

National Integrated ICT Policy

White Paper

28 SEPTEMBER 2016



telecommunications
& postal services

Department:
Telecommunications and Postal Services
REPUBLIC OF SOUTH AFRICA

A presentation summarising the submission of Walter Brown

Concerning the Electronic Communications Amendment Bill 2017

Pretoria, 6th March 2018

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The Presentation Approach

- **A Quick Review of the Policy and Law making Process....**
- **So that we can link the expected results to the stated objectives....**
- **And judge if the proposed Policy and Act will deliver fully against the stated objectives**

THE CHALLENGES WE MUST ADDRESS: Inequality, Poverty, Unemployment

1. Our income inequality levels are 710% higher than the global best and target
2. 30+ Million South Africans are poor – average income R786 per month;
3. 63% of our CHILDREN live in poverty, few opportunities to develop
4. 37% of our potential workforce, and 27% who still seek jobs, are unemployed
5. ICTs can help – but we must deliver the full range of ICTs to 30+ million South Africans at R39 per month

CAN THE NATIONAL ICT POLICY HELP TO RESOLVE THE ABOVE CHALLENGES?

Summary of the Process

PROBLEM RECOGNITION

Government representatives consult with all constituents and stakeholders to determine if problem exists

PROBLEM DEFINITION AND STATEMENTS

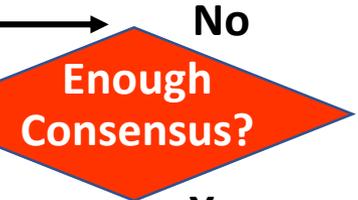
- Any statistical evidence available?
- Can statistics be compiled?
- Any relevant global trends?
- Is an impact assessment needed? Can this be done as part of the process?
- Any comparative benchmarks?
- Any relevant qualitative data?
- Can this be compiled?

Publish Green Paper

- Full analytics
- Results/recommended actions

Extensive Consultation

- All Stakeholders, Institutions
- Prepare Final Draft

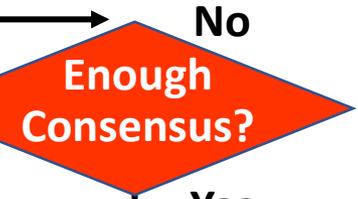


Publish White Paper

- Full analytics
- Results/recommended actions

Extensive Consultation

- Revisions
- Prepare Final Draft



Prepare draft Bill

- Parliamentary Policy Review
- Draft Bill for Parliament/Public

Extensive Consultation

- All Stakeholder consultation
- Prepare Final Bill
- Parliamentary Approvals

FINAL ACT
Presidential Signature

Brief comments on the Process

- 1. Problem Recognition:** This element of the process was concluded satisfactorily – **we live with the Problems daily!**
 - **Inequality, Poverty, Unemployment:** Breeding grounds for Crime, Drug Abuse, Service Delivery Protests, Health Pandemics, Learning Deficiencies, Xenophobia.....
- 2. Problem Statements:** These were well conceived, and will be expanded in our search for effectiveness of the Policy.
- 3. Consultation:** The consultation process is nearing completion – **Has there been enough consultation?**
- 4. *Can the consultation process be deemed satisfactory by all stakeholders?***
 - Extensive media coverage, and numerous submissions, indicate high levels of lack of consensus and agreement on both the Policy and the resulting Bill.
 - How can acceptable consensus be demonstrated/measured in a democratic process? A costly referendum *à la* Switzerland? Any other suggestions?

Failure to reach acceptable consensus may derail the good intentions of the Policy, and lead to costly litigation.

