

TV White Spaces & Dynamic Spectrum Allocation The Democratisation of Broadband in South Africa

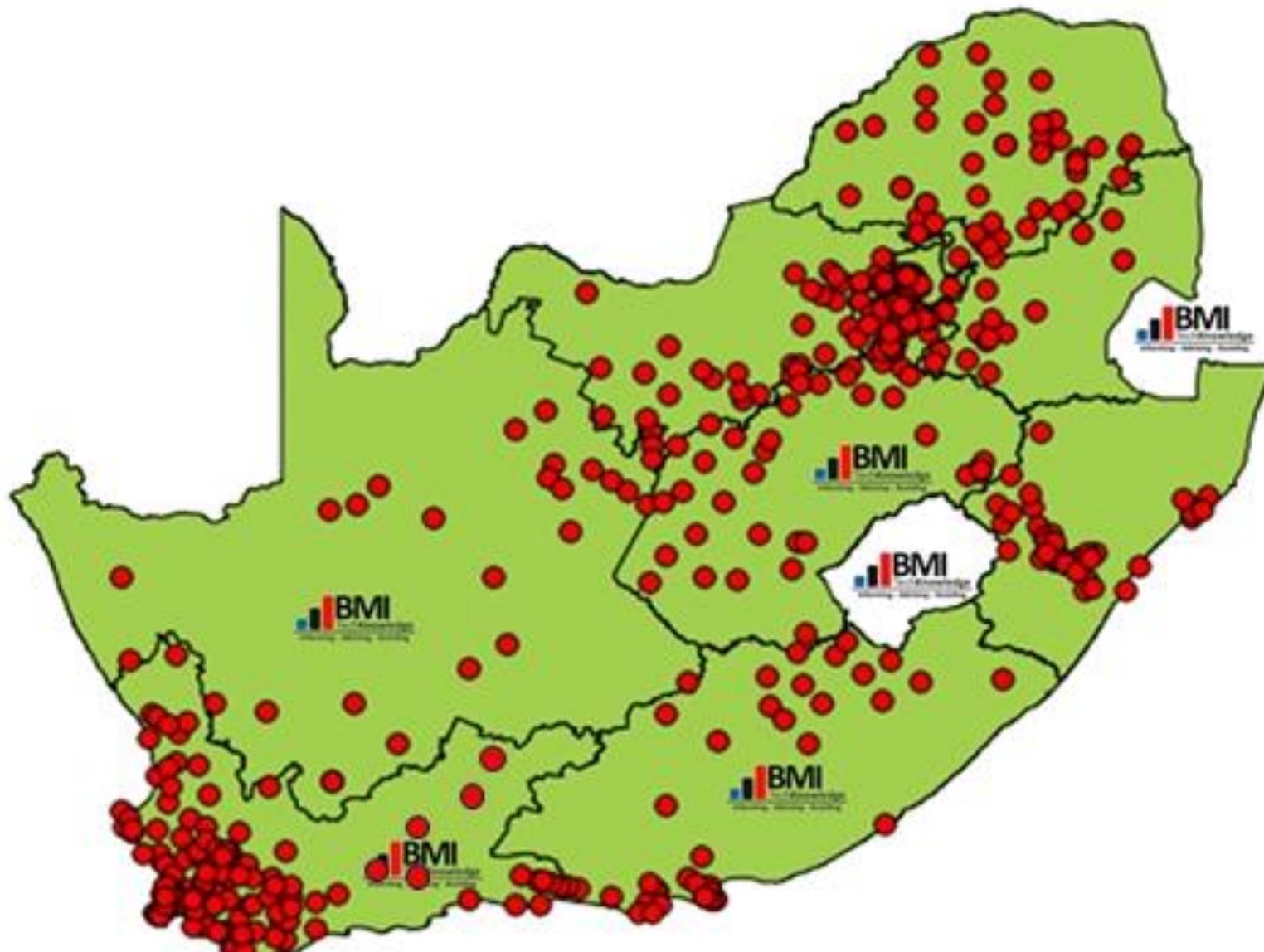
Jens Langenhrst, WAPA Spectrum Champion

“TV White Spaces project Results Announcement”, CSIR 8 Nov 2013

Jens Langenhorst

- **WAPA Committee member, championing Spectrum**
 - the Wireless Access Providers' Association of South Africa
 - a fast-growing organisation furthering the industry on behalf of over 170 operators and associates.
- **Radio Planning Manager at Internet Solutions**
 - Since inception in 1993, IS has been at the forefront of telecommunications innovation. As the first commercial ISP in South Africa, IS today has the most stable, resilient and redundant network available and the widest and most innovative scope of service offerings.
