

Government of Mauritius

United Nations Development Programme

NATIONAL ICT STRATEGIC PLAN (2006 – 2010)

Brief description: The purpose of this project is to develop a comprehensive National ICT Strategic Plan (NICTSP) to achieve the vision of the Government to make the ICT sector the fifth pillar of the economy and Mauritius a regional ICT hub. The NICTSP will be developed as follows:

- There will be an assessment of the current state of ICT development in Mauritius, consultations with stakeholders concerned to formulate and achieve a common understanding of the objectives for the NICTSP, identification of the areas of focus, which need to be addressed to achieve the objectives of the NICTSP and formulation of measurable objectives for each area of focus.
- Furthermore for each area of focus, appropriate strategies and programmes will be formulated for the preparation of an action plan for the next five years for the NICTSP.

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Country: Republic of Mauritius

UNDAF Outcome(s)/Indicator(s):

Expected Outcome(s): The ICT Sector developed as an enabler of development providing equal ICT opportunities.

Outcome Indicators: % Increase in ICT Usage, employment and expertise in ICT Sector, % Increase in contribution of ICT Sector to GDP.

Expected Output(s): National ICT Strategic Plan available by end 2006 (Baseline: National IT Strategic Plan of 1998-2005)

Output Indicator: Part of National ICT Strategic Plan implemented according to identified priorities by 2008 (Baseline: nil)

Implementing partner: Ministry of Information Technology and Telecommunications

Other Partners: Prime Minister's Office, National Computer Board, UNDP, Ministry of Finance and Economic Development, ICT Authority, Ministry of Industry, Small and Medium Enterprises, Commerce and Cooperatives, Ministry of Education & Human Resources, Ministry of Civil Service and Administrative Reforms, Central Informatics Bureau, Central Information Systems Division, ACT, MITIA, JEC, MCCI.

<p>Programme Period: Country Programme for Mauritius 2005-2007</p> <p>Programme Component: Achieving Millenium Development Goals and reducing human poverty</p> <p>Project Title: National ICT Strategic Plan</p> <p>Project ID: 00046070</p> <p>Project Duration: 20 weeks excluding selection of consultant/s</p> <p>Management Arrangement: National Execution</p>

Budget	USD 299,839
Total budget	USD 299,839
Allocated resources:	
• Government (parallel)	USD 119,339
• Other: Nil	
• Regular Donor UNDP	USD 180,500
• In kind contributions	

On behalf of	Signature	Date	Name/Title
Government of Mauritius			Hon. Etienne Sinatambou, Minister of Information Technology & Telecommunications
UNDP			Mrs Aase Smedler Resident Representative United Nations Development Programme

Agreed by Government:

Mr. P. Ujodha
Ag. Director General, Ministry of Finance and Economic Development

Date:

Agreed by Implementing Partner/Executing Agency:

Mr. R. P. Ramlugun
Permanent Secretary, Ministry of Information Technology & Telecommunications

Date:

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Glossary of Terms and Abbreviations used in this document

NICTSP	National ICT Strategic Plan
UNDAF	United Nations Development Assistance Framework
ICT	Information and Communication Technology
CPD	Country Programme Document
IP	Implementing Partner
NPD	National Project Director
SC	Steering Committee
TAC	Technical Advisory Committee
GATS	General Agreement on Trade and Services
WTO	World Trade Organisation
GOC	Government Online Centre
GES	Government Email Service
GINS	Government Intranet System
COMESA	Common Market for Eastern and Southern Africa
SADC	South African Development Community
NEX	National Execution
MYFF	Multi-Year Funding Framework
ICTD	ICT for Development
BPO	Business Process Outsourcing
ACT	Association of operators in the ICT Industry namely BPO/Call Centre, Internet Service Providers (ISP) and International Long Distance (ILD) providers.
MITIA	Mauritius IT Industry Association
JEC	Joint Economic Council
MCCI	Mauritius Chamber of Commerce and Industry

SECTION I

Part 1 Situation analysis

Mauritius has moved from a low-income mono-crop economy, with a narrow production base at the time of its independence, to a middle-income country with a more diversified structure, reliant on four main economic pillars, namely, manufacturing, sugar, tourism and financial services. Mauritius has experienced rapid economic growth over the past two decades. Mauritius is faced today with major challenges caused by the erosion of its preferences in the sugar and textile sectors. The vision of the Government is to transform the Information and Communication Technology (ICT) sector into the fifth pillar of the economy. A list of economic and ICT indicators is at Annex 1.

Notwithstanding its economic success, Mauritius has to reckon with a number of challenges to ensure sustainable development. The rapid pace of technological progress, the increasing integration of global commodity and financial markets, the emergence of new low-cost competitor countries, the strengthening of major trading blocs, the likely erosion of market preferences under the WTO regime, and the increase in non-tariff barriers in the form of "green" and "social" protectionism, all require innovative, flexible and determined responses.

With the globalisation process and the gradual depletion of our competitive advantages in our major income sectors, ICT has been identified as a potential sector for sustaining economic development. The ICT sector has been promoted as the fifth pillar of the economy. In this context, Government is according high priority to the development of the ICT sector to transform the country into a Cyber Island. This is in accordance with the UNDP Country Programme Document (CPD) for Republic of Mauritius 2005-2007 as explained in paragraph 3, and in Annex 1: Goal 1: SL 1.8 "Making ICT Development work for the poor".

The availability of adequately qualified and skilled human resources is a sine-qua-non condition for the development of the ICT sector. With the latest development in the ICT sector such as the setting up of the Cyber city, expansion of Business Process Outsourcing activities and the growing interest of foreign companies to invest in the local market, it is expected that the qualified IT workforce that would be needed in the various fields of the economy would increase significantly in the next couple of years.

With regard to Internet access, a survey conducted by NCB in 2001 indicated that 90% of the computerised establishments had access thereto. 75% of all establishments surveyed had access to the Internet. Internet usage is high in sectors like manufacturing, wholesale and retail trade, hotels and restaurants, transport, storage, communication, banking and finance. The use of the Internet in the education and training sector was 63.2% and in public administration it was 72.7%. The figures indicate a growing dependency of economic activities on ICT in general.

In this respect, it is felt that there needs to be a national information security strategy that should be developed with regards to ensuring business continuity in case of disaster or technology failure to ensure that the economy does not suffer as a result.

Establishments mainly use the Internet for information search, exploring new modes of business and maintaining their competitive position. However, the use of Internet for e-commerce and e-business type of activities is still very low. With the government ambition to transform Mauritius into a Cyber Island, the development of e-commerce and e-business type of activities at the level of businesses and SMEs is seen as an important turning point to ensure higher productivity and efficiency gains and create employment opportunities.

Under the E-Government initiative, Government has started delivering some of its services online since May 2005. This will radically improve services to the citizen as consumer, transform government operations, reducing costs to the benefit of taxpayers, and ultimately enhance Mauritian socio-economic performance through increased public sector productivity. In this context, Government has already embarked on a number of initiatives such as the implementation of TradeNet System, Contributions Network Project, Government E-mail System, Government Intranet System, and Government Online Centre amongst others. Details on these projects can be found at Annexes 2 and 4.

However, there is a need to identify and implement high impact E-government applications such as online filling of taxes to demonstrate the actual benefits that ICT can bring to government. At the same time, the need for re-engineering of processes at the level of ministries and departments as well as the need for equipping government employees with the necessary skills to perform their job in the E-government context should not be overlooked.

Government is fully aware that in order to achieve the vision of Cyber Island, the whole population of Mauritius, needs to be IT literate. The National Computer Board and the National Productivity and Competitiveness Council (NPCC) already offer ICT literacy courses to the public. One of the strategies of Government is the use of Information Technology (IT) as a supporting tool in education. It is expected that the use of ICT in education will support the development of an efficient workforce for sustaining economic growth. This is the objective of the School IT Project. It is intended to teach IT as a subject in itself at schools and to make use of IT for the teaching of subjects across the curriculum in primary and secondary schools. There is however, a growing need to develop connectivity among schools and establishing a network for better information and knowledge exchange in the education sector.

The use of ICT for social development is an area that needs to be explored further as there are real opportunities for Mauritius to improve the quality of life of disabled persons, senior citizens, unemployed, young people and women through ICT.

Part II Strategy

2.1 National Strategy

The Vision of the Government is to make the ICT sector the fifth pillar of the economy and Mauritius a regional ICT hub. Information and Communication Technology is regarded as a tool that will support business processes in this knowledge-based economy where information will flow within and across economic activities, leading to increase in value added at national level.

The strategy to develop Mauritius into a Cyber Island revolves around focusing on niche markets in the ICT Industry, developing strategic partnerships with ICT leaders, investing in a world class physical and telecommunications infrastructure, emphasising on ICT Culture development, providing for an adequate supply of human resources and establishing a favourable business environment.

Conscious of the challenges the Government has to face with the New Economy, a three-element strategy has been developed as follows:-

- a. Establishment of an ICT industry comprising the Cyber City and Business parks supported by world class telecommunications infrastructure for wealth and job creation;
- b. Attracting and maintaining high calibre ICT experts in Mauritius and to increase the local availability of trained manpower in ICT;
- c. Creating a favourable business environment with a sound legal framework and attractive financial incentives for foreign investors.

Government has also liberalised the telecommunications sector and Internet Service Provider (ISP) market, with the setting up of the ICT Authority, which is the main regulatory body for the ICT sector, in 2002.

The mission of the Ministry of Information Technology & Telecommunications is to provide the right environment for the harnessing of Information & Communication Technologies to generate employment, increase national wealth, improve quality of life and create new opportunities for sustainable socio-economic development of Mauritius.

The objectives of the Ministry are to: -

- a. Formulate appropriate policies and provides the necessary legal framework for the development and promotion of ICT and its optimal use across all sectors;
- b. Facilitate the provision of Government services electronically anytime anywhere for the greater convenience of the public, through the implementation of an E-Government programme;
- c. Ensure that the ICT culture permeates all levels of the society to bridge the digital divide to the extent possible;
- d. Encourage the adoption of new technologies and best practices in the ICT; and
- e. Promote capacity building in ICT.

The role of the National Computer Board (NCB) is to e-power people, businesses and the public sector by developing and promoting ICT and ICT related services in line with national goals and policies. The NCB is a key enabler in transforming Mauritius into a Cyber Island and, amongst others, advises the Government on the elaboration of national policies for the development of the ICT sector in Mauritius. Moreover, to promote the development of start-ups in the ICT sector, the NCB launched an ICT Incubator Centre in January 2003. Under the e-government

initiative, the NCB has set up of the Government Online Centre, which is the main infrastructure for the deployment of e-government services to the citizens.

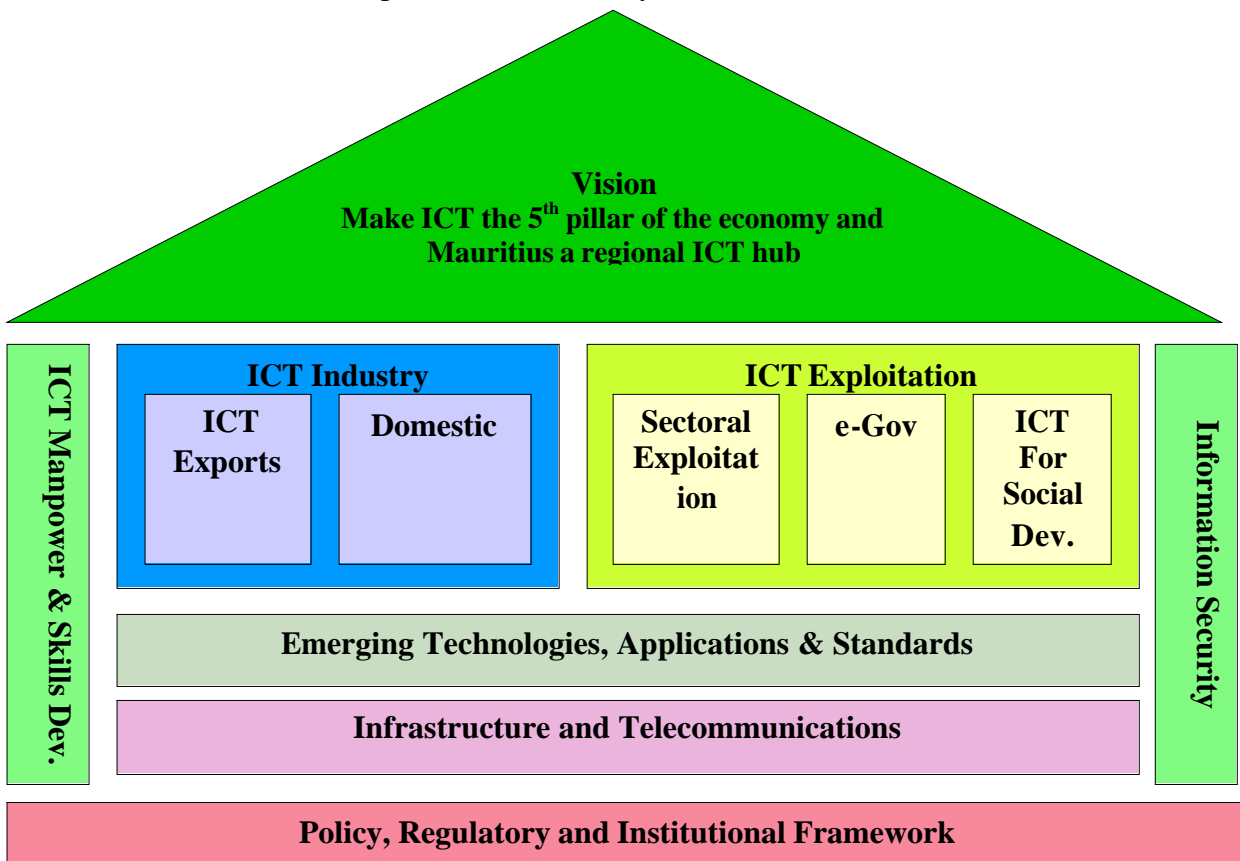
A number of initiatives have been implemented by several institutions to promote the development of the ICT sector. Annex 2 describes the initiatives undertaken by different institutions in the ICT sector.

