#### COMMUNICATIONS POLICY DISCUSSION DOCUMENT

# BUILDING AN INCLUSIVE SOCIETY THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY

#### INTRODUCTION

# An inclusive and growing information society enabling development

- Over the last three decades, the world has been undergoing, and continues to undergo, an information and communication technologies (ICT) revolution, which has fundamentally transformed the way people live and relate to one another. This has made the world a much smaller place, in which individuals can access information and services from wherever they are in the world.
- 2. The same ICTs have turned this globalizing world economy into a knowledge economy, where access to information and knowledge becomes the key determinant of the extent to which individuals, communities, societies and whole regions can shape their own lives and compete for jobs and services.
- 3. Globalisation, however, has also sharpened inequalities between regions and nations, and within nations, producing winners and losers and a core and a periphery. The ANC policy is aimed at fighting this segregation and inequality, and working nationally, regionally and internationally to ensure a more just social order.
- 4. This document seeks to provide a framework for policy discussion on media, communications and ICT within the ANC and its structures as part of the preparations for the 2012 Policy Conference and the 53<sup>rd</sup> National Conference. It builds on the decisions of the 51<sup>st</sup> and 52<sup>nd</sup> conferences and also takes into account ongoing endeavours by the ANC government to deliver services to the citizens.
- 5. While more emphasis is placed on ICTs, the document still deals in detail with the print media and the postal sectors. There is a need to pay necessary attention to the print media as it continues to play a critical role in the battle of ideas within society. Media transformation and media diversity remain very critical in the ongoing nation building effort. Similarly, the role of the Postal infrastructure cannot be under-estimated. A long-term perspective is needed around the future role of the Post Office and the Post Bank in our social transformation.
- 6. Where necessary, the document reaffirms previous conference resolutions, especially those that are yet to be implemented (reference to the National Conference and General Council resolutions), while proposing new policy interventions. The document places more emphasis on the need for an over

- arching National ICT Policy to inform future growth and developmental trajectory of the ICT sector.
- 7. As a build up towards the new vision, to be articulated in the National ICT Policy, the document proposes various policy interventions across the following areas:
  - a) Information and Communications Technologies and Development Perspective
  - b) Research, Development And Innovation
  - c) Broadcasting Infrastructure and Services
  - d) Print Media Transformation
  - e) Postal Infrastructure and Post Bank
  - f) ICT and Improving Organisational Effectiveness and Efficiency
- 8. The celebration of the 100 years of the ANC provides us with a rare moment to reflect on the achievements and the challenges hitherto, as we prepare for the next 100 years. Robust discussions are needed to help the ANC and society to emerge with new policies and decisions that will increase the pace of development, innovation, service delivery and integration of our society.

# A. INFORMATION AND COMMUNICATIONS TECHNOLOGY AND DEVELOPMENT PERSPECTIVE

- 9. Over the last three decades, the world has experienced an unprecedented social and economic revolution driven by the advent of high-speed internet networks or information and communication technologies (ICTs) capable of transmitting huge chunks of information across borders with a single click.
- 10. These technologies have almost overnight blurred the traditional divide between the information technologies (computers), telecommunications (telephones), broadcasting (TV and radio) and content (newspapers). As a result, any single gadget can be used to engage in multiple transactions across these services. As an example, today a mobile phone/cellphone can be used to generate documents, send email, and act as a radio and TV.
- 11. New applications such as e-government, e-health, online money transfers, online billing and over the Internet payment of government and private transactions have emerged transforming the workplace and the skills that are

required by the mainstream economy. These electronic based transactions have also reduced the need for paper and the distance and time people travel to do transactions.

- 12. This revolution, known as the information society, has fundamentally transformed the way people live and relate to one another and their societies. This has made the world a much smaller place, in which individuals can access information and services from anywhere they are in the world.
- 13. The global economy has also experienced watershed transformation into a knowledge economy, where access to information and knowledge becomes the key determinant of the extent to which individuals and communities contribute to their own and societal development.
- 14. The ICTs contribute to the economy both as a stand-alone sector and as a facilitator of growth and development across all other sectors of the economy. For example, tourism and transport sectors depend on the ICT sector for online bookings, which cuts the distance, time and the costs of making reservations and payments for chosen trip.
- 15. Trillions of Rands are transmitted over the ICT networks overnight, which also redefines the flow of foreign direct investments across the globe. Money is now invested through computer networks and can be easily transacted across borders at short notice.
- 16. As globalisation intensifies, driven by ICTs, it has also sharpened inequalities between and within communities. It has produced winners and losers. South Africa is by no means an exception to the rising tide of inequality between the haves and have-nots.
- 17. The prevailing inequalities, commonly known as the digital divide, have constrained the ability of many citizens to participate in the mainstream economy thus entrenching the spectre of poverty and underdevelopment afflicting many people in the world as a whole and in our country, in particular.
- 18. Since the advent of democracy in 1994, South Africa has made significant strides to facilitate the transformation of the ICT industry and this include:
  - a) The introduction of new laws which facilitate the provision of ICT services to the people, including in rural areas. This includes the licensing of community radio, ICT centres, and obligations on the mobile services.
  - b) The transformation of the SABC from being an apartheid mouthpiece to being a credible public broadcasting institution. In recent years, the SABC has played a very important role in the national and local elections thereby strengthening our democratic discourse.

- New subscription television and commercial radio stations have also been licensed to contribute to diversity of voices and the participation of people from historical disadvantaged communities.
- d) Creation of an independent regulatory environment to ensure that the licensing of services takes place in a transparent and fair manner.
- e) Opening of the telecommunications to new players although their role and contribution remain constrained by limited access to the radio frequency spectrum.
- f) Mobile penetration stands at more than 100% percent although access to broadband is constrained by high fees.
- g) South Africa hosts the most powerful computer system in Africa, which provides the country with capabilities to perform complex scientific and mathematical calculations to resolve environmental biomedical sciences and the study of astronomy.
- h) Government has also introduced other ICT innovations to involve young South Africans including out of school youth in ICT entrepreneurship opportunities.
- 19. Meanwhile, in recent years South Africa has lagged behind in a number of key global ICT indicators, especially on universal access to the internet, broadcasting and e-governance. This as a consequence of fragmented and uncoordinated policy and institutional arrangements. As a result, we have not fully exploited the opportunities presented by our technological advances.
- 20. Even on the continent, South Africa has lost its position as a leader in the rollout of ICT services. Senegal and Egypt are emerging as leaders. Our country also lags behind other BRICS countries in almost all aspects of the ICT value chain.
- 21. While mobile or cellular communications has reached over 100% penetration, the same cannot be said of the High Speed Internet Networks with penetration levels of less than 20% of the population. A significant number of South Africans access ICTs at their place of work and institutions of higher learning. Although the advent of smart phones are changing this. The high prices charged by industry remain a big challenge towards a full utilisation of ICT services even by many people who already own smart phones.
- 22. Mobile broadband penetration still stands at less than 11% (households) and 8% (business), and according to the International Telecommunications Union fixed broadband in South Africa is at below 10%. Universal broadcasting signal is not available in about 448 rural and remote areas of our country.

