National E-Strategy Framework for Lebanon

United Nations Development Programme

Office of the Minister of State for Administrative Reform

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I- Introduction

Over the last decade, ICT has assumed an unprecedented role in the development of the global economy and civil society. Also, the degree of utilization of information and communication technology (ICT) is a main indicator of the intellectual and scientific level of a society, the transparency of its institutions and regulations, and democracy. Countries that rapidly adapted to change and clearly distinguished themselves from increasing competition have leaped into new markets and benefited from substantial income growth. Ireland's, India, Singapore, and Korea are examples of countries that, over the last decade, capitalized on ICT development to significantly improve their socio-economic conditions by creating many new jobs, attracting foreign investment, and combating poverty.

Despite its many assets and potentials, Lebanon has yet to assume the importance of ICT as a key contributor to the socio-economic development of the country. Since the early nineties, subsequent Lebanese Governments embarked on several programs aimed at improving the business environment and providing a higher degree of access to regional and global markets. As a result, Lebanon signed several trade agreements with the EU and several regional countries, promoted the creation of a regional Arab market, sought accession to the WTO, and sought to improve the quality of national products and services. Also, the Central Bank, OMSAR and the Ministry of Economy and Trade have sponsored several initiatives to modernize the public sector and to create the technological, legal and regulatory infrastructure required for the establishment of a knowledge-based economy. Despite these serious efforts, Lebanon is still lacking a coherent plan and cohesive strategy to:

- Use ICT to reinforce the full economic, social, and intellectual potential of the country.

- Modernize its industries to improve the quality of domestically produced goods and services, boost export, cut cost, and improve productivity.

- Enhance its citizens and its businesses ability to compete and attract investment in the global economy.

A national E-strategy, coupled with a strong and clear vision for the next ten to twenty years, which capitalizes on Lebanon's strengths and opportunities, will lead to a significant development of the country's human resources, reduce poverty, improve the economy, enhance the overall socio-economic conditions, and encourage domestic and foreign investment. The above factors will bring a significant value to the local private and public sectors and citizens. They will lead the creation of more and higher paid jobs, and a demand for new technical skills. They will encourage investment in education and training, lead to stronger business and economic ties with the Lebanese Diaspora, improve business productivity, create new business opportunities, reach out to rural areas, and brands Lebanon's economy and its main business and service sectors.

This document[1] summarizes the national E-Strategy required for the establishment of an e-society and defines a framework for the development of an export-oriented ICT industry.

The document provides the required justification and the analysis of the strengths, weaknesses, challenges, and opportunities that Lebanon's National E-Strategy should be based on. It presents the impact of the technological and institutional trends on Lebanon's competitive position in the regional and global economy. It identifies the country's E-readiness gaps for the establishment of an e-society and recommends key priority areas for the next three to five years. Finally, it presents the long-term direction of the required national E-Strategy and the role and responsibility of various parties in its implementation and financing.

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[1] This document builds on six documents, prepared during the course of 2003, for OMSAR and UNDP and briefly described in Appendix I.

II- The Concept

1. *What does the National E-Strategy Mean for Lebanon*

The national E-Strategy for Lebanon defines the strategic use of Information Communication Technology (ICT), in line with the country's desire and vision for:

- *The Establishment of a strong unified information society (e-society)*, a major contributor to the development of Lebanon's government and economy; and

- *The creation of a dynamic, focused high-value ICT export-oriented industry*, which:
  - Meets the country's requirements for economic diversification and growth across all business sectors
  - Best positions the country to compete in the global economy.

Therefore, a national E-Strategy for Lebanon will link the required socio-economic development and :

- The Government ICT policies and e-initiatives;
- The private sector and citizens' activities; and
- The ICT investment and promotion strategy.

2. *Why Does Lebanon Need a National E-Strategy*

A national E-Strategy is needed:

- To reinforce the country's financial and economic stability by diversifying the economy and government revenues;

- To create favorable conditions for the establishment and development of a knowledge-based economy and an information-intensive civil society;

- To reinforce socio-economic stability and equal and fair opportunity for all citizens and businesses;

- To help create regionally and globally competitive e-services export industries;

- To attract local and foreign investment by turning Lebanon into a unified information zone and establishing the needed legal, technological, and organizational environment; and

- To reach out to the rural areas and bridge the digital divide within Lebanon and with the outside world.

