



Provincial Government of the Western Cape

MICROECONOMIC STRATEGY PROJECTS

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

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## 1 Strategy recommendations and way forward

### 1.1 Introduction to the strategy formulation and framework

As was mentioned in the first section of this report, defining ICT is difficult as it is widely considered to be a moving target. Hence the difficulty of formulating a strategy that embraces all the industries that provide goods and services that support the electronic display, processing, storage and transmission of information.

This strategic framework attempts to address key issues that have been identified in the sections preceding this one in the report and helps to identify strategic objectives that will facilitate firms in the Western Cape to embrace the information age and become players in the global ICT market.

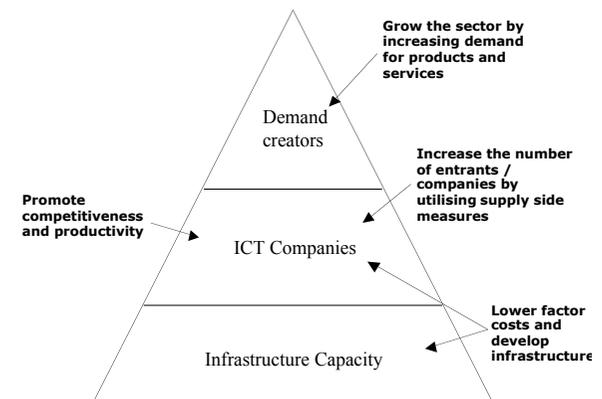
It is believed that the policy interventions and projects identified within the framework will stimulate growth, increase labour absorption capacity and help to develop skills within the sector. Further with the development of the ICT sector within the Western Cape other economic sectors will also benefit as the realignment of the policies focused on the ICT sector will act as enablers of growth and development in other sectors within the region.

Hence there are three areas that need to be taken into account when implementing an ICT strategy for the Western Cape namely:

- The use of ICT in other economic sectors (which in turn encourages the growth of the ICT sector) i.e. *demand creators*
- The ICT sector itself i.e. *ICT companies*
- *Infrastructure capacity*, which includes skills and the regulatory environment

This framework is depicted in the following diagram:

**ICT sector strategic framework:**



These areas identified above will be supported by relevant goals and objectives that will be unpacked in more detail below. These goals further support and are aligned to the vision of the Provincial Government in the Western Cape.

### 1.2 Vision

*The vision of the Provincial Government is to promote and grow the local ICT sector and thereby ensure that there is skills transfer, job creation and economic and social development.*

It is hoped that this strategy will form the basis of the Province’s ICT sector policy recommendations over the next 5 years and by implementing the strategy that there will be clarity and direction so as to reposition and strengthen the sector in the longer term.

This vision will in turn be supported and implemented by the addressing the following objectives and goals:

- To grow the ICT sector by creating demand for its products and services
- To increase the number of entrants and number of companies in the ICT sector by utilising supply side initiatives
- To promote competitiveness, productivity and globalisation of the local industry
- To lower factor costs for local industry in the Western Cape

Each one of these objectives will be examined in more detail in following sub sections.

### 1.3 Growing the ICT sector – demand initiatives

It is the consumption and the demand for products that stimulates economic activity. Thus the local ICT sector will be stimulated when demand for local IT related goods and services is increased. Local government does have a role to play by creating demand through its own procurement policies.<sup>1</sup>

Six demand led initiatives will be considered in more detail below.

<sup>1</sup> For example in other countries around the world procurement policies that have favoured OSS have helped to increase demand for OSS products and services and helped to encourage the development of these skills within the local sector.

- A good place to start is for Province to develop a *Flagship Provincial Project* that uses local ICT skills and grows the market. This would also encourage inward investment.

*Possible projects / goals:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 <i>(1 being urgent)</i>
• Develop a Western Cape Satellite for communications, monitoring and development planning	Medium	Minister	R20m over 5 years	1
• Aim to reduce the digital divide in the province to 50% of the population being connected by 2010 by developing a Province-wide communication network.	Long	Minister	R50m over 5 years	1

- Local promotion agencies such as Wesgro and CITI should take the initiative in promoting export readiness development to ICT companies, especially SMEs to grow new markets and expand global entry.

