



Information & Communication Technologies Authority

Executive Summary of the Annual Report on the
Development of the Information and
Communication Industry
in Mauritius: 2009

January 2010

This report, which is the third of its kind that the ICTA is releasing on the ICT sector, is to provide a highlight on the evolution of the sector, primarily from a regulatory angle, and to provide a focus on the future development of the ICT industry.

ICTs are often associated with the term ‘enabler’ because if properly harnessed, ICTs offer prospects that traditional policy instruments have failed to deliver especially in terms of the propensity for any country to meet its commitments under the Millennium Development Goals. Therefore, in recognising the scope for development of the ICT sector, it is fundamental that the regulatory framework that has been designed to develop the ICT industry of Mauritius is constantly adapted to maximise the gains and opportunities afforded by ICTs.

The report is divided into four main sections. The first section gives an overview of the definition and economic health of the ICT sector. Section 2 looks at the work done by the ICTA in relation to its licensing, technical and engineering role, while Section 3 covers the realm of market regulation and its impact on sector development. The fourth section considers the major policy implementations and projects being spearheaded by the ICTA with the spotlight on key IT & security related issues, together with social regulations in the pipeline, geared towards the advancement of the ICT sector. There are also significant proposals made with a view to improving the competitiveness of the BPO/ITES which is one of the net positive externalities of the ICT.

1. Key Findings

1.1 Size of the market

Based on the latest estimates by the CSO, it is found that there has been a steady rise in the performance of the ICT sector, in terms of value-added. By the end of 2008, the contribution of the ICT sector towards value-added stood at some Rs 12,700 million, which represents a rise of some Rs 5,135 million from its 2004 level, one year after the sector was first liberalised. This means the remittance of the ICT sector has more than doubled over a period of four years.

In 2004, the contribution of the ICT sector to total GDP stood at 5.0%. The latest figures portray a contribution of 5.4%, suggesting that the ICT sector is yet to deliver the goods as opposed to the other sectors of the economy. This is in contrast with the agricultural and manufacturing sectors, which contributed 4.1% and 19.6% respectively to GDP in 2009¹.

The Mauritian ICT sector is more service-driven, as illustrated by the success of the BPO-ITES industry and the significant economic performance of the telecommunications industry at large. All factors combined, only a 0.2% decrease in the contribution of the ICT sector towards GDP was noted from 2007 to 2008, while a 0.4% increase to 5.8%² of GDP is expected for the year 2009.

1.2 Growth of the ICT Sector

In terms of growth, it is noted that the ICT sector fared particularly well over the period 2004 to 2008, averaging a 16.3% growth rate per annum, while overall annual GDP grew by 4.5% on average, over the given timescale.

The performance of the ICT sector in Mauritius should also be commended especially in 2008, when the world economy was hit by the global financial crisis and recession. Despite the numerous major shocks, which led to downturns in international trade and tourism, which are key drivers of the Mauritian economy, the ICT sector maintained its high growth trajectory at 12.6%, and is expected to be around 16.2%³ in the light of expected December 2009 data.

¹ National Accounts of Mauritius, 2006 - 2009, CSO publication.

² Budget speech 2010 By Dr. The Hon. Ramakrishna Sithanen, G.C.S.K, p11

³ Budget speech 2010 By Dr. The Hon. Ramakrishna Sithanen, G.C.S.K, p11

1.3 Employment in the ICT Sector

Based on available estimates from the CSO it is found that as at 2000, some 4,360 persons were employed in the field of ICT. The employment within the ICT sector has been on the rise, from 6,150 in 2004 to 11,250 by 2008, implying that the employment level in the ICT sector has nearly doubled over this four year period.

2. Development of the Information Society

The widespread use of ICTs and the associated access to it in an economy is conducive to economic growth. The extent to which ICTs have permeated Mauritian society is reflected in terms of certain key Information Society Indicators (ISIs), notably: fixed teledensity, mobile cellular penetration and Internet penetration respectively.

