

- (c) In many places, the draft policy makes categorical statements that a particular result will occur, without providing any policy mechanisms to encourage that desired end state, for example Section 3 on Benefits of Broadband. Furthermore, the policy reads, in many places, like a research paper, and does not take a clear policy position. This weakness will be pointed out at particular points in the comments. A policy should express itself on the policy mechanisms that are envisaged to lead to a particular result, and which may be further elaborated in a strategy. One such mechanism would be establishing the broad policy landscape for competition in the telecommunications sector; another would be the role of effective regulation.
- (d) Effective regulation is an important instrument that can be applied for achieving policy goals. The role of regulation in increasing broadband penetration should be a subject of attention for this policy, as it is highly unlikely that policy and strategy alone will have the desired impact in a complex market, where internationally, public sector-driven broadband initiatives have seen both successes and failures. Regulation is important with respect to licensing, pricing and competition issues, to mention a few.

2 1.1.1 - 1.1.6 Context

- (a) The emphasis on broadband infrastructure in 1.1.1 – 1.1.2 should be an emphasis on *the availability, accessibility and affordability of broadband infrastructure and services*, as the infrastructure is only valuable and can only be used in the manner envisaged ie to promote economic development and an information society if there is widespread access at the household and firm level, for SMEs and large public institutions such as hospitals, schools and universities.
- (b) Thus 1.1.4 is a more appropriate formulation, though it could include availability, as the policy should seek to encourage availability of infrastructure as the basis for models for accessibility and affordability.
- (c) 1.1.5 could include an introductory comment on the perceived value of broadband services in South Africa’s urban and rural areas, thus making the policy introduction contextual to South Africa specifically.
- (d) 1.1.6 The policy aims could be more directed, to be in line with the policy objective stated at 2, for example:
- Promote availability, accessibility and affordability of high-speed broadband in South Africa to meet the needs of firms, SMEs, households and public institutions
- (e) An appropriate timeframe within which government expects to achieve the policy goals (aims) should be stated.

3 1.2 Legislative Framework

- (a) Issue for consideration: The ICASA Act is referred to in the section on legislative framework. However, ICASA is never referred to in the policy. ICASA is an important player, as it will regulate competition, pricing and other relevant matters with respect to broadband. Regulatory instruments are a valuable way of improving the effectiveness of markets and market players; and are fundamental to the licensing of providers.
- (b) Issue for consideration: Is competition legislation relevant to the broadband policy, particularly given that the policy refers to commercial offerings?
- (c) Issue for consideration: Is broadcast legislation relevant to the broadband policy, particularly given that the value of broadband is multimedia including broadcasting?

4 1.3 Definition of Broadband

The definition is appropriately wide, given that what constitutes effective broadband speeds will change as demand for higher speeds increases, based on growth in bandwidth hungry applications and content. This will place a responsibility on suppliers of 'basic broadband', including local, provincial and national government to continuously upgrade broadband infrastructure, services and access models to sustain effective usage of broadband and make good the investment.

5 2 Broadband Policy Objective

- (a) The one missing element from the policy objective, as per previous comment 1, is the reference to *availability*. While availability may be assumed as the basis for accessibility, it should not be assumed, given the history of skewed broadband access in South Africa. The policy objective should explicitly state that government seeks to facilitate availability of broadband, whether it does so through provisioning or through regulation.

5 2.1 To build the information society

- (b) 2.1.2 refers to *availability, accessibility and affordability*. This is an important statement and set of policy parameters, hence, the argument that *availability* should be introduced early in the policy document.

5 2.2 To increase affordability

- (c) The sentence construction 'Various options for the provision and sustained operation of networks that are currently not economically viable ...' may be incorrect. Is the draft policy referring to existing networks that are not economically viable, or is it referring to the provision and sustainability of networks in areas that are not currently economically viable, or both? In many parts of the country, no broadband networks are currently in existence and the policy should address this gap in availability.
- (d) Secondly, the issue of affordability may be distinct from the issue of economic viability. The policy should address itself to the need for regulatory measures to promote affordability, in addition to measures for provision and operation. In fact, despite the sub-heading, this section does not deal with the subject matter of affordability or means to create affordability.
- (e) Thirdly, USAASA is referred to as a collaborating institution, however, ICASA the industry regulator is not referred to as a key institution for achieving the policy objective. The role of ICASA would appear to be an important component missing from the policy. Furthermore, the role of regulation in promoting broadband adoption is generally missing from the policy document.

