

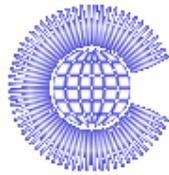
Pan Caribbean SME ICT Competitiveness Development Programme 2005-06

ICT Development Strategy

for

St. Lucia

Submitted to the



Commonwealth Secretariat

By

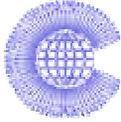


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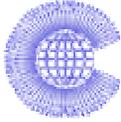
DRAFT FOR CONSULTATION

July 2006



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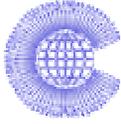
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Executive Summary

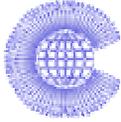
THE OBJECTIVES

A. Economic fundamentals

- (i) St. Lucia as a very small state has certain difficulties to surmount. Its resources both geographical and human are severely limited. It must make the most of the assets it has, and work to the fullest extent possible with its neighbours. CARICOM and now CSME offer a framework for this.
- (ii) St. Lucia's enterprises are mainly small. These SMEs need to maximise their cooperation with others, both inside the country and in neighbour countries. Steps need to be taken to support them in this effort.
- (iii) SMEs in the business of ICT in St. Lucia have a great potential to bring in the population at several levels to service industry that can provide services across various countries in the region and the world by means of telecommunication capabilities.
- (iv) ICT is also a great enabler in helping small businesses to connect with each other and with their markets. It can put rural businesses on equal terms with those in towns and cities. It is an absolute essential if SMEs are to compete with the outside world.
- (v) The Government of St. Lucia must support that effort by creating a clear policy, which is lacking at present, for the support specifically of SMEs, which face specific difficulties; and by creating the conditions for rapid advancement of SMEs in the ICT services and give a fillip throughout the St. Lucian economy in the use of ICT. This calls for action on several levels: infrastructure, legislation, education and public awareness.
- (vi) Training of people will be a key requirement on both fronts.

B. A strategic way forward

- (i) Taking the new CSME as the starting point, the Government should look for lines of economic development in which SMEs can engage, and which offer prospects of linkage with neighbouring countries. We have looked for such links between the five Caribbean countries we have been asked to advise.



- (ii) The traditional mainstay in St. Lucia has been agriculture but the markets for the two main Caribbean export products - bananas and sugar - are going to contract in the coming years. Tourism offers better prospects for the future, as the Government of St. Lucia has recognised.
- (iii) The Government has already identified the importance of supporting SMEs. Our strategy spells out specific steps designed to ease the difficulties that SMEs often face, and to create a supportive environment in which they can compete successfully.
- (iv) Also in our strategy we indicate how to carry through the Government's intention of building the ICT base that is essential for a modern economy, and an absolute prerequisite if SMEs in the ICT segment are to flourish in a small island state, against outside competition.
- (v) Further, we recommend ways of linking SMEs in the rural sector with the tourist industry and the potential market from tourists - an explicit wish expressed by many of those we consulted in the course of our study.

ACTIONS RECOMMENDED

To create an ICT and e-commerce enabled SME society

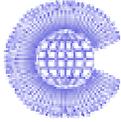
In line with the terms of reference we have recommended actions for development of the SME and suitable action is called for within the recommended time frames.

I. Settle the strategy

- (i) The first task is to identify the national trade agenda and it is expected that the Government will act on this on a time bound agenda. We propose that St.Lucia concentrate on tourism, agriculture and handicrafts and SMEs in the ICT sector.
- (ii) We recommend that the Government keep this agenda in view in all future external trade negotiations, with the aim of shaping new trade deals favorably to the sectors prioritized.
- (iii) We further recommend that the Government issue suitable directives to the ministries responsible for the development of these sectors in the external trade negotiations.

II. Build economic activity for SMEs around tourism

- (i) Build commercial links with cruise and tour companies, specifically designed to benefit St. Lucia's SMEs providing direct services to the tourist industry, including possibly predominantly ICT services; with incentives given to the major outside tour operators to fund training in ICT-centred lines of trade.



- (ii) Broaden these links with tour companies so that SMEs working in food production and village handicrafts are tied into supplying products to tourists too.

III. Build support system for SMEs

- (i) Information base:
 - (a) Define SMEs for St. Lucia's purpose
 - (b) Collect data on existing SMEs
 - (c) Disseminate to interested parties inside St. Lucia and beyond.
- (ii) Guidance: coach SMEs into habits of working in clusters and networks with a small number of Network Brokers leading the way.
- (iv) Government must support and underpin SMEs' efforts through legislation/regulation/provision of training (including 'incubation centres'), with back-up from outside where indispensable.

IV. Creating national capability for ICT

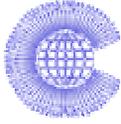
- (i) Create specific capacity building programmes to build understanding amongst SMEs and impart know-how at the managerial and technical levels. This should cover all facets of e-commerce strategy including web-site design and methodology for development of secure e-commerce transactions.
- (ii) Develop legislation relating to e-Commerce whilst strengthening other existing legislations to protect transactions under e-Commerce.
- (iii) Create the necessary 'platform' of hardware and software, country-wide, with potential for access by all based on decision made to implement Network Brokerage model.
- (iv) Step up awareness of need for uptake; identify intermediaries to spread the message.

V. Building the nation's ICT capability and skills

- (i) Training is crucial: training children in school for their e-future - but also making available continuing education for adults, including those in work.
- (ii) Legislation for e-commerce is needed. We recommend some key points to cover.

VI. A driver for change

Appoint a national change manager with the task of working out a national programme to put the above into practice, making full use of players outside Government.



1.0 Introduction

1.1 Country Background

St Lucia is located midway down the Eastern Caribbean chain, and is part of the West Indian archipelago. It is one of the four Windward Islands. Administratively the country is divided into ten districts and its capital city is Castries. The country became independent in 1979 and is a member of the Commonwealth with a government structure following parliamentary democracy based on the British model. St. Lucia is a member of the Organization of Eastern Caribbean States (OECS), as such it participates in the Eastern Caribbean Currency Union (ECCU). The currency of the country is EC Dollar (EC\$). Established in 1976, the Eastern Caribbean Central Bank (ECCB), based in St. Kitts has been responsible for monetary and foreign exchange policy for the OECS, keeping the EC dollar pegged to the U.S. dollar. Recent developments in international trade including the changes in the EU import preference regime and the increased competition from Latin American bananas have made economic diversification increasingly important in Saint Lucia. The island nation has been able to attract foreign business and investment, especially in its offshore banking and tourism industries. The manufacturing sector is the most diverse in the Eastern Caribbean area, and the government of St. Lucia like the other governments is trying to revitalize the banana industry.

1.2 Population

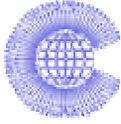
The population of St. Lucia in 2005 was 164,791 indicating a growth rate of 1.5 over the previous year. The island has a relatively young population, with 28.4 per cent under the age of 14 and only 7 per cent over the age of 65. The density increased to 306 persons per square kilometre in 2005. Today the majority, about 90 per cent of the population is of African descent, with 6 per cent being of mixed origin, 3 per cent East Indian, and 1 per cent of white population.

1.3 Fiscal and Monetary Performance

The strong economic performance was mirrored in the monetary and financial sector during 2005. National accounts data indicate that the banking and insurance sector expanded by 8.7 percent during 2005, following growth of 4.9 percent in the previous year. The expansion of the banking sector, which grew by 9.9 percent, was primarily responsible for this strong performance. As a result, the sector's contribution to real GDP increased to 11.3 percent.

1.4 Sector Profile of St. Lucia

The economy of Saint Lucia is highly open and heavily dependent on foreign trade. Tourism and agriculture are the two main economic activities. More recently there have been efforts to establish financial services. Agriculture provides 12% contribution to GDP and 25% of employment. In recent



times, tourism has overtaken agriculture as the main contributor to GDP and this trend continues with growing visitor arrivals on the island. The manufacturing sector is under developed.

During 2005, economic activity in St. Lucia intensified, driven by the performance of the construction, hotel/ restaurants, banking/insurance, communications and distributive trade sectors. Despite external pressures from increasing international petroleum prices and other factors the economy registered real GDP growth of 5.4 percent. After contracting by 4.1 percent in 2001, the economy has posted cumulative growth of 13.6 percent over the five year period 2001 to 2005.

