Provincial Government of the Western Cape

MICROECONOMIC STRATEGY PROJECT

Research to inform Strategic Policy and Initiatives for the Information and Communication Technology Sector in the Western Cape

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SECTIONS 1d,e; 2a,b

1 Review of ICT Business Support

1.1 What is meant by business support?

ICT business support is provided by both the public and private sector.

Traditionally *public sector* support encompasses three main function areas[1], namely *minimal*, *intermediate* and *activist* functions.

It is important to understand what is meant by public sector business support. The 1997 World Development Report[2] provides some guidance and describes the public sector business support environment to generally encompass three function areas:

1. **Minimal functions** – this includes the provision by government of pure public goods such as defence, law and order, public health and safety, property rights, macroeconomic management and public health, as well as protection of the poor by providing poverty alleviation programs and disaster relief.
2. **Intermediate functions** – these fall under four headings:
   - addressing externalities, such as providing basic education, and environmental protection;
   - regulating monopoly through utility regulation and antitrust policy;
   - overcoming imperfect information by providing financial regulation, consumer protection, and a framework for the provision of insurance; and
   - providing social insurance by such means as redistributive pensions, family allowances, and unemployment insurance.
3. **Activist functions**, such as fostering markets and cluster initiatives (which are attempts to coordinate private sector activity) as well as asset redistribution (e.g. land reform). These functions may involve delivery to achieve equity objectives via redistribution of focus and opportunity, or facilitation to create markets for goods and services where there is a need to correct market dysfunction. Within the present context, activist functions include both the support of and physical delivery of point-of-delivery business services.

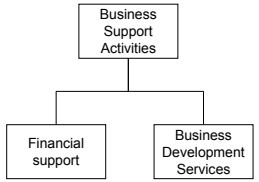
These activities shape the overall business support environment. Whilst not ignoring the vital nature of minimal and intermediate functions, the traditional focus of 'business development services' is primarily an activist function, seeking to both:

[1] 1997 World Development Report in Radian. 2002. "Business Development Services – Policy Recommendations and Implementation Direction." Special Report prepared for the Directorate of Economic Development and Tourism, City of Cape Town. 19.

[2] Taken from the presentation "Key developments in the emerging market development approach to business development services" given by Alan Gibson of The Springfield Centre during a seminar on 'Emerging Good Practices in BDS' at the ILO International Training Centre, Turin, September 4 – 8, 2000.

- **address market failure** by providing information required by businesses, providing or facilitating the provision of consultancy services, providing or encouraging skills and business training; and
- **improve equity** by engaging in technology transfer and development, and providing subsidised access to infrastructure.

Various forms of financial support (guarantee, loan, subsidy and grant) can fall into either of these categories depending on the motivation. Together with other activities, these collectively are best considered to be 'Business Support activities'. Business Support thus encompasses both financial support and Business Development Services (sometimes abbreviated to 'BDS'). This is illustrated in the following diagram:



Relationship of financial support and business development services to business support activities

These activities shape the overall public business support environment. Whilst not ignoring the vital nature of minimal and intermediate functions, the focus of ICT business sector support is primarily an *activist* function as it is seeking to both address market failure and improve equity.

On the other hand *private sector* support often encompasses service providers focussing their energies on supporting medium to larger sized companies that are able to pay for their services. The commercial profit driven organisations are usually characterised as being the most efficient business sector service providers as they can only survive if clients are willing to pay for their services. They usually target formal business and government. Many of these companies offer their support in return for equity or success based fees. Thus it is not surprising that the support offered to the informal sector from these private service providers in minimal.

1.2 Categorisation of business support organisations

The following table[3] maps the types of services offered according to business need against the various forms of service provider for both public and private business support organisations:

[3] "Business Support Policy of the City of Cape Town, M Neville and R Naidoo, unpublished, 2003".