5 2.3 Increase uptake and usage

- (f) The motivation for government content to be promoted as a lever to attract higher levels of broadband usage is a valid one. However, this section fails to capture other ways of attracting greater usage, for example, public access to broadband in public institutions such as libraries, local clinics, government front offices and other venues where people queue for services, private sector workplaces, commercial spaces, Internet cafes, etc. What would be the best venues for public access in rural areas? Is the idea that village shops and spaza shops would offer broadband access to the local community and that the policy is aimed at ubiquitous broadband Internet access in rural areas, as well as being a means of income generation for small and micro-businesses? This relates to clarifying the particular vision the information society in South Africa.

6 3 Benefits of broadband

This section addresses a number of the issues referred to in the comments above. However, there are a few matters that should receive further attention:

- (a) The terminology 'industrial resource' is inappropriate, as broadband is specifically a feature of 'network knowledge' economies.
- (b) While it is true that broadband has delivered benefits in many contexts, it is not necessarily the case that broadband has always been a driver of development. In contexts with large populations living under conditions of poverty and unemployment, households and communities experience exclusion from the benefits of broadband, even in many parts of the United States of America, and has been extensively documented by eminent scholars such as Manuel Castells. This exclusionary effect of ICT networks in general and broadband networks and services in particular, should be acknowledged in this section. It is proposed that the risks of increasing the digital divide in South Africa through the current commercial-dominant model should specifically be referred to in the policy document. The proposed benefits should explicitly state that the policy therefore aims to reduce the digital divide with respect to broadband availability, accessibility and affordability.

6 3.1 Drive economic development and GDP growth

- (c) There appears to be a contradiction in this section. It is correct that broadband does not **directly** contribute to economic growth, hence the first sentence should be amended to reflect on the potential of broadband to stimulate economic activity – remove the reference to economic growth.
- (d) This section should reflect on the needs of different types of businesses eg large businesses, SMEs, micro-business, stimulating economic activity in rural areas. The current text is limited to SMEs and co-operatives, whereas it could reflect on a wider range of economic activity necessary for economic development and GDP growth. It should reflect on sectors where e-business or e-commerce is already well-established, such as the broad services sector which contributes approximately 69% to GDP. It should further reflect on the needs of particular sectors where e-business is not yet well-developed and where available, accessible and affordable bandwidth could encourage a shift to e-business, for example in the mining and manufacturing sectors, the entertainment sector and creative industries. It should also reflect on emerging sectors such as the business process and knowledge process outsourcing (BPO and KPO) sectors and the value of broadband for bold initiatives to establish call centres such as in Sisonke Municipality in rural KwaZulu-Natal.
- (e) The statement 'Further direct implications will be evident in the development of communities and individuals' is given no foundation in this section and should either be deleted as it does not relate to economic growth and GDP, alternatively the statement should be amended to reflect on the possible stimulus for small-scale local

economic development in urban and rural communities by creating new opportunities for communications.

- (f) The discussion on SMEs and co-operatives should emphasise the value of broadband for gaining access to local markets, as well as global markets, as many SMEs have a local or regional (Southern African) customer base.
- (g) The term 'offset' should be replaced by a more appropriate term such as 'promote' (as in export promotion) or 'sell'.
- (h) This section should give a sense of the South African economic challenge with respect to the relative advantages and disadvantages of doing business from particular provinces or municipalities which are far away from the economic hubs of the major urban centres. It should reflect on how access to affordable broadband is intended to change this current reality. It could also reflect more on how the policy envisages broadband networks and services to encourage South Africa's greater integration into global markets that are very far away.
- (i) As regards reducing the cost to communicate, the policy mechanism for promoting increased competition in the broadband market is not clear. A simple policy statement that competition will drive down cost and that better availability of broadband will increase competition is no guarantee that this desired state will be achieved. The policy mechanisms, including policy support for establishing a competitive broadband market and policy support for regulatory approaches to promoting a competitive market should be explicitly stated, and can then be elaborated in the next section 'Key Priority Areas'.
- (j) Section 3.1.4 is particularly weak in policy terms. The section reads like a research consulting report, rather than a statement of government policy.