2.1 Fixed Line Penetration

Penetration rates for standard telephone access lines stood at 13.2% in 1995 and this has reached 29.7% by the end of September 2009.

The latest figures from 2005 onwards document stagnation in the rate of fixed line penetration. This is because 74% of households and the near totality of businesses across Mauritius have access to a fixed line, and the surge in popularity of mobile phones as a means of communications.

2.2 Mobile Penetration

The use of mobile phones has flourished over the last decade not only because of its functionality and affordability, but due to also its cultural and trendy appeal to the public at large. Mobile penetration rates have exploded from a mere 1.05% in 1995 to a staggering 82.2% by the end of September 2009. Moreover, the growth in mobile cellular subscriptions per hundred inhabitants is still being sustained in double digits, suggesting that the mobile market is still some way off from reaching its carrying capacity.

2.3 Internet Penetration

While it can be gauged that much progress has been made since the liberalisation of the sector, in terms of the overall Internet penetration across the country which has more than doubled from 2004 to September 2009, yet we found that much remains to be done to steer the economy onto the broadband arena, which would be expected to positively influence economic growth. Indeed, the latest figures for broadband penetration is only at 13.05%, as at September 2009. However, there are encouraging signs in the sense that broadband is increasingly becoming the preferred subscription approach of end-users seeking to connect to the Internet, as observed in our analysis.

3. The Mauritian ICT Sector on the World Stage

To enable a global comparison, it is worth considering a very useful index developed by the International Telecommunications Union (ITU), the 'Digital Opportunity Index (DOI)'. Available figures⁴ for 2003 to 2008 suggest that Mauritius had a DOI of 0.45 in 2003 which improved to 0.58 in 2008.

4. Regulatory Functions – Licensing & Technical

4.1 Licensing

Since the liberalization of the ICT sector in Mauritius, the ICT Authority has been actively involved in creating a competitive environment by authorizing companies to compete for ICT activities and services in a large number of market segments. The main licensing objectives of the ICTA are as follows:-

1. Regulating provision of an essential public service
2. Privatisation and Commercialization

⁴ CSO ICT Indicators 2008

3. Consumer protection
4. Allocation of Scarce Resources
5. Regulating Market Structure
6. Expansion of Networks and services and other Universal Service objectives
7. Establishing a Competitive framework
8. Generating government revenues
9. Regulatory certainty

4.2 Proposed New Licensing Regime

The ICT Authority has recommended a simplified and more flexible licensing regime that is based on the horizontal integration paradigm. The Authority believes that this paradigm shift will favour new business opportunities in the converged world. The proposed licensing regime defines two main licence types for commercial licences, namely Facilities Based Operator (FBO) and Service Based Operator (SBO).

4.3 Numbering

As the administrator of the national numbering resources, the ICT Authority conducts a numbering audit on an annual basis in order to ensure the efficient usage of the numbering resources. The various numbering-associated functions, which include the geographic, non-geographic, short codes and the migration path from 7 to eight digits that will pave the way to number portability are described at length.

4.4 Radio Spectrum Management

The ICT Authority has as one of its mandate under the ICT Act 2001 (as amended), to manage the radio spectrum resource for the territory of Mauritius. In the discharge of this function the ICTA has achieved the following:-

- i. Establishment of the National Spectrum Allocation Plan;
- ii. Spectrum re-farming of the 1800 MHz band for the purpose of deploying DCS1800 mobile networks;
- iii. Spectrum re-farming of the 2.1 GHz band and allocation of the said band to IMT-2000 services;
- iv. Review of the licensing procedure for Private Mobile Radio (PMR) and proposal to review the licensing regime with a view to including individual licensing, class licensing and licence exempt;
- v. Spectrum planning and allocation for Broadband Wireless Access (BWA) Services to enable the deployment of BWA technologies such as WiMAX;
- vi. Spectrum planning and international coordination for Digital Terrestrial Television Broadcasting;
- vii. Spectrum reorganization of the 900 MHz band and opening of the EGSM band in order to cater for Mahanagar Telephone (Mauritius) Ltd;
- viii. Adoption of the International Commission on Non-Ionizing Radiation Protection (ICNIRP) reference limits for the safety of the general public with respect of Electromagnetic Fields (EMF);
- ix. Adoption of an In-situ measurement protocol for evaluating the level of EMF.