*Possible projects / goals:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 <i>(1 being urgent)</i>
• Provide export readiness workshops, seminars, courses and develop a promotional campaign for the local ICT industry	Short	Wesgro, CITI, Chamber	R6m over three years	1
• Provide export market intelligence on new markets and target the information to the capabilities of local ICT companies	Short	Wesgro, CITI	R1.1m p.a.	1

- The local promotion agencies should also consider direct export promotion by promoting regional capabilities and local companies as the current export focus is mainly on national promotion. This would entail developing a focused communications and promotion strategy to assist smaller companies in obtaining access to global and regional markets.

Possible projects / goals:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
• Arrange ICT trade missions	Short	Wesgro, CITI	R0.75m p.a	1
• Arrange ICT trade shows	Short	Wesgro, CITI	R1.3m p.a.	1

- Another key area where Provincial Government, SITA and CITI can help to increase demand is through the promotion of local procurement of ICT products and services. This can be encouraged through *government, large businesses and other sectors.*

Possible projects / goals of government:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
• Enhance / enforce local procurement points system	Short	PGWC Procurement Centre for e-Innovation, SITA	None	1
• Introduce a small, publicly accessible business skills register to make government tenders more accessible by allowing small businesses to join together so that the required skills can be obtained	Short	CITI	R0.25m p.a.	1

Possible projects / goals for large business:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Lobby local Large business to procure locally. Lobby state owned enterprises to procure locally.	Long	Minister	None	2

Possible projects / goals for other sectors:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Work with Proudly SA and arrange regional workshops to encourage buying local	medium	PGWC, CITI	R0.25m p.a.	3
Develop an online and print directory of local ICT companies	short	CITI	R0.5m pa	1

- Regional promotion agency, Wesgro, CITI and the Province should promote and encourage the inward investment of industries that drive demand and innovation in the ICT industry e.g. financial services, retail, business process outsourcing, call centres, health and multi national ICT companies.

Possible projects / goals:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Attract Key Driver industries as part of inward investment strategy	Short	Wesgro, CITI, Minister	R1.5m pa	1

- The Province, CITI and the local Chamber of Business can help to increase the demand for ICT products and services by promoting the knowledge economy in the Western Cape. This will in turn increase the demand for ICT services and products by building a more demanding and ICT literate citizen.

Possible projects / goals:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Promote e-government within Provincial and Local Government and roll out Cape Access and Cape Skills projects	Long	Centre for e-Innovation	R20m	1
Promote E-business and e-commerce, especially for SMMEs- as a productivity tool and to open up new channels and markets	Medium	CITI Chamber	R1.5m pa	2

**1.4 Supply side initiatives - increase the number of entrants / number of companies**

Supply side initiatives that increase and encourage the number of ICT organisations operating within the sector will only help to promote economic activity if there is a concomitant increase in demand to absorb the additional supply. Nevertheless the excess supply is tempered by the fact that there is a large lag from when the new projects and goals are implemented to when the actual supply is increased. The demand led initiatives will by that stage have increased demand to a level that will enable the excess supply to be absorbed and in turn to help to grow the regional ICT sector.

Supply side initiatives extend to creating a suitable environment for ICT companies to establish themselves and would include promoting activities that would encourage clustering and the implementation of world-class infrastructure within an incubator environment.

Five supply led initiatives will be considered below:

- The first suggested supply led initiative would encompass a drive in developing ICT skills for historically disadvantaged individuals (HDIs) and on the creation of new empowerment companies. This would entail focusing on the development of distinctive technical and business skills that satisfy specific functional or industry requirements and in turn allowing the development of local skills in niche markets. Market demand will however largely drive the direction of which skills are needed thus tertiary institutions must balance ICT literacy skills with the development of ICT development and ICT business skills.