7 3.2 Socio-economic

- (k) It should be noted that the claims made for *what broadband can do* in this section are somewhat unrealistic. It is not broadband infrastructure or access by itself that increases knowledge intensity or ICT literacy, or makes electronic textbooks or telemedicine a reality. Knowledge intensity, for example, has been increasing for several decades, while broadband is a phenomenon of the new millennium. All these and other socio-economic advancements occur through a complex mix of factors in processes that increasingly utilise new electronic media – processes such as e-governance and e-commerce and which may lead to e-development. However, if the broad range of resources and skills required for development of an information

society are not available or affordable, then e-governance may fail and e-commerce may be limited to those who can afford these services, whether or not broadband is pervasive. So, even with more available, more affordable broadband, if other contributing factors are absent, socio-economic advancement will not occur.

- (l) Conversely, where Internet access is already a reality, broadband enables e-governance and e-commerce services to be offered or operated at high-speed, with convenience for the user through multi-play services, for example, simultaneous voice, video and data, as well as better quality of multi-media transmission. These new electronic modes of operation can create new business and development opportunities, but they are just that – opportunities to be taken. In this sense, the statement at 3.2.2.1 'Telemedicine becomes a reality via Broadband...' is not appropriate as telemedicine has long been possible in South Africa, but has failed to become embedded in the public health system for many reasons, not only the lack of broadband telecommunications infrastructure.
- (m) Affordable broadband may well encourage greater Internet adoption and usage, a growing Internet user population, but this will also require intermediaries such as Internet café's. It is these intermediary services in particular that the policy should aim to stimulate, namely SME and government provision of broadband Internet access.
- (n) The document should avoid making claims that are easily contestable, thus making the policy appear shallow.

7 Key Priority Areas

Broadband is defined in section 1.3.2 as 'an always available, multimedia capable connection'.

7.1 4.1 Access

- (a) The policy on broadband should have its own statement of definition on the meaning of universal access. It should not refer to a definition from another document or a junior institution to the national department responsible for policy for the sector. The statement on access should also specifically refer to *fixed and mobile high-speed broadband Internet access*. The reason for this is that mobile penetration is already high and can be a catalyst for large numbers of people from all income groups to become Internet users, particularly if interconnection rates are reduced.

- (e) The statement that 'Each citizen in South Africa has a right to have access to basic Broadband' is an important step as it establishes a right in policy. However, it is a weak formulation because the right does not imply that government will take the necessary policy and strategic actions to bring affordable broadband access to citizens within a sufficiently short period to make this right meaningful. In order to strengthen this policy statement, the document could indicate (i) over which period this right will be made meaningful – is it five years, three years (MTEF), or is it with immediate effect ie within one year of the policy being adopted?
- (f) As argued in (a) above, the definition of needy persons should be explicitly stated in the policy document.
- (d) While there may be a concern that a stronger policy statement may place a burden on government, the policy formulation needs to express the responsibility of elected government to provide the *necessary enabling policy environment* for economic and social development, in this instance with respect to broadband telecommunications networks and broadband services. The detail of *how* the policy will be implemented, namely elaboration of the strategies that will be employed, should be left to the strategy document. However, the policy responsibilities of government, ie *what* the policy *is* should be made much clearer than is presently the case. When the aims, objectives and mechanisms of the policy are opaque to the decision-makers, to those required to implement and to the general public, this generally leads to policy failure.

