

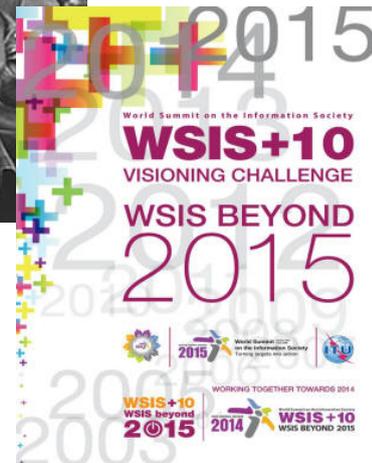
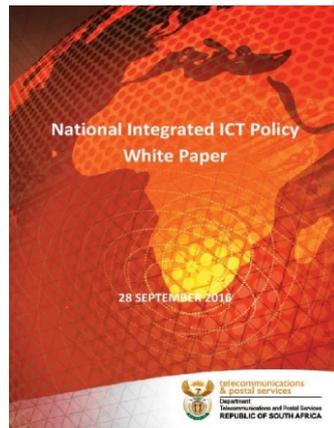
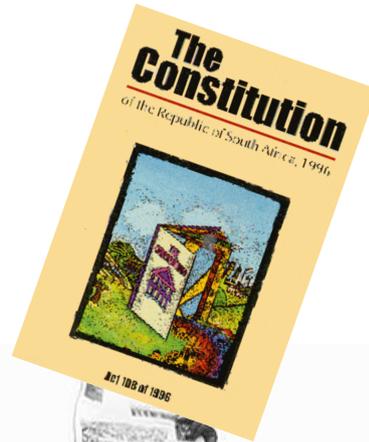
Joint Submission to the
Electronic Communications Amendment (ECA) Bill
Zenzeleni Networks
Association for Progressive Communications (APC)
University of the Western Cape (UWC)

Dr. Carlos Rey-Moreno, APC/Zenzeleni
Prof. Shaun Pather, UWC

Stakeholder Consultative Workshop: ECA Bill
7 March 2018, Pretoria



The mandate for ICT-facilitated development of South Africans



The rural issue

- The National Development Plan (2012) (NDP), South Africa Connect: The National Broadband Policy and Strategy (2013) (SA Connect) and the recommendations captured in the National ICT Advisory Review Panel Report (2015) (ICT Panel Report) have identified that:
- ***Despite the policy and regulatory framework, network roll-out is skewed towards urban areas – and the prospects of providers rolling out modern broadband services in rural and less affluent areas without government intervention are minimal.***

Our primary question: More detailed analysis of the ECA Bill



Central issues

- **The plight of the poor – especially in rural South Africa – is grave with regard to the prevailing digital divide.**
 - **We therefore welcome the premise of the ECA Bill and related endeavours.**
- **There has been a dominant view to date that contributions to the Universal Access and Service Fund (USAF) and other obligations are sufficient to address the problem.**
 - **But our model for Universal Service and Access has failed.**
 - **Policy interventions must focus on the “true access gap” and “smart subsidy zones”, as per the focus of the National Integrated ICT Policy White Paper (White Paper).**
- **We note a lot of consternation among for-profit entities, which is understandable.**

Policy making versus regulating: We need quicker and smarter actions to achieve the lofty goals set.

**ZENZELENI: Demonstrating
an innovative model for
bottom-up, community-
centric, community-owned
networks**

Community networks

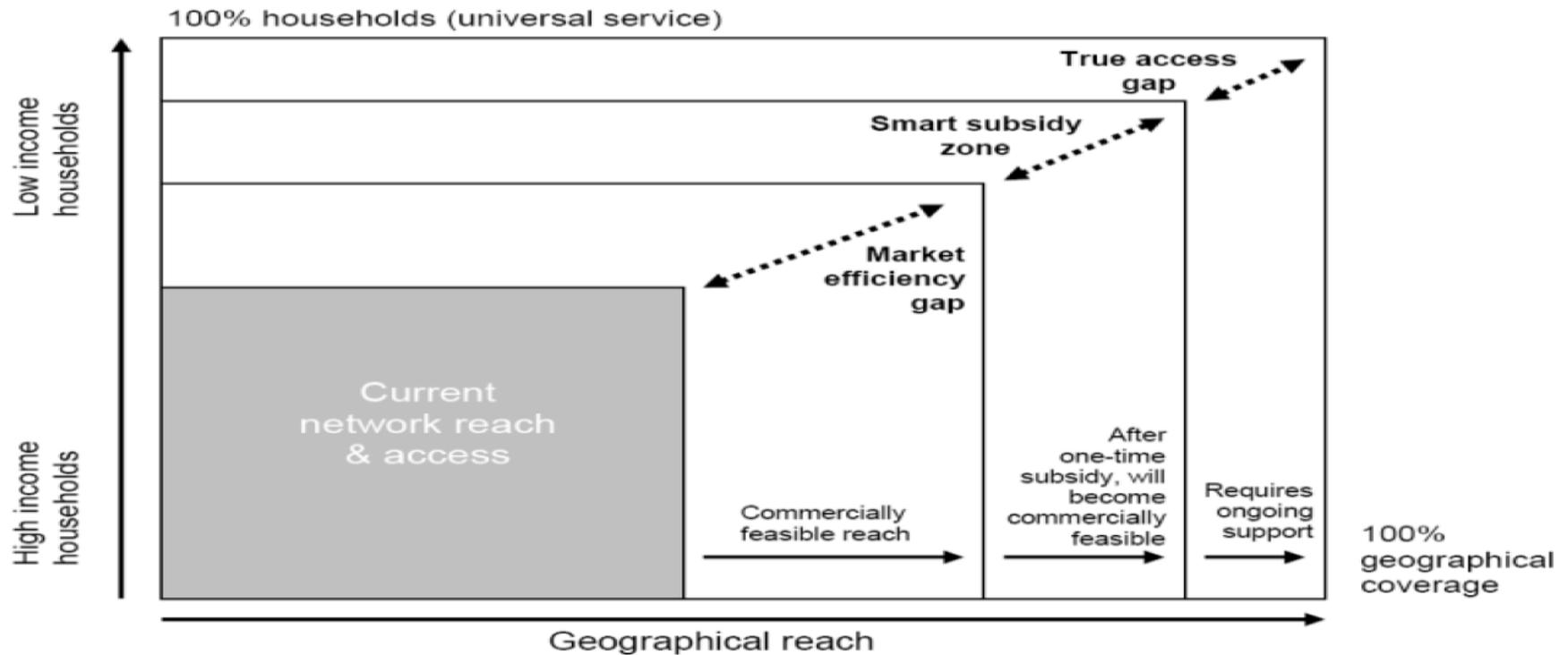
- Historically disadvantaged communities can obtain the technical and related skills, including support, to install, manage and operate their own electronic communications services and infrastructure.
- This innovative arrangement for **communities to self-provide** is globally known as a community network and is aligned with:
 - SA Connect proposed alternatives to close the digital divide.
 - Recommendation 19 from the ITU Telecommunications Development Sector, which advocates that “**business models which can achieve financial and operational sustainability can be operated by local entrepreneurs supported by a variety of initiatives.**”
 - The ICT White Paper, which promotes innovation.