The outturn for real GDP growth was influenced by increases in output of 10.4 percent in the construction sector, 9.2 percent in distributive trade, 8.7 percent in banking and insurance, 7.3 percent in communications and 6.3 percent in the hotel and restaurant sub-sector.

1.5 Tourism

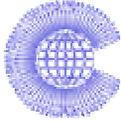
The tourism sector continued along its path of steady growth in the review period, despite the emergence of several factors that posed a threat to prospects for the sector. Tourism accounted for 13.6 percent of real GDP in 2005, retaining its position as the principal engine of economic growth in St. Lucia. Moreover, real growth in the sector, reflected by the value added in the hotel and restaurant sub-sectors, expanded by 6.3 percent.

1.6 Agriculture

During 2005, output of the sub-sectors within agriculture sector, with the exception of the livestock sector recorded contractions of varying magnitudes. Real output in the sector fell by 22.0 percent in 2005, following marginal growth of 1.8 percent in the previous year. The largest contraction, 36.2 percent, was observed in the banana sub-sector. However, there were also significant declines in value added in the non-traditional crops sub-sector of 16.9 percent and the fisheries sub-sector of 6.8 percent. By contrast, the livestock sub-sector expanded for the second year, growing by 2.2 percent. In keeping with the decline in banana output, the agriculture sector's contribution to real GDP fell to 3.4 percent with bananas contributing a mere 1.3 percent. Banana exports from St. Lucia fell by 29.1 percent to 30,007 tonnes while export revenue fell by 23 percent to \$ 41.5 million.

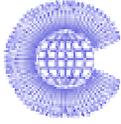
1.7 Manufacturing

Buoyed by the continued strong performance of the food and beverage sub-sector, value added in the manufacturing sector is estimated to have expanded by 3.9 percent while contributing 5.6 percent to real GDP. Value of output in manufacturing sector increased by 10.2 per cent to \$ 156.7 million in 2005 compared to 3.0 percent growth in the previous years. This performance was dominated by activity in the food and beverage, paper and paperboard and electrical sub-sectors, which together accounted for 80.0 percent of production in the manufacturing sector.



1.8 Construction

The construction sector recorded substantial growth of 10.4 percent in 2005, following a growth of 1.0 percent in the previous year. Consequently, the share of construction to total real GDP increased from 7.6 percent in 2004 to 8.0 percent. This performance was influenced by significant private sector investment, especially in the tourism sector, housing construction and Government investment in infrastructure. Public sector construction expenditure more than doubled to \$ 134.5 million, after recording a decline of 9.2 percent in 2004. This reflects significant expenditure on major road rehabilitation projects in St. Lucia.



2.0 SME Sector in St Lucia

2.1 Definition

Small and medium-sized enterprises (SMEs) are a very heterogeneous group. SMEs are found in a wide array of business activities, ranging from the single artisan producing agricultural implements for the village market, the coffee shop at the corner, the internet café in a small town to a small sophisticated engineering or software firm selling in overseas markets. The owners may or may not be poor; the firms operate in very different markets (urban, rural, local, national, regional and international); embody different levels of skills, capital, sophistication and growth orientation, and may be in the formal or the informal economy.

Statistical definition of SMEs varies by country and is usually based on the number of employees, and value of sales and/or value of assets. Due to its ease of collection, the most commonly used variable is the number of employees. The EU and a large number of OECD5, transition and developing countries set the upper limit of number of employees in the SMEs between 200-250, with a few exceptions such as Japan (300 employees) and the USA (500 employees).

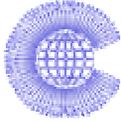
At the lower end of the SME sector, a large number of countries define a group, which is a mixture of the self-employed and “micro” enterprises, with less than 10 employees. Irrespective of the level of development of an economy, a significant proportion of micro and, sometimes, small enterprises are found in the informal sector or the shadow economy.

2.2 Contribution of SMEs to Development and the New Challenges

The notion of SME and entrepreneurship development was introduced into the growth and development landscape as early as the late 1940's with the introduction of targeted policies (grants, subsidized credits, special tax treatment, etc.) and the establishment of small business or SME support.

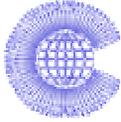
The interaction with various agencies in the countries visited threw up various definitions and in some countries the definition of SME itself was not thought of, making it difficult to arrive at a succinct, tight definition for SME. An attempt has been made here to recommend a broad based definition that could be adopted by all the Caribbean countries.

This is based on the definition adopted by various countries (Refer Annexure 2&3). The definition recommended in this document takes into account the needs of the Region in terms of size of business, number of people employed and investment made.



Recommendation				
Definition of SME Across Various Businesses				
	Micro	Mini	Small	Medium
Manpower (Nos)	1-5	6-10	11-20	> 20
Net-worth (US\$)	10,000	25,000	50,000	>100,000
Investment (US\$)	5,000	10,000	25,000	< 100,000
Sales Turnover (US\$ per year)	10,000	25,000	50,000	< 100,000

The recommendation above with respect to Investment and Sales Turnover could vary from country to country but the four categories and the number of employees as stated above will have to be defined and needs to be incorporated in the national policy framework such that all types of SMEs are covered. The concept of Micro business has been introduced here considering the population strength of each of the Caribbean countries and the business size that exists. It is recommended that policies in various sectors, i.e. Tourism, Agriculture, and Handicrafts in each country follow the same pattern so as to maintain a similar SME definition across sectors.



3.0 Rationale for SME-ICT Development Strategy

3.1 Need for Focus

To provide an effective Small Business development strategy for Agro-Foods/Processing and Handicrafts sub-sectors in line with the country's other economic development initiatives that aims to enhance the competitiveness of this sector with the use of ICT and Network Brokerage system in order to develop appropriate Small Business networks that will gear the economy towards the upcoming Caribbean Single Market & Economy. The Government's intention is to make the SME sector export competitive through the use of new information and communication technologies. Moreover, the Government wishes to develop the services sector as one of the principal engines of economic growth. The Government feels that the private sector should be integral to any IT plan.

3.2 CARICOM Involvement

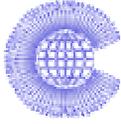
CARICOM single market & economy

In 1989, 13 of the now 15 members of CARICOM decided on an integrated development strategy to chart their way into the 21st century. This strategy, elaborated in the Grand Anse Declaration has as its key features.

- Deepening economic integration by advancing beyond a common market towards a Single Market and Economy.
- Widening the membership and thereby expanding the economic mass of the Caribbean Community – thus Suriname and Haiti were admitted as full members in 1995 and 2002 respectively.
- Progressive insertion of the region into the global trading and economic system by strengthening trading links with non-traditional partners

The CSME is designed to represent a single economic space where people, goods, services and capital can move freely. This will also require the harmonization and coordination of social, economic and trade policies by participating Member States.

Many of the required changes have been made by participating territories on a gradual basis, in keeping with national Programmes for the Removal of Restrictions on the Right of Establishment, the Provision of Services and the Movement of Capital. Jamaica, Trinidad and Tobago and Barbados have agreed to lead the CSME implementation process. The remaining 11 countries will complete the process so as to enable the region-wide launch of the CSME in 2006.



This means that the benefits of the CSME will be available to all CARICOM member states and will provide greater opportunities for trade and investment.

3.3 External Trade Implications

Trade in Services

Chapter 3 of the Revised Treaty of Chaguaramas provides the framework for the establishment of a regime for free trade in services, similar to the current arrangements for trade in goods. The main objective is to facilitate trade and investment in the services sectors of CARICOM Member States through the establishment of economic enterprises. The regime grants the following benefits:

- CARICOM-owned companies will have the right to establish and operate businesses in any CARICOM member-state under the same terms and conditions as local companies. Managerial, technical and supervisory staff of these enterprises will be able to enter and work without work permits.
- CARICOM service providers will be able to offer their services throughout the region, again without work permits, usually on a temporary basis, e.g., consultancies.

The CSME and External Trade Arrangements

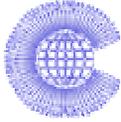
It is increasingly being recognized that an established and functioning integration system is an important asset in contemporary trade arrangements. It is in this context that the CSME must be seen as an important platform for the region's trade and economic linkages with the rest of the world.

