

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NOTICE 2678 OF 2024



**Consultation on the proposed new Licensing  
Framework for Satellite Services**

**Attention: Mr. Mandla Mchunu**

ICASA

350 Witch-Hazel Avenue, Eco Point Office

Park Eco Park, Centurion

South Africa

**Submission from the Meta Economic Development Organisation (NPC)**

**From:**

Judi Sandrock

2 Bidoli Crescent, Bel"aire Estate, Somerset West

+27 82 317 7606

[js@medo.co.za](mailto:js@medo.co.za)

[judi@judisandrock.com](mailto:judi@judisandrock.com)



*...building the economy one job at a time!*

## **Context – Who We Are**

Founded in 2011, the Meta Economic Development Organisation (MEDO) is a leading non-profit company (NPC) based in South Africa, dedicated to promoting inclusive economic growth and sustainable development. At the heart of MEDO's mission is the firm belief that empowering individuals and businesses with the tools, knowledge, and opportunities needed to thrive is key to a prosperous future. By building the economy one job at a time, MEDO strives to create lasting, positive change in underserved communities through a range of innovative programs focused on entrepreneurship, STEM education, and youth development.

In an increasingly technology-driven world, MEDO recognizes that STEM education is crucial to ensuring the next generation is prepared for future challenges. MEDO's groundbreaking programs inspire young people to pursue careers in science, technology, engineering, and mathematics, including the MaxIQ Space Program, which empowers high school students to engage directly with space science by building and launching small satellites. By making space technology accessible to youth, especially girls, MEDO is fostering interest in STEM subjects and laying the groundwork for a skilled workforce capable of driving South Africa's technological innovation.

Youth development is a cornerstone of MEDO's efforts to shape South Africa's future. The organization's youth development programs are designed to improve employability by providing technical skills training, internship opportunities, and industry exposure, enabling young people to build meaningful careers. MEDO is committed to ensuring that young South Africans, regardless of their background, can access the resources needed to secure employment and build sustainable livelihoods.

MEDO NPC's profound impact on South Africa's youth, through its innovative STEM programs and global recognition, exemplifies a commitment to empowering the next generation with essential skills for the future. By nurturing young minds in technology and innovation, MEDO effectively contributes to building a more robust, diverse economy, true to its inspiring tagline: "building the economy one job at a time." This philosophy not only uplifts individual lives but also propels the nation towards sustainable growth and development.



*...building the economy one job at a time!*

## **Table of Contents**

Question 1 .....	5
ATU policy principles .....	5
Examples and Benefits.....	5
South African Constitution and Context .....	6
Question 1 Conclusion .....	6
Question 2 .....	7
Agreement.....	7
Special Circumstances for Earth Exploration and Space Research.....	7
Coordination for Amateur Satellite Services .....	7
Protection of Existing Services .....	7
Periodic Review .....	8
Response Summary .....	8
Question 3 .....	8
Efficiency .....	8
Streamlining .....	8
Question 4 .....	9
Commensurate Licensing Duration for Infrastructure Investment.....	9
Five-Year Audit for Compliance and Community Impact.....	9
Focus on Community Connectivity and Affordability .....	10
Affordability of Spectrum and Licences.....	10
Important .....	10
Question 5 .....	11
Aligning with AU Member Practices .....	11
Simplified and Predictable Fee Structures .....	11



*...building the economy one job at a time!*

Pricing Model.....	12
Question 6 .....	12
Support for Blanket Licensing Approach .....	12
Proposed Licensing Fee Model.....	13
Benchmarking Against AU Member States .....	13
Impact Focus .....	13
Question 7 .....	14
Supporting the Approach .....	14
Digital Inclusion.....	14
Streamlining .....	15
Question 8 .....	15
Balancing Interests Between Connectivity and Radio Astronomy.....	15
Best Practices from Other Jurisdictions.....	16
Proposed Measures for South Africa.....	16
Constitutional Rights versus Scientific Value .....	17
Question 9 .....	18
Foundation of Submission .....	18
Leveraging Satellite Technology for Community Networks .....	18
Crucial Infrastructure .....	18
Educational Outreach and Community Development Programs .....	19
Regulatory Solutions to Ensure Connectivity in Underserved Areas.....	19
Closing the Gap .....	20
Conclusion .....	21