4.5 Standardisation and Type Approval

The ICT Authority fulfills this function by type approving radio-communication and telecommunication equipment to be used in Mauritius. The main goal of the type approval procedure is to ensure that all radio communication equipment that are used in Mauritius comply with international standards approved by the Authority. Type approval of equipment also ensures that no sub-standard equipment, which can represent health and safety hazards, are operated in Mauritius. The procedure for type approval is detailed.

5. Regulatory Functions – Financial & Market oriented

5.1 Network Interconnection

At the heart of the provision of ICT services is a reliance on the development of telecommunications networks, whether these are fixed, mobile, wired or wireless respectively and the extent to which they are interconnected. The Authority has taken various major decisions in this regard, these are: carrier pre-selection for international calls, the Calling Part Pays (CPP) regime & cost based interconnection charges to mobile operators, minimum termination charges for international calls terminated in Mauritius, and cost-based interconnection charges to fixed line operators & no provision for Access Deficit Charges. All the above key initiatives and the positive impacts they have had on the prices of telecom services are described in the report.

5.2 International Bandwidth Connectivity

Access to the international information highway is a lynchpin for any aspiring or successful economy in terms of its ICT sector especially when the focus is to develop the BPO-ITES market.

The bulk of the international capacity available to Mauritius is typically via undersea cable systems, most notably through the investment stake of Mauritius Telecom Ltd in the SAFE cable. The costing model adopted by the ICTA, over the past 5 years, has allowed the price of a full circuit E1s (a 2Mbps capacity), from Mauritius to Paris, on SAFE to witness a drop by as much as 61%. Half-circuits on selected routes has on average witnessed a 65% decrease over the period 2005 to 2009.

5.3 Wholesale ADSL

The tariffs of wholesale ADSL remain a key component in the democratization of high speed Internet access in Mauritius. In recognition of that the ICTA has revised the tariffs for wholesale ADSL connections downwards ranging from 30% to 50% from the existing price levels depending on the selected speed and committed number of lines.

5.4 Improved competitiveness of the IT-BPO Industry

According to recent estimates from the Board of Investment, the number of IT-BPO companies has grown from 90 in 2005 to 258 by 2008. In contrast, the tariffs for a full circuit E1 (2mbps capacity) has fallen from USD 12,600 to USD 4,900 over the same period. The correlation drawn from the above is that for every USD 100 average decrease in the cost of international bandwidth connectivity, nearly 2 new start ups are created within the IT-BPO industry. The BOI further estimates that direct employment figures for 2009 are expected to hover around 14,000 - 15,000 professionals, again highlighting the resilience of the ICT industry, despite the hurdles and challenges brought about by the global recession.

6. Evolution of Telecommunications Markets

6.1 Fixed Telephony

In terms of the fixed line subscriber base, growth has remained minimal at best since liberalisation, hovering at around 1.4% per annum on average, between 2004 and 2009.

The volume of national voice calls generated from the PSTN over the same period has experienced a reduction of around 18%, with the primary driver being a consistent decline in the volume of fixed to fixed calls. In contrast, fixed to mobile calls stood at 79 million minutes in 2004, compared to 325 million minutes in 2008 i.e. nearly a 312% rise over the said time frame.

In terms of tariff, in 2009 it is evident that for a 3 minute on-net call, a savings of Rs 0.61 (i.e. nearly 30%) is earned by the end-user compared with 2004. On the other hand, with the new rates available for fixed to mobile calls as from 2006 onwards, consumers are entitled to a 13% savings on a 3 minute call.

