# **INSPIRE**

# PROVINCIAL INFORMATION SOCIETY STRATEGY PROGRAMME IN THE REPUBLIC OF SOUTH AFRICA (INSPIRE)

NORTHERN CAPE INFORMATION SOCIETY STRATEGY

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#### **ACRONYMS**

ALL: Women, Children, Disabled, Elderly, Rural, Rich, Poor

INSPIRE: Provincial Information Society Strategy Programme in the

Republic of South Africa

NCISS: Northern Cape Information Society Strategy
WSIS: World Summit on the Information Society

MDG: Millennium Development Goals

PNC: Presidential National Commission

ISAD: Information Society and Development

PGDS: Provincial Growth and Development Strategy

SMME: Small Medium Micro Enterprises

SME: Small Medium Enterprises

ICT: Information and Communication Technology

eris@: European Regional Information Society Association

BUG-C: Business, University, Government, Citizen

DEDaT: Department of Economic Development and Tourism

NCISTC: Northern Cape Information Society Technical Committee

NIHE: National Institute for Higher Education

OSS: Open Source Software

OSSCC: Open Source Software Competency Centre

NCIS: Northern Cape Information Society

HR: Human Resource

HRD: Human Resources Development

DOI: Digital Opportunity Initiative

DST: Department of Science and Technology

NC: Northern Cape

OECD: Organisation for Economic Co-operation and Development

ITU: International Telecommunications Union

#### **EXECUTIVE SUMMARY**

Since 2007 the Northern Cape Provincial Government (NCPG), with technical and financial support from the Ministry of Foreign Affairs, Finland, set-out a programme to develop a Northern Cape Information Society Strategy. The NCPG as early as 2004, had already identified weaknesses in the Provincial Growth and Development Strategy (PGDS) uptake of technology and particularly Information and Communications Technology (ICT).

To address this limitation, the "Provincial Information Society Strategy in the Republic of South Africa" (INSPIRE), was established under the Cooperation Development Agreement between the Republic of Finland and the Republic of South Africa. INSPIRE, in the Northern Cape Province prepared a "usercentric" approach to Information Society and Development (ISAD) via a process comprising five components. The five components where: (1)Technical Assistance; (2)Strategy Process; (3)Capacity Building; (4)Technical Infrastructure; and (5)Strategy Induced Initiatives.

Under a governance structure represented by:

- the Embassy of Finland, Pretoria and Ministry of Foreign Affairs, Finland;
- Department of Communications, South Africa;
- Presidential National Commission on Information Society and Development;
- Office of the Premier, Province of Limpopo;
- Office of the Premier, Northern Cape Province; and
- the INSPIRE programme management.

Several e-working groups: e-Education; e-Government; e-Health; e-Infrastructure; Local Content Development; e-SMME; e-Agriculture and e-Tourism were established to develop the Provinces Information Society Strategy. These e-working groups were led by the associated Provincial Department and were instrumental in ensuring contributions to the strategy development process were in-line with Provincial and Departmental strategies and needs. The working groups also included business, academia and civil society, in a relationship model that became known as the BUG-C (Business, University, Government – Citizen) model.

The NCPG knowing that a paradigm shift would be required to transition its resource rich industrial and agricultural economy to a Knowledge-Based Information economy, implemented INSPIRE through the Office of the Premier and the Department of Economic Development and Tourism (DEDaT). Supported by technical expertise from the Finnish Consulting Group, a methodological approach to the development of the Province's Information Society Strategy was applied, underpinned by a Foresight process. The foresight process was chosen to develop the Strategy because, it offered a series of tasks that took the participants out of the normal linear trajectory for strategic planning and placed them in a context, where they could imagine beyond their constraints and think innovatively about the future. Three workshops where hosted in the Province, by Ontolligent Services, accumulating in a vision for the Northern Cape Information Society and draft Northern Cape Information Society Strategy (NCISS) document.

