

Submission by the South African Communications Forum (“SACF”) to the Independent Communications Authority of South Africa (“ICASA”) on the *notice on the licensing process for International Mobile Telecommunications (“IMT”) spectrum, inviting comments in respect of the provisioning of mobile broadband wireless open access services for urban and rural areas using the complimentary bands IMT700, IMT800, IMT2300, IMT2600 and IMT3500*

31 January 2020

1. CONTEXT

- 1.1 The South African Communications Forum (“SACF”) is an industry association in the ICT sector and enjoys the most diverse membership in the ICT sector. Our diverse membership allows us to advance views that are balanced and seeks to promote a sector that is inclusive, competitive, able to sustain growth and attract investment.
- 1.2 The industry has been hamstrung for close to a decade and a half due to the non-licensing of high-demand spectrum, resulting in two significant consequences of locking out new entrants and severely constraining incumbents in the efficient rollout of networks and services.
- 1.3 The licensing of high demand spectrum has been the singular focus of all licensees in the ICT sector – incumbents and prospective entrants alike. Therefore, the publication of the ever-elusive policy direction by the Minister of Communications in July 2019 provided the long-awaited start to this process.
- 1.4 The SACF welcomes the publication of the notice on the licensing process for International Mobile Telecommunications (“IMT”) spectrum, inviting comments in respect of the provisioning of mobile broadband wireless open access services for urban and rural areas using the complimentary bands IMT700, IMT800, IMT2300, IMT2600 and IMT3500. In this document, we provide context where necessary and advance proposals that we believe will move the sector and the industry forward.
- 1.5 The SACF would like to participate in any future processes in relation to the licensing of spectrum, including public hearings and workshops.

2. INTRODUCTION

- 2.1 From the onset, the licensing of high demand spectrum offers the country the opportunity to meet key policy objectives of reducing the cost to communicate and the realisation of transformation and increasing

competition within the ICT industry as it is highlighted in the SA Connect Policy and the National Integrated ICT White Paper. The issuance of the IM has reemphasised the intersection of these objectives as set out in the objectives section of the IM. Furthermore, it is understood that the IM aims to provide interested parties with the process through which these objectives will be obtained. The provisions of the IM further perpetuate the understanding that the licensing of high demand frequency and licensing of the Wireless Open Access Network (WOAN) are largely seen to be the silver bullets to achieve these objectives.

2.2 The licensing of high demand frequency spectrum and the licensing of the WOAN will undoubtedly impact each of these objectives, however the way that each of these processes are managed will impact the success of the desired outcomes of increased competition, the lowering of pricing and the pace of transformation. The section will do a deeper dive into the main objectives as identified above:

2.3 **Competition and the cost to communicate**

2.3.1 Section 6.2 sets out the obligation that all licenced operators will be required to roll out their broadband network to 97% of the population in all the identified underserved areas – a commercially unsustainable obligation that will impact on the cost to communicate. The obligation is not supported by uptake of the services being rolled out (in underserved areas) and as such the prospective licensees would not be able to sustain such costs. The SACF supports the expansion of services into the underserved areas; however, we would implore ICASA to reconsider the obligation as it would hinder the commercial viability of awarding spectrum to industry and limit the WOAN's ability to capture the available market share, thus further contributing to high costs to communicate.

3. **POLICY ISSUES**

3.1 The SACF welcomed gazetting of the Policy Directive in July 2019 as this has facilitated the long-delayed process of licensing the IMT spectrum. The Policy Directive has upheld some of the provisions of the Integrated ICT White Paper, while taking into account industry perspectives in relation to the principles of open access towards the promotion of broadband access for South Africans.

3.2 The White Paper speaks to the establishment of a wholesale electronic communications network (known as the WOAN) and further emphasised the intention for efficient spectrum use through infrastructure sharing and collaboration between licensees through a WOAN. The Policy Directive, taking into account the CSIR report, industry perspectives and policy objectives, also

details the role of the WOAN as a licensee limited to providing wholesale access only meant for the promotion of service-based competition. Whereas the IM uses the term Wireless Open Access Network, it is understood that both terms refer to an electronic communications network services licensee that provides wholesale electronic communications network services to promote downstream mobile service competition.

3.3 The IM is clear in its objectives to license IMT spectrum to ensure nationwide broadband access by 2020, a goal in line with SA Connect targets. While in support of this broad goal, SACF is of the view that these 2020 targets, in as far as they rely on the licensing of IMT spectrum, will be hard to achieve considering the timeframes. Notwithstanding the different and separate roles of the Authority and the Ministry of Communications, SACF would recommend that these goals be aligned in order to set achievable obligations for licensees. We understand the inclusion of 2020 in the IM as an error, and presume that the intended date was indeed 2030, as that is more realistic considering the licensing timeframes.

4. TECHNICAL OPTIONS

4.1 General Principles in the licensing of Spectrum

4.1.1 Spectrum lights up networks to enable the provision of mobile services. While spectrum is essential to enable operators to provide services, all spectrum isn't equitable in importance and efficiency. Bands have different properties and values attached to them, which are necessary to enable the effective and efficient rollout of a network. As such each network needs a combination of high and low band spectrum.