Type of service offered	Organisational Form				
	Government	**NGOs**	**Private Sector Providers**	**Enterprise Associations[4]**	**Private Voluntary Organisations**
Access to information	• Gov departments and agencies (media publications – inc web sites) conferences • Business information bureaux and advice offices • Libraries (Library Business Corners) and other public places	• Donor funded information aggregators - e.g. publishers of catalogues and information sheets • Community based and youth organisations • Business advice centres	• Business publishers (all media). Trade fairs and conference organisers • Equipment and other technology suppliers.	• Sector associations, other interest group organisations • Business chambers and non-sectoral business associations and networks	• Individuals and voluntary groups (usually seek and deliver information on a needs/request basis)
Access to finance	• Gov departments – grants and incentives, usually on a sectoral basis.	• Charitable foundations • [Most NGOs are conduits for grants, loans from governments and charitable foundations] • Community based organisations.	• Commercial and merchant banks, retail finance institutions, • Venture capital and equity finance. Stock and bond markets. • Professional facilitators of access to finance. • Debt factoring. • Micro credit institutions. • Credit and savings unions (stokvels).	[Conduit for sector specific financial support]	• Individuals (provide seed capital on a 'angel' basis with little or no expectation of a return).
Skills and business management training and advice	• Schools, technikons, and universities • Business schools. • Local Business Service Centres • Sector Education and Training Authorities (SETAs)	• Donor driven providers of skills training • Workshops and skills development centres • Development associations • Accredited Local Business Service Centres.	• Private colleges and business schools. including distance learning and home study • Professional consultants • Accountants • Lawyers • Advertising agencies, contract specialists and other professional service providers • Banks and other providers of finance	• Sectoral skills accreditation scheme managers and trainers	• Ad hoc and informal basic life/ business skills training • Development associations
Technical skills training	• Technikons	• Donor driven skills development services	• Sectoral training institutions and standards organisations	• Sectoral skills accreditation scheme managers and trainers	• Poverty alleviation programmes (churches, etc)
Marketing services	• National or provincial promotional organisations • Local government provided (public) markets • Export Councils • SAVANT	• Tender advice centres	• Wholesalers, distributors, retailers • e-commerce exchanges. • Trade fairs	• Sectoral associations and co-ops • Chambers of commerce • Non-sectoral business associations • Publicity associations	
Technology transfer and development	• Gov funded research and standards institutes • Technology transfer centres	• Donor funded technology advice centres	• Manufacturers representatives and distributors • Technology companies	• Sector associations • Non-sectoral business associations	
Provision of facilities	• Local govt small business hives, produce and craft markets • Informal markets • Business incubators	• Business incubators	• Commercial property managers. • Business incubators		

[4] Also sometimes referred to as 'Business Membership Organisations' (BMOs)

1.3 Sector support organisations

Below are listed the major public sector (or public sector funded) organisations providing sector support in the Western Cape region. This is not an exhaustive list, as there are many national and international organisations that 'cover' the Western Cape without specifically focusing on it. Further, many local municipalities engage in some level of sector support activities, and there are also organisations with sectoral alignment (e.g. the recently launched marketing and promotional organisation for South African ICT, Savant) that overlap with the region and the ICT sector.

1.3.1 The Department of Trade and Industry (DTI)[5]

The DTI has overarching responsibility for most direct public sector support for the ICT industry. It achieves this through certain of its line departments and divisions, such as Trade and Investment South Africa (TISA), who administer the export support schemes; the Technology support schemes and the Export Marketing and Investment Assistance Scheme (EMIA) and other such programmes and projects. Many of its other shareholder interest companies such as the IDC, CSIR, NPI and SABS also have direct or indirect support activities. These are not discussed in any detail in this document.

1.3.2 The South African Electrotechnical Export Council

The South African Electrotechnical Export Council (SAEEC) is a public/private partnership between business and the Department of Trade and Industry (DTI) to support and co-ordinate export initiatives from the following sectors:

- Telecommunications
- Information Technology
- Electrical engineering
- Electronics

The SAEEC is a section 21 company (not for gain) reporting to a board drawn from its members and partially funded by the DTI. It is the registered industry body for supporting and promoting export growth of South African registered companies in the above sectors.

Currently there are 45 members representing the major South African registered players in the industry. Three of these are Western Cape ICT companies. The SAEEC only serves its members. It has discounted membership fees for small businesses.

In a promotional pamphlet to urge interested parties to join, the Electrotechnical Export Council states: "The Council is uniquely positioned to market and position the South African Electrotechnical sector as leading global players in our chosen markets by:

- Identifying and creating export opportunities
- Notification of tenders
- Specialized inward and outward trade missions

[5] www.dti.gov.za

- Participation in presidential, ministerial and technical missions
- Assistance and access to government export incentives
- Marketing and promotion of our sector and members
- Establishing new distribution channels
- Networking opportunities
- Sharing information, contracts and risks
- Market research and logistical support
- Access to professional export training
- A lobbying voice for policy affecting our sectors"

Interestingly the SAEEC has a wide range of coverage (Electronics, Electrical Engineering, Information Technology and Telecommunication products or services) and its history is more from the traditional "electro-technical" industries than from the software and ICT services industries.

1.3.3 Cape Regional Chamber of Commerce

The Cape Chamber of Commerce provides a range of business support and promotion services to its members and others in the region, functioning primarily as a conduit for information important to business in the region. The Chamber does not have a specific focus on the ICT sector

As a membership organisation, the benefits of these services are often exclusive, and additional fees may be involved. The Chamber provides an important voice for organized business in political, policy and legislative matters, to government and in the media.

