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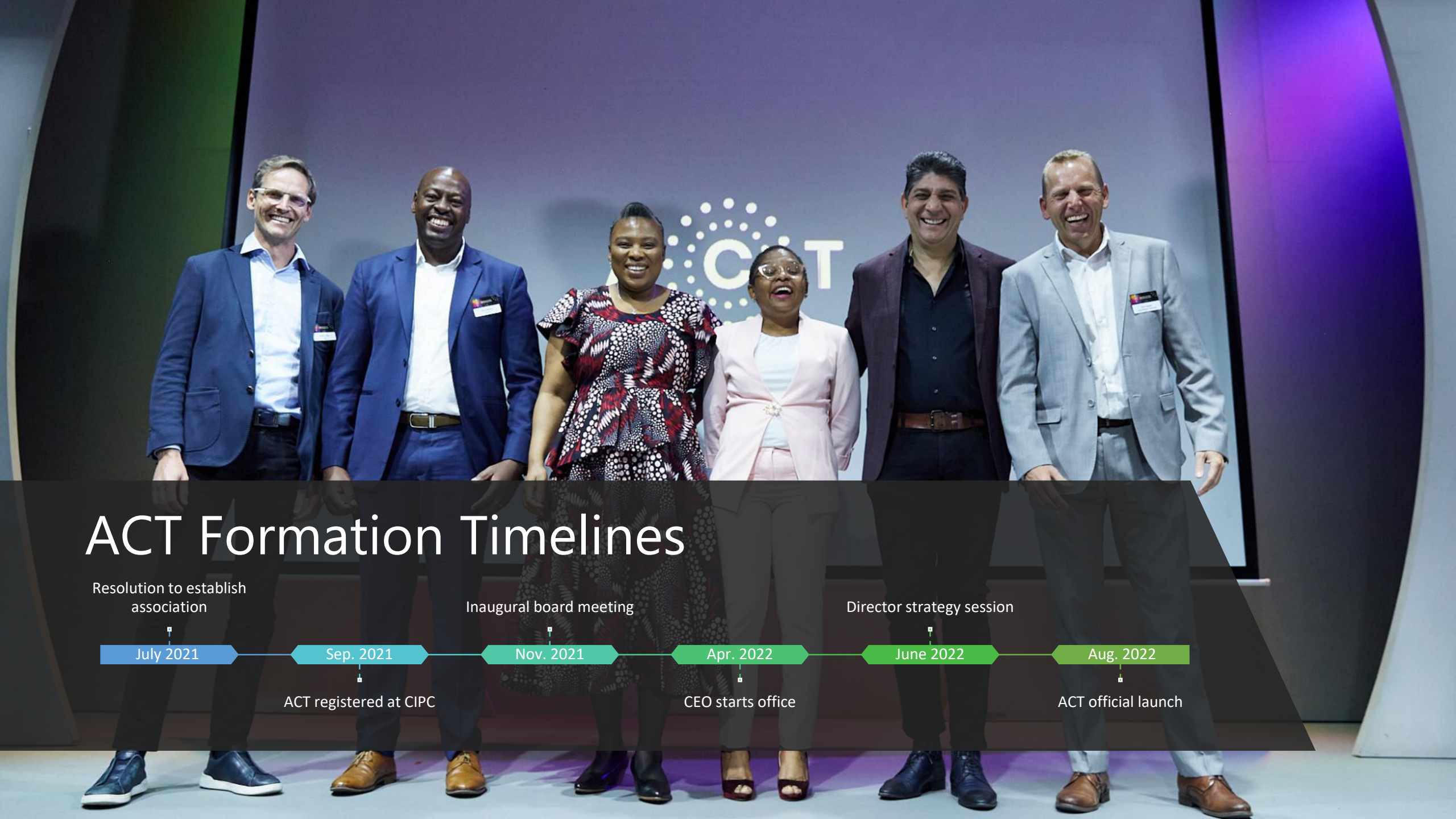
# A thriving and leading African digital, communications and telecommunications ecosystem

The Association of Comms and Technology collaborates with ecosystem stakeholders to advocate for a thriving communications and telecommunications sector by conducting leading practice research and analysis to inform the development of a conducive strategic, policy and regulatory environment in SA



# ACT Formation Timelines

- **July 2021** — Resolution to establish association
- **Sep. 2021** — ACT registered at CIPC
- **Nov. 2021** — Inaugural board meeting
- **Apr. 2022** — CEO starts office
- **June 2022** — Director strategy session
- **Aug. 2022** — ACT official launch

# Completing the Spectrum Auction

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# BACKGROUND

The Independent Communications Authority of South Africa (ICASA) successfully concluded a high-demand radio frequency spectrum auction in March 2022 that generated over R14.4 billion for the national fiscus. The auction involved six qualified bidders: Cell C, Liquid Intelligent Technologies, MTN, Rain, Telkom, and Vodacom.