- 23. Telecommunication infrastructure by Telkom is limited to 8% of the country's metropolitan councils and it largely covers work usage by government and large companies. Mobile operators such as MTN, Vodacom, Cell C and 8.ta provide high speed 3G broadband/internet services, however the speed of internet reduces to 2G in some rural and remote areas and makes accessing internet untenable.
- 24. On the skills front, many young people from historically disadvantaged backgrounds come out of the Basic Education system never having been exposed to ICTs. This impacts their performance in institutions of higher learning, as well as their ability to adapt and become competent in the use of ICTs. Related to this is that post-school education and training system (colleges and universities) produces graduates that are insufficiently e-skilled, regardless of their chosen profession.
- 25. In addition to general inadequate ICT skills output from our educational system, South Africa has also not invested in developing specialised Research and Development Skills. Yet there is great potential in ICT Research and Development and Innovation that need to be unlocked in order for the country to become globally competitive.
- 26. There remain serious gaps that have constrained the ICT sector's ability to respond to the needs of the people especially the rural and urban poor. Part of the reason behind this, is limited consumer choice due to limited competition in the telecommunications and broadcasting markets, especially the pay TV market. Competition is important for consumers to choose and access their preferred service providers thus fuelling price wars in their own interest.
- **27.** There are several reasons for current state of the ICT sector in the country and these include:
  - a) The lack of a comprehensive National ICT Policy, leading to overlaps and competition within government.
  - b) Institutional misalignment and limited accountability.
  - c) Limited e-skills within the state and society as a whole.
  - d) High turnover, and corporate governance challenges in the key institutions and relevant departments.
  - e) Inadequate funding of projects aimed at promoting universal service and access.
  - f) Failure by the policy and regulatory institutions to enforce compliance with the law.

- g) Limited and misaligned research and development.
- h) Policies are not based on evidence, hence they keeping on changing even before the results can be realised; and
- i) Failure to implement some of the decisions of the previous ANC conferences and the National General Council.
- 28. Our drive towards a new vision of the ICT sector should seek to provide a long-term approach to addressing these challenges. In particular, the sector needs a long-term stability to be in a position to take the country into the next trajectory.

# **Key Issues and Policy Proposals**

# I. National ICT Policy

- 29. To maximise the value of the development of the ICT, and to also accelerate the uptake and usage of the ICT tools, the ANC needs to create a coherent and co-ordinated National Policy Framework and Strategy.
- **30.** The National ICT Policy will:
  - i. promote the provision of universal access to high speed, quality and affordable networks and services to ensure that government, communities; business and all our people become part of the Information Superhighway and the knowledge economy.
  - iiinform the deployment of ICTs across the country national, provincial and local infrastructure. It will also outline the different roles of the state, private and community sectors in achieving this goal.
  - iii. align uptake and usage of the development of indigenous knowledge systems and the revival of the local content industry.
  - infrastructure connecting business centres and households in all areas of the country including in rural areas.
  - v. define ICTs as a basic utility, similar to water and electricity.

vi.set out targets to increase population coverage of high speed Internet access to 100% by 2030. This means that by the determined period, every South African should be within the reach of the ICT infrastructure. More endeavours, including access to receiver

equipment such as computers, are needed to ensure that South Africans can use the available network.

vii.provide for an institutional framework that enhances collaboration, effective planning and oversight.

viii.outline approaches to ICT uptake and usage to promote e-applications in e-government, health, education and fighting crime.

#### **Ⅲ.** Institutional Mechanism

- 31. The institutional framework within government is perhaps the greatest barrier to the emergence of a coherent government strategic thinking, effective planning and deployment infrastructure and services to the people. There is a need for a rethink on how government is organized to discharge its services timeously within the available resources.
- 32. As a point of departure government should develop and retain policy making capacity. A National ICT Forum should be created comprising government and industry to engage on critical issues of mutual interest. Civil society should also be invited to participate in the Forum.
- 33. The following state institutions must be rationalised to address existing overlaps, duplication and undue competition within the state:
  - i Presidential National Commission on ICT (PNC)
  - ii. State Information and Technology Agency (SITA)
  - iii. Office of Chief Government Information Council (GITOC)
  - iv.Government Information and Technology Officers at provincial level
  - v.Broadband Infraco and any other state owned entities in the ICT sector
  - vi. Sentech

vii.Universal Service and Access Agency of South Africa (USAASA)

viii. Media Development and Diversity Agency (MDDA)

ix.National Electronic Media Institute of South Africa (NEMISA)

x. Meraka Institute

xi.Media, Advertising, Information and Communication Technologies Sector Education and Training Authority (MICT SETA)

xii.Fibre Processing and Manufacturing Sector Education and Training Authority (FP&M SETA)

#### Ⅲ. e-skills

- 34. As discussed at the 3<sup>rd</sup> National General Council, e-skills should become a compulsory subject in all public schools to promote an e-literate society. This will also ensure that young people from rural areas are not abused by bogus training institutions in their quest to acquire the much sought after e-skills.
- 35. The curriculum should focus on end-user-computing as well as encouraging young people to pursue careers in the ICT sector. For South Africa to be a leader in the development, uptake and usage of ICTs, the country needs more skills than are currently available.
- 36. Government must also maintain a comprehensive database of the current skills as well as those that will be required in the medium to long term. This would require harmonisation and creation of synergies between public and private sector initiatives.
- 37. Other successful and leading nations have a dedicated university and or universities to develop and produce highly skilled ICT practitioners and experts. Various options should be explored, including developing one of the existing universities to specialise in ICT. Another consideration could be given to making one of the new universities in Mpumalanga or Northern Cape or both of them to be specialised ICT university or universities. All other universities, especially the historically black campuses, must be supported to offer ICT education.
- 38. Further Education and Training (FET) Colleges should also be used as schools of excellence to create opportunities for out of school and unemployed youth. A dedicated funding plan is needed to ensure that rural universities and FET colleges can contribute to the new e-skills revolution. The Skills Fund must prioritize the ICT skills development.
- 39. ICT industry plays an important, strategic role in skills development. As one of the social partners, industry should be encouraged as well as incentivised to create opportunities for young people to receive experiential training. Government must introduce comprehensive e-Skills Development Plan that would include incentives to mobile industry co-operation for the benefit of young people. This must be in place by 2014.