REVIEW OF THE POLICY OBJECTIVES: *Vision Statement:*

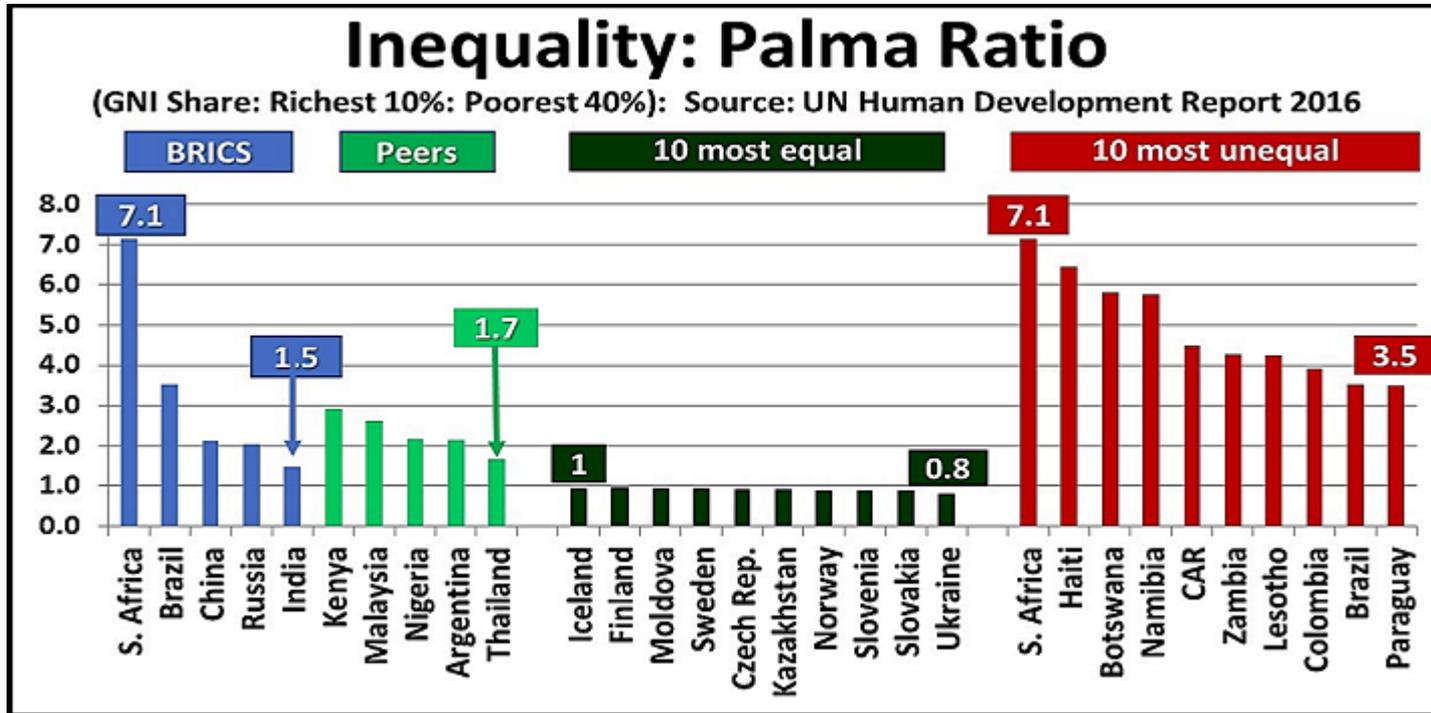
- *“ICT will continue to reduce spatial exclusion, enabling seamless participation by the majority in the global ICT system, not simply as users but as content developers and application innovators”.*
- *“All people, regardless of who they are, their social or economic status or where they live, can access communications services and content and can therefore participate actively in society and realize the benefits and opportunities of ICTs”.*

Key stated objectives: *“A people-centred, development-oriented and inclusive digital society”*

- **Equality:** All South Africans must have affordable access to communications infrastructure and services and the capacity and means to access, create and distribute information, applications and content in the language of their choice.
- **Accessibility:** Services, devices, infrastructure and content must be accessible for all sectors of the population, including persons with disabilities, so that all can equally enjoy and benefit from communication services.
- **Social Development:** All South Africans must benefit from the ability of the ICT sector to facilitate social development and improve the quality of life for individuals and communities.
- **Economic Growth:** Policy must facilitate access by all South Africans to quality communication infrastructure and services to enable economic growth, employment and wealth creation.
- **Investment:** Policy must promote and stimulate domestic and foreign investment in ICT infrastructure, manufacturing, services, content, and research and development.
- **User Protection:** End-users, from the most disadvantaged individual to the largest corporate, must be at the Centre of ICT sector-related policies. Effective protection and empowerment of end-users.

OBJECTIVE 1(a): Equality: All South Africans must have affordable access to communications infrastructure and services and the capacity and means to access, create and distribute information, applications and content in the language of their choice.

How unequal is the South African society? We need to know in order to achieve this objective



South African data compiled by STATS SA

- In S. Africa, richest 10% earn 710% more than the poorest 40%
- Global best and target is 10% richest earn same as poorest 40%

How can this POLICY position ICT to reduce this alarming situation?