- **Previously worked for Nokia Mobile Phones and Infineon Semiconductors in various RF R&D and Product Marketing roles in Europe and USA.**

170+ members are wherever
there is a need – urban and rural



Members fill the gaps

- 1. Pricing, choice, innovation:** They broke the stranglehold
- 2. Coverage:** – especially *last mile access in* rural and urban areas
- 3. Job Creation:** 100's of small businesses (SMME's) emerged
- 4. Technical Skills Transfer :** They built up technical skills – especially in rural areas



Customers

- Residential
- Small businesses
- Large corporates
- Government
- Hotspot users

i.e. **Anybody**



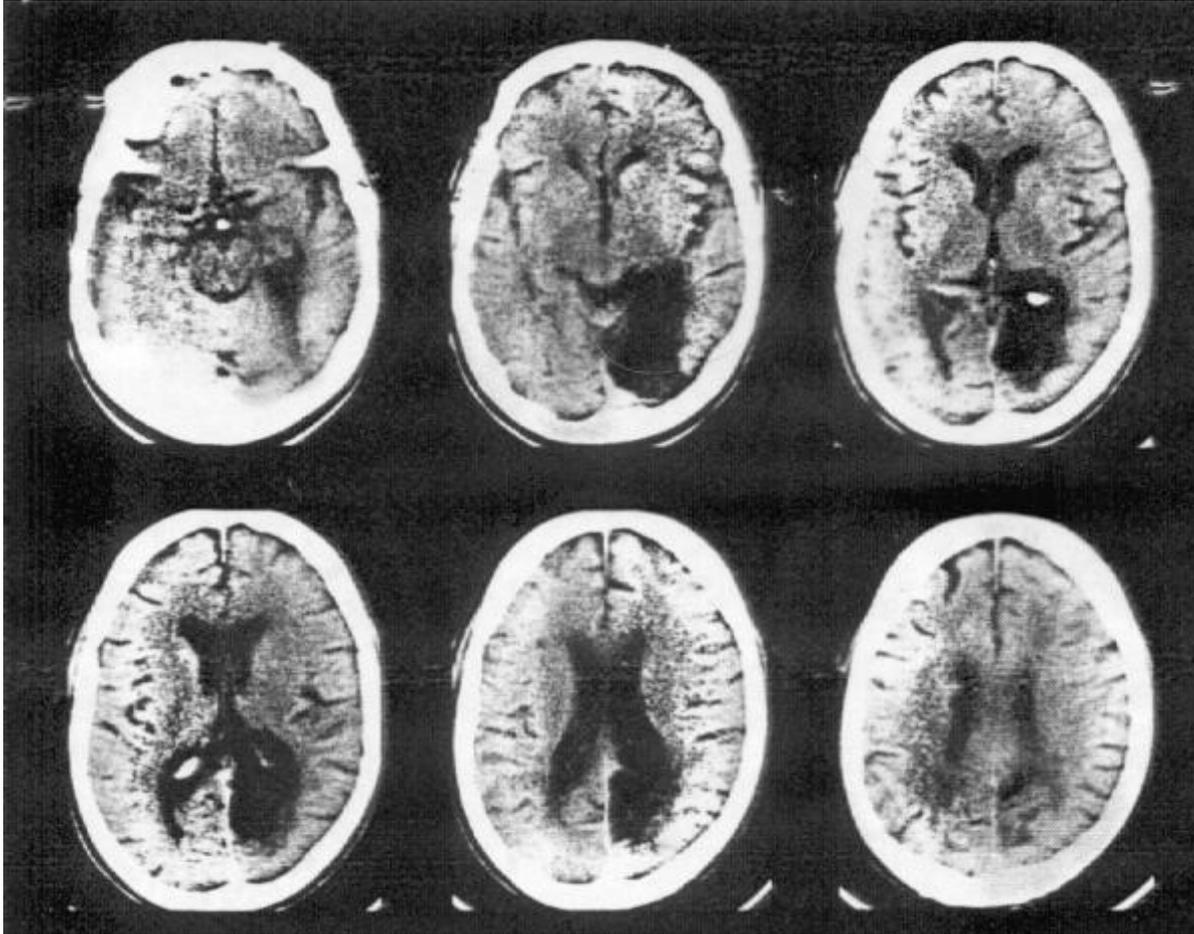
We have created Emergency Relief Networks during crises



