

# Communications Authority of Kenya

## National Broadband Strategy



### Vision for NBS 2023

*A globally competitive knowledge-based society enabled by broadband*

Presented By:  
Fred Ong'aro  
Ag. AM/WRO



# Contrast NBS 2017 Vis a Vis NBS 2023



An evaluation of the extent of achievement of NBS 2013-17 (NBS I) targets revealed that most targets had not been achieved:

Some **targets** may have been very ambitious,

There was inadequate governance and delivery structure

■ Further,....

■ - **less emphasis** was placed **on the demand side** of broadband both in strategic objectives to be pursued and in the focus (thematic) areas.

*Specifically, **drivers of broadband uptake**, namely privacy and security, affordability, innovation, and creation of awareness of broadband were much less emphasized compared to supply side aspects such as rollout of backbone infrastructure.*

***HENCE*** - NBS 2023 builds on the gains and fills the gaps that were discerned upon the end date evaluation of NBS I.

Big 4 Agenda	Affordable Housing	Universal Healthcare		Manufacturing	Food Security	
	<b>The National Broadband Strategy</b>					
NBS Theme	Infrastructure, connectivity and devices	Services, Content, Applications	Policy, legislation, and regulation	Capacity Building and Innovations	Finance and Investment	Privacy and Security
NBS Contribution to Big 4 Agenda	<b>Notes</b> Provide core and supporting infrastructure, and end user devices to deliver broadband in the Big 4 sectors	<b>Notes</b> - Development of appropriate and good quality services specific to the Big 4 sectors - - Development of content, applications and innovative services in the Big 4 sectors	<b>Notes</b> Formulation of policies, enactment of laws and development of regulations to guide the secure use of broadband in the Big 4 sectors	<b>Notes</b> -Training and education of the Big 4 sector members on adoption and use of broadband in delivering on the Big 4 -Public awareness creation for broadband	<b>Notes</b> -Providing incentive(s) for investors in broadband in the Big 4 -Government stimulus fund to spur uptake /use of broadband to deliver the Big 4	<b>Notes</b> Enact laws to protect broadband users and prosecute cybercrimes
Affordable housing		Universal Healthcare		Manufacturing	Food Security	
Broadband ready housing: Have legislations for installation of cables in all modern housing to ease accessibility of Internet at home.		<b>Applications:</b> Avail applications (apps) and content that can be consumed by all citizens who have smart phones for healthcare <b>Telemedicine:</b> to assure the population of accessible healthcare by affording them ability to consult professionals globally.		Enhance manufacturing of broadband devices within the country. This will in turn have affordable devices in the country	Supply chain efficiency: Use the internet (broadband) to harmonize the demand and supply sides of the food value chain by linking areas of production to relevant markets	
Security of housing: Ensure secure residences by promoting installation of ICT security gadgets through an affordable business model to avail devices		<b>Monitoring of heath:</b> Track all supply and usage of healthcare services and facilities and ensure timely availability of all necessary healthcare (facilities and services)		-Manufacture quality products through adoption of global standards for locally manufactured ICT devices -Job creation through apps development and content creation and innovation	<b>Quality of food:</b> Verify quality of the food consumed and ensure only quality foods are consumed by the whole population. <b>Digital agriculture:</b> such as the use of IoT technologies to improve farming and food production <b>Supply chain efficiency</b>	

# Thematic areas of the NBS



1. Infrastructure and Connectivity
2. Services, Content and Applications
3. Policy, legislation, and regulation
4. Capacity Building and Innovations
5. Broadband Devices
6. Finance and Investment
7. Privacy and Security

# Infrastructure and Connectivity



Though the private sector have made great strides in the development of infrastructure, there are still opportunities for government intervention where purely commercial consideration do not suffice.

Further, the overall cost of business in deploying and running infrastructure is a challenge due to lack of energy and lack of proper road infrastructure, wayleaves and inadequate security of this infrastructure resulting in vandalism

## Current Status

- Four undersea cables in Mombasa, namely: EASSy, TEAMS, SEACOM, and LION I & II.
- Over 6, 000 kms of NOFBI network had been laid across all the 47 Counties
- County connectivity project for last mil,
- Government Common Core Network (GCCN) links for government offices in Nairobi
- Establishment of county information hubs (CIH)

# Infrastructure and Connectivity Cont..

## Gaps

- ✓ Quality of BB services – low speed BB connections and poor reliability
- ✓ Rural areas seriously lacking in coverage
- ✓ Low coverage of BB services- geographical: About 50% of administrative units (locations) have no 3G coverage
- ✓ Parallel installations due to lack of coordination- reducing coverage and constraining investment in BB
- ✓ Lack of sharing arrangement of critical infrastructure
- ✓ Low access and uptake of BB services (penetration of 39.7%)
- ✓ Inadequate legislation to support BB

