



Spectrum RD&I to Address: The Digital Inclusion Gap, Affordability and Unemployment Challenges

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science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA



CSIR
Touching lives through innovation

CSIR's Vision and Mission



VISION

We are accelerators of socio-economic prosperity in South Africa through leading innovation



MISSION

Collaboratively innovating and localising technologies while providing knowledge solutions for the inclusive and sustainable advancement of industry and society



Outline



1. Motivation
2. Background
3. Programmes to support rural digital entrepreneurial champions (Rural TVWS network operators)
4. Beneficiary entrepreneurs, status and impact
5. Rural digital entrepreneuria champions success stories
6. Word of appreciation

Motivation (1/4) – Digital Inclusion for Economic Growth



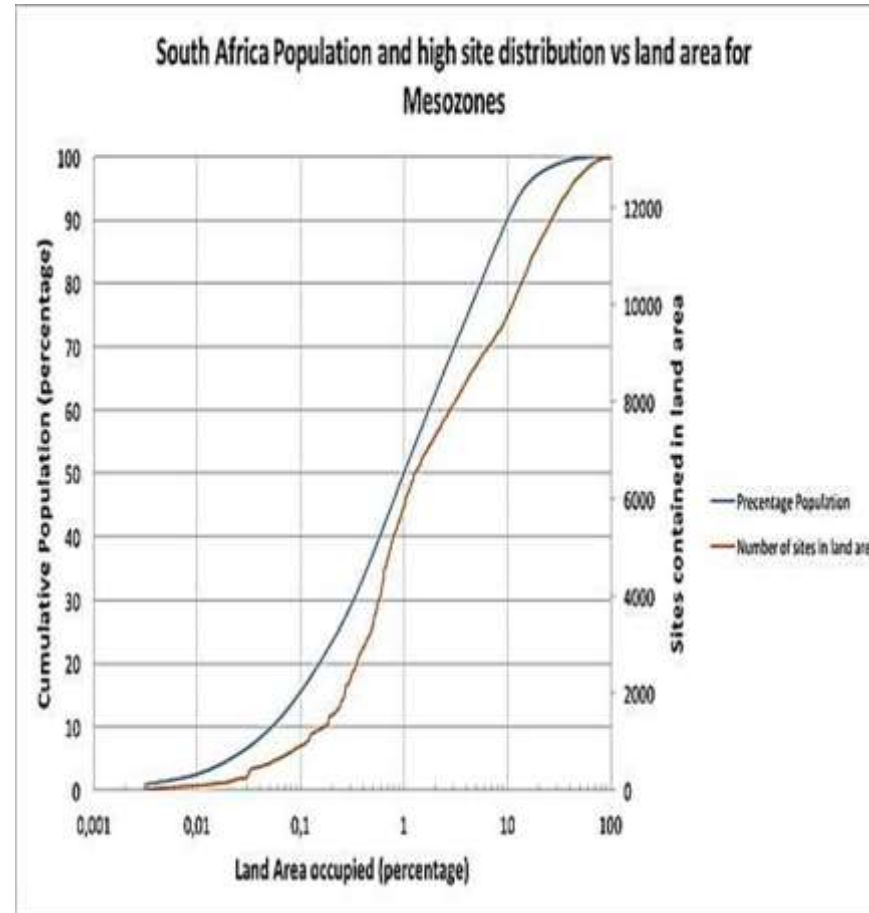
- The 4IR requires ubiquitous low-cost broadband connectivity to the information superhighway for every citizen, enabling them to effectively participate in the digital economy; and
- According to various research reports, a 10% of broadband connectivity can contribute up to 2.3 percent of GDP economic growth in developing countries.