*Possible projects / goals:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Implement a focused incubator programme and expand and enhance the CITI "Launchpad programme"	Short	CITI	R0.65m p.a.	1
Lobby and incentivise the Education department and Higher Education Institutions (HEIs) to focus on Science and Math skills.	Medium	PGWC Education, HEIs	None	1
Incentivise students to study Maths and Science through bursaries, competitions.	Medium	Education	R1m pa	2
Lobby tertiary education institutions to ensure that they are addressing the long term skills requirements in the	Medium	Education	None	1

industry				
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- Entrepreneurship schemes help to develop and uncover latent entrepreneurial talent that will help to increase the number of new SMEs in the sector. A little support and guidance in the early stages is often sufficient to help a budding entrepreneur enter the market.

*Possible project / goal:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Enhanced support for CITI Bandwidth Barn- expansion into other areas and replication in other sectors. Support Entrepreneur Training and skills programmes for ICT graduates	medium	CITI, HEIs	R2.0m over three years	1

- In order to promote entrepreneurs to start new businesses the process for doing so needs to be simplified. Presently the legislative and bureaucratic environment within which a new business is started acts as a barrier to entry. Examples of problems experienced by new business owners include learning to understand the VAT and PAYE tax system, what levies must be paid, how to draft a workplace skills development plan, how and where to register to pay UIF on behalf of employees and how to form a juristic entity within which to operate the company.

*Possible project / goal:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Representations to national government to simplify business related bureaucracy and compliance.	Medium	Minister	-	2

- Promotion of the knowledge economy will help to raise the awareness and the profile of the New Economy and its associated jobs and opportunities that arise by possessing ICT skills. This will in turn help to increase the supply of new entrants into the industry.

*Possible project / goal:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Promotion of inward investment of industries that rely on ICT	Short	Wesgro, CITI,	Link with subsectio	1

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
will indirectly help to promote the awareness of the knowledge economy.		Minister	n 5 in the demand led initiatives above	

- Promote inward skills migration in order to increase the number of entrants in the sector. This will also help to bring in fresh skills and educate those already in the sector about international good practice.

Possible project / goal:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Lower entry barriers and promote inward migration of high end skills	Medium	Minister	Unknown	3
Arrange an "ICT jobs fair" at the end of each year when ICT professionals from abroad are visiting family over the festive season.		CITI	R0.5m	3

### 1.5 Promoting competitiveness, productivity and globalisation

As was demonstrated by Porter in section 2 of the report, firms, which face active competition and a sophisticated consumer, base in home markets will be better prepared to compete internationally. This in turn will help to globalise the local ICT industry. Further a competitive ICT sector has a major role to play in the development of other high value added service sectors, where the correct and effective use of ICT can create competitive advantage. Certainly within the Western Cape the financial and retail sectors have been drawing on this technology but increasingly other sectors are also benefiting from the use information technology.

Five initiatives that will help to promote competitiveness, productivity and globalisation within the sector will be explored in more detail below.

- The first action would involve enabling research and development by SME's. This would assist in these organisations exploring new avenues of production and services and in streamlining their current processes.

Possible project / goal:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Fund R&D in SMEs, promote use of National R&D schemes	long	CITI, HEIs	R5m	2

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
use of National R&D schemes, promote higher R&D in larger local ICT companies		technology transfer offices	p.a.	

- The following action would involve CITI and the PGWC promoting the use of advanced technology in order to keep the sector at the cutting edge of new developments. This however would require some type of import grant to assist organisations in acquiring capital equipment, hardware and software to be able to develop such technology.

Possible project / goal:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Provide import offsets to lower the cost of technology, and promote the use of national technology support programs	Long	CITI, PGWC Econdev	R5m pa	2

- Innovation helps to introduce new ideas into the marketplace in the form of new products or services, or via an improvement in the organisation or process. Thus encouraging innovation within organisations will help to make companies more competitive and their products more globally attractive.

Possible project / goal:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Promote innovation through awards, matching grants, local incentives, promote use of national innovation funding	medium	CITI, PGWC Econdev	R5m pa	2

- Province, CITI and Wesgro have a role to play through the promotion of organisational learning and collective action via networking, clustering, and exposure to global good practice.

Possible project / goal:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Support the growth of CITI and disseminate global good practices in specific business areas	Medium	PGWC Econdev CITI	R2.0 m pa	1
Attract global ICT conferences and seminars to Cape Town	Short	CITI, Wesgro	R1.5 m pa	1

- Wesgro and CITI should develop initiatives which ensure that there is reliable information that is current on specific industries or markets. This would include information on doing business in various markets, detailed information on potential clients, trends in the industry, accessing international analysts and research information such as is found at Gartner or Forresters.