Furthermore, in terms of inter-island calls a 72% decrease in the tariffs for fixed to fixed calls from Mauritius to Rodrigues, and vice versa, was implemented. The tariffs for fixed to mobile inter-island calls were also re-adjusted downwards by around 55%. The policy perspective of the Authority in facilitating the above development was the promotion of a common pricing regime across the entire Republic of Mauritius.

6.2 Mobile Telephony

Overall mobile subscriber growth rates have been particularly impressive over the period 2004 to 2009 to reach a penetration rate of 82.3%. Amongst the subscribers it is noted that on average 93% are on prepaid and the remaining 7% on postpaid.

The evolution of the volume of national mobile voice traffic originating from the PLMN is such that for the period 2004 to 2008, voice communications over mobile phones have known a sharp ascension, from 624 million minutes exchanged in 2004, to 1.3 billion minutes by the end of 2008, i.e. a 116% increase.

The number of SMS exchanged has increased from 261 million in 2004 to 855 million in December 2008.

In terms of mobile tariffs with the review of the mobile to fixed interconnection rate brought about a reduction by 25% over the period 2007 to 2008 in the mobile tariffs. Overall, it is observed that a decrease of 33% on the price of on-net calls, compared to 54% for off-net calls, is applicable from the year 2004 to 2009. Similarly, the tariffs for mobile to fixed calls experienced a reduction of 38% over the period in question.

6.3 International Voice Communications

It has been observed that over the period 2005 to 2008, the incoming ILD market segment expanded by around approximately 48% in terms of volume of traffic, peaking in 2008. In comparison, a consistent increase in the volume of ILD traffic originated from Mauritius, highlighted by a significant surge of 109% over the same period. Taken together, this implies a gradual shift in the drivers behind the business models of ILD operators, with outgoing international traffic acquiring increased importance in terms of revenue generation.

It is also concluded that the impact of price competition has been most keenly pronounced in the market for ILD voice communications. A comparison for a three-minute call between 2001 and 2009 clearly indicates that for destinations in Europe and the US there has been a decrease by 85%, and Asia by 90%.

6.4 Internet Service Provision

The ISP market has experienced an average growth of around 23% in terms of take-up over the period 2004 to September 2009. In particular, growth has been maintained over the period in the double digits bracket.

At a more refined level, given the plethora of access technologies for the Internet services provision, fixed Internet subscriptions which in 2005 accounted for nearly 66% of the total subscribers to the Internet, in 2009 accounted for nearly 53% of the total subscriber base. Subscribers are currently accessing the Internet more through mobile subscriptions, involving technologies such as WAP, GPRS, 3G, Wimax and W-CDMA 2000. Also the proportion of subscribers to xDSL technology had shot up by around 21% to reach 27% by September 2009. In fact, the use of fast Internet connections has grown relentlessly over the last few years in Mauritius by both individual and business users. As more people buy home computers and create home networks, the demand for Broadband (high-speed) connections is increasingly being felt.

In terms of the volume of Internet traffic also we have noted a gradual shift in traffic flowing from the fixed to the mobile access technologies. As expected for the period 2005-2009, the volume of dial-up minutes for Internet traffic has decreased by nearly 39% from its 2005 level, while the volume of data downloaded and uploaded through faster access technologies reveal an opposite trend with almost a sevenfold increase in the

amount of information downloaded, with stood at 251 terabytes download in 2005, compared to 1,857 terabytes download by the end of 2008. In contrast, the volume of data uploaded increased fivefold over the said period.

In terms of the Internet tariffs, we have noted, through the major costing reforms undertaken by the ICTA, a significant price decrease – 66% reduction on the home offer compared to 55% on the business offer – between 2006 and 2009.

In terms of tariffs for Internet access over mobile platforms, in 2005, a 1GB postpaid plan over 3G networks was being sold for Rs 750 per month, entitling the subscribers to speeds up to 384 kbps. The same package is now priced at Rs 399 per month, implying a reduction of 47% between 2005 and 2009.