Motivation (2/4) – NDP/NBP /UN SDGs

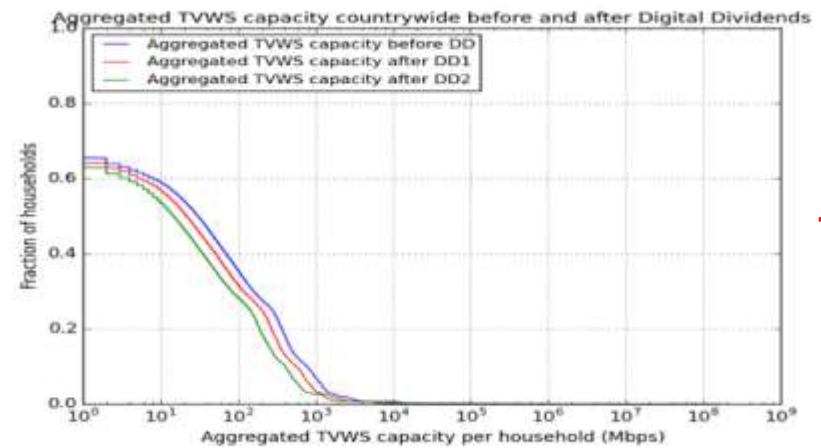
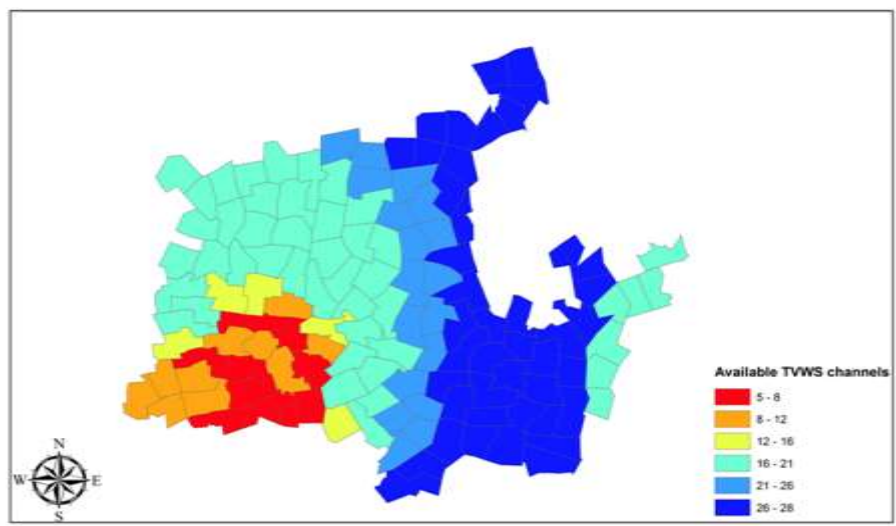
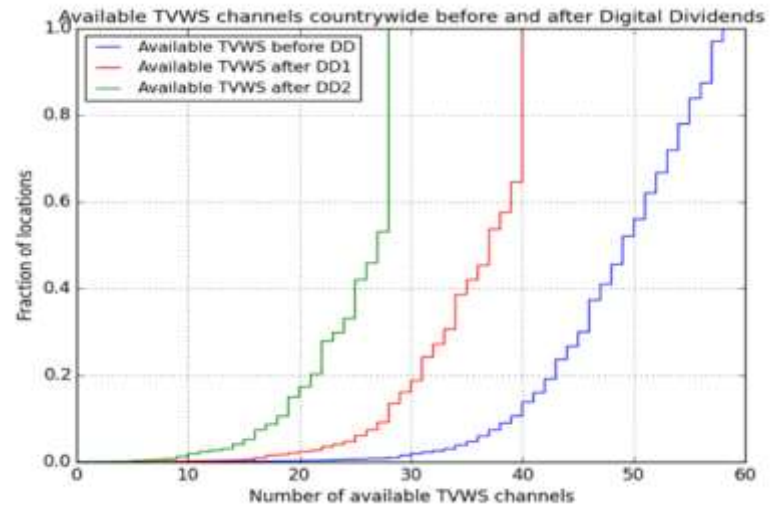
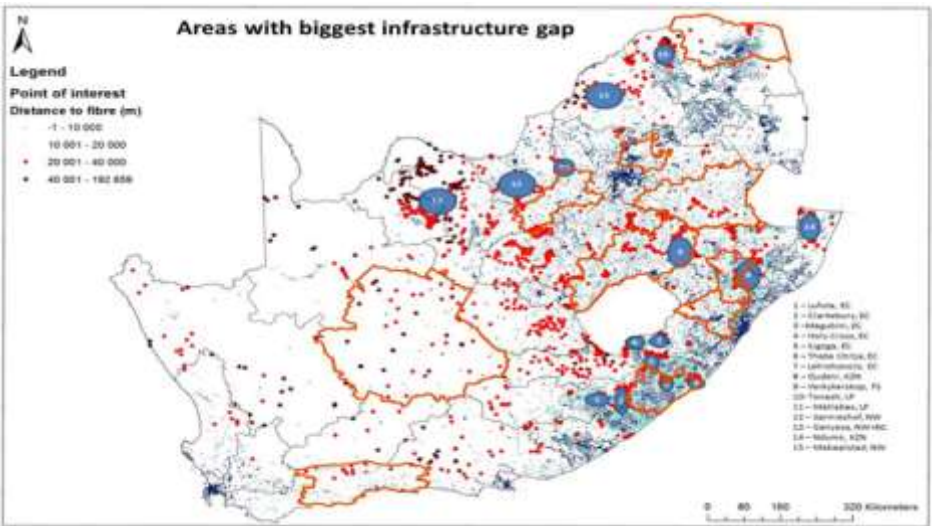


