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RESPONSE TO PROPOSED ICASA FRAMEWORK FOR LICENSING HIGH DEMAND SPECTRUM

The GSM Association (GSMA) thanks the Independent Communications Authority of South Africa (ICASA) for the opportunity to provide comments on the proposed regulation of the mobile market in the Republic of South Africa.

EXECUTIVE SUMMARY

Mobile broadband has the potential to stimulate economic growth and social development in South Africa over the next 15 years. But for this potential to be realised more spectrum is required. The Government of South Africa has already taken an important first step by announcing plans to release 60 MHz of spectrum at 800 MHz and 190 MHz of spectrum at 2600 MHz (the new spectrum) for broadband use.

ICASA has recently published proposals for how this spectrum should be assigned to mobile operators.

We find that ICASA's proposals:

- Are fundamentally out of line with international best practice for assignment of spectrum for mobile broadband use. In particular they propose a mix of direct assessment and beauty contests rather than competitive auctions.
- Would double the number of mobile operators in South Africa - from four to eight. Yet both empirical evidence and theoretical arguments suggest that the best balance between competition and cost efficiency in a country like South Africa is achieved when there are three or four operators.
- Proposes direct assignment of spectrum to entities which have a poor track record to date in using spectrum efficiently.
- Are likely to lead to limited and inefficient use of new spectrum by entrants who have little or no expertise in providing mobile services and have limited access to capital markets to make the substantial investments required
- Would assign a substantial proportion of the new spectrum to two wholesale-only operators. A wholesale-only model may have merit in terms of generating economies of scale in the provision of radio access networks. Unfortunately the ICASA proposals failed to capture this effect, while retaining the main disadvantages of such a model - in terms of limited innovation and limited opportunities for product and price differentiation.

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BASE CASE AND SCENARIOS

Based on this analysis, we have developed a base case (based on international best practice) and two scenarios for the likely outcome of the ICASA proposals.

The base case (in-line with international best practice)

The four existing operators are assigned the 140 MHz of new FDD spectrum, either by auction or beauty contest, and use it to increase mobile broadband capacity and improve in-building coverage on their urban networks. TDD spectrum, including the 50MHz at 2.6 GHz continues to be used for fixed broadband. The four operators each re-farm their existing spectrum holdings for mobile broadband as follows:

- 2x5MHz at 900MHz
- 2x10MHz at 1.8GHz
- 2x10MHz at 2.1GHz.

We assume that the four operators have a total of 19,000 base stations (BTS) with 8,500 BTS deployed in urban areas in 2010. The number of BTS increases to 24,000 by 2014 in line with the current network roll-out plans of the existing operators and then increases at 2% per annum in the following years.

Scenario 1 - ICASA proposals implemented and there is significant entry by new licensees

This scenario develops as follows:

- The "no retail" obligation in ***Package 1*** is dropped, following objections from the existing operators, and one of the two biggest existing operators acquires the spectrum and offers it on a wholesale basis to all operators including itself. Negotiation of wholesale arrangements delays launch of services using this capacity until the beginning of 2015 (ie roll out of LTE at 2600MHz is delayed compared to the base case).
- ISP A launches mobile broadband services in urban areas using ***Package 2***. But launch is delayed to 2016 because of the need to procure equipment, build a network and establish operations from scratch. ISP A enters the market with 100 urban BTS in 2016 and this grows to 500 BTS by 2021.
- ISP B is assigned ***Package 3*** and enters the market, with a view to selling the business to an existing operator, in 2016. It rolls out 100 urban base stations to meet minimum coverage requirements. After two years, ISP B negotiates the sale of the business, following approval from ICASA and the competition authority. The sale to an existing operator takes place by 2019.

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- Sentech offers wholesale mobile broadband services in both rural and urban areas in 2017 using ***Package 4***. The focus is on rural coverage given Sentech's compact with the Government. In urban areas Sentech launches with 400 BTS, growing to 2000 BTS by 2021.
- Neotel enters the mobile market and follows a similar launch profile to ISP A, using ***Package 7***.

Scenario 2 – ICASA proposals implemented but the new spectrum is poorly used in the short term

This scenario develops as follows:

- The "no retail" obligation on ***Package 1*** is retained and no existing operator bids for this package on the grounds that becoming a wholesale only operator for mobile broadband puts it at a competitive disadvantage to its main rivals. The spectrum returns to the Government and is reassigned to one of the two big existing operators without the "no retail" obligation in 2018.
- Both ***Packages 2 or 3*** are awarded to speculative investors who roll out a minimal network as set out for ISP B under Scenario 1. Both new entrant operators then sell their businesses to an existing operator by 2019 and the spectrum is then fully deployed.
- Sentech uses ***Package 4*** but faces difficulty in accessing capital from Government and obtaining environmental consent for new towers. Roll out is commenced in 2017 but with only 200 urban BTS, increasing to 1,000 urban BTS by 2021.
- Neotel uses ***Package 7*** spectrum to offer increased capacity on its fixed broadband network and does not offer mobile broadband services.