### **IV. Transformation of the industry**

- 40. Our experience in eighteen years of democracy suggests that transformation cannot be achieved overnight, but is a protracted process that is dependent on the strategic vision and leadership provided by the ANC and implementation of developmental programme by its government that are aimed at meeting the needs of our society.
- 41. Transformation of the ICT sector remains weak with Black Economic Empowerment (BEE) policy implemented to a very limited extent due to lack of adequate funding, procurement practices that do not promote black businesses, and absence of a focus on enterprise development. Black companies continue to be left behind in the consistent growth of the ICT market. Whereas the ICT sector was the first sector to undertake steps to transform, much still needs to be done and more new innovative interventions are needed to speed up the pace of transformation in all elements of the value chain in the ICT sector.
- 42. As part of the proposed National ICT Policy vision, the ANC should target completing the ICT sector transformation process by 2030. At the end of this period ownership and control of the sector should reflect national demographics including the increased role and participation of black people, women and persons with disabilities in the sector.
- **43.** The ANC needs to prioritise the following interventions:
  - i. A review of the empowerment targets in all the ICT subsectors and elements of the ICT value chain by 2014. This review will consider whether such targets are appropriate, reasons why they have not been met in instances where they have not been met and what additional considerations should be given with regards to empowerment targets. The review would consider the regulatory and institutional structures overseeing the realisation of empowerment targets. To this end the regulatory capacity will be strengthened to ensure that Independent Communications Authority of South Africa (ICASA) is capable to set and enforce empowerment obligations on the industry.
  - ii. In accordance with a drive towards vision 2030, the ANC should ensure that the empowerment rules apply equally to all entities big and small local and international/multinational. The ANC should ensure that strong preference is given to new companies to access scarce radio frequency resources going forward.
  - iii. The review of the Broadcasting Policy by 2014 should be underpinned also by the policy desire to reduce barriers to entry, especially in the pay TV market. The new policy environment should be

specific about areas that constitute barriers to entry in the entire broadcasting value chain.

- iv. It is ANC policy to support the convergence of technologies and services. However, the regulation of the ICT sector in the converged environment should not lead to the creation of consolidated vertical and horizontal monopolies or to abuse of dominance by the existing operators. Competition rules and regulations dealing with opening the market to competition will be prioritised.
- v. The Universal Service and Access Agency (USAASA) charged with promoting access and universal service in under-serviced areas should be reviewed after over ten (10) years of existence in order to redefine its focus towards increasing the uptake and usage of ICTs.
- vi. A new state entity to provide funding to Small, Medium and Micro Enterprises (SMMEs), Broad Based Black Economic Empowerment (BBBEE), Co-operatives and other Not for Profit initiatives in the electronic communications, broadcasting and postal sector should be created out of the merger between USAASA and the Media Development and Diversity Agency (MDDA) by 2014. The contribution by the industry to the merged entity should be uncapped and should be accompanied by a coherent plan to expend the current allocation.
- vii. The ANC should ensure that endeavours to resource ICASA in line with the decision of the 3rd National General Council should have commenced by the time of the National Policy Conference. ICASA should be self-funding using licence fees, subject to Parliamentary procedures and oversight, by the beginning of 2013 financial year.
- 44. Licensing and use of the Radio Frequency Spectrum, which is a public asset, is another central pillar towards the creation of an industry that is responsive to the needs of all the people. In order to facilitate the diffusion of ICTs across society, licensing of the scarce radio frequency resources should be underpinned by the following factors:

iAlignment of the spectrum allocation and licensing regime with the prevailing social and economic development context, while taking into consideration future needs.

iiEquitable allocation of the frequency spectrum to new licences, including SMMEs, to reduce entry barriers

iiiRequirements and obligations to achieve universal coverage. This should be linked to building regulatory capacity to enforce compliance with the law.

iv.Promote Broad Based Black Economic Empowerment at the minimum of 30% to 50% direct ownership and control of ICT and broadcasting, including the empowerment of women and youth development. This must be achieved by 2020.

- 45. To maximise the value of the scarce or high demand spectrum, government must set aside spectrum for the provisioning of wholesale services or open access network by the merged entity between Sentech and INFRACO.
- 46. This infrastructure must prioritise government services and provide modern communication services to government departments, municipalities, schools, hospitals, clinics, police stations, multi-purpose community centres and courts to ensure that they are connected and can provide e-services to the people. Excess capacity should be geared to further connect rural areas to help achieve full access to high speed internet networks by 2030.
- 47. Government should provide capital to Greenfields operators starting business to provide amenities to under-serviced communities. These entities should also be entitled to a preferential interconnection (asymmetrical interconnection) rate and this should be mandatory.
- 48. The fact that South Africa does not design new innovations in the sector while a lot of money is pumped into the Science Councils is a serious missing link. For the country to position itself as an ICT hub for the continent, it requires high levels of research and development, and innovation, to allow for all manner of new inventions and technologies to emerge.

### **V.** High speed internet infrastructure and services

- 49. It is the responsibility of ANC government to maximise opportunities for all South Africans to benefit from the digital economy by laying firm foundations for digital infrastructure to reach all and sundry. Access to digital infrastructure, or more specifically high-speed internet access, must be considered a basic utility for South Africans.
- 50. Informed by the National ICT Policy, ANC government must introduce a National Broadband Plan. The National Broadband Plan must be revised and reviewed to take into account the proposals herein. The Broadband Plan must provide for:
  - i. A world-class digital infrastructure connecting business centres, households in all areas of the country and people, particularly the poor, in the urban and rural areas is a prerequisite to the introduction of high speed access to modern digital means of communications, work and commerce.