This NCISS, was reviewed by Antti Ainamo, Professor of Innovation, Technology and Science Policy, as well as Professor of Sociology, Head of the Institutions and Social Mechanisms programme at the University of Turku.

By the last of the three workshops, the resulting vision and NCISS had emerged with seven strategic interventions for accelerating the development of the Northern Cape Information Society:

- (1) Government as Information Society Exemplar,
- (2) Broadband Infrastructure,
- (3) "New" Culture of Innovation,
- (4) Skilled Information Society Expanded Knowledge Base,
- (5) Expanded and Freely Accessible Content,
- (6) Information Society / Knowledge Based Economy, and
- (7) Poverty Alleviation, Job Creation and Growth.

These strategic interventions are summarised below.

#### 1.1 Government as the Information Society Exemplar

The Provincial Government through its positional authority is positioned to be the catalyst in stimulating Information Society development, by leading by example. The actions and practices of the Provincial Government Departments, individual government representatives and more broadly all civil servants, in their uptake and use of the tools of the Information Society – ICTs - are expected to set the example of the Information Society. Exemplary innovative actions using ICTs in the Provincial Government, is expected to raise awareness that fundamental change is occurring in the way the Provincial Government meets the needs of the people and organisations of the Province. Specific actions, such as:

- · electronic document management;
- electronic commerce;
- IP (Internet Protocol) video conferencing;
- · mobile telephone engagement;
- · public access terminals to Government services; and
- inter-active devices for timely communications within provincial government and local government, and between citizens and organisations.

The above sample of actions, are expected to produce efficiencies in government processes and in the methods that provincial government uses to meet the needs of its people and organisations.

Innovative use of ICTs by the Provincial Government will set the example for other civil servants, other citizens, SMMEs, businesses, and NGO representatives to follow. Through the innovative application of ICTs, the NCPG can stimulate ICT businesses and create strong social and economic networks to improve communication and the exchange of information and knowledge for the social and economic development of the province. The anticipated spin-offs include new ICT businesses, products and services, as well as the stimulation of ICT uptake and usage in existing businesses and organisations.

The campaign to move Provincial Government into the Information Age, is proposed to be led through the establishment of an institutional mechanism – the Northern Cape Information Society Technical Committee (NCISTC). The NCISTC will be positioned in the Office of the Premier to drive innovative transformation in provincial government. The NCISTC will serve as a focus

point for coordination and coherency in the strategy's implementation. They will also have a key responsibility in developing the communications campaigns, required to prompt information society development across the province's communities and sectors.

A paramount responsibility of the NCISTC will be to map the network of information society development transactional stakeholders in the Northern Cape, as well as the broader interdependent external stakeholders. Effectively creating a systems map from which to grow and expand Information Society related businesses and activities in the Province.

The NCISTC will be structured as follows:

- Premier's ICT Advisory Group;
- Northern Cape Information Society Technical Committee;
- Dimension based working groups (social, economic and technical) comprising business, academia, government and civil society,

#### 1.2 Broadband Infrastructure

Broadband connectivity underpins the growth of the Information Society and serves as the basis for transition to its economic counterpart, the Knowledge-Based Economy. Broadband connectivity is the electronic frequency transport carrier for, the electronic packages of data, images, information, knowledge, marketing, sales, logistics, audio, voice, surveying instruments, etc., that arrive on a myriad of electronic devices. From televisions, handheld mobile devices to microchips embedded in materials. Broadband connectivity facilitates instantaneous communication, dependent on bandwidth affordability and ultimately the skills of the individuals and users. Building, maintaining and supporting broadband connectivity in the Province, not only serves as an environment for the development of new ICT skills and businesses, but also new information content providers and innovative ICT applications, products and services that will serve to meet the needs of the citizens and organisations of the Northern Cape.

