

Third East Africa Internet Governance Forum (2010 EAIGF)

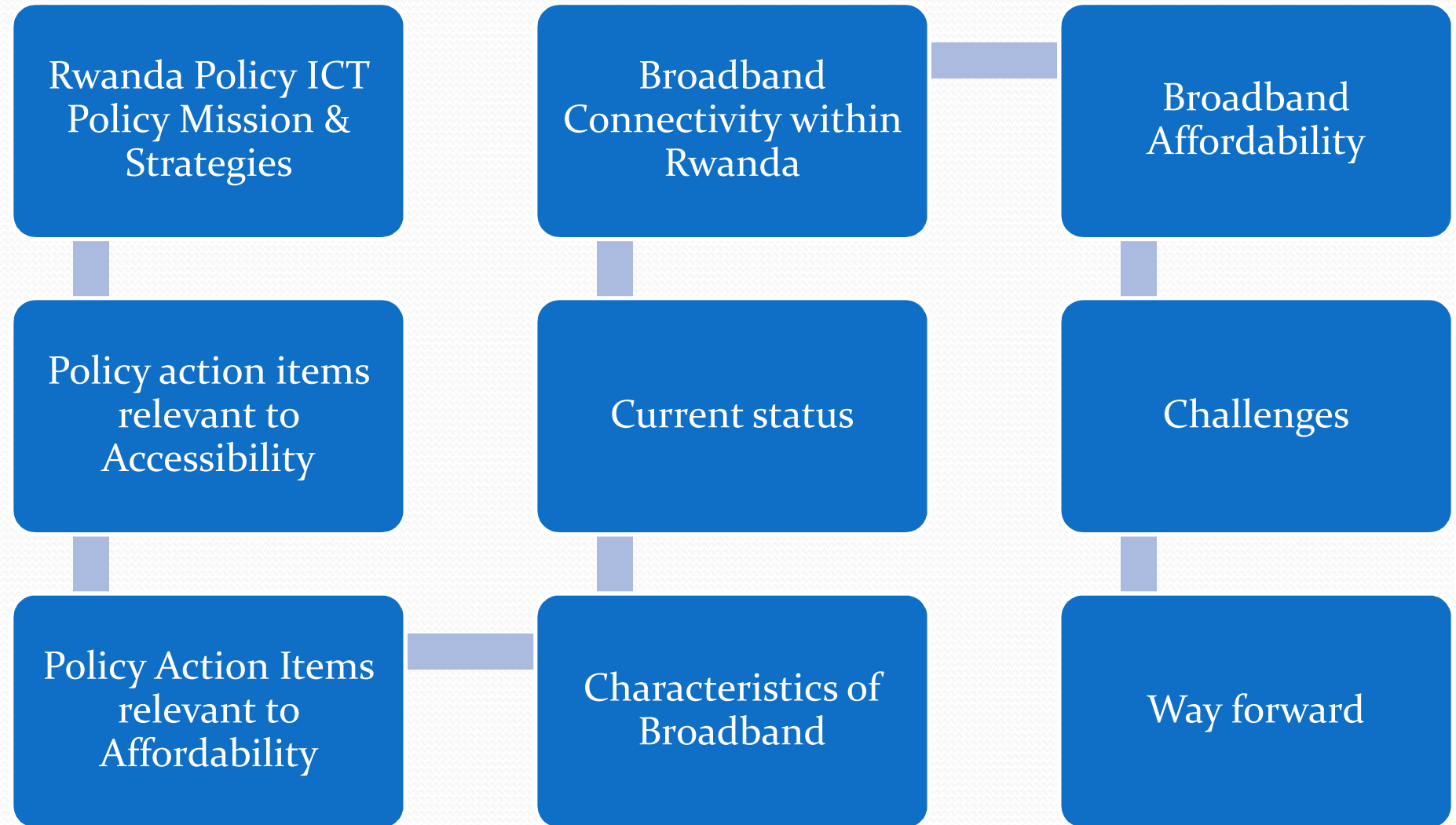
Kampala 11th -13th August 2010

ACCESS AND AFFORDABILITY OF BROADBAND

Rwanda Report

*By Beata Mukangabo
Director of Legal Affairs/RURA*

OUTLINE





Rwanda ICT Policy Mission

“To achieve a middle income status for Rwanda by 2020 and transform its society and economy into an information-rich, knowledge-based society and economy by modernizing its key sectors using information and communication technologies”.