- ii. Affordable quality services that will ensure that the majority of South Africans have access to the internet platforms necessary for them to transact with each other, their government and the private sector.
- 51. To expedite the deployment of high quality services, the National Policy should explore the combination of various reliable technologies such as satellite, wireless, fibre and other emerging technologies. The wholesale services provided by the merged entity between Sentech and Infraco should use these technologies.
- Fig. High demand spectrum that can be used to deliver high-speed services using emerging technologies should be prioritised for assignment to new entrants. This should also encourage the use of emerging technologies that are spectrum efficient to increase competition and provide value for consumers.
- 53. On regular basis government through its regulatory capacity must conduct a review of spectrum usage to determine usage and re-allocation of unused spectrum where necessary. A strengthened competition framework that also addresses the quality and affordability of broadband infrastructure and services should also find expression in the National Broadband Plan.
- 54. The National Policy should also deal with the security of the High Speed Internet Networks (cyber security) to ensure information security, including the protection of vulnerable sectors of society such as children. A national cyber security policy is needed without delay.
- 55. In the light of the drive towards the new policy vision, there is a need to accelerate the endeavour to define needy people in order to address the utility expectations of, amongst others, people with disabilities, children, rural and urban poor. The needy people, clearly defined, should benefit from special subsidies to access and use communication services.
- Public finance through the fiscus and the Developmental Finance Institutions (DFIs) should be set aside to fund broadband rollout as a national priority. There should be clear complimentary interventions between the contribution of the fiscus, DFIs and the merged entity between USAASA and the MDDA subsidising needy people.

### B. RESEARCH, DEVELOPMENT AND INNOVATION

57. The country continues to demonstrate excellence through major ICT and scientific breakthroughs emanating from research and development programmes. There is great potential in ICT Research and Development and Innovation that needs to be unlocked in order for the country to become more globally competitive.

- **58.** Highlights of recent world-class achievements include the following projects of the Department of Science and Technology:
- a)As part of the cyber-infrastructure programme which is implemented by Council of Scientific and Industrial Research (CSIR) in partnership with universities and other science councils, South Africa today hosts the most powerful computer in Africa, which is among the top 500 supercomputers in the world currently at position 329. This facility provide South Africa with enormous capability to perform complex scientific and mathematical calculations that solves real societal problems in the environment and climate change, automobiles, bio-medical sciences and astronomy.
- b)On the social impact side, some ICT Research and Development and Innovation programmes include the Digital Doorway (DD) an innovative, robust computer facility that is deployed in under-serviced areas that members of the community can access anytime of the day to gain computer literacy skills and access relevant information, content and various applications.
- c)A flagship project that demonstrates the use of alternative, cost-effective and innovative technologies and models to deploy broadband infrastructure and services for rural communities is currently underway in Nkangala District Municipality in Mpumalanga. The project uses Wireless Mesh Network technology to connect close to 200 schools and a few other sites. 114 of these connections have been commissioned to the Internet. The project incorporates a business model that promotes local economic development. Unlike with conventional telecommunication network operator model, the Wireless Mesh Network uses the out-of-school youth who show entrepreneurial and technical potential to operate, support and maintain the network in their communities.
- **59.**The above examples illustrate how directed interventions on ICT Research and Development and Innovation can bring about significant socio-economic development. However, to make real impact, the current investment in ICT Research and Development and Innovation need to be increased multiple-fold in order to achieve a critical mass in ICT Research and Development.
- **60.**We need to promote and support development of new ICT Research and Development (R&D) plans and strengthen existing strategies and policies to foster robust, well coordinated institutional arrangements that lead to development of indigenous world-class, technology innovations in ICT through directed national ICT research, development and innovation programmes.
- **61.**There needs to be plans to increase the number of Masters and PhDs students enrolling and graduating in ICT. Over the past few years, South Africa has been graduating between 14 and 35 PhDs per year in ICT related fields. The starting point should be to increase the current ICT PhD

- production by 10 15 fold per year in order to enable critical mass of advanced ICT human capital.
- 62. While ICTs are widely recognised as potent tools and enablers for socioeconomic development, South Africa still lacks adequate competencies, capacity and capabilities and hence the continued reliance on imported ICT products and services. If the status quo persists, the real impact of ICTs on economic growth will not be realised. This because there is enough evidence-based studies that show that the world's advanced economies have achieved their status largely because they have adopted and implemented policies that support technological (in most case ICT) innovation based on strong research and development capabilities.
- **63.**The Science and Technology Department is currently finalising development of a long-term ICT Research and Development and Innovation (RDI) implementation roadmap. The roadmap is being developed in conjunction with CSIR and with inputs of all relevant stakeholders in the National System of Innovation.
- 64.The ICT RDI roadmap, which will encapsulate short, medium and long-term implementation plans, seek to enable increased public and private sector funding for ICT RDI, definition of new, niche and strategic ICT focus areas for directed Research and Development aligned to government priorities, and a growing pipeline of RDI human resources, especially at Masters and PhD level. The roadmap will also provide concrete key performance measures, outputs and expected outcomes.
- 65.High impact national programmes such as the digital switchover will facilitate local and international investments in ICT research and development. As a crucial part of the National ICT Policy research, development and innovation strategies and plans would enable a coherent and increased public and private investment in the ICT by providing mechanisms to forecast technology developments in targeted areas; attracting foreign direct investment (FDI) from ICT multinational companies; and identifying critical areas that must be developed to meet South Africa's socio-economic objectives.
- **66.**Within the framework of the National ICT Policy, South Africa will overcome the "Digital Divide" by leveraging advances in ICT to address socio-economic challenges and thus create "Digital Advantage". Through sound investment and effective coordination of ICT RDI activities, the following conditions will be established:
- a) advanced human capital and strong institutional capacity, enabling critical mass for research in focussed ICT domains:

- b) a flourishing and growing high-tech ICT industry characterised by tight engagement with research communities, as well as fast uptake and promotion of research results and indigenous innovation;
- c) a healthy innovation ecosystem, in which research results flow unencumbered to government and industry to achieve impact in society;
- advanced ICT infrastructure connecting South Africa internally and with the world; and
- e) local content and applications that address local needs and also create export opportunities.
- 67. The investments in ICT RDI must continue to support existing research programmes and enable creation of new ones leading to achievement of ICT Research and Development critical mass through appropriate funding for Research and Development in higher education institutions, science councils and research institutions.
- **68.** The building of research infrastructure; and attraction of foreign direct investment through various incentive schemes that will see large multinational ICT conglomerates setting up research and innovation facilities in South Africa not just sales offices.