- To train a high-skilled workforce prepared to compete in the new economy of the twenty-first century;

Therefore, a carefully planned national E-strategy for Lebanon will:

- Reinforce Lebanon's full economic, social, and intellectual potentials and return to Lebanon its historical role as the first regional provider of high-value services in technology, tourism, culture, health, and education.

- Contribute significantly to the revival of the local economy by creating more regionally and globally competitive businesses and industries and an internationally recognized, better-educated and well-trained technical and managerial workforce;

- Improve the life of Lebanese people by creating more jobs, higher quality education, and more business and economic opportunities.

3. *Key Implementation Requirements*

The national E-strategy will impact Lebanon's structures and institutions, economic and social sectors, science and education, culture, and people's standards of living. The success of the national E-strategy will mainly depend on Lebanon's ability to be responsive to changing markets and to new opportunities. It will depend on the ability of the Lebanese Government to facilitate the business environment and develop a definite framework consisting of policy, legislative, financial, and operational guidelines that can provide a stable umbrella for investment, economic growth, and job creation.

At the same time, the success of the national E-strategy will depend on the Lebanese businesses to respond with timely innovation to new challenges. While the Lebanese government needs to act as the main facilitator, enabler, and promoter of ICT industry and e-services, the private sector needs to be brought, into the mainstream of government activities, as the main driver for job creation, for product and service innovation, for business development, and for a sustainable economic growth.

Finally, to enable sustainable economic growth and development, the National E-Strategy for Lebanon should:

- Be built on the specific requirements and potentials of Lebanon's economy and society.

- Take into account Lebanon's comparative and competitive market position, in the regional and global markets, and evolving opportunities.

- Use, to the maximum extent, the local learning and the successful international experience, to avoid the waste of time and resources. This will also help Lebanon to best manage the associated risks resulting from the country's integration into the regional and global economy.

- Keep a balance between top-down e-policies, to promote an enabling environment and strategy in support of national development priorities,

and bottom-up development initiatives in support of e-development priorities across all sectors.

- Create a real partnership between all those who manage, use, and develop ICT by creating the necessary link between citizens, businesses, and government.

- Engage all key stakeholder groups in a sustained participatory process for the further improvement and monitoring the implementation of the national E-strategy and the value from ICT development over time.

- Remove any constraints on the general direction of ICT and the establishment of an e-society, such as remedying existing e-readiness gaps and the presence of any non-friendly policies for citizens, businesses, and investors.

- Be economically feasible and financially sustainable, focusing on the strategic use of ICT across the public and private sectors and the society, to bring value for money and to develop the right ICT skills.

- Manage the risks associated with rapid technological and institutional changes and the integration into the global economy.

4. *What Can Lebanon Expect from a National E-Strategy*

The National E-Strategy for Lebanon is expected to:
- *Create a branding of Lebanon's ICT industry* and promote it outside the country.
- *Increase the productivity of the national economy and government.*
- *Ensure better services to the Lebanese people and businesses* by facilitating the wide-spread utilization of ICT in the Lebanese society and in the public sector[2].
- *Attract greater private investment into the domestic ICT sector* to
   o ensure long-term economic growth and development; and
   o reduce the brain drain by creating new and higher paid jobs.
- *Bridge the digital divide* and reduce poverty.

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[2] thru the present e-government program

III- Challenges and Strategic Opportunities for Lebanon

a. *Technology and Globalization Challenges*

Advances in technology and globalisation will continue to pose the most fundamental challenges and opportunities to Lebanon's future socio-economic development and growth.

On one hand, in Lebanon, like in the rest of the world, ICT technologies are giving rise to major changes in business organization, business partnership, working methods, employed techniques, and the focus of training and education.

On the other, global competition will continue to force Lebanese businesses to improve productivity and employ, train, and keep a more specialized and well-paid workforce. The new barrier for Lebanese businesses entry into the global market will continue to be quality enhancement, a deepening process of innovation, better responsiveness to customer needs, higher productivity, and specialized high-value goods and services. These are the main challenges and factors that, if implemented, can give Lebanese businesses a competitive advantage in future years.

In addition, as Lebanon expands its economic links with the rest of the world through trade and foreign direct investment, it will become more vulnerable to external and global challenges. In particular:

- The Lebanese workforce skill profile will become increasingly important to Lebanon's economic growth, since Lebanon will be more and more dependent on specialized knowledge and higher work quality to compete globally.

