Vodacom's written submission in response to the invitation for comments on the

Notice of public inquiry into the state of competition in the Information and Communications Technology Sector

[Notice 229, Government Gazette. No. 37456 of 20 March 2014]

Table of Contents

PART A: EXECUTIVE SUMMARY

Vodacom affirms its willingness to engage in the public inquiry into the state of competition in the Information and Communications Technology Sector (ICT) as initiated by the Independent Communications Authority of South Africa ("ICASA"/"Authority") and remains dedicated to initiatives that are aimed at positioning the ICT sector for growth.

Vodacom is however concerned that the South African ICT sector, while generally regarded as open and flexible, has been subjected to erratic and inconsistent policy formulation and regulation implementation during the past decade. The key to proper growth lies in the government and all organs of state working together within their respective mandates, and consolidating their efforts in order to produce seamless and consistent policies and regulation that is clear and limits legal and regulatory bottlenecks.

In this regard, Vodacom is of the view that the South Africa mobile market is competitive and does not require extensive regulatory intervention. The Authority has not in this Inquiry indicated any market failures in the mobile sector. Vodacom is of the view that ICASA should follow the process set out in the ECA to address any competition concerns in the Industry.

Furthermore, issues raised in this Inquiry are mostly policy issues that should be dealt with under the auspices of the comprehensive ICT Green Paper Policy Review Process undertaken by the Department of Communications ("DoC"). This is also acknowledged by ICASA in stating that "… it may appear that many of these issues are policy matters and that they could be addressed in the ICT Policy Green Paper consultation process".

Vodacom has made a comprehensive submission to the DoC on the draft ICT Green Paper. Thus, to the extent that the issues raised in this Inquiry duplicate those raised in the draft ICT Green Paper, Vodacom reaffirms its written comments as submitted to the DoC. Nonetheless Vodacom submits that evaluation of the state of competition in SA ICT sector ought to be undertaken with an understanding and against the background and context of the performance of the sector. To this end, Vodacom suggests that the overall performance of the sector (and how it compares with similarly placed countries) be evaluated against a number of metrics including the following:

1. Mobile service availability and penetration

South Africa has a vibrant mobile market that has seen rapid uptake since competition was introduced to the sector in the 1990s. Market penetration (by SIM- cards) is well above 100%, driven by, for example, separate SIM cards for voice and mobile broadband services, following the launch of third generation (3G) and LTE services.

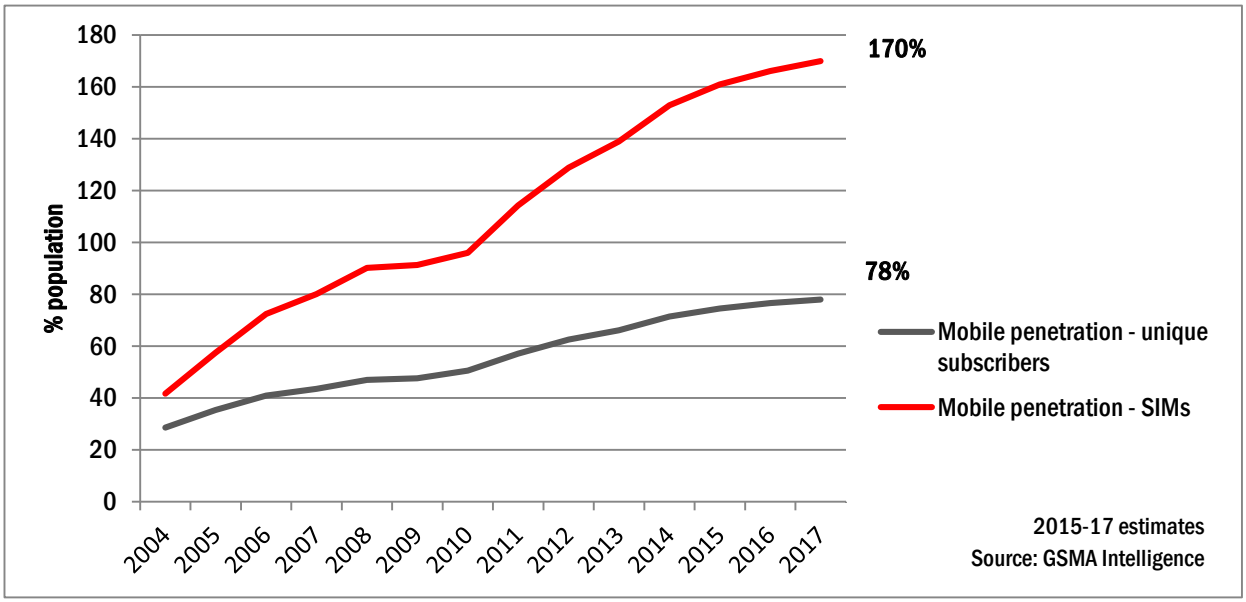
The Government's Report on Twenty Year Review of South Africa (1994 – 2014: the Presidency) commended the performance of the mobile sector in increasing penetration from about 32% in 2001 to over 89% in 2011. Demand for mobile communications services has steadily risen since they were first introduced approximately 17 years ago. As at 2014 mobile penetration stands at between 139% and 146%[1] and is estimated to continue to rise further.

According to the GSM Association (**GSMA**), South Africa's SIM-card penetration equates today to a penetration rate of 71% of the population and by its estimates, in 2017 South Africa will reach penetration rates of 170% by SIM and 78% by unique

[1] GSMA Intelligence and Vodacom Annual Report 2014

subscribers ~~respectively~~. Figure 1 shows the significant and impressive rate of penetration growth over the past 10 years and how it is predicted to continue.

Figure 1: South Africa mobile penetration 2004 – 2017



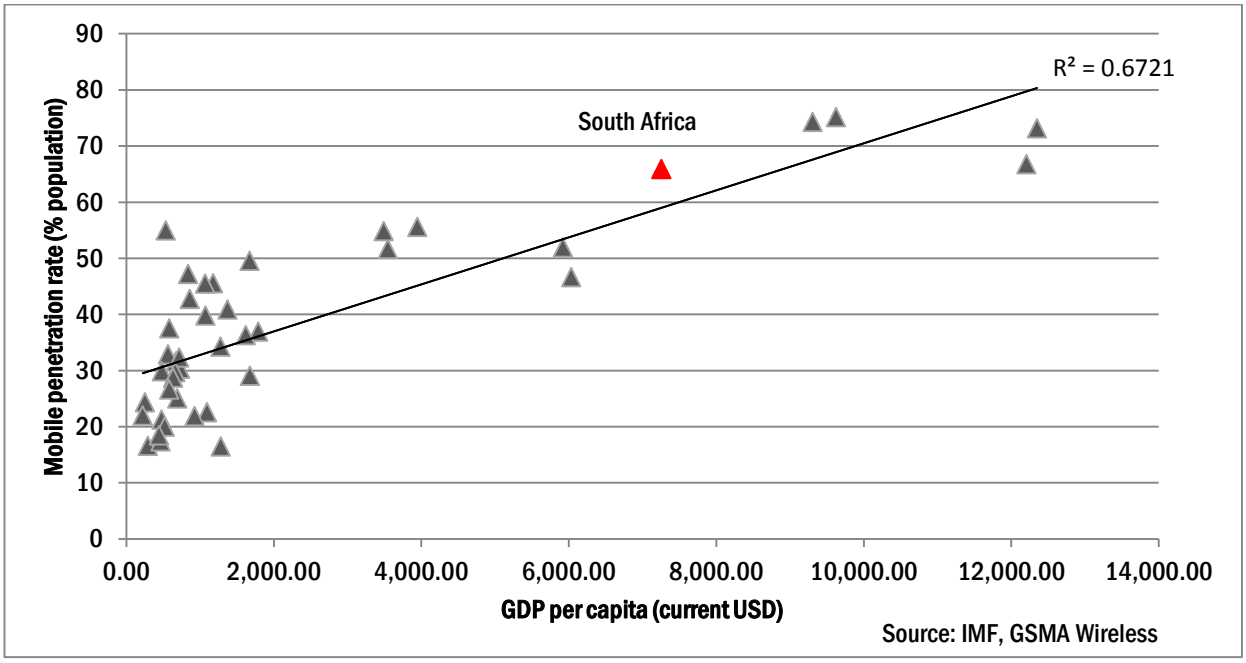
The increase in subscriptions and the high levels of mobile penetration are due to a range of factors, including:

- For many people in South Africa, mobile is a more affordable and practically accessible form of communications than fixed- line services.
- In urban areas, mobile devices and mobile broadband connections are increasingly seen as important business tools.
- It is common for employees of small to large businesses to own and use mobile devices for both personal and a business purposes, or a mobile phone and another mobile broadband data device (such as a 3G-enabled laptop or tablet). The use of smartphones as well as connectivity to the Internet using smartphones has also grown in South Africa.
- Penetration beyond 100% also includes growth attributable to an uptake in Machine to Machine (M2M) products and services.
- Many subscribers have multiple SIM cards in order to take advantage of the best value tariff and promotions.[2]

These factors are certainly present in other countries, but it is informative to note that South Africa is ahead of its peers in terms of mobile penetration. Figure 2 shows that South Africa is ahead of the trend for mobile penetration in relation to GDP per capita.

[2] Deloitte: Second Digital Dividend Final Report and Implementation Plan 2013.

Figure 2: Sub-Saharan Africa GDP per capita and mobile penetration



Countries illustrated: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, DRC, Congo, Cote d'Ivoire, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe.

2. Mobile broadband

In the international context, South Africa is rated number one continental African country and ranked in the top 50% globally in terms of network readiness (how prepared an economy is to apply the benefits of ICT to promote economic growth and well-being) according to the World Economic Forum's Networked Readiness Index 2014:

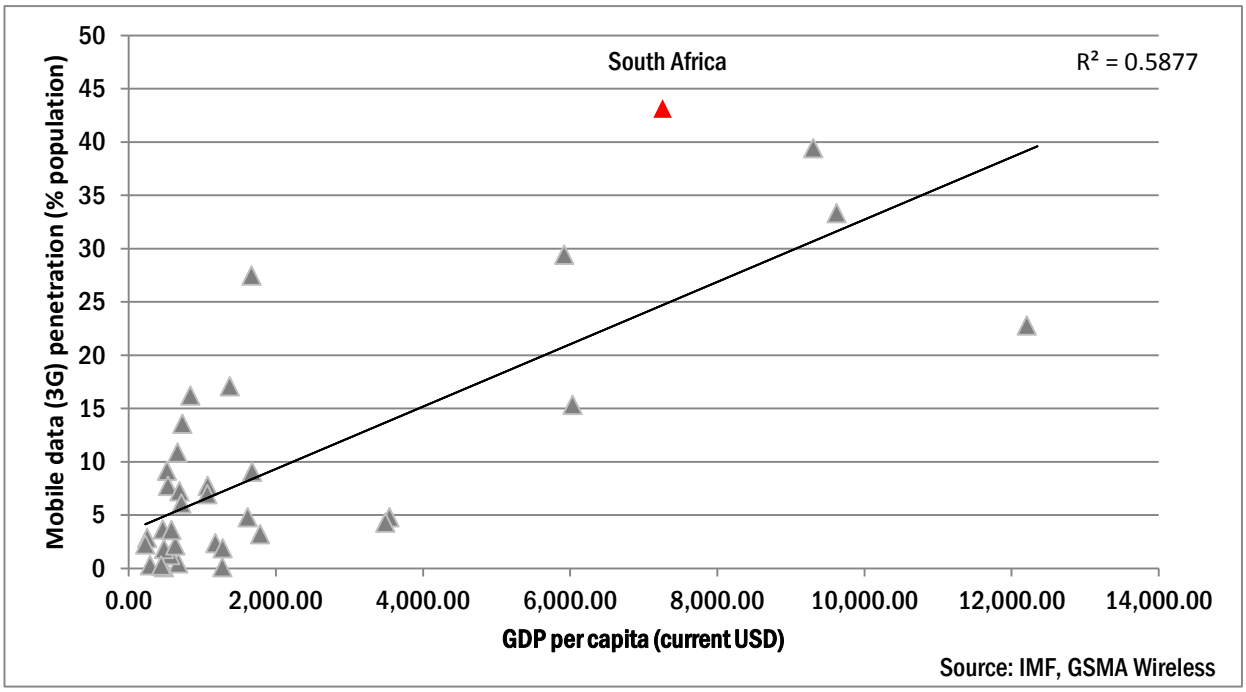
Networked Readiness Index 2014	
1	Finland
	...
69	Brazil
70	South Africa
	...
148	Chad

Research indicates that the mobile broadband sector in South Africa continues to perform well. Over the past 12 months, Vodacom recorded a 23.5% increase in the number of active smartphones and tablets on its network to 7.8 million devices. Further, the average monthly data usage on smartphones increased 81.7% to 253 MB per device and increased 25.2% to 743 MB on tablets.