### **C. BROADCASTING INFRASTRUCTURE AND SERVICES**

- 69. Various ANC Conference Resolutions and Policy documents capture the vision of a diverse South African broadcasting system owned by the public, private and community sectors and reflective of the cultural, multi-lingual and demographic diversity and unity inherent in our society.
- 70. The ANC has consistently upheld the notion that broadcasting operates at two levels. Firstly, it acts as a means to reflect the rich South African cultural heritage, provides voice to South Africans to participate in democratic dispensation as well as acting as an important platform for community involvement, education and entertainment. Secondly, as part of the ICT industry, broadcasting is an important economic sector that sustains the South African creative industries.
- 71. Since the advent of democracy the ANC has been consistent in developing a policy environment that transforms the media sector to meet the broadcasting needs and wants of all the segments of the South African pollution. To this end television coverage has been extended to reach 92 percent of the population.
- 72. Radio coverage now reaches 95 percent of the population. All official South African languages are now reflected albeit in a limited manner on both

television and radio. The public broadcaster and an array of independent commercial operators provide radio and Television services. All District Municipalities are served by an array of geographic and community of interest stations.

- 73. Despite these achievements much still needs to be done to develop a broadcasting system that caters for all the needs of the South African population because of the inherent challenges facing the broadcasting system and the advent of digital terrestrial broadcasting. Some of the challenges requiring resolution include:
  - i. The public broadcasting system, beset by many structural, managerial and funding problems, needs to be restructured and repositioned to prioritise public service as opposed to the commercial focus that it has displayed.
  - ii. The 51st and 52nd ANC Conference resolutions on funding have not been implemented due in part to the failure to develop a public broadcasting model that is not reliant on commercial programming, failure to cost the mandate as well as different interpretations on the role of public broadcasting in government.
  - iii. The series of crises at the public broadcaster reflect a lack of leadership, lack of accountability and poor management. In confronting the crisis more emphasis has been placed on reporting processes without a corresponding attention to holding those responsible to account for the financial and organisational maladministration that has brought the public broadcasting institution to the crisis.
- 74. Such a situation has prevailed because institutional structures responsible for oversight have not been effective. There has also been an overlap in oversight roles enabling he public broadcaster to forum shop.

# **Key Issues and Policy Proposals**

- 75. The South African Broadcasting Corporation (SABC) must be restructured to prioritise public services in the digital age. As part of this process, the government must, in line with the resolutions of the 52<sup>nd</sup> conference, increase it's funding of the SABC. This must be implemented progressively over a reasonable period.
- 76. Government funding must be ring fenced to be targeted towards public programming such as indigenous languages, developmental and educational programming. In addition to government funding, the SABC requires a long-term sustainability strategy based on a people centred approach to public broadcasting.

- 77. Programming that is supporting education, health, poverty eradication, rural development, crime prevention and other societal priorities are miniscule compared to programming that is entertainment based. Budgets devoted to developmental programming are reflective of the miniscule programming output targeting the developmental agenda. This needs to be revised as a matter of urgency.
- 78. The public broadcasting system should not be allowed to lag behind the commercial sector in terms of technological innovations. In this regard any future strategy of the SABC must position the broadcaster as a leader in the uptake and usage of new technologies including Mobile television and Internet Protocol television.
- 79. A stable corporate governance mechanism is required to provide long-term stability. These include strengthening the SABC's accountability to parliament, shareholder (government) and the public. The public ownership of the SABC is central to its existence and sustainability.
- 80. Significant entry barriers remain in place in the pay commercial broadcasting sector. Regulation of this sector to enforce effective competition has not produced the desired competition. There is a need to relook at the behaviour of dominant players, access to premium content including sports rights and access to critical infrastructure by the competitors in this sector to enable the entry of new Pay TV services during the migration process, and new Free to Air players after switch-over in 2015.
- 81. The commercial broadcasting sector is still dominated by foreign programming even though media consumption patterns have demonstrated beyond doubt the predominant preference of South African content. Local content quotas need to be reviewed for all tiers of broadcasting. Raising the production levels and values of the South African content will in turn require collaboration by the various governmental entities that are active in the cultural creative industries space.
- 82. While broadcasting is delivered through ever changing technologies, it remains a content and cultural industry. In light of this strategic role of broadcasting, the current local content quotas at 55% for SABC 1 and SABC 2, 30% for eTV and SABC 3 and 10% for Pay TV services do not support our long term vision of a diverse South African broadcasting system owned by the public, private and community sectors and reflective of the cultural, multi-lingual and demographic diversity and unity inherent in our society.
- 83. Compared to other countries such as Canada, Australia and Nigeria, South Africa has one of the lowest content obligations in the whole world. Many countries continue to impose foreign content and ownership limitations of the media. In its approach to this matter, the ANC maintains that the broadcasting

- policy review must prioritise national social and economic goals above private interests. In addition, the broadcasting policy must also provide a strategy to fast track the local content development industry. The review of local content quotas must be aligned to this strategy.
- 84. Much still needs to be done to ensure that the community-broadcasting sector is reflective of the communities they serve in terms of directorship, management and programming. There is a need for concerted action to ensure a fair representation of women, the workers, and people with disabilities, children and the aged. Programming offered by the community sector still need to be diversified to cater for the special needs of these strata while also contributing to community development and upliftment.
- 85. The capacity of ICASA to effectively regulate in the public interest still shows limitation occasioned by funding constraints, skills shortage and confusion on the means and ways of achieving effective regulation. There is an overriding need to boost the capacity of the regulator to effective monitor the broadcasters in order to enforce licence conditions and regulations.
- 86. The analogue system of broadcasting must be switched off by 2015 and a digital terrestrial system should be built to replace it. This will require considerable funds to maintain the penetration levels that have been achieved to date. Given its immense public benefits, Digital terrestrial television (DTT) should be treated as a service with wider implications beyond the ICT sector and broadcasting.
- 87. The terrestrial digital way of distributing and accessing the television broadcasting services presents a fresh opportunity for South Africa to realise the policy ends that are defined in the broadcasting environment. There is a need to review the broadcasting system and policy framework in its entirety before 2015, to identify the gaps and barriers that have prevented the realisation of some of the important goals as well as plan for new services. This should culminate in a new forward-looking broadcasting policy to coincide with switchover by 2015.
- 88. Government must ensure that such a review is open to participation by all segments of the South African population and outcomes informed by their needs. As such DTT should be present an opportunity to create a new industry that is owned and controlled by South Africans. The manufacture of Set-Top-Boxes (STBs) should be linked to a long-term vision to manufacture Integrated Digital TVs (IDTVs) for local and external markets. More emphasis needs to be placed on the inter-operability of STBs on both pay TV and free to air to address consumer and competition needs.
- 89. For government to promote a new manufacturing environment, the current tariffs should be reviewed, as they do not protect vulnerable industries. Digital broadcasting should be implemented as soon as possible in order to accelerate

the release the of "digital dividend" spectrum. The International Telecommunication Union recognises that the Digital Dividend is to be allocated to new broadcasting services, wireless services, mobile broadband, public emergency and other services.