We connect countless schools!



We connect the Health industry



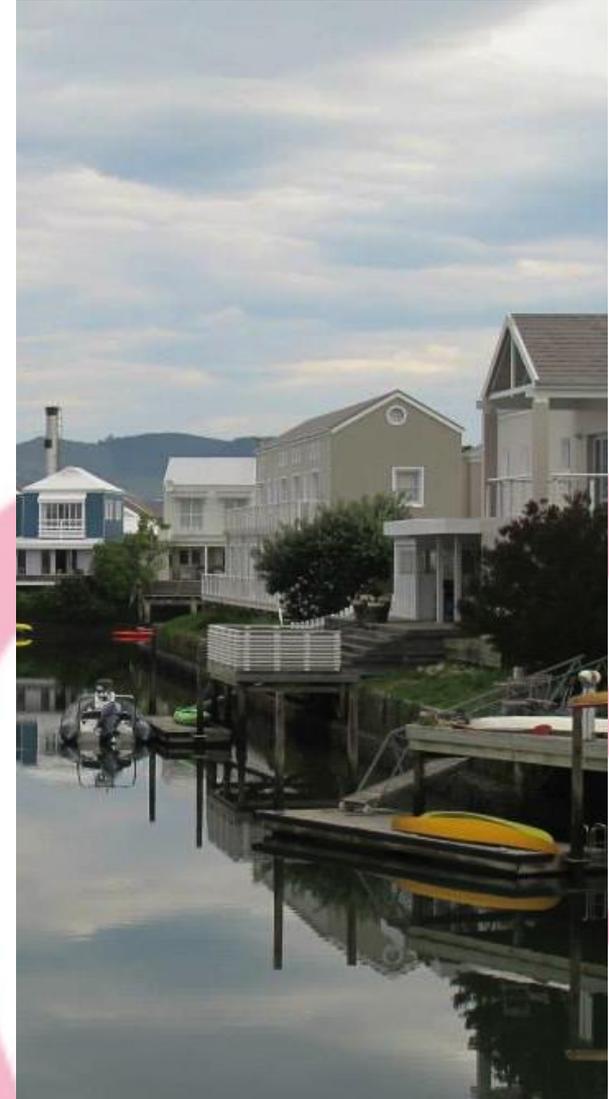
Lake Smit Radiology
Partners in Durban move
CAT scans to consulting
radiologists working
remotely

1 GB files in under 2 mins ...

To 12 locations, up to 23 km's apart

2011 WAPA CENSUS

- Approximately 80 000 subscribers
- Free or discounted services
 - Over 150 hospitals and clinics
 - Over 550 schools
- High BEE rating – 50% of members
- Employ over 1 000 people
- Collective turnover: \$20 M per annum
- Over 6 000 hotspots
- All achieved against incredible **economic**, **commercial** and **spectrum** challenges