Importance of partnerships to advance rural connectivity

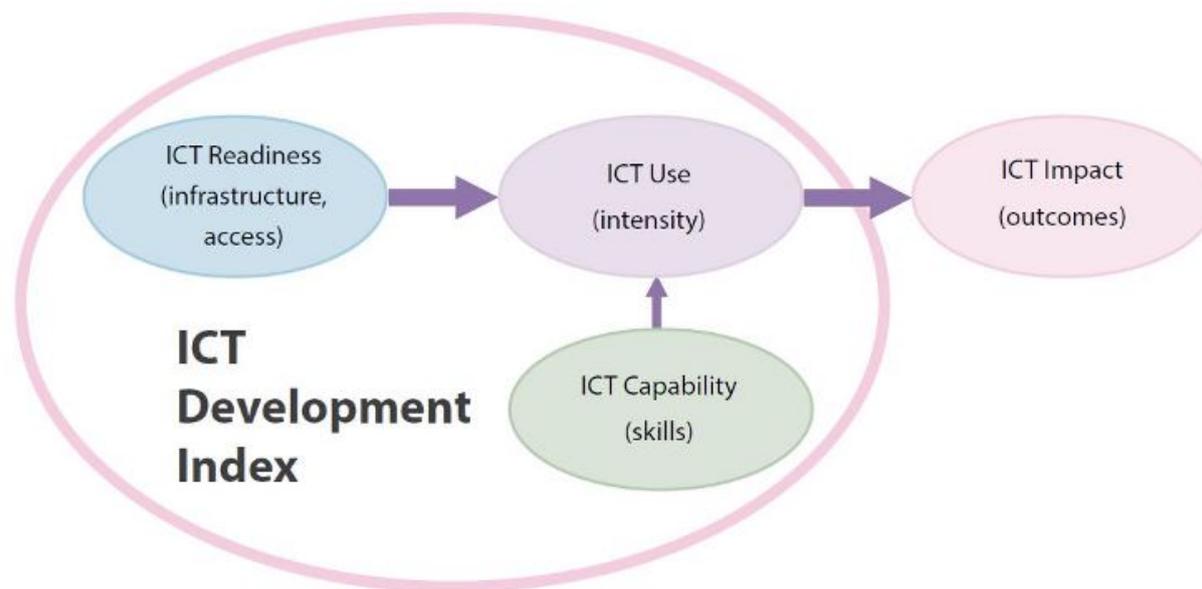
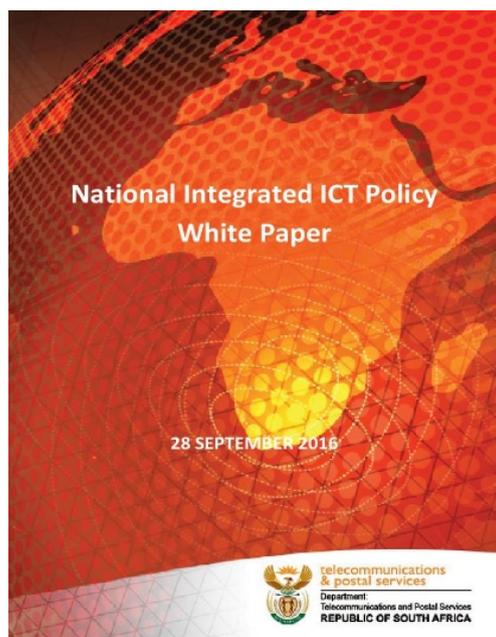
- The ICT White Paper highlights the importance of multiple stakeholders coming together. The World Summit on the Information Society (WSIS) Declaration of Principles also emphasises that “**a joint effort**” and “**cooperation and partnership among all stakeholders**” are essential to building a people-centred information society.



