



# ICT Policy Making in ESCWA Countries:

Lebanese ICT Strategy:

Infrastructure and Regulator  
perspectives

**Eng. Diana Bou Ghanem**  
Head of ICT Office  
**Ministry of Telecommunications**

May 2, 2006

May 2, 2006

Ministry of Telecommunications



# ICT Strategy

## E-strategy

It was a collective effort among MoT, OMSAR and UNDP and all ICT stakeholders who engaged in a collaborative process to prepare the Lebanese ICT e-strategy.


In preparing the implementation plan, national priority projects were selected and this came in line with the ITU stocktaking, and in preparation for the WSIS.


The result was divided into 7 Track :

# ICT Strategy

1. Enabling Environment, Infrastructure
2. Enabling Environment, National Policies
3. ICT as a Production Sector
4. ICT for Human Capacity Development
5. ICT for Social Development
6. ICT for Business & Economic Development
7. E-Government

## 7 E-Government

 Indicates Priority Projects by Track

 Indicates National Priority Projects

Program/ Project		Related Ongoing or Planned Projects	Proposed Ownership
<b>7.01</b>	<b>Develop &amp; Promote Public Domain Content &amp; Citizen Guides</b>	The Portal of the Government of Leb.	OMSAR
	Citizen's Guide to Health Information & Services		
	Citizen's Guide to Legal Issues		
	Citizen's Guide to Governmental Procedures	INFORMS	OMSAR
<b>7.02</b>	<b>Develop &amp; Promote Public e-Services</b>		
	Implement National ID & Smartcard	Study	Ministry of Interior
	e-Billing Services for Utilities	GISEL	
<b>7.03</b>	<b>Government Agencies and Actions (Streamline Processes and Remove Anti-Patterns)</b>		
	Create an IT Strategy for Each Governemnt Agency		OMSAR
	Develop ICT Org Structure & Salary Scales for Civil Servants	On Hold	OMSAR & M of Finance
	Encourage "Technical Assistance Model" in Gov Agencies		
	Pass a Law Allowing All Gov Agencies to Link via "Govnet"		
	Implement ICT Standards & Guidelines	On Hold	LIBNOR; OMSAR
	Streamline Domain Name Registration Process		M of Econ & Trade
	Adopt & Automate Streamlined Workflow Systems for Government Processes (esp Services to the Citizen)		
<b>7.04</b>	<b>e-Government Infrastructure</b>		
	Formulate Public Sector Data Definition & Exchange Standards for All Sectors		OMSAR
	Create LANs for All Government Ministries & Agencies	Ongoing	OMSAR
<b>7.05</b>	<b>Promote &amp; Encourage e-Commerce</b>		
	Centralize & Implement a Gov e-Procurement Application	Board of Tenders	
<b>7.06</b>	<b>Establish Formal ICT Training Programs</b>		
	Provide Initial and Ongoing Taining for All Civil Servants inc. Public Healthcare Staff; Law Enforcement and Judiciary Staff	Various & ECOMLEB	OMSAR & ENA
<b>7.07</b>	<b>Expand the Use of GIS &amp; GPS Systems</b>		
	Country Wide GIS Information Tool	CDR	