7. Re-engineering the ICT Sector in Mauritius

7.1 SWOT Analysis of the Mauritian ICT Sector

The evolution of the ICT sector in Mauritius over the past few years has led to the identification of certain fundamental attributes and shortcomings of the sector, as well as the various challenges and threats that ought to be tackled and overcome.

Strengths	Weaknesses
<ul style="list-style-type: none"> - Rising level of ICT investment - Services-driven growth of ICT sector and market size - Increasing contribution in terms of GDP & employment - Productivity gains across all sectors with adoption of ICTs - Modern ICT infrastructures& high global visibility 	<ul style="list-style-type: none"> - Shortage of specialised/highly-skilled ICT local workforce - Foundations for E-commerce are under-developed - Broadband Internet penetration still low among households and businesses - Mainstream ICT activities currently restricted to low value-generating activities: call centres, database maintenance, disaster recovery, etc... - Low share of high-tech products from ICT manufacturing industries
Opportunities	Threats
<ul style="list-style-type: none"> - Incentives/mechanisms in place for start-ups in ICT sector - Public Key Infrastructure will act as a catalyst for E-commerce & E-security - Improved productivity in all sectors of the economy, based on increased use of ICTs - More telecommunication providers expected to start their operations, offering a wider range and more competitive ICT services - Foreign direct investment into the ICT sector likely to boost and innovate ICT solutions, and generate other positive externalities - Convergence of networks and services towards providing complete ICT solutions on single platforms 	<ul style="list-style-type: none"> - Insufficient e-commerce activities to further foster ICT development - Intense competition in IT enabled services (ITES) from other destinations with more competitive/skilled labour force - Huge unemployment losses expected in case of relocation of call centres and BPO activities abroad - Limited scope for transition to higher value-adding ICT activities (e.g. software development) compounded by small pool of expert ICT resource persons - Prices of ICT related goods and services not falling fast enough to minimize the Digital Divide

7.2 The way forward

7.2.1 As an adaptive ICT regulatory body, the ICT Authority has embarked on the process of consolidating regulation across sectors that are converging, such as telecommunications, broadcasting and IT.

7.2.2 In order to come up with operational measures the following IT related projects will be developed by the Authority to emphasize the IP-based evolution, content monitoring, E-security, identity and digital content management and coordination among the various stakeholders among others:-

- IP-Based services
- Content Monitoring Technologies
- Identity Management
- Access & Management of Digital Content Technologies
- Licensing of PKI certification services

7.2.3 The main engineering and licensing projects that will be pursued by the Authority will place particular emphasis on the efficient management of radio-communication and telecommunications respectively, covering issues such as radiofrequency planning, spectrum allocation and monitoring, numbering plans and increased inter-operability across networks among others. These are:-

- Flexible Spectrum Management Framework
- Acquisition of Radio Monitoring Equipment
- Equipment Standardisation and Compliance Framework
- Consumer Safety Framework
- Radio Infrastructure Management Framework
- World Radio Conference 2012 preparation
- Migration of Numbering Plan to 8-digits
- Quality of Service Management Framework
- VoIP service Regulatory Framework
- Fraud Prevention Regulatory Framework
- Next Generation Network (NGN) Regulatory Framework

7.2.4 Under Infrastructure and Services Regulation, the following programs have been earmarked for the coming three years:-

- VoIP Services Regulation;
- Telecommunication Fraud Prevention Management;
- Next Generation Networks (NGN) Regulatory Framework;

7.2.5 Quality of Service monitoring is considered a priority for the Authority and a framework in that context is being worked out and is expected to be ready for consultation for the beginning of 2010.

