Dynamic Spectrum Alliance Limited
http://www.dynamicspectrumalliance.org

September 4, 2026

Independent Communications Authority of South Africa (ICASA)
350 Witch-Hazel Road, Eco-Park; Centurion
South Africa

Re: DSA response to "A notice regarding the International Mobile Telecommunications Roadmap"

Dear Sir/Madam,

The Dynamic Spectrum Alliance[1] (DSA) welcomes the opportunity to comment on ICASA's Draft International Mobile Telecommunications Roadmap. The DSA supports ICASA's objective of ensuring that South Africa has sufficient spectrum to meet future connectivity needs and recognises the importance of long-term spectrum planning for IMT evolution, including future IMT-2030 development and deployment pathways outlined in the Roadmap.

At the same time, the Roadmap should remain evidence-based, proportionate, and technology-neutral. It should distinguish clearly between identifying a band as a potential future IMT option and making a regulatory decision to allocate or assign that band exclusively for IMT. A spectrum roadmap is most effective when it preserves regulatory flexibility while allowing band-specific decisions to be made through later technical studies, coexistence analysis, and public consultation.

DSA's comments focus on the 6 GHz band because decisions in this range will have significant implications for South Africa's future connectivity environment. South Africa is a highly mobile-centric country, but Wi-Fi and other wireless access technologies also play an essential complementary role by extending affordable connectivity to homes, businesses, schools, clinics, community facilities, and underserved communities. In DSA's view, the Roadmap should therefore support a balanced framework that recognises the complementary roles of licensed IMT, licence-exempt wireless access systems including radio local area networks (WAS/RLAN), and coordinated or shared-access models.

The DSA supports policies that promote efficient spectrum use, protect incumbent services, and expand affordable broadband access. In the upper 6 GHz band, these goals are best advanced through a framework that does not prematurely foreclose licence-exempt or shared-access use cases, especially where such use can deliver significant public-interest and connectivity benefits.

Sincerely,

Dr. Martha Suárez
President
Dynamic Spectrum Alliance

[1] The DSA is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all. Our membership spans multinationals, small-and medium-sized enterprises, as well as academic, research and other organizations from around the world all working to create innovative solutions that will benefit consumers and businesses alike by making spectrum abundant through dynamic spectrum sharing. A full list of DSA members is available on the DSA's website at: https://www.dynamicspectrumalliance.org/members.

1. Connectivity Challenges and the Role of Wi-Fi in South Africa

South Africa's digital divide remains pronounced, with urban and affluent users more likely to benefit from fibre and high-quality broadband, while rural and low-income communities often remain underserved. In this context, Wi-Fi, including community networks and fixed-wireless solutions, has become an important tool for expanding connectivity and addressing economic, infrastructural, regulatory, and policy barriers to access.

Wi-Fi and related wireless access models are particularly important in the South African market for several reasons. Fibre-to-the-home requires high upfront capital expenditure and is therefore concentrated in dense, higher-income areas, while rollout in rural and informal areas is often slowed by trenching costs, wayleaves, local approvals, and maintenance burdens. As a result, fixed wireless and Wi-Fi-based solutions are often more practical and cost-effective in many underserved areas.

Affordability remains a major barrier to internet access in South Africa, as mobile data costs consume a disproportionate share of low-income households' earnings, placing private home connections out of reach for many rural residents. Studies show that a 20 GB mobile data bundle can absorb more than 30 percent of a low-income household's monthly income. Wi-Fi helps mitigate this constraint through shared and prepaid access models, such as community hotspots offering low-cost vouchers or daily passes. Typically priced at R5–R10 and requiring no contracts or credit checks, these approaches better align with the irregular incomes common in underserved communities.[2]

Wi-Fi-based deployments can also be rolled out more quickly than conventional wide-area networks because they can leverage schools, clinics, rooftops, libraries, community halls, and similar existing sites. They may be especially valuable in areas affected by load shedding, cable theft, vandalism, or difficult terrain, because they are often easier to repair, reconfigure, or relocate than extensive wired infrastructure.

These considerations are directly relevant to upper 6 GHz policy. In South Africa, WAS/RLAN is not merely a consumer convenience technology; it can be a practical connectivity tool for public-interest deployments, small providers, community-based models, and rapid broadband extension to underserved users. A regulatory framework that preserves flexibility for such use therefore aligns with broader inclusion and development goals.