*...building the economy one job at a time!*

## **Question 1**

*"These are the policy principles from the ATU that ICASA seeks to align with. Kindly provide comment(s) on the proposed policy principles and any further recommendations listed in the above section?"*

In response to Question 1, regarding the policy principles from the African Telecommunications Union (ATU) that ICASA seeks to align with, we would like to offer the following comments and recommendations:

### **ATU policy principles**

The ATU policy principles offer a strong foundation for facilitating satellite connectivity across Africa, emphasizing the need for a harmonized and transparent regulatory framework. Many African countries have already adopted policies that allow satellite services, which enable rapid, high-speed internet deployment in regions that otherwise face challenges in establishing reliable connectivity. These steps have been crucial in ensuring better access to communication technologies and services for underserved communities.

### **Examples and Benefits**

A notable benefit of satellite-based connectivity is its ability to extend services to rural and remote areas at minimal marginal costs. Several African nations, including Nigeria, Mozambique, Rwanda, Kenya, Malawi, Benin, Zambia, Eswatini, Sierra Leone, South Sudan, Madagascar, Botswana, and Ghana, have approved satellite broadband providers, which have enabled widespread connectivity for rural populations. These countries serve as excellent examples of successful implementation of satellite broadband, showcasing how proactive policies can bridge the digital divide. South Africa should take a similar proactive approach, adopting policies that allow for the streamlined authorization of satellite services to ensure connectivity is within reach for even the most isolated communities. Connectivity is a vital infrastructure that allows marginalized and rural communities to participate in the digital economy, access essential services, and improve their quality of life.



*...building the economy one job at a time!*

## **South African Constitution and Context**

In the context of South Africa, this approach is particularly important for supporting equal educational opportunities across the country. Our Constitution enshrines the right to equal education for all citizens. However, a significant barrier to this goal is the lack of affordable, high-speed internet in rural and underserved areas, where many schools are still struggling with limited or no connectivity. By adopting a regulatory framework that encourages the rapid deployment of satellite services, ICASA would be taking an essential step toward realizing the promise of equitable education in South Africa.

We also recommend that the licensing procedures prioritize education and community development. For example, there could be specific provisions or incentives for satellite service operators that provide connectivity directly to schools, especially those in underserved areas.

Harmonizing licensing processes across ATU member countries is essential for creating a favourable environment for these services to expand, allowing the seamless provision of satellite internet that will uplift underserved regions.

## **Question 1 Conclusion**

In conclusion, we believe that ICASA should align closely with the ATU's recommendations, while emphasizing the urgency of connecting rural and underserved communities. A simplified and accessible licensing framework for satellite operators, coupled with incentives to serve educational institutions, will play a critical role in enabling equal opportunities in education and supporting community development throughout South Africa.



*...building the economy one job at a time!*

## **Question 2**

*"Do you agree with the exclusions of radio navigation satellite services, amateur satellite services, earth exploration, space research satellite services and radio astronomy services indicated above and others if applicable? If not, please explain your reasoning and propose an alternative to this proposal."*

### **Agreement**

We agree with the exclusion of radio navigation satellite services, amateur satellite services, earth exploration, space research satellite services, and radio astronomy services from this current licensing framework, as these services operate under different requirements compared to the commercial satellite services that are intended to provide broadband and connectivity solutions for the public. However, we would like to highlight some key points for consideration:

#### **Special Circumstances for Earth Exploration and Space Research**

While these services are not part of the current scope, we recommend that ICASA remain open to including earth exploration and space research satellite services under the licensing framework in certain special cases. For example, services that directly benefit South African schools or research institutions, particularly those aimed at educational enrichment, might merit inclusion. Such flexibility would align with South Africa's aspirations to support STEM education and technological advancement.

#### **Coordination for Amateur Satellite Services**

Amateur satellite services, although often outside the scope of commercial applications, could have educational value. Universities and schools often engage in projects involving amateur satellite communications. We suggest that ICASA consider provisions that facilitate these types of educational activities under a simplified regulatory regime, ensuring that any related use of radio spectrum by schools or universities is not overly restricted.

#### **Protection of Existing Services**

We agree that excluding radio navigation and radio astronomy services is essential to avoid interference with critical scientific and navigation functions. Protecting these



*...building the economy one job at a time!*

services will ensure that essential research capabilities and operational safety are maintained without interference from other satellite services.