## 6 ICT for Business & Economic Development

	Indicates Priority Projects by Track
	Indicates National Priority Projects

Program/ Project		Related Ongoing or Planned Projects	Proposed Ownership
<b>6.01</b>	<b>Blend ICTs with Local Industry to Build Local Capability &amp; Increase Productivity</b>		
	Create Media Campaigns and Document Success Stories Targeting Decision Makers	PCA & "Women in IT"	
	Develop Recommendations for Specific Technologies by Sector & Size		Proposed National ICT Steering Entity
	Setup an "ICT for SMEs" Support Program & Resource Center	SME Center	Ministry of Economy and Trade
	Encourage the Inclusion of an ICT Component in All New Projects		Proposed National ICT Steering Entity
	Use Existing Community Access Centers as Hubs for Incorporating ICTs in Local SMEs		
	Encourage the Use of OSS in SMEs, Educational & Health Institutions, & in Public Sector		
	Streamline All Processes Related to Operations to Lower Costs & Reduce Inventory (Accounting; HR; Inv Control..)		
	Develop a National Tourist Network (What's On)	Destination Lebanon V2	Ministry of Tourism
	Develop Media Industry and Encourage Convergence		
	Develop a Support Program for the Agrofood Industry	Agrobus	Min of Econ & Trade/ Ministry of Agriculture
	Develop a Support Program for Traditional Cottage Industries		Min of Econ & Trade
<b>6.02</b>	<b>Increase Visibility of Local Industry (including ICT)</b>		
	Trade Information Center (online)	Min of Econ & Trade	
<b>6.03</b>	<b>Promote &amp; Encourage e-Commerce</b>		
	Establish Adequate Framework for Electronic Payments		
	Promote Lebanese E-Commerce Sites to Expatriates		
	Activate & Speed-Up E-Banking		Bankers' Association
<b>6.04</b>	<b>Develop &amp; Promote Public Domain Content</b>		
	Setup Business Startup Advisor		
<b>6.05</b>	<b>Upgrade Industrial Zones</b>		
	Setup a Technical Platform for a Free Trade Zone		

## 5 ICT for Social Development

	Indicates Priority Projects by Track
	Indicates National Priority Projects

Program/ Project	Related Ongoing or Planned Projects	Proposed Ownership
<b>5.01 Build Capacity &amp; Increase Usage of ICTs Including the Internet by Catering for Needs &amp; Providing Incentives</b>		
Develop a Standard Local Needs Assessment Survey Kit, and Define Geographic Areas, Sectors, and Implementation Methodologies		Proposed National ICT Steering Entity various NGOs and Government Agencies
Implement Local Surveys of ICT Needs	UNDP Regional; CRTD-A Needs Assessment;	
Develop Applications/ Content Serving Local Needs, for National Capacity Building, Used in Community Access Centers	UNDP Regional; Various Saradar Foundation Projects	
Implement National Capacity Building Initiatives	Various	
<b>5.02 Blend ICTs with Local Traditional Industry to Build Local Capacity &amp; Increase Productivity &amp; Visibility</b>		
Use ICTs to Increase the Productivity and Marketability of Traditional Industries	Rural Delights	
Locate Potential Customers & Link Them to Rural Areas through e-Commerce	"Doukan Baldati"; "al-doukan.com"	
<b>5.03 Develop/Localize &amp; Promote Arabic Portals &amp; Content</b>		
Youth Dialogue Network		
Volunteer Network	AVN Project	
Job Opportunities Portal	NEO	
Virtual Citizen Communities & Links to Expatriates	Baldati.com	
Country Development Gateway	LDG	
National History & Cultural Heritage Portal	Saradar Foundation, Ministry of Culture	
Develop Sector-Specific Arabic Content		
Encourage New Online Content Creation by Traditional Media		
<b>5.04 Promote Human Rights &amp; Empower All to Use &amp; Access ICTs</b>		
Develop Content for Promoting the Rights of Vulnerable Groups	ICT for Women & Children's Rights	
<b>5.05 Encourage Informal ICT Training Programs</b>		
Introduce Courses Targeting Skills Training for Young People, Women, & the Elderly		
Develop Digital Training Content to Fight Illiteracy		
<b>5.06 Use ICT to Improve and Increase Access to Healthcare</b>		
Use Community Access Centers to Provide Online Access in Remote Areas to Doctors and Hospitals		