1.3.4 Wesgro

As a regional organization, Wesgro has historically had a responsibility for trade and investment promotion on behalf of the Provincial Government and the City of Cape Town. These activities have resulted in an involvement in export promotion as well. The balance of resources has been committed to promotion of Foreign Direct Investment (FDI) as opposed to trade. Unlike the national DTI or its subsidiaries, Wesgro has neither the budget nor resources to be able offer incentives. Instead, it has operated as a network facilitation, research and opportunity linking organization. Wesgro is involved in CITI (see later) and has been very active in attracting inward investments in call-centre and Business process outsourcing operations. Wesgro has also previously been involved in Western Cape specific ICT trade missions (outward) and trade fairs (ComDex and CebiT) which have been highly successful

1.3.5 City of Cape Town

The City of Cape Town has proposed the following four principles in order to accelerate job creation and BEE in Cape Town's priority sectors and clusters. These are draft proposals and not the official policy of the City of Cape Town[6]

[6] Private Communication, Economic Development and Tourism, City of Cape Town

Principle	Sector Support implication
1. **City of Cape Town must provide strategic leadership Direction by confirming and supporting priority economic sectors**	The City of Cape Town's Council has been elected to meet the needs of its citizens as effectively as possible. The public sector will communicate its vision and priorities which include the strategic direction that the local economy needs to move in in order to meet the developmental and competitive challenges facing it. Council will: • Integrate its economic development strategy into the City's Integrated Development Plan; • Develop and implement partnership based programmes to implement its economic development strategy; • Monitor and evaluate the performance of the Cape Town economy (incl. strategic sectors) as well as Municipal funded special purpose economic development vehicles; • Facilitate the establishment of strategic and operational internal and external sector development advisory and coordination mechanisms.
2. **City of Cape Town must provide an Enabling Business Environment through the provision and prioritistion of basic services and infrastructure (including tansport infrastructure, electricity, water) that meets the needs of priority sectors/ clusters**	Council is responsible for ensuring that an environment for sustainable economic development is created. The priority needs of sectors, sub-sectors and clusters must inform the City's service delivery and infrastructure investment and budget strategies and priorities. Ideally, a three year plan will need to be developed. The City's service delivery will need to be evaluated in terms of effectiveness in meeting these needs.
3. **Cape Town's priority sectors need to be supported by Private Sector Driven Sector Development Strategies which address business support needs, are performance monitored, and align with government priorities**	*Sector development strategies need to be developed and driven by private sector champions in order to obtain buy-in, be responsive to user identified needs, and become sustainable.* *The development of Sector development strategies must be facilitated by sector organisations and be based on a base-line sector analysis, a 5-10 year growth and development vision, and a strategy to achieve this vision.* *Sector support strategies and services need to be monitored against measurable performance indicators which indicate the impacts achieved.*
4. **Cape Town recognises the strategic economic importance of an efficient and effective multi-modal (air, sea, rail, road) private and public transport and telecommunications logistics system that meets the needs of strategic sectors and clusters and allows the cost-efficient local and international movement of workers, freight, and data**	*Logistical system constraints and inefficiencies which reduce the competitiveness and growth of key sectors need to be identified through infrastructure and systems capacity audits and prioritised by the City in partnership with relevant role-players.*

The City's sector support strategy is the responsibility of the Economic Development & Tourism Directorate. Currently the City channels its ICT sector support through CITI.

1.3.6 The Cape IT Initiative (CITI)

CITI is the cluster development and network promotion agency for the ICT industry in the Western Cape. Its mission is to grow the Western Cape as an internationally successful ICT hub. It maintains an extensive stakeholder list of ICT companies. CITI is funded by both the Provincial Government and the City of cape Town, as well as by membership and private sector donation.

The promotional activities undertaken by CITI include:

- Growing the industry by encouraging cluster development including interpersonal networking and skills exchange
- Acting as an industry voice and representing its interests in relevant forums, to ensure that it gets the public infrastructure and support it needs
- Making others aware of the industry so as to trade with it or invest in it by promoting it locally (within SA), in Africa, and elsewhere internationally (especially the UK, Netherlands, Germany and Ireland)
- Providing support for entrepreneurial ICT companies, especially black owned companies

CITI does not have a dedicated resource or funding specifically for export promotion, though it does engage in trade missions, official delegations and ad-hoc export promotion.

CITI has achieved success on both a local and an international level by marketing the local industry – especially in the UK, Ireland, Germany and The Netherlands. These activities seek to promote the Cape and CITI's ability to find suitable Cape based vendors for business processing outsourcing, joint ventures and expansion into the Western Cape market

CITI has also started o provide opportunities for local companies to export by building CITI links with support organisations in the UK such as Eurolink, Trade Partners UK, SANEC, Invest UK and GorillaPark, for the benefit of its members.

CITI also owns and runs what is arguably the most successful ICT business incubator in the country, with over 70 companies working in a shared facility known as the Bandwidth Barn

CITI also has various networking and experience sharing activities such as listening lunches and the Cape Lab. In addition it actively promotes and does PR activity for itself and other companies in the Bandwidth Barn.