So much achieved with so little

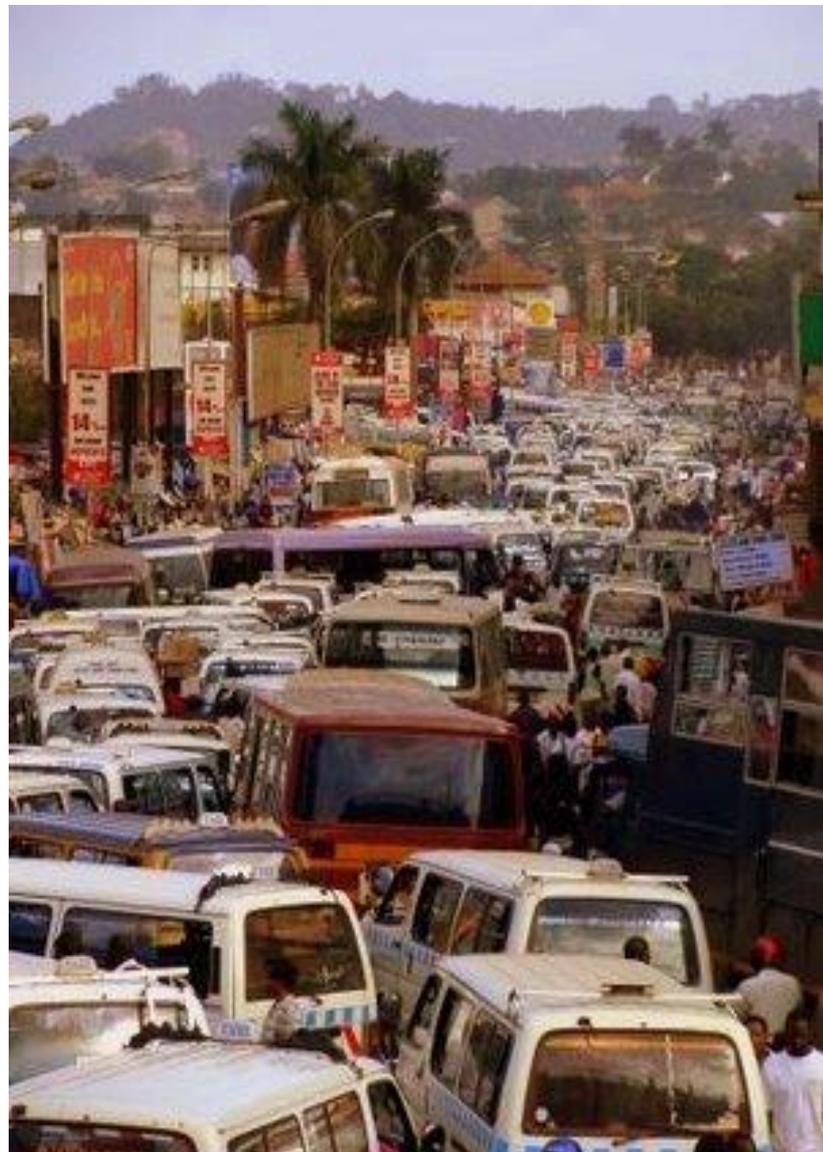
All done on *shared* spectrum

- 2.4Ghz
- 5.8Ghz
- 17Ghz - only recent deployments

How much more could be done
with more SPECTRUM!

#1 problem is Interference

- Other devices using same spectrum, uncoordinated:
 - Wi-Fi Hotspots
 - Long range Wi-Fi
 - Cordless phones
 - Baby Monitors
 - Cheap wireless CCTV
- Pirate operators (unlicensed)
- Greedy high site managers (that allow bad practice)