The significance to the economy of the achievements of mobile voice and data access must not be underestimated. Research by the World Bank has found that a 10% increase in the penetration of mobile services corresponded with a 0.8% increase in GDP

in developing markets. The effect for internet access and broadband is even more dramatic, with a 10% increase in the penetration of these services corresponding with a 1.2% increase in GDP. As economic growth tends to benefit all citizens, there is a double benefit to be enjoyed from policies which promote the take up and use of ICT services. South Africa's achievements in respect of mobile data are remarkable in comparison to its regional peers, as shown in Figure 3.

Figure 3: Sub- Saharan Africa GDP per capita and mobile data penetration



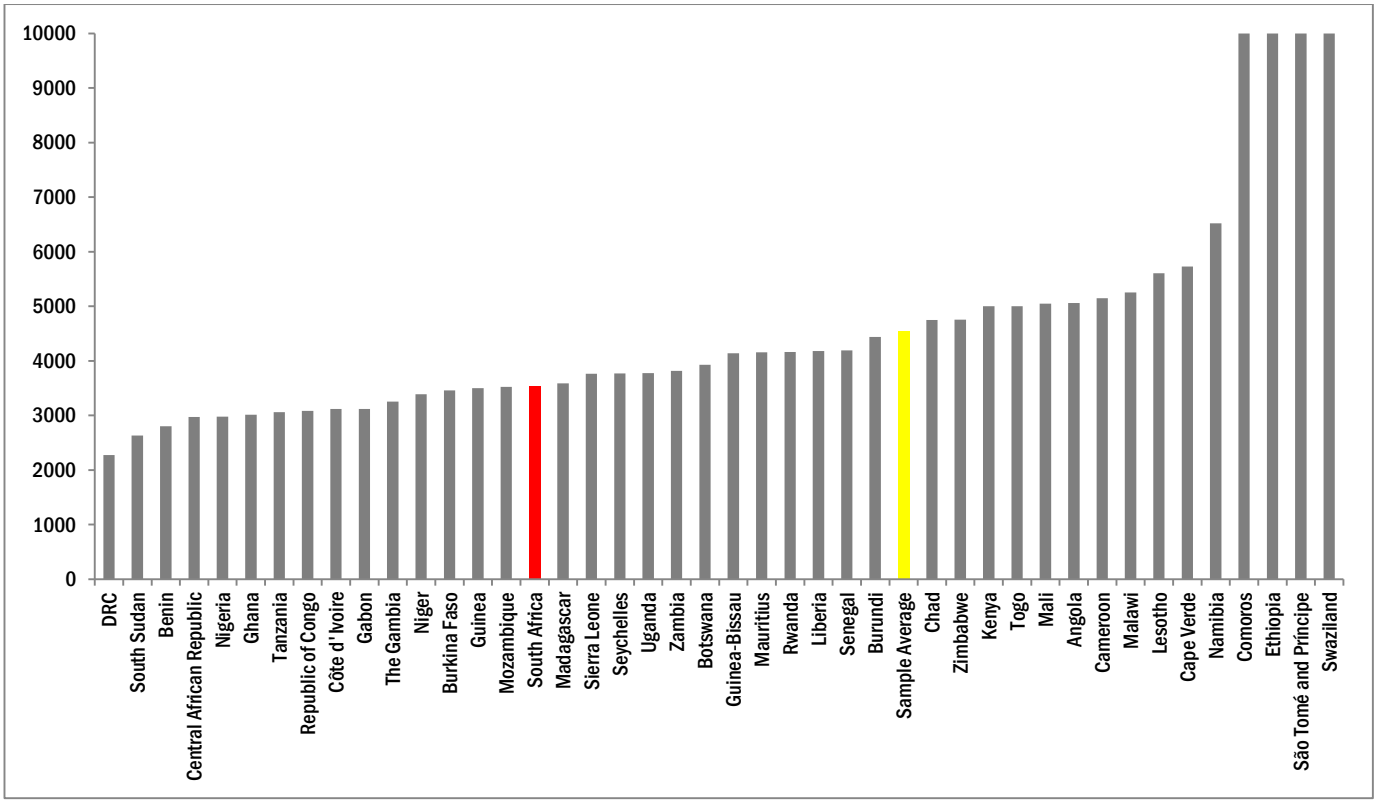
Countries illustrated: Angola, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, DRC, Congo, Cote d'Ivoire, Ethiopia, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritus, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe.

There is no reason to suggest that any of the factors driving these results will lose their relevance in the medium term. As mobile broadband availability and affordability increases, Vodacom expects that penetration of mobile data will increase at an even higher rate.

3. Competition, investment, innovation and market consolidation

Figure 4 shows where South Africa ranks among its regional peers in terms of concentration in the communications sector based on the widely accepted Herfindahl-Hirschman Index (HHI), where the least concentrated markets are indicated by the lowest indicies, and the most concentrated, monopolies, are indicated by an indice of 10000.

Figure 4: Sub-Saharan Africa market concentration – HHI



Source: GSMA Intelligence

Studies on consolidation in the communications market in Europe have shown that the pursuit of "perfect competition" in the market may overlook the benefits of dynamic efficiencies that allow for innovation and investment.[3] Consolidation is a global trend prompted by markets reaching their current levels of maturity. If market players are to continue to innovate and invest there is sure to be some level of consolidation and a consequent increase in the merger and acquisition activities in the sector. Market forces not only affect small cash-strapped new entrants, they also affect long-standing companies. This is due to the worldwide erosion of voice revenues and explosion of data markets which have resulted in competitively tough environments with associated pressures on management to satisfy shareholders' reasonable expectations of return on investment. In particular the EBITDA margins (or to be more precise, real cash profit margins) required to fund ongoing aggressive capital re-investment for data capacity and innovation to differentiate from competitors, where legacy voice revenues are declining are such that market driven restructuring, diversification and convergence may become inevitable for survival.

The Competition Commission has primary responsibility to assess the impact of mergers and other types of market consolidations on market competition in terms of the Competition Act No. 89 of 1998 ("the Competition Act"). Vodacom is of the view that ICASA's concerns relating to the "unprecedented market consolidation" would be well addressed under the competition law regime which equips the Commission to assess the potential efficiencies and their benefits in terms of innovation for consumers,

[3] 'A new European competition policy for growth driven by profitable investments', Ciriani and Lebourges, Orange, 2014; 'Competition Policy and the Innovation Economy', Seabright, Toulouse School of Economics, expected to be published 2014

as well as assessing and addressing any substantial lessening of competition that market consolidation may have in the communications sector and the different market segments.

4. Spectrum

The Authority can assist in realising the deployment of mobile broadband networks through the assignment of additional 'high demand spectrum' suitable for broadband deployment. This would enable mobile operators to roll-out new technology to begin to meet the increasing demand for high speed data services; and help to relieve the serious strain on spectrum currently in use. Coverage and affordability are also promoted through the release of such spectrum. The capital expenditure required to provide mobile data services is approximately 70% less on a km^2 basis using low frequencies (800 MHz) than high frequencies (2100 MHz). Vodacom therefore submits that release of the 'digital dividend' spectrum is a matter of urgency to promote ICT policy that fosters the economic benefits of communication services for South Africans.

Vodacom submits that the assignment of the additional spectrum must enable the country to leverage synergies from existing broadband networks (both private and public sector owned networks), and also be in sufficient bandwidths for broadband technologies to realise their potential for delivering affordable and quality broadband services. **The transformative impact of timely assignment of spectrum on the South African economy is significant, in terms of GDP growth, job creation and government revenues.** The impact of taking unsuccessful policy decisions is as estimated through **Figures 5 to 7**.

In order to achieve the full benefits that mobile broadband competition can afford to South Africans, the spectrum must be assigned in blocks of sufficient bandwidth to enable high-capacity technology to be deployed. Over-fragmentation of spectrum between too many operators reduces the speed and quality that each operator can provide, without introducing any additional benefits in terms of competition. Based on international best practice therefore, Vodacom recommends that the spectrum be assigned in blocks **of 2x10 MHz for the first digital dividend 800 MHz band**, which could be expanded to a total assignment of **2x20MHz per network (three network operators)** or **2x15MHz (four network operators) once the second digital dividend 700 MHz band becomes available**.

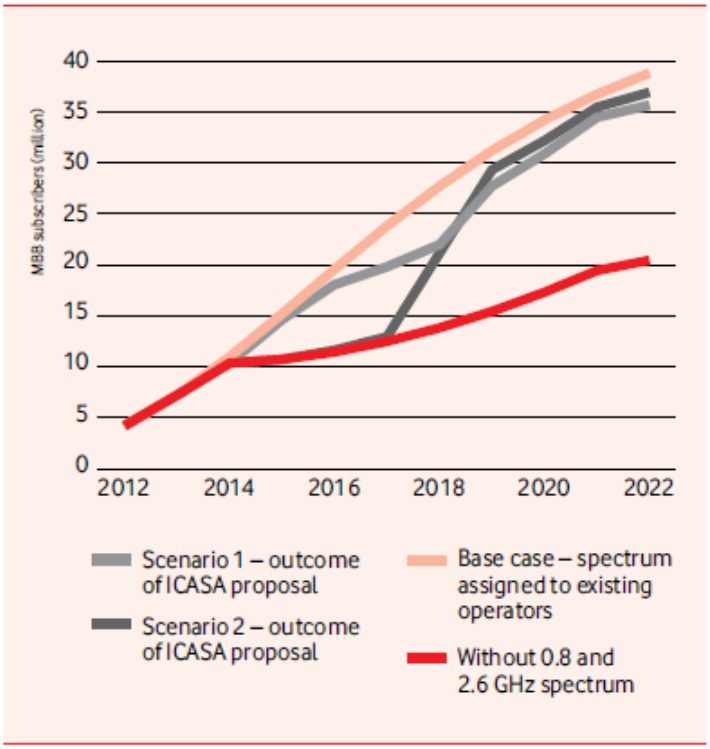
The broader aim of the economic empowerment of the population is best served by extending competitive broadband rollout through sustainable infrastructure-based competition as quickly as possible. An independent policy paper commissioned by Vodafone from the Social Impact of Mobile Panel entitled: 'Spectrum policy in emerging markets' estimates that the increased complexity and likely delays in the assignment of spectrum in South Africa could lead to a loss of up to 1.7% of GDP by 2020. On standard 'jobs to GDP' ratios, these impacts are equivalent to approximately half a million jobs.[4] Figures 5 and 6 analyses the likely impact of ICASA's previous proposals for assigment of spectrum, made in 2011. At that time, ICASA's proposals for the award of the 800 MHz and 2.6 GHz bands involved (a) an increase in the number of mobile networks from four to eight, (b) the award of up to four licences to local businesses with little or no existing infrastructure and/or no retail customer base, and (c) a wholesale model for the only network that could have been operated by any of the existing operators. In the report, Plum Consulting find that the proposals, which would have led to fragmentation of the available spectrum and the award of much of it to inexperienced companies, could have led to increased costs of service provision and/or reduced capacity available to support growth in demand for competitive broadband services. Plum Consulting have analysed the results of two likely outcomes of the 2011 ICASA proposals as shown in Figures 5 and 6.