Strategies

- Strategies for achieving Mission
 - To promote and encourage the deployment and utilization of ICTs within the economy and society
 - To improve the information and communications infrastructure of Rwanda
 - To develop the legal, institutional and regulatory framework and structures required to support the deployment and utilization of ICTs within the economy and society

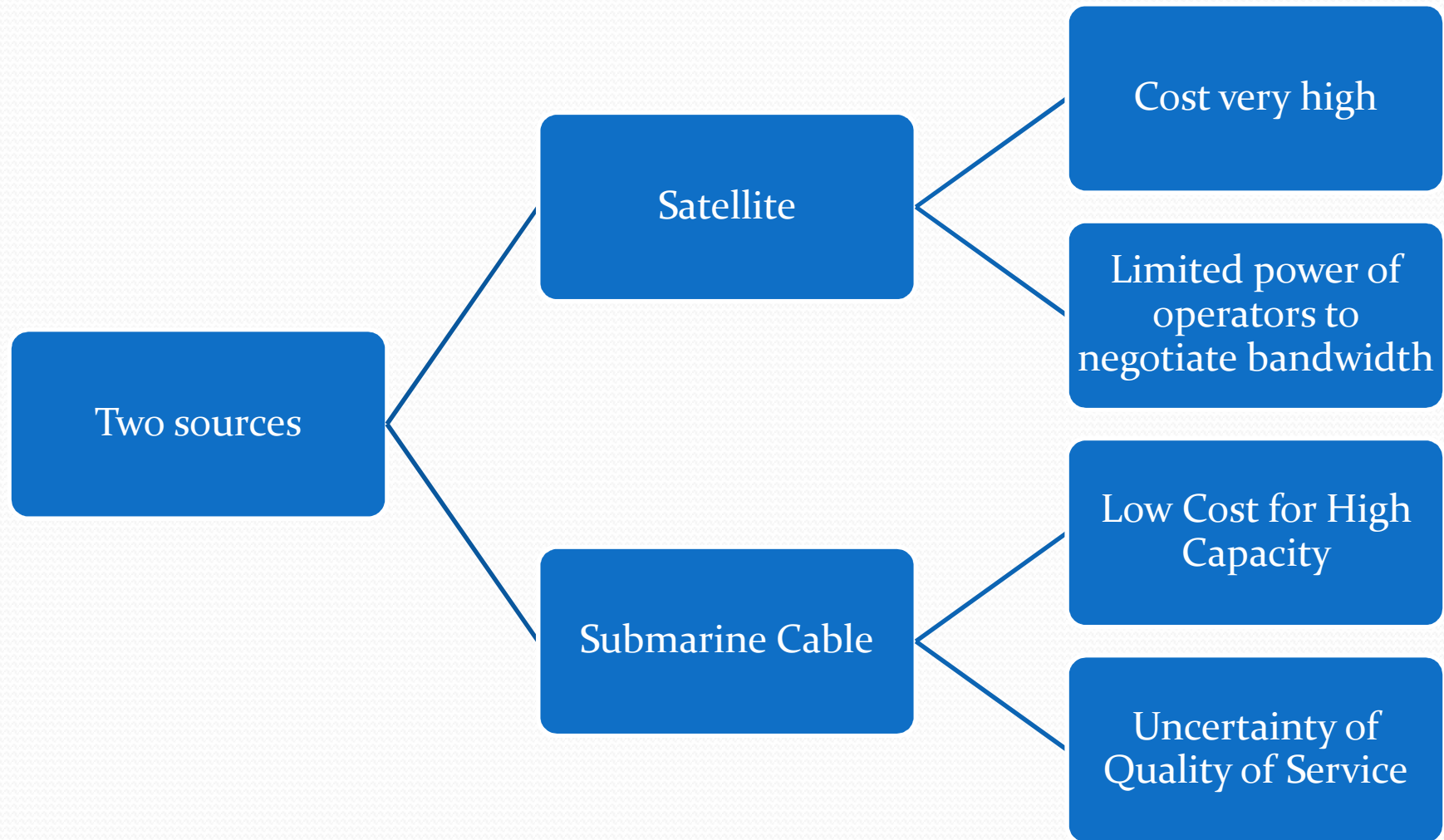
Policy action items relevant to Accessibility