## Target and Programmes

- ❖ Treat BB as critical infrastructure, sensitize everyone on importance and use
- ❖ Harmonize development of infrastructure to reduce duplication and increase coverage
- ❖ Increase coverage and connection to public institutions- schools, hospitals, and Govt agencies digitization
- ❖ Increase open access infrastructure to all
- ❖ Improve 3G fibre connections
- ❖ Use USF to cover under covered areas like rural areas
- ❖ Review spectrum allocation and pricing
- ❖ Introduce tax rebates/subsidies in marginalized areas to stimulate investment and uptake of BB

# Broadband Devices

## Current situations



## Target and programmes

- Smart phone penetration is around 60%
- 10% of 8500 public sec schools have computer labs
- 2000 primary schools out of 22,000 have been equipped with laptops
- Presence of Counterfeit devices in the market
- Inadequate disposal of e-waste

Zero-rate smartphone sales to ensure affordability

Establish partnerships with vendors, operators and financial institutions for bulk purchasing and low-interest loans Device leasing programme (e.g., refurbish and lease devices); this will address e-waste and access,

Encourage local device manufacture, maintenance and recycling, which will create jobs and address e-waste issues

# Policy, Legal and Regulation

Current situations



- Lack of synchronization of operations by government entities and authorities handling infrastructure rollout
- Sector guidelines not imbedded in regulations such as branding of phones
- Lack of technology ready devices, such as 4G compatible devices
- E-waste regulations not yet passed
- Costly ICT services and duplication of infrastructure

Target and programmes

- ❖ To elevate broadband to critical infrastructure status
- ❖ Implement Infrastructure sharing regulations
- ❖ Review of Tax policies, including exception of taxes on broadband devices
- ❖ Issuance of regulations to promote broadband deployment and use
- ❖ Capacity building of freedoms and responsibilities of citizens with regard to broadband
- ❖ Establishment of the NBC and the BDU



# Services, Content and Applications

## Current situations

**Projects done:** Digitization of National referral hospital records, Education records, The Judiciary, Civil registration department (CRD), Lands civil register, the companies registry among others.



## Target and programmes

- Creation of standards
- Capacity building i.e. Promote digital literacy programs
- Promotion of e-learning in the education institutions
- Put in place an open access policy to ICTs' and Digital Content for e-government services in delivery of public service
- Promotion of emerging technologies e.g. Blockchain, Mobile Money, Infosec, Data Science/ Big Data

# Finance and Investment

Inadequate financial resources have been identified as one of the crucial factors affecting broadband development in Africa. Viable sources of funding that can be pursued include:

- Structured public-private partnerships
- Liberalization of ICT to attract investors into the broadband infrastructure space
- Privatization of state owned ICT corporations to improve efficiency

Measures to  
implement  
broadband

Investment in basic infrastructure e.g., for national fibre optic backbone networks such as the national optical broadband infrastructure i.e. NOFBI (Kenya)

Setting up special purpose vehicles (SPVs) for broadband (e.g., as was the case for the East Africa Marine System [TEAMS])

Fiscal incentives for broadband infrastructure, such as reduction of taxes,

# Finance and Investment Cont..

**National open access network:** The network assets of operators are purchased; the government remains a majority shareholder, at least temporarily, although the national company can be opened to private investors. The network is open to all service providers at regulated prices.

Alternative  
financing  
models

**National open access alternative carrier:** A variance of the prior model, in this case the national network remains an alternative carrier to the incumbent backbones. Its purpose is to break down potential bottleneck prices that could be raised by incumbents

**Government financing of the national network:** In this case, the government invests temporarily in a network to be deployed by a private carrier. The purpose in this case is to facilitate through funding, the deployment of a high capacity infrastructure.

# THANK YOU





## HEAD OFFICE

**CA Centre, Waiyaki Way, Westlands, Nairobi**  
**P.O BOX 14448-NAIROBI 00800**

**Tel:** +254 20 4242000      **Mobile:** +254 703042000/+254 730 17200

**Email:** [info@ca.go.ke](mailto:info@ca.go.ke)      **Website:** [www.ca.go.ke](http://www.ca.go.ke)



Communications Authority of Kenya

### Western Regional Office

KVDA PLAZA  
ELDORET

**Email:** [wro@ca.go.ke](mailto:wro@ca.go.ke)



CA\_Kenya

### Coast Regional Office

NSSF BUILDING  
NKRUMAH ROAD, MOMBASA

**Email:** [cro@ca.go.ke](mailto:cro@ca.go.ke)