[4] The Policy Paper Series (Number 15) : Spectrum policy in emerging markets

In the following analysis two scenarios are considered:

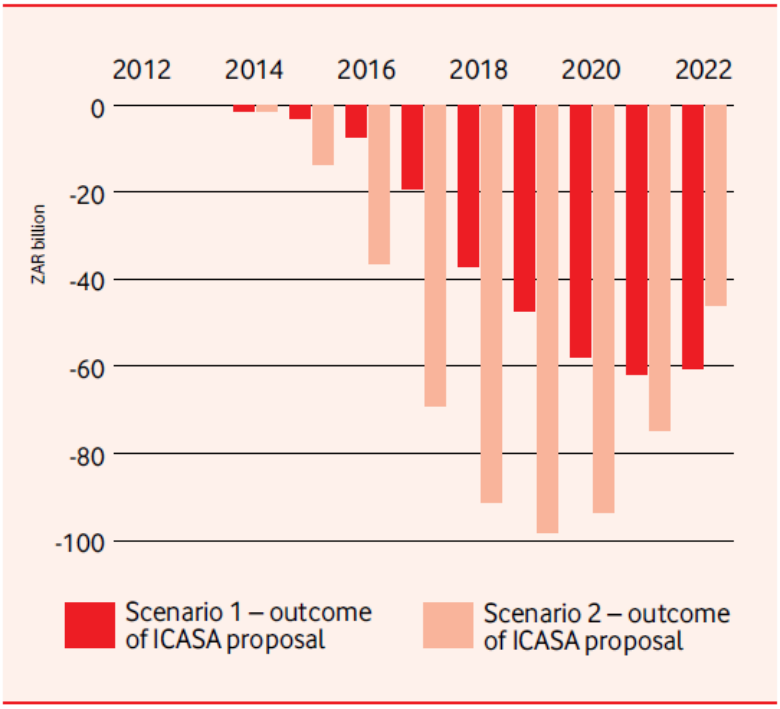
- **Scenario 1**: It is assumed that the new entrants assigned spectrum are reasonably successful in developing their businesses.
- **Scenario 2:** It is assumed that the new entrants fail after several years and the spectrum is assigned to existing MNOs.
- This is compared with the base case in which spectrum is assigned to the four existing MNOs; as well as the outcome of not releasing the 800 MHz and 2.6 GHz spectrum.

Figure 5: Number of mobile broadband users by scenario



Source: Plum Consulting 2014

Figure 6: Loss of GDP relative to base case



Source: Plum Consulting 2014

The economic impact that could be realised by realeasing new spectrum to the current competing mobile operators has also been shown in absolute terms for 2.6 GHz, and the spectrum available from the first and second digital dividends, as stated in Figure 7 below.

Figure 7: Economic impact of spectrum release on the South African economy 2015-2020

Economic impact of 2.6 GHz and DD1 spectrum release on the South African Economy (2015 – 2020)				
Increase in # mobile broadband subscribers	Increase in # mobile broadband penetration	GDP Increase	Additional tax revenues	Additional job creation
+7.6 mil	**+14.3%**	**+US$10.7 billion**	**+US$2.2 billion**	**+1 mil**
Economic impact of DD2 spectrum release on the South African Economy (2015 – 2020)				

Increase in # mobile broadband subscribers	Increase in # mobile broadband penetration	GDP Increase	Additional tax revenues	Additional job creation
+3.7 mil	**+7.0%**	**+US$5.2 billion**	**+US$1.1 billion**	**+488,000**

Source: GSMA Report 2012

5. Pricing and affordability

Vodacom, MTN and Cell C commissioned Strategy Analytics and Pygma Consulting to conduct a study into mobile pricing costs in South Africa. The report titled "Analysing the Cost of Mobile Communications" challenges the long-held view that low-end mobile subscribers in South Africa are paying much higher fees than their counterparts in other counties. The aim of this report was to benchmark South Africa's mobile prices against peer countries which were similar to South Africa.

The research firms selected 10 peer countries similar to South Africa based on demographics, geography, GDP and other relevant factors. Seven different user profiles were then identified which reflect prices from a mobile user's perspective. Mobile prices were benchmarked against the peer countries, with the results taking purchasing power parity and tax levels into account.

The report compared prices based on seven baskets: 4 pre-paid and 3 post-paid (contract) baskets. The baskets ranged from "low-low" pre-paid to "high" post-paid. These seven baskets were broken into two groups – "voice and SMS" and "voice, SMS and data".

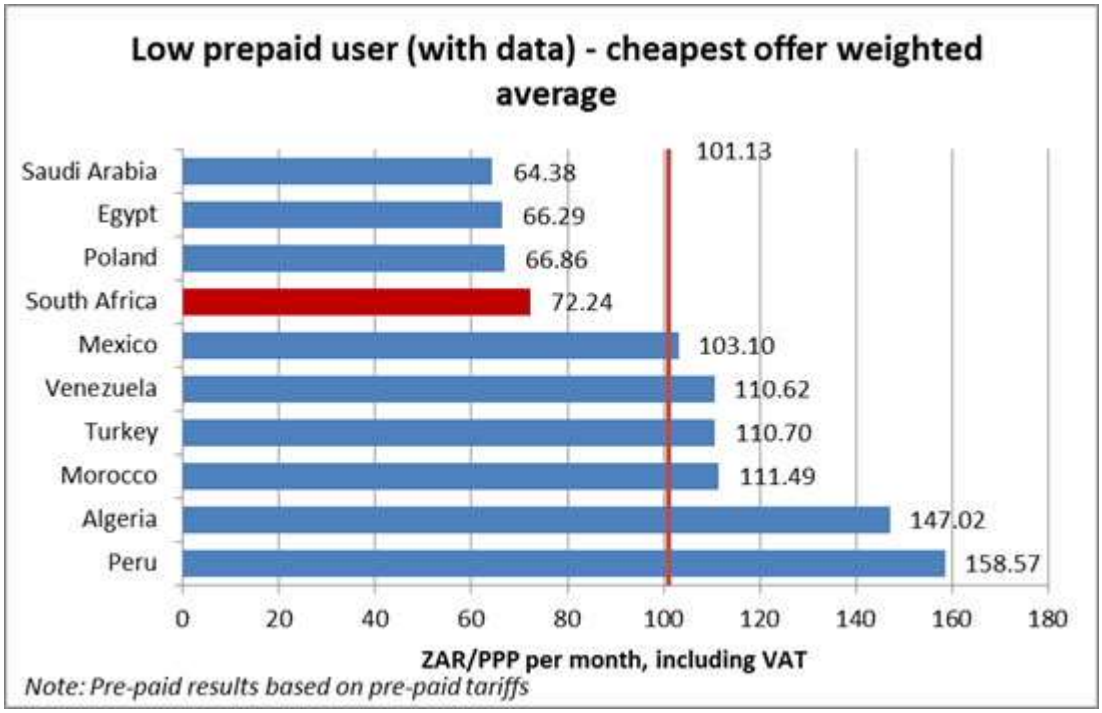
The "Analysing the Cost of Mobile Communications" 2012 report showed that the low-end of the South African mobile market received a very good deal when compared to the selected peer countries.

Figure 8: South African mobile prices benchmarked

South African mobile prices benchmarked				
Basket	**Pre-paid voice, SMS and data**	**Pre-paid voice and SMS**	**Post-paid voice, SMS and data**	**Post-paid voice and SMS**
	Low-income mobile subscribers			
Low-low	65% cheaper	44% cheaper		
Low	29% cheaper	11% cheaper	51% cheaper	38% cheaper
Medium	15% cheaper	5% more expensive	29% cheaper	10% more expensive
High	10% cheaper	23% more expensive	9% more expensive	80% more expensive
			High-income mobile subscribers	

For a low-end ~~prepaid~~ user who wanted to use a use a bundle of voice, SMS and data on a prepaid basis, the results showed South Africa to be well placed among its peers:

Figure 9: Low-end prepaid price packages benchmarked

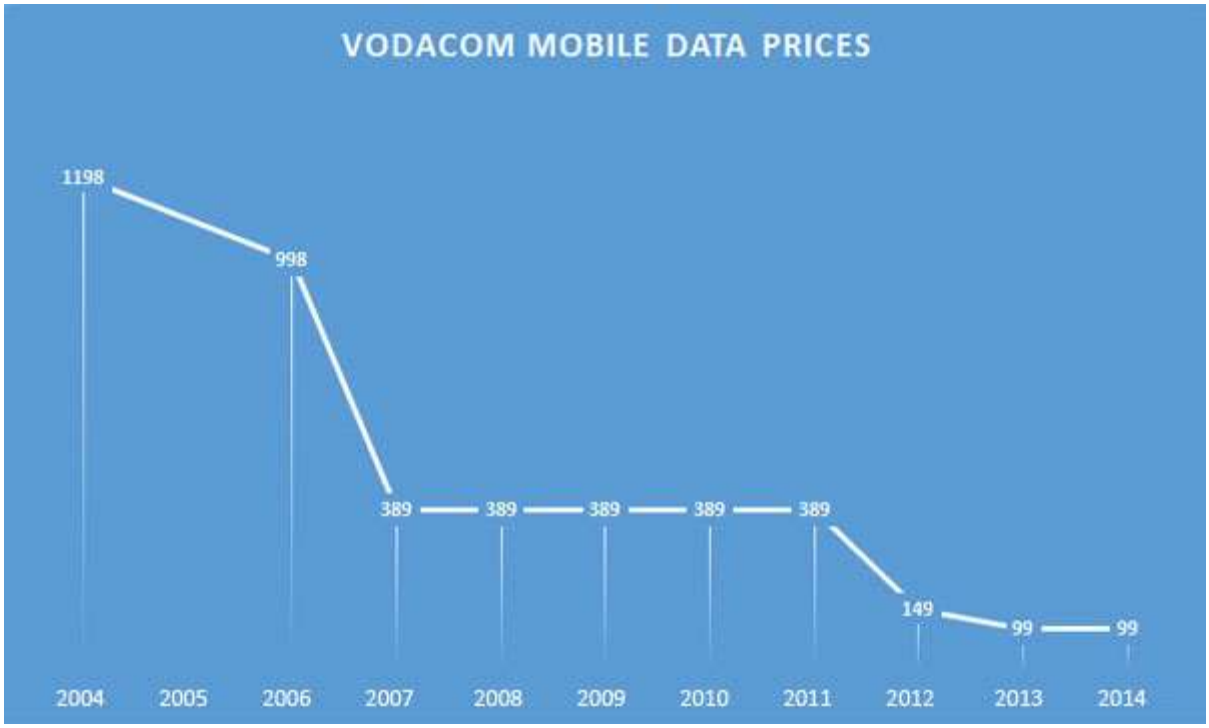


Mobile data prices from 2004 to 2014

Over the last ten years the price of mobile data products plummeted. When Vodacom launched its first 3G products in December 2004 the company charged R1, 198 for a 2GB data package. Ten years later the price for a 2GB package is R99. The price drop in ADSL data is even more significant.

The decrease in Vodacom's pricing for mobile data products between 2004 and 2014 is illustrated in Figure 10 below.

Figure 10: Vodacom 2Gb mobile data prices 2004-2014



Vodacom is of the view that the affordability of devices is one of the barriers to widening access to data services. Smartphones are becoming more sophisticated, extending the benefits of data connectivity, but with higher price tags. Operators need to be innovative in getting these devices into more people's hands. Vodacom has been giving our customers the option of financing a handset over the period of their service contracts, giving them access to the latest devices. At the other end of the spectrum, is the need for affordable devices at the lower end of the market. Vodacom has introduced an Android smartphone at the lowest price yet (under US$50).

Vodacom is committed to making data services more affordable. In South Africa the company is widening the reach of its 3G network to more than 95% of the population over the next two years, making data available wherever voice services are available. Vodacom is investing in being the leader in LTE by doubling its sites in the year ahead. This will enable the company to offer a wide range of data services that cover all our customers' needs.