2. A Flexible and Balanced Framework for the 6 GHz Band

With respect to 6 GHz, the DSA strongly supports preservation of the existing licence-exempt framework for the full 5925–6425 MHz band. That spectrum is increasingly important for Wi-Fi and other WAS/RLAN applications because it supports wider channels, higher capacity, lower latency, and more reliable connectivity, and it helps translate investment in fibre and other high-capacity fixed networks into high-speed local wireless access in homes, businesses, schools, and public venues.

For the 6425–7125 MHz band, the Roadmap should recognise the band as a potential future IMT option while preserving flexibility for ICASA to consider other regulatory approaches through the separate feasibility-study and Radio Frequency Spectrum Assignment Plan processes. The Roadmap should

[2] *Affordable Wi-Fi hotspot vouchers*. https://toomuchwifi.co.za/hotspot

therefore avoid implying that upper 6 GHz is necessarily, or exclusively, reserved for IMT before the band-specific record is complete.

In particular, identification of the band for IMT should not be interpreted as establishing regulatory priority for IMT or as automatically excluding WAS/RLAN use. RR footnote 5.457E recognises that IMT identification does not preclude other applications in the band, including wireless access systems and RLANs. ICASA should therefore retain the option to authorise complementary licensed, licence-exempt, coordinated, or shared-access uses where technically feasible and consistent with the protection of incumbent services.

This flexibility is especially important in South Africa, where licence-exempt and lightly coordinated wireless networks can lower barriers to entry, support small wireless ISPs and community-led connectivity initiatives, and extend affordable broadband in areas where fibre or conventional mobile-network deployment may be slower or more expensive. Rather than framing upper 6 GHz as a binary choice between IMT and WAS/RLAN, ICASA should allow the feasibility and RFSAP processes to assess segmented, shared, and geographically differentiated approaches on their technical, economic, and connectivity merits.

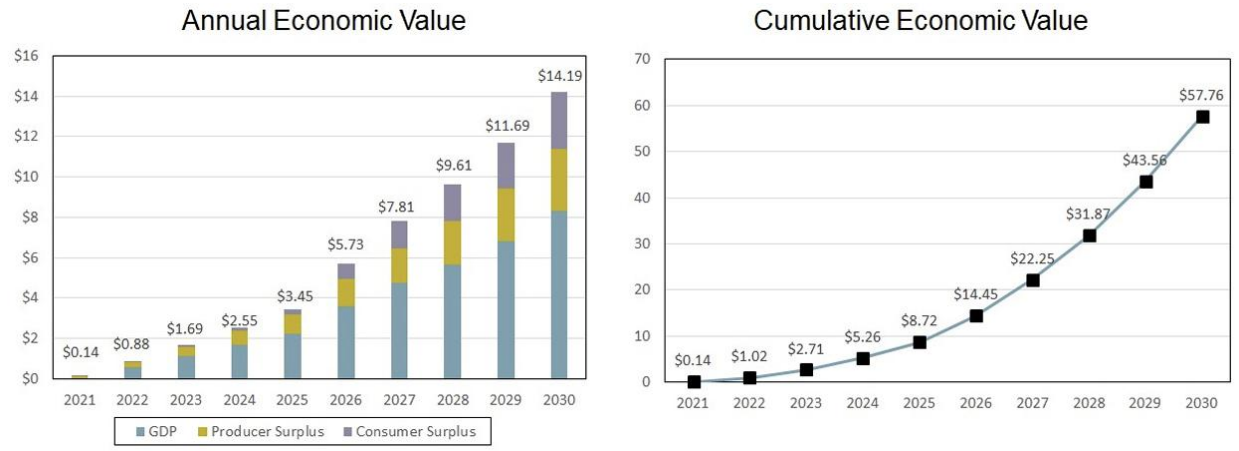
3. Evidence-Based 6 GHz Spectrum Prioritisation and Economic Value

The Roadmap should prioritise future IMT bands on the basis of demonstrated demand, ecosystem maturity, realistic deployment requirements, and comparative public-interest value. In practice, that means ICASA should take account of factors such as operators' existing spectrum holdings, device availability, likely network deployment timelines, coexistence feasibility, protection of incumbent services, and the economic and connectivity value of alternative uses.

This is especially relevant to upper 6 GHz, where the 6 GHz Wi-Fi ecosystem is already established and expanding globally, while the upper-6-GHz IMT ecosystem is still emerging and its availability, scale, and deployment timing remain dependent on national spectrum decisions and market demand. The relative maturity of these ecosystems affects when benefits can realistically be delivered to consumers, businesses, public institutions, and underserved communities.