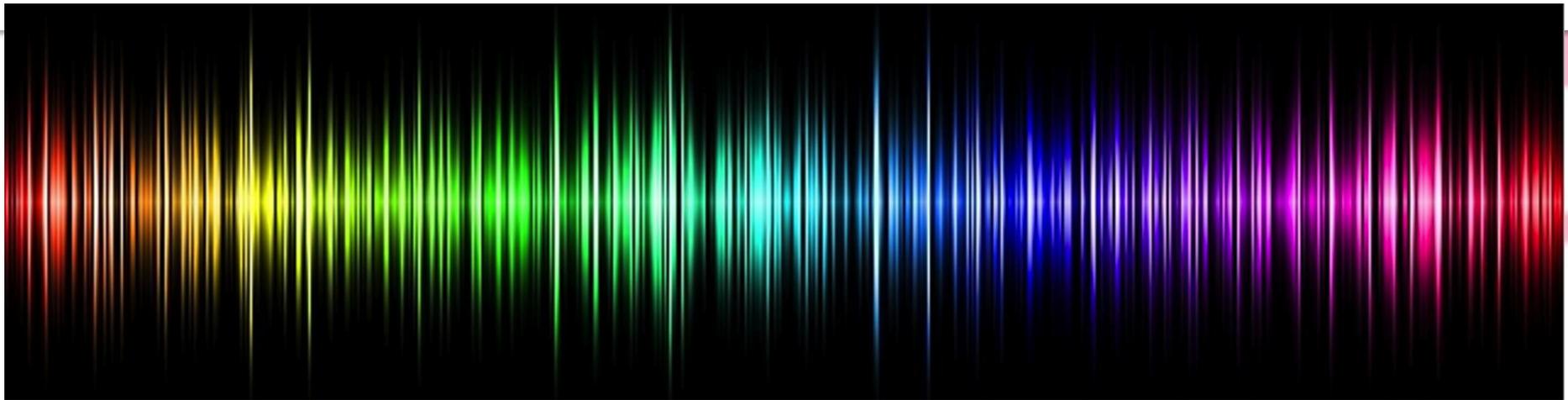
WAPA has the ideal structure to exploit TVWS

- **With over 170 members** and still growing
- **WAPA already facilitates self-regulation** of the outdoor fixed wireless and indoor nomadic wireless industries.
- **WAPA** is the **interface** between ICASA, network operators, service providers and consumers.
- **WAPA** offers to its members
 - regulatory advice
 - a code of conduct
 - an enforcement process
 - a forum for sharing knowledge and resolving technical problems.
 - Customer profile and leads



WAPA members with more spectrum can boost:

- 1. Broadband Penetration**
- 2. Pricing, quality and services**
- 3. Product and Technical Innovation**
- 4. Entrepreneurship and Job Creation**
- 5. Technical skills development**