4.1.2 The IM proposes several possible options for spectrum to be auctioned and licensed to the WOAN. The options included in the IM seek to licence incumbents who already have spectrum as well as a new entrant, being the WOAN.

4.1.3 Spectrum licensing, whether through the auction or assignment to the WOAN, must be fair and transparent for all players involved. The process should adopt and maintain a forward-looking approach to spectrum licensing, one that will be able to meet the growing spectral demands and needs of services in the digital economy and society, including the 4IR.

4.2 Bands included in the IM

4.2.1 The IM includes bands that are substitutes where a licensee is likely to opt for either – not both. Examples include, IMT 700 and IMT 800 and IMT 2300, IMT 2600 and IMT 3500.

4.2.2 The licensee selection would be dependent on their respective strategies.

4.3 Spectrum Caps

- 4.3.1 Spectrum Caps are considered an effective tool to limit the concentration of spectrum in the hands of a single operator. This aligns with the multiple measures underfoot to counter the potential concentration of resources with some operators.
- 4.3.2 Views on the implementation of spectrum caps are split between:
- Spectrum caps distorting the market that fail to recognize the spectrum needs of operators in relation to their respective customer bases.
 - In the alternative view, spectrum caps are considered to be a tool that ensure a broad spread of access to a critical resource such as spectrum. The Authority would need to licence in a manner where smaller licensees could acquire spectrum which would ensure the efficient usage of the resource and deter hoarding.
- 4.3.3 The IM technical options include existing assignments to operators in the bands intended for auction. To ensure equity in bands being licensed it is imperative that the Authority institute spectrum caps that would apply to those licensees with existing assignments. Furthermore, it is important that these caps apply across the bands being licensed and also apply during the auction process to prevent licensees with the deepest pockets securing the most spectrum, thus creating the potential to permanently lock other competitors out of the market.
- 4.3.4 When considering international practice, regulators in North America and Europe either implement spectrum caps or impose obligations when licensing spectrum. ICASA seeks to include both. South Africa is more than a decade behind the spectrum licensing curve of other jurisdictions. While, the licensing of spectrum will contribute to achieving key national priorities, such as licensing new entrants and reducing the cost to communicate the Authority ought to be careful to balance the spectrum requirements of operators and the obligations imposed.
- 4.3.5 When determining the spectrum caps it is essential that the Authority is cognisant of the link between spectrum caps, i.e. the size of the assignment to each licensee and the obligations imposed.
- 4.3.6 We are of the view that the Authority must consider the properties of each bands and current assignments to incumbents when determining applicable spectrum caps, i.e. the spectrum caps are likely to be different for the various bands. For example, lower IMT bands cover bigger areas, and form the base for coverage. Higher IMT bands provide significantly more capacity but cover considerably smaller areas. As such, higher IMT bands ought to attract larger spectrum caps. Incumbents currently hold 60MHz and 80MHz of spectrum of the IMT 3500 band. Therefore, it would be

prejudicial to licensees in the IMT 3500 band if caps were set lower than current assignments.

4.4 IMT700 MHz and IMT800 MHz allocation before Digital Migration

- 4.4.1 The IM and the Policy Direction both propose the inclusion of IMT700 and IMT800 which will only be available after the completion of digital migration and final analogue switch off. The deadlines for the digital migration and analogue switch off have been amended with no firm date as yet. It is our understanding that even post the final switch-off, the bands would need to be cleared and prepared before they are accessible for use. This delay is regrettable, and its impact would undoubtedly need to be considered in relation to the pricing, which is likely to attract a lower auction fee.
- 4.4.2 Notwithstanding the non-availability of spectrum immediately, these remain key spectrum bands and must be included in the auction. In the interest of freeing up the spectrum immediately; the SACF recommends that the Department and the Regulator engage in discussions with licensees in reaching solutions that will make the spectrum available as soon as is possible.
- 4.4.3 Each of these bands are coverage bands; the conclusion of Digital Migration has a critical impact on the timeframes for the rollout, and specifically impacts on the WOAN.
- 4.4.4 While, there has been a renewed impetus to conclude the process of digital migration and make the spectrum available, the precise timing is unclear. Therefore, it would be prudent for the Authority to license the high demand spectrum now but defer the licence date and payment thereto until the point that the spectrum becomes available. Aligning the effective date of the licence and payment of licence fees to the availability of spectrum will not further delay access to spectrum.

4.5 FDD vs TDD

- 4.5.1 Traffic patterns demonstrate that the upload and download traffic varies, with traffic being skew more towards download traffic than upload¹.