## 4 ICT for Human Capacity Development

	Indicates Priority Projects by Track
	Indicates National Priority Projects

Program/ Project	Related Ongoing or Planned Projects	Proposed Ownership
<b>4.01 Review &amp; Update Education Strategy to Include Formal ICT Education Programs</b>		
Reactivate/Complete Incorporation of ICTs in Public Schools Curricula		Ministry of Education
Complete All Public Schools Teacher Training	SIS (Eduware Project); British	CERD
Institute ICTs as Prereq Skills for Graduating Teachers		Ministry of Education
<b>4.02 Review &amp; Update Vocational Education Strategy to Incorporate ICTs</b>		
Complete Incorporation of ICTs in Vocational Education		Ministry of Education
Train Vocational Schools Teachers on ICT Skills		Ministry of Education
<b>4.03 Encourage Informal ICT Training Programs</b>		
ICT Skills Portal (ICT Skills Learning Online)		
<b>4.04 Government Agencies and Actions</b>		
Set National Targets (e.g X% Digital Literacy in Relation to Literacy by 200X)		
Gather and Publish All Relevant ICT Data: Number of Institutes Providing Quality Training; Number of ICT Grads; etc (periodic effort)		Central Administration for Statistics
<b>4.05 Revitalize R&amp;D and Indigenous ICT Innovation</b>		
Create an Enabling Environment for ICT Researchers & Faculty Members		
Increase R&D Budgets in Universities		
<b>Alignment &amp; Knowledge Transfer Between Private Sector &amp; Academia</b>		
<b>4.06</b> ICT Educational Career Counseling		
<b>4.07 Develop &amp; Implement Distance Learning &amp; Virtual Universities</b>		
<b>4.08 Encourage Education Institutes to Publish Data on the Internet in Arabic and Foreign Languages</b>		
Create a Database of Studies, Thesis, & Articles		

### 3 ICT as a Production Sector

	Indicates Priority Projects by Track
	Indicates National Priority Projects

Program/ Project	Related Ongoing or Planned Projects	Proposed Ownership
<b>3.01 Formalize &amp; Boost the ICT Sector (Reduce Brain Drain)</b>		
Streamline & Improve Quality of Local Hardware Production		
Simplify Governmental Processes Relating to Import & Export of ICT Products		
<b>3.02 Revitalize R&amp;D &amp; Indigenous ICT Innovation</b>		
Investigate the Creation of an R&D Fund		
Establish Incubators & Parks (with related legislation & fiscal incentives)	BETZ; Berytech	
<b>3.03 Government Agencies and Actions</b>		
Gather and Publish All Relevant (Goal-Specific) ICT Industry Status Data (periodic effort)		Administration for Statistics
<b>3.04 Develop Lebanon-Based ICT Regional Services</b>		
Lebanon-Based International Call Centers	Computer Associates	
<b>3.05 Encourage Investment in the ICT Sector (Local, Expat, Foreign)</b>		
Setup SMEICT Fund		
Review & Improve Incentives (inc Tax Breaks) for ICT Startups (including e-Commerce Businesses) (Law 360)	Ongoing	IDAL
Reduce Taxes & Duties on ICT Hardware Manufacturers & Software Developers, to Encourage Export		
<b>3.06 Increase Visibility of Local Industry (including ICT)</b>		
Develop Awareness Campaigns Targeting Local Decision Makers		
Industry Level Participation in International Forums & Exhibitions to Promote the Industry	IDAL; Export Promotion Board at the MoET	
Develop a Branding and Slogan for the Industry		
<b>3.07 Develop &amp; Implement Distance Learning &amp; Virtual Universities</b>		
Invest in e-Learning/CBT Commercial Solutions to Develop an Education Software & Content Development Industry		