ICT devices in a broadband architecture stimulate an environment for the exchange of ideas, information and knowledge. This in turn stimulates learning, monitoring and evaluation, the exchange of goods and services, innovation and

new efficiency in daily workflow processes. The broadband environment presents dynamic new opportunities for ICTs in businesses, as well as the emergence of new ICT businesses. Uptake and usage of ICTs in daily practices, within a broadband connected infrastructure, is a cornerstone from which the development of the Information Society and Knowledge-Based Economy materialises. Broadband will encourage change in the way people work, organisations operate, information is delivered and responded to, and fundamentally, the kinds of uses, practices and operations that digital information can be then applied to in the Province.

The geographic spread and low population density of the Province presents a particular challenge for the Province, analogous to the province being a lastmile connection and essentially an under serviced area by the major telecommunications operators. Conversely however, ICTs can be recognised as an opportunity to close the distances between people and organisations in the Province, by connecting them for instantaneous, simultaneous communication. The challenge however, is essentially the cost of infrastructure measured against the return-on-investment (ROI), is a difficult business case to present to investors and operators. Businesses appear to be reluctant to consider extending their time frames for accruing the returns on their infrastructure investments beyond a "normal" ROI window. A more valuable measure for infrastructure ROI is to be found in the beneficiary users of broadband. That is the uptake and usage by Departments and stakeholders.

Given this challenge/opportunity, the Province is pursuing a "user-centric" approach to the development of a broadband infrastructure. The user-centric approach is predicted to stimulate uptake and usage, consequently creating a market for broadband connected services. Proper planning is a requisite to ensuring the success of the user-centric approach and it is premeditated by what people do on a daily basis, thus informing the architectural design of the broadband networks. Accordingly, the development and implementation of the broadband infrastructure requires appropriate relevant content that will contribute to producing efficiencies in what people and organisations do on a daily basis and create an opportunity for the development of the new skills and businesses necessary for the Province's Information Society and Knowledge-Based Economy.

The DEDaT has already initiated intensive collaboration with ELISA Corporation, Finland, to provide the opportunities that broadband connectivity can accrue for the Province. Collaborative partnerships between the NCPG and its Northern Cape businesses and telecommunications operators, will need to be developed. The interdependency between the public, private, academic and civil society sector will be essential in determining the best broadband e-Infrastructure model for the Province. A collaborative approach will thus seek to ensure the benefits of broadband increases the size of provinces local supplier base and stimulates uptake and usage of the infrastructure.

The user-centric approach has already tested a proof-of-concept, which has informed e-Infrastructure road-map for the Provinces. The user-centric approach has developed a "service delivery improvement platform" architecture, which can be used across: e-Education; e-Health; e-Government; e-Tourism; e-Heritage; e-Agriculture; e-SMME; etc., to support Provincial Government's service delivery requirements.

#### 1.3 "New" Culture of Innovation

The combination of Provincial Government leading by example, the user-centric approach to broadband infrastructure development and a mix of businesses sharp views, academia's insight and civil society needs, are expected to stimulate awareness, about the dynamic shift the province is initiating towards an Information Society and Knowledge-Based Economy. The combined analysis and intuitive<sup>1</sup> reasoning of government, business and civil society within the province about this dynamic shift, is anticipated to provoke the emergence of creative thinking. This model on the combination of analysis and intuition is anticipated to spark creative new ideas, and is illustrated in the work of Nobel Prize Laurent, Eric Kandel, in "Cognitive Neurosicience and the Study of Memory" (Journal: *Neuron*. 1998).

To support this dynamic shift, partnerships between appropriate business and relevant institutions for capturing, mapping and promoting the Northern Cape innovation achievements and solutions will be instrumental in engendering a culture of innovation. Many of the transactional and broader information society

<sup>&</sup>lt;sup>1</sup> William Duggan (2010), How Aha! Really Works. Strategy & Business, Issue 61, November 2010

development stakeholders would have already been mapped by the NCISTC. An obvious platform for focused innovation using cluster based value-chains is the Square Kilometre Array (SKA). The nascent technologies required for the SKA require significant multi-disciplinary skills to advance the technology requirements of SKA.