Recently CITI has developed and initiated a BEE initiative known as the Launchpad, in which small black ICT companies are developed and supported by CITI members as mentors. Currently 12 such companies are at various stages of business development.

CITI has been less successful in the area of learnerships, mainly due to the fact that its base is largely SMEs, who inherently have difficulties dealing with the SETAs and learnerships.

1.3.7 Other public sector support

There is a range of public sector organizations (who largely fall in to the DTI family) who provide support to local companies. These include the

CSIR, The National Productivity Institute, The South African Bureau of Standards (SABS) and Ntsika. The services offered range from 'introduction to exporting' to technical specification and standards verification. The Western Cape ICT census (2003), showed that there was no evidence that any of the companies interviewed had ever used these services. The importance of these organizations to the local ICT sector is unclear, but appears neither direct nor strong.

Other not-for-gain organisations exist that support export activities (e.g. universities, the technology transfer offices at Universities and ITRISA, which is the International Trade Institute of Southern Africa). Once again, the ICT Census showed that there was little impact by Universities and technikons on the local ICT sector (notwithstanding the provision of skills!)

1.4 Private sector service providers

Private Sector service providers tend to concentrate on the medium to large size companies who have the resources to use their services. There are very few who serve the small business end of the market in a way that is primarily Sector support related (they tend to be client focussed). The range of services provided varies from banking and venture capital to training and labour broking.

1.5 Provincial Government Western Cape (PGWC)

At a high level, the Directorate of Sector Development in the Western Cape Department of Economic Affairs and Tourism is responsible for the current strategy for sector development in the Western Cape.[7]

The strategy relies on a range of different interventions to develop local industry sectors. It was not envisaged that the level of intervention be aimed at the firm level or at the macro level but the main focus be on building the linkages and networks between firms, institutions and government. This approach is dubbed as "collaborative."

1.5.1 Sector development Strategy

The Western Cape Department of Economic Affairs defines sector development as "any targeted action focusing on a particular sector[8], niche or cluster[9]."

Against this backdrop the role of provincial and local government has expanded by becoming more focused on the needs of firms. The regional government has identified a key role through this strategy to foster an environment for collaboration between tiers of government, business, labour and various support bodies. The regional approach states that it is the "un-traded interdependencies" amongst and between the players, which are seen to be central to successful modern economies, and where the dissemination of information and speed by which firms adapt and respond is becoming critical. *The approach further states that provincial government should promote collaborative practices to encourage adaptive learning and innovative practices that will lead to dynamic learning regions.*

The regional sector strategy lists core action areas for collaborative strategies around which the Provincial Government has been focusing. These have been categorised in the following table:

[7] See Nigel Gywnne-Evans. 2000. "A Collaborative Approach to Regional Sector Development: Provincial Department of Economic Affairs: Western Cape".

[8] A sector is defined as a grouping of firms involved in the production of a similar product.

[9] A cluster can be defined as a "geographically bounded concentration of similar, related or complementary businesses with active channels for business transactions, communications and dialogue that share specialised infra-structure, labour markets and services and that are faced with common opportunities and threats" S Rosenveld. 1995. "Regional business clusters that work" in Nigel Gywnne-Evans. 2000. "A Collaborative Approach to Regional Sector Development: Provincial Department of Economic Affairs: Western Cape" 5.

Action	Requirements
Encouraging inter – firm level collaboration	• Encourage networking between firms and institutions • Develop adaptive learning • Encourage collaborative projects (export councils) • Arrange joint marketing initiatives
Firm level restructuring	• Focus on improving the efficiency and productivity of the firm • Encourage firms to focus on quality development, economies of scale and core competencies
Facilitating new investment	• Identify investment opportunities for both foreign and local investors • Encourage reinvestment and expansion of local firms • Identify opportunities for up and downstream investments
Focused education and skills development	• Create a culture of continuous learning • Ensure appropriate skills development • Facilitate better co-operation between industry and training institutions
Enhancing infrastructure	• Engage on behalf of the specific sector with other government agencies
Encourage innovative behaviour	• Encourage firms to raise the level of R & D and form partnerships to develop new products and services
Empowerment	• Help to facilitate the identification of new opportunities for black participation and ownership.

The ICT sector, amongst others, was identified by the PGWC for collaborative support in light of the fact that it was characterized as a high growth sector having a competitive advantage over many of the other sectors and being regarded as a critical component of the economy.