### **Periodic Review**

We propose that the exclusions listed in this inquiry be periodically reviewed to adapt to technological advancements and changing needs. The space industry evolves rapidly, and what may not be commercially viable today could have significant applications tomorrow. It is essential that regulatory frameworks maintain flexibility to allow ICASA to respond proactively to these changes.

### **Response Summary**

In summary, while we agree with the exclusions of these services in the current framework, we recommend allowing flexibility for specific educational initiatives and remaining open to periodic reviews to reflect changing needs and technologies. This approach would ensure that regulatory decisions continue to support South Africa's educational goals, research priorities, and technological advancements.

## **Question 3**

*"Do you agree with the proposed approach of having a separate licence/authorisation (where applicable) for each segment of the Satellite Communication value chain? Please elaborate."*

### **Efficiency**

In response to Question 3, we believe that efficiency should be a key priority in the licensing framework for satellite communications. While having separate licences or authorisations for each segment of the satellite communication value chain may provide better regulatory control and clarity, it is crucial that this approach does not create unnecessary administrative burdens or delays.

The goal should be to minimize costs and reduce the time required to get communities and schools connected, particularly those in rural and underserved areas.

### **Streamlining**

We recommend that ICASA streamline the licensing process where possible, perhaps by combining authorisations for segments that are closely interlinked, or by creating a





*...building the economy one job at a time!*

simplified, expedited pathway for services that are specifically aimed at community development or educational connectivity. By ensuring that the licensing process is efficient and cost-effective, ICASA will help accelerate the deployment of satellite connectivity, thereby promoting equitable access to high-speed internet and supporting the broader national goals of digital inclusion and educational equity.

Ultimately, while separate licensing for different segments may be appropriate from a regulatory perspective, we urge ICASA to consider mechanisms that simplify and expedite the process. This will ensure that the focus remains on providing fast, affordable, and widespread connectivity, which is essential for the socio-economic development of all communities in South Africa.

## **Question 4**

*"Please provide your comments on the proposals in the preceding paragraph and the duration of the Gateway Earth Station licences."*

In response to Question 4 regarding the proposals on the duration of Gateway Earth Station licences, we recommend adopting a more extended licensing period to align with the scale and financial commitment of infrastructure investments required for satellite communication systems.

### **Commensurate Licensing Duration for Infrastructure Investment**

The current proposal of a five-year licensing term may be too short for a significant infrastructure investment, such as a Gateway Earth Station. To ensure stability and encourage investment, we suggest extending the licence duration to 40 years, similar to other large infrastructure sectors like mining. A long-term licence would provide the predictability needed for investors and operators, ensuring they can recover costs and operate sustainably.

Long-term licences are an established mechanism to attract and retain investment in infrastructure-heavy industries.

### **Five-Year Audit for Compliance and Community Impact**

While we advocate for a longer licence period, we agree that frequent reviews are essential to ensure accountability and community impact. A five-year audit process would ensure that Gateway Earth Station licensees adhere to the conditions of their



*...building the economy one job at a time!*

licences, particularly those related to providing essential connectivity to underserved communities. This model mirrors the mining sector's approach, where licences are awarded for long periods, but compliance is regularly monitored through audits.

Such audits will be critical in preventing any potential misuse of licences and ensuring that the objectives—such as extending connectivity to underserved and rural areas—are being met.

### **Focus on Community Connectivity and Affordability**

We recommend that the conditions attached to Gateway Earth Station licences weigh heavily on providing connectivity to rural communities, supporting equal access to education, and linking underserved areas to the global market. These objectives should be central to the licensing framework, with specific metrics tracked during each audit cycle to ensure they are being achieved. This aligns with the vision of increasing broadband penetration and reducing the digital divide, as outlined in ICASA's objectives and the ATU policy principles.

### **Affordability of Spectrum and Licences**

We also propose that the costs associated with Gateway Earth Station licences be reviewed to ensure they are affordable, in line with global best practices. Spectrum pricing should be kept as low as possible to foster a competitive market that ultimately benefits consumers by making internet services more affordable. Reducing spectrum fees and adopting a cost-recovery pricing model for licences could make satellite connectivity more economically viable and accessible to underserved communities, helping South Africa achieve its broadband penetration goals.