- The strategic partnership will become more important and permanent in a global economy. Therefore, joint ventures, long-term relationships, and partnerships will gradually replace traditional business arrangements.

- A new "information society", in which the impact of ICT is pervasive across all Lebanon's enterprise sectors and society, will have to ultimately emerge if Lebanon to compete and enhance productivity and improve its global business and market position.

b. *Weaknesses and Regional Challenges*

Additional factors that continue to erode Lebanon's role in regional socio-economic development and hinder its ability to compete include:

- Increased regional competition in most of the sectors where Lebanon historically was successful, such as in banking, tourism, and trade. Dubai, Bahrain, Cyprus are some examples of the competition Lebanon is facing.

- Relatively high labor cost and higher cost of living comparing to its some key regional competitors like Egypt, Syria, and Jordan.

- Unsupportive technological infrastructure and regulations coupled with high cost of communications for Internet access and usage. All these weaken Lebanon's value proposition vis-à-vis its regional competitors, such as Jordan, Egypt, and Dubai.

- Frequent regional disturbances and political instability, creating an environment which discourages investment.

- A national debt, which lowered Lebanon's international credibility and restricted its spending ability.

- A public administration burdened by inefficient, inflexible and unresponsive regulations, organizational and human capacity processes.

- An inflexible and unpredictable legal framework that does not match the requirements of modern technologies and business practices.

- A wide-ranging social disparity in such factors as age, gender, education, geographic location and class.

- A relatively small-scale economy and a small market size that are often discouraging factors for investors.

The above factors will continue to weaken Lebanon's value proposition vis-à-vis its regional competitors, such as Jordan, Egypt, Cyprus, and Dubai, and other global competitors. They also hinder Lebanon's ability to diversify and grow its economy, compete regionally and globally, attract domestic and foreign investment, modernize its business environment, and develop a strong ICT sector.

Lebanon's public and private sectors alike have to face up to these challenges and rapidly and constantly learn more efficient and more effective working methods, adapt to market trends, improve their productivity, and use the full potential of technology to their advantage.

c. *Areas of Strength*

Lebanon's value proposition includes the following strong areas:

- A free market economy.

- A free and democratic society.

- A relative political and social stability comparing to all neighbouring countries.

- A strategic geographic location between the East and the West.

- A good quality of life (i.e. good education, good health, nice housing, available cultural and entertainment facilities, etc.)

- A multi-lingual and skilful workforce.

- A large number of Lebanese Diaspora who are often highly-educated and well-established in most countries around the globe.

- Many years of experience in its traditional business and service sectors

d. *Opportunities and Competitive Advantages*

Lebanon's best opportunity is to capitalize on its strengths to leverage and channel its domestic human, technological, and financial resources with those of Lebanon's Diaspora. This will help create bridges of knowledge, experience, technical skills, and contacts with the world economies.

In addition, the Lebanese immigrants are often higher risk takers than regular investors. They are often driven by their emotions to be next to their families and their nostalgia to their native country, rather than by strong business logic. They will be the first to invest in Lebanon, to network and partner with local businesses, to share their knowledge and skills, and to promote Lebanon to the countries where they reside.

From the above mentioned strengths and opportunities, Lebanon has two major competitive advantages in the arena of ICT, listed in the order of priority and strength:

a. *The development of an ICT sector with main focus on software development for e-services and business solutions, supporting Lebanon's traditional non-ICT sectors*, like banking, finance, trade, tourism, health, media, education, customer relations, etc.

b. *The hosting of regional headquarters for international ICT firms and management consulting and ICT training firms.*

Finally, two additional key opportunities important to mention:

- The ongoing economic reform and development in Iraq and Syria present great opportunities for Lebanese businesses to access larger markets and create new business partnerships.

- The new regional trade agreement with the EU (and, more generally, the opportunities of the MEDA Partnership) and the expected accession to the WTO will provide access to larger, yet more challenging, markets.