There is a need to consolidate the initiative implemented so far by institutions so that Mauritius can create synergies among the different institutions to sustain the development of the ICT Sector in a coherent and planned manner to achieve the vision of government.

The purpose of the National ICT Strategic Plan (NICTSP) would be to develop a comprehensive action plan for the development of the ICT Sector for the next five years to enable government to achieve its vision of transforming Mauritius into a Cyber Island, to be part of the Information Society and to provide equal ICT opportunities to citizens.

2.2 ICT Sector Framework

The ICT Sector Framework shown below describes the major components for the development of the ICT Sector as the fifth pillar of the economy.



1. ICT Industry

This component will address the development of the export potential and the domestic capacity of the ICT industry.

2. ICT Exploitation

All main contributors to the GDP are already using ICT to diverse extents. Making optimum use of ICT in Tourism, Manufacturing, Agro-industries and Financial Services to maximise

the returns on investment, will further enhance contribution to GDP. This component will be looking into how the use of ICT in all key economic sectors must be exploited for enhanced productivity and efficiency.

3. E-Government

This building block will address the issues pertaining to the deployment of joined up online Government services for faster and quality service delivery to citizens, businesses and visitors.

4. ICT Manpower and Skills Development

This component will look into the manpower skills and profile and educational sector reforms required in order to support the development of the ICT industry.

5. ICT for Social Development:

This component will look into the transformation of the Mauritian nation into an information society where everyone is ICT literate, has access to ICT facilities and can participate in the Information Society.

6. Emerging Technologies, Applications & Standards

This building block will address the deployment of latest technologies and standards in the Mauritian context to sustain a competitive edge.

7. Infrastructure and Telecommunications

In order to sustain the development of the ICT sector, there is a need to make available good quality infrastructure facilities and services as well as a robust and reliable telecommunications network, which is competitive at the international level and is also highly accessible and affordable.

8. Information Security

In order to build an Information Secure Society, we need to build confidence and security in the use of ICTs.

9. Policy, Regulatory, and Institutional Framework

The objectives of this component are to create a level playing field for all the players in the ICT sector and to develop a conducive and enabling environment to act as a catalyst for the development of the sector.

2.3 Project Strategy

2.3.1 Objectives of NICTSP

The objectives of the NICTSP have been grouped as per the building blocks of the ICT Sector Framework.

ICT Industry

- Identify potential niche areas for the development of the ICT sector as the fifth pillar of the Mauritian economy.
- Maximise the growth of the ICT industry both for domestic and export markets
- Enable the Services sector to grow and develop Mauritius into a regional business hub.
- Enable and empower the local business community at large and entrepreneurs in the ICT sector to gain access to the regional and global markets
- Identify schemes and facilities to create a more conducive environment for the promotion of a local entrepreneurial culture and to attract international partnerships.
- Identify projects to position Mauritius as the Regional ICT Centre of Excellence.
- Identify research and development initiatives to foster the ICT sector.

Sectoral Exploitation

- Enable and empower the local business community and the SMEs by enhancing their efficiency and productivity through the application of ICT.

E-Government

- Provide better services through the implementation of e-government programmes.

ICT For Social Development

- Strengthen nationwide programmes for the promotion and adoption of ICT to improve the quality of life of citizens
- Develop a fully ICT literate nation through broad-based ICT education and awareness
- Formulate measures to promote the development of local content and creativity
- Enhance schemes to promote household PC penetration

ICT Manpower & Skills Development

- Ensure adequate supply and availability of skilled human resources for the ICT Sector.
- Promote capacity building and knowledge transfer in particular for local entrepreneurs, executives and IT professionals.

Emerging Technologies, Applications & Standards

- Identify international standards and best practices to develop a world class ICT industry and to ensure the competitiveness of Mauritius Internationally.
- Promote the innovative use of ICT across all sectors.

Infrastructure and Telecommunications

- Provide world class infrastructure and telecommunications facilities to build a competitive ICT Industry.
- Ensure telecommunications facilities are accessible and affordable to all.

Information Security

- Build trust and enhance security in the use of ICTs

Policy, Regulatory, and Institutional Framework

- Review and strengthen the existing policies, legal and institutional frameworks;

2.3.2 Approach

The project shall be facilitated by working groups comprising professionals both from the public and private sector. The approach will be as follows: -

- The consultant/s shall make an assessment from primary and secondary data of the current state of ICT development in Mauritius through consultations with stakeholders concerned in order to formulate and achieve a common understanding of the objectives for the NICTSP
- The consultant shall advise on the methods for the collection and validation of data – e.g. through the organization of a workshop
- The consultant/s shall formulate the action plan to achieve the objectives of the NICTSP with the assistance of working groups.
- The consultant/s shall identify potential/niche areas for development of ICT exports and recommend an action plan thereon.
- The consultant/s shall prepare an action plan for the next five years for the NICTSP.

To be able to achieve the required impact, it is important to view the NICTSP as an integrated ICT strategy to support the economic and social development of Mauritius over the next five years. The consultant/s will be required to submit an Inception report one week after the start of the assignment.

2.3.3 Deliverables

Inception Report: The Inception Report shall consist of the work plan of the consultant/s to carry out the assignment for the NICTSP. The consultant/s should clearly indicate the methodology they will adopt and the means by which the Ministry of Information Technology and Telecommunications, the National Computer Board, other stakeholders and associations will be consulted during the course of the preparation of the NICTSP. The above draft terms of reference would be refined and improved after consultations between Government and the consultant/s, at the inception report stage.

Quarterly Progress Reports: Consultant/s shall prepare quarterly progress reports for submission to the Implementing Partner (IP) that is Ministry of IT and Telecommunications.

Current State Assessment Report (CSAR): The main purpose of the Current State Assessment Report is to review and identify gaps between the current and desired state of ICT exploitation in Mauritius.

The consultant/s will be required to undertake a general review of the existing policies, legal and institutional framework and strategies as related to the government vision, assess the e-government initiative including the Civil Service Computerisation, make an assessment of the ICT exploitation across the different economic sectors and at the level of households, evaluate the E-readiness of Mauritius, including the e-readiness of the different economic sectors and carry out a PEST (Political, Economical, Social and Technological) analysis and a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the ICT industry.

The CSAR should include linkages between ongoing/proposed development projects and the ICT industry. ICT indicators will be given a prominent role in the CSAR to provide as much quantitative results as possible.

Strategic Framework Report: The main purpose of the Strategic Framework Report will be to recommend a coherent framework for defining the strategy to be adopted in the NICTSP. The Strategic Framework Report must outline the components of any proposed field programs, any anticipated challenges/obstacles to be encountered and proposed modelling approaches.

The consultant/s will be expected to develop a common understanding of the objectives of the NICTSP with stakeholders, identify and recommend specific areas of focus for which development of suitable action plans are required to achieve the objectives of the NICTSP and formulate measurable objectives for each area of focus.

NICTSP Action Plan: The NICTSP Action Plan will be one consolidated document, which shall include an action programme to be implemented over the next five years. The NICTSP Action Plan shall include a detailed implementation schedule, project outcomes, and financial estimates for each project, possible sources of funding for the projects identified and an institutional framework for the implementation of the NICTSP. The main issues that will be addressed in the NICTSP action plan will include the following:-

- a) Identify projects to position Mauritius as the Regional ICT Centre of Excellence;
- b) To enhance competitiveness of businesses in the global market;
- c) Promote the sophistication of use of ICT in an innovative way across all economic sectors, the government and the general public, to achieve the vision of the government to transform Mauritius into a Cyber Island;
- d) Identification of key e-government projects to be implemented over the next five years and an implementation plan for each project;
- e) Develop a national information security strategy plan to build trust in the use of ICTs.
- f) Creating a conducive environment for the development of a knowledge based economy in Mauritius;
- g) Enhancing broadband Internet access for both business and community;
- h) Enhance schemes to promote household PC penetration;
- i) Promote capacity building and knowledge transfer in particular local entrepreneurs, executives and IT professionals;

2.4 Beneficiaries

The implementation of the NICTSP will strengthen the ICT industry of Mauritius and this will have a favourable impact on other sectors of the economy. By increasing the application of ICT across all economic sectors, it is expected that this will increase productivity and competitiveness. It is expected that the NICTSP will enhance the development of ICT in Mauritius, create business and employment in this sector and reduce poverty. Furthermore, it is foreseen that by enabling ICT to be accessible to all levels of the population, this will strongly contribute to transform Mauritius into a knowledge-based society.

The most immediate beneficiaries from the developments that will occur in the ICT sector as a result of implementing the NICTSP will be as follows:

- Population & Future generations of Mauritius
- Mauritian businesses in the different economic sectors

- Investors in the ICT sector
- SMEs
- IT professionals
- Unemployed
- Public Sector institutions

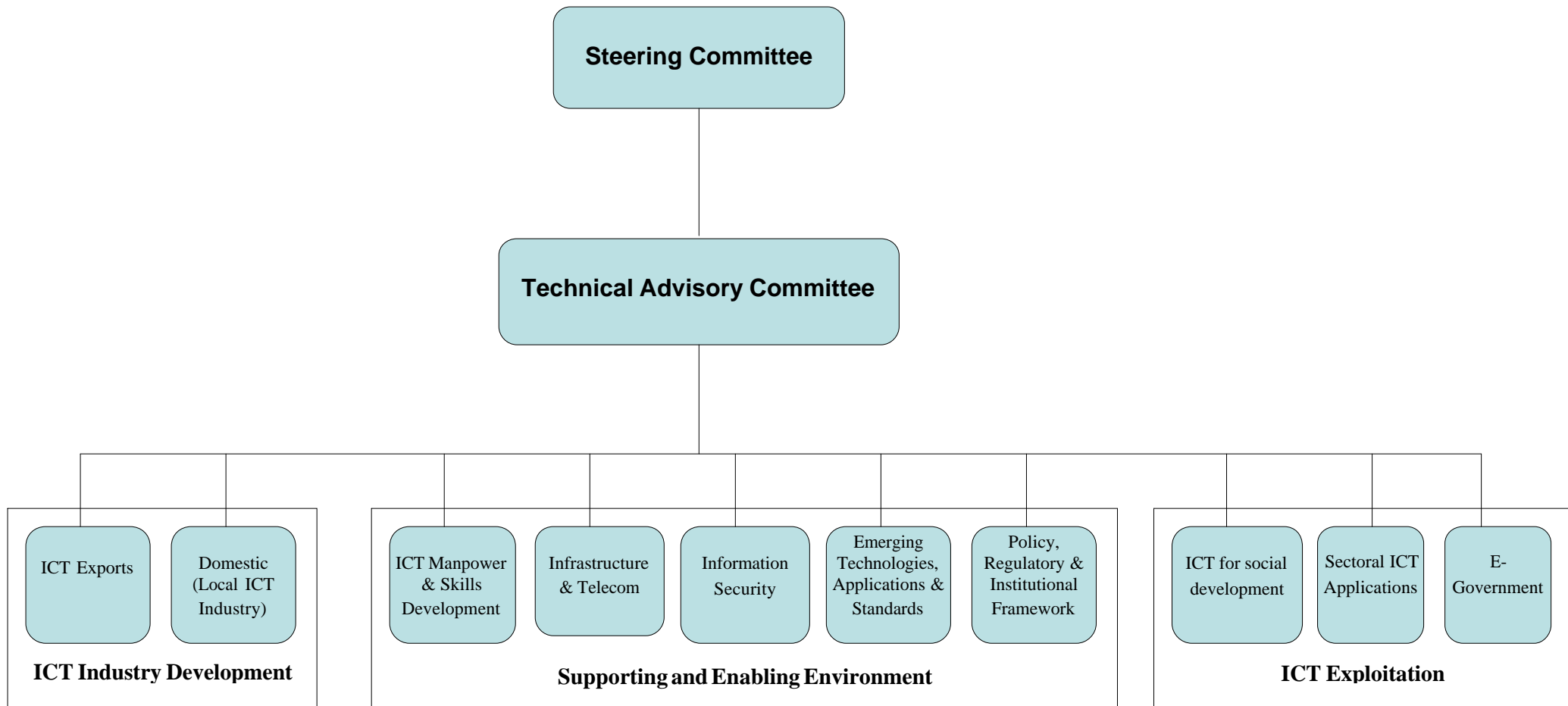
Part III

Management Arrangements

The Implementing Partner (IP) of the NICTSP will be the Ministry of Information Technology and Telecommunications. Upon signature of the project document and within a period not exceeding one month, the IP will nominate a National Project Director (NPD). The NPD will coordinate and supervise the overall activity of the project.