¹ https://www.itu.int/dms_pub/itu-r/opb/rep/R-REP-M.2370-2015-PDF-E.pdf

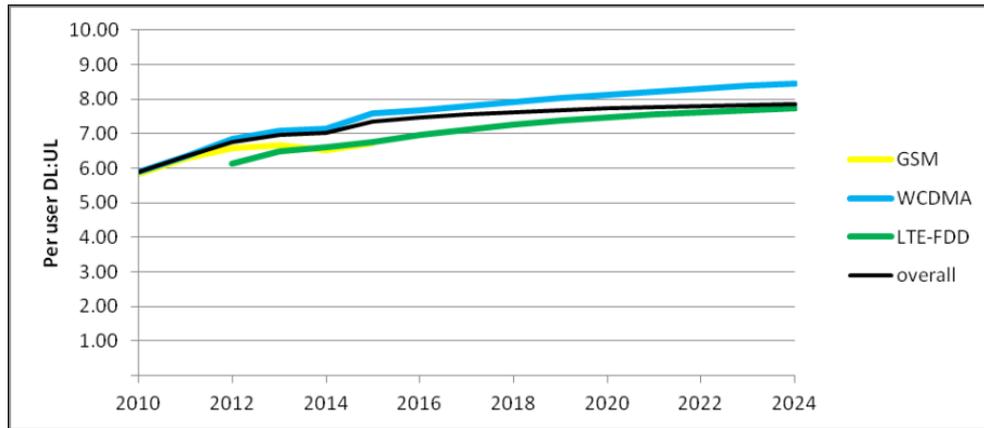


Figure 1: Example of operator average traffic asymmetry

4.5.2 We note with the evolution of technology and as the ecosystem evolves the preference for an even split of spectrum for upload and download is less likely to be an efficient use of spectrum. TDD facilitates an asymmetric split which is more reflective of the traffic usage patterns. Accordingly, TDD is envisaged to be more efficient reduce the need for guard bands thus increasing the spectrum assignments, in the capacity bands of IMT 2600 and IMT 3500.

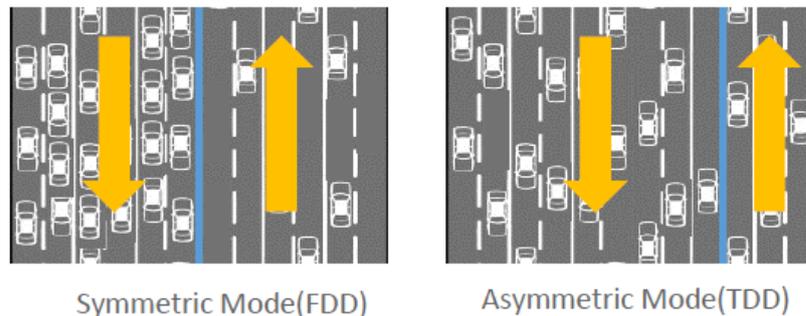


Figure 2: Comparison of FDD and TDD resource allocation

4.5.3 FDD remains the prevailing standard for IMT 700 and IMT 800, while TDD remains the prevailing standard for IMT 2300, IMT2600 and IMT3500

4.6 Commentary on the Options 1 – 5

Spectrum assignment would need to be sufficient to promote efficient network rollouts which will assist in reducing the cost to communicate.

4.6.1 **Option 1:** We note that Option 1 includes a combination of FDD and TDD in the proposed assignments. Selecting either rather than adopting a combination approach will result in the availability of more spectrum and promotes spectrum efficiency. Furthermore, this approach reduces the necessity for guard bands. TDD is more reflective of data usage patterns in its asymmetric assignment. While, the device ecosystem is in both TDD and FDD will ensure economies of scale, and FDD was previously the preferred

standard for voice services, while TDD is growing in preference in relation to data services to be realised and more readily and efficiently supports true 4G and is an easier transition towards 5G. This will contribute significantly towards catching-up as a result of the protracted non-licensing of spectrum.

- 4.6.2 **Option 2:** The proposed assignments in all Lots A, B, C and D are larger than those included in Option 1. The proposed larger assignments are more likely to enable operators to deploy the spectrum more efficiently, thus contributing to reducing the cost to communicate. Notably, Lot D is considerably smaller thus making the spectrum more affordable and the auction more inclusive. We further note that there appears to be a set aside for 2x10MHz of IMT 800. The rationale for not including this spectrum in the auction is unclear. The SACF is of the view that the 2x10MHz of IMT 800 must be included in the auction. The licensing of the additional 2x 10MHz of IMT 800 should be linked to the applicable spectrum caps.
- 4.6.3 **Option 3:** The proposed assignments included in Option 3 are efficient and appear to consider existing assignments in the band which will address one of the key objectives of the licensing of spectrum which is stimulating the number of players in the market. However, it is imperative that all assignments must be fair and attract similar and equitable licence terms and conditions which is aligned to the empowering legislative framework. Against this backdrop we note that Lot E appears to carry considerably less licence obligations than the other Lots – this is prejudicial to the licensees of the other Lots. Obligations should equally apply to all licensees with access to similar resources.
- 4.6.4 **Option 4:** Our comments in respect of Option 2 similarly apply to Option 4. We note that there appears to be a set aside for 2x10MHz of IMT 800. The rationale for not including this spectrum in the auction is unclear. The SACF is of the view that the 2x10MHz of IMT 800 must be included in the auction. However, based on the principle of fairness and the equitable licensing of spectrum this should be linked to the applicable spectrum caps.
- 4.6.5 **Option 5:** It is imperative that all assignments must be fair and attract similar and equitable licence terms and conditions which is aligned to the empowering legislative framework. Our comment on Lot E concerning the obligations makes reference.
- 4.7 **IMT 3500:** We support the Minister in her approach for a clear, concise and co-ordinated 5G strategy, as it is imperative that the industry is able to begin to launch 5G services soon.