"The term **innovation** derives from the Latin word *innovatus*, which is the noun form of *innovare* "to renew or change," stemming from *in*-"into" + *novus*-"new". Although the term is broadly used, innovation generally refers to the creation of better or more effective products, processes, technologies, or ideas that are accepted by markets, governments, and society. Innovation differs from invention or renovation in that innovation generally signifies a substantial positive change compared to incremental change<sup>2</sup>".

Concrete actions to increase awareness of Northern Cape innovations, through evidenced based promotions, will contribute to promoting and increasing awareness and potential investments in the factors that contribute to an innovative milieu. The need to expose the Northern Capes innovations and innovative people would be integrated into the NCISTC Information Society communications campaign. The combination of the Northern Cape innovators and innovations with the concept of the Information Society and Knowledge-Based Economy is further anticipated to fuel social development and economic growth.

Incorporating the tools of the Information Society - ICTs - into education, government, health, business, and social services, in-themselves present a significant opportunity for innovation and new business opportunity and growth. In particular, innovation in how information and knowledge is processed, retrieved, accessed, shared, generated and exploited for the benefit of ALL will contribute to the Province's innovative milieu, while stimulating new ideas for innovation in the Province.

The National Institute for Higher Education (NIHE) with the Department of Science and Technology has initiated a process to prepare a Provincial Innovation System, through the establishment of a Provincial Innovation

<sup>&</sup>lt;sup>2</sup> http://en.wikipedia.org/wiki/Innovation

Forum. The interdependency between the NCISTC and the Innovation Forum will be critical to informing the design of strategic interventions for the Northern Cape Information Society.

The Innovation Forum has been established to drive the processes for a provincial system of innovation to emerge. The ideas in the forum and the emerging system of innovation are expected to inform the discourse between the social needs and economic drivers, within the Province and contribute to the design of strategic interventions in the Province.

Discussions between business, academia, government and civil society, within the forum and the NCISTC, are expected to formalise relationships and linkages towards the development of a proficient system of innovation that includes transactional stakeholders and defines the trajectory for skills and sustainable livelihoods for transition to the Information Society and Knowledge-Based Economy. The mix of business, academia, government and civil society is intended to contribute to the stimulation of the innovative milieu that will contribute to informing "combinations of the elements of intelligent memory that will lead to the production of new creative ideas<sup>3</sup>".

#### Skilled Information Society – Expanded Knowledge Base

The success of the Northern Cape Information Society and transition to a Knowledge-Based Economy rests upon the development of corresponding skills. The transactional map will identify key information society stakeholders, while the innovation forum will contribute to accessing the trajectory of the range of skills required for the development and growth of the Northern Cape Information Society and Knowledge-Based economy. The interdependency between the NCISTC, the transactional stakeholders and the Innovation Forum, will assist in informing and defining process for the preparation of the necessary skills and training interventions required for the Northern Cape Information Society and Knowledge-Based Economy.

The potential range of skills required, expand from the basic abilities to read and write for capable access to correct information and manipulation of technically advancing machinery, to the expert ability to transform ideas into

<sup>&</sup>lt;sup>3</sup> William Duggan (2010), How Aha! Really Works. Strategy & Business, Issue 61, November 2010

innovative products and services that use ICTs to be globally competitive and serve the efficiency of local beneficiation processes in mining, agriculture, tourism, as well as in health and emerging renewable energy fields.

The definition of skills required will be informed by the social needs and economic drivers of the Province, as aligned to the Provincial Growth and Development Strategy in context for the Information Society and Knowledge-Based Economy. In particular, the interdependencies for Information Society and Knowledge-Based Economy development will be inculcated into the provincial human resources development plan. The benefit of investing in human resources and effective internal systems is confirmed in the success of countries such as Singapore, Finland, Korea, Taiwan, India and Japan<sup>4</sup> amongst others.