Individually, CARICOM member states represent an insignificant share of global trade. The Caribbean markets are small and sometimes fragmented; the region is susceptible to a range of natural disasters and has had relatively limited access to economically viable land; small populations which limit the scope for human resource development; and have highly open economies often heavily reliant on imports. The CSME is expected to help member countries overcome some of these challenges.

The establishment of the CARICOM Single Market and Economy (CSME) will enable CARICOM countries to adjust to more liberal international trade and investment arrangements by first operating in an integrated market with countries with which it shares geographical proximity and deep cultural and historical linkages.

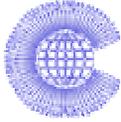
3.4 Outlook

In the OECS-WTO Members, tourism is expected to remain the main driving force of growth,



particularly through its effect on investment. Although agriculture is likely to recover, the economies of the OECS countries would continue shifting towards tertiary activities. Policy initiatives in areas such as tariff reductions will continue to be constrained by the fragile fiscal position. The external current account is likely to remain under pressure as imports expand faster than exports. The ensuing Cricket World cup in 2007 is expected to bring a large number of tourists and the much needed export earnings.

One of the main ways for the small enterprise sector to take advantage of the opportunities offered by more liberalized trade arising out of CSME is by enhancing its linkages with the tourism sector, the largest economic sector in the country/region.



4.0 Objectives of SME-ICT Policies and Strategies

4.1 Mission

Developing ICT Strategic Plans, with a special focus on the development of e-Commerce sector taking into account and integrating existing policies and strategies for SMEs in the Country

4.2 Vision

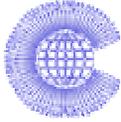
To provide an effective Small Business development strategy for Agro-Foods/Processing and Handicrafts sub-sectors in line with the country's other economic development initiatives that aims to enhance the competitiveness of this sector with the use of ICT and Network Brokerage system in order to develop appropriate Small Business networks that will gear the economy towards the upcoming Caribbean Single Market & Economy

4.3 Scope

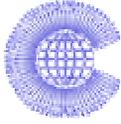
If acted on, the proposals we make here for developing SMEs and strengthening their ICT base should result in:-

- a strong support system for the small businesses which are likely to continue to form the major part of St. Lucia's economy;
- the means of equipping them to raise their standards of operation individually and to cooperate effectively with one another - both being absolute essentials for a small business if it is to hold its own in today's highly competitive economy;
- lines of action which should make links between small businesses which wish to stay rooted in St. Lucia and the industry - tourism - which the Government aims to build up as the principal motor of the country's economy in the years ahead;
- lines of action which - with the aim of harnessing the demands of tourism and spreading its benefits more widely through the economy, including the rural economy - would enable farmers and craftsmen working in the countryside, and farm families, to channel their produce to customers in the tourist market.

Taken together, these recommended actions would be important in giving new strength to the St. Lucia economy which, without this new dynamic, will find itself exposed and vulnerable as the



Caribbean region in general moves progressively to open up to the wider world economy. Market opening is proving the route to increased prosperity for one developing country after another, but the process calls for active measures. Our proposals are designed to point the way.



5.0 ICT & e-Commerce Development in St. Lucia

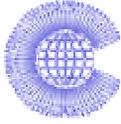
5.1 ICT & e-Commerce: Structural Environment

In July 2002, based on the acknowledgement of the current global technological evolution, and recognizing that the Caribbean region is entering a new economy and society defined by enhanced capacity to access and disseminate information, the Conference of CARICOM Heads accepted recommendations from a Special Meeting of Ministers responsible for Information, Communication and Technology (ICT) held in Antigua & Barbuda in June 2002, for a process of policy strategy for ICT development and enhancing the means of communicating in the Caribbean Community, and mandated the CARICOM Secretariat to present the CARICOM ICT/Connectivity Agenda for consideration at its Fourteenth Inter-Session Meeting scheduled for early 2003.

The CARICOM ICT/Connectivity Agenda 2003 was then prepared through a participatory series of meetings, and presented to the Conference through the Ministers of Information, Communication & Technology at its Meeting in Trinidad & Tobago, in February 2003. The CARICOM ICT/Connectivity Agenda 2003 outlines a framework for the development of ICT in various sectors including education, health, infrastructure, e-government and e-commerce.

A strategy document was prepared for adoption by the 5th Caribbean Ministerial Consultation on Regional Cooperation for E-government Capacity Building in Barbados, in June 2004. This document was developed on the basis of the political consensus that has been built by the consecutive Ministerial Consultations. This consensus focused on the need of capacity building for thoughtful public sector reform; on using ICT to take advantage of new development opportunities in general and to improve the quality of public services in particular; on the need to make e-government programs part not only of ICT strategies, but also of national plans on economic growth and social development. It was also established that “even if the situation for e-government development might be different from country to country in the region, there is ample space for regional cooperation.

Whist it is fully recognized that most Caribbean countries, regional Caribbean organizations and donors have developed their own strategies and/or action plans related to public sector reform and in particular to applying ICT within these reform efforts, it is believed useful to provide as reference a Programmatic Framework that would highlight directions of e-government development activities considered crucial for moving forward the e-government agenda in the region, as described in the Strategy document of 2004. The strategy document calls for a periodic review and updating in consultation with the countries, regional organizations and donors. The document also confirms that the status of implementation of the above Strategy will be assessed at a Ministerial Consultative Meeting in 2007.



An assessment of the ICT/ e-Commerce capacity/capability in various countries in the region was carried out and published in the United Nations: World Public Sector Report in 2003 (*Refer Annex 1*). Based on this data and local consultation as well as the pan-regional perspective we have attempted to look at the ICT / e-Commerce Development status of St. Lucia.

5.2 Defining Information Communication Technology

Defining ICT is relatively simple due to the growth of the Information based economy. The best definition for ICT could be:

The systems responsible for inspiring the profound changes occurring in the world's social, political, legal and economic environments. In its broadest sense ICTs are typically understood to be those systems “that receive, manipulate and process information and facilitate communication between two parties.”

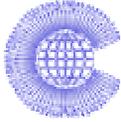
ICTs are basically information-handling tools – a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information. They include the “old” ICTs of radio, television and telephone, and the “new” ICTs of computers, satellite and wireless technology and the Internet.

These different tools are now able to work together, and combine to form our “networked world” – a massive infrastructure of interconnected telephone services, standardized computing hardware, the Internet, radio and television, which reaches into every corner of the globe.

The revolutionary potential of ICTs lies in their capacities to instantaneously connect vast networks of individuals and organizations across great geographic distances at very little cost. ICTs have been key enablers of globalization, facilitating worldwide flows of information, capital, ideas, people and products.

They have transformed business, markets and organizations, revolutionized learning and knowledge sharing, empowered citizens and communities, and created significant economic growth in many countries. ICTs have amplified brainpower in much the same way that the 19th century industrial revolution amplified muscle power.

The major issue concerning SMEs to use ICT effectively is discussed and recommendations thereon have been detailed in the following pages.



5.2 Using ICT to Improve Competitiveness

Using information and communications technology (ICT) to improve competitiveness is becoming an imperative imposed by international markets. The Digital Divide between developed nations and developing nations is increasing slowly and steadily. The need for developing nations to get themselves to a level where they would be digitally accepted in local, regional and international level is a market driven requirement. In international trade large companies have radically transformed the way traditional businesses function.

Besides low cost alternatives, local supplier opportunities, multinationals adopt the benefit of process improvements by implementing ICT and Internet technology for the local market and economy in a significant manner.

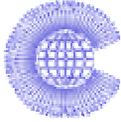
Taking a lead from this, local and regional businesses can reduce costs by sourcing more effectively, collaborating with other companies in the region by introducing products and service innovations.

Most of the countries in the Caribbean region, despite being hampered by patchy infrastructure, narrow bandwidth, limited computer ownership and relatively high costs of internet access, have succeeded in developing innovations that have secured them good markets. The electronic commerce and net facilitated trades are bound to grow.