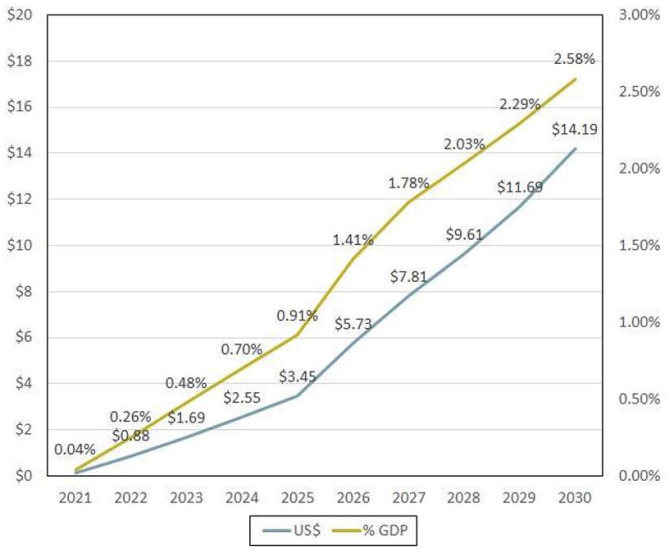
The Roadmap should also recognise the broader economic value associated with licence-exempt use of the 6 GHz band. Economic analysis[3] undertaken by the DSA indicates that allocating the full 1,200 MHz of the 6 GHz band for licence-exempt use in South Africa could generate cumulative economic value of US$57.76 billion between 2021 and 2030. This estimate comprises US$34.81 billion in GDP contribution, US$13.32 billion in producer surplus for South African enterprises, and US$9.63 billion in consumer surplus for the South African population.

[3] https://www.dynamicspectrumalliance.org/wp-content/uploads/2022/02/Assessing-the-economic-value-of-unlicensed-use-of-the-6GHz-band-in-South-Africa.pdf



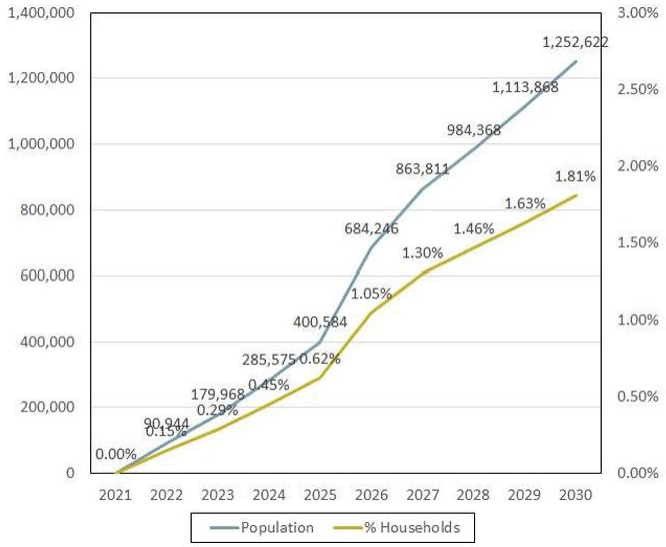
Economic value of allocating 1200 MHz in the 6 GHz band (2021-2030) (in US$ billions)

The analysis further estimates that this cumulative value would be equivalent to 1.39 percent of South Africa's cumulative GDP over the 2021–2030 period, with the annual economic impact increasing over time as Wi-Fi 6E and future Wi-Fi technologies become more widely deployed. By 2030, the annual impact is estimated to exceed 2.58 percent of GDP.



Annual GDP Impact of Allocating 1200 MHz of the 6 GHz Band (2021-2030) (in US$ billions)

The potential digital-inclusion benefits are also significant. The analysis estimates that allocating the full 6 GHz band for licence-exempt Wi-Fi could enable an additional 1.25 million South Africans to obtain internet access by 2030, including through affordable paid services and free public hotspot access.



Contribution of Allocating 1200 MHz of the 6 GHz Band to closing the digital divide (2021-2030)

These findings demonstrate that licence-exempt use of the 6 GHz band has substantial economic and social value. ICASA should therefore undertake a balanced, evidence-based comparison of IMT, WAS/RLAN, and shared-use scenarios before concluding that IMT represents the highest-value use of the band or determining how much spectrum, if any, should be made available exclusively for IMT.

4. Assessing Coexistence and Dynamic Sharing Options in Upper 6 GHz

The DSA recommends ICASA examine coexistence and dynamic sharing frameworks rather than focusing only on exclusive or static band-clearing models. Because the upper 6 GHz band remains the subject of active international policy and technical discussion, it would be premature to narrow South Africa's options before the technical record is more fully developed.