This led to the formation of The Association of Comms and Technology (ACT). ACT plays a central role in advancing the South African telecommunication landscape. ACT members are distinguished International Mobile Telecommunication (IMT) spectrum licensees, playing a pivotal role in providing mobile broadband wireless access services across both urban and rural areas in South Africa. These services are facilitated through the utilization of complementary bands, specifically the IMT700, IMT800, IMT2600, and IMT3500. These bands serve as the foundation for the delivery of advanced and expansive mobile communication services, catering to the diverse needs of communities across the nation.

| Bidder | 700 MHz | 800 MHz | 2600 MHz | 3500 MHz | Total Price (ZAR) |
|---|---|---|---|---|---|
| Telkom | | 2x10 | | 22 | 2,113,615,407 |
| Liquid Telecom | | | | 4 | 111,000,000 |
| Cell C | | | | 10 | 288,200,000 |
| Rain | 2x10 | | 20 | | 1,431,374,106 |
| MTN | | 2x10 | 40 | 40 | 5,152,100,000 |
| Vodacom | 2x10 | | 80 | 10 | 5,381,600,000 |
| Unsold | | 2x10 | | | |

https://www.ellipsis.co.za/high-demand-spectrum/

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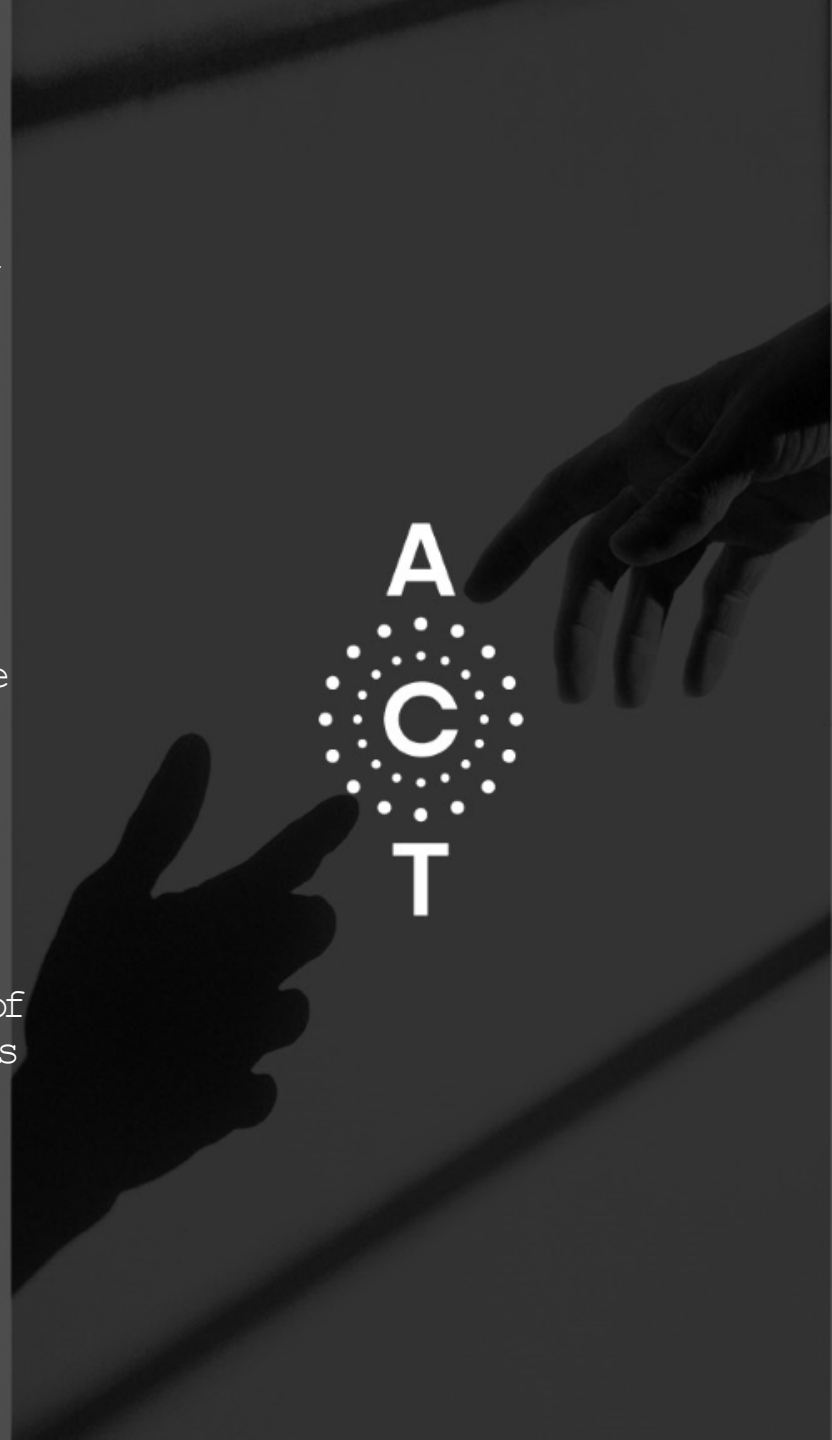
# Strides