The Caribbean region is a potential area for development of e-commerce especially in the Tourism and Tourism related industry Handicrafts. For example, Tourism Trade automatically offers opportunity for the local Agriculture and handicrafts industry to build and grow. The close proximity to the major market (USA), provides a suitable environment for the government to invest and/or provide for incentives to grow e-commerce through a network model to support the SME segment.

In order to take advantage of the opportunities offered by the e-commerce enabled society certain conditions must be met first, and the Caribbean countries are currently not in a position to do so. The purpose of this document is to discuss and assess the challenges in implementing an e-commerce enabled SME society.

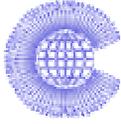
This document attempts to provide recommendations on how the region should approach this. As a starter let us look at the status of the basic requirements for the success of ICT use in e-commerce and its status in St. Lucia.



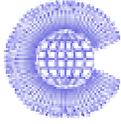
5.3 Status of ICT in St. Lucia

Infrastructure framework: Connectivity and cost¹	
(a) Availability of communication services, access centres and networked computers	<i>Good services but some concern about capacity.</i>
(b) Existence of effective competition among communication and information services providers	<i>Though liberalisation process has started and applications for ISPs received, presently only Cable & Wireless ISP.</i>
(c) Affordability and reliability of network access, including the cost of service (against per capita/average wage)	<i>Dial-up 56K unlimited is EC\$129 plus 0.75c per access. Against EC\$ 2500-3000 as average wage. There are 4500 Internet connections. 64K lease is EC \$2400p.m. and T-1 at EC \$18,000.</i>
(d) Reliability of electrical supply for e-Business-critical operations	<i>Some concerns at stability and cost.</i>
(e) Existence of any incubator facilities/IT Parks	<i>None for the moment though a private sector initiative is under consideration.</i>
Policy Framework: E-Leadership and Participation	
(a) Is E-Readiness a national priority	<i>Not yet</i>
(b) Is there a national IT/E-Commerce plan or strategy existing	<i>A draft policy is under consideration.</i>
(c) Is there an agency leading the initiative	<i>The Agency leading ICT & e-Government Policy is the Office of the Prime Minister, supported by the Central IT Agency: Computer Center Limited (CCL)</i>
(d) Progress with e-Government and promotion of participation of citizens	<i>Though a government WAN exists it is not fully or effectively being utilised and there are no e-Government services for the moment though there is a committee</i>

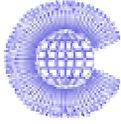
¹ Adapted from the CARICOM Review available on their website



	<i>looking into it.</i>
(e) Digitization of trade infrastructure and procedures	<i>Customs has ASYCUDA presently but no EDI.</i>
(f) Partnerships between industry and government to improve E-Readiness	<i>No structured consultation</i>
Legal Framework: Security and privacy	
(a) Legal support for e-Commerce transactions	<i>Nil</i>
(b) Strength of legal protections for processing and storage of networked information	<i>In the proposed draft Criminal Code, computer fraud including misuse of data, distribution etc. is being addressed</i>
(c) Strength and effectiveness of the legal and regulatory framework to address and prosecute cyber crimes, authorize digital signatures, and enable public key infrastructures etc.	<i>Not available.</i>
(d) Progress in protecting intellectual property rights.	<i>Trademarks and Patents regulations in place.</i>
(e) Measures of consumer protection and extent of efforts to protect privacy.	<i>Consumer Protection regulation is under consideration.</i>
Human capacity framework: E-enabled Human Capital	
(a) Availability of e-professional for e-business	<i>Presently there is availability.</i>
(b) Skills and efficiency of the workforce	<i>Already high computer literacy in work force.</i>
(c) Levels of IT teaching in the education system, including private initiatives	<i>Same as in other OECS states with some more extensive level of private training.</i>



(d) E-literacy amongst citizens	<i>Estimated at 30% and rising.</i>
(e) Is the institutional framework fostering culture of local creativity and information sharing within the society	<i>No policy towards this and therefore tradition of closed systems and secrecy in corporate culture especially continues.</i>
E-Business Environment: Enabling seamless e-Commerce	
(a) Present status of IT industry and IT in industry	<i>As per CARICOM, Some IT companies with good track record in existence. Most established have high computerization and using Internet and websites. However IT companies are predominately in the area of hardware sales, support. Software development and interactive web-site development is almost non-existent.</i>
(b) Existence of e-enabled financial framework to support electronic transactions	<i>Not available.</i>
(c) Availability of venture capital for e-Business	<i>Not available.</i>
(d) Transparency and predictability of regulatory implementation, openness of government, rule of law, etc.	<i>Some issues of transparency raised by industry.</i>
(e) Climate and policy for participation by foreign investors in ICT businesses	<i>Policy encourages investment.</i>
The International and Regional framework	
(a) Negotiating stand on E-Commerce at the WTO/ FTAA	<i>Would depend on RNM</i>
(b) Regional and sub-regional collaboration	<i>For cost efficiencies and economies of scale, regional and sub-regional collaboration encouraged.</i>



As a means of national development, St. Lucia's goals are to become a SMART government, wired into today's technology.

To achieve these goals, the government plans to develop a comprehensive e-government platform to provide the population with easier access to government information and services, and to generally increase the efficiency of interactions between government and its citizens.

The Government intends to provide computer training to public sector employees. The Deputy Director – ICT and E-Government in the Public Sector Reform Unit, Office of the Prime Minister is responsible for the implementation of the Government ICT policy. However, no significant progress has taken place in the following areas: Defining SME Regulatory changes that are called for and Human resources development and training.

The main requirement is that of a person who would be responsible for steering the effort and also manages the process of the country's economy becoming e-enabled. This requires funding support from external agencies and/or CARICOM.

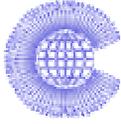
RECOMMENDATION

The ICT infrastructure in St. Lucia can generally be stated to be good but requires penetration into some of the remote areas. Whilst the Government has been serious in wanting the SMEs to benefit from the ICT and e-commerce use, much has not progressed.

It is therefore imperative that an e-Governance Change Manager is appointed with a time bound plan for the implementation of e-Governance and e-Commerce covering areas such as Regulations, Human Resource development in the ICT and Training for e-commerce for SME. An e-Government Director is proposed to be appointed and an e-Commerce Secretariat to be established in the Ministry of Commerce as per funding provided by the government. The roles and responsibilities need to be in line with our recommendation for the Change Manager.

The Government in consultation with CARICOM will have to set clear guidelines for the change manager and objectives with targets to be achieved.

We recommend that the Government allocate financial budget for the appointment of a change manager.



6.0 SME ICT development in St. Lucia, Policies and Strategies

DEFINING TARGET INDUSTRY

National Trade agenda & common thread amongst Caribbean nations

The data available with the ECCB shows that Tourism had a common thread amongst all the Caribbean nations. This is based on the GDP growth rates over the years in specific areas of economic activity. In the Tourism trade, the tourists were mainly from Cruise ships and traveled across all the Caribbean nations.

Hence, for this policy framework document, Tourism is considered to form the common thread within and amongst the Caribbean nations. The need now is to enhance policy coherence at Regional and National level and this can be actively managed only by CARICOM.

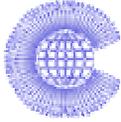
6.1 Build a Policy for Cruise Lines linkage with SME

Many studies outline the potential benefits of Foreign Direct Investment to host economies. These benefits include sources of external capital, technology and knowledge transfer, employment generation, skills enhancement and human capital development, and enterprise development through linkages and spillover effects. They also include increasing international trade integration.

Considering the fact that all the countries in the region are mainly dependent on the Tourism sector and the major tourist flow is from Cruise lines, a regional policy and consensus is required to attract Foreign Direct Investments from Cruise lines and linkage with SMEs in all the countries in the region.

Foreign Direct Investment could deliver real progress in building the base for ICT that St. Lucia needs, if the money were channeled into developing SMEs that could deliver a range of common ICT services not only for cruise lines themselves but also to SMEs engaged in the 'common thread' activities that we recommend here. The services of this sector range from data entry, or data capture, at the lower end, to software development at the upper end. Given the shortage of skilled manpower available in the country and the small size of the economy, the services that can be developed are:

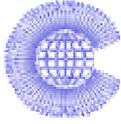
- a) Desktop publishing, typesetting
- b) Print processing
- c) Text editing
- d) Content development



- e) Geographical information systems (GIS)
- f) Small call center operations
- g) Web designing and hosting
- h) Internet gaming
- i) Insurance claims processing
- j) Bill payments and
- k) Software development.