1.5.2 Assessment of the PGWC sector support approach for the ICT Industry

We have used the categories and descriptions as set out in the action plan of the PGWC

Action	Requirements	Assessment
Encouraging inter – firm level collaboration	1. Encourage networking between firms and institutions 2. Develop adaptive learning 3. Encourage collaborative projects (export councils) 4. Arrange joint marketing initiatives	The PGWC has been very active in CITI, which is focussed on Cluster development of the ICT sector. The Cluster approach used here has been adapted and adopted for other sectors(learning). Over the last 2 years neither the PGWC nor Wesgro have been involved in any ICT export activity or joint marketing initiatives (outside minor CITI activity). In 2001/2002 Wesgro was heavily involved in both COMDEX and CEBIT. The lack of a local ICT export council is a major disadvantage to local companies
Firm level restructuring	1. Focus on improving the efficiency and productivity of the firm 2. Encourage firms to focus on quality development, economies of scale and core competencies	CITI has held workshops, seminars and listening lunches that largely focuses on these efforts, but there is very little other public sector activity in the ICT Sector focussed on productivity. Indeed, local ICT companies- being mainly SMEs, do not utilise many of the National government programmes focussing on productivity.
Facilitating new investment	1. Identify investment opportunities for both foreign and local investors 2. Encourage reinvestment and expansion of local firms 3. Identify opportunities for up and downstream investments	Some activity through Wesgro, mainly in BPO and call centres. Work by CITI has promoted the region and local companies. No visible focus on opportunities for local investors. No visible promotion to encourage re-investment and expansion by local firms
Focused education and skills development	1. Create a culture of continuous learning 2. Ensure appropriate skills development 3. Facilitate better co-operation between industry and training institutions	No focused public strategy on ICT skills development. Ad hoc programmes and strategy between education, economic development and Higher education institutions. Much of this laid out in the PGWC white paper on Knowledge Economy, but very little implemented
Enhancing infrastructure	Engage on behalf of the specific sector with other government agencies	The major issue has been telecommunications and skills. No major impact was seen in either field. There is a very

Action	Requirements	Assessment
		critical need to understand how the liberalising telecommunications environment can be exploited to grow the ICT industry
Encourage innovative behaviour	Encourage firms to raise the level of R & D and form partnerships to develop new products and services	There is no major R&D promotion programme and links between the majority of local ICT companies and HEI R&D is minimal. SMEs especially have little focus on R&D and hence there has been no major Impact
Empowerment	Help to facilitate the identification of new opportunities for black participation and ownership.	No major Impact on BEE ownership or opportunities, except through the procurement of ICT, which has lower BEE criteria than for example the City of Cape Town. PGWC has been instrumental in funding the Launch Pad program of CITI- to support Black ICT entrepreneurs. It is too soon to evaluate the effect of this program. The ICT Census identified BEE as a major issue for the local Industry, which is lagging the rest of the country.

1.5.3 Other Key areas of Interest

In addition to the collaborative approach of the PGWC, we raise here some issues, which are part of the overall strategy of the Province, but not sufficiently highlighted. We believe these should be keys areas for intervention. The following are based on development of the ICT market i.e. that creating demand for local ICT products and services is one of the best ways to develop the industry

Area	Requirement	Assessment
Export Promotion	The ICT Census identified export into Africa as a major opportunity and there is a need for a more focussed approach to export development and promotion. The SA Electrotechnical export Council has neither the feel nor the presence to service the local market	Local export promotion of ICT sector very low level and not a major focus for Wesgro. CITI is involved in sector promotion, but has neither the budget or resources to act as an export development and promotion agency. None of the agencies has a major focus on Africa as a market for ICT services and producst
Attracting Key Driver Industries	The global competitiveness o parts of the local industry has been driven by demanding global customers. Hence, the local ICT industry is dependant on large business driving innovation. Attracting these companies to the region can have a major impact on the global competitiveness of the sector.	Computer Sciences Corporation (CSC) and Old Mutual run the largest and most successful BPO operations in the region. Unlike regions like Dublin or London there is no strategy in place to attract knowledge intensive sectors e.g. Financial services that can drive local demand.
Procurement	Use procurement to build local capability, promote investment and drive innovation	No strategy to use procurement to drive the local industry, even though PGWC is one of the largest buyers in the region. Although local presence is sometimes a criteria for tenders, its use as a tool for developing the local ICT sector is under leveraged.
Development of an Information Society	The information society does not directly drive demand for the ICT Industry, but indirectly by creating consumers for ICT products and services and producing larger numbers of higher skills levels, which can dive down the cost of ICT skills and diminish any threats posed by "brian drains"	The City of Cape Town and the Centre for e-Innovation (PGWC) both have credible and viable information Society Development Plans which should be supported and expanded.

2 Targeting of sector support

2.1 Sector segmentation

The sector can be segmented into the following high level categories that describe the nature of the business:

- ICT services
- Software
- Hardware
- Telecommunication services
- Online digital media

(Note: these categories are the same as those used in the first section of the report above.)

These high level categories can be segmented into the following sub categories:

- ICT Services: Consulting (hardware and or software); HR Recruitment; Education and Training; Maintenance and Repair; Outsourcing; IT Utility;
- Software Activities: Web Development Tools;
- Hardware: Computer Hardware and Peripherals; Computer Consumables / Accessories;
- Telecommunication Services: Internet Services and other communication services

On the basis of both the existing state of the local ICT industry and the application of a set of strategic filters, we have determined the potential for growth of the various subsectors for the local ICT industry.