Motivation (3/4) – The Affordability Challenge

- Nearly 3 Billion people are still not connected to the internet globally
- Approx. 33% of SS Africans are connected to mobile broadband Internet- (RSA is above 95%)
- Approx. 1% of rural South African HHs are connected to Fixed broadband network Vs 14% of urban South African HHs
- Nearly 80% of those connected through mobile broadband are not able to stay online due to the data affordability challenges



Motivation (4/4) – Efficient Spectrum Utilisation is a Key

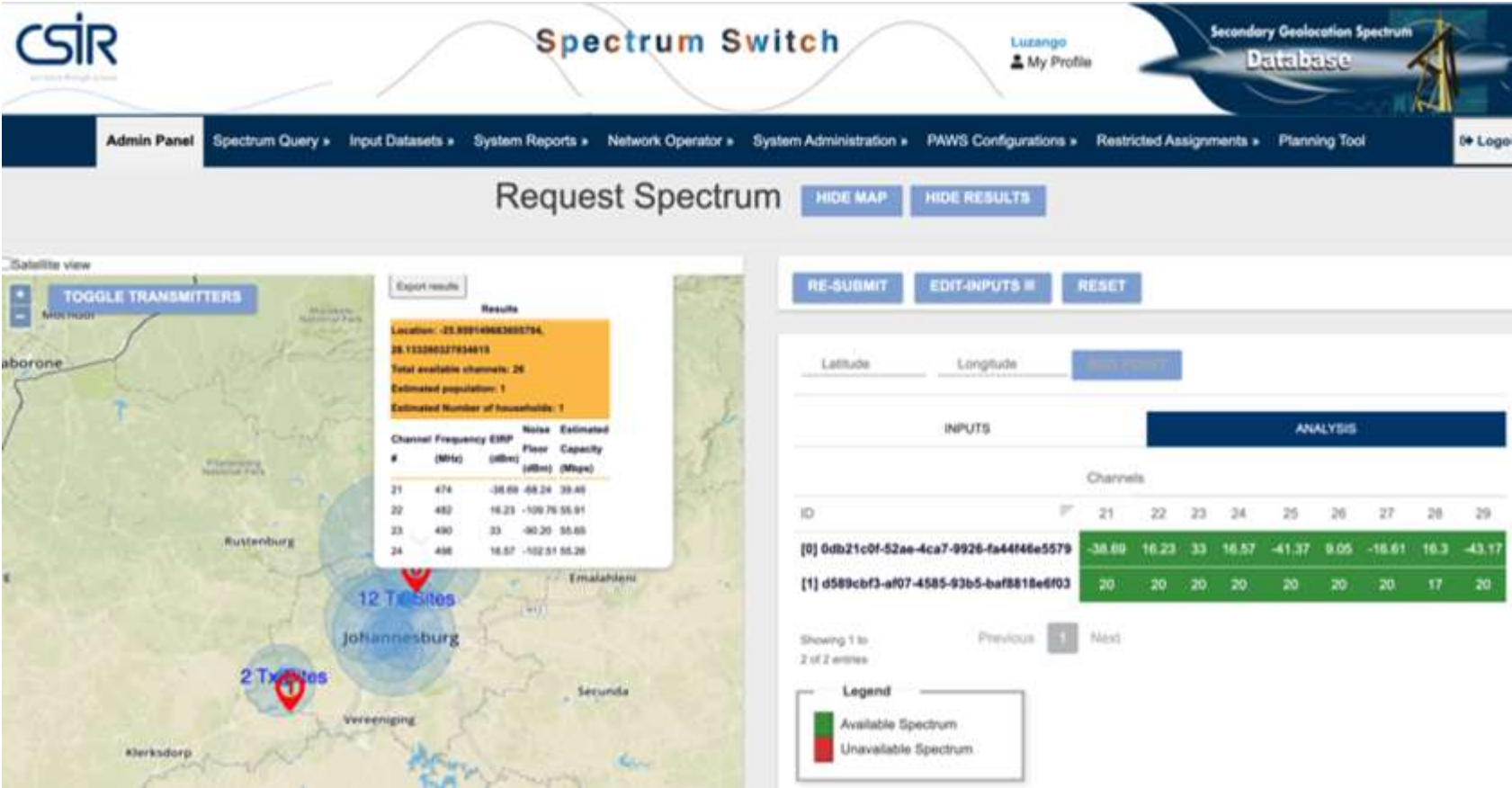


TVWS channels availability - Tshwane.

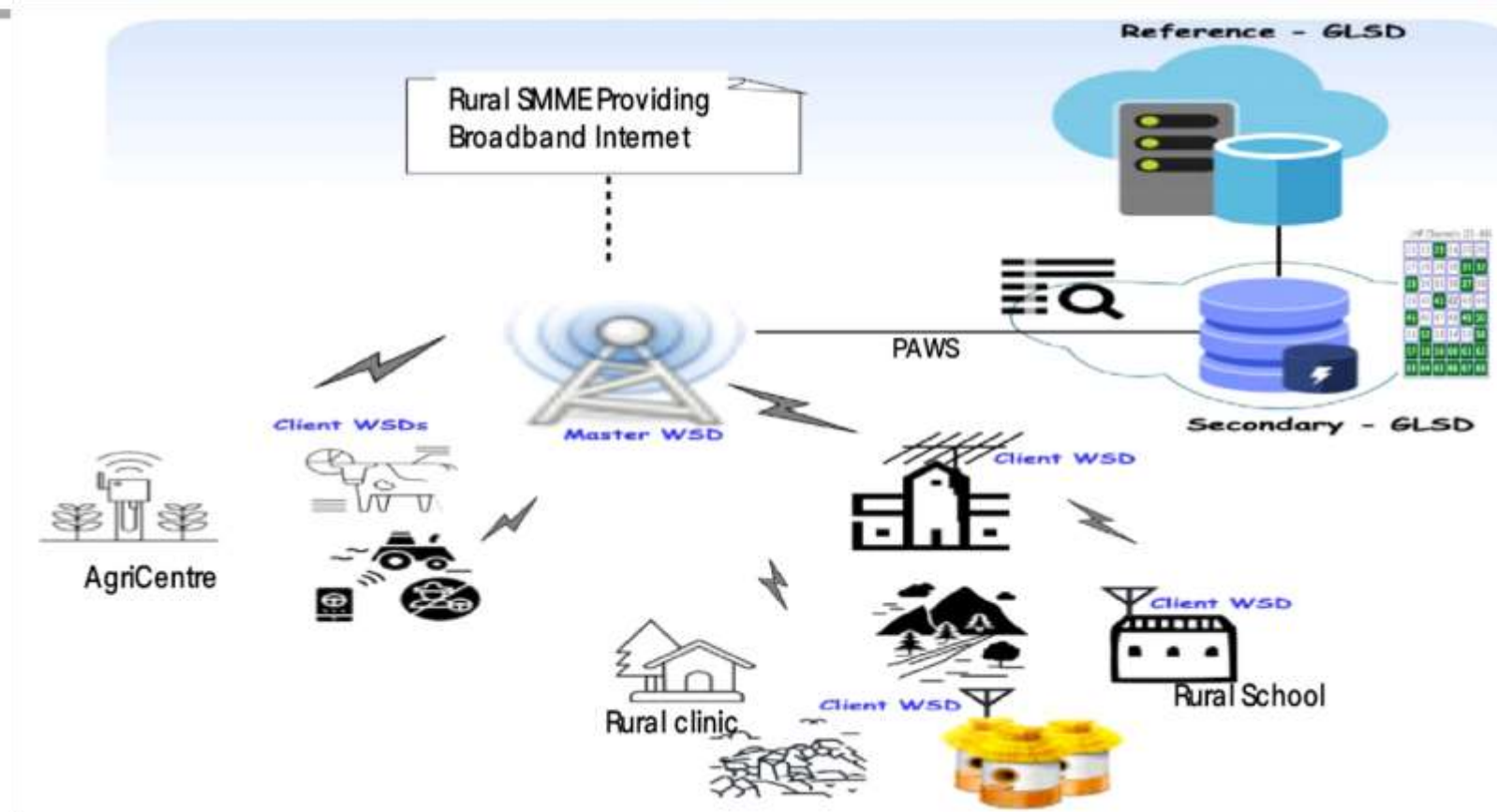
Background (1/4) – RD&I Roadmap towards TVWS