1. *Improve Network Infrastructure*
2. *Provide Wide Access or “Connectivity for All”*
3. *Provide Affordable Infrastructural Services*
4. *Improve Local / International Communications Reliability and Speed*
5. *Promote the Establishment of LAN and WAN in Buildings and Compounds*
6. *Promote Private Sector Participation in the Infrastructure*
7. *Formulate Standards for the Infrastructure*
8. *Rehabilitate, Expand and Modernize Infrastructure*
9. *Provide Universal Access to Infrastructural Services*

Policy Action Items relevant to Affordability

- *Reduce the Digital Divide*
 - Expand and improve network infrastructure – affordability, access and speed
 - Improve communications infrastructure – affordability and access
 - Improve local and international communications reliability and speed
 - Build Multipurpose Community Telecenters (MCTs) in rural areas
 - Increase the number of free Information Access Points (IAPs)
 - Provide affordable computers to schools and libraries
 - Provide easy access digital libraries
 - Reduce travel and subsistence costs to reduce
- *Improve the Status of the Disabled*
- *Reduce Poverty*

Characteristics of Broadband





CURRENT STATUS

- Rwanda has experienced substantial growth in telecom services (especially mobile telephony)
- However Broadband Access is still low and expensive
- Government subsidies to satellite bandwidth
- National Backbone under construction
- Connection to Submarine Cable Regional initiatives