OBJECTIVE 1(b): Equality: All South Africans must have affordable access to communications infrastructure and services and the capacity and means to access, create and distribute information, applications and content in the language of their choice.

Another closer look at S. Africa inequality and impact on ICT Policy as a corrective solution

Poverty Trends in South Africa

An examination of absolute poverty between 2006 and 2015

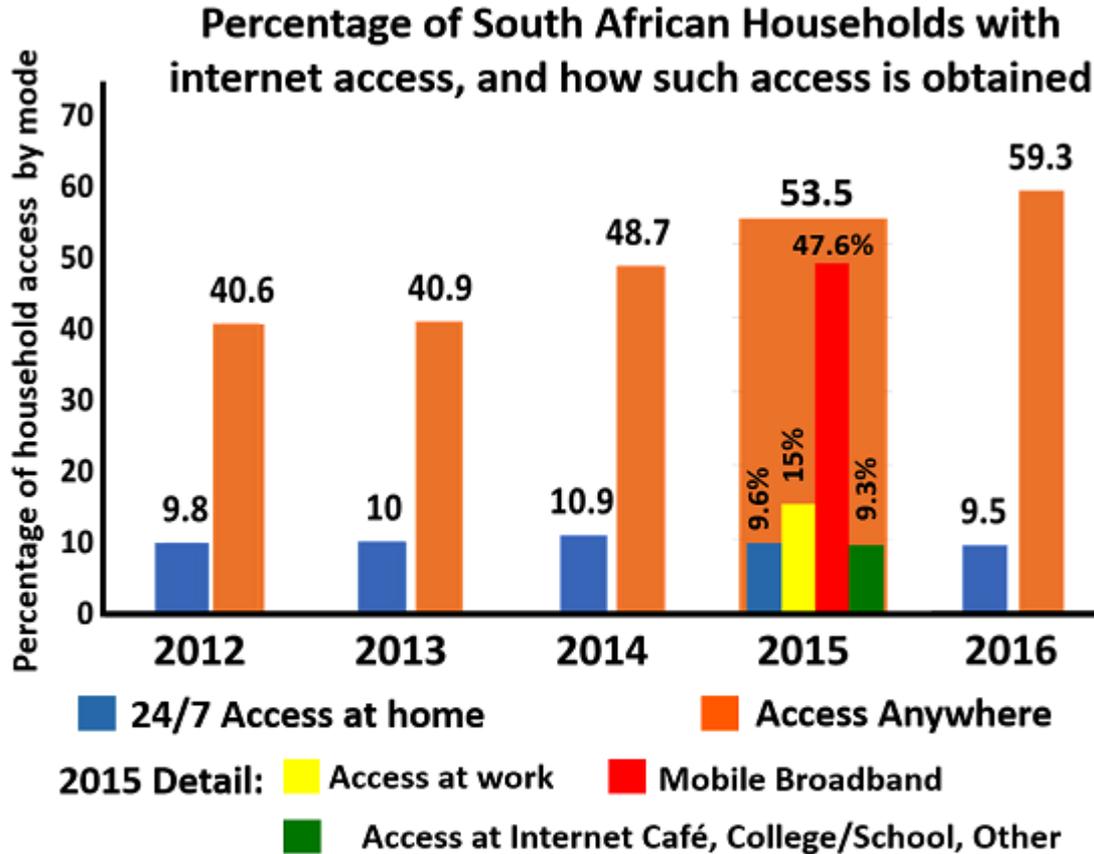
Figure 2.2: The number of poor and non-poor persons in South Africa (in thousands) (2006, 2009, 2011 and 2015)



1. Population living below UBPL of R1138 per month = 30.4 million (55.5%)
2. Average monthly disposable income = R786 (0.2% of 2015 GNI/capita)
3. At global average and target of 5% of disposable income for **transformative** ICTs, target price for **ALL ICT services** in this population is **R39 per month**
4. **Will the Policy and ACT deliver this affordability target?**

OBJECTIVE 2: Accessibility: Services, devices, infrastructure and content must be accessible for all sectors of the population, including persons with disabilities, so that all can equally enjoy and benefit from communication services.