The above offer the most promising opportunities for Lebanon to strengthen its value proposition, diversify its economy, and venture into new markets.

c. *Four Main Guiding Themes into the Future*

The four main themes to guide the public and private sectors initiatives and policies, through the challenges of the twenty-first century, are:

a. Lebanon can no longer afford to dissociate itself from global market forces that are shaping societies and regional and global economies. The establishment of an e-society and the use of ICT, as an integral driver and enabler for socio-economic development, are the imperatives of this century.

b. The required transformation into a knowledge-based economy will require a clear and well-focused vision and long-term planning. It requires some serious efforts and significant resources. Government, academia, citizens, and the private sector need to channel their concerted efforts to make this transformation a reality.

c. Lebanon public sector will have no choice but to devalue some inefficient and ineffective working methods, reform institutions, re-engineer business processes, and become more citizen, business, and investor centric.

d. Labanon's public and private sectors need to exploit to the maximum extent, the available technical, financial, and networking resources of the Lebanese Diaspora to design projects and introduce initiatives that best promote joint ventures and strategic partnership.

The above four points confirm the need for a National E-Strategy, which uses ICT for national development,
 in order to best position the country to compete in a global economy and to guide Lebanon's private and public sectors into the twenty-first century.

IV- Findings from Lebanon's E-Readiness Assessment

The E-Readiness Assessment of Lebanon revealed that initial conditions for acceleration of the information society building process exist. However, it also showed that there are still major gaps. Reliable and quality data on the ICT sector and the present state of Lebanon's information society are almost non-existent.

1. Areas of the Study

The study of Lebanon's E-readiness covered five major areas and eighteen criteria as presented in the table below:

Areas of the Study	Criteria
1- Access and Infrastructure	1- Network Infrastructure 2- Access 3- Affordability 4- Reliability and Speed 5- International Connections
2- Government Leadership	6- National ICT Strategy 7- ICT Policies and Regulations 8- Central Bank Initiatives 9- Partnerships and Funding for ICT 10- E-Government and Organizational Efficiency
3- Human Capacity	11- ICT as Formal Education 12- ICT as Informal Education 13- The ICT Brain Drain
4- E-Business and Economic Environment	14- Economic Climate 15- ICT as a Production Sector 16- E-Commerce
5- Social Environment and Public Awareness	17- Utilization of ICT in Everyday Life 18- The Internet Society

2. Findings and Recommendations

For each one of the 18 criteria, the gap between the present situation and what is required was identified. Programs, solutions (projects), and recommendations[3] were proposed to close existing gaps. The key programs, solutions, and recommendations are summarized below:

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[3] These were detailed in the **Programs, Solutions and Recommendations** document No. 6

PROGRAMS[4]
1.   Launch ICT Enabling Legal Framework
2.   Improve the Affordability of Internet Connection
3.   Improve Network Speeds in Lebanon
4.   Increase Internet Penetration
5.   Promote Proper Utilization of the Internet
6.   Increase PC Penetration
7.   Improve Electrical Power Quality
8.   Increase Government's Yearly ICT Budget
9.   Capacity Building for Public Sector ICT Staff
10.   Free Information Access Points
11.   Use Media to Promote ICT
12.   Deregulation of Telecommunications Sector
SOLUTIONS[5]
1.   Activate and Speed up Online Banking
2.   Implement Project Entity to Gather and Publish ICT Data
3.   Set up a Government Entity to Handle ICT Matters
4.   The Internet Hub Project
5.   What's On in Lebanon
6.   Provide Comprehensive Electoral Information Online
7.   Youth Network
8.   Guide to International Relations and the Diplomatic Network
9.   Manage ICT Resources in the Public Sector
10.   Launch National ICT Professional Association
11.   Prepaid Charge Card for Public Sector Transactions
RECOMMENDATIONS[6]
1.   Improve Efficiency of Government Telecommunications Providers
2.   Improve Utilization of the Land Line Network
3.   Amend Building Laws to Cover ICT Utilization
4.   Reduce Import and Export Complexities
5.   Remove Trademarks as a Prerequisite for Domain Names
6.   Create Incentives for ICT Training Companies
7.   Start ICT Education at an Earlier Age

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[4] A program is a set of clearly defined projects
[5] A solution is one clearly defined project
[6] Recommendations are some clearly defined set of actions

V- Directions of the National E-Strategy

1. *Long-Term Direction*

Any attempt to develop and implement a blueprint to cover a period of ten to twenty years would be naive and unproductive at a time of fundamental change in the factors that determine the success or failure of the enterprise sector and government. **What is required, however, is a clear sense of direction, an approach, a structure and an agenda to help establish:**

- *Realistic and achievable objectives* for economic and social progress over ten to twenty years horizon;

- A consensus on *what the private sector can contribute* towards meeting the national E-Strategy objectives;

- *The broad directions of public policy* that must be pursued in a systematic way to support the contribution that the private sector can make towards achieving the established national objectives; and

- A system of conclusion and review to ensure that the widest possible consensus is achieved in relation to the establishment of long-term economic and social objectives.