### **Important**

In summary, we support a licensing model where:

- Gateway Earth Station licences have a longer duration of 40 years to provide stability for infrastructure investments.
- A five-year audit process is implemented to ensure compliance, especially focusing on community connectivity and preventing any underutilization of licensed spectrum.
- Licence conditions emphasize affordability, community service, and equal access to educational opportunities, aligned with the national vision for digital inclusion.



*...building the economy one job at a time!*

This approach will not only attract investment but also ensure that satellite infrastructure genuinely benefits the communities most in need.

## **Question 5**

*"Please comment on the above-mentioned alternative proposals to levy the spectrum fees for Gateway Earth Stations and indicate your preferred option. The Authority understands that there are other spectrum fee calculation methodologies used elsewhere in the world. Please give details of the methodologies which you believe would be most suitable for South Africa."*

### **Aligning with AU Member Practices**

We believe that it is important for South Africa to take into account the successes of other African Union member countries who have successfully negotiated spectrum pricing agreements for satellite services. While we have not conducted specific research into pricing benchmarks, we are aware that many AU member countries have established effective pricing models that encourage investment and affordability.

Many African Union countries have demonstrated successful approaches to spectrum pricing that balance affordability with attracting investment. We recommend that ICASA engage with counterparts in other AU member countries to learn from their successes and apply similar strategies in the South African context. A collaborative approach would ensure that spectrum pricing is competitive, aligns with regional norms, and is conducive to broadening digital inclusion.

### **Simplified and Predictable Fee Structures**

A fixed, predictable fee structure that is based on application cost recovery has proven to be successful in other jurisdictions. We recommend that ICASA consider adopting a fixed annual fee, ideally under ZAR 150,000 per year for Gateway Earth Station spectrum licences, to provide clarity and predictability for investors. Such a model would reduce financial barriers, help foster long-term investment, and ensure that costs are not passed on to consumers, thus making internet services more affordable.

Annual increases could be calculated using an equation based on the South African PPI and CPI, as well as the providers' home nation PPI.



*...building the economy one job at a time!*

### **Cost Recovery-Based Model**

We support the adoption of a cost-recovery-based model for spectrum pricing, which would focus on covering the administrative costs of managing spectrum without imposing prohibitive fees on operators. This model aligns with best practices globally and would help promote the rapid deployment of satellite services across South Africa, particularly in underserved regions.

### **Pricing Model**

In conclusion, we advocate for a spectrum pricing model that:

- Aligns with successful practices in other AU member states to ensure competitiveness and regional consistency.
- Uses a fixed and predictable fee structure to encourage infrastructure investments.
- Focuses on affordability and cost recovery to promote the deployment of satellite services in underserved areas.

This approach will help South Africa create a more favourable environment for satellite service providers, ultimately benefiting consumers and promoting the national goals of digital inclusion and connectivity for all.

## **Question 6**

*"Kindly comment on the section above and on the proposal for blanket licensing with a fee for a set number of terminals under a new proposed licence regime to be referred to as "Satellite User Station Network Licence". If possible, please provide a breakdown of the number of terminals with the corresponding spectrum fee values in South African Rands."*

We support the approach of blanket licensing. This approach significantly reduces the administrative and regulatory burden, both for licensees and for ICASA, and is also aligned with best practices.

### **Support for Blanket Licensing Approach**

The concept of blanket licensing for user terminals simplifies the regulatory process, allowing for the rapid expansion of satellite services without the complexity of individual terminal licensing. This aligns with the approaches taken in other parts of the world,



*...building the economy one job at a time!*

where blanket licensing has been effectively used to manage large numbers of terminals. For example, the mobile/cellular environment operates successfully under similar conditions, exempting individual devices from requiring separate licences.

Given the expected growth in the uptake of satellite user terminals—spurred by NGSO mega-constellations and high-throughput satellite (HTS) systems—individual licensing would impose high regulatory costs and act as a barrier to market entry, stifling growth. Blanket licensing mitigates this issue, supporting the efficient and affordable rollout of satellite services across South Africa, including in underserved areas.

### **Proposed Licensing Fee Model**

We propose following a tiered fee structure that scales based on the number of terminals. This approach offers flexibility and ensures that smaller operators or community projects are not burdened by high fees, while larger operations contribute fairly to spectrum use.