Addressing the “true access gap” in rural South Africa



ZENZELENI community ownership model: Advances all components of the ICT Development Index (IDI) and the development goals highlighted in the White Paper



In Mankosi, people spend 22% of their disposable income on communications.



Zenzeleni Mankosi Coop board members



Certificate issued by the Commissioner of Companies & Intellectual
Property Commission on Monday, March 17, 2014 at 13:43



Companies and Intellectual
Property Commission
a member of the dti group

Certificate of Registration

CR10

Registration Number: 2014 / 002051 / 24
Enterprise Name: ZENZELENI TELECOMMUNICATIONS NETWORK PRIMARY CO-OPERATIVE LIMITED

REPUBLIC OF SOUTH AFRICA
CO-OPERATIVES ACT, 2005

CERTIFICATE OF REGISTRATION
OF A CO-OPERATIVE
(SECTION 7)

I hereby certify that

ZENZELENI TELECOMMUNICATIONS NETWORK PRIMARY CO-OPERATIVE LIMITED

was registered on

5/2/2014

under Section 7 of the Co-Operatives Act, 2005 (Act 14 of 2005),
with registration number

2014 / 002051 / 24

as a Primary Co-Operative with a limited liability.
Its constitution was also registered on the same date.

I further certify that

ZENZELENI TELECOMMUNICATIONS NETWORK PRIMARY CO-OPERATIVE LIMITED

is with effect from 5/2/2014 entitled to commence business.

REGISTRAR OF CO-OPERATIVES

Page 2 of 2

Physical Address
the dti Campus - Block F
77 Meintjies Street
Sunnyside 0001

Postal Address: Co-operatives
Private Bag x237
Pretoria
0001

Docex: 256
Web: www.cipc.co.za
Contact Centre: 086 100 2472 (CIPC)
Contact Centre (International): +27 12 394 9500



Independent Communications Authority of South Africa
Pinmill Farm, 164 Katherine Street, Sandton
Private Bag X10002, Sandton, 2146

Licensing and Compliance
Tel: +27 11 566 3645
Fax: +27 11 566 3646
Email: ahlabioa@icasa.org.za
Ref: PECN/0018/2014/ECSLE/0003/2014

Masibulele Siya

Zenzeleni Telecommunications Network
Primary Co-Operative Limited
Mankosi Administrative area
Ward 26, Nyandeni Municipality
Eastern Cape