An essential ingredient for the improvement of the skills base for the Northern Cape Information Society and Knowledge-Based Economy is the establishment of institutional environment(s) that will generate ambition in learners to become academically astute. The presence of tertiary learning environments and R&D environments whether in the form of a University or centre of excellence(s), innovation hub(s), innovation cluster(s), science park(s), together with informed curricula arriving from the Innovation Forum and practical course requirements planned with the transactional stakeholders, will dramatically serve to raise the aspiration of learners in the Northern Cape and significantly contribute to the innovative milieu for the Northern Cape Information Society and Knowledge-Based Economy.

The processes surrounding the National Institute for Higher Education activities towards the establishment of a tertiary learning environment, along with plans to create clusters and special economic zones should be supported, in order to introduce and contextualise innovative approaches to tertiary learning environments, with sector specific research and development environments. The combination of the existing University model with the elements of Innovation Hubs, Technology Stations, Centres of Excellence, Science Parks and Clusters could serve to result in new creative environments, such as:

• LearningLab: linked to a faculty of education.

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<sup>&</sup>lt;sup>4</sup> A. Maddison (2000), The World Economy: A Millennial Perspective. Paris, OECD

- Expanding the Fablab to provide computer aided research experiments.
- Developing a MiningLab that services the Northern Cape mining sector, while introducing topics such as "data mining" to pioneer new technology related subjects.
- Twinning partnerships with established innovation environments. e.g.
   Malaysia Super Corridor; Canadian Clusters; Taiwan Science Parks; noted
   Universities; etc.

In consultation with the NCISTC, the Innovation Forum and the transactional stakeholders from business, academia and civil society, the optimum mechanism for the collaborative development of human resource development facility(s) will be developed, designed and implemented.

## 1.5 Expanded and Freely Accessible Content

The combination of Provincial Government leading by example, a broadband infrastructure to increase connectivity and productivity, an innovative environment constituted by government, business, academia and civil society, along with a proliferation of new skills and tertiary learning environments, are expected to strengthen the Province's innovative milieu. ALL citizens of the Northern Cape are likely to recognise, appreciate, and be more aware and supportive of the Provinces ambition to become an Information Society and Knowledge-Based Economy.

However, for the dynamic shift the province is initiating to have meaning to ALL citizens and organisations, it must provide relevant, appropriate content and e-applications that support the individual or organisation's respective ambitions. Governmental incentives, corporate social responsibility, award systems, social energy could all contribute to creating an environment for content and applications development.

The production of content and e-applications is inexplicably linked to the context of the respective beneficiary i.e. the community and environment within which they live, work or operate. Processes and facilities to ensure ALL citizens and organisations have access to the correct information, to progress their social and economic well being, while driving the growth of the Information Society and Knowledge-Based Economy, will require diligent coordination

amongst stakeholders to ensure the establishment of relevant localised content development centres.

The establishment of an innovative content development hub is one mechanism towards focusing on content and applications development. The concept of a "hub" proposes that academic learning, R&D, start-ups, SMEs and established businesses would form a cluster, where the systemic value chains in content development could be integrated to produce "needed" content. An option is to seed the content development hub in the Northern Cape Open Source Software Competency Centre (OSSCC), with participation from the Department of Communications e-Skills Institute and the Department of Science and Technology, technology stations programme.

The "hub" in itself would be driven by the transactional stakeholders involved in content development, with appropriate incentives from the Provincial Government. Government incentives could be primarily packaged to attract a significant international developer as the anchor tenant. Clear off-sets could then be considered to ensure the emergence of new local content and applications developers' start-ups and act as an attractor for existing local content development agencies.

The mix of international organisation(s), local private sector content development companies, with SMMEs, in a setting that includes academic training in content development, will produce the products and e-based applications and services for government, education, health, business and civil society to become active participants in the Information Society and Knowledge-Based Economy.