The successful conclusion of the high-demand spectrum auction in South Africa in 2022 should enable telcos to make significant strides in expanding connectivity and improving affordability:

- The additional spectrum acquired by telcos will allow them to expand 4G and 5G coverage, especially in underserved rural areas. This will help bridge the digital divide and bring more South Africans online.
- The spectrum should also enable telcos to increase network capacity to handle growing data traffic and improve quality of service for consumers.
- Importantly, the spectrum is expected to increase competition in the market, as more players like Rain and Liquid Telecom gained access to spectrum.
- The Social Obligations include initiatives focused on connectivity, digital inclusion, and community development, aligning with national goals and priorities.
- In the current form of the obligations, ACT members aim to bridge the digital divide by leveraging the IMT spectrum in the specified bands, providing reliable and high-speed mobile broadband services to both urban and rural areas. This strategic use of spectrum resources underscores their commitment to advancing telecommunications infrastructure, fostering economic growth, and ensuring that the benefits of digital connectivity are accessible to all segments of the population. Through these efforts, ACT members aim to contribute significantly to the realization of a connected and digitally inclusive South Africa.

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# Roll out

While the auction occurred in 2022, temporary spectrum was issued to telcos during the pandemic to deal with additional traffic as networks came under pressure during the various lockdowns and the distributed work-from-home shift.*

"Connections were better and more stable and mobile network operators were able to start testing 5G capabilities. They will just use the new spectrum to further advance some of the solutions that they are already building on the back of the temporary spectrum." -Thobeka Tubela

However, the availability of the 800MHz band took some time. Broadcasters who previously used this band experienced significant delays in migrating from analogue to digital broadcasting to free up the valuable radio frequency spectrum to be used in the provision of mobile broadband services and other applications as such, it has taken time for telcos to use this spectrum.

Some telcos have already started launching services using the newly acquired spectrum.

MTN South Africa: MTN acquired spectrum in various bands including 800 MHz, 2.6 GHz, and 3.5 GHz. This has enabled them to enhance their 4G and 5G networks across the country, aiming to provide better coverage and increased capacity.

Vodacom South Africa: Vodacom acquired spectrum in the 700 MHz, 2.6 GHz, and 3.5 GHz bands. They have been focusing on expanding their 5G network and improving 4G services, particularly in underserved areas.

Telkom: Telkom obtained spectrum in the 800 MHz and 3.5 GHz bands. They have been leveraging this to enhance their mobile network services and expand 5G coverage.

RAIN: Rain, which focuses primarily on data services, acquired spectrum in the 700 MHz and 2.6 GHz bands. They have been expanding their 4G and 5G network offerings, focusing on high-speed data services.

CellC: CellC, which is restructuring its business model, acquired spectrum in the 3.5 GHz band. Due to the business model reset, CellC has taken a slower pace in completing the spectrum process.

Liquid: Liquid acquired spectrum in the 3.5 GHz band, which is crucial for 5G deployment. They have been focusing on enhancing their network infrastructure to provide high-speed internet and other telecommunications services. Liquid's strategy involves expanding 5G services to support enterprise solutions and digital transformation initiatives in various sectors, including education, healthcare, and agriculture.

