

# The Role of Public and Private Sector in Developing National and Regional Interconnection

Panel Session I: Interconnection Policy Shortfalls



# Introduction

**There have been significant improvements to Africa's Internet connectivity in the last five years**

**Enormous investments have taken place across the value chain, notably in submarine cables and terrestrial backbone**

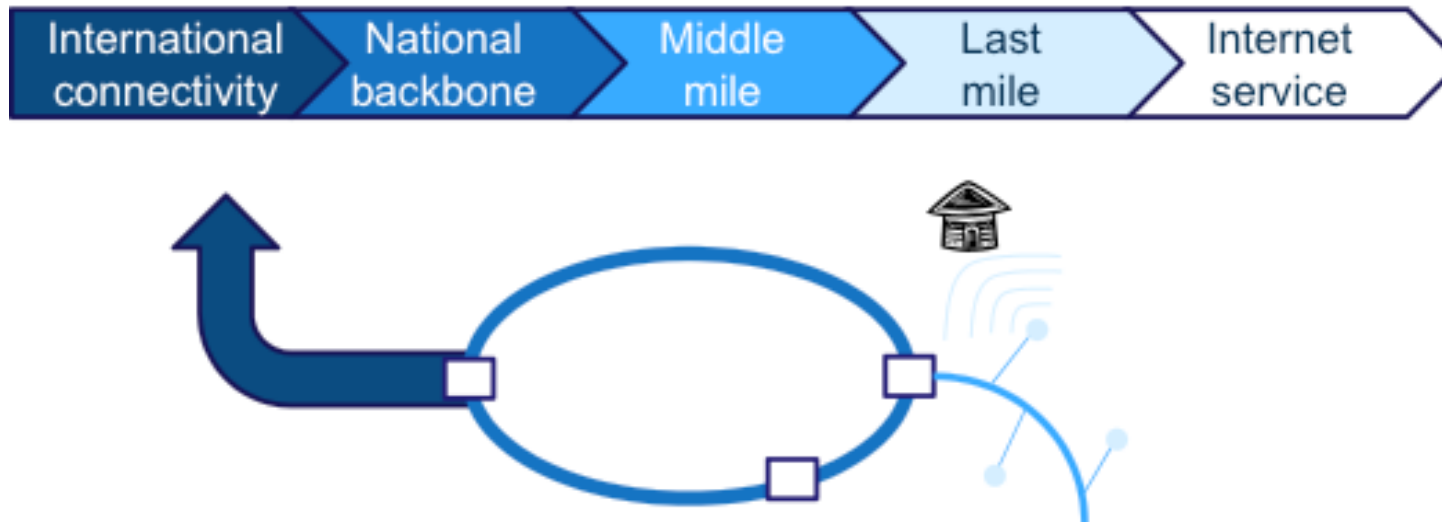
**These investments have a mixed impact on Internet access services, through lowered prices and increased adoption**

**This panel will investigate the policy issues that may limit improvements in Internet access services**

**The following slides come from the Internet Society paper “Lifting barriers to Internet development in Africa: suggestions for improving connectivity,” May 2013, Robert Schumann and Michael Kende**