The project will be managed through the funding agency modality for National Execution (NEX). Disbursement of funds will be through requests for direct payment from the IP.

The following organisational structure will be set up for the implementation of the project.



A Steering Committee (SC) will be set up by the Ministry of Information Technology and Telecommunications and will be chaired by the Minister of Information Technology and Telecommunications.

The functions of the Steering Committee shall be to:

- Provide policy guidance to the Technical Advisory Committee
- Monitor and undertake timely and periodic evaluation of the progress of the NICTSP;
- Endorse deliverables on recommendation of the Technical Advisory Committee;
- Endorse the overall work plan.
- Approve recommendations and action plans

The Steering Committee will consist of one representative of each of the following institutions:

- Prime Minister's Office,
- Ministry of Information Technology and Telecommunications,
- United Nations Development Programme (UNDP),
- National Computer Board
- Ministry of Finance and Economic Development,
- Ministry of Industry, Small and Medium Enterprises, Commerce and Cooperatives,
- Ministry of Education & Human Resources,
- Ministry of Civil Service and Administrative Reforms,
- Joint Economic Council,
- Mauritius Chamber of Commerce and Industry,
- ACT
- Mauritius IT Industry Association (MITIA)

A Technical Advisory Committee (TAC), reporting to the Steering Committee, will be setup and will be responsible for the following:-

- Provide guidance and mobilise necessary resources
- Obtain SC approval on the planning approach
- Manage overall programmes
- Resolve issues and conflicts
- Facilitate working sessions between the consultant/s and stakeholders
- Review deliverables and make recommendations to the Steering Committee
- Obtain endorsement from the SC for all deliverables
- Provide necessary documentation and information to the consultant/s

The Technical Advisory Committee will be chaired by the Chairman of the National Computer Board and will consist of the following members:

- Ministry of Information Technology and Telecommunications,
- National Computer Board,
- Central Informatics Bureau,
- Central Information Systems Division,
- ICT Authority,
- Ministry of Finance and Economic Development,
- UNDP
- ACT
- MITIA
- Team Leaders of Working Groups

Recruitment of consultant/s will be done by a committee composed of representatives of the Ministry of Information Technology and Telecommunications, Ministry of Finance and Economic Development and the UNDP. The consultant/s can be individuals or firms.

The audit will be conducted by the Government Auditor or by an auditor engaged by the Government.

Part IV

Monitoring and Evaluation

The project shall comply with agreed procedures between the Government of Mauritius and UNDP for the monitoring, evaluation and reporting requirements. Quarterly progress reports will be submitted to UNDP by the IP, providing a brief summary of the status of activities and output delivery, explaining variances from the work plan, and presenting work-plans for each successive quarter for review and endorsement. The quarterly progress reports will provide a basis for managing disbursements.

A Terminal Report will be prepared by the Implementing Partner upon project completion, summarizing and evaluating project achievements in more detail, for review at the steering committee meeting. The SC will meet monthly to review progress achieved. The TAC shall meet on a weekly basis.

Part V

Legal Context

The project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Mauritius and the UNDP signed by the parties on 29 August 1974. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the Government Cooperating Agency described in that Agreement.

SECTION II: Results And Resources Framework

List of tables describing the desired outputs, indicators, activities, means of verification and inputs.

Intended Outcome: The ICT Sector developed as the fifth pillar of the economy and also as an enabler of development providing equal ICT opportunities.

Indicators: % Increase in ICT usage, employment and expertise in ICT Sector, % Increase in contribution of ICT Sector to GDP

MYFF Service Line: Making ICTD work for the poor.

Partnership Strategy: The Ministry of Information Technology and Telecommunications (MITT) will take a leadership role, in collaboration with all important national ICT strategic partners such the NCB, the Information and Communications Technical Authority (ICTA) and the CSO/private sector to develop a Strategic Plan for the ICT Sector of Mauritius. UNDP will support the process, and also assist in part of the implementation. The Ministry of Foreign Affairs, International Trade and Cooperation will ensure that the NICTSP is an essential part of Mauritius's position in relevant bilateral, regional and multilateral trade negotiations.

Project title and number: National ICT Strategic Plan

Output	Indicators	Activities	UNDP Inputs (USD)
NATIONAL ICT STRATEGIC PLAN	Setting up of Steering committee by end April 2006	Appointment of members of the Steering committee	
	Setting up of Technical Advisory Committee by end April 2006	Appointment of members of the Technical Advisory Committee	
	Setting up of working groups by May 2006	Appointment of members of the working group	
	Kick-off Workshop with members of committees and working groups end May 2006	Briefing of members of committees and working groups Review of NITSP 1998	
	International consultant/s selected by first week of June 2006	Evaluation and selection of an international consultant/s	

Output	Indicators	Activities	UNDP Inputs (USD)
	International consultant/s appointed in June 2006	Appointment of International Consultant/s	International Consultant/s (180,500)
	Consultative workshop with stakeholders by June 2006	Develop a common understanding of the objectives of the NICTSP with stakeholders	
	Submission of Inception Report by international consultant/s by July 2006	Briefing between consultant/s and Steering Committee	
	Assessment of current state of ICT exploitation in Mauritius and conducting of PEST and SWOT Analysis	Assessment of the exploitation of ICT across all economic sectors	
	Intermediate report on existing policies, legal and institutional framework by mid July 2006	Undertake a general review of the existing policies, legal and institutional framework and strategies as related to the government vision	
	Submit first Quarterly Progress Report by end July 2006.	First Quarterly Progress Report submitted to SC	
	Draft Current State Assessment Report and consultative workshop with stakeholders by August 2006	Carry out a PEST (Political, Economical, Social and Technological) analysis and a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the IT industry	
	Consultation with stakeholders	Review current state assessment	
	Final Current State Assessment Report by end August 2006	Steering Committee endorses Current State Assessment Report	
	Submit Second Quarterly Progress Report by Mid September 2006.	Second Quarterly Progress Report submitted to SC	
	Draft Strategic Framework Report by end of September 2006	Identify and recommend specific areas of focus for which development of suitable action plans are required to achieve the objectives of the NICTSP and formulation of measurable objectives for each area of focus.	

Output	Indicators	Activities	UNDP Inputs (USD)
	Consultation with stakeholders	Review Strategic Framework	
	Draft Strategic Framework Report is amended	Review of Draft Strategic Framework Report.	
	Submit third Quarterly Progress Report by third week of October 2006.	Third Quarterly Progress Report submitted to SC	
	Final Strategic Framework Report by October 2006	Steering Committee endorses Strategic Framework Report	
	Draft NICTSP Action Plan by mid November 2006	Identify projects and activities for each area of focus	
	Consultation with stakeholders	Review action plan to be implemented over the next five years	
	Submit fourth Quarterly Progress Report by November 2006.	Fourth Quarterly Progress Report submitted to SC	
	Final NICTSP Action Plan end November 2006	Steering Committee endorses NICTSP action plan.	

Section III

Work Plan And Budget

Annex 1
Economic and ICT Indicators 1999-2004

ITEM	Indicators	Year						
		1999	2000	2001	2002	2003	2004	
1.	Estimated population (Millions)	1.139	1.151	1.163	1.174	1.186	1.196	
2.	Population density (per km ²)	579	585	591	596	602	607	
3.	No. of households	290,330	296,300	305,900	311,300	321,000		
4.	GDP per capita (Rs at Market price) (CSO)	91,400	100,700	110,061	117,228	128,288	141,826	
5.	GDP growth rate at basic prices	+2.3	+9.3	+5.4	+2.1	+3.7	+4.5	
6.	Inflation annual Rate (%)	6.9	4.2	5.4	6.4	3.9	4.8	
7.	Fixed telephone lines	257,099	284,600	306,800	332,029	348,228	353,640	
8.	Mobile Cellular subscribers	102,119	126,000	300,000	366,438	466,327	586,718	
9.	No. of fixed lines/100 inhabitants	21.89	23.98	25.56	27.44	28.47	28.64	
10.	No. of Mobile subscribers/100 inhabitants	8.65	10.67	25.00	30.28	38.13	47.58	
11.	Estimated household fixed telephone penetration (%)			76.3	80.0	91.0	92.0	
14.	Estimated Internet users	55,000	87,000	120,000	150,000	180,000	230,000	
15.	No. of Internet subscribers (dial-up)	20,000	35,056	41,000	50,000	60,052	77,558	
16.	Estimated household Internet penetration (%) ¹		12.0		23.8			
17.	International Internet bandwidth(Mbps)			10	36	45	61	
18.	Estimated Internet Hosts	1,486			3,462	3,985	4,836	
Notes:	1 Estimated household Internet Penetration refers to household having telephone connectivity							
Source:	Mauritius Telecom, Central Statistical Office, National Computer Board and International Telecom							

Annex 2

Overview of ICT Industry in Mauritius

1. ICT Policies

A National IT Strategic Plan (NITSP) was carried out in 1998 with the aim of driving Mauritius towards an Information Based Economy and to position our country as a regional IT hub. The NITSP identified actions that were to be implemented over a period of seven years up to 2005.

The Mauritian government is fully committed to develop a dynamic ICT industry. Mauritius is already equipped with the latest technology to support enhanced services and a larger number of direct routes for international phone access.

Since 1999, Government has abolished the 55% customs duty on several IT components. These include printed circuits, semi-conductor devices, integrated circuits, headsets and microphones. Duty on slide projectors, video monitors, micro film readers and video conferencing equipment were brought down to 15%. The rate of duty for VCDs and DVDs were aligned with that of compact discs at 5%.

In addition to such fiscal policies, government has also introduced new policy framework for the liberalisation of the telecommunications sector and the ISP market.

2.1 Liberalisation of Telecommunications

Mauritius was among the 69 signatories of the GATS agreements at the WTO, in 1997, to allow full liberalisation of the Telecommunications sector. The ICT Act in 2001 laid the proper legal framework to enable liberalisation to take place and a subsequent amendment of the Act in October 2002 by the Government brought forward the liberalisation to 1st January 2003.

The opening up of the Internet Service Provider (ISP) market in 2001 to a pro-competitive regulatory environment and the reduction in the annual license fee was a major step towards making the Internet available at reasonable cost to people across the island. The primary objective was to make connection to Internet as easy as connection to utility services such as water and electricity.

The National Telecommunications Policy 2004 (NTP) outlines the overall policy objectives and targets for the telecommunications sector and spells out the strategies to be adopted. It also sets out the methodology to ensure fair, effective and sustainable competition for the new market paradigm.

The salient features of this policy comprise the following:

- Transformation of the telecommunication market structure and regulation towards a more liberal, technologically-neutral and competitive one
- Creation of a conducive environment to attract new investments and players
- Establishment and promotion of the National Information Infrastructure
- Consolidation of the independence of the regulatory authority
- Provision of adequate info-communications services access at affordable prices
- Development of management strategies for the use of scarce resources
- Introduction of code of practice for service providers.
- Promotion of technology innovation and competition

The major pillars of the NTP-2004 include implementing and fostering competition in the telecommunications services market, over the coming years and paving the way for the adoption of the concept of convergence of Information Technology, media, telecommunications and consumer electronics. The full document can be accessed and downloaded on this link: www.gov.mu/portal/goc/telecomit/files/finalntp.doc

2.2 Institutional Framework

The *Ministry of Information Technology and Telecommunications* deals with the formulation and implementation of government policies in the ICT sector. The website of the Ministry can be viewed on <http://telecomit.gov.mu/>. The following departments/organisations/companies operate under the aegis of the Ministry:

2.2.1 Central Informatics Bureau (CIB)

The Central Informatics Bureau (CIB), created in 1989, is a unit of the Ministry of Information Technology and Telecommunications whose main functions are to plan and coordinate computerisation within the Civil Service. It is staffed with a pool of Project Managers and acts as the technical consultant/s to Ministries and Departments where computerisation projects are underway. To date, there are around 60 major multi-user departmental systems that are operational in the Civil Service. Furthermore, some 40 major IT projects are presently under implementation. The website of the CIB can be accessed on <http://telecomit.gov.mu/cib>.

2.2.2 IT Security Unit

In the realisation of e-Government, a trustworthy environment where citizens and businesses can conduct electronic transactions in confidence had to be established and emphasis placed on the security aspects of key technical infrastructures supporting these e-Government services. As from August 2004, an IT Security Unit operates at the level of the Ministry of Information Technology and Telecommunications to provide technical assistance in the implementation of ISO/IEC 17799 security standards in Government. This unit is also responsible for raising IT security awareness among public officers, implementing Government IT security policies, carrying out IT security audits and providing guidance to Ministries/Departments on security matters. The website of the IT Security Unit can be accessed on <http://telecomit.gov.mu>.