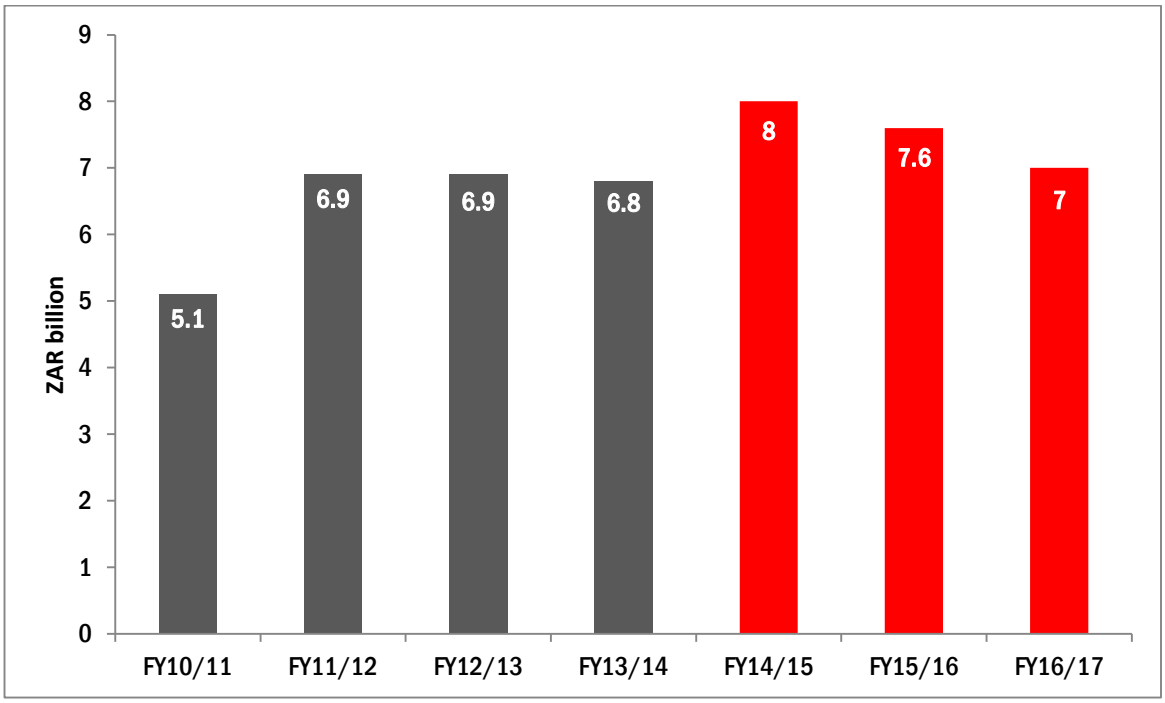
6. Promoting investment

As stated in Vodacom's response on the Draft Green Paper, Vodacom believes that policy and regulation in the sector must be designed such that it attracts, sustains and leverages private sector investment. The levels of growth envisaged by the country's National Development Plan ("NDP") will require extensive investment in network infrastructure. According to the modelling conducted by the HSRC, communications infrastructure investment in excess of US$40 billion is required in order to achieve the SA's goal of100% broadband penetration by 2020[5].

[5] World Band (Infodev): Mobile Usage at the Base of the Pyramid in South Africa (Dec 2012)

Vodacom remains a dedicated investor in South Africa, having invested in excess of R25 billion in communications infrastructure over the last four years with projected investments in excess of R40 billion in the next five years.

Figure 11: Vodacom Investment and Committed Investment in Communications Infrastructure



Whilst Government's Report on the Twenty Year Review acknowledges that South Africa has a relatively good national economic infrastructure network, the challenge is to maintain and expand it to firstly address current demands of the economy and secondly attain the country's vision of 100% broadband penetration by 2020/2030. In light of the capital intensive nature of the sector, and the amount of investment required to attain SA's broadband objectives, Vodacom submits that the regulatory environment should promote and facilitate increased investment as opposed to hindering it. To this end, Vodacom has highlighted the following policy and regulatory measures as critical to create investor certainty and facilitate broadband investment in South Africa:

- A regulatory framework that does not discriminate against against either existing operators – who have existing infrastructure, knowledge of the environment, historical investment and expertise – or new entrants.
- A sound legislative framework that protects investments and addresses concerns raised by local and international investors on the proposed Promotion and Protection of Investment Bill, 2013 ("the draft investment law").
- Guaranteed security of tenure for licensees in the form of extended duration of licence periods (i.e. all individual licences and associated spectrum licences valid for 30 years) - spectrum usage rights that more closely replicate ownership rights lead to higher levels of investment.
- Wholesale market for premium international content to promote take up of communications services. Demand for broadband is fundamental to a positive case for investment in infrastructure and investment will not be viable without the availability of content.
- Implementation of targeted fiscal measures to support broadband infrastructure investment. These measures can include reduction and or removal of import taxes and duties on electronic equipment necessary for broadband roll-out and take-up; reduction of radio frequency spectrum licence acquisition fees; reduction in recurring regulatory

fees (i.e. annual licence fees); etc. in return for a commitment by operators to invest in new broadband infrastructure.

Vodacom's view is that on a number of metrics, mobile communications in South African is achieving positive outcomes for consumers, and that the ICT sector as a whole has potential to grow to greater heights. In order to promote and encourage further growth in the sector, the Authority must ensure that when carrying out its regulatory functions all of the objectives of the ECA are given proper consideration and support.

PART B: SPECIFIC COMMENTS

1 Purpose

The Independent Communications Authority of South Africa ("the Authority") hereby gives notice of its intention to hold high level inquiry into the state of competition in the Information and Communications Technology ("ICT") sector in terms of S 4B(1)(a)of the Independent Communications Authority of South Africa, Act no 13 of 2000.

1.1 ICASA has no powers to formulate policy

Whilst recognizing that ICASA has broad powers to undertake Inquiries in terms of the Independent Communications Authority Act, 2000 as amended ("the ICASA Act"), Vodacom is nonetheless concerned about the competency of the Authority to address some of the issues raised in the notice. It is Vodacom's submission that some of the key issues raised in this Inquiry are policy-centric matters. In this regards, Vodacom is of the view that policy issues should be dealt with as part of the comprehensive National ICT Policy Review undertaken by the government. ICASA has raised issues in the notice that are by their very nature long term policy issues; which in Vodacom's view ought to be dealt with under the National ICT Policy Review process.

1.2 Scope of the Inquiry and Transparency

There is no transparency as regards the scope of this Inquiry. It appears that ICASA has pre-judged that there is a problem with competition. However, it is not clear what this judgment is based on as the Authority has not explained its analytical framework. In the absence of such framework, stakeholders such as Vodacom can only provide input based on speculative assumptions.

2 Background

They have been very slow to modernize local loop infrastructure, even when sharply increasing demand for digital services in 1994 warranted such investments. They have treated the monopoly of local services like cash cows, using cash flow for dividends, share repurchases, acquisitions and lobbying activities rather than for R&D and capital investment in new technology. They have merged with and acquired each other, reducing the total number of large services providers from nine to four since the passage of the 1996 Telecommunications Act. They have deliberately and systematically avoided competing with each other despite making repeated public statements implying that it would be economically rational for them to do so and in some cases despite stating that they intended to do so .And they have engaged in massive, highly coordinated political lobbying, regulatory and litigation activities intended to preserve the status quo. Can parallels be drawn in the South African ICT market?

One of the objects of the Electronic Communications Act, No 36 of 2005 is to promote competition within the ICT sector [object 2(f)]. The Authority is also enjoined to promote and facilitate convergence of telecommunications, broadcasting, information technologies and other services contemplated in the ECA [object 2(a)].

2.1 Comparison of the American and South African ICT market

Vodacom believes that the analogy with the US market is both unfortunate and inappropriate as it disregards South Africa's specific market peculiarities and the level of maturity of the US market. Furthermore it dates back to market conditions in an unrelated regime which was in existence during 2004.

Nonetheless, Vodacom submits that the perception that 'operators have deliberately and systematically avoided competing with each other' ought to be contextualized against South Africa's historical policy and regulatory developments (pre the ECA) which tended to discourage competition within the sector.

2.2 Object of Electronic Communications Act

As regards the objects of the Electronic Communications Act No 36 of 2005, as amended (the ECA), Vodacom submits that the Authority should guard against promoting one set of objectives to the detriment of others. Chapter 2 of ECA contains a broad set of objectives that ICASA has to equally support and promote. Amongst these objectives are encouragement of investment and innovation (section 2(d)); and promotion of stability in the sector (section 2(z)).

Vodacom appeals to the Authority to strike an appropriate balance between all the objectives listed in the ECA when carrying out its regulatory functions. Failure to do this may lead to unintended outcomes. The basic tenants of a free market system are based on the notion that excessive regulation can stifle innovation, directly raise costs, limit investment and ultimately harm consumer welfare.

Therefore, it is Vodacom's submission that whilst it is appropriate for the Authority to focus on promotion of competition in the sector (object stated in section 2(f) of the ECA) it must not do so at the expense of other objectives of the ECA i.e. ensuring stability in the sector (section 2(z)); and encouraging infrastructure investment (section 2(d)).

3 Electronic communications market

Since 2005 there has been considerable flux in the electronic communications network service (ECNS) and electronic communications services (ECS) markets. After the Altech court challenge, there are more than 700 ECNS/ECS licensees, of which 416 are operational.

Vodacom notes the statement made by ICASA above on the number of ECNS/ECS licensees in the market. It is however also important to highlight that only a fraction of these licensees can be regarded as significant players in the market. This is evidenced by the findings of Ovum's[6] Review of the South African Fixed and Mobile market as detailed below:

3.1 Mobile market overview

Four network operators offer mobile services in South Africa: Vodacom (a subsidiary of the Vodafone Group), MTN (a subsidiary of the MTN Group), Cell C (whose majority shareholder is Oger Telecom), and Telkom Mobile (which previously operated as 8ta, a

[6] Ovum : South Africa (Country Regulation Overview) 2013

subsidiary of Telkom). Vodacom and MTN launched their services in 1994 and 1995 respectively, while Cell C launched its service in 2001. Telkom Mobile is the newest entrant, launching in late 2010.

Voice

Voice is described as a saturated market for MNOs with limited growth potential in the current circuit switched data format and all of the MNOs have commenced with LTE investment programmes in order to grow data service

Broadband

South Africa has more mobile broadband subscribers than fixed broadband subscribers; primarily because the country's mobile broadband services are cheaper and faster than its fixed-line broadband services. Industry estimates suggest that the total number of wireless broadband users in South Africa reached approximately 6 million at the end of 2012. Major providers of mobile broadband services include Neotel, MTN, Vodacom, Cell C, and Telkom.

MVNOs

The MVNO market is not regulated in South Africa, and interested service providers are free to offer services by entering into network-sharing agreements with major operators. There are currently two MVNOs in South Africa: Virgin Mobile South Africa (a subsidiary of the Virgin Group) and Red Bull Mobile (owned by the energy drink manufacturer). Both of these operators use Cell C's network to provide mobile services. Virgin Mobile South Africa is a well-established MVNO that has been offering services since 2006, while Red Bull Mobile entered the market in February 2011. At the end of June 2013, Red Bull Mobile and Virgin Mobile South Africa reported 120,000 and 400,000 customers respectively.

In 2012 the mobile voice specialist AppChat announced plans to launch an MVNO service. In June 2013 Cell C announced that it planned to set up an MVNE to aid companies that are interested in launching MVNO services in South Africa. In addition, in August 2013 Orange also announced plans to enter the South African mobile market as an MVNO.

3.2 Fixed market overview

Voice

The South African fixed-line market is comprised of two operators: the incumbent, Telkom, and Neotel, a subsidiary of the Indian telecoms company Tata Communications. Telkom's monopoly in the fixed-line services market came to an end in 2006, when Neotel began its operations as the country's second fixed-line operator. Licensed in 2005, Neotel started offering wholesale services in August 2006. However, it launched retail services only in May 2008 due to the late allocation of spectrum for CDMA-based fixed wireless services. According to International Telecommunication Union ("ITU") estimates, the total number of fixed-line subscribers in South Africa decreased by 2.3% during 2011–12, and the country had 4 million traditional telephone subscribers at the end of 2012. The penetration of fixed-line services in the country stood at close to 7.9% at the end of 2012.