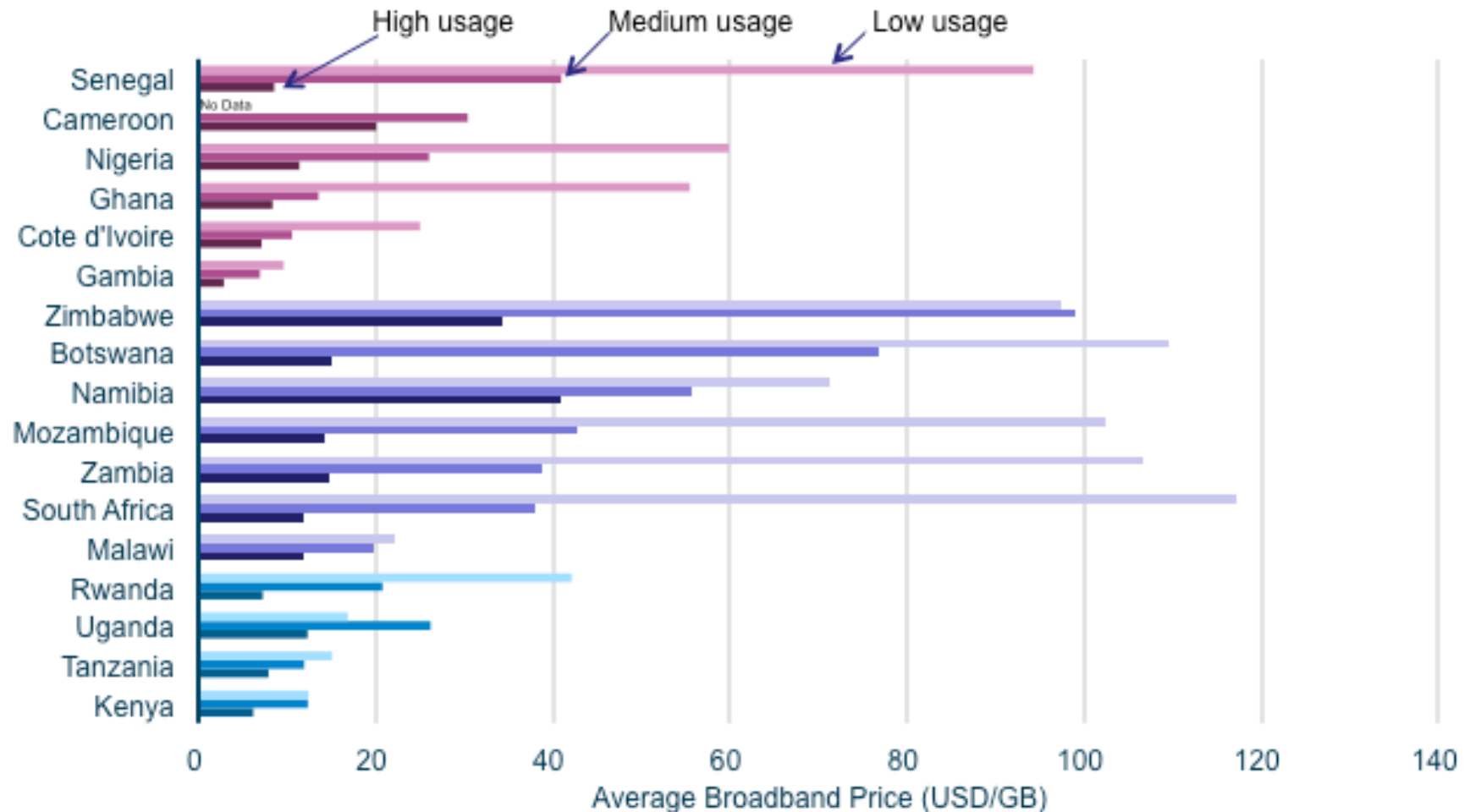


# The Internet value chain contains multiple links



- **Internet access service results from international and national connectivity along with last mile access**
- **There are many points at which a policy shortfall could increase the price of Internet service and thereby lower access**
- **This is true in spite of significant investments in recent years across the value chain**

