBP 18,986 Billion Private GFCF LBP 17,730 Billion Public GFCG LBP 1,256 Billion
	Internal Rate of Return (not available)	

II. Channel 2 – The impact of the ICT producing sector on the total economy

Usually, the National Accounts are responsible to gather and publish the channel 2 indicators which are a subset of channel 1 measurement that is done for all sectors.

The “Partnership on Measuring ICT for Development” minimum standard set includes channel 2 indicators.

II1. Core indicators on the ICT (producing) sector

Latest data from CAS is from 2007 and it includes communication in general and not internet.

Available data; ICT 1: transportation and telecommunication women and men 7% (2007)

CPI communication 4.8 in 2007

ICT2; value added by transportation and communication 3118 billion LBP in 2007 and in 2010 gross value added for transportation and communication is 3084 billion LBP.

% change price: 1.9

% change volume: 6.3

Code	Description	Indicators
ICT1	Proportion of total business sector workforce involved in the ICT sector	(Not Available)
ICT2	ICT sector share of gross value added	(Not Available)

II2. Core indicators on international trade in ICT goods (2010 data)

Code	Description	Indicators	Actual Size
ICT3	ICT goods imports as a percentage of total imports	2.77% (Ratio from total trade)	USD 497,574,786
ICT4	ICT goods exports as a percentage of total exports	7.11% (Ratio from total trade)	USD 302,442,756

III. Channel 3 – The impact of ICT in total factor productivity (TFP) growth

To measure the contribution of ICT to the society as a whole, the “Partnership on Measuring ICT for Development” standard will be used. ITU, World Bank, UNCTAD, UNDESA, OECD, Eurostat, and others are part of this partnership and the “Core ICT indicators” set is the minimum set recommended by the standard.

III1. Core indicators on ICT infrastructure and access

Code	Description	Indicators
A1	Fixed telephone lines per 100 inhabitants:	20% (Q2 2011)
A2	Mobile cellular telephone subscriptions per 100 inhabitants	74% (Q2 2011)
A3	Fixed Internet subscribers per 100 inhabitants	Fixed Internet accounts: 11% (Q2 2011) Fixed Internet users : 33% (Q2 2011)
A4	Fixed broadband Internet subscribers per 100 inhabitants	Broadband Internet (Fixed wireless and ADSL) : 5.6%

		(Q2 2011)
A5	Mobile broadband subscriptions per 100 inhabitants	3G is being deployed but not yet commercially available. Some lines are in service for testing (Q2 2011).
A6	International Internet bandwidth per inhabitant (bits/second/inhabitant)	3,196 bits/sec/inhabitant
A7	Percentage of the population covered by a mobile cellular telephone network	97%
A8	Fixed broadband Internet access tariffs per month: In US \$ as a percentage of monthly per capita income	1 Mbps: 16\$/month representing 2.07% of monthly GDP per capita
A9	Mobile cellular telephone prepaid tariffs per month: In US \$ as a percentage of monthly per capita income	Average prepaid tariff per month \$18.56 representing 2.4% of monthly GDP per capita Lowest prepaid tariff per month \$9.09 representing 1.18% of monthly GDP per capita
A10	Percentage of localities with public Internet access canters (PIACs)	Not Available

III.2. Core indicators on access to, and use of, ICT by households and individuals

Code	Description	Indicators
HH1	Proportion of households with a radio	82.0%
HH2	Proportion of households with a TV	99.4%
HH3	Proportion of households with telephone	
	–any telephone	
	–Fixed telephone only	66.2%
	–Mobile cellular telephone	95.1%
HH4	Proportion of households with a computer	71.5%
HH5	Proportion of individuals who used a computer in the last 12 months	60.2%
HH6	Proportion of households with Internet access	61.8%
HH7	Proportion of individuals who used the Internet in the last 12 months	52.0%
HH8	Location of individual use of the Internet in the last 12 months:	
	- At Home	84.4%
	- At work	31.3%

	- At place of education	17.8%
	- At another person's home	50.5%
	- At community internet access facility	27.1%
	- At commercial internet access facility	37.7%
	- At any place via a mobile cellular telephone	42.2%
	- At any place via other mobile access devices	29.8%
HH9	Internet activities undertaken by individuals in the last 12 months	
	- Getting information about goods or services	51.6%
	- Getting information related to health or health services	40.9%
	- Getting information from general government organizations	16.8%
	- Interacting with general government organizations	7.8%
	- Sending or receiving email	81.6%
	- Telephoning over the Internet/VoIP	66.4%
	- Posting information or instant messaging	82.9%
	- Purchasing or ordering goods or services	11.4%
	- Internet banking	10.7%
	- Education or learning activities	34.6%