2.2.3 Central Information Systems Division (CISD)

The Central Information Systems Division (CISD) has been working on the operational aspects of ICT projects. It provides on-going technical support for operational systems within the Civil Service mainly through the posting of its staff as Database Administrators and support officers within various Ministries/Departments. Data capture is conducted for certain Ministries and departments by Data Entry Operators. First level technical support on personal computers, printers and office automation software falls under the responsibility of the Technical Support unit of the CISD. The CISD is also responsible for payroll processing for the entire Civil Service and has designated webmasters for each Ministry/Department. These webmasters are responsible for maintaining the websites of Ministries and Departments. The website of the CISD can be accessed on <http://telecomit.gov.mu/cisd>.

2.2.4 ICT Advisory Council

This council setup under the ICT Act 2001 advises the Minister of Information Technology & Telecommunications on the quality & variety of telecommunication services, new telecommunication techniques and tariff.

2.2.5 ICT Authority

The ICT Authority setup under the ICT Act 2001 provides for economic and technical monitoring of the telecommunication industry in accordance with recognised international standard practices, including the promotion of fair competition and efficient market conduct within that industry, and ensuring appropriate control, inspection and regulation of the industry. It is the main regulatory body for the Information Communications Technology and Postal services sectors.

It also grants operator licenses, allocates frequencies and ensures safety and quality of every telecommunication service. The website of the ICTA can be accessed on <http://www.icta.mu>.

2.2.6 National Computer Board (NCB)

The NCB, established under the NCB Act in 1988, is a key enabler in transforming Mauritius into a Cyber Island. The role of NCB is to e-power people, businesses and the public sector by developing and promoting ICT and ICT enabled services. More information is available on the NCB's website www.ncb.mu.

2.2.7 State Informatics Ltd

The State Informatics Ltd (SIL) has played a key role in the evolution and application of IT in Mauritius over the last decade. With their position at the forefront of technology, they have been developing skills and expertise in state-of-the-art technology to computerise both public and private sector institutions. Their successful strategic partnership with giants of the IT industry, namely Oracle and SUN, has further empowered SIL in the transfer of technology at a sure pace to Mauritius and the African region. SIL is concentrating its efforts in adopting the best technology to the requirements of the local and African market.

The mission of SIL is to commit to delight their customers through creative, excellent value-added services and their vision is to be the premier provider of innovative world-class ICT-related services of the region. More information about SIL can be found on its website at <http://www.stateinformatics.com>.

2.2.8 Mauritius Post Ltd

The Mauritius Postal Service used to be a government department operating under the aegis of the Ministry of Information Technology and Telecommunications. Since March 2003, it was transformed into a government-owned corporate organisation and is now known as "The Mauritius Post Ltd".

The vision of Mauritius Post Ltd is to become a high-tech, regional and socially-responsible organisation with a professionally trained and motivated staff which proactively provides efficient, innovative and modern postal, IT-enabled and related services to its valued customers whilst creating value for its stakeholders." More information about the Mauritius Post Ltd can be found on its website <http://www.mauritiuspost.mu>

2.2.9 Other institutions involved in the development of the ICT sector

The following organisations are involved in the promotion and development of the ICT sector of Mauritius:

a. Board Of Investment

The Board of Investment (BOI) was established in March 2001 under the Investment Promotion Act 2000. The BOI is the first contact point for investing in Mauritius. Operating under the aegis of the Ministry of Finance and Economic Development, the BOI is responsible for promoting and facilitating investment in Mauritius.

The mission of BOI is to develop Mauritius as the premier regional centre par excellence for industry, business and services with emphasis on capital-intensive, knowledge driven and high value added activities.

The services of BOI include:

- Provision of information to potential investors
- Receipt, appraisal, approval of investment projects as well as issue of Investment Certificates after the approval of projects
- Assistance with identifying potential local partners for joint ventures
- Assistance with identifying and selecting sites, factory buildings and office space
- Organisation of visits and meetings with public agencies and economic operators on the island
- Provision of market intelligence and information on costs of doing business on the island as well as on market opportunities
- Assistance with obtaining work and resident permits and all required licenses and clearances from relevant authorities

The Board of Investment is facilitating both local and foreign investment and providing the necessary incentives to boost innovative and commercially viable business ideas through its Pioneer Status Enterprise Certificate and the ICT Certificate schemes.

More information about the BOI can be found on its website <http://www.boimauritius.com>.

b. Business Parks of Mauritius Ltd

The Business Parks of Mauritius Ltd (BPML) has been set up by the Government of Mauritius to spearhead the development, construction and management of state-of-the-art Knowledge and Hi-tech Business Parks in Mauritius. BPML is poised to play a major role in achieving the goals of the nation. The first key assignment of BPML was the implementation of the “Ebène Cyber City” project.

BPML also currently manages two other IT business parks: The La Tour Koenig Informatics Park and the Trade and Marketing Centre (TMC). More information about the BPML can be found on its website <http://www.e-cybercity.mu>.

c. Enterprise Mauritius

The Enterprise Mauritius is a parastatal institution conceived in 2005. The vision of the Enterprise Mauritius is to position Mauritius as a World Class Business centre and their Mission is to be the facilitator and catalyst in forging the competitive edge of all export development activities.

Its primary objective is to address issues critical to the successful transition from a labour-intensive to a skills-intensive economy.

In its mission to support the local industry, EPZDA later revamped as Enterprise Mauritius, launched an Electronic Marketplace in February 2004. The aim was to provide easy access to information on suppliers of raw materials and to automate the procurement process such as

placing orders for raw materials, accessories and equipment. The E-Marketplace also allowed customers from abroad to contact local manufacturers to carry out business. The stepping-stone for an E-Marketplace is Electronic Commerce. More information about the Enterprise Mauritius can be found on its website at <http://www.enterprisemauritius.biz>

d. Financial Services Promotion Agency

The Financial Services Promotion Agency was set up on 1st December 2001 by Act of Parliament under the Financial Services Development Act 2001. The Agency is a body corporate administered and managed by a Board and funded by the Government of the Republic of Mauritius.

As per the FSD Act, the objects and functions of the Agency are:

- to promote, in collaboration with the Board of Investment established under the Investment Promotion Act 2000, the development of the financial services industry and of an international financial centre in Mauritius;
- to prepare and implement a plan for human resource development and training in the field of financial services;
- to act as a one-stop service with a view to ensuring that any relevant permit is obtained expeditiously;
- to give such directions as may be necessary to a public sector agency for the expeditious and timely processing of an application for any relevant permit;
- to advise the Minister of Economic Development, Financial Services and Corporate Affairs on matters relating to the development of the financial services industry in Mauritius.

More information about the Financial Services Promotion Agency can be found on its website at <http://www.mauritius-finance.com>

e. Industrial and Vocational Training Board

The Industrial and Vocational Training Board is a parastatal organisation operating presently under the aegis of the Ministry of Education and Human Resources

It was set up in April 1988 under the Industrial and Vocational Training Act (1988) with the following objectives:

- to advise the Minister responsible for Training on matters related to training
- to monitor the needs for training in consultation with relevant authorities
- to administer and operate training schemes
- to provide for, promote, and assist in the training or apprenticeship of persons who are or will be employed in commercial, technical and vocational fields.

The IVTB became operational in 1989 and was entrusted with the following responsibilities:

- to plan, monitor and evaluate training programmes
- to design and develop training curricula
- to implement training schemes and training programmes
- to finance the training of school leavers and employees through a levy/grant system.

More information about the Industrial and Vocational Training Board can be found on its website at <http://www.gov.mu>

2.3 Legal framework

The following legislations have been introduced to develop a sound regulatory framework for the development of the ICT Sector in Mauritius:-

2.3.1 The Copyright Act 1997

The Copyright Act 1997 incorporates the international duties and obligations contracted by the State under the Universal Copyright Convention, the Berne Convention and the TRIPS Agreement.

Under the Act, protection is presently afforded to works which have been created or published by an author who is a citizen of, or has his habitual residence in, Mauritius or in another country party to the Berne Convention; and, to works which were first published abroad and subsequently published in Mauritius within 30 days of the first publication. In the latter case, protection would be afforded, irrespective of the nationality or the residence of the author.

The works concerned are essentially artistic, literary or scientific works as well as audiovisual works or works of architecture erected in Mauritius, and their derivatives. The persons protected are the authors or in the case of a work which has been made in the course of a person's employment or has been commissioned by another person, the author's employer or the person who has commissioned the work. Rights acquired under the Copyright Act are exclusively moral and economic rights.

The economic rights pertain mainly to the publication, distribution, reproduction of the work or the authorisation to do any of the above; the public performance of the work or the authorisation to do so; the communication of the work to the public or the authorisation of its communication; its broadcasting or the making of a derivative work out of the original work or the authorisation to do so.

The enforceability of these rights is however limited to the owner's lifetime and extend to a period of 50 years after his death. In the case of a work which has been assigned, it is limited to a period of 50 years from the date on which the work was created or first published. The Copyright Act 1997 can be downloaded at <http://www.gov.mu/portal/goc/mac/file/copyact.doc>

2.3.2 The Information Technology (Miscellaneous Provisions) Act 1998

The Information Technology (Miscellaneous Provisions) Act 1998 brought amendments to the Archives Act, to include documents that are electronically recorded; the Courts Act, to insert the admissibility of out-of-court statements; the Criminal Code Act by inserting a section on data protection and security and another section on computer misuse.

The Act also amended the Interpretation and General Clauses Act to insert a section on electronically recorded documents, and also amended the National Computer Board Act 1988. The act can be downloaded at <http://www.gov.mu/portal/goc/telecomit/files/Act1.doc>

2.3.3 ICT Act 2001

The object of the above Act is to provide for –

- (a) the establishment and management of an Information and Communication Technologies Authority;
- (b) the regulation of the information and communication technologies sector including
 - telecommunications;

- the use of the Internet;
 - the enhanced development of an information society and online services;
 - the protection and security of data;
 - the facilitation of convergence; and
- (c) the establishment of an ICT Advisory Council and of an ICT Appeal Tribunal
- (d) the democratisation of information and communication technologies for the promotion of a knowledge-based society.
- (e) the transition towards a fully liberalised and competitive market in the information and communication sector

The ICT Act 2001 can be downloaded at <http://www.gov.mu/portal/goc/telecomit/files/ictact.pdf>

2.3.4 Electronics Transaction Act 2000

The Electronics Transaction Act 2000 covers legal recognition and regulation of electronic records and electronic signatures. The objects of this Act are to:

- (a) establish the legal infrastructure necessary to implement secure electronic commerce and to remove uncertainties over writing and signature requirements;
- (b) regulate electronic commerce and other electronic transactions by means of secure and reliable electronic records;
- (c) provide for electronic filing of documents with public sector agencies and promote efficient delivery of public sector services by means of reliable electronic records;
- (d) foster the development of electronic commerce through the use of electronic signatures;
- (e) establish the authenticity and integrity of correspondence in any electronic medium;
- (f) help establish uniformity of rules, regulations and standards regarding the authentication and integrity of electronic records;
- (g) prevent the incidence of forged electronic records and fraud in electronic commerce and other electronic transactions; and
- (h) promote public confidence in the integrity and reliability of electronic records and electronic commerce

The Electronic Transactions Act 2000 can be downloaded at <http://www.gov.mu/portal/goc/telecomit/files/eta.pdf>

2.3.5 The Computer Misuse and Cybercrime Act 2003

The Computer Misuse & Cybercrimes Act was enacted to provide for repression of criminal activities perpetrated through computer systems and which aims at making provision for better protection against computer misuse and taking care of new forms of Cybercrime, such as illegal interception of data and on-line child pornography.

The Computer Misuse and Cybercrimes Act 2003 can be downloaded at <http://www.gov.mu/portal/goc/telecomit/files/cyber.pdf>

2.3.6 The Data Protection Act 2004

The Data Protection Act was introduced in 2004 to provide for the protection of the privacy rights of individuals in view of the development in the technology used to capture, transmit, manipulate, record and store data relating to individuals. The act can be downloaded at <http://www.gov.mu/portal/goc/telecomit/files/dpa04.doc>

2.4 Physical Infrastructure - Cybercity and Business Parks

2.4.1 Freeport and Informatics Park

Mauritius has made considerable progress in the development of the physical infrastructure, particularly with the construction of the Trade and Marketing Centre (TMC), by the then Mauritius Freeport Authority (MFA) and is an intelligent e-business incubator. The building is equipped with a high bandwidth optic cable network with direct access to the Internet, modern digital technologies and a variety of high-tech facilities. Operational since November 1999, the TMC allows the customisation of e-business activities.

2.4.2 Ebene Cybercity

The Ebene Cybercity offers state-of-the-art facilities for the development of software and multimedia, call centres, back-office operations, IT training, Data encrypting and electronic archiving, Back-up centres, Electronic publishing, Training in ICT, and Website development. The Ebene CyberCity is the first of its kind of a new generation of IT parks in this part of the world. Spread over an area of about 172 acres, the Ebène CyberCity is divided into 7 zones, with each zone being provided with water, power, roads, drainage and other facilities.