Broadband Connectivity in Rwanda

Kigali
Metropolitan
Fiber Optic
Network

National
Backbone Fiber
Optic Network

MTN Backbone
Network

Rwandatel
Backbone
Network

RECO&RWASCO
Backbone

Wireless
Broadband
Network

TOTAL LENGTH OF FIBER OPTICS IN RWANDA

TOTAL LENGTH

4732 KM

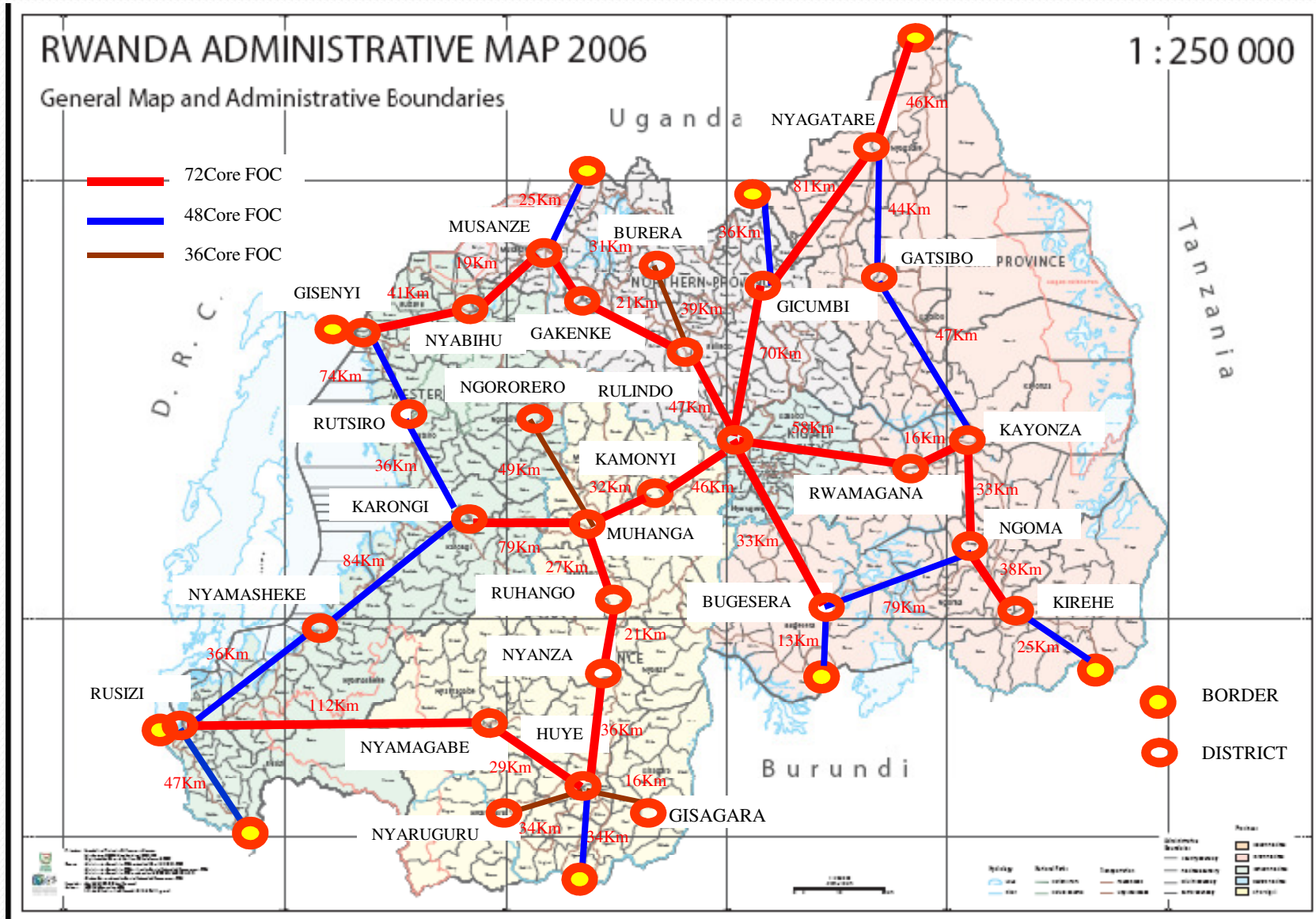
Kigali Metropolitan Fibre Optic Network

The Kigali Metropolitan
Network route



90 Government agencies
in Kigali City connected