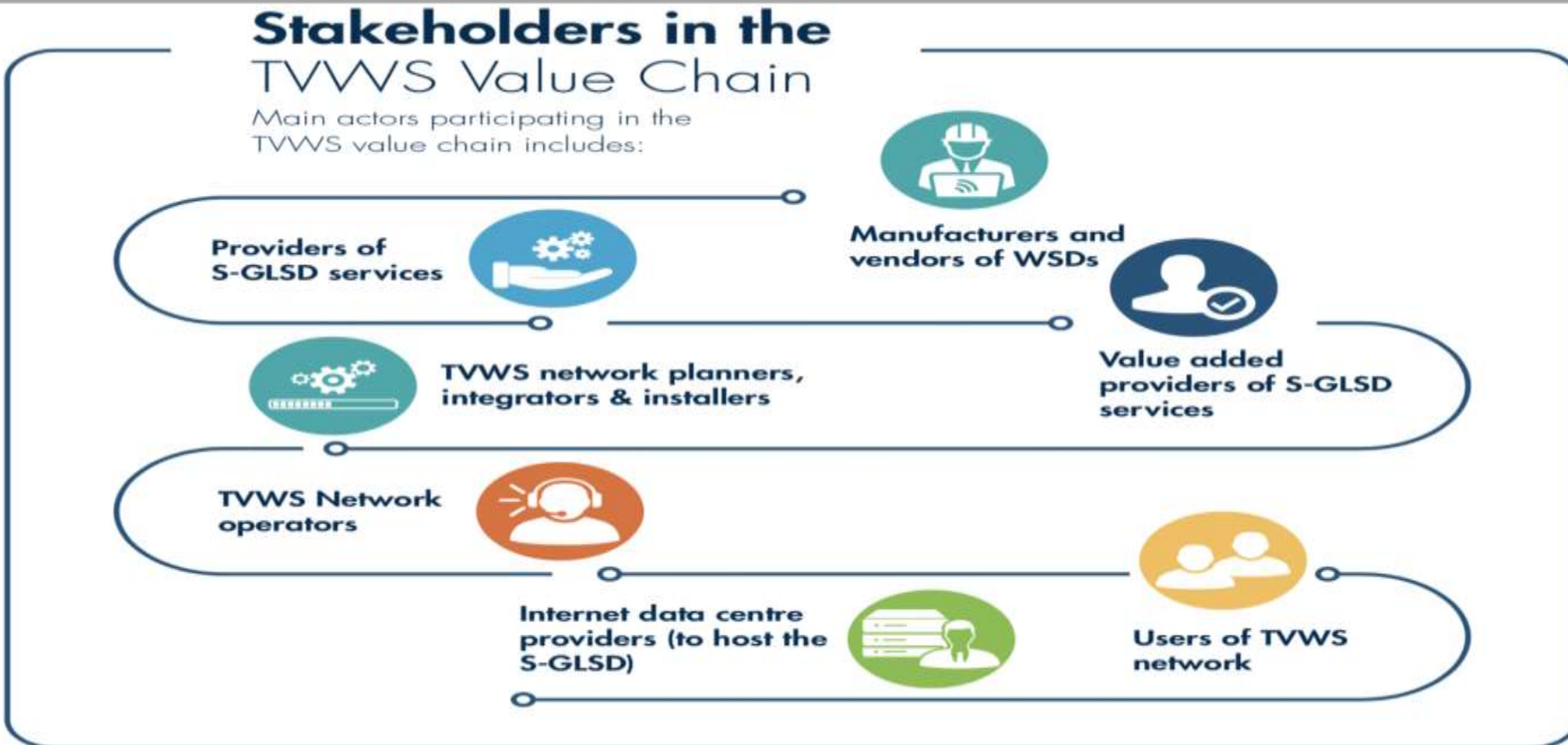
Background (2/4) – CSIR Technologies for Harnessing TVWS