Accessibility in South African homes: Children need 24/7 access for development & safety



1. 24/7 broadband internet access at home has remained stagnant since 2012
2. Fixed broadband (cable, fibre, wireless) is the most reliable and stable home access mode
3. Mobile services are convenient and popular, but are costly and subject to overload
4. Both access AND terminal equipment costs are prohibitive for 55% of the population
5. Wide screen terminals are best for learning – small screen handhelds are not
6. Very little development of public access for the poor – 9.3% in 2015
7. Will the proposed Policy and ACT resolve these challenges?

NOTES: (1): 10% Household access inadequate for child/family development
 (2): Mobile broadband unaffordable for 24/7 access
 (3): Vast opportunity in mass community Internet Café expansion

OBJECTIVE 3: Social Development: All South Africans must benefit from the ability of the ICT sector to facilitate social development and improve the quality of life for individuals and communities.

S. Africa faces massive multi-dimensional social challenges that need direct ICT intervention!

63% children living in poverty often leads to crime and drug abuse



**Boksburg
2015**

Nyaope addicts talk about their painful experiences: "I need help; education; to make my parents proud": Ages 12 to 17 years



**Delmas
2015: BBC
Documentary**

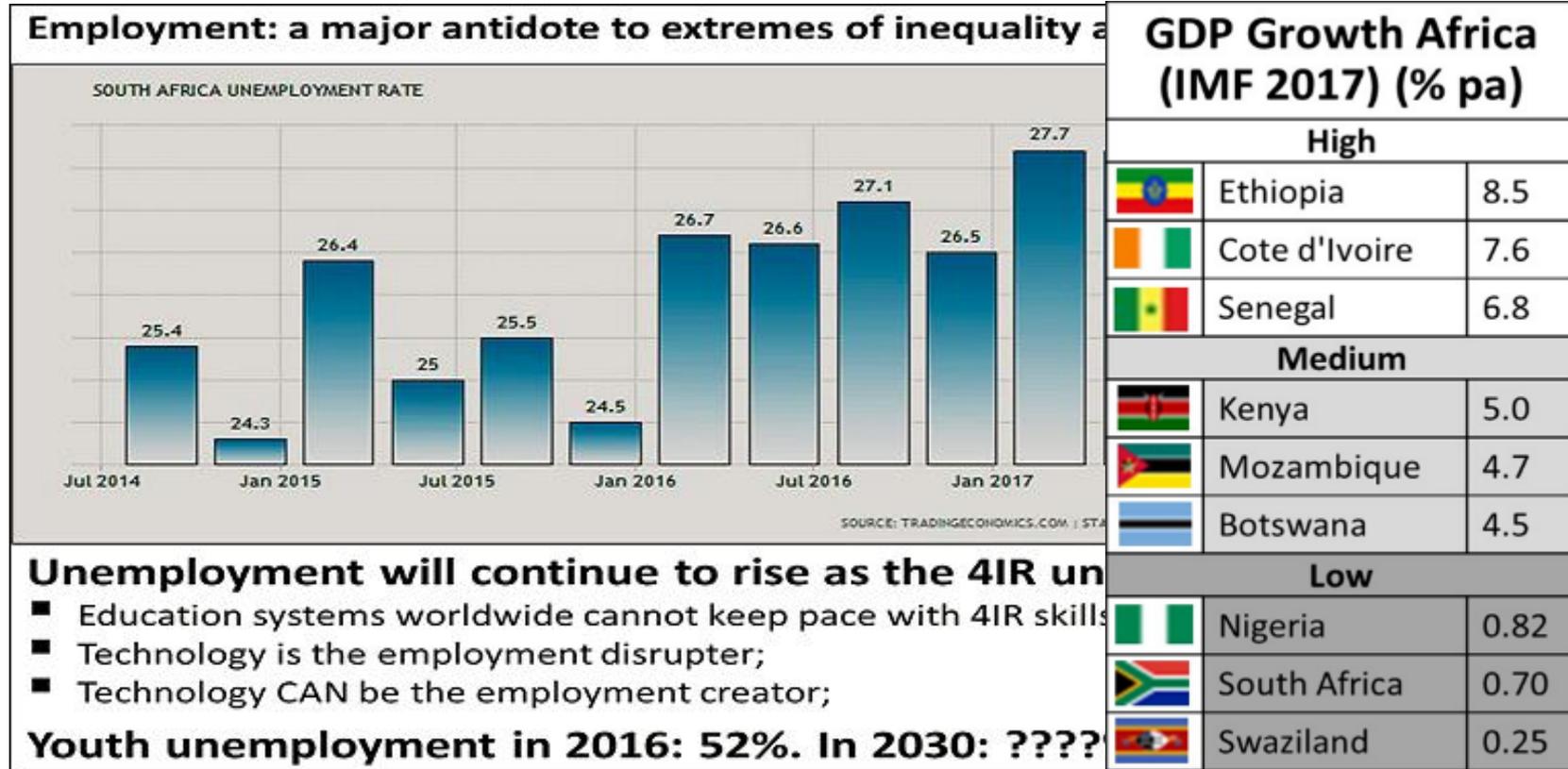
Nomsa Mahlangu says her family no longer wants her because of her addiction. Crime for survival led to the massive scar on her face.



