

# Convergence

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## Introduction

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## Disruptions to business

- New spectrum bands
- New wireless services
- New tariff plans
- Bundling of services
- Changes in fashion

## Some comparisons

	Radios 2004	TVs 2003	Fixed lines 2003	Mobile 2003	PCs 2003	Internet 2003
Bhutan	19	27	34	10	14	20
Burundi	152	35	3	10	2	2
<b>Lao PDR</b>	<b>143</b>	<b>53</b>	<b>12</b>	<b>20</b>	<b>4</b>	<b>3</b>
Nepal	39	-	16	-	4	-
Rwanda	102	8	3	20	-	3
Zambia	160	59	8	20	8	6

Source: UNCTAD.

## National ICT strategies

- World Summit on the Information Society (WSIS) helped push governments to develop a strategy for ICTs
- Intense competition to position countries as leading users and developers of ICTs
- Many countries are weak on:
  - delivery
  - measuring performance
  - peer review

## Rwanda

- Land-locked, 8 million people, GDP \$300 per capita, largely rural, in the African Great Lakes
- Despite genocide, has made a strong recovery
- Government of Rwanda:
  - 2020 Vision
  - Rwanda Information Technology Agency (RITA)
  - Rwanda Internet Exchange (RINEX)
  - Schools being provided with PCs, UPS and Internet access
  - Rwanda Utility Regulatory Agency
- Support from international donors

## Rwanda

- Mobile networks:
  - MTN Rwandacell (also GSM payphones)
  - Terracom Rwandatel
- Grameen phone initiative “telephone ladies” with microfinance loans
- MoPay payment system using SMS
- International connections planned with:
  - East African Submarine System (EaSSy)
  - Eastern Africa Backhaul System (EABs)

## Singapore – iN2015

- An intelligent nation, a global city, powered by infocomm
- fuel creativity and innovation among businesses and individuals by providing an infocomm platform that supports enterprise and talent
- connect businesses, individuals and communities, giving them the ability to harness resources and capabilities - speedily and efficiently - across diverse businesses and geographies
- be the conduit for providing easy and immediate access to the world's resources as well as for exporting Singapore's ideas, products, services, companies and talent into the global markets
- iN2015 is for every individual, business and organisation

## Singapore – iN2015

- Goals with iN2015
  - to be #1 in the world in harnessing infocomm to add value to the economy and society
  - to realise a 2-fold increase in the value-add of the infocomm industry to S\$26 billion
  - to realise a 3-fold increase in infocomm export revenue to S\$60 billion
  - to create 80,000 additional jobs
  - to achieve 90% home broadband usage
  - to achieve 100% computer ownership in homes with school-going children
- Strategy with iN2015
  - to spearhead the transformation of key economic sectors, government and society through more sophisticated and innovative use of infocomm
  - to establish an ultra-high speed, pervasive, intelligent and trusted infocomm infrastructure
  - to develop a globally competitive infocomm industry
  - to develop an infocomm-savvy workforce and globally competitive infocomm manpower

## Ubiquitous Network Society

- The view from Japan and Korea
- Developed by industry and government
- A focus on economic development
- A big push for manufacturing and services
- Any time, any place, any device, any network
- Multiple networks:
  - Fixed broadband
  - Cellular wireless
  - Wireless broadband
- plus RFID & Ubiquitous Sensor Network (USN)

## South Korea

- Aiming for US\$ 30,000 GDP per capita
- “A Leap to Advanced Korea based on IT”
- Leading driver in recovery from 1997 economic crisis
- IT839 Strategy was a landmark move away from the “catch-up” development model of the past and to lead the world's IT market

## South Korea – IT839

### 8 services

- HSDPA W-CDMA
- WiBro
- Broadband Convergence Service
- DMB/DTV Service
- u-Home Service
- Telematics-Location-based Service
- RFID/USN Application Service
- IT Service

### 3 infrastructures

- Broadband convergence Network
- u-Sensor Network
- Soft Infraware

### 9 Growth Engines

- Mobile Communications-Telematics Devices
- Broadband/Home Network Devices
- Digital TV/Broadcasting Devices
- Next-generation Computing/Peripheral Devices
- Intelligent Service Robot
- RFID/u-Sensor
- Network Devices
- IT System on Chip
- Embedded Software
- Digital Contents/Software Solution

# Neutrality

- Uncertainty about business models
- Collapse of voice revenues
- Search for alternative sources
- Policy approaches:
  - technology neutrality
  - service neutrality
- Efforts to remove regulatory obstacles
- Encouragement of efficient use of resources

# Nigeria – Unified licences

## Policy objectives:

- Encouraging new applications and services
- Simplifying existing licensing to ease market entry
- Regulatory flexibility to address market and technological developments
- Efficient utilization of network resources, so networks may be used for a broad range of ICT services
- Encouraging a full range of operators, including large scale and micro-entrepreneurs

## Unified Service Licences:

- Fixed Telephony whether wired or wireless,
- Digital Mobile Services
- International Gateway Services
- National Long Distance Services
- Regional Long Distance Services

## Unified Access Service Licences:

- FWA and PNL licensees (Fixed Telephony and LEO) will be allowed to provide mobile services subject to the frequency assignment and geographical limitations in the original license
- Digital Mobile licensees will be allowed to provide fixed and data services
- All Unified Licensees will be able to provide ISP, VAS and Payphone services
- International Gateway for own use and third party will be allowed

## European Union

- Economic strategy of growth and new jobs
- Aim to create a single “internal” market
- Major reviews presently underway
- Audio-visual services:
  - common rules in twenty-seven countries
  - independent of the technology used
- Telecommunications:
  - authorisations not licences
  - regulation of market failures
  - move towards use of competition law

## Conclusions

- A wide range of different approaches
- Much depends on the starting point
- Also the balance between manufacturers and operators
- Regulation is being focused on issues of market entry and removing bottlenecks to deliver economic growth and jobs



# Thank you

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