- 4.8 However, the inclusion of IMT 3500 in the auction does not detract from the Minister's approach. Close to half of the IMT 3500 band has already been licensed. As a result, only 116MHz of the band remains available, and should be included in the auction.
- 4.9 We therefore welcome the inclusion of the IMT 3500 in the current licensing processes. There is considerably more to be lost through the opportunity costs of waiting to license IMT 3500 than there are to be gained.
- 4.10 Available literature and the views of industry experts indicates that optimal licensing for IMT3500 lies between 80 -100MHz to a single operator which would promote the optimal mobile experience. This would result in the Authority licensing the remaining IMT spectrum to a maximum of two operators. We understand this not to be desirous.
- 4.10.1.1 We have noted that two approaches have been adopted by regulators in other jurisdictions – some have recalled spectrum assignments, reconfigured the band and then licensed, while others have licensed what was available to enable usage and rollout.
- 4.10.1.2 IMT 3500 supports bandwidth heavy applications, thus resulting in operators needing larger assignments than in other bands. South Africa does not have the luxury of time and must license as expeditiously as is possible. South Africa is in a space that needs infrastructure and services that can urgently stimulate the economy; therefore, we propose that IMT3500 must be included in the auction. However, the Authority's proposal to license in Lots of 0MHz to be inefficient in enabling effective rollouts. A minimum of 20MHz is required for any meaningful rollout. Therefore, we propose the inclusion of minimum and maximum caps while adopting a flexible approach to actual assignment so long as it falls within spectrum floors for this band.

5. INDUSTRY OBLIGATIONS

5.1 Uplink and throughput obligations for the Industry

- 5.1.1 Licencing and regulations need to be evidence-based, to allow for the correct applicability of regulatory measures for policy and social objectives.
- 5.1.2 The SACF notes the IM's reference to the OpenSignal's State of LTE report of February 2018. The IM uses the countries with the greatest coverage and download throughput as reference for the targets set therein. We caution against setting these targets outside of deep analysis of the South African market and coverage obligations because of the intersecting nature of the regulatory objectives.

Although global coverage has become ubiquitous over the years, analysis such as that highlighted by ICASA in the OpenSignal's State of LTE report, indicated that no country has reported 100% national coverage. The SACF recommends that, where international benchmarks are used for evidence-based analysis, the obligations must reflect achievable targets.

- 5.1.3 With the understanding that the IM aims to contribute to the bandwidth that will achieve the SA Connect targets, it is unclear how uplink and downlink targets in section 6.1.2 in the IM are arrived at. While the 2030 SA Connect targets require a minimum user experience threshold of 10 Mbit/s to 100% of the population, and 100 Mbit/s to 80% of the population, the IM requires different uplink (15 Mbit/s) and downlink (30 Mbit/s) user experience targets to 100% of the population by 2025. SACF finds the user experience obligations set in the IM onerous as it does not account for the difficulty and cost of last mile infrastructure. We recommend that this obligation be amended to "an average of uplink of 15 Mbit/s and the downlink user experience throughput of at least 30 Mbit/s to 98% of the population in 2030" to allow for the requisite infrastructure deployment and to better align with the SA Connect targets.

5.2 Coverage Obligation for the Industry

- 5.2.1 The SACF fully supports the studying of international best-practice to inform the licensing process in South Africa, particularly as it relates to the rapid deployment of mobile services across the country. However, the SACF has reservation that the selected country - Germany with an economy ten times bigger than South Africa's - is the most ideal to benchmark South Africa against. This is in consideration of the World Bank's Rural Population (% of total population) for both Germany and South Africa being 22.7% and 33.7% in 2018, respectively. Therefore, the SACF is of the view that a country with more comparable economic landscape would have been a better benchmark and provided more realistic model than Germany. The geographic landscape of Germany is also considerable different to that of South Africa, with rural areas being significantly closer to urban and metropolitan areas than is the case in South Africa. In addition, the level of access ICTs in these areas is quite different to that of South Africa with Germany starting from a higher base of access in these rural areas.
- 5.2.2 As noted above, the SACF views the obligation set out in 6.2.3 of the IM (coverage to 97% of identified underserved areas prior to roll out in urban areas) as commercially unsustainable for prospective licensees. As a result of unviable uptake in underserved areas, the licensees will not be able to sustain the costs of infrastructure roll-out, which would otherwise be cross-subsidised by the urban uptake had this obligation not been in place. SACF suggests that the Authority reconsider this obligation as it would hinder the commercial viability of awarding spectrum to industry, while potentially

limiting the WOAN's ability to capture available market share (in underserved areas), resulting in high costs to communicate.