## 2 Enabling Environment- National Policies

	Indicates Priority Projects by Track
	Indicates National Priority Projects

Program/ Project		Related Ongoing or Planned Projects	Proposed Ownership
<b>2.01</b>	<b>Launch ICT Enabling Legal Framework</b>		
	Develop and Pass "The Right to Information" Law		
	Coordinate the Various Efforts to Create and Pass Laws		
	Develop & Pass a Comprehensive Set of ICT Laws including: e-signature; security; data privacy; cyber crimes; harmful content for minors; consumer online protection; anti-spam and unsolicited marketing communication	ECOMLEB & ICT Parliamentary Committee	Ministry of Economy & Trade; ICT Parliamentary Committee
	Develop & Implement Effective Dispute Resolution Systems esp ADR		Ministry of Economy and Trade
	Implement IPR Laws on Content & ICT Solutions (inc trademarks, domain name registrations, copyrights, patents, & geographic indicators)		Ministry of Economy and Trade
<b>2.03</b>	<b>Government Agencies and Actions</b>		
	Setup an Independent (cross-sectoral) Government Entity to Coordinate e-Strategy Implementation		The Office of the Prime Minister
	Increase Government ICT Spending (including on R&D)		
	Set National Objectives and Benchmarks across Sectors		
	Gather and Publish All Relevant (Goal-Specific) ICT Data (periodic effort)		Central Administration for Statistics
<b>2.04</b>	<b>Deregulate &amp; Privatize Telecom Sector</b>		
	Implement New Telecom Law 431 and Complete Telecom Regulatory Authority (TRA) Setup	TRA Project	Ministry of Telecom
	Formulate a Nat'l Radio Freq Strategy & Policy Document		
<b>2.05</b>	<b>Increase PC Penetration</b>		
	Reduce Taxes on ICT Equipment and Accessories		
<b>2.06</b>	<b>Empower Vulnerable Groups to Use &amp; Access ICTs</b>		
	Develop Laws to Guarantee Access to Information to the Disabled (Disability Legal Framework)		
<b>2.07</b>	<b>Use ICT to Improve and Increase Access to Healthcare</b>		
<b>2.08</b>	<b>Coordinate Implementation of National e-Strategy and Maintain the Implementation Plan</b>		Proposed National ICT Steering Entity
	Update Priorities for Years 3 and 4 in Accordance with National Priorities and Objectives		Proposed National ICT Steering Entity
	Identify Assessment and Monitoring Mechanisms		Steering Entity
	Secure, Channel, and Coordinate Funding for Projects		Steering Entity
	Coordinate the Implementation of Projects by Various Parties		Proposed National ICT Steering Entity

May 2, 2006

# 1 Enabling Environment- Infrastructure

	Indicates Priority Projects by Track
	Indicates National Priority Projects

Program/ Project	Related Ongoing or Planned Projects	Proposed Ownership
<b>1.01 Improve Connectivity &amp; Network Speeds in Lebanon</b>		
Make Broadband Access Available Throughout the Country (xDSL)		Ministry of Telecom
Create an Internet Hub in Lebanon		Ministry of Telecom
Increase International Bandwidth	Ongoing Project	Ministry of Telecom
<b>1.02 Improve Affordability of Connectivity</b>		
Model and Demonstrate Impact of Price Reductions on Increase in Demand and Revenues		OGERO/MoT/OMSAR/ MoF
Further Decrease Dial-Up Connectivity Costs		Ministry of Telecom
Lower High Cost of Bandwidth to ISPs & High Cost of Internet Access (ISPs) to Consumers		Ministry of Telecom & ISPs
<b>1.03 Increase Usage of ICTs including the Internet</b>		
Establish Multi Purpose Community Access Centers (CACs) (subsidized and/or self-sustaining)	Various (PiPop; UNDP Regional; NGOs;etc)	Various Government Agencies & NGOs
<b>1.04 Provide Infrastructure in Schools</b>		
Equip Public Schools with Computer Labs & Connectivity (possible usage after hours as CACs)	Various Limited Initiatives	Ministry of Education
<b>1.05 Increase PC Penetration</b>		
Provide Low Income Families with Affordable PCs	Various (planning stages)	OMSAR
<b>1.06 Revitalize R&amp;D &amp; Indigenous ICT Innovation</b>		
Equip R&D Centers with High-Speed Internet Access		
<b>1.07 Upgrade Industrial Zones</b>		
Equip Zones with High-Speed Internet Access		
<b>1.08 Develop Sector-Specific Secure Networks</b>		
Realize Banking Secure Network Infrastructure	SEBIL (BDL)	

# Overview of current situation

- Basic Infrastructure is in place
- Preparation for TRA is complete
- Much time and effort is spent on conferences and verbiage, **not any more**
- High Tariffs **being decreased**
- Telecom sector is a cash cow
- Delay in enacting the new laws

# Infrastructure highlights

- **1.01 connectivity and network speed**
  1. Broadband Access (xDSL)
    - Some network elements are required to be offered as unbundled services (i.e. MOT/OGERO to offer separate prices and access to the local loop, space within the exchange building and dark fibres) and Service Level Agreements (SLAs) should be established.
    - The lack of a Public Data Network in Lebanon enabling ISPs to connect to DSLAM/Modem in a local exchange is a major barrier to growth of internet penetration.