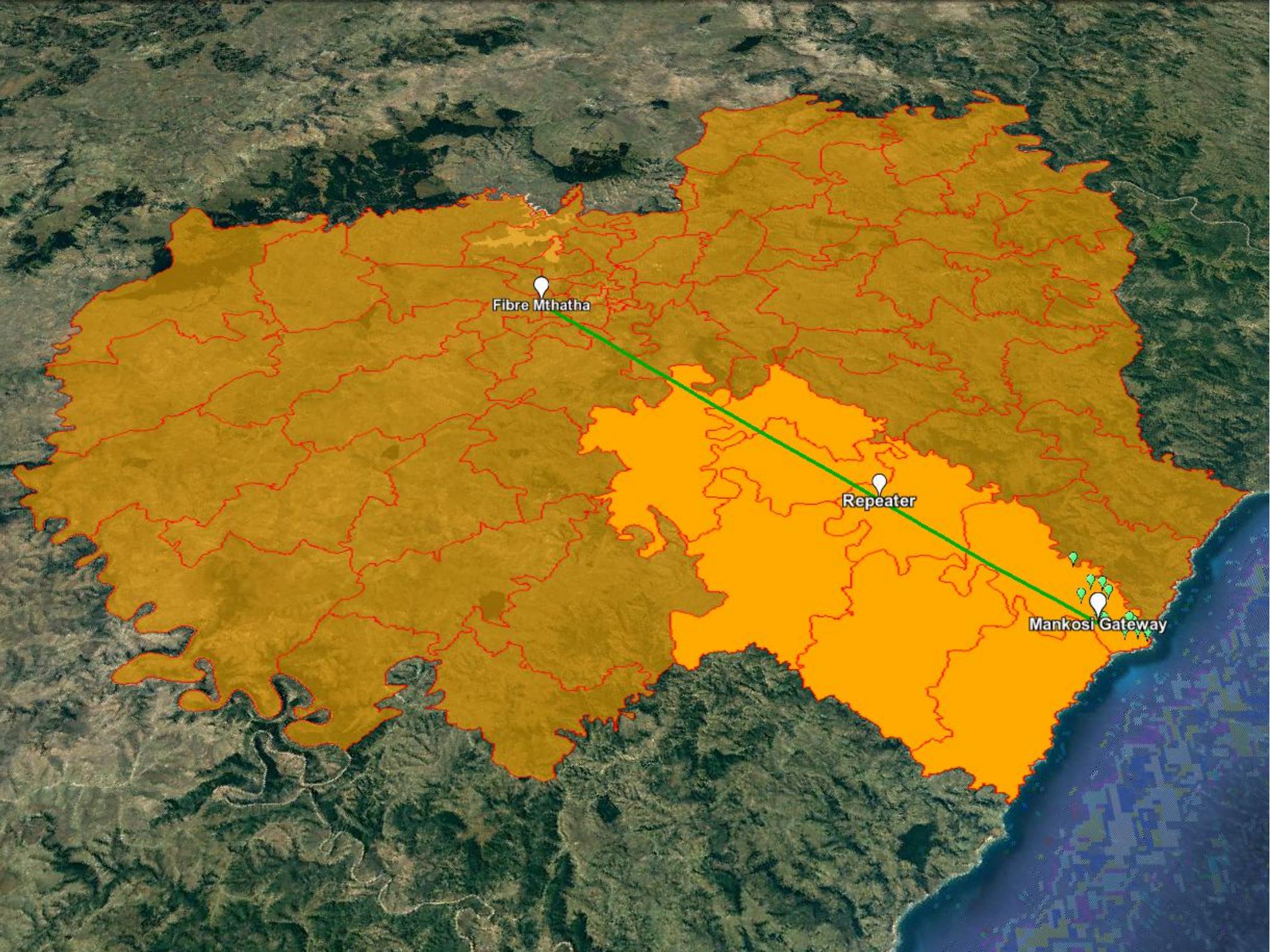
Per email: iaysiya26@gmail.com

Dear Masibulele Siya

**RE: APPLICATION FOR PECN AND ECS LICENCE EXEMPTIONS:
ZENZELENI NETWORK**

1. We refer to your application received on 14 April 2014 for Private Electronic Communications Network Service (PECN) and Electronic Communications Service licence exemption.
2. We advise that the Authority has granted Zenzeleni Telecommunications Network Primary Co-Operative Limited a licence exemption to construct, maintain and operate a PECN to be used principally for or integrally related to the internal operations of Zenzeleni Network.

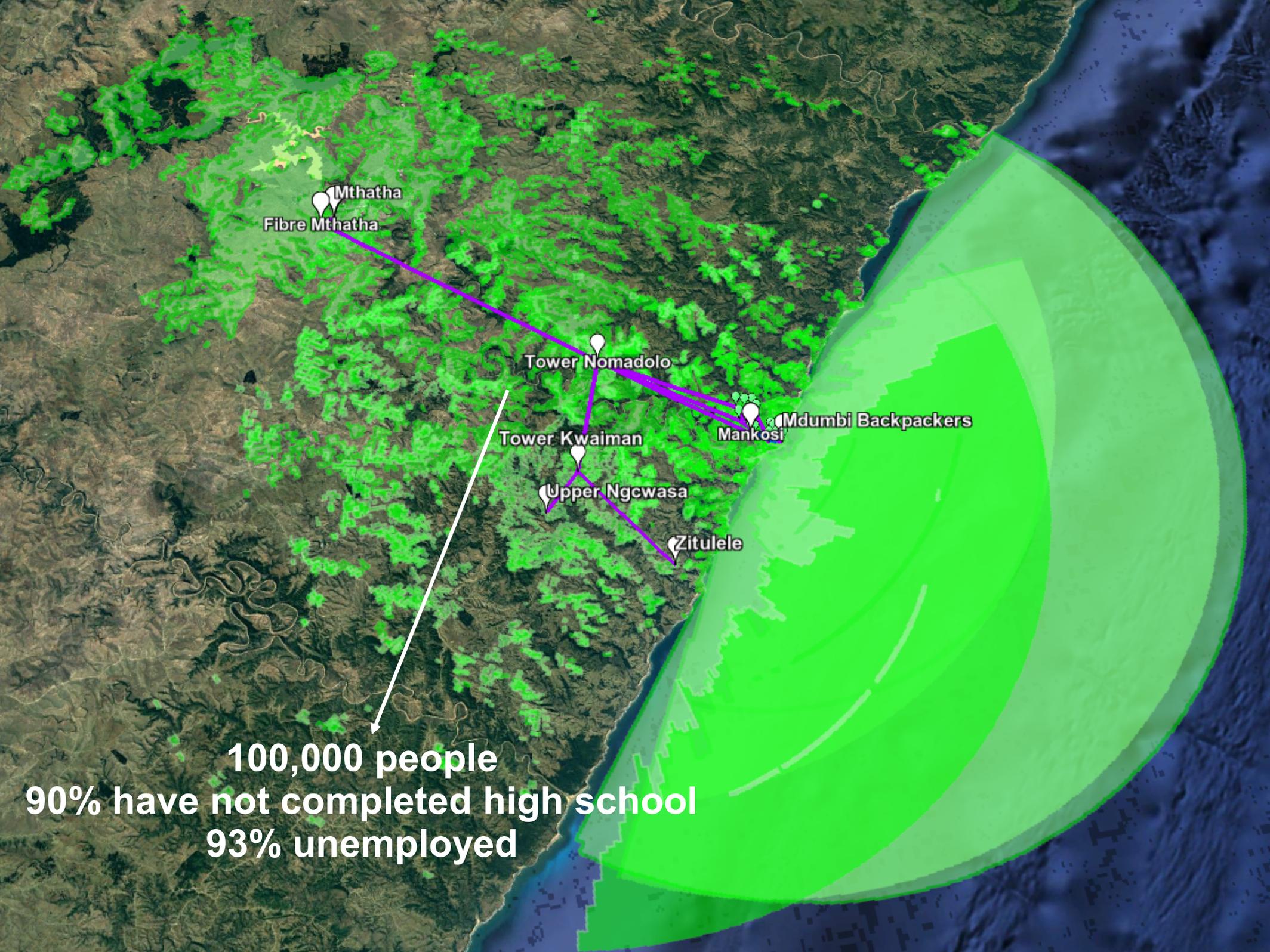
Dr SS Mncube (Chairperson), NA Batyi, WH Currie, JM Lebooa, MR Mohlaloga, N Ndhlovu, KGS Pillay,
Dr MM Socikwa, WF Stucke (Councillors), PK Pongwana (CEO)