This is not a laundry list of items but a recommended list of activities that can be useful or called upon by cruise lines from time to time.

- a) *Backward Linkages with Suppliers:* This refers to the extent to which materials, and services are sourced from within the host economy, since this can create new market opportunities for local firms. Such linkages can range from arms length market transactions to deep, long-term inter-firm relationships. The productivity and efficiency of local suppliers can benefit from this type of spillover as a result of direct knowledge transfer, higher quality requirements and increased demand levels.
- b) *Forward Linkages with Customers:* These can include marketing outlets, which may be outsourced to cruise lines. Examples include local restaurants, which serve local fish preparations and fruit juices, and fruit based preparations. Linkages with international buyers of handicrafts would be another big help for SMEs.
- c) *Linkages with Competitors:* Foreign investors may set new standards for local firms in various countries that may seek to compete with each other. Although the cruise lines may hold a strong market position they could bring in healthy competition, which again could be monitored with the development of e-commerce and creation of clusters and network brokerage system.
- d) *Linkages with Technology Partners:* Some Cruise lines may be asked to initiate common projects with indigenous SME partners, including joint ventures for building the e-commerce and investments in technology related to the same. This could also enable the various linkages that are being proposed.
- e) *Other Spillover Effects:* These include demonstration effects, as cruise line operators demonstrate new and better ways of doing things to local firms, representing a source of, and stimulus to,



innovation. They also include human capital spillovers, when, for example, trained personnel leave the inward investor to work for a local enterprise and/or set up their own business.

RECOMMENDATION

Build a national policy based on the regional policy for building linkages with the cruise lines. Further the policy should focus on assisting the SME sector by infusing technology and quality processes. The Cruise lines have to be tapped to provide investments required for building SME in the ICT segment and provide training and initial skill sets for development of e-commerce capabilities. Incentives could be offered to cruise lines to build the incubation centers and infrastructure for the SME in the ICT segment. Creation of training programme as well as training the manpower in the islands to upgrade quality and management skills could be provided specific incentives.

6.2 The Agriculture and Handicrafts industry

The Agriculture and Handicrafts industry have a common thread across the Caribbean nations and is closely linked to the Tourism business. The discussions with the representatives in St. Lucia brought out the need for focusing the SMEs in the ICT segment to assist the Tourism, Agriculture and Handicrafts segment. These segments along with the ICT segment were on the National Trade Agenda and formed a common thread in St. Lucia and some other nations in the region.

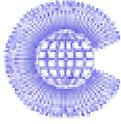
Hence, the target Industry for development would be SMEs in the ICT business. The use of ICT could be directed particularly at the SMEs in other business segments. The aim of the policy could be to get the ICT SMEs to help train these SMEs to adopt and implement the proposed network brokerage system.

The target industry ICT needs to be supported with incubation centers through which existing SMEs in the ICT segment could be upgraded to meet the requirements of cruise lines. The target will be to help ICT SMEs upgrade/update their skills and use incubation centers to obtain and provide market information to SMEs in other sectors.

In this connection a comparative study undertaken to review select data drawn from 5 European island regions was studied. The island regions: Åland, Iceland, Saaremaa, the Scottish Isles and Malta. The comparative approach suggests some observations and reflections relating to Malta's relatively low density of export-oriented manufacturing.

RECOMMENDATION

One of the main ways for the small enterprise sector in the ICT segment in St. Lucia is to take advantage of the tourism and agriculture sector with a well-defined policy and target. By enhancing



linkages with these sectors, the largest economic sector in the country, the SMEs in ICT sector will stand to gain in the long run.

ICT SMEs that create network to increase the ability of small farmers to meet the standards would be in demand. Developing the content and information flow to sell the goods and services to cruise lines, hotels and super-market chains assessing tourist demand for their goods, and assisting in the development of ICT skills amongst users would be the target.

Taking advantage of the growing tourism sector and developing linkages such as eco-tourism and other agro-tourism activities such as fishing. These linkages could be beneficial to both the farming and tourism sectors.

5.3 Cluster and Networking

Cluster

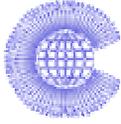
A cluster is defined as a Sectoral and geographical concentration of enterprises. Such a concentration will benefit from external economies - the emergence of suppliers who provide raw materials and components, new or second-hand machinery and spare parts; the emergence of a pool of wage workers with sector-specific skills. A cluster may also attract agents who sell to distant markets and favour the emergence of specialized services in technical, financial and accounting matters.

Network

If clusters can exist without displaying the aspects of collective efficiency, which are associated with the industrial district model, so, conversely, cooperation between firms, mutual learning and collective innovation can exist even when large clusters of firms do not. Networking of SMEs is not necessarily tied to being in the same locality and can still lead to collective efficiency. The external economies tend to be small but the gains from joint action can be substantial. The central idea is that together such enterprises can overcome obstacles and conquer markets beyond their individual reach and that external assistance plays an important role in facilitating cooperation.

Broker

Also called the Network Broker, he is the key figure who helps to identify opportunities, brings participants together and assists in implementing new ideas or projects. The relevance of the broker is to act as a facilitator so as to extend cooperation between SMEs and promote them successfully through his skills, external assistance and by leveraging public resources and works with groups of enterprises.



In the case of St. Lucia one person each for every segment will be the driving force behind each of the segment that has been identified, i.e. Travel, Handicrafts, Agriculture and ICT not only to identify opportunities but also to guide the businesses. Hence, a broker will have to take care and assist each segment.

RECOMMENDATION

Use the Network Brokers (one from each segment) as providers of a range of Business Development Services. Business Development Services include training, advisory services, marketing assistance, information, technology development and transfer, and business linkage promotion. The Network Brokers will work under the umbrella of CAIC (CARICOM) so as to ensure implementation of various policies and e-commerce regulations.

Where possible provide SMEs with a pool of consultants on a shared services basis. These Consultants could address Operational Services. Operational Services are those needed for day-to-day operations, such as information and communications, management of accounts and tax records, and compliance with labor laws and other regulations.

Strategic services, on the other hand, are used by the enterprise to address medium- and long-term issues in order to improve the performance of the enterprise, its access to markets, and its ability to compete. Strategic services can help the enterprise to identify and service markets, design products, set up facilities, and seek financing.

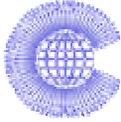
A set of experts could be developed by the Network Brokers in each country/region to provide shared services to SMEs. A separate budget is called for this effort. The Budget allocation will have to be considered jointly by the Government, CARICOM and COMSEC

6.4 E-Commerce Legislation

Legislation has to be enacted to establish the legal principles for the conduct of e-commerce and the processing of electronic transactions. This will provide the legal foundation for the conduct of various forms of electronic transactions, including the use and recognition of digital documentation.

The legislation should be sufficiently flexible to accommodate new technological developments and leave room for the market to determine the future of e-commerce. There should be sufficient flexibility to enable parties to an electronic transaction to tailor a transaction (or series of transactions) to suit their legal requirements.

It is therefore recommended that an initial Electronic Transactions Bill be prepared to provide for:



- *Electronic Commerce:* establishing a secure legal basis for electronic contracts, signatures and transactions, and the establishment of a framework for Certification Authorities and their regulation.
- *Data Protection:* to ensure the protection of data, in order to protect the rights of individuals vis-à-vis personal information.
- *Computer Misuse:* to criminalize offences relating to the misuse of computers and related equipments.
- *Web site Content:* Legal provisions have to be made to protect content and also make it an offence to put up obnoxious or offensive material on the web site.

Recognition of electronic records

Legislation should provide that information would not be denied legal effect, validity, admissibility or enforceability solely on the ground that it is in the form of an electronic record, or that, if such evidence is the best evidence, it will not be denied admissibility on the grounds that it is not in original written form.

The focus should be on the reliability of the manner in which the electronic record was generated, stored or communicated and the integrity of the information or the manner in which the originator was identified.