Implementing the National E-Strategy is a complex process which includes scientific-technical, organizational, technological, economic, sociological and political factors. Its successful implementation requires effective use of the involved political-administrative, financial, human, technical, and a process of clear priorities in line with the overall policy directions. As the strategy determines main activities directions and the conceptual content action plans in every direction – **national ICTs initiatives** have to be developed and concrete actions have to be conducted through projects. Finally, the presence of a control and coordination mechanism is essential to the monitoring of the implications and to adjust the its overall directions and policies.

2. *Long-Term Objectives*

As a result of the strategy implementation, the following strategic goals/results can be reasonably achieved within the next 15 to 20 years:

- Lebanon will be among leading countries in the sphere of ICT applications;

- As result of ICT development, Lebanon's economy will experience a forward leap and unemployment will be considerably reduced;

- All Government services are available on-line. As results, effective, transparent and controllable state and local administration processes are in

place with easy access to information resources and services by businesses and citizens;

- Lebanon will be successfully integrated into the international information society;

- Favorable legal environment, intellectual potential, telecommunication infrastructure and national electronic information environment will be fully established;

- Lebanon will be recognized as a regional hub for ISP services, for e-learning, for web-based training and conferencing, and a source for producing and exporting high-value and specialized software applications.

- National information resources will be developed using ICT to save and popularize historical and cultural heritage of the Lebanese people;

- Lebanon will participate directly in world's electronic commerce and in the improvement of business processes;

- ICT in Lebanon's Gross Domestic Product (GDP) will be more than 15 percent.

Finally, in order to determine the level of progress Lebanon makes towards the above long-term goals, it will be crucial to conduct regular monitoring of the above indicators. Therefore, a detailed model of indicators for each of the above factors must be developed and monitored by the Lebanese Government and policy decision makers on regular basis.

3. *National Priorities and Link to Policy Directions*

The National E-strategy determines priorities and activity directions from,

- The establishment of an information society, and from

- The development of a regionally and globally competitive export-oriented ICT industry.

3.1. Priorities for the Establishment of an E-society:

The key priorities and policies7 for the establishment of an e-society are grouped in seven key initiatives and summarized in the table below:

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[7] These are presented in " The ICT Policies and the Seven Initiatives" (Document No. 4).

Policy Initiatives	Initiative Objective	Priority Areas
1- **Policies to Close the E-Readiness Gap**	To close the gap between the current situation of ICT and the desired future e-ready state for Lebanon. These policies are pre requisites for the rest of the initiatives.	• Access and Infrastructure • Government leadership • Human capacity • E-Business and Economic environment • Social environment and public awareness.
2- **National ICT Policies**	To adopt nation-wide policies that use ICT to accelerate national development processes. These policies will place ICT in a good position to develop the sector and build the required e-society.	• Focus on Government leadership in ICT matters • Address key ICT challenges and Opportunities • Develop the proper legal framework
3- **Policies for ICT as a Production Sector**	To develop a competitive domestic ICT sector. These policies focus on the strengthening of ICT industries such as hardware, software, telecommunications equipment and services.	• Improve the efficiency of the ICT sector • Assist the ICT Sector in its objectives • Promote State of the art technologies • Improve the status of ICT workforce
4- **ICT and Human Capacity Development**	To strength human capacity and develop and train a high-skilled and specialized local workforce.	• Use ICT for formal education • Use ICT for informal education • Improve the formal education of ICT • Improve the uniform formal education of ICT • Develop ICT skills in the private and public sectors
5- **ICT for Social Development**	To address the social challenges and opportunities when using ICT as a main driver and an enabler of social development. Social development leads to an improvement of the life of citizen which, in turn, leads to Lebanon's growth and competitiveness.	• Alleviate poverty • Reduce Gender disparity • Use ICT to improve the state of the health sector • Empower communities and citizens • Improve local content • Improve the State and health of youth • Advance Lebanese and