Fibre Mithatha

Repeater

Mankosi Gateway



Mthatha
Fibre Mthatha

Tower Nomadolo

Tower Kwaiman

Upper Ngcwasa

Zitulele

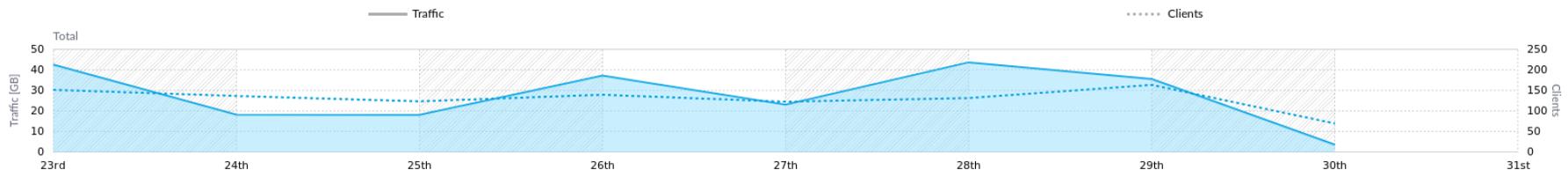
Mankosi

Mdumbi Backpackers

100,000 people
90% have not completed high school
93% unemployed

Some hard facts

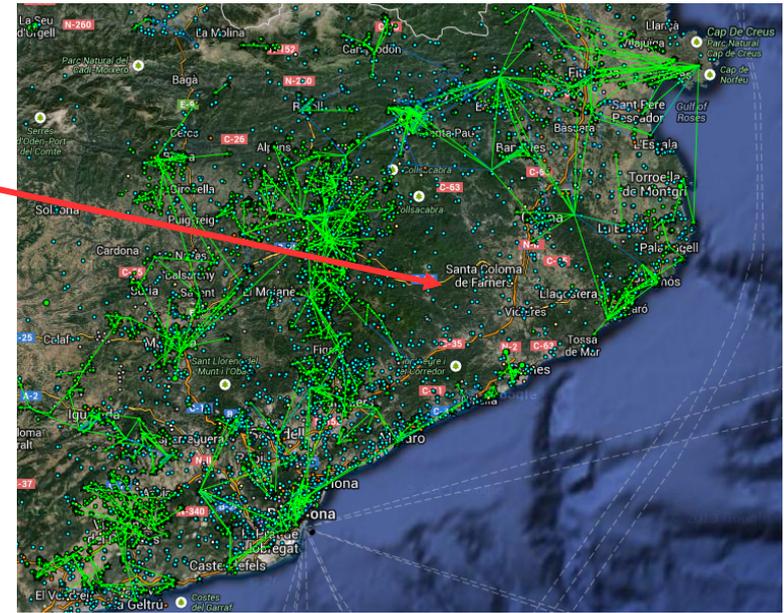
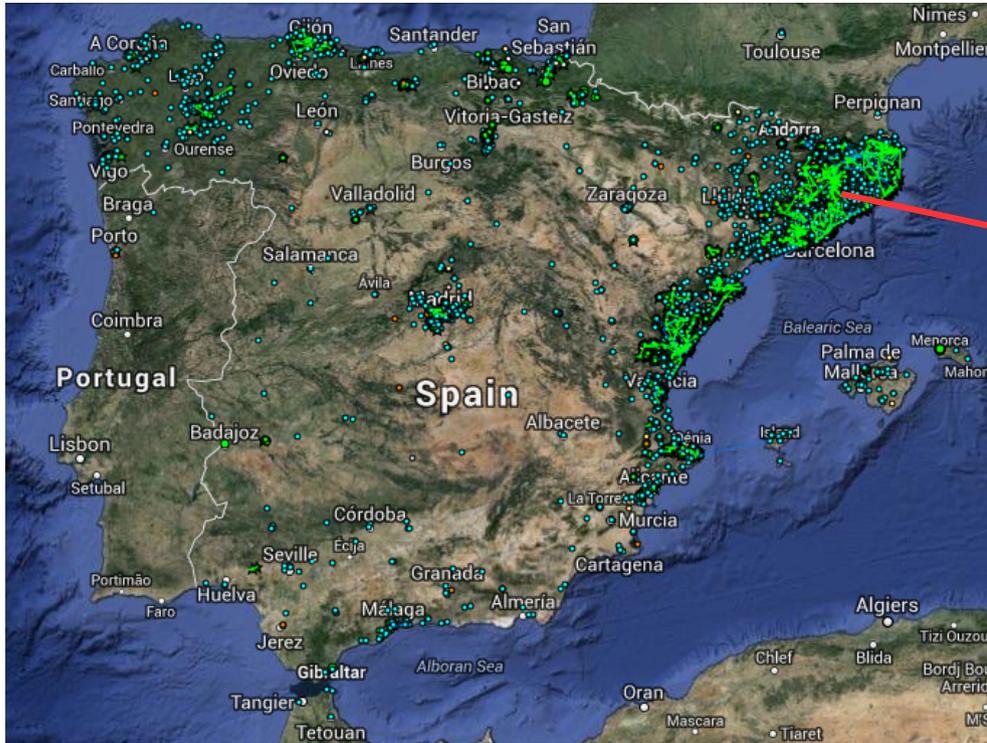
- Sept 2017 to now:
 - 8 “business clients”
 - 3,500 unique devices
 - 4.5 TB of traffic.
- Some statistics from last week in Mankosi:



- Cost up to 20 times cheaper than other options.