with fiber optic network

National Backbone Routes of FOC





Broadband Affordability

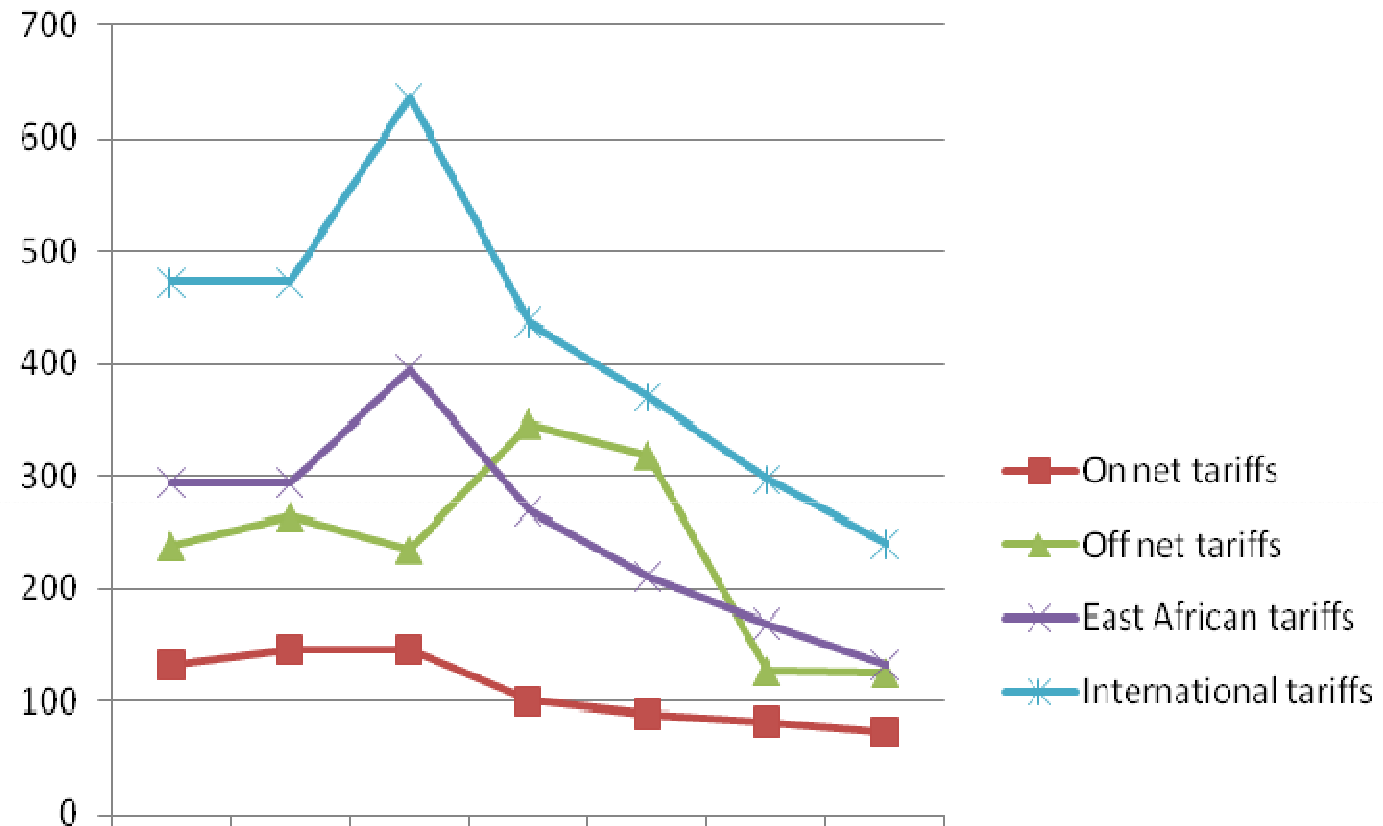
- Broadband affordability is still low in Rwanda
- Domestic Broadband penetration in Africa in general and Rwanda in particular is still limited
- Internet connectivity mainly via expensive satellite service
- High Connectivity Cost: 1 Mbps/down \geq 2,000 USD/month (less than 100USD in many OECD Countries)