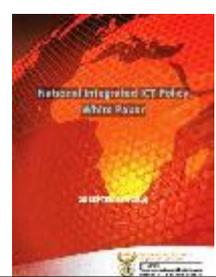
Will the "Trickle-down" approach of the White Paper and Proposed ACT be seen to be reversing these challenges?

OBJECTIVE 4(a): Economic Growth: Policy must facilitate access by all South Africans to quality communication infrastructure and services to enable economic growth, employment and wealth creation.

Economic Growth is fuelled by WORKERS – creating goods and services that generate wealth



What direct impact will the White Paper Policy and the proposed ACT have on this alarming situation? Are we living in the hope that the Policy outcomes will “Trickle-Down” to the 30.4 million impoverished and unemployed citizens of South Africa?



OBJECTIVE 4(b): Economic Growth: Policy must facilitate access by all South Africans to quality communication infrastructure and services to enable economic growth, employment and wealth creation.

Skills are critical for economic growth: Education is critical for skills development

- 78% of Grade 4 learners can't read in home language or any language ([PIRLS 2016](#))
- 45% learners drop out before Matric.
- Of the 55% that pass Matric, only 18% are able to enter university each year
- Of these 18% entering university, 50% to 60% drop out in first year ([Van Zyl, 2015](#))
- **We do have high achievers from private and public schools in wealthy suburbs**
- **These are too few - their success over the failure of the majority effectively fuels inequality further (see 33-country study – the [Hechinger Report 2015](#))**
- **We MUST uplift the majority to “catch up” with these high achievers**

IMPACT OF THE 4IR

“Most education systems today are based on models put in place over a century ago. Fragmented attempts at reform and modernization have proven, in most cases, insufficient in addressing the growing gap between conventional education systems, the demands of modern life and new labour markets. Governments, businesses and individual learners must grasp the need for real, comprehensive change in order to close the preparedness gap as the world enters the Fourth Industrial Revolution” (Report [here](#)).



OBJECTIVE 5: Investment: Policy must promote and stimulate domestic and foreign investment in ICT infrastructure, manufacturing, services, content, and research and development.

ICTs have always attracted investors – Will this Policy and Act improve our ICT attractiveness?

Spend on Telecommunications CAPEX in South Africa, (Rm), 2005 - 2014

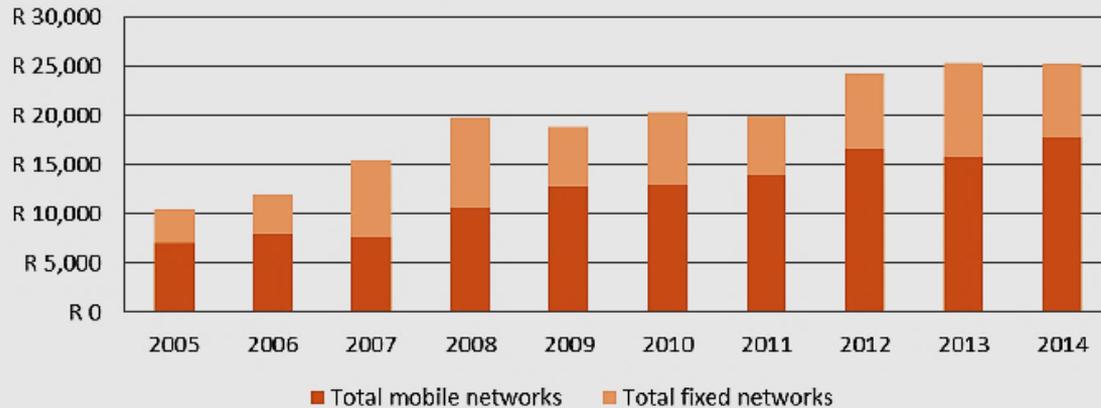
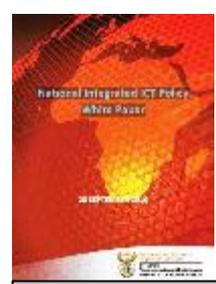