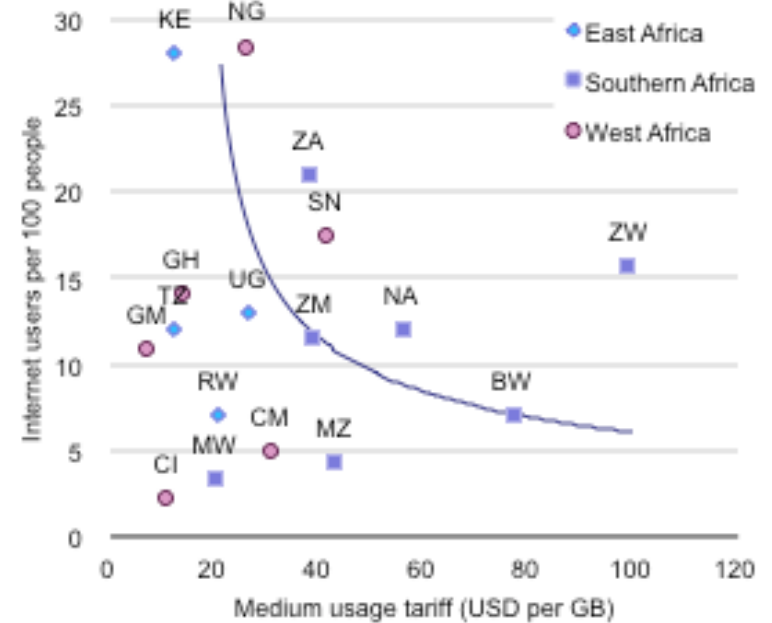
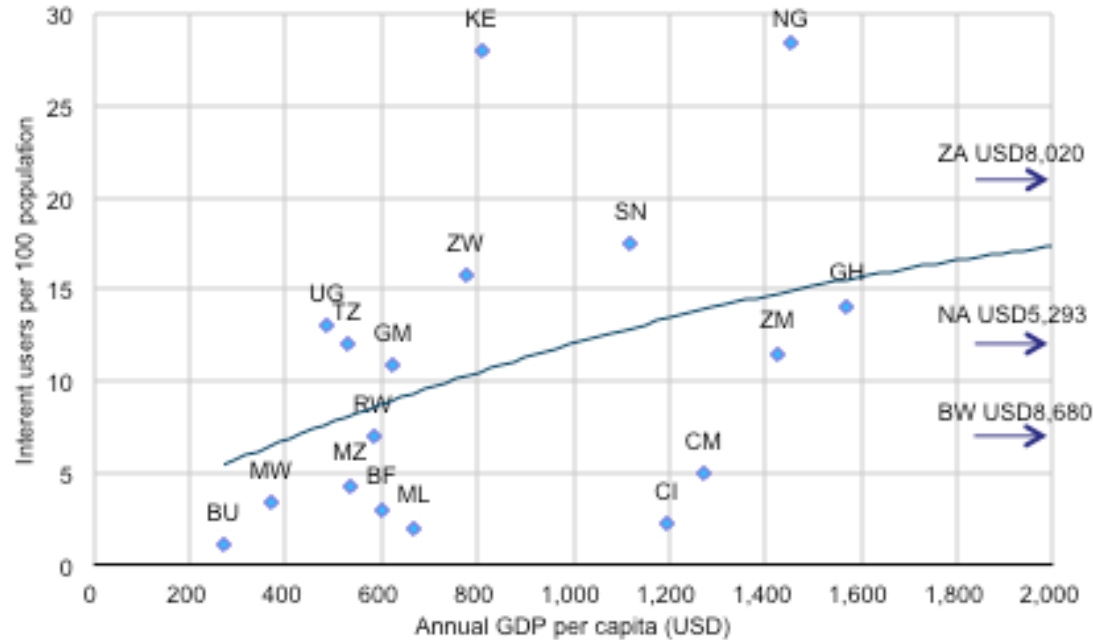
# Internet access prices vary widely across Africa