2.4.3 Rose-Belle Business Park

The setting up of the “Rose-Belle Business Park” in the south of the island is the second key assignment of BPML. Spread over 60 acres of land, this integrated park is only 10 minutes drive from the airport. Educational and Training facilities in IT will be imparted within a dedicated complex, side by side with activities of ICT operators in the Park. A separate Zone, earmarked for industry, will be developed for manufacturing and light assembly, particularly for freeport and air-freight related activities. A commercial and leisure component will play a key role in the park. This will comprise a hypermarket, home centre, shopping hall, food court and leisure attractions.

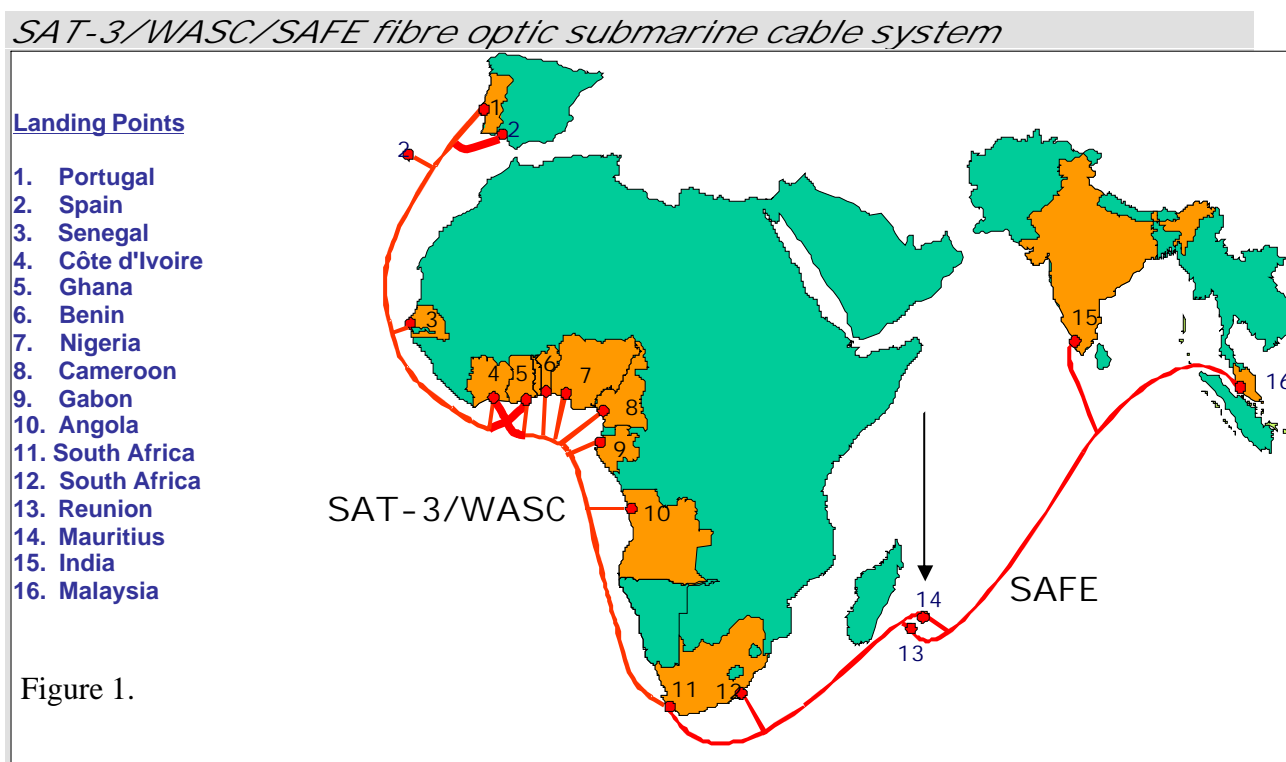
2.5 Telecommunications Infrastructure

High quality and efficient telecommunication facilities are offered throughout the country and the data communication network is the second largest of its kind in the whole African continent. With a tele-density of 28% in 2003 compared to an average of 8% for Africa and with a 100% digital network, the country is set to offer one of the best telecommunications facilities in the region. Mobile telephony subscription was at 51% in 2005 and is growing at a fast pace.

Internet that was introduced as from March 1996 on a commercial basis today reckons some 79,500 subscribers with well above 240,000 end-users. Internet subscribers over leased line stand at about 1,096. The number of Internet domain hosts in Mauritius is around 4,836 according to figures released by the Internet Software Consortium. The Internet service provider (ISP) market is today open, and new ISP licenses have been granted to propagate the use of Internet.

The SAT-3/WASC/SAFE (Southern Atlantic-3 / Western Africa Submarine Cable/South Africa Far East) project, (see Figure 1), involving telecommunication entities from all continents, started in June 1999. The whole system spans a total of 28,800 kms and connects Portugal, Spain (Canary Islands), Senegal, Ghana, Benin, Cote d'Ivoire, Nigeria, Cameroon, Gabon, Angola, South Africa, Reunion Island, Mauritius, India and Malaysia. The total cost of the project amounted to US \$ 650 million.

The SAFE cable, a segment of the SAT-3/WASC/SAFE cable system, connects Cape Town with Penang, Malaysia, and has landings in South Africa, Reunion, Mauritius and India on a total distance of 13,800 kms. The SAFE project is a major breakthrough for international communications in Mauritius as it provides our country with an alternative reliable high speed link to satellite routes with the rest of the world. The ultimate capacity of SAFE is 130 Gbps and the system can convey 6.3 million simultaneous telephone channels. The SAFE fibre optic cable connects Mauritius to the Global Information Infrastructure while enhancing its position as a regional hub.



2.6 ICT Industry in Mauritius

There are currently more than 250 companies operating in the ICT sector, involved in a wide range of activities including software development, call centre, Business Process Outsourcing (BPO), IT-Enabled Services (ITES), training, hardware assembly and sales, networking and other support services. World leaders such IBM, Microsoft, ORACLE, HP, Infosys, Accenture, Hinduja Group have set up their base on the island. IT-Enabled Services-Business Process Outsourcing (ITES-BPO) is a very strong segment of the local ICT industry and has experienced an exponential growth over the past years. Some 90 ITES – BPO companies, mostly foreign owned, presently operate in the island and are mainly servicing export markets namely in Europe and the USA. These ITES – BPO companies have already invested some Rs 727 M and are employing more than 3800 people.

As regard to entrepreneurship development in the ICT sector, some 18 start-ups have benefited from the facilities and services offered by the NCB Incubator Centre. These start-ups have created 86 jobs and invested Rs 12.75 M. There are two main industry associations in Mauritius

which regroup ICT operators, namely the Mauritius IT Industry Association (MITIA) and the ACT.

As far as IT Export is concerned, some companies like Blanche Birger, DCDM (De Chazal Du Mee) Consulting, State Informatics Ltd and Mauritius Telecom have been able to venture into the regional market.

2.6.1 New emerging sectors – BPO and Call Centres

ITES and BPO are important segments of the local IT industry and have experienced significant growth over the past years. Some 90 ITES/BPO companies, mostly foreign owned, are servicing export markets mainly to Europe and USA. These companies have invested some Rs 727 million and are employing some 3,500 people. Most of the BPO companies are involved in the provision of call center services and in back office operations. These activities are low to medium value added BPO services. Some of the well established companies have plans to move up in the BPO value chain. However, the major constraint is the lack of skills available in the country. The table below indicates the number of BPO companies in Mauritius and the number of people employed.

Breakdown by major BPO services

BPO Services	No. of Companies	%	Number of people employed
Software Development	21	20	277
Multimedia Development	9	8	38
BPO	50	47	1,548
Call centres	24	22	2,371
Disaster Recovery	2	2	86
Online Education	1	1	12
Total	107	100	4,332

(Source: BOI- Facts and Figures on ITES-BPO Sector – Jan 2006)

2.7 ICT usage among businesses and households

In 2001, the NCB conducted a survey on the ICT adoption of businesses in Mauritius through a stratified sample survey on 300 business establishments. The main findings of the ICT Usage 2001 survey are:

- 83.3% of business establishments own at least one computer
- 24.3% of establishments have between one and three computers
- 20% of establishments have more than 20 computers.
- Most widely used software packages: office tools (96%), financial and accounting packages (44.8%), inventory/stock control system (28.4%), and payroll system (27.2%).
- Applications that form critical IT systems in the day to day running of business of the establishments: stock control (41.6%), payroll (38.4%) and process control (12%).
- 90% of the computerised establishments have access to the Internet.
- 75% of all establishments have access to the Internet.
- Sectors in which Internet usage is high: manufacturing, wholesale and retail trade, hotels and restaurants, transport, storage, communication, banking and finance.

- Use of the Internet in the education and training sector: 63.2%
- Use of the Internet in public administration: 72.7%.

In 2002, the NCB conducted a study among households having telephone connectivity, ICT Outlook 2002 (<http://www.ncb.mu>), according to which the following was determined:

- Computer ownership in Mauritian households having telephone connectivity: 29.4%, compared to 21% in 2000
- In rural areas, computer ownership increased from 18% in 2000 to 27% in 2002
- Proportion of rural and urban households owning a computer: urban 31% and rural 27%
- Households having telephone connectivity and access to the Internet: 23.8% compared to 12% 2000
- Households having telephone connectivity and owning computers: increase from 58% in year 2000 to 81.1% in 2002.
- On-line purchases have increased from 1% in year 2000 to 2.2% in 2002.

3. ICT in Government

With the trend towards globalisation, Mauritius, as a nation, needs to be competitive. There is need for a public service that will be able to deliver Government services in a more effective and efficient manner. The use of ICT plays a vital role in the delivery of citizen centric public services. The computerisation of various governmental agencies has adopted an increasing pace. Several initiatives have been undertaken to facilitate online communication and the delivery of essential services to the citizens and the business community. To date, there are around 60 departmental systems already operational and some 40 major systems under implementation.

3.1 E- Government

The Government of Mauritius is very much committed to review its service operations in order to move towards electronic delivery of government services. The vision of the Government is to move to multi-channel, mixed public and private delivery of citizen-focused services 24 hours a day and 7 days a week through the use of modern technologies.

When this is achieved, it will radically improve services to the citizen as consumer, transform government operations, reducing costs to the benefit of taxpayers, and ultimately enhance Mauritian socio-economic performance through increased public sector productivity.

3.2 Government on Internet

Government started building an electronic presence on the web since 1996 with all Ministries and Departments publishing information on their services and activities for electronic dissemination to the public. The websites of ministries and departments are hosted by the NCB. However, the different websites suffered from a lack of standardisation from a presentation and content angle. The sites were more supply driven rather than demand driven with regards to provision of information and were not kept up-to-date. In March 2002, the Ministry of IT and Telecommunications came up with a web design standards document which was communicated to all Ministries and Departments. With the adoption of these standards, many sites have been redesigned to display a common look and feel throughout the entire government website. A new government portal together with redesigned websites that are more citizen, visitor and business friendly was launched in 2005. The government's web portal can be found on [http:// www.gov.mu](http://www.gov.mu)

3.3 Government Online Centre

The Government Online Centre (GOC) is crucial in achieving the E-Government vision to enable citizens and business to interact with government electronically. The GOC hosts the websites of ministries and departments and the government web portal, which is an Internet-based website that aggregates all government information and services in one place. The Government Web Portal is the primary website that citizens and businesses will go to access government services and carry out transactions online. The primary objective of the government portal is to provide citizens with a simple, secure and fast way of accessing government services online.

The GOC houses state of the art computer and networking infrastructure including web, e-mail, and application servers with appropriate security features at a central location to support the electronic delivery of government services. The GOC was officially launched on 17th May 2005 and is now operational.

3.4 Government Email Services

The Government Email Services (GES) Project was initiated by the Ministry of Information Technology and Telecommunications in 2001. This project aims at providing senior officers of the Civil Service with email accounts service as a means of improving information flows and communication among Ministries and Departments, and with the public. The infrastructure was set up by the NCB in May 2001 and up to now, around 3600 email accounts have been created for public officers of the rank of Higher Executive Officer and above. The e-mail web service is available at <http://mail.gov.mu>. The Central Information Systems Division (CISD) is responsible for creating and maintaining accounts for Government officers and providing first-level support. The CISD also operates a help desk for technical assistance.

3.5 Government Intranet System (GINS)

An important element for the success of e-government is the Government Intranet System (GINS) which aims at connecting isolated government departmental networks into an integrated and secure network. This facilitates collaboration, information sharing and co-ordination of activities within the Civil Service. GINS has been implemented and is operational since the 17th May 2005.

3.6 Public Access Points

For citizens who do not have access to a computer at home or work, Mauritius Post Ltd has installed Public Access Points in its Post Offices to allow these people to access Internet. In a first phase, 25 Post Offices including Rodrigues will be equipped with such kiosks. Currently there are some 11 Post Offices that provide free Internet access to the general public. There are also some 23 other post-offices equipped with Interactive Kiosks that provide Internet on a fee basis to the public.

The aim is to eventually equip all Post Offices with such facilities. These Public Access Points will also allow citizens to have local and international phone facility, as well as being able to print their emails. Audio and video email functionalities will also be available. Around 100 post office personnel have received training to that effect.