Figure 10: BMI-T SA Connect Broadband Report 2015, sourced from operator reporting

- ICTs have always attracted investors – since Samuel Morse’s message 150 years ago...
- Do we impose Policy and Regulatory barriers against this willingness to invest?

How effective is the White Paper at stimulating IMPROVED ICT usage & investment?

- Can we make the 30.4 million South Africans who cannot afford the ICT services they need attractive to investors? *Even at R39 per user per month? A Massive Market waiting for innovative entrepreneurs.....*
- **Can the Policy be positioned to stimulate investment into this market segment?** 12



OBJECTIVE 6: User Protection: End-users, from the most disadvantaged individual to the largest corporate, must be at the Centre of ICT sector-related policies. Effective protection and empowerment of end-users.

This objective lacks clarity – Protection from what and for whom?

1. The only objective deemed to lack clarity:
 - End-user (people) centricity covered by previous objectives
 - Empowerment also covered by previous objectives
2. PROTECTION: From what and for whom?
3. If protection refers to cybercrimes, cybersecurity and related issues, these must be covered in other critical national laws and should not be conflated with network growth and network access targets
4. Safety and security issues are critical, vital, but they must not be allowed to stand in the way of knowledge acquisition by ***“the most disadvantaged individual to the largest corporation”***
5. **A delicate yet highly effective balance between safety and security issues, and rapid growth of access to knowledge is needed, especially in this era of 4IR automation and Artificial Intelligence.**

CONCLUSION

- The links between Policy, Bill, and Policy Objectives are tenuous at best
- If the Policy and Bill were amended to satisfy its creators and all stakeholders who submitted comments, would we achieve all POLICY objectives as they apply to the **30.4 million citizens who can afford only R39 per month for ALL their transformative ICT services?**

The Policy Challenges facing South Africa: **COMPETING IDEOLOGIES:**

1. A “Market-driven” economic model feeding our Macroeconomic growth objectives – Vital for Wealth Creation and Global Competitiveness.....
2. A Socialist-leaning economic model – Directly addressing our extreme social challenges that could derail our socio-political stability....
3. Can they coexist?
4. Policy implementation as crafted “waters down” the Market-driven element, and fails to address the socialist imperatives.....
5. Only the proposed revision of the USAF and USAASA can be directly related to the 55% excluded population – **R39 per month for ALL needed ICT services....**

THE BIG QUESTION: Can we think about twin complementary ICT Policies that:

- a. Fuel Macroeconomic Growth and Leverage 4IR evolutionary technologies?
- b. Drive Social Inclusion to defeat Inequality, Poverty, Unemployment for socio-political stability with high economic growth?

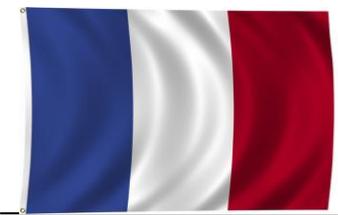
Nothing stops us from thinking, talking, and doing.....



One example of effective “Policy”: Japan does not develop ICT policies – they develop strategies, implement them even during strategic design, then they call them “policies”:

1. **2001: e-Japan strategy established (later called “the e-Japan Policy”):**
 - Targets for high speed and ultra high speed internet access set for 2005
 - Fully achieved and exceeded in 2003
 - Evaluation in 2004:
 - Government says “Great Success – What next?”
 - Public says “Who cares? Get on with the job”
2. **2004: u-Japan strategy defined (“the u-Japan Policy”)– target 2010:**
 - Focus on ubiquity – *broadband everywhere, any time, any how....*
 - Focus on solving 21st century social challenges:
 - Ageing population, low birth rate, safety and security
3. **2013: Japan Revitalization Strategy (not yet “christened” as a “Policy”):**
 - Focus on education: preparation for 4IR
 - Expanded to include recovery and preparedness for natural disasters (e.g. 2011 earthquake and tsunami - Fukushima Daiichi nuclear disaster)

- Japan develops ICT strategies directly related to economic, social, environmental challenges - Calls them policies, if they wish.
- Primary focus is on implementation, not on the policies themselves.