As of March 2013 the incumbent, Telkom, continued to dominate the market, with 3.8 million fixed-line subscriptions, representing approximately 96.2% of the market. Neotel held the remaining 3.8% of the market (0.2 million subscribers). Of Telkom's 3.8 million fixed access lines in March 2013, 83.5% were postpaid, 13.7% were prepaid, and the remaining 2.8% were payphones. Telkom's fixed access lines declined by 4.9% year-on-year (YoY) in Q13 as a result of increased mobile substitution and the use of other technologies such as VoIP.

Broadband

South Africa's Internet market is highly fragmented, with more than 150 Internet service providers (ISPs). By the end of June 2013, the country had 14 million Internet users, which represented approximately 39.0% of the population. Telkom's ADSL subscriber numbers increased by 5.2% YoY, and reached 870,505 at the end of March 2013.

The fixed broadband market in South Africa is still in a nascent stage, with a penetration rate of 2.2% at the end of 2012. According to ITU estimates, the total number of fixed broadband users recorded a YoY growth of 22.1% to reach 1.1 million users at the end of December 2012.

Triple-play

While ICASA has not established regulation for any multiple services, ISPs are permitted to offer triple- play services under the current licensing framework. The major operators that offer these services are Neotel and Smart Village (a subsidiary of media company Naspers), which offer triple-play services to both residential and enterprise customers. In addition to these operators, MWeb (which is also a subsidiary of Naspers) launched a triple-play service in 2011.

VoIP

The VoIP market was deregulated in February 2005, allowing value-added network services licensees (including ISPs) to offer VoIP services. This was in addition to the existing players, Telkom and Neotel, and under-serviced area licensees (USALs). In 2009 geographic number access was made available to all VoIP providers in the country. This allowed operators to provide their customers in different cities with specific access codes, which has helped with the implementation of geographic number portability. The major VoIP providers in South Africa include Telkom, Vox Telecom, Voice & Data, Avoxi, iConnect, and Internet Solutions, a division of Dimension Data.

IPTV

In August 2010 ICASA published a position paper on IPTV and video-on-demand ("VoD") services in which it classified IPTV as a broadcasting service and VoD as an electronic communications service (ECS). As such, any operator planning to offer IPTV or VoD services is required to have broadcasting or ECS license respectively. Telkom announced its plans to offer IPTV services on its fixed-line broadband network in 2013, while MTN South Africa has indicated it intends to launch a commercial IPTV product in 2014.

1 The cost to communicate, competition and consolidation

1.1 The cost to communicate

Despite this profusion, the cost to communicate has not come down substantially and South African consumers pay considerably more than their counterparts in Africa. So there is the problem that the simple equation that increased competition automatically leads to a reduction in the cost of communication has not taken place in reality.

Vodacom is of the firm belief that widely-available, affordable and reliable communications services are a fundamental requirement for economic growth and social cohesion. It is not enough that such services are available, but that they are taken up by the population.

Vodacom is committed to reducing the cost to communicate in all its markets through pricing transformation. In line with the company's strategic pillar of best value for our customers, we offered all of our customers more value through simple, worry-free products and pricing. These include low-cost micro bundles, time-based bundles and bundles that integrate voice, messaging and data.

The migration of Vodacom contract customers to integrated Smart and Red packages continued successfully. These packages offer voice, messaging and data bundles at fixed price points. Vodacom in the current financial year launched the new Top Up (hybrid) integrated plans, uChoose Smart and uChoose Flexi. Again, these new packages contain voice, messaging and data bundles but also allow the companies hybrid customers to enjoy the benefits of prepaid promotions. For prepaid customers, Vodacom launched numerous promotions including Power Hour, Everyday Extra and our new time-based Power bundles, which include very competitively priced voice and data offers. Vodacom's very popular Power Hour bundles, for example, have an effective price as low as 8 cents per minute in South Africa. Vodacom has successfully reduced overall pricing in South Africa by 21.0% offset by strong growth in minutes of use and customers (Vodacom Annual Report 2014).

It is important to point out that Vodacom's pricing transformation isn't coming at the expense of network quality. As part of the company's customer strategy to offer the best network, Vodacom continues to build capacity to support the strong data growth we are experiencing in balance with driving pricing down.

Strategies to reduce communication costs

Vodacom believes that affordability of access will first and foremost be achieved through competitive provision of communications services. The universal provision of voice services in South Africa (and across the world) was achieved largely through competitive provision by mobile operators.

The provision of affordable access to ICT and communication services - especially to rural and marginalized consumers - is influenced by a number of factors including the following:

- Availability of sufficient and appropriate spectrum: it is approximately 70% cheaper on a square kilometer basis to provide mobile data coverage, especially for rural areas, at low frequencies i.e. 800MHz - where networks can be rolled-out quickly and cost effectively - than at 2100MHz. This is due to the significantly reduced number of base stations that need to be deployed and the consequent impact that this has on backhaul and core network requirements. The appropriate licensing of spectrum in the 800 MHz band and lower is therefore critical to the provision of data and broadband services to needy communities.
- A sound regulatory framework for rights of way: streamlining approvals for sites, microwave links, way leaves and rights of way is essential to reduce costs of network roll-out
- Network economics: network investment in low density coverage areas will require cross-subsidization. As 'multi-product firms', mobile operators' incentive to invest in networks that will support future growth of data services (and the greater capacity they require) is inherently influenced by the level of return from current investment. Therefore aggressive regulation of retail and wholesale prices could put future investment in broadband services, especially for marginal areas and needy communities, at risk.
- Infrastructure sharing: according to the HSRC approximately US$40 billion is required to expand the current networks to achieve 100% broadband penetration by 2020.

A non-prescriptive framework for the sharing of infrastructure, particularly in rural and marginal areas, will significantly reduce costs. Greater coverage and lower costs for network build is not the whole picture.

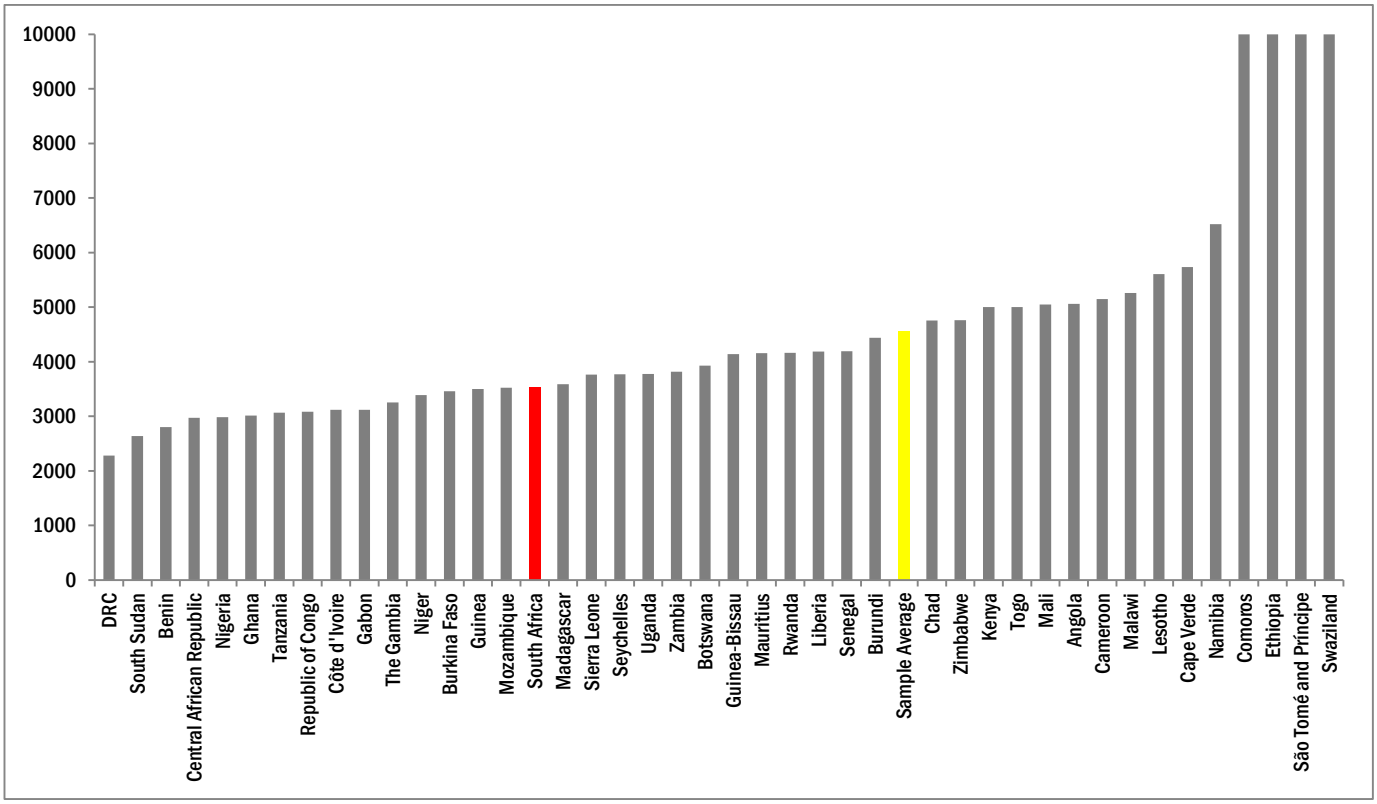
- Stimulating demand for services that make communications more valuable to South Africans is also critical. In Vodacom's view, e-government is critical to communications take-up, particularly of broadband, as well as economic development and empowerment.

1.2 Competition and consolidation

In the mobile communication market, MTN and Vodacom control about 80% of the market and have indicated in public that they are planning to acquire other ECNS/ECS licensees. The Authority is concerned as to the implications of such unprecedented market consolidation on competition and concomitantly, on the cost to communicate, and the digital divide.

Figure 4 shows where South Africa ranks among its regional peers in terms of concentration in the communications sector based on the widely accepted Herfindahl-Hirschman Index (HHI), where the least concentrated markets are indicated by the lowest indicies, and the most concentrated, monopolies are indicated by an indice of 10000.

Figure 4: Sub-Saharan Africa market concentration – HHI



Source: GSMA Intelligence

Studies on consolidation in the communications market in Europe have shown that the pursuit of "perfect competition" in the market may overlook the benefits of dynamic efficiencies that allow for innovation and investment.[7] Consolidation is a global

[7] 'A new European competition policy for growth driven by profitable investments', Ciriani and Lebourges, Orange, 2014; 'Competition Policy and the Innovation Economy', Seabright, Toulouse School of Economics, 2014

trend prompted by markets reaching their current levels of maturity. If market players are to continue to innovate and invest there is sure to be some level of consolidation and a consequent increase in the merger and acquisition activities in the sector. Market forces not only affect small cash-strapped new entrants, they also affect long-standing companies. This is due to the worldwide erosion of voice revenues and explosion of data markets which have resulted in competitively tough environments with associated pressures on management to satisfy shareholders' reasonable expectations of return on investment. In particular the EBITDA margins (or to be more precise, real cash profit margins) required to fund ongoing aggressive capital re-investment for data capacity and innovation to differentiate from competitors, where legacy voice revenues are declining are such that market driven restructuring, diversification and convergence may become inevitable for survival.

The Competition Commission has primary responsibility to assess the impact of mergers and other types of market consolidations on market competition in terms of the Competition Act No. 89 of 1998 ("the Competition Act"). Section 13A of the Competition Act requires firms to notify the Commission of their intention to merge prior to the implementation of the merger.

Merger review under the Competition Act requires the assessment of whether:

- the merger is likely to lead to a substantial prevention or lessening of competition;
- there are efficiencies that outweigh the anti-competitive effects of the merger (where this has been found); and
- the merger can or cannot be allowed on public interest grounds.

In assessing whether a transaction is likely to lead to a substantial prevention or lessening of competition, the Competition Commission ('the Commission') will assess the strength of competition in the relevant markets. The Commission will also look at whether the firms in the market will behave competitively or cooperatively following the proposed transaction.