3.7 Information Security

In the realisation of e-Government, a trustworthy environment where citizens and businesses can conduct electronic transactions in confidence has to be established. Emphasis has therefore been placed on the security aspects of key technical infrastructures supporting e-Government services.

Government has also embarked on the deployment of the international information security standard, ISO/IEC 17799 within the Civil Service. This standard provides a structured approach for attaining an optimum level of Information Security within an organisation through the implementation of an Information Security Management System (ISMS).

The ISMS allows an organisation to identify potential threats and their consequential impacts, evaluate the degree of risks in several areas and apply adequate controls for eliminating or minimising those risks.

The Passport and Immigration Office, Treasury Department, Civil Status Division and the Contributions Branch of the Ministry of Social Security, National Solidarity, Senior Citizens Welfare and Reform Institutions have already successfully implemented their ISMS.

The security standard is now being rolled out across the Civil Service with the assistance of the IT Security Unit of the Ministry of Information Technology and Telecommunications.

4. Incentives for Attracting Foreign Investment in the ICT Sector

The Government is continually working to create a more favourable climate for foreign investments; for both the individual and corporate investor. At the international level the Government uses its entire political, economic and diplomatic endeavour to secure market access and investment guarantees. And at the national level the government is committed to improving the legal and administrative frameworks to offer appropriate propriety protection, hassle-free implementation and a well-balanced package of incentives.

Incentives offered are in the form of reduced corporate tax, exemption of customs on equipment and raw materials, preferential loan rates and reduced tariffs for electricity and water.

Moreover, dividends paid to shareholders are tax-exempt. Free repatriation of profits, dividends and capital is allowed. An attractive ICT Incentive Regime exists for the ICT sector. The package of incentives offered under the ICT Scheme is available on the website of the BOI at [http:// www.boimauritius.com](http://www.boimauritius.com)

SAPES is a new Scheme to attract non-citizens professionals with talent, expertise and skills in emerging sectors to come, work and live in Mauritius with the aim to provide professional services of the highest standard to investors.

Mauritius also offers a blend of advantages to investors, among which:

- A pro-business environment and political stability
- Pleasant and peaceful living conditions
- A pool of qualified professionals bilingual in English and French
- A free market economy with no foreign exchange controls
- An export-oriented industrial strategy
- Quota and duty free access to the EU, USA, COMESA and SADC markets, subject to rules of origin criteria
- Double taxation avoidance treaties and investment protection and promotion agreements with a number of countries
- Favourable time zone (4 hours ahead of GMT)

5. Incentives for businesses and new start-ups in the ICT sector

Entrepreneurs and small businesses may have potentially good ideas but lack the proper framework to support them to successfully commercialise these ideas. The government provides several incentives for businesses and new start-ups in the ICT sector as follows:

5.1.1 Incubator Centre

NCB has set up an ICT Incubation Centre to promote entrepreneurship in the ICT sector. The Incubator Centre provides benefits to start-ups in terms of availability of cost competitive office facilities, facilitate access to funds, linkage to financing and venture capital sources, access to information on government grant schemes as well as access to facilities offered by other Incubators and consulting services regarding development of business plans, marketing strategies, E-business, financial management and legal matters at concessionary rates.

To date eight start-ups are operational at the ICT Incubator Centre in fields such as multimedia, website development, software development, IT business solutions, graphic design and e-marketing solutions. Start-ups can stay in this ICT Incubator Centre for a maximum period of 3 years.

5.1.2 Training Levy

The Industrial and Vocational Training Board, which has been set up under the IVTB Act No.8 of 1988, has, inter alia, been vested with the responsibility to administer, control and operate training schemes.

In order to encourage employers to provide training to a maximum number of employees, the IVTB offers grants as incentives. Employers can recover up to 75% of training costs depending on their tax rate. This includes the IVTB grant and tax rebate.

The training may either be run in-house or externally by training institutions registered with the Mauritius Qualifications Authority, (MQA). Grants awarded by the IVTB are based on a cost-sharing principle, i.e., grants meet only part of the costs incurred for training by employers since they are not intended to be a subsidy.

5.1.3 Various schemes by the Enterprise Mauritius

Enterprise Mauritius is the prime support institution for Small and Medium Enterprises (SMEs) in Mauritius. In this context various schemes exist for the promotion of SME's including:

a. Export Assistance Scheme

This scheme is intended to encourage export of SME products. Financial support is offered to SMEs to enable them forward samples of their products abroad to prospective buyers. Fifty percent (50%) refund on airfreight, subject to a maximum of Rs. 2000 twice a year, is provided.

b. Feasibility Study Grant Scheme

The Feasibility Study Grant Scheme aims at boosting the start up of new SMEs, and encouraging existing ones to expand and/or diversify. A grant, equivalent to fifty percent (50%) of the initial operating costs of a feasibility study for a viable project, is available to SMEs. The maximum amount granted is Rs. 75,000.

c. Skills Development Programmes for Entrepreneurs

Training is regularly conducted at Enterprise Mauritius for both potential and existing entrepreneurs. It is designed to impart the required skills, attitudes and knowledge to entrepreneurs in relation to the setting-up of an enterprise and efficiently managing existing enterprises.

6. ICT Human Resources

There are five main tertiary institutions offering courses leading to certificates, diplomas and degrees in IT. This includes University of Mauritius, Mauritius Chamber of Commerce and Industry, Swami Dayanand Polytechnic, De Chazal Du Mee (DCDM) Business School and University of Technology of Mauritius.

Besides, there are four main institutions that provide Product Certification Courses. These institutions are Formation, Recrutement et Conseil en Informatique (FRCI), De Chazal Du Mee (DCDM) Business School, State Informatics Limited (SIL) and NIIT Computer Education and Training Centre. Furthermore, there are some 100 other private IT institutions providing end-user courses.

6.1 Progress Report by Task force on E-Education and Training -2004

In a progress report published in January 2004 by the Task force on E-Education and Training, a projection was made in respect of the number of graduates / diplomates expected to join the labour market up to 2005. A total of some 3,916 students was expected to graduate in the ICT and ICT-related fields on the basis of the current enrolment statistics as follows: 2003 – 892 (818 Diploma/Graduate and 74 Postgraduate); 2004 – 1,340 (1,229 Diploma/Graduate and 111 Postgraduate); and 2005-1,684 (1,564 Diploma/Graduate and 120 Postgraduate).

The projected output for the period up to 2005, accordingly, consists of a total of 305 IT specialists (Postgraduates) and 3,611 IT Professionals (Diploma/Graduates) representing only 10% and 36% respectively of the projected manpower requirement by 2006.

6.2 Job related Training for the ICT sector

A report was prepared in January 2004 by the Ministry of IT and Telecommunications, on “Job-related training in the ICT sector”. This report made recommendations on a strategy for the supply of qualified, employable and scalable human resource required to provide for the sustainable development of the ICT sector in Mauritius, placing particular emphasis on the ITES/BPO segment.

The report defined the strategy and made recommendations for the supply of qualified, employable and scalable human resource required for the sustainable development of the Information and Communication Technologies (ICT) Sector in Mauritius, with particular emphasis on IT-enabled services (ITES) in the short term and higher value added activities such as software development in the long term.

The report takes stock of the existing state of demand and supply of trained human resources for the ICT Sector, analyses the present state of affairs and makes recommendations with regard to meeting the demand and supply of skilled human resources with emphasis on short term solutions and taking into account the segment of the ICT Sector for which interest is being shown by investors.

6.3 Promoting ICT culture at national level

The government favours the promotion of ICT culture and various initiatives have been undertaken for this purpose.

6.3.1 IT Coach

Launched in November 2000, the IT Coach Project (Cyber Caravan) aims at bringing computer facilities to the doorstep of Mauritians. The main objectives of the IT Coach Project are:

- To raise the level of knowledge about ICT and the level of competence in using personal computers and common computer applications.
- To promote and encourage ICT literacy.
- To ensure all computer users understand the advantages of using a personal computer.
- To enhance the employability of all people, to enable them to be part of the global Information Society.

Presently, the National Computer Board is operating two IT Coaches. The IT Coaches are equipped with 9 and 10 PCs respectively and can accommodate between 9 to 18 persons per training session. The training sessions are targeted towards people with little or no skills in ICT. Services on board the IT Coach are provided by MQA registered IT animators. To date the IT Coaches have visited approximately 540 centres and about 42,000 persons have benefited from the services provided by this facility.

6.3.2 Computer Proficiency Programme (CPP)

The Computer Proficiency Programme is a nationwide training programme set up as a joint Government-Private Sector initiative by the National Productivity and Competitiveness Council (NPCC). The CPP programme aims at providing IT training up to the level of computer proficiency. The ultimate objective is to spread IT culture at all levels of the Mauritian society from teachers to students, the unemployed, the working population and the community at large. This objective is set within Government's vision of transforming Mauritius into a Cyber Island whereby in every household, every school and every workplace people are skilled in using computers.

6.3.3 IT Competitions

NCB also organises on a regular basis, IT competitions with the aim of promoting IT in secondary schools and at tertiary levels.

Annex 3

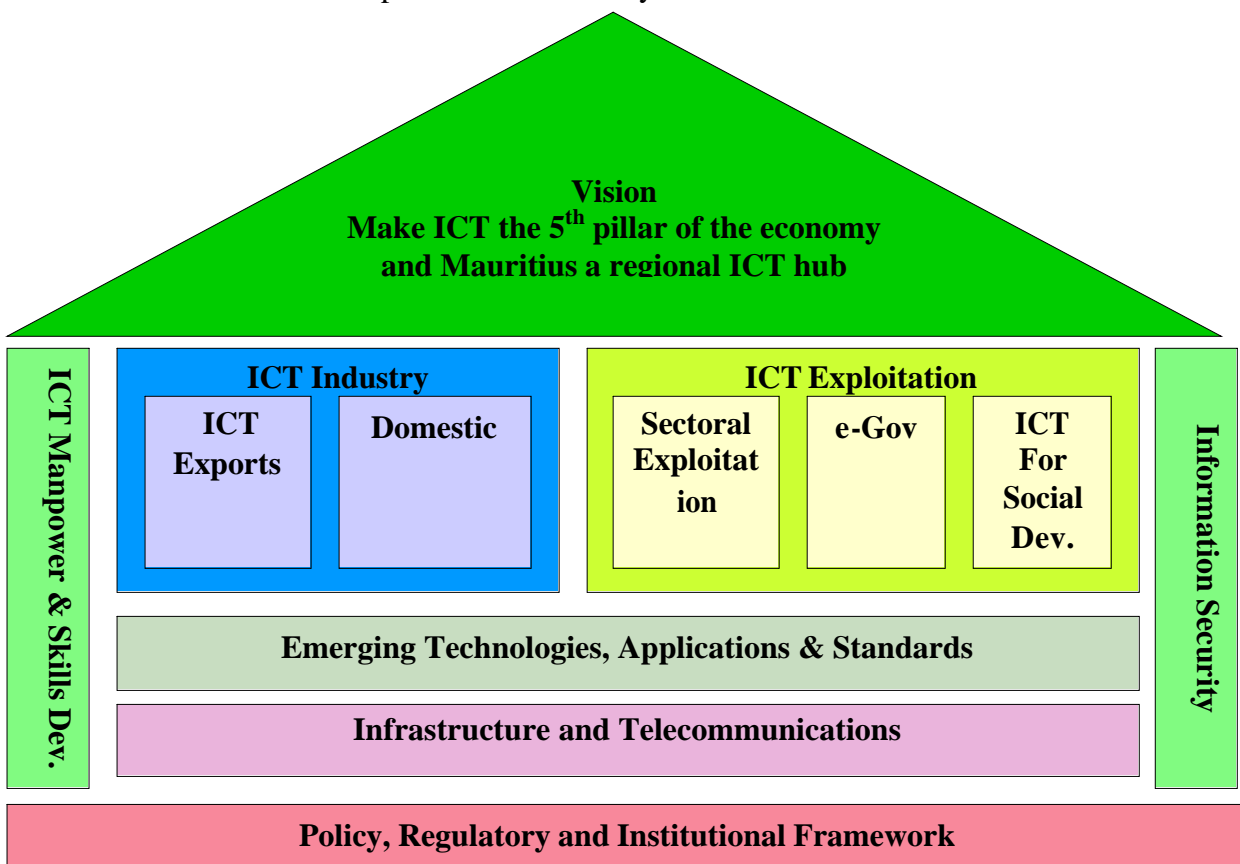
Terms of Reference for the Consultant/s

1 Introduction

The purpose of this project is to develop a comprehensive National ICT Strategic Plan (NICTSP) for Mauritius for the period 2006-2010. The objective of the NICTSP is to develop ICT as a truly fifth pillar of the economy and an enabler for socio-economic development.

2 ICT Sector Framework

The ICT Sector Framework shown below describes the major components for the development of the ICT Sector as the fifth pillar of the economy.



1. ICT Industry

This component will address the development of the export potential and the domestic capacity of the ICT industry.