Actions to overcome the challenge of Broadband Affordability

Short term Solution;

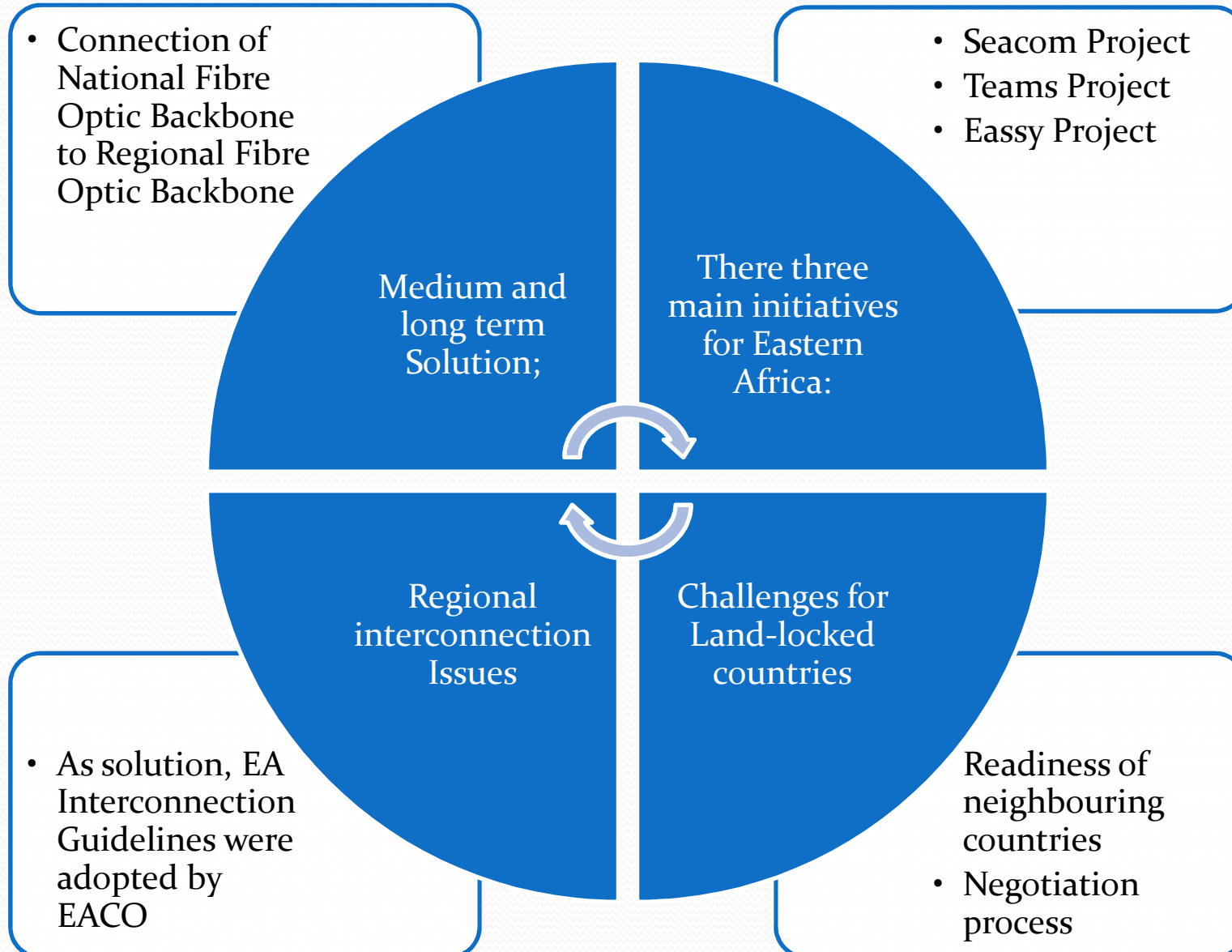
- Subsidy through UAF of Bandwidth for facilitating the access to Internet Service
- Cost per MBPS for Internet bandwidth from Satellite Between 1000 US\$ and 1500\$ per month
- Remote site connection per VSAT hub cost is 4,000 US\$ per month
- RURA intervention is the subsidy for rural connectivity for:
 - Local Administration
 - Education and health system
 - Social and other institutions in remote rural area
 - Telecentres in remote areas.
 - Private institutions working for the community.
- The amount of subsidy is **USD 120,000 / month**