- 5.2.3 In September 2012 ICASA gazetted Under-Served Areas Definition Regulations, along with an explanatory note detailing the Authority's alignment of the definitions and areas to that of USAASA in consultation with the Communications Ministry. The SACF supports the general alignment of these definitions and identified areas and recommends that, should it be required, the Authority follow a similar strategy to update the areas. SACF also recommends the use of the universal service contributions to roll-out infrastructure to underserved areas prior to imposing obligations on the operators.
- 5.2.4 Sections 6.2.5 – 6 of the IM indicate that the holders of Lot B, C and D in all the options will each have a maximum of three years from the date that the 700 MHz and 800 MHz spectrum becomes available to provide services to all identified underserved areas. However, point 6.1.2 stipulates that a Licensee must provide data services across the country with set obligations by 2025. To avoid the ambiguity that may result from an overlap of one time-bound obligation over another, the Authority needs to ascertain that the obligations are sufficiently detailed, measurable and are timebound. In the worst-case scenario where the spectrum is made available in less than three years to 2025, the Authority will need to clarify which of the two-time obligations will take precedence in assessing compliance to licence conditions.
- 5.2.5 The SACF notes with concern the lack of coverage obligations for the holder of Lot E, without explanation by the Authority. We encourage fair, non-discriminatory and equal imposition of obligations on all licensees of high demand spectrum.

5.3 Open Access Obligations for the Industry

- 5.3.1 The IM requires each licensee to provide open access to a minimum of three Mobile Virtual Network Operators (MVNOs). SACF is of the view that a feasibility study needs to be conducted to determine the number of MVNOs that the operators should be obliged to provide open access to for the sustainable viability of the market, including that of the WOAN operator.
- 5.3.2 Although in support of the WOAN and the required offtake requirement to ensure that it is sustainable and has better capability prospects, the IM is silent on the prospects of both the WOAN and the South African mobile market beyond the five-year period for this obligation. SACF recommends a market and/or feasibility study to assess the impact of the cessation of industry obligations on both the WOAN and the South African mobile market.

5.4 Social Obligations for the Industry

- 5.4.1 It is important to note that obligations included must be based on principles of fairness, transparency, measurability and most critical of all, relevant to addressing a key societal need and aligned to the core business of the licensees. Along with these key principles, obligations also need to be broad enough to allow for innovative implementation by licensees. Obligations are implemented at considerable costs and poorly crafted obligations with difficult dependencies will inhibit the successful implementation.
- 5.4.2 Poorly crafted and restrictive obligations are ineffective in that they may inhibit innovative implementation by licensees and unduly delay rollouts which are likely to impede additional benefits that may accrue to a larger community.
- 5.4.3 It imperative that obligations are proportionate to the acquisition of the resource acquired, accordingly obligations must be costed to ensure that the significant
- 5.4.4 In contrast, Community Service Telephones (CSTs) were the most successful obligation implemented to date due to their relevance in addressing a key need.
 - 5.4.4.1 Another critical success factor of the CSTs was that the obligation was crisp enough to establish a quantifiable and measurable output, while flexible enough to give licensees the scope to develop a creative and unique solution that addressed multiple needs tailored towards that of communities.
 - 5.4.4.2 CSTs provided access at reduced rates to un-serviced and under-serviced areas and created wealth, translating to empowerment for marginalised communities. This was the result of innovation by licensees.
 - 5.4.4.3 Devices were developed and manufactured locally, which was a spin-off resulting from the implementation model of the obligation.
- 5.4.5 The SACF would like to propose that, in preparation and finalisation of the Social Obligations, the Authority consults the National Development Plan (NDP) 2030 and aligns these obligations with the objectives of the NDP. Notwithstanding the fact that the ICT SMME Development Strategy defines the vision for the development of the SMME's up to 2020, we feel that it should be considered in conjunction with the NDP in finalising the social obligations.
- 5.4.6 The SACF is confident of the future prospects of the ICT SMME and their contribution towards the industry growth and ultimately to economic

expansion. The SMME Quarterly Update, 2019Q1, states that “all SMMEs need to benefit from the ICT developments in order for SA to absorb the benefits of technological change embodied in the DIR (Digital Industrial Revolution) as wide and equitably as possible”. With this backdrop, the SACF would like to propose the following Social obligations in favour of SMMEs:

- 5.4.6.1 **Transformation through procurement:** It is important to recognise that the ownership of larger licensees is more restrictive due to the associated capital requirements and the number of licensees of scale in any given market. However, all licensees procure a significant component of network elements. There are many Black-owned companies able to provide such services, in the event that there are not, it must be incumbent on network operators to develop these suppliers. This in our view will engender more meaningful and inclusive transformation across the value chain also increasing the value of annual investments within the country.
- 5.4.6.2 Our recommendation for the inclusion of procurement targets does not negate the Authority's proposal for the progression of compliance with the B-BBEE Codes.
- 5.4.6.3 **Youth skills development and training:** The SACF proposes that the youth that resides in the underserved areas (which need to be identified as per Coverage obligation in point 6.2.3 in the IM) should be afforded the opportunity of ICT skills development and training within the Licensee's operations as and when they operate in these set areas.
- 5.4.6.4 **SMMEs should be prioritised for procurement:** Licensees should align their procurement processes to the SMMEs' offering – this refers to sourcing of manufactured equipment, contracting of the SMMEs for equipment maintenance, employing SMMEs for contractual or consultant functions and other functions that will arise through this consultation.
- 5.4.6.5 **Licensees should develop operator initiatives:** Licensees are a fundamental part of the ICT industry ecosystem, they should therefore provide upskilling and training, mentorship, workspaces, educational support, assistance, with fund applications and overall incubation environment.
- 5.4.7 Although the SACF mentions these specific obligations above, it does not limit its support to only these.