FRANCE: Another very recent example:

France exchanges spectrum assignment for rural broadband coverage.....

13 January 2018 – Government Pronouncement:

- ❑ French Secretary of State announces agreement with the 4 major mobile operators to cover all rural “White Zones” – areas with limited or no broadband coverage – by 2020 – 3 years instead of 15 years!
- ❑ The French Regulator undertook INTENSIVE consultations over many months with major national ICT companies to reach the agreement
- ❑ The Regulator will **assign high demand spectrum** to operators free of charge - no auctions or competitive bidding – only 4G and 5G technologies
- ❑ In exchange for operator’s own investments in Base Stations, including shared masts AND spectrum, in ALL rural underserviced areas
- ❑ Agreement involves 5,000 base stations, wayleaves on 3,000 km of power grids and railway reserves for fibre backhaul
- ❑ Removal of all local authority bottlenecks....

ZERO Policy or Legal Enforcement – a clear strategy negotiated with stakeholders...

FRANCE is in a hurry to connect ALL its citizens for the emerging 4IR world! South Africa’s challenges are more severe – Can South Africa develop the same sense of URGENCY as France?

Concluding Remarks

Impact of ICT and 4IR on just one critical industry sector

Agriculture and Food Production

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AI & IoT in Agriculture

Who will benefit?

Productivity

Crop Yield
Maximization



Preventative maintenance

Disrupting the
mating patterns of
pests



Preservation

Drought response,
minimize waste



End-to-End lifecycle monitoring

Tracking product
lifecycle in real-time



<http://www.mkpsouthafrica.com/services/agriculture/>

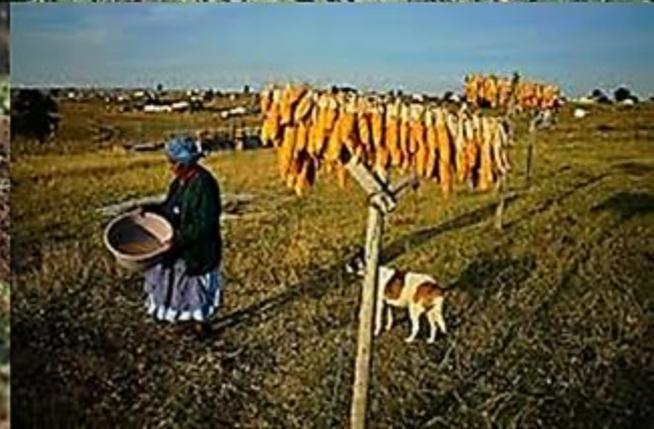


AGRICULTURE



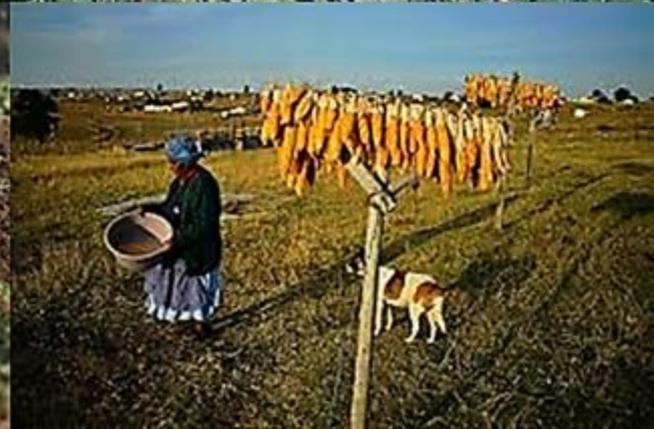
Yes they will! Because they can.....

- Vital to feed a growing population and economy – Massive efficiency gains....
- Vital to be globally competitive – Feed the nation, the region, and the world
- Challenge remains job decimation – machines don't seek or strike for living wages.