Rwanda Tariff trend

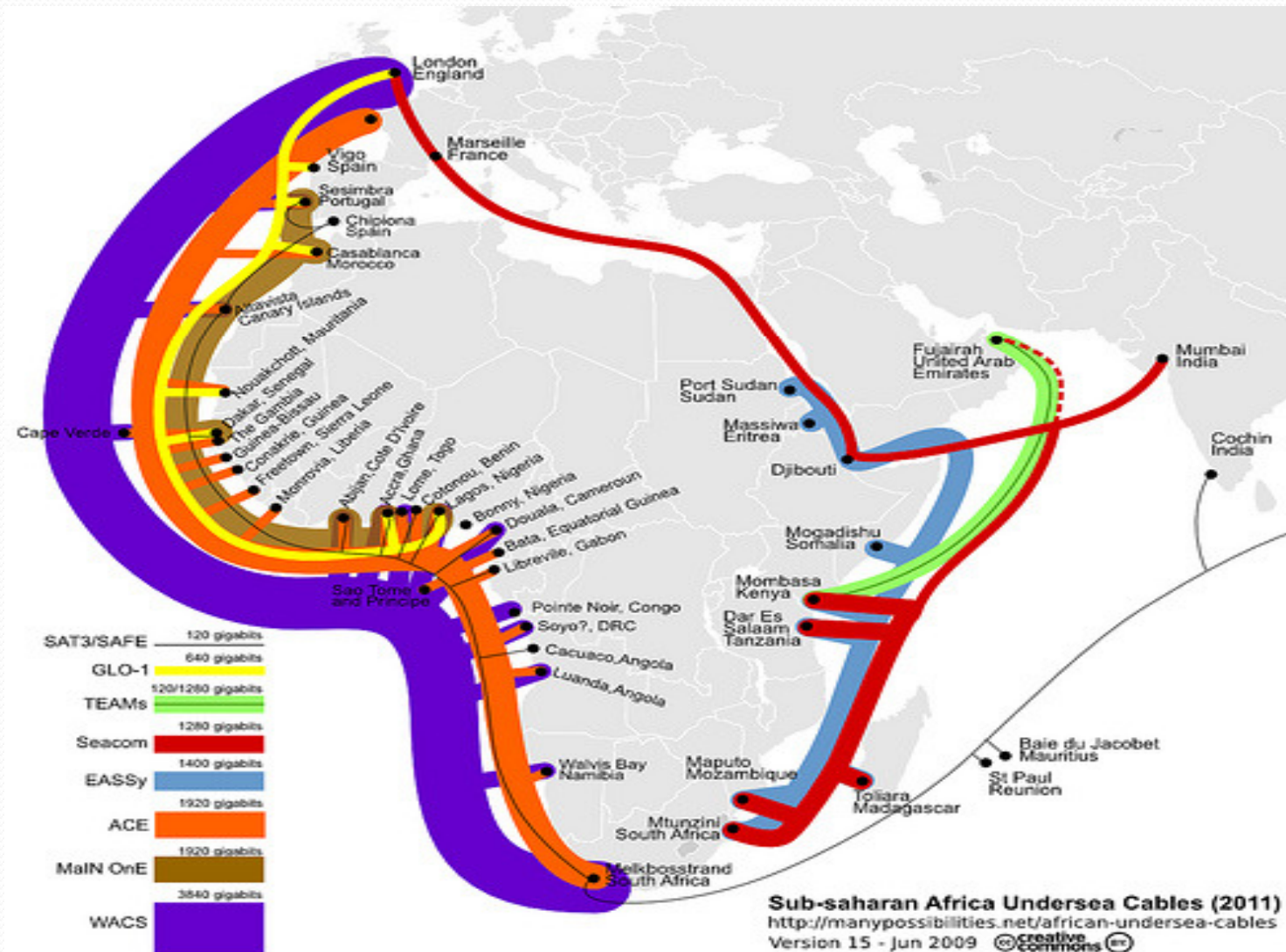


	2004	2005	2006	2007	2008	2009	2010
On net tariffs	133	147	147	101	90	83.3	74
Off net tariffs	239	265	236	347	319	127.754	126
East African tariffs	295	295	396	270	212	170	133
International tariffs	472	472	636	437	370	297	240

Connection to Regional Undersea Cable



Sub-Saharan Undersea Cables



CHALLENGES

Lack of Electricity
in rural area

Low Level of
literacy and
poverty in rural
area.

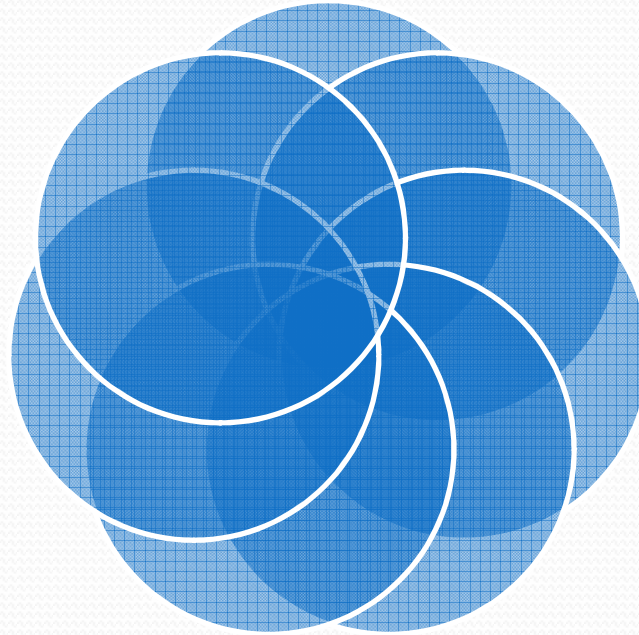
Development of
Content

Missing of
affordable Last
Mile Solution in
rural

3G Network
Operators
available only in
towns.

Rwanda ccTLD is
still managed
outside

National
Backbone is still
under
construction

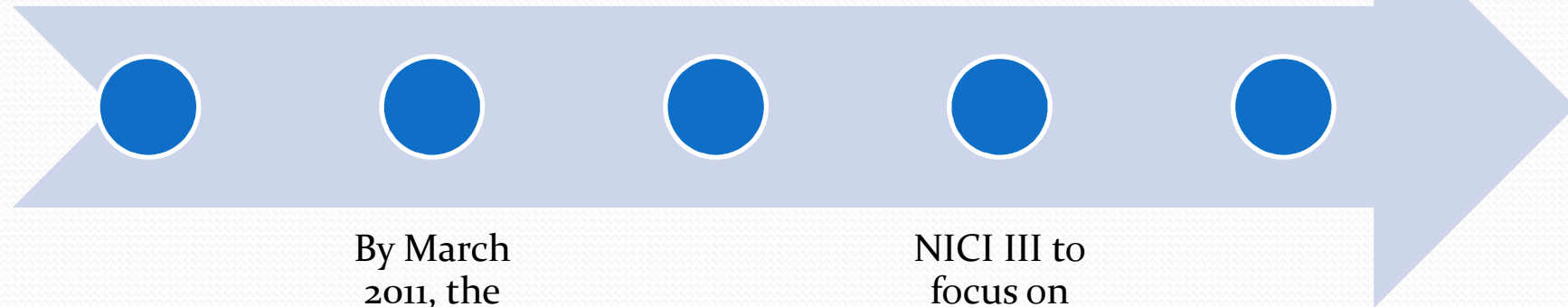


Way Forward

The construction of National Backbone throughout the country will finish by December 2010

Government initiative to facilitate connection to Submarine Cable

Ratification of UNCLOS Treaty is being considered.



By March 2011, the National Backbone will be ready for use

NICI III to focus on Content issue, Human Resources Capacity Building