2. ICT Exploitation

All main contributors to the GDP are already using ICT to diverse extents. Making optimum use of ICT in Tourism, Manufacturing, Agro-industries and Financial Services to maximise the returns on investment, will further enhance contribution to GDP. This component will be looking into how the use of ICT in all key economic sectors must be exploited for enhanced productivity and efficiency.

3. E-Government

This building block will address the issues pertaining to the deployment of joined up online Government services for faster and quality service delivery to citizens, businesses and visitors.

4. ICT Manpower and Skills Development

This component will look into the manpower skills and profile and educational sector reforms required in order to support the development of the ICT industry.

5. ICT for Social Development:

This component will look into the transformation of the Mauritian nation into an information society where everyone is ICT literate, has access to ICT facilities and can participate in the Information Society.

6. Emerging Technologies, Applications & Standards

This building block will address the deployment of latest technologies and standards in the Mauritian context to sustain a competitive edge.

7. Infrastructure and Telecommunications

In order to sustain the development of the ICT sector, there is a need to make available good quality infrastructure facilities and services as well as a robust and reliable telecommunications network, which is competitive at the international level and is also highly accessible and affordable.

8. Information Security

In order to build an Information Secure Society, we need to build confidence and security in the use of ICTs.

9. Policy, Regulatory, and Institutional Framework

The objectives of this component are to create a level playing field for all the players in the ICT sector and to develop a conducive and enabling environment to act as a catalyst for the development of the sector.

3 Objectives of NICTSP

The objectives of the NICTSP have been grouped as per the building blocks of the ICT Sector Framework.

ICT Industry

- Identify potential niche areas for the development of the ICT sector as the fifth pillar of the Mauritian economy.
- Maximise the growth of the ICT industry both for domestic and export markets
- Enable the Services sector to grow and develop Mauritius into a regional business hub.
- Enable and empower the local business community at large and entrepreneurs in the ICT sector to gain access to the regional and global markets
- Identify schemes and facilities to create a more conducive environment for the promotion of a local entrepreneurial culture and to attract international partnerships.
- Identify projects to position Mauritius as the Regional ICT Centre of Excellence.
- Identify research and development initiatives to foster the ICT sector.

Sectoral Exploitation

- Enable and empower the local business community and the SMEs by enhancing their efficiency and productivity through the application of ICT.

E-Government

- Provide better services through the implementation of e-government programmes.

ICT For Social Development

- Strengthen nationwide programmes for the promotion and adoption of ICT to improve the quality of life of citizens
- Develop a fully ICT literate nation through broad-based ICT education and awareness
- Formulate measures to promote the development of local content and creativity
- Enhance schemes to promote household PC penetration

ICT Manpower & Skills Development

- Ensure adequate supply and availability of skilled human resources for the ICT Sector.
- Promote capacity building and knowledge transfer in particular for local entrepreneurs, executives and IT professionals.

Emerging Technologies, Applications & Standards

- Identify international standards and best practices to develop a world class ICT industry and to ensure the competitiveness of Mauritius Internationally.
- Promote the innovative use of ICT across all sectors.

Infrastructure and Telecommunications

- Provide world class infrastructure and telecommunications facilities to build a competitive ICT Industry.
- Ensure telecommunications facilities are accessible and affordable to all.

Information Security

- Build trust and enhance security in the use of ICTs

Policy, Regulatory, and Institutional Framework

- Review and strengthen the existing policies, legal and institutional frameworks;

4 Specific Tasks and Responsibilities of the Consultant/s

The consultant/s will be responsible for the elaboration of the NICTSP 2006-2010. The consultant/s will be responsible for the tasks outlined below including preparation, submission and presentation of project deliverables. The consultant/s shall take into account the existing plans being implemented/prepared in the different economic sectors.

To be able to achieve the required impact, it is important to view the NICTSP as an integrated ICT strategy to support the economic and social development of Mauritius over the next five years. The consultant/s will be required to submit an Inception report one week after the start of the assignment.

The project shall be facilitated by working groups comprising professionals both from the public and private sector.

The following specific tasks will have to be carried out by the consultant/s:-

- Task 1 Undertake a general review of the existing policy, regulatory, institutional and capacity building frameworks and strategies in line with the vision of Government. The consultant shall be expected to consider the following aspects during the review: ICT legislations, ICT sector institutional set up, Capacity building initiatives, Electronic Document Retention, Electronic Signatures, Consumer Protection issues, Privacy and Data Protection, Cyber Crimes, Taxation, E-business and Intellectual Property amongst others;
- Task 2 Assess the e-government programme and benchmark with international e-Government leaders;
- Task 3 Make an assessment of the ICT exploitation across the different economic sectors and at the level of households;
- Task 4 The consultant/s shall make an assessment from primary and secondary data of the current state of ICT development in Mauritius through consultations with stakeholders concerned in order to formulate and achieve a common understanding of the objectives for the NICTSP
- Task 5 Carry out a PEST (Political, Economical, Social and Technological) analysis and a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the ICT industry;
- Task 6 Evaluate the E-readiness of Mauritius, including the E-readiness of the different economic sectors;
- Task 7 Develop a common understanding of the objectives of the NICTSP with stakeholders;
- Task 8 Identify and recommend specific areas of focus for which development of sustainable action plans are required to achieve the objectives of the NICTSP;
- Task 9 The consultant/s shall identify potential/niche areas for development of ICT exports and recommend an action plan thereon;

- Task 10 Identify projects and activities for each area of focus;
- Task 11 Develop an action plan to be implemented over the next five years to achieve the objectives of the NICTSP. The consultant/s shall be responsible for the preparation of an action plan for the next five years for the NICTSP. The action plan should include a clear timeframe, human resources requirements, financial estimates, sources of funding and responsibilities of different stakeholders for the various activities and projects identified for each area of focus. The main issues that will be addressed in the action plan will include the objectives set out at paragraph 3 (Objectives of NICTSP) as well as the following:-
- a) Identify projects to position Mauritius as the Regional ICT Centre of Excellence;
 - b) Enhance competitiveness of businesses in the global market;
 - c) Promote the sophistication of use of ICT in an innovative way across all economic sectors, the government and the general public;
 - d) Identify key e-government projects to be implemented over the next five years and an implementation plan for each project;
 - e) Develop a national information security strategy plan to build trust in the use of ICTs.
 - f) Create a conducive environment for the development of a knowledge based economy in Mauritius;
 - g) Enhance broadband Internet access for both business and community;
 - h) Enhance schemes to promote household PC penetration;
 - i) Promote capacity building and knowledge transfer in particular local entrepreneurs, executives and IT professionals;
- Task 12 Propose an organization structure to monitor the implementation of the action plan and a strategy for project review. The strategy should include the criteria to be applied and the timing to assess the progress of projects in each area of focus.

Note:

- a) The consultant/s will be expected to carry out workshops and consultations with stakeholders and make presentations of their findings to the steering committee.
- b) A number of working groups will be set up and the consultant/s will be involved in each working group.
- c) The consultant/s are not expected to carry out surveys.
- d) The consultant/s should submit their proposed methodology and work plan for carrying out the activities related to the whole project as part of their technical proposal.
- e) The consultant shall advise on the methods for the collection and validation of data – e.g. through the organization of a workshop
- f) The consultant/s shall formulate the action plan to achieve the objectives of the NICTSP with the assistance of working groups.
- g) The consultant/s shall prepare an action plan for the next five years for the NICTSP.

5 Deliverables

All deliverables shall be in English. The consultant/s is expected to submit the following deliverables:

1. Inception Report
2. Progress Report
3. Current State Assessment Report
4. Strategic Framework Report
5. NICTSP Action Plan

The Terms of Reference for the Consultant/s would be refined and improved after consultations with Government and other stakeholders, at the inception report stage.

The table below shows the schedule for all the deliverables of the project. All deliverables should be submitted in 10 copies. The consultant/s shall submit an electronic copy of all deliverables in MS Word format as well.

Deliverables	Due Date (End of week) – from date Consultant started work on the project
Inception Report	Week 2
1 st Progress Report	Week 5
Draft Current State Assessment Report	Week 6
Final Current State Assessment Report	Week 7
2 nd Progress Report	Week 10
Draft Strategic Framework Report	Week 14
3 rd Progress Report	Week 15
Final Strategic Framework Report	Week 15
Draft NICTSP Action Plan	Week 18
4 th Progress Report	Week 20
Final NICTSP Action Plan	Week 20

6 Profile of Consultancy Company

The consultancy company or the team of consultants is expected to have at least 5 years experience in formulating national IT strategic plans. The project is expected to be carried out by a consulting firm or at least 2 high-profile consultants with appropriate qualifications, expertise and previous experience in similar projects. The consultancy company may as part of the assignment bring additional staff during the course of the project on a shorter period for certain specific tasks.

7 Profile of consultant/s

The team leader qualifications and expertise shall be as follows:-

- Postgraduate in the field of IT or Economics or Finance or any other acceptable qualification.
- Fluent in written and spoken English.

- At least ten years previous experience including a minimum of 3 years at international level in strategic planning, managing and implementing projects of a similar nature and scale or major ICT projects.
- Excellent presentation and communications skills.
- Experience in change management issues and exposure to sector reforms.
- Experience in specificities relating to French and English speaking global ICT business
- Ability to take responsibility to work under pressure and concentrate on different tasks concurrently.

Qualifications and expertise of the other team members shall be as follows:

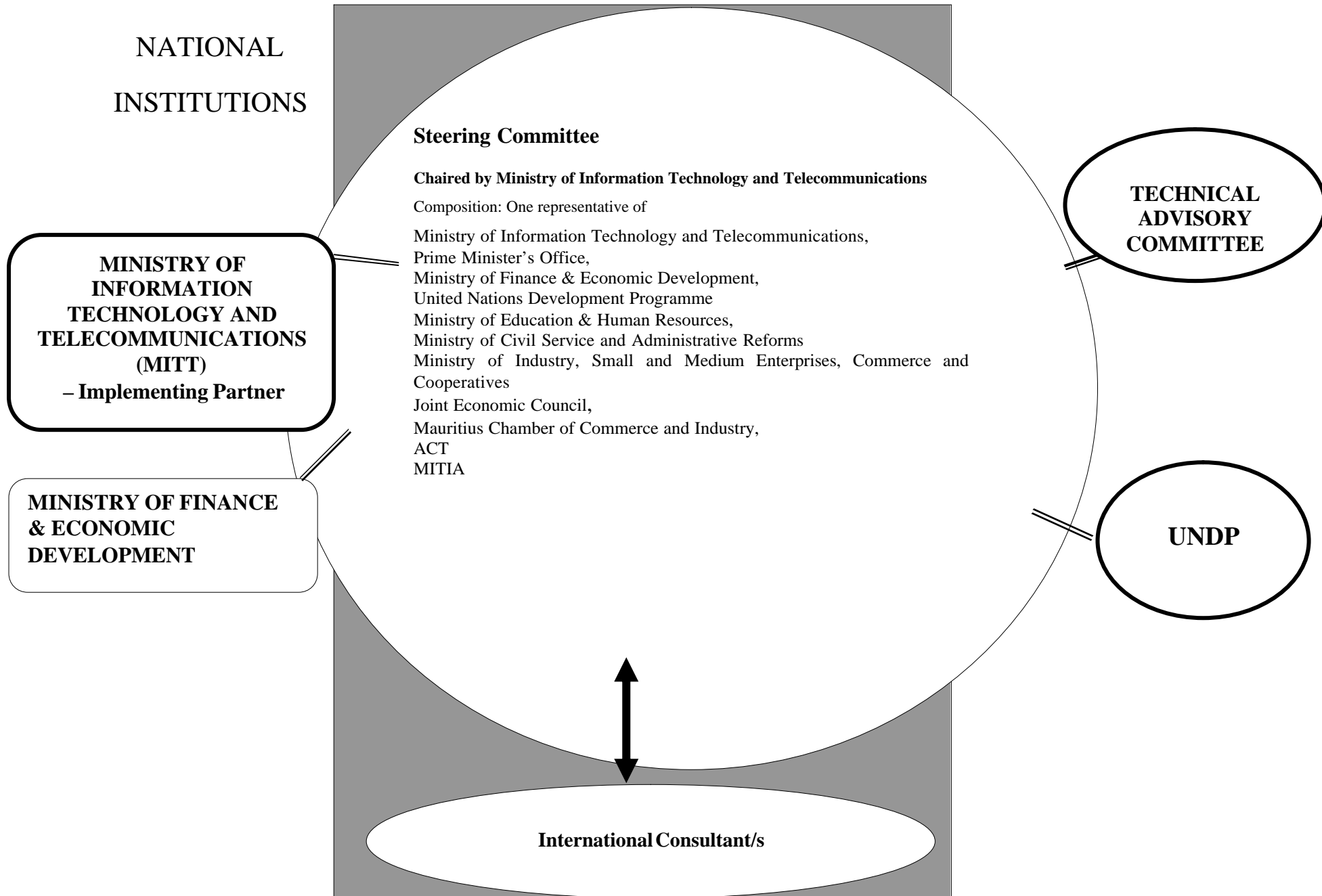
- Graduates in the field of IT or Economics or Finance or any other acceptable qualification.
- At least 8 years proven track record in developing and managing IT strategic plans of a similar scope and complexity including a minimum of 5 years experience in project management and implementation of major ICT projects OR a minimum of 5 years experience in the planning, design and implementation of E-government, or E-business/E-Commerce projects or Internet related projects of a relatively large scale and complexity.
- Fluent in written and spoken English.
- Familiar with Strategic Planning, Project Formulation, Project Financing, Marketing etc.
- Proven experience in manpower planning.
- Extensive experience in the provision of strategic management advice, policy development, process reform, and change management issues.
- Previous experience in IT related legislations such as Data Protection, Computer Crimes, IT Security, E-Commerce and Internet.