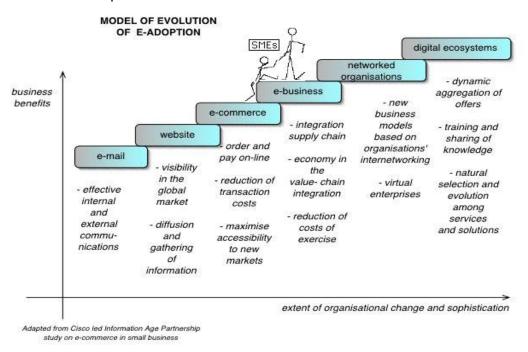
#### 1.6 Information Society / Knowledge Based Economy

The Northern Cape Information Society Strategy (NCISS) recognises that the process of moving the provincial economy towards an Information Society and Knowledge-Based Economy is not a short term goal. However, the Information Society Strategy contribution to growth and development lies in stimulating the diffusion and use of the tools of the Information Society – ICTs – across all sectors, to create the skills, opportunities and the innovative milieu that will allow the Information Society and Knowledge-Based Economy to take root.

The International Telecommunication Union describes the conceptual framework for evolution to an Information Society as having three basic stages:

- ICT readiness, reflecting the level of networked infrastructure and access to ICT.
- 2. ICT intensity, reflecting the level and use of ICTs in the society; and
- 3. ICT impact, reflecting the result of efficient and effective ICT use.

Other organisations, such as UNCTAD, and the Partnership on Measuring ICT for Development have adopted similar frameworks. The European Regional Information Society Association (eris@) developed an illustrative e-adoption ladder as a guide to assist in the development of processes towards the information society. The e-Adoption Ladder is presented below and serves as a reflection from which Provinces can consider steps towards accelerating development towards their own Information Society, once the broadband e-infrastructure is in place:



The opportunity is to align and commit the Provinces resources in collaboration with business (including SMEs), academia and civil society towards fulfilling the basic frameworks mentioned above and is informed by the INSPIRE experiences. These processes are attuned towards building the capacity and strength of the provinces current sectors, to create opportunities for Information

Society development and Knowledge-Based Economy interaction in new growth areas.

Current new growth opportunities in the Province offer leverage from which the Provincial Government can begin to accelerate Information Society development and transition to a Knowledge-Based Economy. Such opportunities include:

- Establishing a multi-stakeholder Information Society and Knowledge-Based Economy Technical Committee to drive ICT integration into socio-economic objectives;
- Implementing a Provincial wide broadband connectivity infrastructure;
- Building service delivery improvement platforms across all sectors to stimulate the implementation of a broadband e-Infrastructure that is accessible by ALL;
- Capturing and detailing the provinces innovations for publication in printed, digital and online media formats;
- Building innovative tertiary learning and research and development institutions in the Provinces areas of competitive and comparative advantage;
- Establishing the processes and facilities to produce locally relevant content for ALL;
- Leveraging new "green" energy opportunities in solar and wind farming, as well as potential bio-mass opportunities, in addition to the investments made by SKA;
- Localising the value chain inputs and knowledge production in satellite radio telescopie and astronomy;
- Growing innovative new social and economic value chains on the back of the introduction of ICTs.

The development of the Northern Cape Information Society and transition to a Knowledge-Based Economy is depends on Province's ability to translate information into knowledge that can be used as a tool for social development and economic growth. In advanced economies, the trends are towards greater dependency on knowledge, information and high skills levels, and the increasing need for ready access to all of these<sup>5</sup>. To realise the Northern Cape

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<sup>&</sup>lt;sup>5</sup> http://stats.oecd.org/glossary/detail.asp?ID=6864

Information Society and Knowledge-based Economy, a strong interdependency will need to be developed between the NCISTC, the Innovation Forum, the tertiary learning environments, the content development hubs and the transactional stakeholders. To measure the progress of the transition of the Northern Cape towards an Information Society and Knowledge-Based Economy, economists, computer scientists, engineers, mathematicians, geographers, chemists, physicists, cognitive psychologists and sociologists will all be required to describe the successes and challenges of the transition.

### 1.7 Poverty Alleviation, Job Creation and Growth

The most pertinent factor for the transition towards an Information Society and Knowledge-Based Economy is to alleviate poverty by creating access to relevant information for access to learning, skills and jobs that would facilitate a better life for ALL. The Information Society model seeks to address the large number of unemployed people and aggravating the levels of poverty and inequality through access to information and skills for participation in the Knowledge-Based Economy.