7.2.6 As far as financial & market related projects are concerned, the priority remains the continuous promotion of competition, especially within the telecommunications industry, within the currently defined legal boundaries. There are consequently 4 main projects that warrant particular interest:-

- Calculation of Revised Cost-based IUC based on LRIC
- Guidelines on Accounting Separation
- Management of the Universal Service Fund
- Review of Mobile Termination Rates

7.2.7 As regulation becomes more complex, there is a need to raise awareness and democratize information to all to promote and protect the public interest. The increasing complexity of ICT use in people's lives requires a high level of digital literacy and even digital media literacy in an age of converged networks. The Authority will initiate the following projects to brand itself as the regulator par excellence in the area of promoting digital media literacy for the people:-

- Campaign on Mobile Phone Theft
- Campaign on Radio Frequency Safety
- The Beehive Project
- Community Projects
- ICT Awareness promotion campaign

7.2.8 The ICT industry, more specifically ITES and BPO, presents the future unique selling point of Mauritius. The focus on services is going to continue and we are determined to build and consolidate on that strength given the symbiotic relationship between the ICT sector and the rest. The way in which we can make a difference in other segments is to add value to them, mostly through increased application of ICTs in all aspects of public life, be it manufacturing, agriculture, governance or the like and in advocating our efforts to become a developed economic powerhouse d.

7.2.9 Next Generation Networks (NGN): Over the next decade operators should seriously consider deploying broadband optic fibre networks that completely bypass the copper lines given that copper wiring is becoming increasingly expensive. We also recommend that operators give serious thoughts to deploying WiMAX and IMS systems to provide ‘instant’ Broadband services. As our telecommunications infrastructure becomes more advanced, we will be able to source a wider range of new services and products rather than just outsource the operations of others. The approach that Mauritius will have to adopt will have to ensure stable ARPU by exploiting economies of scale.

7.2.10 Market opportunities: The Mauritian Telecom industry has been on a consistent wave of growth with significant monthly additions of customers and annual revenues and CAGR (compound annual growth rate) between 2003 and 2009. Value-added services (VAS) offer new and unexplored ARPU growth opportunities. In this area, we have already seen successful synergistic partnership between telecom operators, content providers, and technology enablers. VAS are expected to contribute a significant share to the total revenue of mobile service providers over the next five to seven years; we believe that collaborative partnerships between various stakeholders in the value chain to develop more innovative applications will help make it happen. In this way, the impact of telecom services on various socio-economic segments, which has so far been profound and has resulted in shifting consumption patterns with regard to IT and Telecom, will have to be extended to other industries as well.

7.2.11 Partnering for growth: As ILD operators in Mauritius and emerging markets develop strategies to serve their customers, finding the right partnerships remains a crucial success factor. There is a great need to find knowledgeable partners to help optimise costs, to support strategies to transform the existing business and promote emerging business streams through the managed cloud environment. The market is evolving towards a more mature managed outsourcing model where a variety of partners take part in the realisation of common growth goals. ILD operators should now realise the importance of partnering and sharing various facilities and infrastructure as mandated under the law in terms of high-quality access and interconnection agreements. The industry should recognise ‘co-opetition’ or co-operative competition as a key strategy for sourcing and expanding infrastructure at optimal cost.

7.2.12 Re-engineering the outsourcing industry: The outsourcing industry is on the verge of revolutionary changes that ought to take it to the next level. Historically, outsourcing has been considered a reactive, operational-level intervention. It has been connected to specific goals such as reduction in cost and headcount or improvements in return on invested capital. Conventional outsourcing focuses on service improvement, better performance and access to superior skills and expertise as un-stated benefits. This relatively tactical approach has been effective in achieving specific outcomes, but has not necessarily resulted in creating competitive advantage throughout an organization. Our local BPO and ITES companies may consider adopting some or all of the following new order of outsourcing principles; these would help both the outsourcer and the service provider gain significantly higher benefits from their traditional outsourcing strategy.

Outsourcer -

- *Strategy based upon differentiators:* The organizations need to ensure that outsourcing is not taken up for short-term gains, but rather aligned to seek competitive advantage from internal sources, external sources and the combination of the two.