		• Arab culture through the use of ICT • Use information and knowledge as part of the social fabric
6- ICT for Economic and Business Development	These are Policies that allow Lebanon to improve its economy and its business sector. This initiative also covers policies related to E-Commerce.	• Improve the use of ICT in all sectors • Use ICT to position Lebanon as a significant trading partner • Implement ICT policies in the Financial and banking sectors • Encourage E-Commerce
7- E-Government	To improve the performance of Lebanon's public sector institutions and service to business, to investors, and citizens. The policies allow the public sector to transit into an electronic government (E-Government) phase integrating public sector with socio economic development.	• Defining E-Government • Pre-requisite policies to support the E-Government initiative • Adopt a top and horizontal view of E-Government implementation • Reform and Develop the public sector • Improve governance • Accountability • Transparency • Predictability • Participation • Make the public sector more effective

3.2.   Priorities for the Development of an ICT Industry:

The key priorities for the establishment of an ICT industry, which is based on the development of high-value software and e-services, has not been established yet. This will require the establishment of a a well-focused vision, planning, and close coordination and partnership between the public and private sectors.

The sections below provide as assessment of the technological and institutional requirements for the development of the required ICT industry.

Resources Development

Human Resources development is imperative for the local ICT industry to position Lebanon as an important player in the international market. The Government has to develop an HR Action Plan to develop a large national pool of academically as well as technically skilled IT manpower to meet

the local and export needs of an information society and the development of a globally competitive export-oriented ICT industry. In that respect, certification programs shall be promoted and encouraged. Also, skill matching and experience exchange programs between local and foreign experts, especially with the Lebanese Diaspora professionals, should be created and nurtured by the computer associations and the Government.

Infrastructure Development

The local ICT industry requires a world class enabling infrastructure. An exercise for deployment of this infrastructure should be undertaken. The establishment of ICT free zones and incubators across Lebanon need to be encouraged and matched by government incentives to equip them with modern facilities and to provide a one-stop window for prospective investors in the ICT industry. Telecom infrastructure needs to be modernized to carry broadband access in the backbone and local loops.

Software Industry Development

Software development is a high growth industry and will continue to form a major segment of the vast IT regional and global markets. The needs of the Arabic market for specialized Arabic software and maintenance support services are tremendous.

Due to the small size of the Lebanese market and the relatively higher labor cost, Lebanon needs to focus on high-value and specialized software where the client is willing to pay the extra premium for the applications and for services. The public and private sectors need to undertake integrated and coordinated efforts to develop the local software industry with focus on high-value and specialized software export. This joint effort and partnership between the private and public sectors shall include the encouragement of local software houses to participate in Government projects, local content development, multi-lingual and Arabic language software development, promotion of software exports through the establishment of an international marketing network, the removal of all barriers to facilitate the work of software exporters, the encouraging joint ventures with of international consultants, especially from the Lebanese Diaspora, for local and global business development projects, and the offering of fiscal and regulatory incentives for software exporters.

Hardware Industry Development

The private sector needs to focus on developing the areas that are within Lebanon's reach, in terms of technology and resources and in which the country could have a competitive advantage. ICT assembly centers are more in reach, rather than the manufacturing of hardware. Hardware is not an area where Lebanon can aggressively compete with the developed countries. However, the Government has to consider the waiver of any duties and taxes on the hardware, incentives to reduce the cost of raw material and inputs, encourage and fund research and development in the

universities and engineering colleges through faculty chairs, matching grants and focused joint projects.

Internet

The basic principles adopted for the Internet growth in Lebanon will be to encourage competition, avoidance of unnecessary regulations, provision of low cost, reliable and broadband Internet access, Universal Internet Access in the areas connected with the telecom network, free Internet access for public sector staff, universities, and support for the development of national Internet content.

Incentives

The government needs to invest in various fiscal and non-fiscal incentives to nurture, develop, and promote the use of IT in organizations to increase their efficiency and productivity. The Government strategy should focus on the promotion of venture capital industry through incentives, the recognition of the need to develop a domestic export-oriented software development and e-services as priority industries, the creation of investment friendly environment, building investors' confidence and encouraging technology companies to be listed on Lebanon's and regional stock exchanges.