5.5 Empowerment and Transformation Provision for the Industry

- 5.5.1 The SACF would like to emphasize its stance on the importance of the transparency and measurability of the obligations. We further believe that the participation of HDGs across the value chain should be encouraged through transformation and inclusion.
- 5.5.2 We support the Authority's principle that seeks to encourage greater compliance with the B-BBEE ICT Code. However, we disagree with the proposal of licensees progressing to Level 3 after 36 months. This is simply too long and the Level too low.
- 5.5.2.1 We are of the view that licensees should rather be incentivised to achieve a Level 2 over 36 months in addition to our proposal on procurement.
- 5.5.2.2 While, we believe that an aggressive approach to transformation is imperative, the Authority must be cognisant of the following:
- 5.5.2.2.1 The Codes are outside of the jurisdiction of the Authority. Historically, the Codes have had radical amendments which were implemented immediately. The consequence was that all our members dropped several levels due to the absence of lead time to prepare for the implementation of amendments. Over the past four years they have clawed their way back, attaining progressively higher levels of compliance. However, compliance with the Codes comes at a significant cost.
- 5.5.2.2.2 This context is critical, particularly as we understand that the compliance levels would be included as licence obligations with a compliance obligation. Accordingly, we are of the view that the Authority would need to provide for this.
- 5.5.2.2.3 According to the SACF's knowledge, the DTI does not have a compliance period, therefore we would propose an additional clause that makes provision for a reasonable transition period for compliance, with a minimum of 12 months. However, it is critical that the transition period is aligned with the materiality of the amendments. The evidence of the materiality would be demonstrated by the level by which compliance levels fall. Such a transitional period is essential due to the applicable costs associated with achieving BBEE compliance.
- 5.5.2.2.4 The objective is to promote meaningful transformation without being too onerous and prejudicial to licensees,

5.6 Cumulative impact of Obligations

- 5.6.1 In light of the current obligation that the licensees have towards the USAF, i.e. to pay an annual contribution of 0.2% of their turnover derived from licensed activities, the SACF finds the additional IM obligation to provide broadband services to 97% of the identified underserved areas onerous as it translates to double financial drainage for the licensees. This, if not curbed and/or revised at the time of licensing may impede the objective of Reducing the Cost to Communicate objective as the licensees will transfer the cost burden to consumers.
- 5.6.2 In addition to the cost of spectrum through the auction, the IM seeks to impose additional licence obligations, which includes coverage and social obligations. These obligations cannot be viewed separately from the reserve price. The estimated cost of rollout for the obligations must be viewed in determining the reserve price.

6. Contributing to the Sustainability of the WOAN

- 6.1 The National Development Plan, the ICT White Paper, SA Connect and the Policy Direction, all promote the efficient use of spectrum, competition, open, fair and non-discriminatory access to electronic communications networks and services; the empowerment of historically disadvantaged individuals. To this end, it is important that a pro-competitive regulatory framework be established to ensure the viability and sustainability of the WOAN.
- 6.2 However, as the WOAN is a wholesale open access network, its success is intrinsically linked to the success of the Electronic Communications Service (ECS) licensees buying capacity.
- 6.3 The Integrated ICT White Paper seeks to promote service based competition, through proliferation of multiple smaller new entrants. These new entrants would be entering a largely saturated mobile market. As entrants, they would be unable to compete on price alone. They would at a minimum, need to be competitive, which would necessitate a pro-competitive regulatory framework that extends beyond the WOAN and includes entrant ECS.
- 6.3.1 The 2015 Roland Berger report on succeeding as a telecom challenger² found that challengers faced difficulty in competition and found it hard to secure a customer base. In markets such as South Africa, with more than 80% mobile penetration at the time of the entry by a challenger, the market share of a third entrant was 16% after three years of operation. The report

² Challenger means a late entrant operator, which entered into markets with two or more incumbents https://www.rolandberger.com/publications/publication_pdf/roland_berger_tab_succeeding_as_a_telecom_challenger_1.pdf

also found that market share is strongly correlated to an operator's ability to cover its capital investments, with operators that fell below 10-15% market share achieving EBITDA margins of less than 20%, the amount required to cover capital investments, interest and tax.

