South Africa ICASA's Consultation on Second Draft NRFP 2025 (Part 5 of 7)

Common Ericsson and Nokia Response

11th of December 2025

Introduction

The co-signing companies welcome the opportunity to comment on ICASA's Consultation on the Second Draft NRFP 2025 (Part 5 of 7) and we appreciate the overall endeavors of the Communication Authority in updating the National Radio Frequency Plan based on the outcomes of the WRC-23.

We also encourage alignment of the Plan with Africa Telecommunications Union's July 2025 International Mobile Telecommunications (IMT) Spectrum Roadmap for Africa (ATU-R Recommendation 008-0) that South Africa, along with its African peers, itself helped develop.

Spectrum is the lifeblood of all that is mobile communications; it is the cornerstone of present and future generations of mobile technologies that are critical for societal development. A clear and predictable framework for spectrum management will enable transparent decision-making, support efficient allocation, and give operators the visibility required to plan network expansion and upgrades. It will also nurture innovation in mobile services as the sector advances toward the 6G era. By providing long-term regulatory certainty, the NRFP will help unlock sustained investment, accelerate South Africa's digital transformation, and contribute to its broader socio-economic development.

Below we provide our comments on selected spectrum bands of strategic importance to the mobile industry that ICASA has included in the update of South Africa's current (and second) NRFP.

1427-1518 MHz (L-Band)

We would like to recommend ICASA to align with the ATU-R Recommendation 008-0 (IMT Spectrum Roadmap for Africa) as of July 2025 which recommends:

- Adoption of the Supplementary downlink (SDL band plan for the 1427-1517 MHz band, or portion thereof -- depending on the size of guard band -- with a 5 MHz channelization raster).

- Consideration of the technical conditions as per Recommendation ITU-R M.2159-0[1] and in ECC Decision 17(06)[2] for application in the national regulations.

We would like to highlight that the above recommended SDL configuration corresponds to 3GPP bands n76/n75 with a growing ecosystem of devices (more than 300 as of this writing).

3300-3400 MHz

This band has been identified for IMT in South Africa following WRC-15, and we encourage ICASA to complete the development of the spectrum assignment plan for this frequency range, which is part of the 3GPP bands n78/n77. The band should benefit from a large ecosystem of devices and network equipment.

[1] https://www.itu.int/dms_pubrec/itu-r/rec/m/R-REC-M.2159-0-202312-I!!PDF-E.pdf
[2] https://docdb.cept.org/download/1471

3600-3800 MHz

The 3600-3800 MHz range, also part of the 3GPP bands n78/n77, is one of the most used frequencies in Region 1 for 5G deployments and has seen the largest equipment ecosystem. Its identification for IMT in South Africa at WRC-23 marks a salient step forward towards upgrading the telecom infrastructure and provisioning of broadband connectivity in the 5G era and beyond.

Noting that n78 has emerged as the most deployed spectrum range for 5G networks to date, we emphasize its potential for the South African market to support the robust development of advanced 5G. We recommend that ICASA consider developing a comprehensive Spectrum Assignment Plan for the 3.6 - 3.8 GHz band, considering its potential positive impact on South Africa's society and economy.

6425-7125 MHz (Upper 6 GHz)

The above frequency band was identified for IMT at WRC-23 under Resolution 220. We thank ICASA for taking note of that, and for taking into consideration ATU-R Recommendation 008-0 of July 2025, titled IMT Spectrum Roadmap for Africa, as it reviews the current draft of the National Radio Frequency Plan 2025.

In its first draft of the NRFP 2025, ICASA had indicated IMT as a typical application in the Upper 6 GHz (6 425-7 125 MHz) band, in line with South Africa's consistent support for IMT identification in the band going into WRC-23. In fact, South Africa was one of the key proponents of IMT identification of the band at WRC-23.

As a result, we would like to express our concern at ICASA's new proposal with respect to the Upper 6 GHz (i.e., 6425-7125 MHz) band in this draft of the Plan. The addition of WAS/RLAN as a typical application in the current Draft NRFP for Upper 6 GHz band is, in our opinion, quite unfortunate, and may be inimical to South Africa's long-term interests, especially given the positive momentum that has been building worldwide in support of IMT use in the band since WRC-23.

An increasing number of countries across the world have signaled their interest in using the Upper 6 GHz band for IMT, and many across various continents have already assigned the band for IMT use. There is a growing belief that, with its optimal balance between coverage and capacity, the Upper 6 GHz band will be essential for mobile operators to provide high quality 5G services to consumers and to increase economic growth and productivity of industries, especially because the existing C-band deployment grid could be reutilised in an economically sustainable manner.

Most recently, the European Union's Radio Spectrum Policy Group (RSPG), in its latest Opinion on the "Long-term vison for the upper 6 GHz band" decided to allocate 540 MHz from the band for IMT as of 2028, and only to postpone its decision on the remaining 160 MHz till after WRC-27. RSPG noted it "encourages the mobile industry to develop products for the entire upper 6 GHz band." Together with decisions from major markets such as China, India, Brazil and UAE to dedicate the entire 700 MHz of available spectrum in the Upper 6GHz band to IMT, the RSPG recommendation sends a clear signal to the industry towards developing an end-to-end ecosystem for the full 6425-7125 MHz frequency range for IMT globally harmonised.

Further, from the regulatory and standardization perspective, the framework for the Upper 6 GHz band is already settled. For instance, as noted above, this frequency band was identified for IMT at WRC-23 under Resolution 220 with some specific technical and regulatory provisions. One of the substantial technical elements for IMT to operate in this frequency band is the requirement of an Expected EIRP on which 3GPP has finalized the technical specification earlier this year (2025). It is understood that the latest ITU-R Study Group 5 meeting (1-2 December 2025) has considered the revision of Recommendation ITU-R M.1036, which now includes the frequency arrangements of the Upper 6GHz band, and has moved to the process of adoption.

Likewise, from the performance perspective, the industry has carried out a series of wide-area macro-cellular field trials[3] with major European mobile network operators in various environments including urban ones, confirming the coverage and performance expectations and benefits of using the existing deployment sites (the C-band deployment grid). It has also shown that sharing between WAS/RLAN and IMT in the same frequency is not feasible[4] and should be avoided.

We believe the availability of the complete 700 MHz in the Upper 6 GHz band for mobile connectivity is critical to cost-effectively address future traffic growth and enable new and emerging use cases associated with 5G, 5G-Advanced and subsequent generations. Further, we believe the current and future connectivity needs of WAS/RLAN can be met without any additional spectrum in the Upper 6 GHz band. (Coverage is often the limiting factor for RLANs, and this can be addressed efficiently by adding Access Points to existing RLAN deployments; adding new spectrum will not solve the coverage issue.)

As a result, we recommend ICASA to consider removing “WAS/RLAN (6425-7125 MHz)” in the “Typical Applications” for this frequency range.

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[3] European trials Telia Finland, A1 Austria, BT UK, Orange France and Belgium, Telefonica Spain, amongst others
[4] https://www.bt.com/content/dam/bt-plc/assets/documents/about-bt/tech-fellowship/use-of-u6-ghz-band-for-mobile.pdf