The need to address the widespread levels of unemployment and income poverty, low human development and high social and economic inequality represent the overarching function in the design of the Northern Cape Information Society Strategy.

Number of people living in poverty in the Northern Cape

Area	Total 1996	Percentage	Total 2009	Percentage
Northern Cape province	429712		483526	
John Taolo Gaetsewe	119190	27,7%	110252	22,9%
Namakwa	35120	8,2%	51935	10.7%
Pixley Ka Seme	84464	19,7%	81095	16,8%
Siyanda	79202	18,4%	93460	19,3%
Frances Baard	111736	26%	146783	30,3%

Source: Global Insight

The NCISS strategic interventions, seek to empower and enable ALL people to take control of their own destiny through affordable access, to relevant, appropriate information and knowledge. A prerequisite for the NCISS is that the context of the information and knowledge must be attuned to the needs and opportunities that exist within the local environment, where people are seeking to create their sustainable livelihoods.

The NCISS proposes that innovative initiatives be designed in consultation with local communities, businesses, SMMEs, civil society and institutions of learning. The Information Society and the Knowledge-Based Economy's response to alleviate poverty must, seek to stimulate the transfer of information, knowledge, technology, capital and human resources to assist development, through the deployment of relevant, appropriate technologies and training. The strategic intent of the NCISS, is to stimulate a positive developmental spiral, which creates local capacities to beneficiate local competitive and comparative advantages.

The potential NCISS interventions, through access to information, knowledge, skills and technologies, creates opportunities for health, education, business, and social enterprises to leverage the local comparative and competitive advantages for endogenous development and growth. The opportunities for local development and ultimately, the benefit of an Information Society and Knowledge-Based Economy for poverty alleviation, rest upon the creation of new jobs and economic growth that is locally contextualized.

#### 1.8 Summary

The seven strategic interventions represent an interdependent model for the Northern Cape Provincial Government to accelerate development towards an Information Society and Knowledge-Based Economy. The interventions while presented linearly require a coordinated, tightly integrated series of actions between the NCISTC, the Innovation Forum, transactional stakeholders and skills development institutions.

The model has arisen from a top-down / bottom-up approach through the INSPIRE and presents local insight, informed by facts on the ground that have

been framed into a series of educated judgements on what will work for the Province of the Northern Cape.

Advances on the current strategy and its ensuing implementations processes, will need to more astutely consider matters of cyber-security and the participation of District and Local Municipality. At inception of the NCISTC it is proposed that district and local municipal participation be included through district based Information Society Technical Committees and cyber-security matters be included in all discourse related to the Northern Cape's Information Society and Knowledge-Based Economy.

The emergent Northern Cape Information Society Strategy model is articulated diagrammatically below and serves as a basis for the initiation of essential strategic interventions for the realisation of the Northern Cape Information Society. The human and capital resources required for the Northern Cape Information Society Strategy must still be monetized and in-fact denote the first tasks of the NCISTC.

The model represents the work of INSPIRE under the Northern Cape Provincial Government and is the Provinces first Information Society Strategy. Implementation of the Strategy will require coordinated, tightly integrated action across Departments and stakeholders.

## NORTHERN CAPE INFORMATION SOCIETY STRATEGY MODEL Social Dimension **BROADER EXTERNAL** fategy 7: Poverty Alleviation; Jobs; Growth **STAKEHOLDERS** Strategy 6: Information Society / **ENVIRONMENT Knowledge-Based Economy** 2020 Strategy 5: Expanded & Freely Accessible Content Strategy 4: Skilled Information Society - Expanded Knowledge Base Strategy 3: "New" Culture of Innovation 1 K Strategy 2: Broadband Infrastructure 2015 Strategy 1: Government as Information Society Exemplar Technology Economic Dimension Dimension TRANSACTIONAL **STAKEHOLDERS ENVIRONMENT**

## **NOTES:**