Detailed information and the relevant experience, supported by documentary evidence, should be provided in respect of each member of the Consultancy Team.

8 Reporting and Supervision

The consultant/s will work closely and under the guidance of the Steering Committee set up by the Ministry of Information Technology and Telecommunications. The consultant/s shall prepare and submit reports as indicated under the deliverable section by the specified deadline. The reports shall be written in English language. The Institutional Mechanism for the NICTSP project is enclosed.

INSTITUTIONAL MECHANISM FOR THE NICTSP PROJECT FORMULATION



Annex 4

Computerisation Projects in the Civil Service

1. School IT Project

In view of facilitating the transition of Mauritius to a fully knowledge-based economy and society, one of the strategies of Government is the use of Information Technology (IT) as a supporting tool in education. It is expected that the use of IT in education will support the development of an efficient workforce for sustaining economic growth. It is intended to teach IT as a subject in itself at schools and to make use of IT for the teaching of subjects across the curriculum in primary and secondary schools.

Government has therefore embarked on the implementation of the School IT Project (SITP) with the following objectives:

- (a) To promote usage of IT as a supporting and enabling tool for education right from pre-primary up to secondary level
- (b) To teach IT as a subject on its own at various levels
- (c) To integrate IT literacy as part of the education imparted to students
- (d) To promote virtual learning and collaboration in the education sector.

It is expected that this project will impart students with the appropriate skills required by the labour market as well as increase their employability and mobility when they leave school. Moreover, it is intended to bridge the gap in IT professionals in Mauritius and support the objective of the Government to develop the ICT Industry as another pillar of the economy.

2. Electronic Service Delivery

E-government hinges on identification and prioritisation of services that can be offered electronically. A survey of services was conducted by the Ministry of Information Technology & Telecommunications in this area. Based on selected prioritisation criteria, a few services such as application for scholarships, application for learner's driving license, applications for jobs, applications for work permit and applications for lump sum have already been implemented following the setting up of the GOC to demonstrate visible and tangible benefits of e-government to the people. Concurrently, other services are being looked into for electronic delivery.

3. Tradenet

Introduced in 1994, the TradeNet system based on Electronic Data Interchange has been implemented to ensure gradual change from traditional methods and better acceptance of this new way of dealing with Customs. The first phase dealt with the electronic authorisation by Customs for the delivery of goods in cases where no Customs inspection is required. A second phase was introduced to allow electronic submission to Customs of sea manifests by shipping agents. At the implementation of the third phase, facilities were introduced to cater for electronic declaration and processing of bills of entry. By July 2001, additional functionalities had been included in the fourth and fifth phases to include transfer of containers and import/export authorisation by controlling agencies respectively.

The last phase dealing with electronic submission of Certificate of Origin is being kept in abeyance while awaiting all countries concerned to acquire the appropriate technology for liaising electronically with the Customs & Excise Department. There should also be a formal

agreement between the countries concerned for the electronic submission. Meanwhile, the Customs & Excise Department is implementing a system (tentative period being March 2006) for the printing of Certificate of Origin with a possibility of publishing it electronically. With the TradeNet system, we are indeed witnessing a modern approach to dealing with government with minimal queue and waiting time.

4. Contributions Network Project

The project comprises the setting up of an electronic one-stop shop for all payments and contributions of the private sector to Government. The electronic submission of Income Tax and Value Added Tax (VAT) returns is operational. This has been extended to cater for contributions to National Pension Scheme, National Pension Fund, Industrial & Vocational Training Board (IVTB) levy since July 2001. E-filing and e-payment of corporate tax were launched in January 2002. It is proposed to proceed with the e-filing of corporate information and e-payment of fees to Registrar of Companies in the near future.

5. Civil Status Information System-Towards a Central Population Database

Registration of birth, marriages and death has been computerised since November 2001. The Civil Status Division (CSD) provides extracts of certificates in the form of A4-size computer-generated printouts.

The CSD now holds a central repository of information about the Mauritius population. This database is being used to populate a Central Population Database (CPD) which will serve as source of information to different Ministries and Departments. As such, there will be no need for a Mauritian citizen to provide full personal details each time he/she visits a government counter. The information will be easily retrieved based on the National Identity Number which is now generated right at the registration of birth. The CPD project is targeted to be operational in 2006.

6. Computerised Library System in the Judiciary

Access to the Mauritius legislation, regulations and judgements pronounced in the different Courts throughout the island is now available in electronic format at the fingertips. A connection to the Internet and an appropriate account with the Supreme Court opens your way to an incredible amount of electronic legal documentation.

Access to and retrieval of this information is provided through a web-based interface over the Internet. Authorised users have the possibility of searching the wide range of documents by category or by a range of years. The system is operational internally and the service has also been extended to subscribed users since March 2002.

7. Digital Court Recording System (DCRS)

The DCRS is used for the recording of court proceedings in all Court rooms found at the Supreme Court, New Court House comprising the Intermediate, Industrial and Port Louis District Courts and in all the District Courts including Rodrigues as well. The system allows the efficient recording and retrieval of Court hearings. Any party concerned may gain access to the hearings in case of any challenges by litigants.

8. Video Conferencing System

Witnesses no more have to face the physical presence and dreadful look of dangerous criminals while in Court. Resources are no longer needed to deploy special security measures while transferring suspects to Court.

The Video Conferencing System, initially introduced at the Supreme Court, does not necessitate the physical presence of potentially dangerous suspects. The video conferencing facility has also been established between one of the Court rooms in the New Court House, and the Prisons Services at Beau Bassin and Grand River North West. Suspects that have been remanded to jails can now depone from prisons without the need for physical presence in Courts. A witness room has also been set up to allow vulnerable witnesses to give evidence without their physical presence in Court.

This facility has also been extended since 2003 to the Rodrigues District Court as well, so that it can help in cutting down cost and saving time of trials.

9. Automated Fingerprint Identification System

The Police Department hit hard with the introduction of the Automated Fingerprint Identification System (AFIS) to cater for the management of fingerprints and crime records. Scanned images of fingerprints are stored for future matching with fingerprints gathered from Scene of Crime (SoC). This speeds up the process of matching fingerprints. The system also keeps details on criminals as well as records of previous methods used in crime perpetration and convictions. Specific information on habitual criminals is also included in the system. This facilitates the retrieval of crime history of any convicted person. Photographs of convicted persons are also kept and facilities are available to help witnesses in the identification of suspects.

The system was originally implemented at the Central Crime Investigation Division. The system has been extended to all Police Stations and is fully operational.

10. Vehicle Tracking System through Global Positioning System

The Mauritius Police Force consists of a large fleet of vehicles. In view of monitoring the proper use of these vehicles for official matters, a pilot project has been initiated whereby the movement of vehicles can be tracked through the Global Positioning System. This project is actually confined to the Emergency Response Service (ERS). All the vehicles of the ERS are equipped with a device that can capture the position of the vehicle through the GPS. The position is then sent via short message service (SMS) to a base station. Thus, the movement of the vehicle can be tracked almost online on the computer system. The system is operational since 2002.

11. Crime Occurrence Tracking System

The Crime Occurrence Tracking System (COTS) will cater for the automation of all processes from the lodging of a complaint at the Police Station to the sentence of the Court, with the possibility of electronic tracking of intermediate phases. The COTS will increase efficiency of processes by the elimination of redundant duplicate paper work at different levels. The centralised tracking of all criminal offences lodged at Police Stations will no doubt have a positive impact on the time taken to finalise enquiries as all information will be readily available at the point where the offences are being lodged.

With the operation of the COTS, there will be increased collaboration among different parties and as such, better level of service will be available to the public. An information plan has been prepared and is ready and the Police is proposing to implement the project. An eventual link to the Courts Information System and the Detainee Information System will allow for automatic lodging/scheduling of cases and the movement of criminals in prison. This will lead to the establishment of an Integrated Justice Information System which will result in efficient collaboration among all the different Justice players.

12. Central Personnel System

The objective of the project is to make data of all public officers readily available and up-to-date, which is vital for planning and management of human resources. It will be a database of all public officers kept and maintained by the Ministry of Civil Service & Administrative Reforms. Ministries and Departments will act as sub-offices, that is, they will access the Central Database and update data pertaining to their personnel only. The project will ensure standard personnel procedures in all Ministries/Departments.

The system will allow automatic computation of vacation leaves, passage benefits, compensation and increment. There will be better monitoring of appointments and vacancies in the Civil Service, easy tracking of workforce and useful reports for human resource management. The project has been successfully piloted and is fully operational at the Ministry of Civil Service & Administrative Reforms since 2001. The software is now being web-enabled for porting to the Government on line Centre. Ministries and Departments will then be able to access the database from their sites by means of browsers installed in PCs.

13. Labour Market Information System

The Labour Market Information System (LMIS) is an integrated web enabled computerised system which will assist the Employment Division of the Ministry of Labour, Industrial Relations & Employment in its core function. The LMIS aims at making up-to-date labour market information more readily available in the country so that the issue of labour in all sectors of the economy is better addressed. Information will be customised for specific channels and will be available at a mouse click for all stakeholders be it decision makers in Government, employers, job seekers, training institutions and others. The LMIS is expected to be operational by end of 2006.

14. Passports – New Look

In line with increased security around the world, the Passport & Immigration Office has reviewed the features of Mauritian passport. New and enhanced security features namely ultra-violet printing, ghost print and digital imaging have been included in the new passport. A new passport personalisation system has been acquired for the personalisation of the new passport with enhanced security features.

15. Review of the Passport & Immigration Office

The existing computerised system at the Passport & Immigration Office (PIO) which is operational since the early 1990's will soon be revamped. Consultancy services had been hired to work out an Information plan in view of recommending the best approach to be adopted for the new PIO. The Prime Minister's Office is appraising Cabinet of this project and securing funding from the Ministry of Finance and Economic Development. The PIO will be restructured and new computer systems implemented.

16. Review of computer system at Companies Division

The computer system of the Companies Division will be revamped based on new technology to cater for the provisions of the Business Registration Act 2002. This act provides for the registration of persons carrying business to be allocated a single business registration number and issue of a business registration card. On line registration of companies and businesses will also be possible. The system would evolve into a central business database based on the business registration number as unique identifier. It is expected that the system will be operational in the second half of 2006.

17. Cardiac Centre SSR National Hospital

The Cardiac Centre is being computerised as a pilot site prior to the setting up of an Integrated Hospital Management System in Regional Hospitals. The project will cover the activities in the Cardiac Centre with the modules dealing with Clinical, Administrative and Support Services respectively. This system will reduce time spent in searching patient details, establishing statistical information and preparing discharge letters. It will facilitate the comparison of cases and will greatly enhance the quality and quantity of management information available for decision making and long term planning. The system is expected to be operational in the second half of 2006.

18. Blood Transfusion Service at the Candos Central Laboratory

The aim of this project is to computerise the Blood Transfusion Service (BTS) at Victoria Hospital, Candos including four Blood Collection Stations located in regional hospitals and three mobile blood caravans. The proposed system is expected to improve blood donor, blood unit and patient traceability and better manage blood donors, blood stock and blood use. It will provide BTS with the stepping stone to embark on Quality Assurance and Haemovigilance. The system is expected to be operational in the second half of 2006.

19. Electoral Commissioner's Office

A new application system has been implemented at the Electoral Commissioner's Office (ECO). It covers computerisation of the Electors Information System, Elections Information System and Enlistment of Staff System and has enhanced functionalities geared towards rapid information retrieval.

20. National Transport Authority

This project consists of the computerisation of registration, motor vehicle licensing and cashier sections. The registration system deals with recording information pertaining to registration of vehicles, registration of sale, recording of objection to transfer, recording of lien, reservation of new registration mark, variation of old registration mark and transfer of ownership, de-registration and re-registration. The motor vehicle licensing system will deal with application for licence, renewal of licence, revocation of licence, transfer of ownership of licence, replacement of vehicle, transfer of base of operation and variation of licence. The cashier system will provide facilities for collection of fees in registration and licensing systems. Some of the data of the National Transport Authority System are being replicated on the server of the Police Department (namely, Crime Record Office) for end-users at the Police Department to query the data. It is also proposed to add a Traffic Warden Module to allow retrieval of vehicles' information for traffic warden.

The Registration module and Cashier module are already operational. The Motor Vehicle Licencing module which is ready will be implemented as soon as the printing of the Registration Card has been successfully implemented. The Licensing and Carrier modules are under implementation. The modules are being installed by the developer and tested by the user. The Traffic Warden Module will be implemented after the NTA system is fully operational.