International technical and regulatory work also supports keeping South Africa's options open. In Europe, CEPT is examining coexistence between IMT/MFCN, WAS/RLAN, and incumbent services in the upper 6 GHz band, including the potential role of database-assisted sharing arrangements.[4] This work demonstrates that complementary access models remain under active consideration and that it would be premature to assume that nationwide exclusive IMT use is the only viable outcome.

The United Kingdom has also adopted a prioritised spectrum-sharing framework for the upper 6 GHz band.[5] Ofcom's July 2026 decision designates 6425–6585 MHz as a Wi-Fi-priority portion and 6585–7125 MHz as a mobile-priority portion. It makes the Wi-Fi-priority portion available on a licence-exempt basis and permits licence-exempt Wi-Fi in the mobile-priority portion under Automated Frequency Coordination (AFC), demonstrating that future mobile planning need not require exclusive use of the full band.

---

[4] https://cept.org/ecc/groups/ecc/news/70th-ecc-plenary-meeting-23-26-june-2026

[5] https://www.ofcom.org.uk/spectrum/innovative-use-of-spectrum/consultation-expanding-access-to-the-6-ghz-band-for-commercial-mobile-and-wi-fi-services

ICASA should therefore keep its analysis open to coexistence and sharing mechanisms, including database-assisted coordination and differentiated technical conditions based on frequency, location, power level, and deployment environment. Such approaches may enable additional spectrum use while maintaining appropriate protection for incumbent services and any IMT deployments.

Accordingly, the DSA recommends that ICASA assess dynamic and database-assisted sharing models that could enable complementary IMT/MFCN and WAS/RLAN use under appropriate technical conditions and with robust protection for incumbent services. This would maintain a technology-neutral approach, align with emerging international work, and respond to South Africa's practical connectivity needs.

This approach is also consistent with South Africa's market needs, where rapid deployment, affordability, resilience, and support for public-interest connectivity models are important considerations. If those objectives can be advanced through coexistence frameworks that allow WAS/RLAN access alongside IMT, subject to robust incumbent protection, then those options should be part of the feasibility study rather than excluded at the outset.

5. DSA Recommendations

The DSA respectfully recommends that ICASA:

- Adopt an adaptive, evidence-based, and technology-neutral IMT Roadmap with periodic review points through 2030.
- Avoid prejudging the future use of the 6425–7125 MHz band and allow the separate feasibility-study and RFSAP processes to assess IMT, WAS/RLAN, and coordinated or shared-access options on their technical, economic, and connectivity merits.
- Base any future prioritisation of upper 6 GHz for IMT on demonstrated demand, ecosystem readiness, realistic deployment requirements, coexistence feasibility, and comparative economic value.
- Assess coexistence and shared access in upper 6 GHz taking into account database-assisted and other sharing models that enable IMT/MFCN and WAS/RLAN use while protecting incumbent services.

6. Conclusion

The DSA respectfully encourages ICASA to adopt an adaptive, evidence-based, and technology-neutral approach to future IMT spectrum planning. The Roadmap should support South Africa's long-term mobile-connectivity objectives while preserving the flexibility to assess the most effective use of each frequency band as market demand, technology, equipment ecosystems, and deployment conditions evolve.

For the 6 GHz band, this means preserving the existing licence-exempt framework in 5925–6425 MHz and avoiding any premature conclusion that the 6425–7125 MHz band must be used exclusively for IMT. The Roadmap should instead allow the separate feasibility-study and RFSAP processes to assess IMT, WAS/RLAN, and coordinated or shared-access options on their respective technical, economic, and connectivity merits.

A balanced approach to upper 6 GHz can support future IMT capacity while also enabling Wi-Fi and other wireless access solutions to extend affordable, high-capacity connectivity to households, businesses, schools, healthcare facilities, public institutions, and underserved communities. This is particularly important in South Africa, where flexible and lower-cost wireless solutions can complement fibre and mobile networks, support small providers and community-based initiatives, and help narrow the digital divide.

ICASA should therefore prioritise upper 6 GHz spectrum based on demonstrated demand, ecosystem readiness, realistic deployment requirements, coexistence feasibility, incumbent protection, and comparative public-interest value. By retaining flexibility for shared and coordinated access, ICASA can promote efficient spectrum use, innovation, affordable connectivity, and South Africa's broader digital-inclusion objectives.