- *Modify the value model:* The alternative is to make leverage whatever advantages the service provider can bring to the outsourcer-including its technology and people in terms of new ideas and innovations that they can bring to their business.
- *Just-in-time sourcing:* Outsourcers need to analyse their outsourcing needs as continuously as they do their cash flow. Just-in-time sourcing helps them to evaluate their service partners on a project-by-project basis.
- *Outsourcing as a management discipline:* Outsourcers need to closely manage and discipline their use of outsourcing to be sure it is the best way to meet their needs. The transfer of responsibilities to the selected service provider is a critically important process that can determine the overall success of the operation. Relationship management is a key discipline; the outsourcer's managers need to ensure the health of their business partnership arrangements with each of their service providers.
- *Extended partnerships as a vertically integrated business:* Outsourcers must recognize and accept that they cannot succeed if their business partners do not know enough about the outsourcer's business to carry out turnkey projects. Tightly coupling the service partner's business vertical as an integral part of the outsourcer's organization will provide additional value and benefits to the outsourcing relationship.

Service provider –

- *Outsourcing the outsourced:* Salaries are the service provider's greatest cost. This tendency will accelerate in the years to come as service providers try to optimise their cost structure and boost their bottom line. Thus, outsourcing the already outsourced work to a service provider's alternate sites in other countries will become increasingly common. This is precisely where our local service providers will need to be on the lookout to take advantage of such opportunities.
- *Partnerships with other service providers:* The ability to offer a wide variety of skills and services is more of an opportunity than a challenge for the service provider. Service providers should consider partnering with other service providers whose specific experience in non-core areas can be leveraged to mutual advantage.
- *Explore innovative business models:* With fierce competition in today's market for the limited outsourcing work, service providers need to offer clients a compelling value proposition. Both parties may agree that the outsourcer not only execute the work, but will also have a say in the day-to-day execution of the systems.
- *Special needs outsourcing:* It might be necessary to create a joint venture where both the outsourcer and service provider have 50/50 stake in a new entity. The outsourcer may need an in-house operation, but not want to be directly involved in building a new operation from the ground up. In this case, the service provider might propose creating the new operation via a build-operate-transfer (BOT) agreement with the outsourcer.
- *Green Sourcing:* High energy prices and cascading recessionary trends are impacting the outsourcing service market. Prudent service providers are embracing green technology and practices to stay ahead of the competition. Mauritius has an USP in this regard that should be well ventilated.
- *Data centre and infrastructure outsourcing:* As the price of international bandwidth and the capacity become more abundant, service providers should already integrate these features in their strategic business plans for the future.

- *Diversifying product and service portfolio:* Mauritius is known to be the preferred destination for many IT-BPO activities as it offers a unique amalgamation of attributes. As the BPO sector continues to grow strongly and steadily, it is important that our local service providers start planning seriously for an accelerated knowledge process outsourcing (KPO). We believe that Mauritius should consider catering to global KPO needs and its high end processes like valuation research, investment research, patent filing, legal and insurance claims processing, online teaching, media content supply, among others. Mauritius very highly skilled manpower - including chartered accountants, doctors, MBAs, lawyers, etc. gives the country important advantages in the KPO market. This combined with the multilingual capabilities and low costs as well as global partnerships, will definitely help us emerge as a global winner in the KPO sector.

7.2.13 Addressing Identity Management issue through effective Cyber Security: The setting up of a national CERT under the present legislative provisions will allow ICT professionals and consumers in general to get updated information on latest ICT security threats and possible countermeasures through awareness promotion and capacity building initiatives and will assist them in handling security incidents reported and monitor ICT security problems.

7.3 Regulation of the competitive environment – ICTA & the CCM: The coming into force of the Competition Act 2007 and the full proclamation of all the relevant parts under the said Act towards the end of 2009 has set the scene to promote competition, as opposed to regulating businesses. The ICTA is also tasked with the promotion of the interests of the ICT sector including the fostering of competition and the maintenance of a level playing field. It remains likely that regulatory decisions of the ICTA may lead to situations whereby competition is restrained or distorted, but the presence of the CCM will now help streamline such interventions, through increased coordination and cooperation.