Community networks as a WOAN

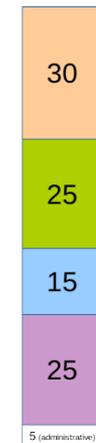
Guifi.net, Spain: Telecom infrastructure as commons since 2004



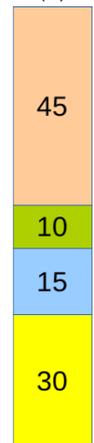
Guifi.net facts and figures:

- 100K users, 20+ operators
- Share common resources
- Compensation tables
- “Fair trade” cost structure
- Dispute resolutions
- CAPEX 7M€, OPEX 3M€/year

Expenses & Contributions (i.e.: = 100€)



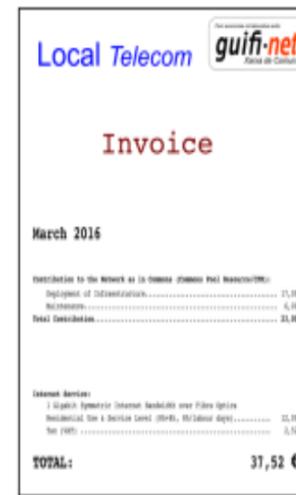
Resource Usage (%)



Compensation Balance To **Compensate** or **Pay**

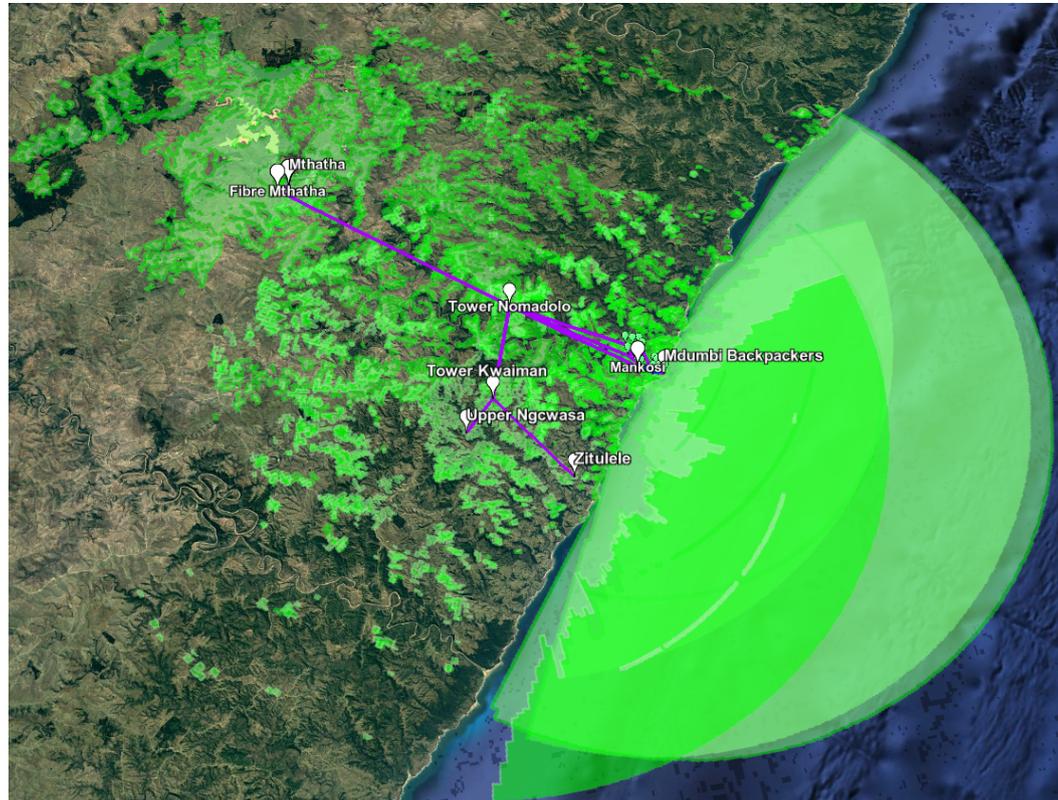


Orange Operator	30 - 45 = -15€
Green Operator	25 - 10 = +15€
Blue Operator	15 - 15 = 0€
Installer/Maintainer	25 - 0 = +25€
Yellow Operator	0 - 30 = -30€



