

# **GLOBAL FORUM 2009**

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### **Session 2**

ICT for DEVELOPMENT  
ACCESS, EMPOWERMENT, PARTNERSHIP

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# "ICT for DEVELOPMENT" ACCESS, EMPOWERMENT, PARTNERSHIP

(From "Digital Divide" to "Digital Dividend")  
Main current trends of *ICT for Development*

1. Access for all: Infrastructures, Broadband
2. Mobility as a commodity in Emerging Economies
3. Local based capacities and services
4. Smart ICT Regulation
5. Conclusion



# 1. Access for all: Infrastructure, Broadband Access (1)

Strong economic and social benefits

- Lift economic and social barriers of localisation
- Supports local development, emergence of new business
- Avoid unnecessary migration and diasporas
- Broadband induces no back ups, no virus, security, scalability



# 1. Access for all: Infrastructure, Broadband Access (2)

Infrastructure: access for all

- Combination of solutions is privileged, fibre wherever possible, microwave, and satellite an option for the remotest areas.
- Infrastructure sharing is an economic requirement, whether it is at backbone, core network, backhaul, or site levels.
- Emerging Markets can now have substantial volumes of their own and develop local ICT business



# 1. Access for all: Infrastructure, Broadband Access (3)

Access technologies: diverse and dynamic

- Long Term Evolution (LTE) for Next-generation mobile broadband
  - WiMAX useful for remote disperse markets
- International Mobile Telecommunications-Advanced systems (AMT) for future deployments
  - Move from 3G to 4G as option for telecommunications operators.



## 2. Mobility as a commodity in Emerging Economies (1)

### Facts & Trends:

- 3/4 of the 4 Billions Users of Mobiles are in Developing Countries (World Bank, ITU)
- Penetration rose from less than 2% in 2000 to around 30% today, and a mobile market growing at twice the rate of the global one.
- Adding extra 10% of Mobile Phones in a developing country boosts GNP growth of 0.8% (The Economist)
- 3G networks are already there in many emerging markets, such as China and India, and LTE technology will become available in most mature markets.



## 2. Mobility as a commodity in Emerging Economies (2)

- Liberalisation drives adoption of mobile, even in the poorest countries like Somalia, Sierra Leone, Democratic Republic of Congo, etc.
- But still need of incentives to boost use of mobile phones, to increase people's ability to access internet and develop m-content services.
  - Solutions that support pricing, billing, and information security must be developed.



### 3. Local based capacities & services (1)

- New Home Operators and new Phone based services are numerous in Emerging Countries in Africa, Asia, India, Middle East, etc.
- Collective forms of sharing ICT resources are growing: public access points and libraries, sharing networks, mobile platforms, etc.
- "ICT Sustainability" as a New Techno-economic Model
- Favoured Social Network and bottom-up Content Mobile Services
  - Network Resource utilization or Sharing: Reduction Service Costs
  - Lower Energy Requirement, and Environmental Sustainability





### 3. Local based capacities & services (2)

Examples of success in ICT Public Private Partnerships:

- LabourNet. Bangalore since 2004: delivering of basic services (plumbing, electricity maintenance) with mobile phone network and a registration base of SMEs
- Electronic Tutoring In Kenya: use of mobiles to sustain the rights of women and orphans to access properties



### 3. Local based capacities & services (3)

- Mobile for improving communication between doctors, health workers and clinic sisters in the Eastern Cape and several Provinces of South Africa
- Improve education in remote parts of Mozambique by providing internet access to schools using WiFi, refurbished PCs and open source software
- "Weather for all", African Weather Monitoring Mobile System developed in collaboration with the World Meteorological Organisation and the African telephone Operators.



# 4. Smart ICT Regulation

Guiding Principles of the EU Framework:

Promote Competition – Promote Interest of citizens

- Openness, transparency, Market entry and Significant Market Power, Local loop unbundling, Licensing Framework, Universal Service.
- Necessity to deal with convergence: any infrastructures, all kind of networks
- Prerequisite: Need for Independent Regulation Authorities in Emerging countries.



## 4. Smart ICT Regulation (2)

### Beyond Basic Regulation

- Appropriate regulatory and taxation policies to boost broadband deployment and setting up of digital platforms.
- Encourage regulatory practices that serve the deployment of m-commerce and m-payment solutions. Close coordination with banking and financial regulators, often including the nation's central banks.



## 4. Smart ICT Regulation (3)

- Incentives for covering areas of “market failure”, notably in rural areas where 70% of the African population lives.
- Development of public e-services with specific provisions designed to provide mediation services (human or electronic, local or distant)
- ICT Regulation Toolkit<sup>6</sup>, a joint production of infoDev and the ITU



# CONCLUSION

EU has experience and best practices to share.

Two major Africa-EU Partnerships to support cooperation are in place:

- Partnership on Infrastructures (for supporting the rolling-out of trans-national physical backbones)
- Partnership on Science, Information Society and Space (to support complementary capacities), ICT Platform 8



# CONCLUSION (2)

Example of On-going project supported by EU:

- 6M€ allocated to the International Telecommunications Union for supporting the regulatory harmonization in Sub-Saharan Africa.
- AXIS, Africa Internet Exchange System, initiative to support the deployment of local internet exchange points.
- African Virtual Campus: 11 Campus are being set up in West Africa, with a Partnership with the African Union Commission (follow up of Avicenna).



# CONCLUSION (3)

In addition:

- AfricaConnect for development of regional research and education networks and their interconnection with the European GEANT2 network. Strategic initiative to integrate African scientists at global level.
- EU ICT/FP7 Research Programme with two main objectives: 1) to promote research cooperation with Partners in Emerging Countries, and 2) to make provisions for technology transfer and adaptation.

THANK YOU