A fee structure might look like the following:

- **0 < n ≤ 100 Terminals:** ZAR 10,000 total fee
- **100 < n ≤ 1,000 Terminals:** ZAR 50,000 total fee
- **1,000 < n ≤ 10,000 Terminals:** ZAR 150,000 total fee
- **n > 10,000 Terminals:** ZAR 500,000 total fee

This model allows for scalability while ensuring affordability, especially for community-focused and educational initiatives. It is also essential to ensure that fees are consistent with ICASA's objectives of encouraging connectivity for underserved and rural communities.

### **Benchmarking Against AU Member States**

Many African Union member states have adopted simplified, cost-effective licensing structures for satellite user terminals, with success. We recommend that ICASA benchmark its fee structures and licensing approach against these member countries. For example, several AU member states have implemented spectrum pricing models that reduce administrative overhead while promoting the uptake of satellite services, specifically by lowering costs for high-volume deployments.

### **Impact Focus**

We strongly support the introduction of the Satellite User Station Network Licence as a blanket licence covering user terminals. This approach is efficient, reduces regulatory



*...building the economy one job at a time!*

barriers, and promotes the deployment of affordable satellite services. The proposed tiered fee structure, benchmarked against practices in other African Union member states, will support both small-scale and large-scale deployments, ensuring connectivity is extended to all South Africans, particularly those in rural and underserved areas. This model will help ICASA foster a competitive market that ultimately benefits consumers by making satellite-based internet services accessible and affordable.

## **Question 7**

*"Kindly comment on the appropriateness of using regulation 37 of the ICASA radio regulations ("Recognition of licences issued by other countries") to recognize ESIM licences issued by other countries."*

### **Supporting the Approach**

Recognizing ESIM (Earth Stations in Motion) licences issued by other countries provides a streamlined mechanism for enabling the deployment of ESIM systems within South Africa. This method is consistent with international best practices and ensures that satellite operators can deploy their services without unnecessary delays or barriers.

Many countries have successfully adopted such a system of mutual recognition to facilitate rapid deployment and minimize administrative costs.

Leveraging regulation 37 allows South Africa to participate more effectively in the global satellite industry, reducing the regulatory burden on operators while still ensuring that services meet local compliance standards.

### **Digital Inclusion**

Furthermore, using regulation 37 would help support South Africa's digital inclusion goals, particularly by enabling the quick deployment of ESIM systems that can provide connectivity to mobile and remote users. This is especially relevant for improving internet access on vehicles, ships, and aircraft, which can have significant benefits for economic activity and community connectivity.

We recommend that ICASA consider incorporating clear conditions under which foreign licences are recognized to ensure that compliance with South African safety and technical standards is maintained. Additionally, a reciprocal approach should be encouraged,



*...building the economy one job at a time!*

where South African licences are also recognized by partner countries, fostering international cooperation and market expansion for local operators.

### **Streamlining**

Utilizing regulation 37 for the recognition of ESIM licences will help streamline the process, foster international partnerships, and ultimately contribute to the growth and accessibility of satellite communication services in South Africa. This will not only benefit operators but also ensure that consumers have access to reliable, high-quality connectivity options.

### **Question 8**

“Please provide your comments and details of the best practices in other jurisdictions to fulfil the intentions of the Authority as indicated in the above section. Furthermore, considering the provision set out in the Astronomy Geographic Advantage (AGA) Act of 2007, and the requirements of the Radio Quiet Zone, what measures and techniques do you propose to be employed in mitigating the possible interference that may be caused by the satellites within the Astronomy radio frequency bands in South Africa?”

In response to Question 8 regarding the best practices in other jurisdictions and the considerations for mitigating possible interference caused by satellites within the Astronomy radio frequency bands, we would like to make the following points:

#### **Balancing Interests Between Connectivity and Radio Astronomy**

We recognize the critical role of radio astronomy in advancing scientific knowledge, and we are grateful that South Africa has been selected as the site for major installations such as the Square Kilometre Array (SKA). However, it is essential to balance the needs of a few radio astronomy installations with the critical need to connect millions of people in rural areas to essential services. Access to reliable connectivity is directly tied to the constitutional right of access to information, equal education, and economic opportunities. Therefore, a nuanced approach is necessary—one that allows connectivity to flourish while ensuring that critical astronomical research is protected.