Zenzeleni as a WOAN

Starting to replicate Guifi.net – Zenzeleni NPC



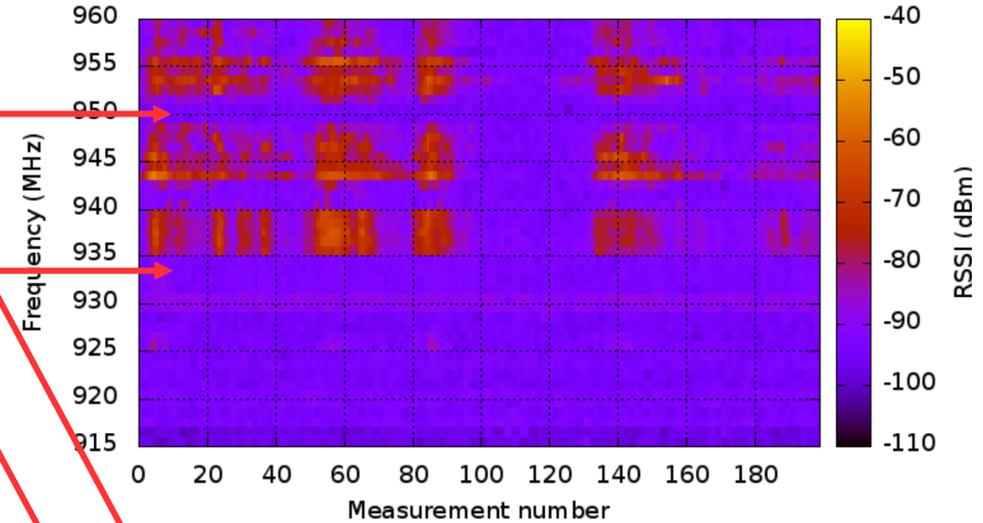
- Open access backhaul / Common fair pricing
- Several ISPs sharing infrastructure (co-ops and other organisations)
- Does not currently fit into regulatory framework

“Use or lose it” vs “Use it or share it”

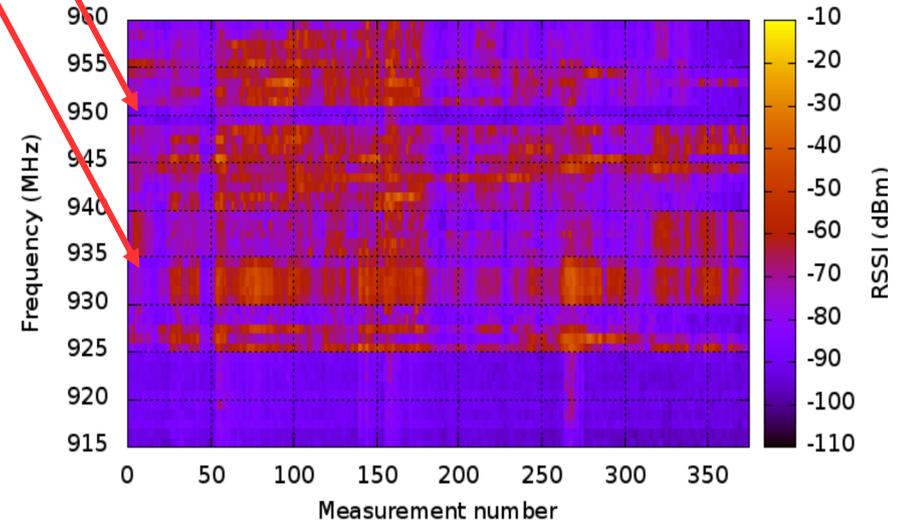
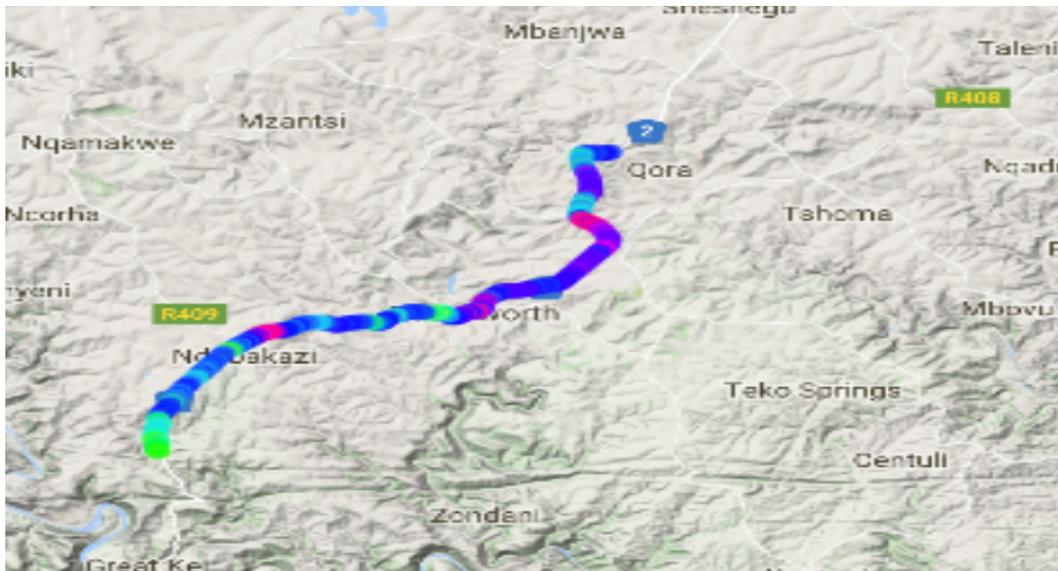
4 km measurement / rural Eastern Cape



1.4 MHz empty
all over!
10 MHz empty
in deep rural
areas!



80 km measurement / along the N2 (EC)



Expanding the provisions of Section 31C to allow sharing with non-spectrum owners.