Writing

In the old economy documents are required or described as a matter of law to be "in writing". The legislation must provide that a legal requirement for "writing", or a description of something as being "in writing", is satisfied by an electronic record if the record is accessible and can be retained for subsequent reference.

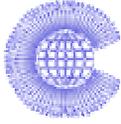
Original form

Many jurisdictions require individuals or companies to maintain written records. Legislation should establish the minimum requirements for an electronic record to be regarded as the functional equivalent of an original.

Where the law requires information to be presented or retained in its original form, an electronic record could be defined to meet that requirement if the integrity of the information can be reliably assured.

Signatures

A contract should still be binding even if it is not physically signed. A signature is often only required for evidentiary purposes. The Act should provide that an electronic record could meet that requirement



if the method of identifying the signatory meets certain requirements (i.e. an electronic signature or electronic certificate).

Certification Service Providers

The legislation should make provision for authorizing certification service providers to issue accredited certificates that confirm the veracity of an electronic signature. It should recognize certificates and certification service providers for any other jurisdiction.

Validity of contracts and acknowledgement

The legal principle of offer and acceptance, developed over many centuries, is one of the basic requirements for the formation of a contract. Legislation would need to provide that an offer and the acceptance of an offer could also be expressed by means of an electronic record. It should establish rules of acknowledgment of receipt of an electronic record.

Encryption

The legislation must make provision for regulations respecting the lawful acquisition, use, import and export of encryption programs or other encryption methods. The Police must be empowered to seize encrypted data/information. Magistrates/Judges must be empowered to direct persons to provide assistance necessary to decode encrypted information.

Liability of intermediaries

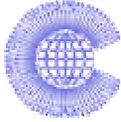
The legislation should make provision for clear definition of the liabilities of Internet Service Providers, and others, for information transmitted over the Internet. The legislation may determine that an ISP or other intermediary who acts only as a conduit is not liable for the content of electronic records provided that the intermediary has no actual knowledge or is not aware of facts that would objectively indicate a likelihood of civil or criminal liability in respect of material on the intermediary's network.

Data protection

The legislation should make provision for the protection of personal data. These include data/details relating to bank accounts, credit cards, insurance of all types and health records. Provision should be made for the development of standards relating to privacy policy and protection of personal data.

Trademark & Copyright protection

Legal protection of intellectual property in the online environment preserves incentives for the creation of local content and encourages its worldwide dissemination. The ability to perfectly copy electronic data, to distribute it instantly on a global basis, and the growth of e-commerce raise a number of key issues for holders of intellectual property.



This requires that adequate and effective protection of copyrighted works is available easily online. Authors, producers of copyrighted works, and performing artists must be able to have confidence that their copyrighted works will be protected online.

Consumers also must have confidence that they can rely on trademarks as trusted indicators of the origin and quality of their on-line purchases.

In conclusion, prior to commencement of the e-commerce and network brokerage system it is essential that The Government enacts laws for these sub-topics under each of the main topic in order to ensure that all the constituents in St. Lucia and in the region as well as any interaction that the SMEs would have with the big players in the tourism industry are generally protected under various legislations.

Online Trading

- Advertising and sales
- Online contracts
- Website Content
- Financial services & Banking
- Legal documentation
- Data protection
- Taxation
- Cyber-crime
- Arbitration online
- Internet Insurance

Intellectual Property

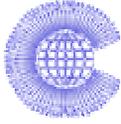
- Copyright
- Patents
- Trademarks
- Domain names
- Enforcement

RECOMMENDATION

Several Caribbean countries have already implemented various pieces of Legislation on the Information Society and the OECS Legal Unit has also drafted model legislation. A Team or Working Group should be set-up, under the aegis of the CARICOM Secretariat, comprising representatives of CARICOM member states which have implemented legislation as well as those who haven't. Activities should be aimed at assisting member states in the latter category and also aimed at harmonizing Information Society Legislation in CARICOM.

6.5 Database, Common Hardware and Software, Platforms and Investments

The lowering of trade and political barriers and the exponential technical advances of the digital revolution has made it possible to do business, or almost anything else, instantaneously with billions of



other people across the planet.² A technological world that is having a positive worldwide impact on the political, social, economic and cultural relations would have a devastating effect upon those who are not part of that world.

Taking a cue from these words, we recommend St. Lucia join other countries in the region for a joint effort to bring the political, social and economic changes by means of Networking.

In order to ensure success of the Network brokerage model with proper database and information being available in a manner that is similar across various countries, it is essential to develop programs to establish and strengthen linkages between SMEs in various countries in the region. This would involve launching of technology and quality upgrading programs.

At the first instance, the technology platform, i.e. hardware and software has to be finalized. Next would be deciding the location where the hardware and software would be installed. This is essential as this would call for investments and additional backup and contingency planning in a region that is prone to disruptions due to natural calamities. The telecommunication costs is also an important element as cost of accessing database across the region could be hampered if the costs were high.

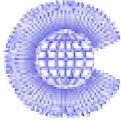
The most important element in the network brokerage model would be that of compiling the detailed technical information from SMEs, which would then have, to be coded and loaded into a database. Data collection has to be done using a form, in the premises of the SMEs by trained Brokers at the first instances in order to ensure accurate data.

On the supplier's side, detailed technical specifications of work orders/tenders need to be compiled, coded and loaded into a database. Then, the database is used to inform clients and suppliers of matching needs and requirements. The databases have to be kept up to date, for the system to function efficiently and this activity can be carried out by the back office operations of the CAIC or the SME themselves. Information collection is complemented by seminars and meet-the-buyer events.

The decision with respect to the above will call for substantial investment in technology. The possibility of tapping resources through cruise line operators and sharing of telecommunication costs by various countries will have to be considered as a joint decision of CARICOM members.

RECOMMENDATION

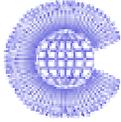
² The world is flat by Thomas L. Friedman



The hardware and software platform has to be decided by CARICOM members and the selected network brokers. The hardware and the database have to be located in at least two countries in order to ensure contingency planning.

Data collection has to be done by Network Brokers using a standard form across various countries in the region. The data collection could also require visits to the premises of the SMEs by these brokers by a highly qualified person/s.

The alternative would be to ask SMEs to fill the data on-line but this would require the SMEs to be trained



7.0 Challenges and Recommendations

“The previous way of doing business was the misinformation economy. Business people protected their interests by controlling access to information. The Internet will make that almost impossible in today's markets.” Ted Johnson, PEOPLink

What is ICT-for-Development?

Key decision-makers and stakeholders need to make informed decisions about which technologies are most appropriate for their contexts and needs. However, the technological aspects of ICT can be highly intimidating for most people – even for those privileged few who feel comfortable using a computer and the Internet. Moreover, the link between ICT and many development challenges is not always intuitively obvious, especially for developing countries.

RECOMMENDATION

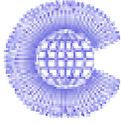
The Government should in consultation with CAIC facilitate a SME ICT Summit that engages a broad range of stakeholders, including the regulators, private sector, academia and civil society. National Summits can help to nurture the formulation of national strategies and partnerships that encourage SME sector participation, while placing broad-based development goals at the heart of ICT policies, regulatory e-enabling environment and decide on action plans.

7.1 The Challenge of Access

The challenge that we discuss here is not about national availability of telecommunications infrastructure and computing equipment. We are discussing barriers to individual access due to reasons of SME being economically weak. The world's poor, and especially the rural poor, have extremely limited access to basic ICTs, let alone advanced services. Assuming that the global and national political will is in place, the most overt challenge is to extend the physical availability of ICTs. But more subtle barriers, i.e. economic, educational, and socio-cultural – also block the individual's access and use of ICTs.

7.2 Physical obstacles to access and participation

In rural and remote areas, the combination of lower population densities, geographical distance and poverty leaves little commercial incentive for undertaking the huge investments required to: extend telecommunications infrastructure; provide an electrical infrastructure to power the technology; and, upgrade and retain a skills infrastructure to keep the technology working. Newer forms of ICTs like the



Internet require even greater investments in equipment, training, maintenance, outreach and network access.

In some countries like India local technologies have been put to use to beat the physical obstacles including power and skills required to operate the equipments and implement e-commerce.