*...building the economy one job at a time!*

## **Best Practices from Other Jurisdictions**

In other jurisdictions where radio astronomy and satellite connectivity coexist, a variety of best practices are employed to minimize interference, including:

- **Spectrum Coordination and Sharing:** In Australia, where the SKA is also partially located, spectrum sharing agreements are used to ensure that satellite and radio astronomy activities do not interfere with each other. Spectrum allocation is carefully managed, and coordination occurs between operators and astronomy installations to reduce the risk of harmful interference.
- **Geographic Exclusion Zones and Power Limitations:** In parts of the United States, exclusion zones and power limitations are implemented to ensure that satellite ground stations, particularly those close to radio observatories, operate in a manner that minimizes interference. Power limits are adjusted in coordination with astronomers to maintain the sensitivity of their observations while still providing community services.
- **Directional Filtering and Shielding:** Directional antennas and shielding can be used to limit unwanted emissions towards radio astronomy sites. Similar techniques are utilized in European countries to protect sensitive radio frequency areas while allowing service providers to operate nearby.

## **Proposed Measures for South Africa**

Considering the requirements of the Astronomy Geographic Advantage (AGA) Act of 2007 and the need to protect the Radio Quiet Zone (RQZ), we recommend a balanced approach that incorporates several mitigating measures:

- **Spectrum Coordination and Frequency Planning:** To minimize the impact on radio astronomy, satellite providers should coordinate spectrum use with SKA and other radio astronomy stakeholders. Clear frequency boundaries can help ensure that services coexist without creating harmful interference. Coordination should be mandatory, ensuring that satellite providers operate outside critical frequency bands used for astronomy.
- **Geographic Protection Zones with Connectivity Trade-offs:** We propose that geographic protection zones around critical installations like the SKA be clearly defined, but that there should be an exception process for providing connectivity





*...building the economy one job at a time!*

to local communities within those zones. When connectivity is deemed necessary to serve schools or healthcare facilities, the regulatory framework should allow low-power satellite services to operate under restricted conditions to prevent interference.

- **Dynamic Spectrum Sharing and Monitoring:** Dynamic spectrum sharing could be a solution that would allow satellite services to access radio frequencies only when they are not being used by radio astronomy activities. Real-time spectrum monitoring and data sharing between satellite operators and radio astronomy facilities could allow for efficient spectrum use without causing interference.
- **Directional Control and Shielding of Satellite Ground Stations:** Satellite operators should use directional antennas with controlled emissions to minimize interference towards sensitive areas. In addition, ground stations should be equipped with shielding to reduce any potential spurious emissions that might interfere with radio astronomy activities.

### **Constitutional Rights versus Scientific Value**

We understand the need to protect the sensitive nature of radio frequency used for radio astronomy; however, it is also crucial to consider the needs of millions of South Africans who rely on connectivity for their education, economic empowerment, and quality of life. A flexible approach that uses coordination, exclusion zones, real-time monitoring, and shared responsibilities between astronomers and satellite service providers can help achieve the dual objectives of protecting radio astronomy while ensuring that underserved communities are not left without access to critical information infrastructure.

We believe that these measures will strike the right balance between the essential needs of radio astronomy and the equally important goal of providing connectivity to all South Africans, particularly in rural areas, in alignment with the vision of the South African Constitution for equal education and access to information.



*...building the economy one job at a time!*

## **Question 9**

*"Please provide proposals on the role the Satellite operators can play in ensuring that broadband connectivity reaches the areas of the country in terms of community networks with Satellite connectivity as a backhaul. Kindly provide a regulatory solution that can be applied by Satellite operators to address the shortcomings of terrestrial networks in providing to unserved and underserved areas of the country. This may include collaboration with government programs to reach out to those unserved and underserved areas of the country."*

### **Foundation of Submission**

We strongly believe that satellite operators have an essential role to play in ensuring that broadband connectivity reaches underserved areas of South Africa. The nature of satellite technology allows for immediate, widespread coverage that can bypass the geographic and economic constraints which limit terrestrial networks, especially in rural and remote regions. Therefore, satellite operators can effectively provide backhaul support for community networks that rely on satellite connectivity, enhancing the reach and quality of service where traditional infrastructure has failed to deliver.