ICT Promotion and Awareness

The Government and the private sector should undertake a massive ICT promotion and awareness campaign. The national E-strategy should include provision of continued support and funds for the participation in world ICT computer trade fairs, the exchange of delegations, the promotion of ICT use by the Head of the Government, Ministers, and all other key figures who can influence public opinion at all public and private forums, the declaration of the next fiscal year as 'ICT Year' and the organization of special events during the current year including national and international Exhibitions.

ICT Utilization

To embark on an aggressive program to improve efficiency and provide quality services to the citizens of Lebanon, ICT would be inducted at all levels of government. Key projects should continue to be launched but under a clear policy framework.

Legislation

To provide protection and enhance the confidence of local and foreign users, providers, and facilitators of information services: legislation in the areas of Digital Signature Act, Intellectual Property & Copyright Act and the Consumer Protection Act, have started and need to continue. The Government should seek legislative approval of changes to statutes that

will encourage electronic commerce and revise statutes that mandate a paper-based or manual process. The EU funded E-Commerce Project with the Ministry of Trade and Economy will be the right opportunity to achieve that goal thru the project. Also, the Central Bank initiative to introduce e-payments and Public Key technology through the Secure Banking and Information for Lebanon (SeBIL) project shall provide the secure platform required for electronic banking and e-services for Lebanon's financial sector. A fully operational SeBIL system will enable BDL, the Government of Lebanon and the financial sector to provide automated, secure services, between government, businesses and citizens.

Regulations

A regulatory framework is essential to avoid violating policy goals and direction. In devising a useful regulatory framework, the focus should be on creating a fair, equitable and competitive environment, based on the principles of free market and open access. Excessive regulations stifle industry investment and growth.

Availability of Reliable Data

As noted earlier, there is lack of reliable and consistent data on the ICT sector and the development of the e-society in Lebanon. Therefore, collecting reliable data on Lebanon's ICT sector and its competitive position vis-à-vis its regional and global competitors, and on the development of Lebanon's e-society is required. Developments and changes will need to be regularly monitored in the future to help policy makers to adjust their policies and encourage investment in the ICT sector.

VI- Implementation Plan: Institutional Aspects

1. Coordination and Monitoring Council (CMC)

The successful strategy implementation will mainly depend on the presence of a visionary leadership and local champions to move the process forward and ensure its timely implementation. The process will require:

- A participatory approach and skillful, efficient management, leadership, and administration.

- A national dialogue and consultation with experts, and with all stakeholders and parties who are interested in the development of ICT and the implementation of the required projects;

- A constant feedback from investors, businesses, and the Lebanese public in general;

- An objective assessment of all presented ideas and proposals. Therefore, all parties, irrespective of their ownership, interested in the usage and development of ICT in Lebanon need to be heard, to the maximum extent, represented in the required consultations; and

- A phased implementation approach and a process of an ongoing set of coordinated programs, projects, and specific activities. The process needs to be coordinated, controlled, and governed by private and public sectors' institutions.

Therefore, it is crucial that a **Coordination and Monitoring Council (CMC) be setup to manage such a wide base of actions and input from all stakeholders**.

Also, in order to implement the strategy on a scientific and technical basis, **a scientific-technical advisory expert group needs to be formed** and its monitoring work becomes an integral part of the Coordinating and Monitoring Council's responsibility.

Finally, the CMC needs to coordinate the public and the private sector initiatives. It should have its own financial resources and the authority to carry out priority projects and initiatives, across ministries and industry sectors.

Therefore, the CMC shall report directly to the Prime Minister's Office (PMO), in line with international practices.

2. Role of the Public Sector

The Government plays key role in creating favorable conditions for the ICT sector development and in building the information society. The Lebanese Government needs to act as the main facilitator, enabler, and promoter of the e-society and the ICT industry. Its main tasks shall include:

- Create a conducive to attract foreign and local investment and to ensure fair competition;

- Create equal conditions for all participants and stakeholders, and involve people in strategy implementation, and coordinating their activity;

- Improve Lebanon's value proposition as a workplace of choice to retain and attract new technical and managerial talents and investment.

- Create favorable conditions for producing national ICT products and services and stimulating their promotion on the world market;

- Mobilize financial resources required for implementation of the national E-Strategy and E-Government programs and create more opportunities for citizens to access to state information resources;

- Create favorable environment for using ICT in all sectors of the economy and in the establishment of new ICT businesses in the country;

- Use modern ICT in state and local administrations to implement the ongoing electronic government programs and reach out to a larger number of citizens, business, and investors;

- Protect intellectual property rights, privacy, and security of information.