Overall, it is important to understand that each telecom environment is unique: the potential to extend the physical availability of ICTs depends on existing infrastructure, terrain, demographics, organizational capacities and the policy and regulatory environment. St. Lucia should take a closer look at the technology and the business models implemented in India and adopt the same.

RECOMMENDATION

A wide range of new and emerging digital technologies can circumvent the problems of extending “hard-wired” telecommunications infrastructure and electricity lines to remote or under-serviced areas. Some of these new options include: solar energy, satellite, wireless local loop networks, and cellular networks. While promising, these new choices are not without limitations, which vary according to context.

7.3 The Challenge of Relevancy and Meaningful Use

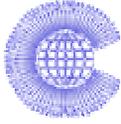
The main issue identified for this challenge for SMEs is the importance of relevant content. Merely “plugging in” poor community to global information flows is generally unhelpful. The knowledge that arises in poor communities is often ignored. In fact, it is this local information that is often most relevant and useful. A focus on building a database of SME and their expertise in specific areas would become useful. ICT based information means sharing of knowledge over a wider spectrum and thereby building business.

Example:

In 1995, the local government in Alexandra Township created a database of local resources. All township organizations were asked for input, a process often organized by school children as homework. The database was made accessible over the Internet. Not only did it provide information about local capabilities to community members, it also enabled community enterprises to win contracts from larger firms in Johannesburg.

Example:

A USAID project in Guatemala trained members of collective farmers’ associations to download daily pricing information and market trends, and then to disseminate this information to all members. Farmers underwent complementary training, including in bargaining and negotiating techniques, to enable them to act on this information. As



a result, farmers were able to demand a fairer price for their produce from intermediary buyers, and to balance their production with supply and demand trends, thereby accruing a better rate of return.³

RECOMMENDATION

Empower intermediaries

Intermediary organizations that have the capacity to use ICTs can serve as important bridges by helping communities access the benefits of ICTs without having to learn the technologies themselves. The most effective intermediaries are those who are members of, or have direct ties to, the beneficiary community.

The St. Lucia Small Business Association can act as these intermediaries/Business Development Services providers. These intermediaries not only have to ensure that the data gathered is up-to-date, relevant and are accessible over Internet in a secure manner.

7.4 The Challenge of Coordination

ICT is becoming a major focus for a wide range of development factors. Lack of coordination can lead to duplication of effort, incompatibility of technical solutions and compromise sustainability.

The new awareness of ICT as the backbone of national and regional development is prompting a proliferation of various initiatives in ICT. Coordination is critical, to avoid duplication of effort, shoulder the large costs involved and ensure an approach that would lead to a meaningful development. Given that the focus on SME ICT is a newly emerging area in the region, Partnerships in ICT are essential. Countries and various stakeholders in the development of SME/ICT have different competencies based on their respective mandates and other specificities.

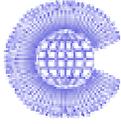
RECOMMENDATION

ICT touches all aspects of development work. While some ICT activities require specialist technical knowledge, all stakeholders need to develop an understanding of how ICT fits within their respective areas. The Government and local Chamber of Commerce and its members will have to play a lead role in the implementation of SME ICT policy.

7.5 The Challenge of Infrastructure, Facilities and Finance

SMEs' across the region are facing issues of investing in appropriate facilities such as office premises, Computer equipment, Software, Communication equipment and raising finance for working capital and other strategic investments.

³ AERDD, 1999



The focus of the Governments will have to be not only on the existing SMEs but also on three different categories - entrepreneurial start-ups, corporate business tie-up with cruise lines, spin-offs of the above entering e-commerce ventures. The Governments will have to create a Regional as well as state-sponsored venture capital fund with the assistance of CARICOM. The fund access and disbursement could be monitored through CARICOM/CAIC.

CAIC will have to work on its array of services to extend from building a management team and shaping a business plan to assistance with raising finance. CAIC will have to build an international network of partners in other markets, to enable SMEs' to participate in business opportunities that arise from Europe or North America. CAIC has also to consider the establishment of incubator facilities across various countries.

The Government will have to set up a separate wing to build and assist SMEs in various sectors. However, it is recommended that the SMEs in the Tourism sector being a key segment of the economy, should be handled by the Ministry in-charge in order to ensure that issues are addressed immediately and are not confused with SMEs in other sectors. The Government will also be responsible for providing management expertise, training and guidance on obtaining finance and other incentives.

7.6 The Challenge of Human Resource Development

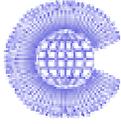
In order to realize maximum benefits from SME & ICT human resource development is a key factor. It is imperative for the Government to examine all possible opportunities and positive outcomes. Examples drawn from ongoing activities in different countries should help understand the scope of some of these opportunities. Some examples are presented below:

Improve Education Deliveries and Learning

Computers can be used in classrooms to enhance learning by improving the quality of education in the classroom. Computer-aided instruction gives the opportunity for fast learners to flourish, and slow learners to catch up through facilitation of self-paced learning. The Internet can also be used in the classroom as a research tool to broaden the horizons of both teachers and students.

Facilitate Distance Education

Distance education can be used to strengthen educational capacity, and also to provide equitable access to limited resources, especially in remote areas. Thus ICTs can be used to introduce or enhance distance education by facilitating online courses and e-learning. Distance education can provide a very useful supplement for the shortfalls in higher education and professional training institutions.



Strengthen Education Administrations and Decision Making Capacity

ICT use may be extended to institutional and national education administrators. Thus it would enable more effective monitoring and management of the education system, and would contribute to overall cost savings as it enables more timely and efficient decision making, and also management from remote locations.

Establishment of Community Resource Centre

Computers in schools are usually only used during school hours (i.e. less than 6 hours a day). There is a possibility of extending computer use to provide adult education and computer literacy classes in rural areas in particular in the evenings, weekends, and during school vacation. This would benefit individuals in the community as a whole, and could reap a quick return on investment by charging a nominal fee.

Creation or Expansion of ICT Service Sector

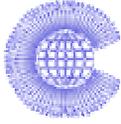
Opportunities could be created for companies and individuals to provide technical support and consultancy to schools and the education ministry, thus resulting in job creation. There is also the opportunity to create new jobs in the software sector in the Region through the development and modification of educational courseware.

Extension of Research Facilities

Creates the opportunity to link schools, libraries, resource centers and research facilities locally and in the Region. This link could be used to facilitate research and collaboration. Government, industry and research academia should coordinate their efforts to explore further domestic, regional and international opportunities, focusing specifically on the needs of St. Lucia.

RECOMMENDATION

The Government in St. Lucia and CAIC will have to play an important part and take a lead in facilitating human resource development through incubation centers across various industries. The incubation centers will have to provide the infrastructure that may be called for by specific industry to train not only the owners but also workers in the specific industry.



8. Three Rs: Roles, Responsibilities & Recommendations

8.1 Government

The Government has to therefore embark on a positive and supportive course of action, including the following:

1. Encourage and support the introduction of electronic payment technologies for domestic and foreign purchases.
2. Support the development of electronic banking including Internet banking
3. Encourage banks and other financial agencies to provide special and concessionary loan packages to facilitate the purchases of computers by householders of all income groups in the SME sector.
4. Introduce appropriate legal reforms to encourage and support electronic financial transactions, electronic legal communications and electronic documentation.
5. Commit a reasonable Budget to ICT promotion and development in the SME segment.

8.2 CAIC/CARICOM Role

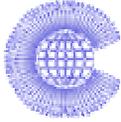
It is expected that CAIC's role would be to support SME development. This will require not only political support but also financial support from the countries in the region. The model that is suggested is expected to bring in development of the SME sector with competition continuing to be the main force that would drive business towards using ICT for development.

The challenges that CAIC will have immediately in implementing the Network Brokerage model under the CARICOM umbrella are:

In most cases, even under the best of circumstances, the economic base needed to cover operating costs and replace worn-out equipment may not be present.

In addition, the lack or poor quality of basic infrastructure in most rural or peripheral areas means that Internet access is painfully slow and unreliable, or requires enormous investments and maintenance.

The challenges of lack of relevant content and other social factors often cause the more advanced ICT services of multipurpose brokers to remain unused. Although rural or under-serviced communities may consider information obtained through ICTs to be useful, they may not see the information as crucial and be willing to pay for it.