Furthermore, section 4B(8)(b) of the ICASA Act states that the Competition Commission has primary authority to detect and investigate past or current commissions of alleged prohibited practices within any industry or sector and to review mergers within any industry or sector in terms of the Competition Act.

Vodacom is of the view that ICASA's concerns relating to the "unprecedented market consolidation" would be well addressed under the South African competition law regime which equips the Commission to assess the potential efficiencies and their benefits in terms of innovation for consumers, as well as assessing and addressing any substantial lessening of competition that market consolidation may have in the communications sector and the different market segments.

2 Spectrum

The Authority has heard arguments in various public fora that what is holding back competitive activity in the ECNS/ECS market is lack of access to high demand spectrum and condemnation of first mover advantage preventing many smaller players from gaining market entry as a result. Additional questions are surfacing as to whether the traditional gatekeepers to spectrum are actively and passively ensuring that spectrum remains a barrier to entry, and whether free-riding is being condoned de facto. The questions cannot remain unanswered and arguments cannot subsist unresolved indefinitely. The issue is what role should the assignment of high demand spectrum play in enabling competition, recognizing that the empowerment of historically

disadvantaged people is also a matter of levelling the playing field. Broadcasters do not currently pay for spectrum - is this an unfair advantage in a converged environment or does it offset the cost of local content regulations?

5.1 What role should the assignment of high demand spectrum play in enabling competition?

It is essential that there should be a detailed strategic analysis of how the different policy instruments available to Government fit with the big picture view and direction that the communications industry should follow to address Government's objectives. The assignment of spectrum in the high demand frequency bands presents a key opportunity for the attainment of Government's policy objectives with regards to competition, economic empowerment, investment and ensuring provision of affordable and universal access to communications services and infrastructure, including next generation broadband.

Vodacom submits that it is important to realistically evaluate the effectiveness of any proposed policy instruments. In this regards, it is critical to strike a balance in the manner or extent to which each policy instrument is used to avoid unintended consequences which may prove to be costly for the country. A policy which relies heavily on new entrants and SoCs to achieve extensive national broadband network rollout while restricting existing licensees' ability to grow and invest is unlikely to lead to the most efficient outcome. The huge investment required to deploy mobile broadband networks coupled with uncertain returns from data services makes it difficult and complicated for both existing and new entrants to make a successful business case.

Vodacom believes that the South African mobile market is competitive. As such, Vodacom supports an open and transparent process for the assignment of spectrum that does not favour new entrants or existing operators. A spectrum policy that aims to introduce new entrants must allow existing licensees sufficient space to grow and ensure the country takes advantage of synergies from existing network deployments. This will lessen the burden on new entrants to achieve the challenging broadband targets we all aspire to.

5.1.1 The need for timely assignment of spectrum

The Authority can assist in realising the deployment of competing mobile broadband networks through the assignment of additional 'high demand spectrum' suitable for broadband deployment. This would enable mobile operators to roll-out new technology to begin to meet the increasing demand for high speed data services; and help to relieve the serious strain on spectrum currently in use. Coverage and affordability can also be promoted through the release of such spectrum. The capital expenditure required to provide mobile data services is approximately 70% less on a km^2 basis using low frequencies (800 MHz) than high frequencies (2100 MHz).

Vodacom therefore submits that release of the 'digital dividend' spectrum is a matter of urgency to promote ICT policy that fosters the economic benefits of communication services for South Africans.

Vodacom submits that the assignment of the additional spectrum must enable the country to leverage synergies from existing broadband networks (both private and public sector owned networks), and also be in sufficient bandwidths for broadband technologies to realise their potential for delivering affordable and quality broadband services. **The transformative impact of timely assignment of spectrum on the South African economy is significant, in terms of GDP growth, job creation and government revenues.** The impact of taking unsuccessful policy decisions is as estimated through **Figures 5 to 7**.

In order to achieve the full benefits that mobile broadband competition can afford to South Africans, the spectrum must be assigned in blocks of sufficient bandwidth to enable high-capacity technology to be deployed. Over-fragmentation of spectrum

between too many operators reduces the speed and quality that each operator can provide, without introducing any additional benefits in terms of competition. Based on international best practice therefore, Vodacom recommends that the spectrum be assigned in blocks **of 2x10 MHz for the first digital dividend 800 MHz band**, which could be expanded to a total assignment of **2x20MHz per network (three network operators)** or **2x15MHz (four network operators) once the second digital dividend 700 MHz band becomes available**.

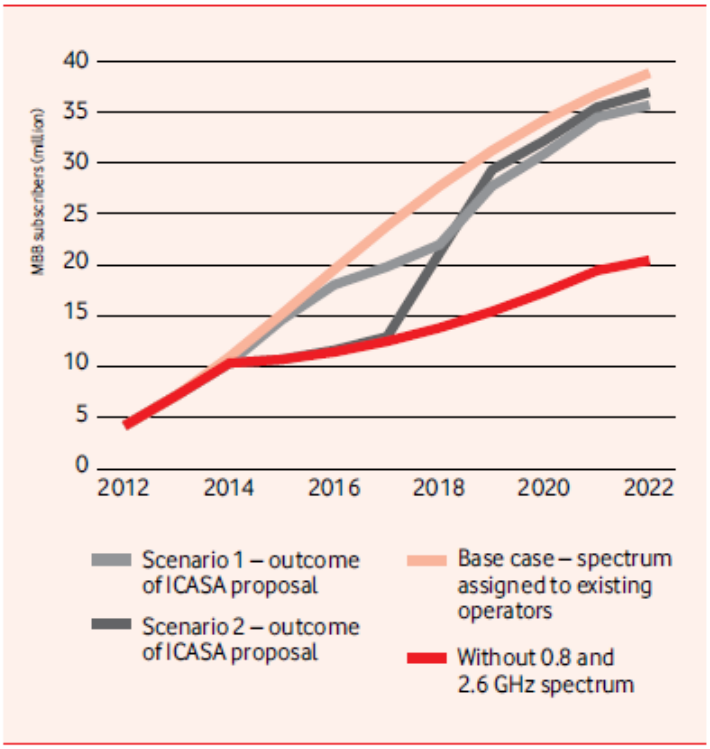
The broader aim of the economic empowerment of the population is best served by extending competitive broadband rollout through sustainable infrastructure-based competition as quickly as possible. An independent policy paper commissioned by Vodafone from the Social Impact of Mobile Panel entitled: 'Spectrum policy in emerging markets' estimates that the increased complexity and likely delays in the assignment of spectrum in South Africa to a large number of new entrants could lead to a loss of up to 1.7% of GDP by 2020. On standard 'jobs to GDP' ratios, these impacts are equivalent to approximately half a million jobs. [8] Figure 6 analyses the likely impact of ICASA's previous proposals for assignment of spectrum, made in 2011. At that time, ICASA's proposals for the award of the 800 MHz and 2.6 GHz bands involved (a) an increase in the number of mobile networks from four to eight, (b) the award of up to four licences to local businesses with little or no existing infrastructure and/or no retail customer base, and (c) a wholesale model for the only network that could have been operated by any of the existing operators. In the report, Plum Consulting find that the proposals, which would have led to fragmentation of the available spectrum and the award of much of it to inexperienced companies, could have led to increased costs of service provision and/or reduced capacity available to support growth in demand for competitive broadband services. Plum Consulting have analysed the results of two likely outcomes of the 2011 ICASA proposals as shown in Figures 5 and 6.

In the following analysis two scenarios are considered:

- **Scenario 1**: It is assumed that the new entrants assigned spectrum are reasonably successful in developing their businesses.
- **Scenario 2:** It is assumed that the new entrants fail after several years and the spectrum is assigned to existing MNOs.
- This is compared with the base case in which spectrum is assigned to the four existing MNOs; as well as the outcome of not releasing the 800 MHz and 2.6 GHz spectrum.

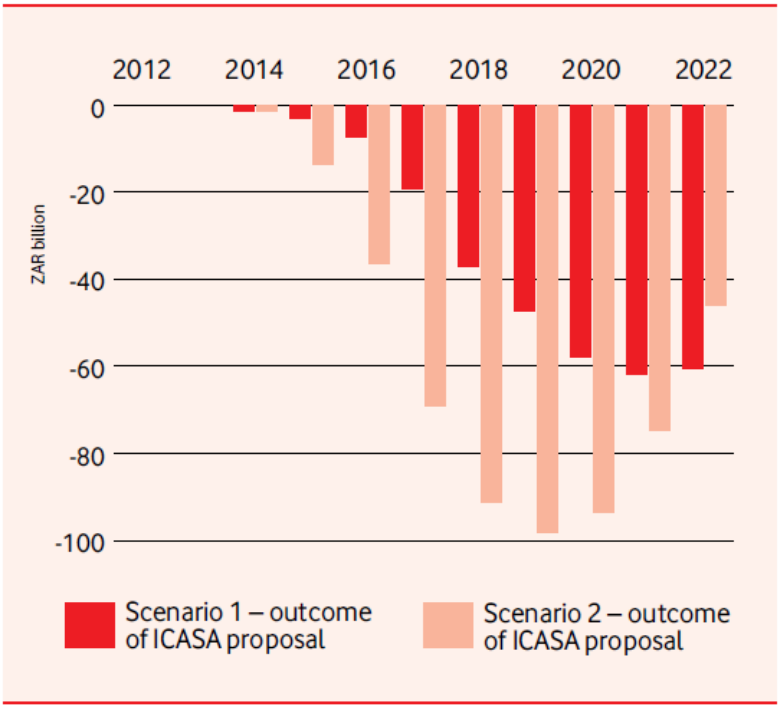
[8] The Policy Paper Series (Number 15) : Spectrum policy in emerging markets

Figure 5: Number of mobile broadband users by scenario



Source: Plum Consulting 2014

Figure 6: Loss of GDP relative to base case



Source: Plum Consulting 2014

The economic impact that could be realised by releasing new spectrum to the current competing mobile operators has also been shown in absolute terms for 2.6 GHz, and the spectrum available from the first and second digital dividends, as stated in Figure 7 below.

Figure 7: Economic impact of spectrum release on the South African economy 2015-2020

Economic impact of 2.6 GHz and DD1 spectrum release on the South African Economy (2015 – 2020)				
Increase in # mobile broadband subscribers	Increase in # mobile broadband penetration	GDP Increase	Additional tax revenues	Additional job creation
+7.6 mil	**+14.3%**	**+US$10.7 billion**	**+US$2.2 billion**	**+1 mil**
Economic impact of DD2 spectrum release on the South African Economy (2015 – 2020)				
Increase in # mobile broadband subscribers	Increase in # mobile broadband penetration	GDP Increase	Additional tax revenues	Additional job creation
+3.7 mil	**+7.0%**	**+US$5.2 billion**	**+US$1.1 billion**	**+488,000**

Source: GSMA Report 2012

5.2 Empowerment and the assignment of spectrum

Vodacom notes that the Authority is required in terms of the EC Act[9] to promote broad-based black economic empowerment as defined and contemplated in the Broad-based Black Economic Empowerment Act No. 53 of 2003, ("BBBEE Act")[10]. It is thus Vodacom's submission that promotion of empowerment is a key factor for the Authority to consider in the assignment of spectrum, particularly in light of the recent amendments to the ECA[11], ICASA Act[12] and the BBBEE Act.

[9] Section 2(h).
[10] as amended by Broad-based Black Economic Empowerment Amendment Act No. 46 of 2013.
[11] as amended by the EC Amendment Act No. 1 of 2014 which came into effect on 21 May 2014
[12] as amended by the ICASA Amendment Act No. 2 of 2014, which came into effect on 16 May 2014.

In terms of the ECA, ICASA Act and the BBBEE Act; the Authority is bound to adhere to the BBBEE Act and the ICT Sector Code in promoting empowerment in the sector.

To the extent that the Authority seeks to deviate from the BBBEE Act, such deviation would have to be approved by the Minister of Trade of Industry. To this end, Vodacom submits that it is appropriate for the Authority to use spectrum as a tool for promoting empowerment in the sector in accordance with the BBBEE Act and associated ICT Sector Code.