Possible projects / goal:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Collective purchasing of analysts reports, information sheets; development of data search expertise; provision of seminars, listening lunches. Better use of and direct contact with overseas trade representatives.	short	Wesgro CITI	0.5m pa	1

### 1.6 Lowering factor costs

The local ICT sector can create its own factors such as skilled resources and technological base should Provincial government assist in developing, amongst others, incentives and the telecommunication infrastructure. Should the costs associated with bandwidth alone be lowered then the local industry will benefit enormously.

Five initiatives related to lowering factor costs are discussed in the section below:

- The first suggested action would be to introduce incentives. Here a focus would be promoting the use of skills rebates by ICT companies and developing an import credits system via an Industrial Development Zone. (IDZ)

Possible projects / goals:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Promote the use of Skills rebates by ICT companies.	Short	ISETT SETA	None	1
Develop an ICT Industrial Development Zone (IDZ) based on export of services and software.	medium	PGWC Econdev	R4m pa	2

- Reducing the cost of telecommunications - the cost of telecommunications nationally and in the Western Cape is unusually high.<sup>2</sup> The Province needs high level lobbying and Ministerial support to address these high costs at a national level. This however extends further to improving the availability of telecommunications, which could be improved through a broadband Province wide network.

Possible projects / goals:

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
The PGWC should (via a Public-private partnership) invest in a broadband Province wide network and outsource the management to local companies. (This initiative is also mentioned as a demand creator above.)	Medium	Minister, Centre for e- innovation	Estimated capital cost R100m	1

- Reduce people costs – this would encourage ICT workers to reskill existing staff where necessary and to skill new staff entering the sector.

<sup>2</sup> This can be illustrated by comparing the cost of high speed Internet internationally to South Africa. In the United Kingdom 1 Mbit costs R201 compared to Telkom's charge of more than R1000 per month for a 512k line - see [www.hellkom.co.za](http://www.hellkom.co.za)

*Possible projects / goals:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Promote the use of Skills rebates by ICT companies.	short	ISETT SETA	None	1

- Lowering infrastructure costs - infrastructure costs are often prohibitively high for new ICT entrants when they enter the industry. The Bandwidth Barn has made it possible for many start ups to enter the industry by encouraging clustering and the sharing of overheads. This initiative could be further developed to incorporate a local PGWC broadband network mentioned above.

*Possible projects / goals:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Extend and expand Bandwidth barn incubator shared infrastructure concept	Short	PGWC Econdev, CITI	R2m pa	1

- Further assistance could be implemented that addresses the high costs of doing business generally in the Western Cape. The usefulness of certain levies such as the CMC levy, which is based on a % of turnover and salary bill, should be reexamined. Rather these levies should be adjusted accordingly if certain targets are met.

*Possible projects / goals:*

Project / goal	Short / medium / long term	Champion	Budget	Priority 1, 2 or 3 (1 being urgent)
Lower the cost of municipal levies based on meeting certain targets	medium	PGWC, Municipality	None	2

**1.7 Conclusion**

Building a competitive ICT industry in the Western Cape that is competitive in both local and global markets is a noteworthy objective, as it will help to build skills, increase employment and hence assist in general economic and social upliftment.

In addition growing the ICT sector benefits the broader local economy due to the cross cutting nature of ICT. Thus it helps in the development of higher value added service industries where the effective use of ICT can lead to competitive advantage - hence the ICT sector deserves special policy attention.

Thus the above strategy for the local ICT sector has been divided into four objectives that focus on either creating demand, increasing supply, promoting competitiveness or lowering factor costs. Nevertheless it is difficult to prioritise each of the above related projects as many of the projects have the same level of urgency. In the circumstances we would suggest that the smaller projects be addressed first as they require less additional resources and project management skills in order to implement. Also a series of quick wins from the smaller projects will help to build momentum for tackling the larger projects and encourage sector wide buy in for the initiatives.