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*https://www.engineeringnews.co.za/article/a-step-forward-as-south-africa-embarks-on-first-spectrum-auction-in-over-a-decade-2022-04-15

# Challenges

The spectrum auction process in South Africa faced several key challenges from a telco perspective but the most notable being at the tail end of the process.

- The telecommunications industry in South Africa is currently grappling with a nuanced challenge in establishing a harmonious middle ground with regulatory authorities concerning spectrum obligations. These obligations, integral to the licensing framework, encompass a range of responsibilities, from connectivity enhancement to addressing socio-economic imperatives. The crux of the challenge lies in the site allocations and their sustainability, coupled with the historical observation that fragmented and unconsolidated efforts have, at times, led to the failure of meeting mandated obligations.
- The telco sector, under the umbrella of the Association of Comms and Technology, recognizes the imperative to address these challenges systematically. The fragmented nature of site allocations poses a threat to the industry's ability to fulfill obligations effectively, as witnessed in past instances. The lack of consolidated efforts not only hampers the achievement of regulatory mandates but also risks the redundancy and failure of initiatives designed to benefit the communities they are meant to serve.
- In light of these challenges, ACT is proactively seeking solutions to streamline and optimize the process of meeting spectrum obligations. The aim is to establish a framework that not only ensures the sustainability of site allocations but also fosters coordinated efforts among industry stakeholders. By addressing these issues head-on, ACT endeavors to pave the way for a more efficient and impactful fulfillment of spectrum obligations, thereby contributing to the overarching goals of the telecommunications sector in South Africa.

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# Current Status

In January 2024, licenses were issued to the winning bidders, which included a list of public service institutions (PSIs) that they must connect as part of their spectrum social obligations. These obligations were a key component of the auction terms, intended to ensure the benefits of the expanded spectrum access are realized across South African society. Telcos have welcomed this initiative, recognizing it as an opportunity to promote digital literacy, inclusion, and the growth of the digital economy. However, they have also expressed concerns about the practical implementation of these obligations.

The telcos that acquired spectrum are now in the process of trying to implement their spectrum social obligations, which were a key part of ICASA's auction design. However, the need for alignment, communication, and coordination between the various stakeholders remains an ongoing challenge.

What is required to make it work:

- Avoiding Duplication of Efforts: There is a need for alignment and coordination between the telcos, ICASA, affected government departments (e.g., Department of Basic Education, Department of Health), and the line department DCDT to ensure efficient and non-duplicative implementation.
- Cross-Functional and Inter-Departmental Communication: Effective communication channels must be established to facilitate collaboration and information-sharing between the various stakeholders involved.
- Alignment on Obligations and Timelines: Clarity is required on the specific obligations and workable timelines for telcos to fulfill their spectrum social responsibilities.