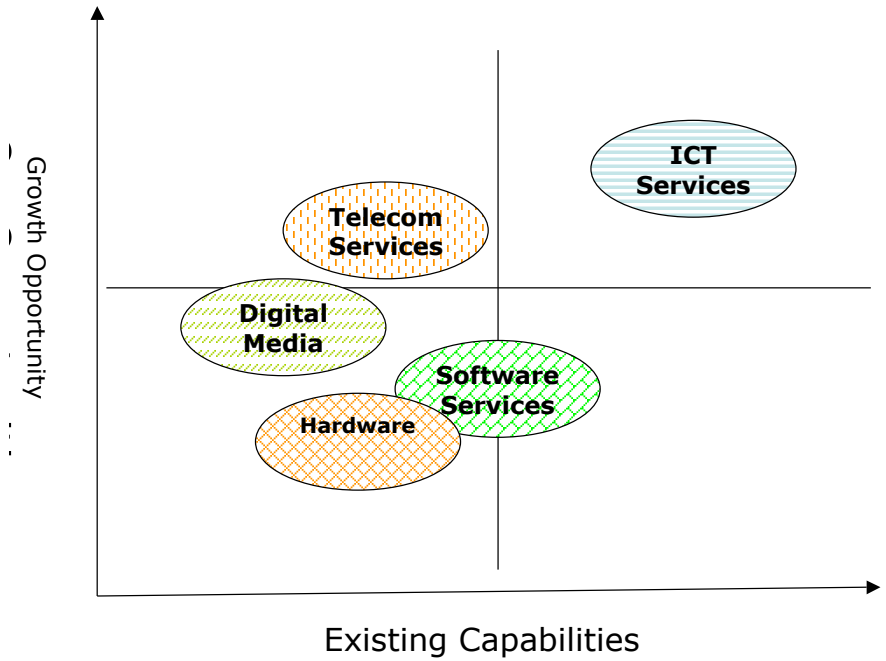
	Strategic Filters			
	Proximity to Market	**Prior Experience/ Skills Base**	**Market Drivers**	**Cost of Service/Product**
ICT Services	Not Critical but time zones and good communication infrastructure necessary	Very Important	Local (large) and Global (SME and large) business Local and Provincial Government	Not critical, but Quality of Service important
Telecommunication Services	Important for Service delivery and maintenance	Important	Liberalisation	Very Important
Software Activities	Not Critical	Critical	Innovation	Not critical
Hardware	Important in that Logistics is added cost	Not critical	Size of market, innovation	Critical
Digital Multi-Media	Not critical but heavy dependence on communications infrastructure	Critical	Film, media, Advertising and other creative industries	Important

We have also assessed these sub sectors against filters that indicate the possible effect of the sub-sectors on the local economy

	Job Creation Possibility	**Global growth Possibility**	**Multiplier effect on the Economy**
ICT Services	High	Very High	Can enable productivity in target industries
Telecommunication Services	High	Low-focus on local market	High, drives cost savings and innovation due to competition
Software Activities	Low	Medium, dependant on sub sector and skills	Medium, can drive innovation in some sub sectors
Hardware	Medium	Medium, dependent on sub sector and cost structures	Medium, can drive innovation in some sub sectors
Digital Multi-Media	Low	Medium, dependent on skills and sophistication of customers	Medium, can drive innovation in Film, media, Advertising and other creative industries

The main ICT sector categories have been plotted below on a matrix of growth opportunities versus existing capabilities within the Western Cape. This diagram shows that the ICT Services category has the highest possible growth opportunity and a solid base of skills to support it. This is further confirmed by the information gathered in the First Census of ICT firms in the Western Cape where it was shown that as much as 28% of the respondents that participated in the study regarded their main business as ICT Services. Telecommunication services are expected to explode following the anticipated liberalisation of the Telecommunication sector in the early part of 2005.

Matrix of ICT Sector growth opportunities versus existing capability in the Western Cape (Radian diagram):



3 Analysis of Selected sub sectors

This section explores the selected sub sectors of ICT and Telecommunication Services in more detail as these sectors show the best opportunity for growth within the sector as a whole.

3.1 ICT Services

As is illustrated above, the ICT Services sector shows the most potential for growth and is presently supported by an existing capability in the Western Cape.

From a global perspective a recent Gartner Report[10] stated that ICT Services accounts for almost one third of all enterprise spending on IT – hence the importance of this sub sector for the local ICT sector.

Gartner[11] identifies the following as important areas of focus for the offering of global ICT services and it follows that this in turn will directly affect the local ICT firms operating within this sub sector:

- **Outsourcing of ICT services**

  This area is presently underdeveloped with huge potential. This involves work being conducted locally for foreign companies where the delivery model is premised on the fact that a virtual team with the same skills are able to deliver the same outputs and deliverables cheaper than the foreign counterparts.