5.3 Non-payment of spectrum fees by broadcasters

There is no question that spectrum is a scarce and highly sought out resource. Broadcasters and indeed all participants in the ICT sector need to pay for use of spectrum as assigned if the imperative of levelling the playing fields and maximising the financial benefits from the assignment of spectrum are to be achieved.

Vodacom believes that the exclusion of broadcasters from the payment of spectrum fees goes against the spirit of technology neutrality and convergence espoused in the ECA. Furthermore, there is no basis in law for the Authority to exclude broadcast services from paying spectrum fees. This is even incomprehensible considering that the effort required to process an application for broadcasting spectrum is more intensive than for other spectrum applications.

Vodacom is of the view that the current regime unfairly discriminates against ECNS licensees and also contradicts underlying principles of the Spectrum Fee Regulations i.e. recovery of the cost of managing and monitoring the radio frequency spectrum.

3 Broadcasting market

On the broadcasting side, attempts to introduce competition in the subscription television environment are clouded by challenges faced by Top TV in attempting market entry in the subscription TV market, resulting in its entering business rescue. There is also in the commercial sound broadcasting market a series of attempts by broadcasters to develop economies of scale by acquiring minority stakes in other radio stations or requesting exemptions from the ownership and control regulations. In the free-to-air commercial television market, allegations have been made of unfair competition between subscription TV and free-to-air TV with regard to access to ad spend revenues. Concerns have also been raised by the incumbent TV broadcasters about the Authority's plans to introduce new commercial and community TV services during the digital migration process. Consumers locked in Multichoice contracts are confronted by escalating costs with no relief in sight.

3.1 Competition in the subscription television environment

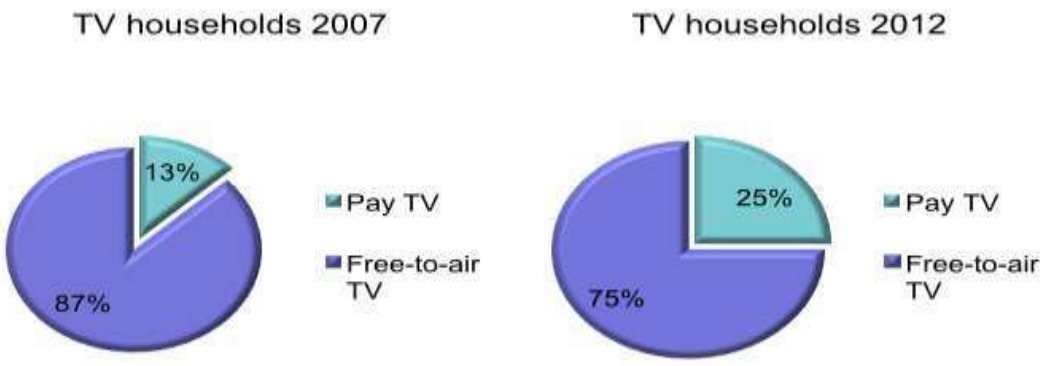
Competition in the broadcasting sector

According to the 2011 Census Data, there has been a significant growth in the subscription television market, ("pay–TV") from 13% to almost double at 25% over the period under review.

The growth of pay-TV may be driven by the lack of multichannel options in the Free to Air ("FTA") terrestrial broadcasting space and new subscription offerings for the lower LSM households.

It is unlikely that the majority of South Africans would want to pay for TV, if presented with options to receive multichannel FTA content and services. The unavailability of FTA digital multichannel services is as a result of delays with the DTT commercial launch programme. Some stakeholders consulted during the primary research phase argued that the prolonged delay on the DTT launch is weakening the FTA growth prospect, leaving the door open for an expansion of satellite based services at what would be deemed an unfair advantage to established commercial players. This is corroborated by the data presented in Figure 13 below:

Figure 12: Television Household - past 6 years

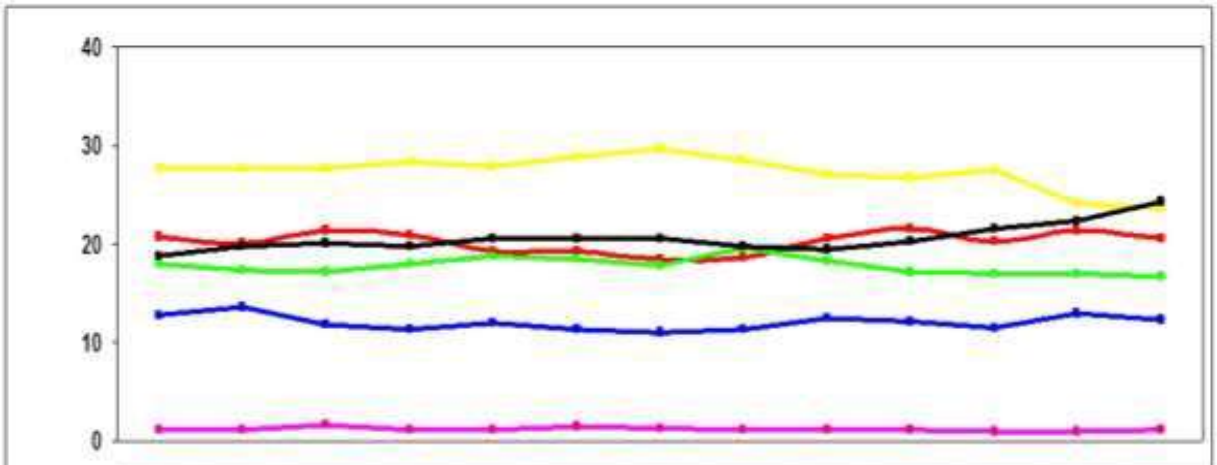


3.2 Access to Advertising spend revenues

From an audience perspective, content and scheduling of content remains key and will always be the prime factor that drives audiences to a specific channel. The DSTV platform is now matching or exceeding the viewership of FTA broadcasters when this data is analysed as a combined viewership figure. When analysing a year on year comparison, it is important to observe how subscription TV has grown over the years.

The month on month growth reveals a solid growth in pay TV to the detriment of what could be interpreted as negative growth for FTA services. This data shows how much the audience is split between broadcasters, and how competition for audiences plays out in the industry.

Figure 13 Channel Audience share month by month Advertising spend and ad revenue in media outlet

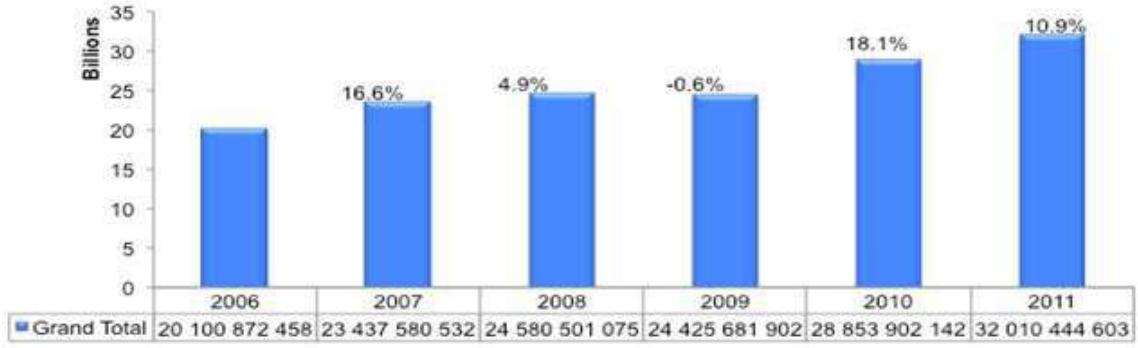


	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12
e.tv	20.7	20.1	21.4	20.9	19.2	19.2	18.5	18.6	20.5	21.5	20.2	21.3	20.6
SABC 1	27.7	27.7	27.7	28.3	27.9	28.8	29.6	28.5	27	26.8	27.5	24.2	23.6
SABC 2	17.9	17.4	17.2	17.9	18.8	18.5	17.8	19.6	18.3	17.2	17	17	16.7
SABC 3	12.8	13.6	11.9	11.3	12	11.3	11	11.4	12.4	12.2	11.5	13	12.3
Mnet	1.2	1.2	1.7	1.2	1.1	1.4	1.3	1.1	1.2	1.1	1	1	1.1
Dstv	18.8	19.8	20.1	19.7	20.5	20.5	20.6	19.8	19.5	20.2	21.5	22.4	24.3

The figure below shows, how, over the past 5 years, media advertising has grown overall providing an opportunity for FTA services advertising revenue growth. Within the context of a forecasted economic outlook for South Africa, it is difficult to predict the same rate of growth for advertising revenues. The SA advertising spend is just over R33bn and an assumption to take conservative view, for flat and possibly negative growth congruent with decline in GDP growth was used[13]. At most, advertising spend is expected to remain at inflation levels of 3.5% due to slow economic growth. The split of media advertising spend data depicted in **Figure 1 4** is informed by the trend followed until 2011.

[13] http://www.statssa.gov.za/Publications/P03014/P030142011.pdfwww.eighty20.co.za.

Figure 14 all media ad revenue



Above the Line (ATL) TV advertising spend (46%) is only 14% higher than that spent on Below the Line (BTL) print media. It can be assumed that when new channels providing good audience ratings are introduced this may result in decline of advertising spend on print media and displacement of spend on ATL advertising.

Television advertising revenue which is linked to subscription (DSTV and MNET) is required to be a minority (less than 50%) compared to subscription revenue. Therefore Multichoice (DSTV and MNET) receive approximately R3.8bn in advertising revenues, whilst the remainder (FTA) broadcasters get approximately 75% (R11.6bn) where this is shared between Etv and SABC. The ad spend split in **figure 15** below, shows how advertising spend is split between media platforms.

Figure 15: All media ad spend

	2006	2007	2008	2009	2010	2011	**2012 E**	**2013E**	% Ad
Cinema	393	359	357	299	351	597	614,91	633,00	1,86%
Direct Mail	136	139	150	151	141	70	72,1	74,00	0,22%
Internet	174	271	384	469	578	752	774,56	797,00	2,35%
Out of Home	1,023	1,16	1,079	1,075	1,231	1,368	1,40904	1451,00	4,27%
Print	8,023	9,161	9,298	8,908	9,428	10,034	10,3350	10 645,00	31,35%
Radio	2,645	2,964	3,344	3,041	3,684	4,503	4,63809	4777,00	14,07%
Television	7,704	9,378	9,964	10,481	13,438	14,683	15,1234	15577,00	45,87%
Grand Total	**20,098**	**23,432**	**24,576**	**24,424**	**28,851**	**32,007**	**32,9672**	**33956000**	

Satellite television (specifically Multichoice) in South Africa has seen a steady growth in terms of market share of total television broadcasting revenue over the past four years. Satellite broadcasting received 65% of the market revenue split in 2012. This can be attributed to an increase in advertising revenue, increase in subscription income, addition of new channels such as HDTV, and investment in new technologies including mobile television broadcasting services.

Using the 2011 Census Data which states that there are 10.7 million households with at least one TV set per household in South

Africa, and with TV licence fees of R250 levied per household, this puts expected TV licence revenue for the SABC, at almost R2.7 Billion. This assumes a 100% collection rate which would in turn provide a significant funding source for the SABC. The SABC however only reported licence revenue of just under R900 Million in 2012. Even with this level of under recovered revenue, the total television broadcasting market has experienced increasing profitability over the last four years.

3.3 The role of premium content in promoting broadband

The demand for fast broadband networks is driven by a demand for content. For this reason, the investment case for wide-spread broadband could be made more attractive in South Africa if wholesale access to premium content was mandated.