- 6.3.2 It is necessary to create an environment that aids the WOAN contributing to its long term sustainability without creating an inefficient operator. Therefore, while we are of the view that the Authority must create a pro-competitive framework for new entrants such as the WOAN, it is imperative that there are periodic reviews to incentivise an efficient operator. This is essential due to the role that the WOAN is designed to play in the market.
 - 6.3.3 This, in our view is imperative as the success of the WOAN is intrinsically linked to the licensees that purchase capacity from the WOAN. Larger operators will also purchase capacity from the WOAN, during the period where incumbents are required to purchase capacity from the WOAN as well as, post the obligation. Therefore, while we support the implementation of a pro-competitive regulatory framework, it is essential only entrants benefit for a limited period to give them a leg-up and not sustain potential inefficiencies.
 - 6.3.4 The Authority in the IM and the Minister in the Policy Direction speaks to measures relating to infrastructure sharing and facilities leasing. Infrastructure sharing and facilities leasing are key pro-competitive measures. However, the Authority would need to do periodic reviews to ascertain the ongoing efficacy of the existing regulations close the gaps in the regulations where necessary.
 - 6.3.5 In addition, Rapid Deployment guidelines must be addressed as a matter of urgency. This has been a long-outstanding issue which severely impacts incumbents and will undoubtedly impact entrants too. An undesirable trend has been emerging with municipalities exponentially increasing applicable fees creating lucrative revenue streams from high rents being extracted from licensees. This negatively impacts the cost of communications and will have an even more dire impact on new entrants.
 - 6.3.6 Extending the scope of asymmetric interconnection to entrant ECS licensees maybe something that the Authority would want to consider, subject to the Authority following due process as provided for within empowering legislative framework.
- 6.4 The WOAN is a wholesale network, therefore the pricing of the WOAN impacts the pricing of other operators downstream thus making pricing a key factor. The importance of cost-oriented pricing cannot be underestimated, however,

cost-oriented pricing for the WOAN may be an overreach, as cost-oriented pricing is usually a remedy implemented on dominant operator's subject to an analysis of the effectiveness of competition.

6.5 It is imperative that the WOAN or any new entrant be given the latitude to develop a suitable business model that allows them to operate effectively and build reserves to enable network extension, maintenance and upgrades on a going basis to become strong competitors in an already difficult market. Therefore, the imposition of an obligation for cost oriented pricing appears to be stacking the odds against the WOAN and potentially dooming it to failure.

6.6 The ECA prohibits undue interference in the business operations of licensees by the regulator. The role of the regulator is to protect consumers and enhance competition. It is unlikely that a new entrant would be able to impact the market to the point that it skews competition. The imposition of cost-based pricing would be applicable in two scenarios:

- In a monopolistic environment
- Or as a result of an abuse of dominance.

Clearly, neither scenario would apply to the WOAN. Therefore, the imposition of cost-based pricing would not be applicable.

6.7 SACF is in support of a licence obligation holiday for the WOAN operator, however, we recommend that it be subject to periodic reviews allow for the Authority to determine the efficiency of the WOAN. The obligation holiday is to encourage and facilitate the success of an efficient operator and cannot foster an inefficient operator.

6.8 The success of the WOAN depends on it adequately capturing a sufficient share of the wholesale electronic communications network services market in order to allow for competition of mobile services. This requires the ability of the WOAN to sell its network capacity to service providers, including MVNOs. The IM places a requirement for licensees in LOTs B, C, D and E to facilitate a minimum of three MVNOs within three years of the release of 700MHz and 800MHz spectrum on its network, this will impede the ability of the WOAN to grow as it will force incumbents to capture a market that could have been taken up by the WOAN. To date no feasibility study has been conducted to determine the number of players that the South African communications market could sustain (includes mobile and fixed services), as such it would be difficult for the Authority to impose a specified number of players as a licence obligation.

6.9 While, this would have been ideal, such a study at this juncture would further delay the licensing of spectrum. This is a result that would be untenable for

the sector, the economy and would be devastating towards economic growth.

6.10 A review of jurisdictions globally has determined that most markets have been able to sustain three (3) network providers, with outliers having four (4). However, even markets with 4 players have been consolidating into 3 players,

6.11 Instead it would be more prudent to consider obligations that create an enabling environment that encourages competition rather than impose unsustainable obligations that may be deleterious.

6.12 The White Paper envisioned the WOAN as a means to meet public policy objectives, including reducing last mile infrastructure duplication. In this regard, the obligation for industry to provide broadband network coverage to 97% of the population in identified underserved areas before rolling out in the urban areas might limit the ability of the WOAN to offer its capacity (outside of the 30% offtake by industry) to service providers. This has the potential to limit the WOAN's ability to capture the requisite market for its capital investment.

7. THE AUCTION RESERVE PRICE

7.1 The SACF has no objection to the award process and the auctioning type anticipated by the Authority, provided further details on each stage are provided with or prior to the ITA. However, the IM is scant on the details of the auction. We are of the view that the details are imperative to enable adequate preparation for participation in the auction and as such we request that the Authority publishes the details for the auction ahead of the ITA.

7.2 The SACF welcomes section 5.4 of the IM, which acknowledges that the properties of the lots proposed will be valued differently thus attracting different reserve prices. While spectrum is an essential and scarce resource, the value of spectrum is not equal as various bands allow for varied capabilities.