Source: Analysys Mason, Google, Telegeography, 2012

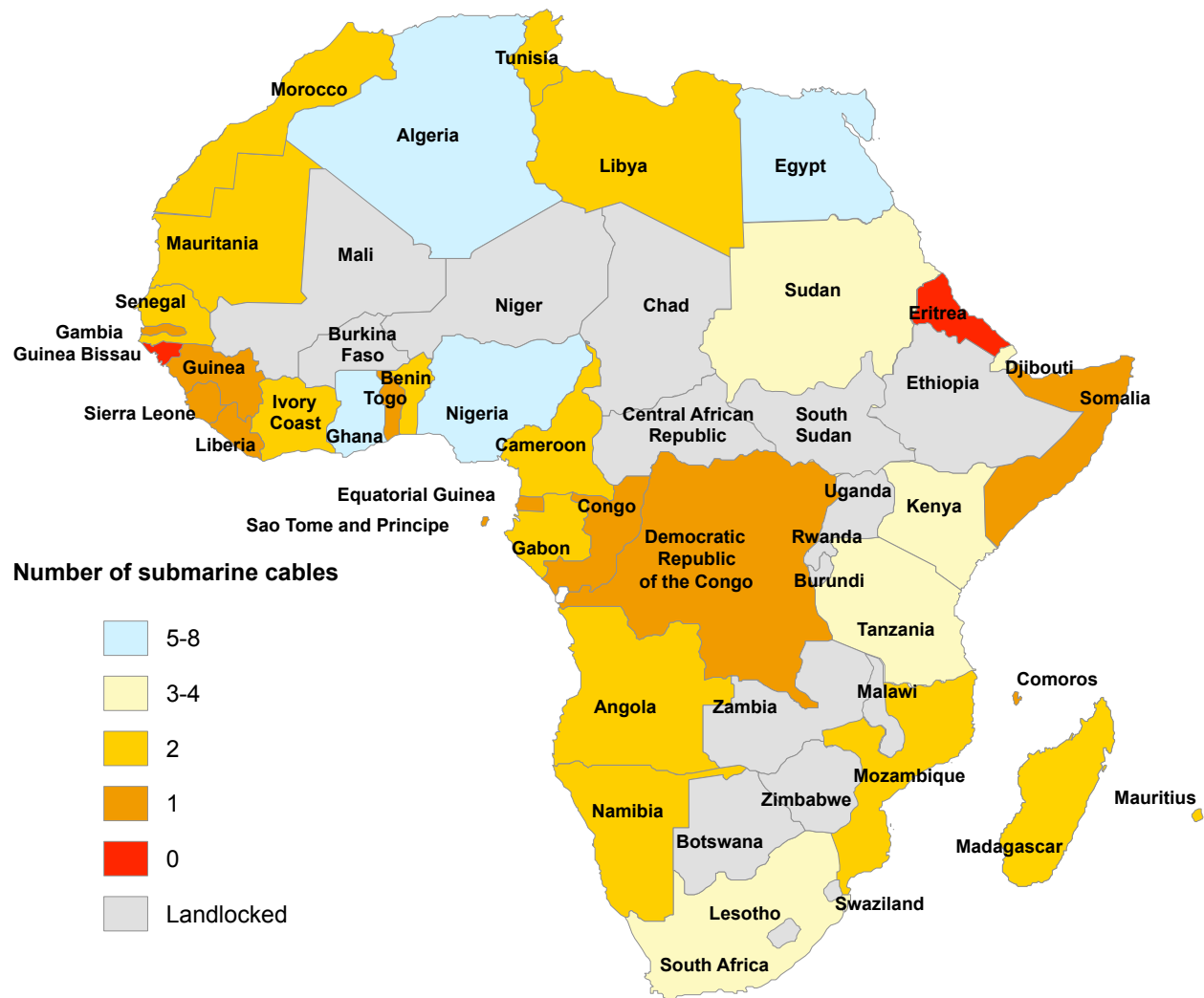


# Take-up rates also vary widely, even adjusted for income or prices



Source: World Bank, ITU, 2012

# There have been significant increases in submarine cable availability in recent years



Source: Analysys Mason, 2012

# Investment in capacity has been significant, but challenges remain

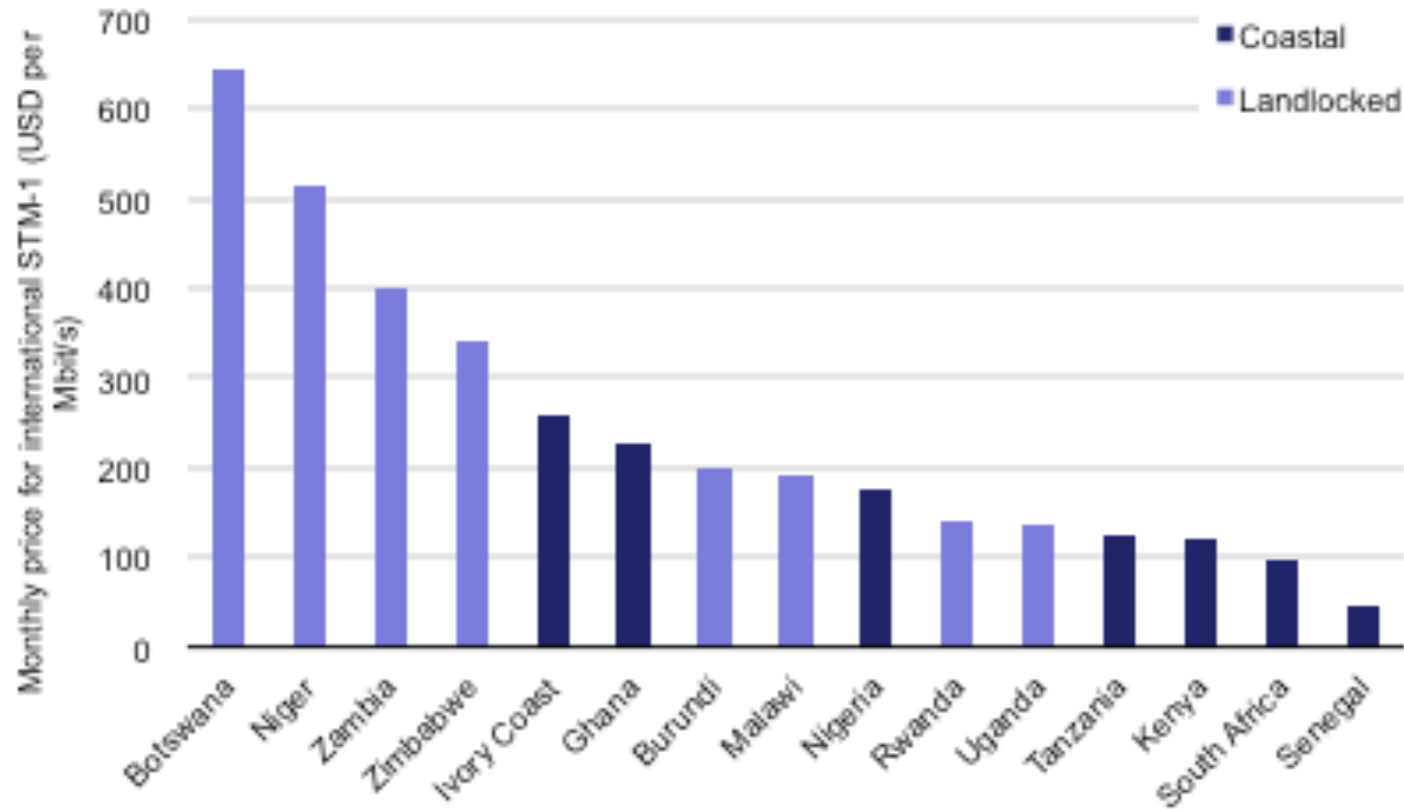
## Investments

- **Submarine Cables**
  - USD 3.8 billion invested in recent years
  - Added 24 Gbit/s of new capacity on top of 13 Gbit/s prior to 2011
  - Seven countries have their first landing station
  - 11 other countries have an additional landing station
- **Terrestrial Capacity**
  - USD 8 billion invested
  - Nearly 100 route-kilometers of new capacity available each day in Africa

## Challenges

- **16 landlocked countries in Africa that require cross-border terrestrial capacity**
- **Two coastal countries have no submarine cables, others have only one or two**
- **Evidence that cross-border connections are still limited, resulting in indirect traffic exchange**

# Prices of capacity to Europe differ widely within and among regions



Source: Analysys Mason, 2012



# Policy shortfalls can take a variety of forms

## Roadblocks to deployment

- Liberalization of gateways
- Cost of rights of way access
- Sector-specific taxes

## Means to promote deployment

- Regulatory certainty
- Facilitate infrastructure sharing
- Public private partnerships (Panel II)

# **This panel will review policy shortfalls leading to interconnection challenges**

## **Speakers:**

- **Mike Jensen (Consultant, South Africa)**
- **Haitham El-Nakhal (Senior Manager, Internet Policies and Technical Affairs, National Telecom Regulatory Authority, Egypt)**
- **Prenesh Padayachee (Chief Technology Officer, Internet Solutions, South Africa)**
- **Dr. Mamadou Diallo Iam (TIC- Mali)**
- **Emile Milandou (ARPCE - Congo) - TBC**

**Michael Kende**

Chief Economist

kende@isoc.org