It is important that government facilitate local content creation through alternative measures in order to cater for the diverse audiences in the country. South Africa is in a particularly unique position to facilitate local content creation on a sustainable basis due to *inter alia* the fact that the country has 11 official languages and several ethnic groupings with the diverse cultures. This presents an innovative opportunity for small and medium enterprises as well as cooperatives to create and generate content relevant to their respective target audience/s and communities. In addition, new broadcast media providers will be able to make a more sound business case for investment in the absence of local content quotas. To this end, regulators and governments have a critical role to play in incentivizing local content creation through amongst others, ensuring that regulatory barriers are removed or minimized, and incentive grant programs for SMMEs. Implementation of these measures will in addition to stimulating demand for broadband also promote and facilitate economic empowerment of previously marginalized communities.

Furthermore, it is Vodacom view that that the penetration of mobile devices - including mobile TV enabled devices - could do for broadcasting what it has done for mobile communications. It is therefore critical that the policy and regulatory framework for broadcasting services facilitate – and not hamper - the take up and penetration of these devices in the market.

3.4 Exemptions from ownership and control regulations

Limitations on ownership and control should not apply to new broadcast media. The objectives to promote empowerment and competition and encourage investment are not necessarily mutually exclusive policy objectives. Although it is not yet formally documented through research, it is evident that companies derive distinct commercial benefits from having excellent empowerment ratings. Businesses are leaning more favorably to those suppliers that offer a Rand-for-Rand recognition or better for spend values in terms of empowerment.

It is Vodacom's view that plurality of ownership does not in itself hamper freedom to expand or innovate. If anything, such plurality may have a positive effect in promoting expansion and innovation in the sector. In the absence of any proof to the contrary, the presumption that plurality of ownership has an adverse effect on expansion and innovation cannot be sustained.

However, Vodacom cautions that the imposition of ownership and control requirements on new broadcast media (such as IPTV

etc.) is likely to deter non-local investment and thus potentially stifle innovation. Furthermore, it may be impractical to enforce such requirements over new broadcast media. For these reasons Vodacom submits that the ownership and control limitations ought not to be imposed over new broadcast media.

4 Convergence and the Internet

In the arena of convergence, there has been little debate within the ICT sector about the impact of convergence on the way the ICT market as a whole is functioning and restructuring. South Africa's per capita Internet penetration should be much higher and this raises questions as to what the multifaceted problems obstructing Internet growth are. For example, while South Africa's broadband capacity and speed increases over the coming years are also a source of concern, what roles will Over-the-Top services play with respect to competition in the sector? The focus on voice services and termination rates are a distraction since these are supposed to be approaching zero, especially considering the transition to IP. Should the actual focus not be data pricing, considering the need for a sustainable information society? Broadcasters do not currently pay for spectrum - is this an unfair advantage in a converged environment or does it offset the cost of local content regulations?

4.1 Convergence

Impact of convergence on the ICT market

Vodacom would like to acknowledge and commend ICASA for taking a leading role in creating a conducive environment for convergence in South Africa by introducing unified licensing. This has allowed operators to deploy either fixed or mobile networks without technology restrictions, making it easier for operators to offer multiple-play services.

Convergence benefits the consumer in terms of service integration, cost reduction and simplicity. Each convergent solution may have a number of different components, such as the interlinking of computing and other information technologies, media content, and communication networks that has arisen as a result of the evolution and popularization of the Internet as well as the activities, products and services that have emerged in the digital media space.

Converged services, such as VoIP, IPTV, Mobile TV, Smart TV, etc. will replace the old technologies and are threat to the current service providers. IP-based convergence is already taking place and will result in new services and new demands in the market.

The market for converged services in South Africa is mainly contested by mobile operators, fixed line operators and Internet Services Providers ("ISPs"), while media broadcasters are also entering the communications market.

4.2 The focus on voice services and termination rates

Vodacom does not understand or support the statement that "the focus on voice services and termination rates are a distraction, since these are supposed to be approaching zero, especially considering the transition to IP".

This statement is premised on limited understanding of Interconnection, termination rates and the unique requirements of networks in this regard. Voice termination rates and revenues remain important for any operator within the SA market as such technologies and systems supporting SIP / IP need to be cognizant of the manner in which voice traffic needs to be measured,

separated out and accounted for. The question that should be asked on convergence is what measures, if any, the Authority should take to adapt regulations to cater for the change. The future of the internet in South Africa is intrinsically linked to the provision and regulation of broadband. Current assessment estimate that investments worth billions of rands are needed to provide universal broadband services. These investments need to be funded. It is thus ironic that at the same time operators are being prevented and or limited, through intrusive regulations, from making money to invest in infrastructure.

4.3 South Africa's per capita Internet penetration

Vodacom refers ICASA to Figure 3 which indicates that South Africa is far ahead of the trend among its regional peers in terms of mobile data penetration relative to GDP per capita. Vodacom agrees that South Africa's ambition should be to increase the per capita Internet penetration and submits that the best way to achieve increased internet penetration is through a comprehensive broadband policy that leverages private investment and fosters competition.

In under-served and rural areas, competing investment on a commercial basis may not be feasible due to the challenges of covering extensive or difficult terrain and lower expected demand. In these areas, coverage may be assisted through rural roll-out obligations in licenses for new spectrum, commercial network-sharing deals between operators, and targeted public funding for extending backhaul to areas without coverage.

Modelling by Vodacom / Vodafone suggests that if policy levers are applied correctly through national broadband policy, the objectives for universal access can be met more cost-effectively, with lower levels of subsidy than through a universal service fund. It is, however, important to distinguish between universal access and targets for the roll-out of high-speed broadband. There is a place for both, but they should not be confused. Universal access should be funded by public funds if the market cannot fulfil the objective; but high-speed targets for broadband should not.

Vodacom considers that there is a much more credible case for targeted subsidies to meet the objectives for broadband adoption and intensity of usage than for provision of services. Interventions here should be funded by public funds from general taxation, as the benefits deriving from widespread broadband access are related to the society and economy as a whole.

Where public support is required to fulfil universal service objectives, it should be based on a clearly defined set of criteria and must be limited to clearly demonstrated cases where the market cannot fulfil the universal access objectives so that there is no crowding out of private investment.

Vodacom has made detailed submissions on this issue in its response to the ICT Green Paper consultation.

5 Innovation, net neutrality and disruptive technologies

Innovative technologies introduced through dynamic spectrum management are finding ways of accessing artificial restrictions of spectrum. Is it time to introduce them into the market in the short term? How will issues of net neutrality come into play? What are the implications of the current anxieties in the traditional telecom market regarding becoming 'dumb pipes', simple purveyors

of bandwidth? Multiple closed transactions between mobile companies and content developers are taking place outside any regulatory framework, yet broadcasters continue to be subject to strict rules. What roles will new disruptive technologies such as TV White Spaces play in making our ICT sector more competitive? How can more effective competition be introduced in the subscription television broadcasting environment? The mobile sector has effectively moved to an IP platform. What are the immediate implications for the ICT market?

5.1 Innovation

Vodacom would welcome clarity on ICASA's statement and question: "Innovative technologies introduced through dynamic spectrum management are finding ways of accessing artificial restrictions of spectrum. Is it time to introduce them into the market in the short term?" Vodacom would like to understand which technologies ICASA is referring to, how and for what reasons ICASA would seek to introduce them into the market.

In general, innovation of the technology offered by the players in the telecommunications industry is a rapid growth and competition driver. An Economist Intelligence Unit report "Opening up: How R&D is changing the telecommunications sector today" reported that about 64% of global telecommunications and technology firms have had a new rival enter their market with innovative products or services in the past five years. The entry of Apple into the mobile phone market is a prominent example.

As the types of service that can be offered by players are similar, players are required to be creative in services offered to customers. For example, internet speed is a distinguishing factor for many customers, especially business customers. For that reason, Pyramid Research expects that 2G technology will be almost completely phased out by 2015 in favor of 2.5G and 3G technology. The utilisation of undersea cables and the resulting intensified competition to provide quality data services to customers will be drivers in the adoption of 3G and 4G technology. PC penetration is another area of focus for IPSs and mobile operators and package contracts that include a PC, cell phone and data bundles are becoming more common.

South Africa is rated first overall in terms of economic competitiveness out of 38 African countries, according to the Africa Competitiveness Report, which reviews the degree of competitiveness of Africa's economies. The country is rated as being on a par with innovative countries such as India and Brazil, South Africa is credited as having high-quality scientific research institutions, strong investment in research and development, and a significant level of collaboration between business and universities in research.

South Africa is rated as the second most innovative African country, firmly between with Tunisia in top spot and Senegal.

Based on data collected by the Global Competitiveness Survey, the African Competitiveness Report (a biannual report compiled by economic and financial specialists from the WEF, the World Bank and the Africa Development Bank) which assessed and ranked thirty eight African countries closer regional integration is a crucial driver for enhancing competitiveness and for ensuring that the continent delivers on its massive growth promise. The competitiveness report assesses countries on 12 pillars ranging from institutions to innovation. South Africa leads the continent in financial market development, technological readiness, market size, business sophistication and innovation. South Africa's poor education performance, in combination with its labour market efficiency performance, points to a country which is not fully realising its "human resource potential", the report suggests.

5.2 Net Neutrality

Vodacom supports an open Internet, and enables many Internet services to work better over its network For example, Vodacom may improve customer experience of the Internet by making video work better on small screen mobile devices, or prioritise time sensitive services, such as VOIP, over those where some delay does not matter, such as receiving an e-mail. Vodacom is also able to make Internet services cheaper by managing different services across a finite amount of network capacity while maintaining quality. Overly onerous net neutrality rules can restrict these benefits and there is no apparent reason to Vodacom why restrictive regulation would be desirable or relevant in South Africa.

5.3 Traditional Telecoms markets becoming 'dumb pipes'

The converged and net neutral environment, decline of legacy wholesale revenue sources (voice), retail competition and pressures on margins will force the sector to seek out new revenue streams and value added content. To this end, innovative telco companies will be the market leaders; particularly if they want to stave off the threat of becoming a mere bit pipe or "dumb pipe" for other players. A converged and net neutral environment provides new opportunities for growth and innovation, it is up to the operators to either take advantage of the changes or become dump pipes.

5.4 Role of new disruptive technologies (e.g. TV White Spaces) in making the ICT sector more competitive

A disruptive innovation or technology is an innovation that helps create a new market and value network, and eventually disrupts an existing market and value network, displacing an earlier technology. A disruptive innovation will change a whole market. For instance we are seeing the WhatsApp application, with its added value, taking the market away from personal SMS, which has declining traffic volumes and revenues. Sending a one-way message may soon be a thing of the past as Smartphones become more prolific, users more experienced, and the uptake of the WhatsApp or similar instant messaging products continues to be viral or offer further value-added services to the consumer.

The voice market, for instance, has for some time been being displaced by a selection of other means of personal communications, such as SMS, instant messaging, e-mail or even applications (Apps), which might for instance replace telephonic customer services, eliminating the need for the customer to make a voice call to a help centre; an example of this is some of the banking applications. E-mail has replaced letter writing, electronic invoices have replaced mailed invoices, and scanning has replaced faxing. Soon no-one will need a post-box or a postal service except for parcels. Banking branches accommodate customers who do not have access to Internet banking services and have a much-reduced need for customer-facing inquiries, many of these having been replaced by e-mail customer services. The regulator should be able to adapt to the new environment in which it finds itself operating, for instance the regulation of voice termination may become less critical when voice itself is a declining service with several substitute services that are not regulated. Data services, and their underlining facilities, are becoming essential services, without a substitute, to government and business and the population and customers served, so the market for data and the supporting infrastructure providers are perhaps the future regulatory investigations needed by way of market reviews.

TV White Spaces play in an important role in facilitating an economic and competitive environment. They also facilitate the introduction of improved, more economical wireless broadband and Internet services to consumers in areas that are currently unserved or underserved. This could foster a competitive market environment that would encourage further experimentation and innovation. This, in turn, could help to minimize deployment costs and enhance the provision of broadband services, which should lead to better Internet access and the availability of innovative consumer products and services.

The use of these technologies for applications such as rural broadband, wide-coverage hotspots, bridging between small networks, sensor networks and cellular off-loading, all of which would take advantage of these bands' superior propagation characteristics. These new technologies will help to address the capacity and spectrum shortage challenges facing the wireless communications industry.