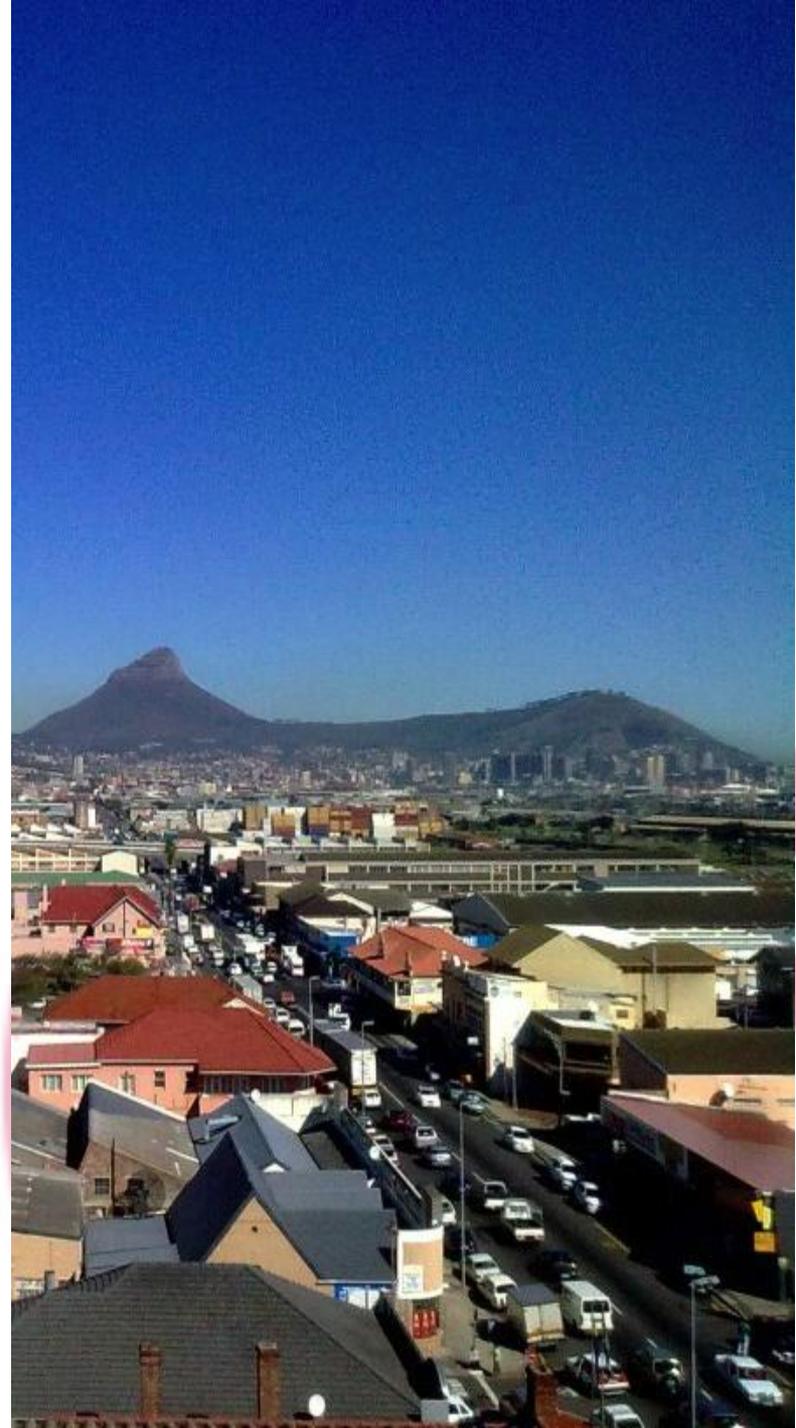
Member Expectations

- TVWS can take a **thriving industry** to the next level
- Members: “TVWS is a **critical** WAPA project for us to **survive and thrive**”
- **Database-driven Dynamic Spectrum Allocation** could play a wider role in the transformation to efficient and effective use of existing and future spectrum



Thank you

- **Cape Town Pilot Project partners**
- ***And especially thanks to Google for***
 - Resourcing the original 2011 Conference
 - Resourcing the resulting project
 - Helping to build the critical stakeholder relationships



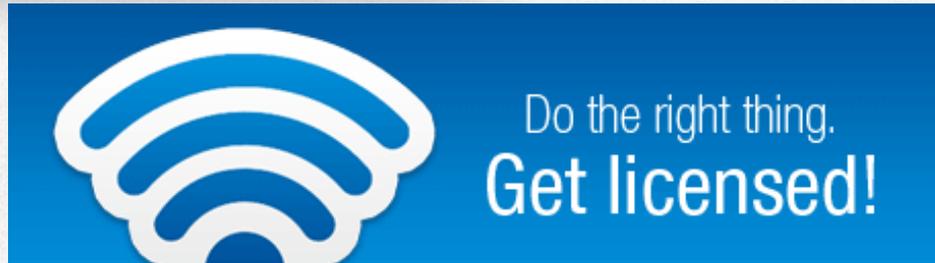


Home > Coverage > WAPA Members Join WAPA > WAPA News Community > Contact >

ABOUT WAPA

The Wireless Access Providers' Association (WAPA), established in 2006, is a non-profit IRB (industry representative body) acting as a collective voice for independent wireless operators in South Africa.

Read more...



R5900 joining fee, R500/month (joining fee not applicable to licence holders)



EngineerIT

EngineerIT - a voice for WAPA in South Africa

WAPA ON TV

Jens Langenhorst

jens@wapa.org.za

+27795228676