90. The broadcasting policy review should create a regulatory framework for satellite services uplinking in the country as well as those that uplink outside our borders. Appropriate public broadcasting obligations should also be imposed on commercial services, Pay TV and Free to Air Services (FTAs) to ensure that public frequencies benefit more than just the owners and operators.

#### D. PRINT MEDIA TRANSFORMATION

- 91. In 1992, the ANC adopted a Media Charter that set out the organisation's commitment to the creation of an environment that promotes media diversity and media freedom. Over the years, the ANC has successfully introduced legislation to promote and protect media freedom. At the same time, various interventions were introduced to promote media diversity. The later include the creation of the Media Development and Diversity Agency to support community media and small commercial media outlets.
- 92. The print sector is still dominated by four big players, namely Naspers, Avusa, Caxton and the foreign owned Independent Group. These companies also dominate the entire value chain of the market especially printing, distribution and advertising. This integration and the very market structure is perhaps the biggest barrier to market entry and potentially shows possible anti-competitive behaviour. Other mainstream media players include the M&G Media and TNA Media. Then, exist a number of small commercial print and community print media, who all face the challenge of sustainability.
- 93. Over the years, the ANC has remained resolute that the media including print media patterns of ownership, management and content must reflect the democratic dispensation ensuring the freedom of expression freedom of expression, which includes freedom of the press and other media; freedom to receive or impart information or ideas; freedom of artistic creativity; and academic freedom and freedom of scientific research.
- 94. We have consistently maintained that the freedom of expression does not extend to propaganda for war; incitement of imminent violence; or advocacy of hatred that is based on race, ethnicity, gender or religion, and that constitutes incitement to cause harm. We have also insisted that freedom of expression which includes the freedom of press and other media does not supersedes human rights and other rights enshrined in the South African Constitution and the Bill of Rights.

- 95. Despite protestations and evident denial, the print media existed for many years as one of the pillars of the apartheid super structure providing rationale and intellectual support to apartheid system. Whatever progressive media fought for the democratisation of society was initiated and linked to mass democratic movement led by the ANC.
- 96. The apartheid patterns and behaviour that treat South Africans in an unequal and discriminatory manner sometimes manifests in some of the conduct of the print media in the content, coverage, distribution, management and opinions. Despite denials, this is natural, such attitudes and practices need to be confronted for the media to be a mirror of the present democratic dispensation. The reality arising out of this situation is that the majority of South Africans do not have media that report and project their needs, aspirations and points of views onto the national discourse.
- 97. Recent reports from the Media Development and Diversity Agency and the Print Media of South Africa indicate that despite changes that have taken place since 1994, regrettably the facts are that the average black ownership in South Africa mainstream print media to date is 14% and women participation at Board and management levels is at the diminutive 4.44%.

## **Key Issues and Policy Proposals**

- 98. The ANC needs to review its own Media Charter to take into regard the developments that have taken place since its adoption, strides that have been made in realizing the rights enshrined in it as well as the emergence of new technologies.
- 99. The ANC remains committed to a media climate that is free from vested political and commercial interests. This has been our guiding principle in all the engagements and ongoing discussions on the media transformation and accountability. Within this understanding, the ANC reaffirms the need for parliament to conduct an inquiry on the desirability and feasibility of a media appeals tribunal within the framework of the country's Constitution that is empowered to impose sanctions without the loss of any constitutional rights.
- 100. The envisaged parliamentary process should reinforce the South African Constitution Act 108 of 1996; review the existing media accountability mechanisms; balance the individual's rights to dignity and freedom of expression and freedom of the media; and review the privacy laws as well as those dealing with libel and defamations.
- 101. The departure point of the ANC is that South Africans must enjoy the freedom of expression in the context of a diverse media environment that is reflective of their situations and daily experiences. Accordingly, the following must be introduced to encourage media diversity:

a)Introduction of an economic empowerment charter to promote Broad Based Black Economic Empowerment in the sector. Amongst others, the Charter should address the availability of print media in the languages South Africans speak and communicate with.

b)Strengthening the MDDA to support more community and commercial entities.

c)The Competition Commission should focus on anti-competitive practices within the sector.

#### E. POSTAL INFRASTRUCTURE AND THE POST BANK

- 102. The postal infrastructure plays a significant role in the socio-economic development of the country. The ANC through its government has over the years pursued efforts to stabilise the Post Office through a range of interventions, including the allocation of financial and other resources for the State Owned Enterprises to meet its obligations.
- 103. The postal network has been expanded to reach 2 400 outlets. The rebalancing of the postal infrastructure to ensure that 1 postal outlet serves a maximum of 10 thousand South Africans. This re-balancing exercise seeks to redress the imbalances between the urban and rural areas of the country.
- 104. Part of the strategy is to achieve universal access, including the rollout of addresses and other services to under-serviced urban and rural areas. Through its massive and extensive network the Post Office act as a pay point for many government services including municipality bills and traffic fines. This contribution helps alleviate backlogs in the delivery of services to the people which is the central trust of our National Democratic Revolution.

# **Key Issues and Policy Proposal**

- **105.** The National Address System should prioritise the rollout of addresses to informal settlements and rural areas to ensure addressability for all households to achieve economic inclusion.
- **106.** The existing government's financial support for infrastructure re-balancing including the rollout of the National Address System should be continued.
- 107. Progress is being made to transform and corporatize the Post Bank as a preferred bank of choice for the poorest people in urban and rural areas. However, more work is needed to establish a sustainable mechanism for the Post Bank. The Postal Infrastructure and the Postbank are needed for

government to deliver services to the people. As such, ownership of the Post Office and the Post Bank by government should be linked to efforts to ensure that the two institutions are sustainable. A State Bank should not only be defined in terms of ownership, but in terms of the services that are delivered by the Postbank.