Background (3/4) - TVWS Broadband Network Ecosystem



Background (4/4) - TVWS Industry Value Chain



The TVWS industry is still at an infancy stage dominated by SMME actors.

Programme to Support Rural Digital Entrepreneurial Champions (Rural TVWS Network Operators)



To support the bridging of the digital divide initiatives through provision of affordable broadband services in unserved and underserved rural and township communities

To support digital literacy initiatives among communities to improve the uptake of digital services and applications

To create job opportunities for youths, women and persons with disability

To ensure SMMEs business sustainability



Beneficiary Entrepreneurs, Status & Impact – Phase 1

CSIR Supporting ICT-based SMMEs in Collaboration with the UNDP x FCDO x SEACOM.

SMME's Location



SMME's Profile

Mdantsane Mobile – East London, EC Youth Owned Status - Operational 6 x Public Facilities Connected 10 x Local Businesses Connected 281 x Households Connected 10 x Jobs Opportunities Created 35 x Wi-Fi hotspots Connected	AdNotes - Port Shepstone, KZN Youth Owned Status - Operational 26 x Public Facilities Connected 43 x Local Businesses Connected 164 x Households Connected 15 x Jobs Opportunities Created 40 x Wi-Fi hotspots Connected
Black Equations - Ocean View, WC Woman Owned Status -Operational 1 x Public Facilities Connected 2 x Local Businesses Connected 14 x Households Connected 12 x Jobs Opportunities Created 14 x Wi-Fi hotspots Connected	Kathabo Tech - Botshabelo, FS Woman Owned Status – Under constructions 4 x Public Facilities Connected 1 x Local Businesses Connected 11 x Households Connected 6 x Jobs Opportunities Created 11 x Wi-Fi hotspots Connected

Implementation of Phase 2 is underway supporting 9 x SMMEs located in 5 x Provinces.

Rural Digital Entrepreneurial Champions success Stories (1/4) – AdNotes



Chief's Court



STEM Centre




Mavundla Primary School



Rural Digital Entrepreneurial Champions Success Stories (2/4) – Black Equations



Residential Hotspot



Time Based Wi-Fi Vouchers

TIME BASED VOUCHERS

R2	R5
FCT1	FCT3
1 Hour Internet	3 Hour Internet
5 Mb/s	5 Mb/s
1 Device	1 Device
Valid for 24 Hours	Valid for 24 Hours
Enter IForYou	Enter IForYou
Enter BEU Voucher	Enter BEU Voucher

Rural Digital Entrepreneurial Champions Success Stories (3/4) – Kathabo Tech



SechaBa Mahube Library



Visit to School Principals' Office



Rural Digital Entrepreneurial Champions Success Stories (4/4) – Mdantsane Mobile



Call Centre Mdantsane Mobile



Residential Hotspot



Word of Appreciation to our Partners and Stakeholders

1. UNDP
2. FCDO
3. ICASA
4. SEACOM
5. MKI
6. TIA
7. DSI
8. DCDT
9. Office of premier, KwaZulu Natal
10. BIFT
11. PBICT
12. WAPA
13. Old Mutual Foundation
14. Wits Business School
15. OEMs
16. RNM
17. Smart Xchange



THANK YOU

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