# Infrastructure highlights

- This issue was solved through the MOU signed by His Excellency Minister Marwan Hamadeh with the ISPs
- MoT has lowered the international Tariffs, the decrease reached 60%
- Establish cost based rates for the local loop, collocation and dark fibre using a cost based regulatory model.
- Put interim unbundled rates that can be derived from benchmarking exercise and by comparison with competitive technologies
- MOT/OGERO is to offer ISP services by a separate group different from that offering wholesale unbundled services to other providers

This process is still ongoing but it is close to implementation, during the next month.



# ICT Infrastructure: MoT efforts



# ICT Infrastructure

- Having a comprehensive and sound competitive framework for communications services matching international best practices by promoting competition, innovation, and investment in broadband services
- By significantly reducing Internet and other data transmission tariffs traffic increases and total country income from the telecommunications, and sector will grow as prices come down
- Investment in additional international Internet backbone using the same international competitiveness argument



# ICT Infrastructure

- Ensure competitive behaviour by offering ISPs a fair proportion of the total DSL ports for their customers
- Encourage sustainable competitive ISP services, international connectivity and competitive leased line and broadband data access services at internationally competitive prices
- Memorandum of understanding among all the relevant Ministries to secure future collaboration in developing ICT Laws





# ICT Infrastructure

- Regulate Voice over IP (VOIP)
- Establish a Lebanese ICT standards committee to agree adoption of international ICT standards, review local standards, create a detailed implementation plan, and ensure good publicity is given to the adherence to ICT standards. (Could come within the existing Lebanese standards committee's remit)
- Single Government champion for ICT
- Establish an independent source of trustworthy statistical information on the Lebanese ICT market
- Regulate pricing



# ICT Infrastructure: recommendations

This is really what is urgently  
required from MoT and later  
on from the

Telecom Regulatory Authority  
TRA



**ICT policies, MoT efforts:**



**Telecom Policy paper**



**Telecom Regulatory Authority**





# Telecom Policy Paper

“Telecommunications policy aims to transform the telecommunications sector in Lebanon from a state-owned monopoly to a competitive market, open to private participation”.



# Telecom Policy Paper

The policy is based on four basic pillars:

- the liberalisation of the telecommunications sector
- the establishment of an effective and efficient regulatory authority
- Open sector to private participation.
- Safeguard the social Objectives



# Telecom Regulatory Authority

## The Mission of the TRA

“To regulate the telecommunications sector so as to achieve a competitive environment delivering a range of high quality services at competitive prices, so as to assist in the development of the Lebanese economy for the benefit of businesses and all the citizens of Lebanon”.

# Telecom Regulatory Authority

The TRA will have responsibilities in six main categories:

- Licensing of telecommunications operations and services and compliance with licence conditions and other regulations.
- Management and monitoring of the radio frequency spectrum.
- Technical matters covering topics such as: Interconnection; Numbering; Standards; Type Approval; and Quality of Service.
- Consumer affairs; Public relations; and Protection of the consumers' interests.
- Economic and financial matters covering such aspects as: Policy; Market analysis; and Tariffs.
- Support and administrative services for the TRA including: Financial affairs; Internal auditing; Human resources; IT & information systems; and General internal services.



# ICT Sector

Objective:

Provide the best ICT infrastructure and services to allow development of a knowledge-based society and economy.

How many times have you heard this statement?





# ICT simple ideas to follow

- **Forget our ego**
- **One man show Vs team work**
- **Agree on the fact that nobody owns ICT**
- **Start thinking of ICT as a tool not a target**
- **Work Vs Talk**
- **Learn from others**
- **Use the extremely rare resource : time**

**Because the clock is ticking**



# ICT Policy Making in ESCWA Countries:

Lebanese ICT Strategy:  
Infrastructure and Regulator  
perspectives

Thank you you can get more info from

[E-gateway.gov.lb](http://E-gateway.gov.lb)

[Omsar.gov.lb](http://Omsar.gov.lb)

[Tra.gov.lb](http://Tra.gov.lb)

[Mpt.gov.lb](http://Mpt.gov.lb)

I will be glad to answer your questions by  
the end of this session