	- Playing or downloading video games or computer games	42.4%
	- Downloading movies, images, music, watching TV or video, or listening to radio or music	65.5%
	- Downloading software	39.4%
	- Reading or downloading on-line newspapers or magazines, electronic books	47.9%
HH10	Proportion of individuals who used a mobile cellular telephone in the last 12 months	87.4%
HH11	Proportion of households with access to the Internet by type of access:	
	-Narrowband	48.1%
	-Fixed broadband	84.3%
	-Mobile broadband	1.6%
HH12	Frequency of individual use of the Internet in the last 12 months:	
	-At least once a day	69.0%
	-At least once a week but not every day	23.6%
	-Less than once a week	7.0%
HHR1	Proportion of household with electricity	99.8%

III3. Core indicators on use of ICT by businesses

Code	Description	Indicators
B1	Proportion of businesses using computers	99.4%
B2	Proportion of persons employed routinely using computers	38.6%
B3	Proportion of businesses using the Internet	97%
B4	Proportion of persons employed routinely using the Internet	27.1%
B5	Proportion of businesses with a web presence	76.5%
B6	Proportion of businesses with an intranet	42.1%
B7	Proportion of businesses receiving orders over the Internet	46.5%
B8	Proportion of businesses placing orders over the Internet	53.1%
B9	Proportion of businesses using the Internet by type of access:	
	-Narrowband	10.3%
	-Fixed Broadband	94.1%
	-Mobile Broadband	8.6%
B10	Proportion of businesses with a local area network (LAN)	76.9%
B11	Proportion of businesses with an extranet	13.2%
B12	Proportion of businesses using the Internet by type of	

	activity	
	- Sending or receiving e-mail	99.1%
	- Telephoning over the Internet/VoIP	44.8%
	- Getting information about goods or services	87.1%
	- Getting information from general government organizations	50.8%
	- Interacting with general government organizations	14.6%
	- Internet banking	56.4%
	- Accessing other financial services	4.4%
	- Providing customer services	60.5%
	- Delivering products online	37.9%
	- Internal or external recruitment	32.4%
	- Staff training	14.6%

III4. Core indicators on ICT in education

Code	Description	Indicator
ED1	Proportion of schools with a radio used for educational	85.93%

	purposes	
ED2	Proportion of schools with a television used for educational purposes	98.56%
ED3	Proportion of schools with a telephone communication facility	93.72%
ED4	Learners-to-computer ratio in schools with computer-assisted instruction	21.30%
ED5	Proportion of schools with Internet access by type of access	87.47%
ED6	Proportion of learners who have access to the Internet at school	23.31%
ED7	Proportion of learners enrolled at the post-secondary level in ICT-related fields	6.43%
ED8	Proportion of ICT-qualified teachers in schools	34.14%
EDR1	Proportion of schools with electricity	100.00%

III5. E-government indicators WSIS- Target 6

Central government represents the ministries only, total number of ministries in 19. Total number of employees in the 19 ministries is 5179.

Code	Description	Indicators
6.1	Proportion of persons employed in central government organizations routinely using computers	46.09%
6.2	Proportion of persons employed in central government organizations routinely using the Internet	22.5%
6.3	Proportion of central government organizations with a Local Area Network (LAN)	100%
6.4	Proportion of central government organizations with an intranet	94.74%
6.5	Proportion of central government organizations with Internet access, by type of access	Modem 0% DSL 19-100% Leased line 6-31.58% Fiber 2-10.53%
6.6	Proportion of central government organizations with a web presence	Ministries(19): 84.21% Public institutions(33): 75.76% Mouhafazat(6): 16.67% Municipalities(959): 5.94%

6.7	Proportion of central government organizations offering online services by level of sophistication of service:	
	Electronic Forms, level 1	Ministries: 57.89% Public Institutions: 12.12% Mouhafazat: 0 Municipalities: 1.56%
	Electronic services, level 2	Ministries: 36.84% Public institutions: 36.36% Mouhafazat: 0 Municipalities: 0.31%
	Electronic Transactions, Level 3	Ministries: 31.58% Public Institutiona: 15.15% Mouhafazat:0 Municipalities:1.77%

III6. R&D indicators WSIS -Target 3

Code	Description	Indicators
3.1	Proportion of public scientific and research centers with broadband Internet access	3: CNRS, Lebanese Agriculture Research Institute, Industrial Research Institutue.
3.2	Presence of a national research and education network (NREN), by bandwidth (Mbit/s)	0
3.3	Proportion of public scientific and research centers with broadband Internet access to a NREN	0
	R&D expenditure	54.4 million USD in 2006, about 0.22% of the GDP.
	Number of patents registered(ICT and Non ICT patents)	77 patents from 2006 to 2010 according to the United States Patents and Trademark Office
	Number of scientific publications	450 per year according to Thomson Scientific, According to Dr. Fadia Homeidan, the number indexed and non indexed publications between 2001 and 2010 is 7792 for the all private and public sectors.
	Number of Prizes awarded in scientific fields	NA

	Number of local scientific exhibitions, conferences, workshops, etc	Three yearly conferences: <ul style="list-style-type: none">- The International Conference of the Lebanese Association for the Advancement of Science.- ESRI GIS day workshop by Khatib & Alami company- Lebanese Industrial Research Achievement Exhibition and conference
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