- 108. To achieve this, government should introduce policy guidelines to direct opportunities to the Post Bank as a bank of first choice of government and a primary platform for government and citizens' transactions. Over the next ten years, the Post Office should continue with the exclusive rights to all letters up to 1kg.
- 109. This is in line with the Postal Licence Act of 1998 which confers South African Post Office (SAPO) exclusive rights and privileges to be the monopoly on the provision of the basic letter service up to 1kg in order "to offset the cost of providing a basic service in low-density, rural or uneconomical areas," as is a common practice globally.
- 110. The challenge however is that the advent of emails and SMS has led to reduction in mail volumes. This has lowered SAPO profitability for reinvestment in under serviced areas and to rollout the infrastructure. Directing opportunities to Post Bank and Post Office will strengthen revenue diversification and provide a viable alternative for offsetting the cost of services to the under serviced and marginalised areas.
- 111. In the view of the ANC, the postal market is not ready for liberalisation. Evidence in the courier market point to local and international courier companies paying more attention to the lucrative urban areas to the detriment of the rural and peri-urban areas who can get services based on internal market cross-subsidization.
- 112. The ANC acknowledges that the decision to protect the exclusivity of the Post office should not compromise the provision of affordable, quality services. ICASA, as a regulator, need to be strengthened with the necessary capacity to regulate the postal market.
- 113. Strengthening ICASA as a regulator also has to address policy gaps to improve postal regulation efficiency and effectiveness in reserved and unreserved postal services. This includes courier services, courier brokers and extraterritorial offices of exchange. Extraterritorial offices of exchange refer to international mail houses sending mail either electronically or physically to entities in South Africa. Of concern are illegal operators and broader transformation issues in the sector.
- 114. Postal infrastructure is important in the ongoing efforts to promote regional integration. National policy should clarify approach to the regulation of cherry picking behaviour of international courier companies. The current practice to

dump international mail on the South African Post Office infrastructure without paying anything has a long-term detrimental effect on the sustainability of the South African Post Office. A policy to curtail this practice should be implemented by government. This will include compliance with the international tariff regime.

115. All three spheres of government must be encouraged to use the South African Post Office. For its survival, the postal market must continue to expand infrastructure that will be used in the distribution network. The connected Community Service Network must also diversify services to integrate online services. To this end the South African Post Office must be supported to accelerate evolution and migration of traditional postal services to e-services using innovative technology platforms and electronic channels.

# F. ICT AND IMPROVING ORGANISATIONAL EFFECTIVENESS AND EFFECIENCY

- 116. The ANC has often been in the forefront of strategies to engage with the reality of the information and communication revolution. It regularly uses research and opinion surveys to aid its elections strategy development, while at the same time emphasising internal communications and discussions through organs such as ANC Today, NEC Bulletin, Umrabulo, and various provincial ANC publications and direct communications (door-to-door visits, mini rallies, sectorial meetings) with its mass base.
- 117. The innovative use of 'new media' was particularly evident during the 2009 elections campaign, pioneered by the ANC Youth League and is one of the explanations for the concerted outreach to young and first-time voters.
- 118. The engagement on the issues of communications remains an important part of ANC organisational strategy, as recognised by the extensive resolution from the 51st and 52<sup>nd</sup> National Conferences. The issue of ICT in the ANC has also arisen in the context of discussions about organisational design and modernising the operations of the movement.
- 119. Problems with the ANC membership system since the re-establishment of the ANC as a legal movement in 1990, have demonstrated the need for a system overhaul. Not only is our membership system inefficient (long waiting periods for membership cards, problems of renewals, etc.), but it also poses a serious risk to the ANC, since the system can easily be manipulated.
- 120. Assessments of the membership system indicate that there are a number of challenges in the 'membership system value chain' that can be classified as information systems and technology problems. In addition to organisational processes and systems, there are a host of other areas, where we have only

- scratched the surface in terms of using information and communication technology to improve organisational effectiveness.
- **121.** For example, the 51<sup>st</sup> National Conference Resolution, reaffirmed by the subsequent national conference and national general councils, called for all ANC regional offices and branches to be connected to the internet, so as to aid internal communications and improve efficiency.

## **Key Issues and Policy Proposal**

- 122. Though some progress has been made, we still have not fully implemented the Stellenbosch Conference resolutions. To date all ANC provincial offices have internet access albeit with slow connectivity. Only four provincial offices have their own website pages, namely: Gauteng, Limpopo, KwaZulu-Natal and Mpumalanga. Northern Cape has encountered problems in setting up their website.
- 123. At this stage there is a problem with the connectivity of regions and only a handful of ANC branches have offices, and communications between upper structures and branches are still very much in the twentieth century (faxes, branch mail slots in provincial and regional offices which must be collected in person, letters delivered by organisers or REC members, etc.).
- **124.** To promote usage and universal access to information and communication technologies amongst ANC members and the citizenry, the ANC should:
  - Advocate for and monitor the achievement of universal access to ICTs, issues
    of affordability and expansion of broadband, through its organisational
    structures and government.
  - b) Ensure that its members are encouraged to understand the advantages of ICTs, and that they empower themselves through attaining e-skills.
  - c) Encourage branches to use ICT in communicating with individual members, including bulk SMS and sending emails on branch and regional activities. In addition the ANC website should be used to communicate with members and the public.
  - d) Develop and expand use of social media to engage with especially younger members.
- **125.** The ANC needs to improve the ANC membership system, learning from other institutions that also have mass membership systems, including:
  - a) Creating a secure online system for applying and paying for membership, as an option for those who have internet access.