IMPLICATIONS FOR SOUTH AFRICAN GDP GROWTH, GOVERNMENT TAX REVENUES AND JOBS

We have compared these with a base case in which spectrum is assigned to the four existing operators and with the situation in which the new spectrum is not released at all. Figure S1 presents our findings. It shows that:

- Without the new spectrum, mobile broadband capacity in South Africa is a long way below demand by 2020
- Capacity keeps pace with demand under the base case until 2021[1]
- Under the ICASA proposals capacity falls well short of demand by 2015.

[1] By which time additional new spectrum may become available for mobile broadband

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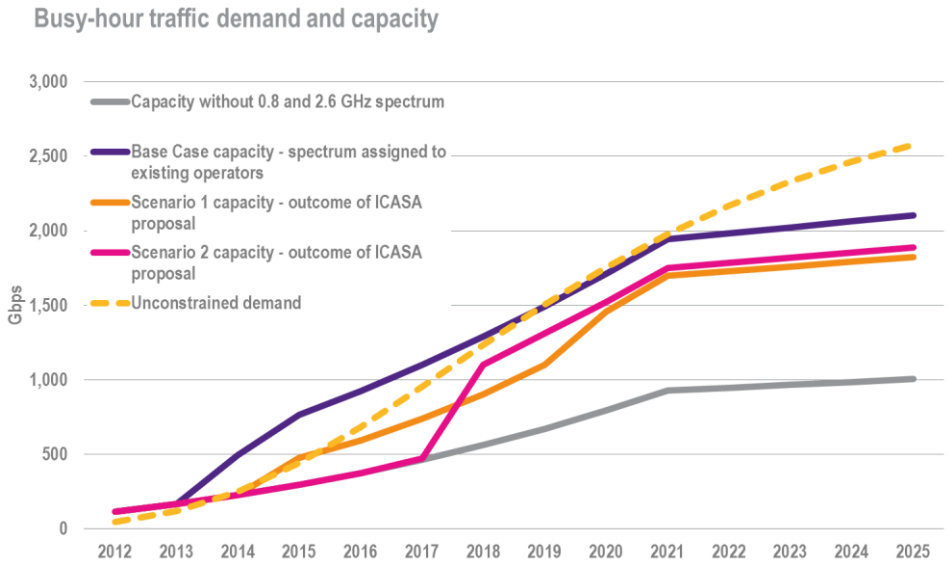
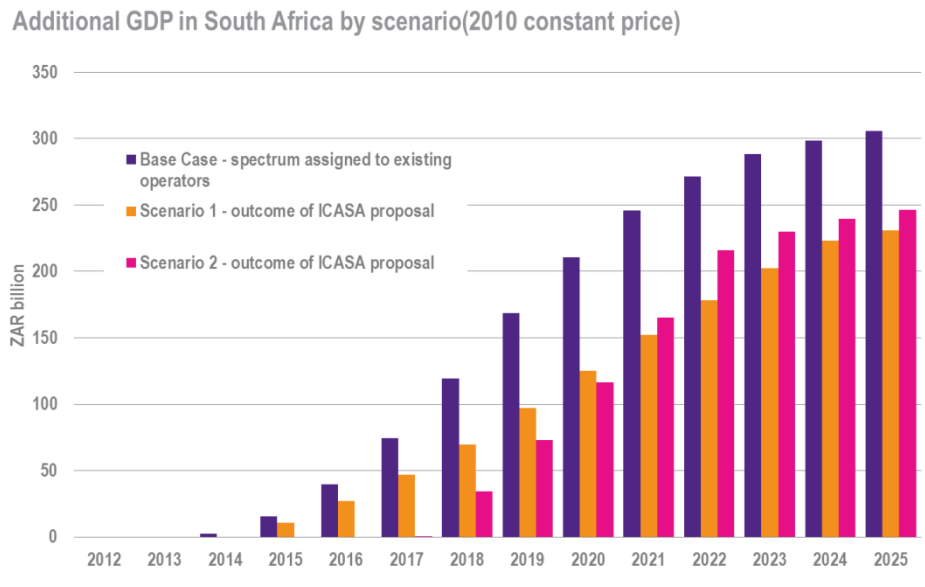
Figure S1: Mobile broadband demand and capacity in South Africa



Source: Plum Consulting

This shortfall in capacity will affect GDP growth, government tax revenues and jobs. Figure S2 plots the additional GDP which mobile broadband might generate in South Africa, following release of the new spectrum, for the base case and under the ICASA proposals.

Figure S2: Additional GDP in South Africa, 2012 - 2025



Source: Plum Consulting

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Overall we find that:

- The ICASA proposals for assigning the new spectrum would lower the net present value of GDP by between ZAR$450 and ZAR$510 billion over the period 2014 to 2025, when compared with assignment of the spectrum to existing operators (base case)
- The ICASA proposals would reduce the net present value of government tax revenues by between ZAR$95 billion and ZAR$110 billion, when compared with the base case
- The economic benefits of moving from the ICASA proposals to the base case assignment is equivalent to 500,000 additional jobs, at current South African wages.