7.2 4.2 Affordability

- (e) The statement that competition will be promoted in the market is welcome. However, the weakness of this policy formulation is that it appears that the policy intends government to decide when competition should be 'applied' in relation to a 'particular market failure'. This is inappropriate in a climate where there has been market failure in the telecommunications market over an extended period with respect to the availability, accessibility and affordability of broadband networks and services. The policy should not require particular government actors to make a decision on competition. It should encourage open competition in the broadband market, with respect to both telecommunications infrastructure and services. This should be the primary policy intervention to extend broadband networks and services as widely as possible.
- (f) Government intervention should relate to what is required to extend availability, accessibility and affordability through its own investments, where effective and open competition still results in lack of affordable access. The policy mechanisms it intends to use should be explicitly stated. While

intervention through state-owned enterprises is established in section 4.4.3, other important policy mechanisms such as the role of regulation are not referred to.

- (g) Sections 4.2.2.2 and 4.2.2.3 would seem to contradict each other. One cannot simultaneously support the idea that subscribers should have a choice of networks (4.2.2.2), while then discouraging 'duplication of telecommunications network infrastructure'. Given rapid advances in telecommunications technologies, it may well be that infrastructure based competition brings advances in technology into the market. Government can support services based competition, but does not need to discourage infrastructure based competition. It can encourage infrastructure sharing (section 4.2.4) without discouraging infrastructure based competition.

7.3 4.3 Usage

- (h) Government can encourage multimedia usage through making its own information available online and through moving certain key process online. This seems to be the idea being raised in section 4.1.3, however it is awkwardly phrased 'Content from departments will be used both for information purposes and as well as e-government service delivery to citizens. This will ensure that education and health facilities have access to Broadband'.

The same issue appears to be raised in section 4.3.1 'Government to take a leadin areas of education and health'. Both these sections are awkwardly phrased and the latter, section 4.3.1 appears to refer to e-government/e-governance. Yet, this is not a policy on e-governance. The major benefits for citizens are not to be obtained from interacting with government online. The major benefits would arise from regular Internet usage for a wide range of social and economic purposes.

The issue here is that, when government places its content and services online, citizens can be encouraged to utilise ICT. Often then, as they become Internet users, people move to broadband in order to experience the benefits of high-speed services. This trend can also encourage citizens to use the Internet for multiple purposes, for example, education, health and commercial services, and to the labour market and other economic opportunities. So when municipal and provincial governments and key national departments such as Home Affairs place their services online, this can promote high-speed Internet use with a range of possible (though not guaranteed) benefits for users.

Finland, a small country by population and size and with a higher per capita GDP than South Africa, has made 1 MB Internet etc a 'right' for all.

7 4.4 Roles

- (i) As regards the roles of provincial and local government, this section of the draft policy document addresses some very important policy issues. It takes a coherent approach to the differing roles of the private, government and SOE sectors. It is clear that the policy is encouraging provinces and municipalities to invest in provincial and municipal broadband networks. It further points to the crucial issue of choice of business model (buy or construct) though there may be other options (public-private partnership, smart investments). It also points to the importance of financial sustainability. Where certain provinces and municipalities are unable to self-provide, for example in municipalities with a low revenue base, the policy would appear to encourage the involvement of SOEs, as per section 4.4.3.

The most important statement in this section, indeed in the draft document as a whole, is the statement 'The state needs to enable competition and assist with services to uneconomical and underserviced areas'. This statement could include a reference to 'assist and regulate', as there are likely to be instances where regulation will be an important instrument. Furthermore, the remainder of the policy document should be in line with this particular view, rather than contradict it.

As the basis for these comments presented here, it is understood that the private sector is highly unlikely to ensure digital inclusion for all South Africans, for poor communities or for needy persons and that it is further understood that the state/government does indeed have a role to play. The argument, however, is that the final policy must take a consistent approach to the roles of the respective parties, not create contradictory stances at various points in the policy.

7 4.5 Implementation

- (i) Section 4.5.1.2 begins to set some broad terms of reference for a Broadband Steering Committee. The section refers to government service delivery and e-government services. It should be noted that these are not the only purposes of making broadband available, accessible and affordable. The purpose of broadband is for firms and households to have access to broadband infrastructure and services for social interaction and economic transactions (which will include government service delivery).

- (j) Section 4.5.2.1 is an excellent point.

8 5 Conclusion

Based on government's response to the range of public submissions on this draft broadband policy document, the authors may wish to revise the conclusion.