Innovative licensing

the guardian

home › world › americas › asia › australia › africa › middle east › cities › developn ≡ all

World news Half full: solutions, innovations, answers

'It feels like a gift': mobile phone co-op transforms rural Mexican community

In indigenous communities like Nuyoó, where almost every family has members who have migrated for work, low-cost phone calls are seen as an essential service



People gather in Santiago Nuyoó's main square to hear about the new mobile phone network. The TIC social cooperative has a licence to install networks in 356 marginalised municipalities. Photograph: Nina Lakhani

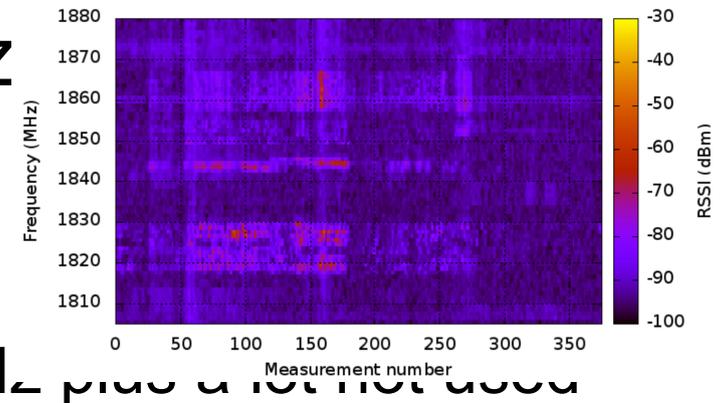
Mexico: In 2015 IFETEL set aside 2x5MHz in the 850MHz band for social purpose licensees.

With 2x2 MHz, Rhizomatica has enabled 20 communities to provide themselves with

Easily enabled by expanding the provisions of Section 31 subsection 6b of the ECA.

Increase transparency and visibility of telecom infrastructure

- Open telecoms data and the size
 - Spectrum allocations and use
 - 1.4 MHz & 10 MHz in 900 MHz
 - 2.5 MHz unassigned in 1800MHz
 - Location of fibre PoP and towers.
 - Fibre cost rate cards (WAPA 100-fold difference in KZN).
- South Africa member of the Open Government Partnership.



Other spectrum management suggestions to benefit CNs

Expand licensed exempted spectrum

- Evidence of its potential - WAPA, R5billion
- FCC and OFCOM looking at 6GHz for license exempt

Dynamic Spectrum

- TVWS regulations (exped Africa)



Elinor Ostrom
"Governing the Commons"
Nobel Prize in Economics

ITU-D Resolution 19
- 3.5 GHz - Citizen band radio service

- 11 that it is also important that administrations, in their radio-spectrum planning and licensing activities, consider mechanisms to facilitate the deployment of broadband services in rural and remote areas by small and non-profit community operators;

Other suggestions to benefit CNs

Include SMME Associations and experts in regulatory and policy proceedings

- WAPA, ISPA, BBC, BP ICT, etc.

Public support for SMMEs targeting universal affordable access

- Universal Service Obligations and use of USAF-DDF should have a mandate-focus on local SMMEs / development
- Welcome SMME strategy on 30% state procurement from SMMEs (local if possible)

Universal service and access definitions

- *The Amendment Bill provides the following amendment to Section 3 in relation to the Ministerial Policies or Policy Directions:*
 - *“(bB) universal service or universal access obligations or both, having identified any access gaps.”*
- We agree with this.
- We further note that in order to determine the prevailing gap, there has to be a set of definitions of what constitutes universal service and access. To date these have largely been absent, save for a set of definitions which were gazetted in 2010 – and which are now outdated.
- We further note that the dissolution of the Universal

The following proposed amendment should therefore also be adapted:

- **41.** Section 88 of the principal Act is hereby amended by the addition of the following subsection:
- "(4A) In exercising the powers contemplated in subsection (4), ~~the Agency~~ must consider the needs of persons with disabilities in assessing the access gap and setting universal service and access definitions and targets."

We propose that these universal service and access principles from the White Paper should be incorporated in the Amendment Bill

- The principles used to establish the definitions of universal service and access will determine realistic targets for addressing gaps, and defining which “basic

Research and development

- **There is very little coordination between the research institutions at large and that of the government.**
- *Amendment Bill :*
 - *“(i) encourage research and development as well as new innovative services within the ICT sector.”*
- Following on the above proposed amendment, and in keeping with the White Paper directive in respect of R&D and innovation, it is not sufficient to only encourage; there must be active support. We therefore recommend the following:
 - *“(i) encourage, **facilitate and support** research and development as well as new innovative services within the ICT sector.”*

we support the concept of WOAN as it will rapidly advance rural connectivity BUT we note that it is only one element of the digital ecosystem

- We support the principles laid out for the WOAN – especially with regard to the proposed Chapter 3A 4 (c) regarding funding for underserved areas.
- We advocate that WOAN implementation must focus on the **true access gap** at first.
- At the same time, we want to caution that – as previous experience has shown – simply providing infrastructure has not been sustainable. Therefore, the digital ecosystem must be given due consideration too.
- **In general terms, our focus has been on the supply side – infrastructure challenges – and the nexus between delivering broadband and how it translates into socioeconomic outcomes gets missed.**

The ECA Bill amendments must therefore take into account programmatic interventions that are needed in parallel with supply-side policy interventions.

- **Social appropriation of ICTs:** ICT use becomes an intrinsic and self-motivated part of everyday social practice.



the White Paper, we recommend a separate chapter in the Bill should be included to incorporate the issues mentioned in this presentation.

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