3. *Role of the private sector:*

Being the source of technology resources and experience, the private sector and academia need to be brought, into the mainstream of Government activities, as the main drivers for research, for innovation in ICT and in e-services, and for human development.

The specific responsibilities expected from the private sector role includes:

- Partner with the Government on its key e-initiatives and projects to implement the national E-Strategy and to brand Lebanon's ICT industry, as the one offering high-value and specialized e-services and e-goods.

- Embark on a continuous process of modernization of its business processes to improve productivity and enhance the quality of its goods and services.

- Constantly re-align its business strategies with market trends.

- Take advantage of new technologies to improve work quality, reduce cost, improve productivity, and attract venture capital for its ventures.

- Partner with academia to become the main source for human development and training.

- Train employees on new skills and technologies to retain existing talents and attract new ones.

- Constantly seek to satisfy its customer and investor base.

- Adhere to requirements resulting from agreements between the Government and foreign countries and international trade organizations, and take advantage of the created opportunities, resulting from their agreement.
- Advise the public sector on the ICT growth needs.

4. *Role of Academia*

Academia's role is crucial, particularly due to the main opportunity provided by their quality and maturity. In this respect, Academia needs to:

- Partner with the private and public sectors to lead in ICT research and E-service and goods innovation.

- Constantly review its curricula to align them with technological changes, trends, and the business community needs.

- Advise on the required legal and institutional framework for the implementation of the national E-Strategy.

5. *Role of Citizens:*

Lebanese need to:
Take advantage of new technologies to learn new skills, constantly demand for better services, express their needs to government and businesses, and not to shy away from learning and using new technologies where they bring a promising value to their future.

VI- Financial Requirements

The implementation of the National E-strategy for Lebanon requires large financial resources. This problem can be solved by the mobilization of Lebanese Government internal finances and attracting foreign investments. In general, the strategy implementation can be financed from the following sources:

- From state budget resources allocated for ICT projects and commodities;

- Various government and non-government funds;

- Resources of central and local administration;

- Foreign and local investments;

- Financial and technical support of international and foreign organizations.

However, to achieve stable, long-term financial support, an effective policy shall be developed, governed by the following principles:

- The creation of favorable conditions by the Government to attract additional local and international finances to the implementation of the ICT application;

- The introduction , where feasibly, Develop and apply, where feasible, favorable credit-financial, customs and tax mechanisms for ICTs applications;

- An analysis of the economic effectiveness and sustainability of each funded program, giving preference to self-financed projects, including Build-Operate-Transfer (BOT);

- The offering of preferential credits and grants for the ICT development and conduct unified and coordinated promotion policy and strategy to attract foreign and local investments;

- The implementation of monetary, fiscal, legal and organizational actions to attract investment from local Lebanese, Arab, international, and especially from the Lebanese Diaspora.

- The application of flexible economically stimulated mechanisms to eliminate the "digital divide" in various regions, cities and rural areas;

- Creation of economic mechanisms to attract finances for applying ICT in science, education, culture, health care and other social oriented programs.

Annex I

The National E-Strategy Project Documents[8]

During the first half of 2003, the National E-Strategy was completed by a team of 3 cooperating closely with a Technical Committee from the UNDP and OMSAR. The project produced the following 6 documents:

Document 1 **The National E-Strategy for Lebanon**: An Executive Summary (the current document).

Document 2 **The National E-Strategy for Lebanon**: This is the main document where the rationale, objectives and the E-Strategy are presented.

Document 3 **The E-Readiness Assessment**: An analysis of E-Readiness criteria for Lebanon based on a survey carried out by the Consulting Team. The survey resulted in a comprehensive E-Readiness Assessment.

Document 4 **The ICT Policies**: The document presents an analysis of the 7 proposed ICT initiatives that meet the requirements of the National E-Strategy.

Document 5 **The Implementation Roadmap**: Proposes a Roadmap for the National E-Strategy for Lebanon and discusses related issues such as roles, challenges, critical success factors and implementation best practices.

Document 6 **Programs, Solutions and Recommendations**: Proposals for around 100 programs, solutions and recommendations are presented in detail.

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[8] The above documents are available from the UNDP and OMSAR. They are also available on OMSAR's website (http://www.e-gateway.gov.lb).