- b) A secure SMS based system for applying for and paying for membership as an option for those who have mobile access.
- Immediately improve security of ANC membership system and databases to make them less open to manipulation, especially towards conferences, and consider the use of biometric technology.
- **126.** We should not abandon our wish for connectivity of branches and regional offices:
  - a) "One branch, one connected office by 2015" NGC campaign and programme, with an implementation and funding plan to achieve this must be vigorously pursued.
  - b) Whilst branch offices may serve many organisational functions, branch level connectivity should not be dependent on a physical office. Already many of our members in almost every branch use their cellphones for personal emailing or web browsing.
- 127. We should see technology and ICT in particular as an enabler, not a substitute for traditional organising and campaigning methods. Sending SMSs, emails and other forms of messages to ANC members and voters can be useful, but it should not substitute direct engagement methods such as door-to-door work.
- 128. The ANC should continue to struggle for the sharing and participation of the poor and the marginalised sector of our communities to be active participants and beneficiaries of the opportunities created by the digital economy consistent with the goal of pursuing economic growth, development and redistribution so as to achieve a better life for all which is one of the key tasks of our National Democratic Revolution.
- 129. The ANC needs to strengthen and develop its capacity to stimulate demand to increase broadband usage and uptake by generating relevant content, across different communication mediums and for different target audiences. This includes its online presence, improving its research and monitoring capacity, strengthening forums for ideological and policy reflection such as ANC Today and Umrabulo, and developing writing skills, communications skills, skills relating to website and social media development amongst its cadres and leaders.
- 130. There is a need for a fresh beginning to bring into the fore a coherent framework, an institutional arrangement that enhances collaboration and effective planning and oversight within the ANC and government communication. The current status quo makes it difficult for the ANC to provide necessary oversight and to evaluate and measure communication impact of critical government institutions.

- 131. The ANC needs to develop its own ICT policy and strategy to drive its administrative and political systems. The said ICT policy and strategy must encompass the overall training of ANC staff and leaders starting with the branches. The ANC further needs to strengthen and develop its capacity to manage its own internal IT systems. The IT must have a political champion to drive the ANC ICT policy and strategy including overseeing the implementation. The proper authority regarding the IT should be located within the Communications Unit to champion roll out and connectivity of ANC regions and branches, to develop and strengthen ICT platforms, manage membership system, including managing all conference registrations, and the like.
- 132. Communication is an ongoing exercise that requires continuous interaction and forward and backward engagement. To strengthen the information sharing value particularly since developmental stories do no appeal much to the mainstream media no edition of ANC Today should go on publication without an article from a minister highlighting their department's programme, progress and achievement with regard to the implementation of the ANC's programme of action in government. This must be mandatory.
- 133. The ANC Today should further be a publication of choice for engaging, responding and debating current issues related to and or affecting the ANC. As part organisational discipline leaders of the ANC should desist from discussing ANC issues outside of the ANC structures and forums. ANC Today is one such a forum and original articles generated from it do migrate to mainstream media after serving to educate and inform primarily our membership and support base.
- 134. The ANC's communication machinery and effectiveness as the ruling party is as strong as the ANC government's communication machinery and effectiveness. There is notable weakness in coordinated and streamlined government communications that has resurfaced in recent times which has had a negative bearing on how the ANC communicates and preforms on matters related to governance and service delivery.
- 135. For instance, the ANC government service delivery records are not easily and readily communicated to influence and set the media agenda and thus do not form basis of dinner table and general media and social discussions. This is clearer during service delivery protests when in some instances people burn recently built and or refurbished schools, clinics and public libraries in the protest against lack of service delivery.
- 136. The lack of government communication was also clearly evident during the recent national and local elections when it was left solely to the ANC campaign to highlights the ANC government achievements, contextualise the non-deliveries, where they existed, and still continued to battle for re-election in order to continue pursuing the ANC transformation agenda.

- 137. In a pro-active and coordinated government communication issues of service delivery would not form part of political contest but what the desired future should entail and which political party is best position to take our country forward. The government communication system would have highlighted service delivery and contextualised the challenges.
- 138. The ANC and its government need to strengthen other effective communication methods to reach targeted communities like using community broadcasting and public broadcasting services (radio and print) to highlight government service delivery in the battle of ideas.
- 139. Government communication should reach all citizens and in all languages and Government Communication and Information System (GCIS) should be strengthened in order to coordinate information flow among different departments and among all three spheres of government (national, provincial and local).
- 140. The local government communication should be strengthened through enhanced training programmes and the GCIS should further offer communication support to parastatals and funding development institutions in order to properly profile work of these institutions.
- 141. Our government is one of the biggest advertising spenders. All spheres of government should advertise in the community and small commercial media that produce media in the languages spoken by communities, to assist with media transformation and diversity, and the sustenance and growth of these media.
- 142. In view of the advent of digitisation and new media, government needs to investigate possible options of unmediated government communication systems like bulk SMS and sending emails. The new opportunities provide a paradigm shift in government communications.
- 143. GCIS should support the communication of work done by other public and state owned entities that does not get media coverage. We must use arts and culture to enhance communication and convey the values of our democratic society, e.g. sculptures, murals and other forms of public art.
- 144. GCIS has been in existence for more than ten (10) years, and it may be necessary to review the extent to which GCIS has met the recommendations of the COMTASK including responding to challenges of government communications, agenda setting, empowerment of the citizenry with government information in order for the people to be their own liberators, and supporting efforts to favourable position our country as a preferred destination for foreign direct investment and tourism.

#### CONCLUSION

- 145. South Africa has the potential to leapfrog its development through the adoption of policies and programmes that will over the next decade or so ensure a better life for all its citizens. A coordinated and targeted information and communication technology policy developed by the end of 2012 is one such enabler to ensure that we build the human capacity of all citizens and grow an inclusive economy. The ANC needs to ensure that it advocate and lead in this regard.
- 146. Success in the mass deployment and roll out of information and communication technologies to improve the lives of the South African people can only be realised if the ANC government plays its role of coordinating and directing in a seamless way the many initiatives that are found in the three spheres of government, the governmental agencies, public owned enterprises, private and community sectors.
- 147. Information and Communication Technologies, Communications, Media Transformation and Postal Policies does not exist in a vacuum but it is (and should) always be located within the broader developmental and growth policy context. The ANC policy interventions should always be tailor made to address subjective and objective challenges on the ground.
- 148. While much progress has been made to transform and grow the sector, a lot more still needs to be done to meet the objectives of our Vision 2030. Our approach to this vision, should seek to consolidate the link between the communications policy environment and the broader developmental and democratisation context.
- 149. The ANC's vision for the sector finds expression in various ANC Conference Resolutions and these resolutions reflect a perspective of the ANC over the years, although the evaluation of progress show that implementation has been constrained by our government's capacity to implement the ANC resolutions but they have also been constrained by policy incoherence, high staff turnover in critical departments and business areas, and overlapping and often competing institutions.
- 150. This document provides a framework towards a consolidated National ICT Policy and Strategy that will enable us to use the information and communications technologies in an efficient and effective way to deliver services by government to citizens and business, in transaction between citizens and business, and in public administration for a better life for all.