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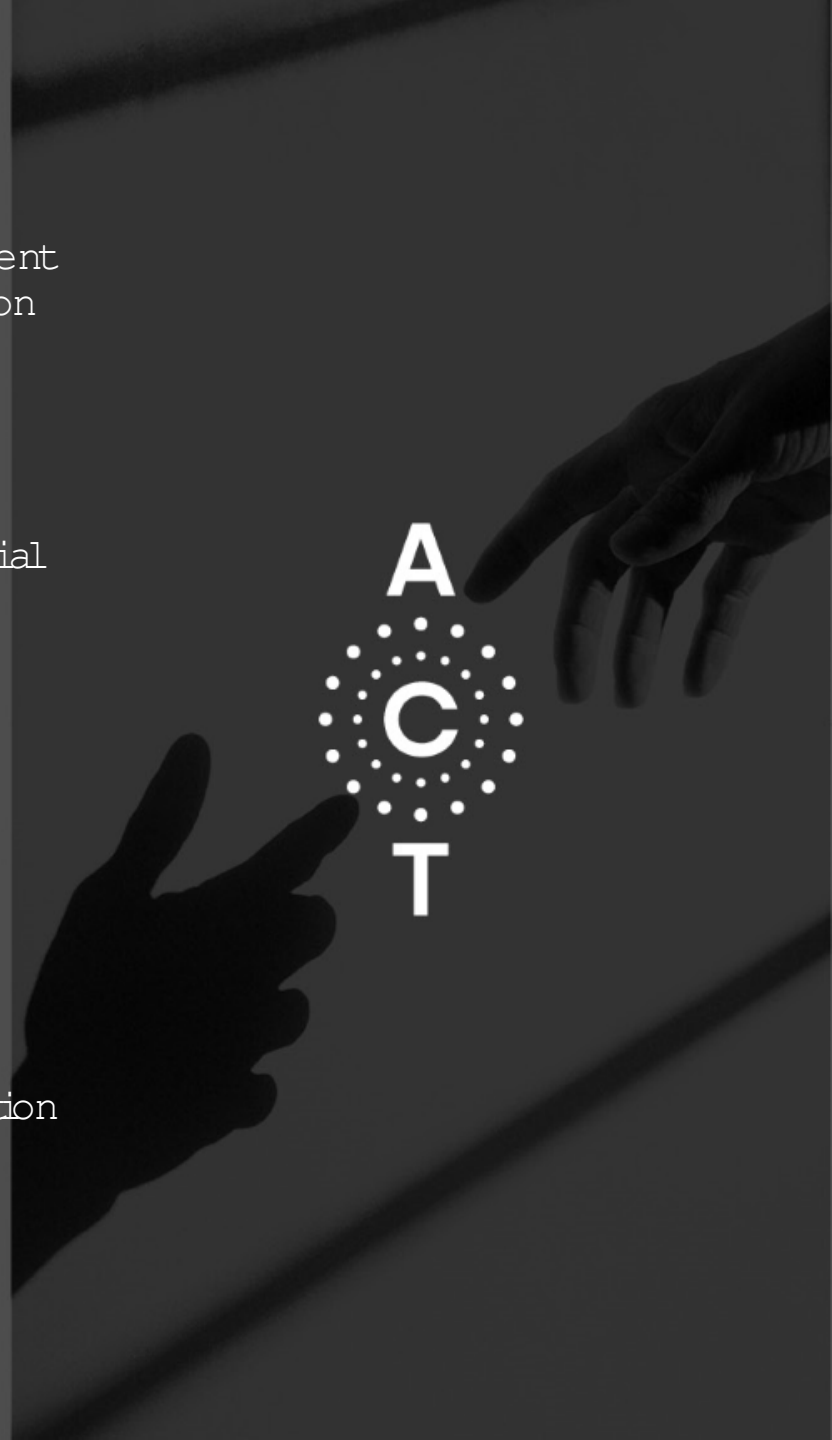
# How can this be achieved

The coordinated effort between telcos, ICASA, the DCDT, and other affected government departments is expected to play a crucial role in ensuring the successful implementation of the spectrum social obligations in South Africa.

## Key Objectives of the Coordinated Effort

- Design Specific, Measurable, Achievable, Relevant, and Time-Bound (SMART) Social Obligations
- Establish Robust Monitoring and Enforcement Mechanisms
- Balance Social Obligations with Other Objectives
- Provide Administrative Assistance to Licensees
- Partner with Stakeholders for Monitoring and Evaluation

By working together through this coordinated effort, the telcos, ICASA, the DCDT, and other stakeholders can ensure the successful and sustainable implementation of the spectrum social obligations. This will help realize the full potential of the spectrum auction in driving digital inclusion and socio-economic development across South Africa.

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# Way forward

- In the past, the implementation of similar obligations has faced challenges due to a lack of proper coordination, resulting in delays, wasteful expenditure, confusion, and some areas being left unattended. To address these issues, telcos are seeking to establish a working group that includes the DCDT, ICASA, and the licensees.
- The aim is to create a Project Management Office (PMO) focused on enhancing the rollout of the obligations, creating a centralized repository of information, and serving as a point of departure for all stakeholders involved. Only once this coordinated approach is in place will the successful completion of the auction process be realized. The auction has opened up spectrum for telcos to expand their technologies, but the true success will be measured by the extent to which all South Africans can access and benefit from these developments.
- The ultimate goal is to ensure the sustainability of the spectrum social obligations, both financially and from a usage perspective. This means not only connecting the PSIs as required, but also ensuring the long-term viability and utilization of these connections to truly benefit the communities they serve.
- By working cohesively with the regulator and policymakers, telcos hope to ensure the spectrum social obligations are fulfilled, leaving no community behind in the journey towards a more digitally inclusive South Africa. The successful completion of the auction process will be measured by the extent to which all South Africans can access and benefit from these developments.


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