7.3 One of the primary objectives of licensing IMT spectrum is to reduce the cost to communicate. The Authority needs to be cognisant of the combined impact of the reserve prices, obligations and right sizing of the spectrum blocks on this objective.

7.4 Setting of the reserve price

7.4.1 Notwithstanding the downward trend of data prices over the past five years, while maintaining the quality of service, both the Competition Commission and the Authority have each focused their efforts on targeting

further reductions to the pricing of mobile data services. Operators have committed to significant reductions, which are linked to the licensing of high demand spectrum. The Competition Commission's own 2019 report placed South Africa at the mid-point of countries included in the comparison and one of the key success factors of the auction process will be the pricing of services post licensing of spectrum.

7.4.2 While it is luring to use auctions as a source for funding for the fiscus, the Authority must resist the pressure to do so.

7.4.3 Additionally, the Authority would have to consider South Africa's low growth rate of 0.7%, which has again been adjusted downward – tethering the country on the brink of a credit downgrade to below-investment grade. This will undoubtedly increase the cost of capital and the cost of rollout of the networks.

7.5 Enhancing competition

7.5.1 Each option included in the IM provides between three and four lots of spectrum. Other jurisdictions have demonstrated that unreasonably high reserve prices impede bidding for some of the spectrum, which can prevent the sale of some lots. For example, a high reserve price resulted in the late withdrawal of one of the bidders and the loss of sale for one of the lots when the Australian regulator auctioned spectrum from the digital dividend in 2013. Mozambique, Ghana, Nigeria and Senegal are other jurisdictions where too high a reserve price prevented the sale of all lots included in the auction.

7.5.2 A 2016 study by Plum Consulting has shown that in 51% of auctions globally over the past decade, there was a marginal gap between the reserve price and the final price paid. This demonstrates that the reserve price was most likely too high and did not enable the market to determine the price.

7.5.3 A similar scenario in South Africa would be untenable as it would be at odds with national priorities of enhancing competition in the mobile market. The correct pricing of spectrum will enable the sale of all available spectrum.

7.5.4 Accordingly, the SACF urges the Authority to consider the total combined cost of spectrum and obligations when setting the reserve price.

7.5.5 The reserve price should be high enough to deter frivolous parties and low enough to encourage the participation of entrants with sound business cases.

8. GENERAL COMMENTS

Licensing processes

8.1 The SACF proposes that the Authority provide a transparent and inclusive roadmap, indicating anticipated timelines, to licensing the IMT spectrum. This is important, given the significance of this process to the sector and economy at large. The roadmap and timeline should be published.

Amendment of Radio Spectrum Regulations

8.2 The process for the licensing of high demand spectrum is set out in the Radio Spectrum Regulations and establishes the minimum threshold for empowerment.

8.3 The Authority had initially promulgated Spectrum Regulations in 2015 and subsequently amended in 2016 and again in 2019.

8.4 The Authority in November 2019 published an amendment to the Radio Spectrum regulations that amended regulation 7(3) which seeks to prescribe the minimum requirements for licensees to participate in spectrum licensing processes.

8.5 Based on legal advice, we understand the Amended 2019 Spectrum Regulations, requires licensees to at a minimum to hold Level 4 B-BBEE compliance in terms of the B-BBEE ICT Sector Code **and** hold 30% HDI equity in their licence.

8.6 This is a significant and material change to the 2016 Amendment which required licensees to have **either** a Level BBEE Compliance **or** 30% HDI – not both.

8.7 The Amendment was done in the absence of a consultative process, we are of the view that it is incorrect to substantively amend a regulation materially increasing a licence requirement in the absence of a consultative process.

8.8 A public consultative process will create a platform for all interested stakeholders to express their views on the matter thus enabling the Authority to reach a conclusion that is fair and transparent. It will further allow all interested stakeholders the opportunity to have a clear and unambiguous sense of what the Authority seeks to achieve.

8.9 This is a critical issue that has a significant impact on arguably the biggest regulatory process in over a decade therefore, we understand the need for an urgent resolution. The Authority is empowered by the Electronic Communications Act (ECA) to use an expedited process with a shorter consultative process to consult and resolve this issue.

8.10 This is a matter that must be resolved urgently, certainly ahead of the auction.

9. CONCLUSION

- 9.1 The SACF appreciates the opportunity to respond to ICASA's notice on the licencing of IMT spectrum and supports the efforts to reduce the cost to communicate, transform the sector and stimulate competition.
- 9.2 The WOAN obligations, and any licence obligation holiday, must account not only for the sustainability and viability of the WOAN, but also for the long-term sustainability of the sector. As such, SACF recommends a detailed market study be conducted to project the future viability of the WOAN in the context of changes in the market structure since the CSIR report, the proposed obligations of the industry to provide broadband network coverage to 97% of identified underserved areas and the obligation for industry to allow open access to at least three MVNOs.
- 9.3 Additionally, the recommended market study should indicate the impact of cumulative costs of industry (and future WOAN) obligations on the cost to communicate and the reserve price of the auction.
- 9.4 SACF would welcome the opportunity to orally present its recommendations to ICASA.