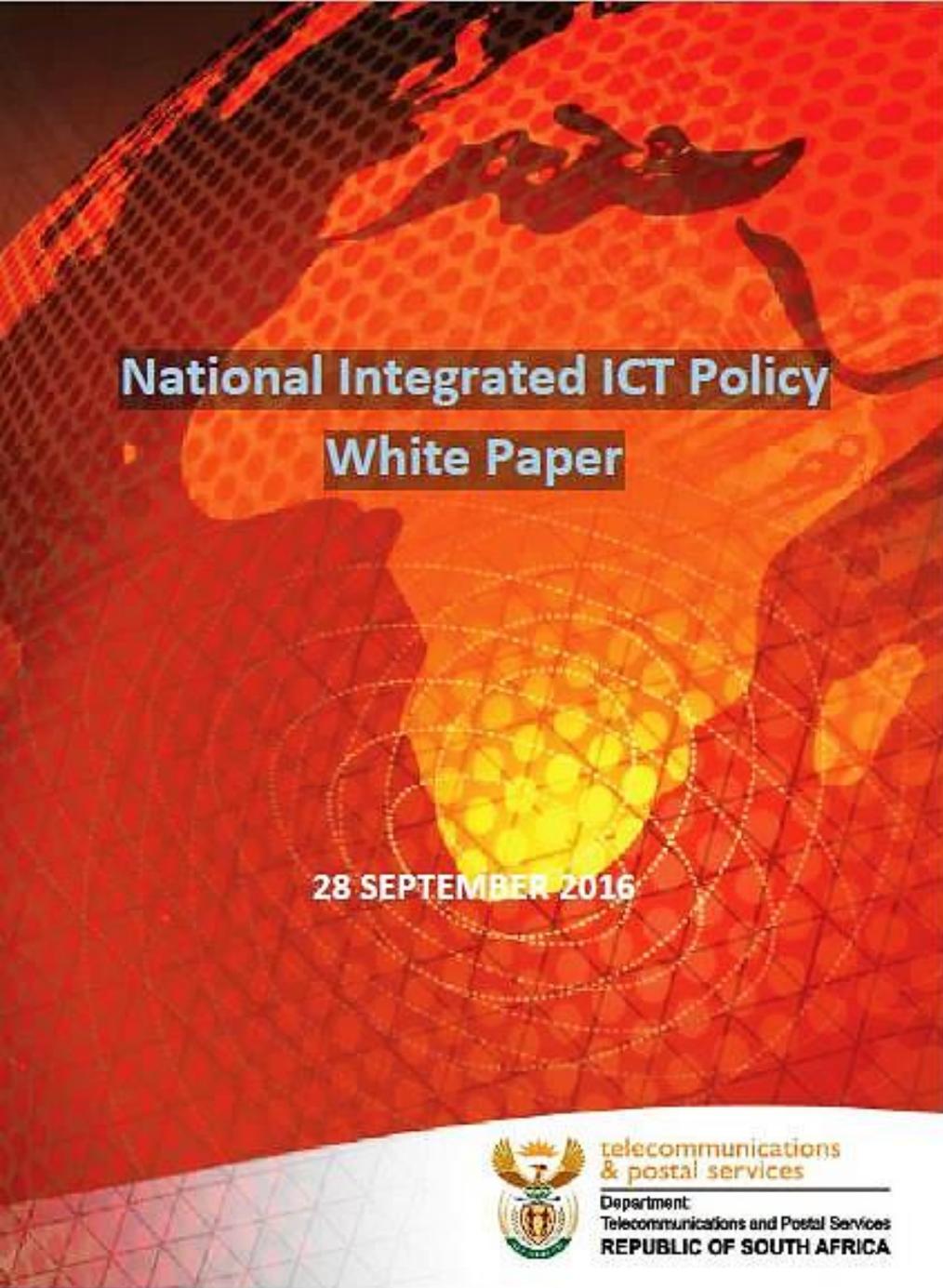


No, they won't!

- Unless we all decide that they must
- The consequences of exclusion are grim – economic and social erosion
- **Yes they can** – if we collectively want them to be part of today's 4IR



- Will this Policy and supporting Act lift this community, and their 30 million poor fellow citizens, out of their poverty traps?
- Will the Policy do this in time to prevent a national disaster?
- What Policy changes to meet the national objectives as stated?
- **If we fail, future generations will punish us and our country severely!**



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**Thank you very
much for your
attention**

**Collectively, we CAN
make South Africa
Great Again!**

Walter Brown

Pretoria, 6th March 2018

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