### **Leveraging Satellite Technology for Community Networks**

Satellite operators should be required to collaborate with local stakeholders, including government and community-driven initiatives, to establish community networks with satellite backhaul connectivity. These networks could be set up in local schools, community centres, and healthcare facilities—acting as local internet hubs. The capacity to deploy satellite connectivity directly, without the need for extensive infrastructure investment, makes satellites an ideal tool to address gaps in broadband availability in underserved regions.

### **Crucial Infrastructure**

This is crucial infrastructure for our country, where connectivity cannot remain a privilege limited to urban populations. The right to access information, education, and economic opportunities is enshrined in our Constitution. Satellite connectivity must not serve only profit-driven agendas; rather, it must be a vehicle for national development and social



*...building the economy one job at a time!*

equity. Therefore, multinational satellite service providers must be required to deliver positive outcomes for rural communities, particularly by integrating educational outreach programs as part of their operational commitments in South Africa.

### **Educational Outreach and Community Development Programs**

We propose that regulatory obligations be placed on satellite operators to implement educational and community development initiatives alongside their connectivity services.

These programs should focus on:

- **Digital Literacy Training:** Providing basic training on internet use and digital literacy at community hubs to ensure that residents are able to fully leverage the connectivity provided.
- **Support for Local Schools:** Partnering with educational institutions to offer free or subsidized internet services, educational content, and training for teachers and students. This will help integrate digital tools into education, addressing the digital divide in learning environments, which is a key barrier for many rural schools.
- **Collaboration with Government Initiatives:** Satellite operators should also align with government connectivity programs, ensuring that their services complement national objectives of universal access, such as the goal of connecting all South Africans by 2030.

### **Regulatory Solutions to Ensure Connectivity in Underserved Areas**

A regulatory solution for ensuring effective satellite-backed community networks could include:

- **Social Obligation Licence Conditions:** Every satellite operator should include a provision for a "social obligation" as part of their licensing. This would mandate that a certain percentage of their capacity be reserved for non-commercial, community-focused services, especially in rural areas. By treating this as a public obligation rather than a private initiative, we can ensure long-term benefits for underserved communities.
- **Spectrum Access Incentives:** Satellite operators providing connectivity to underserved areas should benefit from reduced spectrum fees or extended licences for community network support. This is in line with the "high throughput



*...building the economy one job at a time!*

satellite factor (HTSF)" suggested in the documents, which could reduce costs, thereby enabling more competitive pricing for end-users.

- **Partnerships for Public Goods:** Operators should be required to partner with existing community networks or government-supported initiatives to provide backhaul services. These partnerships could ensure that services reach the most rural areas, often where the lack of terrestrial backhaul limits the success of such initiatives. Regulatory provisions should make it mandatory for satellite operators to provide preferential rates or in-kind services to government-funded community networks.

### **Closing the Gap**

Satellite operators play an indispensable role in bridging the connectivity gap in South Africa. By combining a regulatory framework that emphasizes social responsibility, reducing regulatory barriers, and mandating partnerships focused on community upliftment, we can ensure that satellite technologies are used to their full potential to connect those who are otherwise left behind.

We urge ICASA to adopt these principles in its licensing and regulatory framework, ensuring that satellite operators prioritize connectivity for the underserved, while supporting educational outreach and creating sustainable community networks.

This response focuses on the core idea that satellite operators have a responsibility to contribute meaningfully to society, especially given the critical infrastructure they provide. It also integrates regulatory recommendations to align with the larger objectives of community upliftment and equitable connectivity. Let me know if there are additional areas you'd like to emphasize or expand upon.



*...building the economy one job at a time!*

## **Conclusion**

In conclusion, the Meta Economic Development Organisation (MEDO) strongly supports the adoption of a regulatory framework that ensures satellite connectivity is leveraged to bridge the digital divide in South Africa. By aligning with international best practices, simplifying regulatory processes, and mandating social obligations for satellite operators, ICASA can foster a more inclusive digital environment.

The responses provided emphasize that satellite connectivity is not just a commercial venture but a vital component of national infrastructure. By integrating regulatory conditions that prioritize educational outreach, community development, and access for underserved regions, MEDO envisions a future where every South African—especially those in remote and rural areas—has equal opportunities for education, economic participation, and social development.

We urge ICASA to take a bold approach in shaping a regulatory framework that not only encourages investment in satellite technology but also ensures tangible, positive outcomes for communities across South Africa. By doing so, we can collectively contribute to building a more connected, educated, and prosperous nation.