  Specific areas within outsourcing includes business process outsourcing, application outsourcing and IT outsourcing:

  Business process outsourcing - This area would include business process outsourcing that involves the delegation of one or more IT-intensive business processes to an external provider that administrates and manages the selected processes, based on performance metrics.

  Application outsourcing - uses providers to maintain, enhance and manage custom applications, packaged software applications or network-delivered applications.

  IT outsourcing - involves an annuity-based contract that includes at least one management service and one or more of the other IT services (professional and product support), except for business process transaction management.

[10] Pring, B et al. 2003. "*Hype Cycle for IT Services*" in Gartner Strategic Analysis Report.
[11] Pring, B et al. 2003. "*Hype Cycle for IT Services*" in Gartner Strategic Analysis Report.

- **IT Utility**

  This entails making available a virtualised IT infrastructure where resources are available as on-demand services, with pricing based on service units of usage or capacity. The fact that the Internet is increasingly being used as a platform for applications and other service delivery, and the decreasing percentage of enterprise IT asset portfolios that need to be proprietary or customised has driven the availability of this type of service in other parts of the world.

  Other reasons that have made the offering of these services attractive include more stringent enterprise demands for return on investment (ROI), reduced operations spending and the commoditisation of IT hardware.

  IT utility services reduces operational costs and capital investment requirements, speed implementation and deployment, and exchanges fixed costs for flexible costs.

  IT utility services are being hampered by the high cost of internet connectivity in South Africa which is preventing local companies from entering these lucrative growth areas.

3.2 Telecommunication services

- **Call centres**

  The eagerly anticipated deregulation of the telecommunications industry in South Africa will announce the arrival of a second network operator for fixed lines and the reduction in connectivity costs.

  This would greatly benefit the local call centre operators where the relatively cheap and skilled labour has encouraged their development and growth. Internet based technologies have broadened the reach of the call centre companies and enabled them to enter foreign markets but high local call charges are still making it unfeasible to enter certain markets.

4 Key strategic levers for repositioning the sector

- *Reducing the costs of telecommunications*

  This extends to also improving the availability of telecommunications. Unfortunately even though Telkom is a leader in Africa it does not fare well when compared to other developed countries in terms of price. The introduction of a second network operator and liberalisation will help to reduce the prices of telecommunication services and in turn enable local ICT companies compete more favourably with international competitors. However, the Province is poorly positioned to adequately respond to liberalisation and has not effectively responded to this major opportunity for inward investment. In particular, the networks operated by the City of Cape Town and the Province represent major assets for the attraction and creation of Telecommunication Services companies. An audit and assessment of existing public sector networks is a minimum requirement to move forward.

- *Skills development*

  The following three categories of skills need to be developed to facilitate the growth and repositioning of the sector. (For the ICT sector to have the most positive effect on other sectors together with its own, all three categories of ICT related skills should be developed):

  1. ICT skills required directly by ICT businesses and for ICT research and development (*ICT development skills*)
  2. ICT skills required in sectors of the economy other than the ICT sector, i.e. the abilities to use ICT as an enabler of other business activities (*ICT business skills*)
  3. ICT skills required by individuals to participate effectively in the knowledge economy (and to enable the Western Cape citizens to generally obtain maximum benefit from ubiquitous ICT devices and services) (*ICT literacy skills*). This is a particular focus for development of the knowledge economy and the information society.

The point about skills development is less about trying to pick winners in terms of which skills to develop and more about creating large amounts of skilled people. It is hoped that market demand will drive the direction in which particular skills are needed. Large numbers of skilled people not only drive down the input costs of skills, they are also more likely to become entrepreneurs and create additional jobs.

- *Attracting the right type of companies*

  This would extend to creating an environment that is conducive for ICT companies to establish themselves in the Western Cape. Clustering through initiatives such as the Bandwidth Barn and providing access to world class infrastructure will provide the foundation to attract ICT companies to the local sector.

  There is also a need to focus on companies that have buyers of ICT services- in particular attracting the Financial services and retail sector companies can drive the development of the ICT industry.

- *Government led procurement to create demand*

  The rapid expansion of open source software (OSS) has partly been fuelled by many government led procurement programmes around the world that have helped to create demand for OSS to the detriment of proprietary formats. Thus local government has an important role to play in developing procurement programmes that encourage the supply of product and services by companies and organisations positioned within the local ICT sector. This can also drive BEE participation. There is currently not enough focus on how government procurement can drive the development of the local industry.