The alternative would be to look at private and indigenous network brokers initiatives that seek to extend services to rural or under-serviced areas with specific commercial aims and objectives. This falls in the pattern of oft-cited success stories that are based on a business model that allows entrepreneurial operators to provide for-profit services; where the ventures have thrived. The downside of this approach is that the services on offer are geared to what the market currently wants and can support (and not to any broader development agenda).

Consequently, many commercial services would provide such services that are profitable. Very few Network Brokers might offer services that are considered unprofitable especially those that tie up resources without generating revenue for the Broker, e.g. Information that is provided but not paid for.

RECOMMENDATION

The Government has to commit a reasonable Budget to ICT promotion and development in the SME segment and take a supportive course of action for implementation of the recommendations.

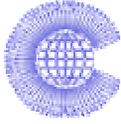
The role of CARICOM/CAIC is a major factor to be considered for success of the Network Brokerage model being proposed. Hence, It is proposed that a SME Coordinator be appointed under the CAIC secretariat.

The proposed organization under CAIC is expected to have Network Brokers representing each country in the region. The role of the Country Network broker is expected to be that of not only being a Network Broker but also to act as a Business Development advisor.

The person is expected to formulate policies for the region, co-ordinate and implement these policies, work out the processes and procedures for the network brokerage system in the region and train/disseminate the decisions to various sector wise network brokers in the respective countries.

The sector wise network brokers are expected to work within the sector, e.g. Handicrafts and work closely with the Industry within the country and co-ordinate with the Sector network broker in other countries in the region as well as customers.

It is proposed that the cost of this establishment be initially funded by CARICOM and subsequently recovered from the SME customers based on deals made by the Network Brokers. The detailed modalities of cost sharing and revenue generation can be discussed and fine-tuned by the SME coordinator.



8.3 National Advisory Council (NAC)

As per institutional framework for e-Government and e-Commerce, an e-Government Director is to be appointed and e-Commerce Secretariat is to be established. It is expected that this Director will take ownership of this policy and implement to make it a success.

This policy document further recommends the establishing of a National Advisory Council (NAC). The NAC headed by a private sector professional and comprising of private sector, public sector and NGO representatives, this body will report to the Ministry of Commerce, Investment and Consumer Affairs. .

NAC will be responsible for:

SME Database

Monitor the creation of database structures and their incorporation in the new, digital economy. Undertake completion of the database of SME in the required formats and further improvements based on changes/improvements in the policy document. The aim is to upgrade the information on SMEs, especially in the periphery. Systematically monitor SMEs through updating SME database at the national, and regional level, to gather and process data that will assist in calculating the SMEs competitiveness.

Budget

Preparing a Budget for the management, completion and implementation of the Plan including the creation and monitoring of SME Database.

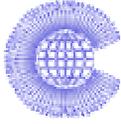
Finance

Development of a strategy for negotiating with various beneficiaries for mobilizing the finance required for implementing the SME development program. The creation of a Loan Guarantee Scheme⁴ for SMEs and especially the Very Small Enterprises (VSE's) with a workforce ranging between 0-10 employees-comes to cover a market failure, which is connected to the SMEs inability to provide the required guarantees to the lending institutions. The Fund could be a 'Risk-sharing' mechanism between the state, banks and other institutions.

Technology Evaluation

Technology Evaluation And Procurement of equipments and interface between government, CAIC/CARICOM and other Pan Caribbean countries. These would include improvement of the quality of SMEs products and production processes, introduction of innovative methods of production

⁴ SME Policy in Greece and its cluster of Islands



and/or products, introduction of environmentally friendly practices (eco-friendly agriculture produce) and technologies, adoption of new methods of managing the logistics chain for the Cruise Lines and upgrading of the human resources.

Improvement of the competitiveness of small manufacturing businesses (up to 20 employees) through the completion of a 2-year integrated business plan that will include actions pertaining to their technological and operational modernization would be a key result area. These include the improvement of equipment used in production, the development of a quality control system and the incorporation of environmentally friendly technologies and environmental protection mechanisms

A special action, entitled 'Get Certified', will get the SMEs especially in the ICT and Agriculture sectors to acquire the Quality certifications under ISO and other Certifications.

Training

Encouraging SMEs to familiarize themselves with available electronic commerce tools. Coordinating and undertaking training activities to disseminate information on options, opportunities and challenges and to promote the use of electronic commerce and telecommunication technologies, in order to improve participation in international markets.

Private sector Partnership

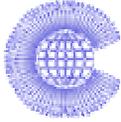
Working closely with the private sector to offer educational opportunities (including via the Internet) and to disseminate information on the advantages and benefits of using new technologies to conduct commercial transactions and to improve overall efficiency and productivity by integrating electronic commerce into business operations.

Supporting local enterprise

Supporting and promoting efforts by local business organizations and small and medium sized enterprises to develop Websites where SMEs can network, post information, and exchange ideas about best practices and lessons learned, in order to facilitate investment, job creation, increased competitiveness, and the use of more advanced technologies. Supporting the search for solutions to the obstacles faced by SMEs in fully utilizing electronic commerce, encouraging local or regional companies that provide electronic commerce business services to develop products tailored to the needs of SME, affordable and secure payment systems, SME Training programs, and Regional technical centers etc.

Incubation Centre

The creation of several incubation centers for all SME to access electronic transactions. Encourage private incubation service providers, thereby splitting costs amongst SME.



9.0 Risks

Effective implementation of policies and ideas necessitates identifying and forecasting potential challenges in the International and domestic environment. Some of these challenges and threats are examined below:

Lack of expertise among Policy Makers

General lack of knowledge and expertise among education administrators and policy makers results in the incorrect approach. Many believe that merely announcing policies, purchasing computers and software is sufficient. No attention is paid to important issues such as integration into the business and training the SME players to improve quality and use technology effectively. In many situations, this results in equipment and funding being under utilized or not used at all.

Lack of Coordinated Planning

Procurement of technology and related services is usually done in a haphazard manner. This lack of planning and foresight sometimes results in waste of scarce financial resources. Another disadvantage is that there is no standardization of resources across various business entities making collaboration and exchange somewhat difficult.

High Opportunity Cost of Technology

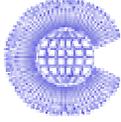
The high cost of equipment makes it difficult to justify spending huge sums on what seems a luxury to some, when many basic amenities and supplies require a priority. This has to be realistically addressed by the Government.

Limited Budget Allocation for Maintenance

In cases where the investment is made, limited budget allocations usually make provisions for initial purchase and completely ignore later allocations for maintenance and upgrading. This eventually results in breakdown and shortened life span for the equipment. If an incubation center or SMEs in a specific industry is unable to maintain them on its own, the Government has to ensure allocation of proper budget

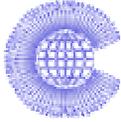
Shortage of people with appropriate Skills

Low salaries coupled with poor working conditions make the profession unattractive to trained personnel, who are in great demand elsewhere. The trained manpower could find other employment opportunities if not compensated properly.



Possibility of Instructions in Schools

The introduction of ICTs in some schools may serve to widen the instructions especially in rural schools and those in poor socio-economic areas. It is very likely that with the introduction of ICTs adult literacy in ICT will follow.



Annex 1

Select Caribbean Countries Readiness for e-Government

e-Government Readiness Index:
The index refers to the generic capacity or aptitude of the public sector to use ICT for encapsulating in public services and deploying to the public, high quality information (explicit knowledge) and effective communication tools that support human development. The index is comprised of three sub-indices: Web Measure Index, Telecommunications Infrastructure Index and Human Capital Index.

Web Measure Index:
A scale based on progressively sophisticated web services present. Coverage and sophistication of state-provided e-service and e-product availability correspond to a numerical classification.

Telecommunications Infrastructure Index:
A composite, weighted average index of six primary indices, based on basic infrastructural indicators that define a country's ICT infrastructure capacity. Primary indicators are: PC's, Internet users, online population and Mobile phones. Secondary indicators are TVs and telephone lines.

Human Capital Index:
A composite of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio, with two thirds of the weight given to adult literacy and one third to the gross enrolment ratio.