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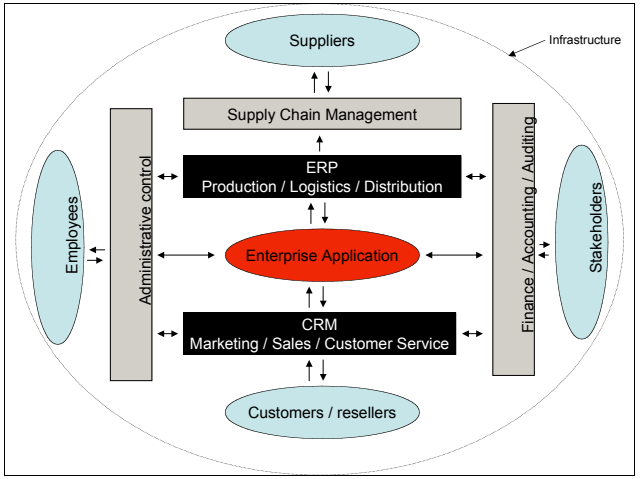
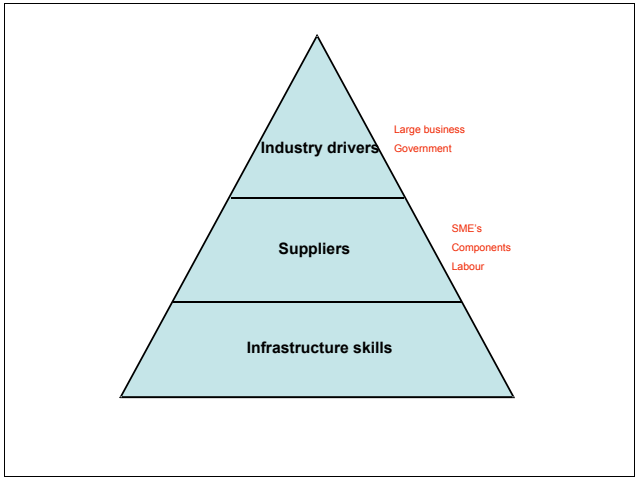
6 Appendices

6.1 Enterprise value chain



6.2 Cluster value chain



6.3 Public / private business support organisations

The following table categorises from a local government, provincial and national perspective some of the more prominent public / private sector support organisations within the Western Cape for the ICT Sector. The list is then divided into those organisations that fall into either policy and market drivers, aggregators, channels and intermediaries or client contact business services[12]:

Public / Private business sector service	Public, private, national, local(use separate columns for public/private and national/provincial/local)	Policy and market drivers	Aggregators, channels and intermediaries	Client contact business services
DTI[13]	Public, national	X		
DTI Export Councils	Public, national	X	X	
SA Electro-technical Export Council	Public, national	X		
SA Chamber of Business	Private, national	X	X	
Large parastatals and multi national corporates	Public, national	X	X	
Big News for Small Business	Private, national		X	
Braby's Registers	Private, national		X	
IT Association	Private, national		X	
Computer Society of SA	Private, national		X	
Sector Industrial Training Assoc. (SITAs)	Public, national		X	
TISA[14]	Private, national		X	
CSIR[15]	Public and private, national		X	
SABS[16]	Public, national		X	
JSE	Private, national			X
Commercial banks	Private, national			X
Business Partners	Private, national			X
WESGRO[17]	Public / private, local	X	X	

[12] This list is by no means exhaustive and is based on the Taxonomy of Business Support Service Organisations produced by Radian in "Business Support Policy of the City of Cape Town, M Neville and R Naidoo, unpublished, 2003".

[13] Department of Trade and Industry

[14] A national promotional organisation

[15] Formerly the Council for Scientific and Industrial Research

[16] South African Bureau of Standards

Public / Private business sector service	Public, private, national, local(use separate columns for public/private and national/provincial/local)	Policy and market drivers	Aggregators, channels and intermediaries	Client contact business services
Cape Regional Chamber of Commerce	Public / private, local	X	X	
Provincial Government Western Cape	Public, local	X		
Provincial Department of Economic Development	Public, local	X		
CITI[18]	Public / private, local	X	X	
Manufacturing advisory service	Public / private, national		X	
BRAIN[19]	Private, local		X	
Big News for Small Business	Private, national		X	
Local technikons (e.g. Pentech)	Public, local		X	
Local universities (e.g. UCT; UWC)	Public, local		X	
The City of Cape Town	Public, local	X	X	
Local business service centres	Public, local		X	
Library business corners	Public, local		X	

The effectiveness of each of the individual support services can only be ascertained by a specific audit of each agency which is not within the scope of this report. Nevertheless in order to ensure the effectiveness of the above support services a market is required for them. This however will only be successful if the service providers within both the private and public sector recognise the demand and the potential beneficiaries know about the providers.[20]

[17] WESGRO is the official Trade and Investment Promotion Agency for the Western Cape Province

[18] Cape IT Initiative

[19] Business Referral and Information Network

[20] The Trigrammic Consortium. 2004. "Business Development for SMMEs" Report Prepared for the Presidential National Commission on the Information Society and Development. 31.