

ICT For Development

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Information & Communications Technologies (ICT)

- A Global Enterprise in the 21st Century
- Convergence of Information Telecomms, Computing and Broadcasting
- Convergence of Services - Digital Multi-media of Voice, Data, Video over IP
- Mobile, Fixed, Satellite

ICT for Development

- OECD & Other International Agencies Recognise: -
- ICT is a Key Driver of Economic Growth,
 - ICT Can enable countries to face development challenges
 - Must be embedded in development programmes
 - Exploiting the Digital Opportunities for Poverty Reduction'
 - Vital element of Poverty Reduction Strategy Programs
 - Key to unlocking Millennium Development Goals (MDGs)

ICT Applications

- To transmit & gather information, data, knowlege
- To facilitate efficient delivery of services

Including

- Health and education, - distance learning
- Management of business enterprises e-commerce
- Public administration (holding governments accountable and to participate more effective participation in political processes)
- To promote Gender equality
- ICTs essential component of transparency, and good governance
- ICTs are crucial basis for development and poverty reduction.

The Gap

- Between 1995 and 2001 (Tim Kelly ITU)
- >100 million Internet users added developing world, but 4 times more were added in the developed world.
- In the developing world only 1 in 50 have internet access
- In industrialised countries 2 out of 5 have internet access

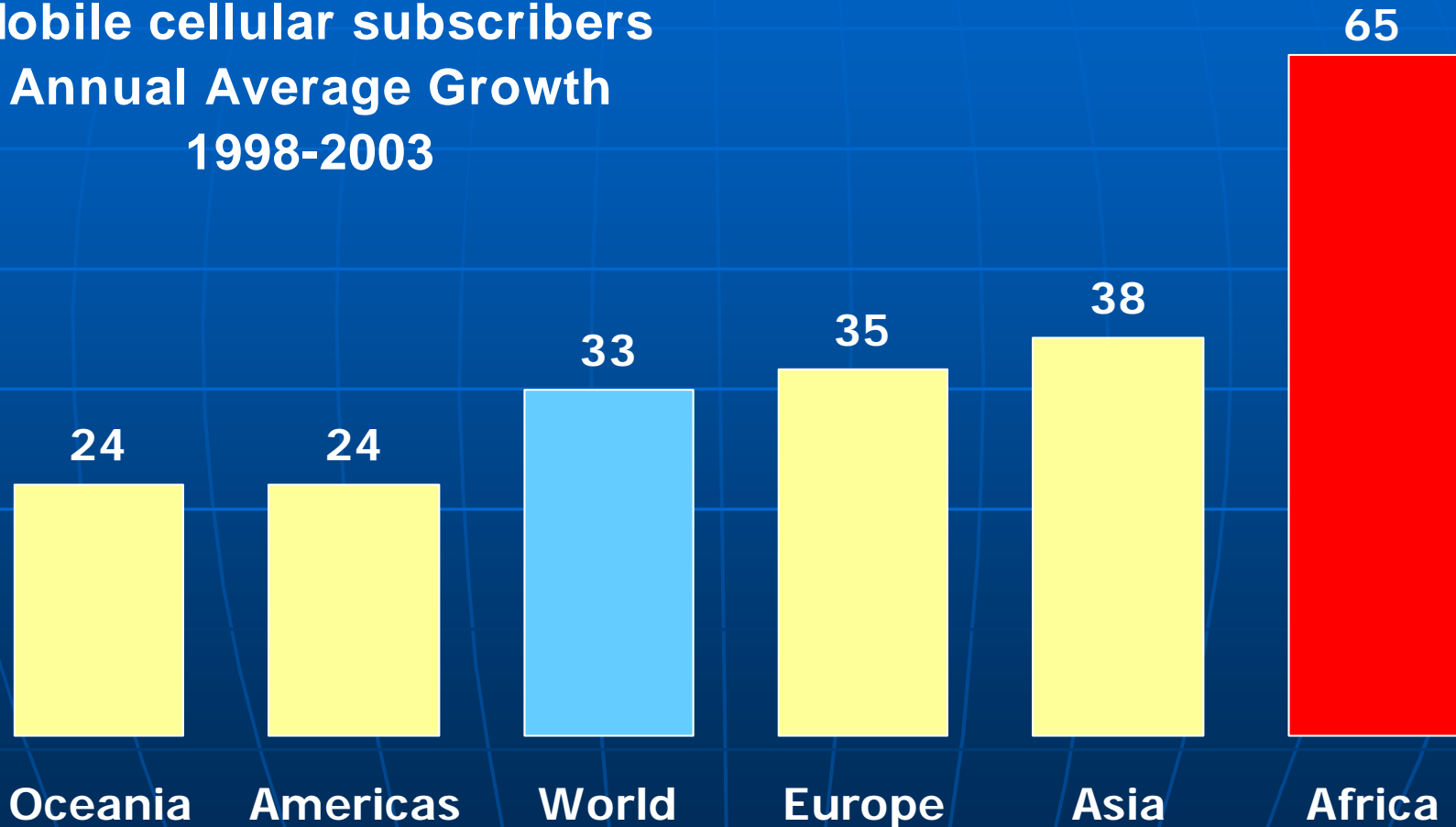
But

- for telephony - surge in demand for mobile telephones in developing countries, with mobile phones exceeding fixed phones.
- in developed countries, demand is flat
- High cost of International Access feeds into local charge
- Overcapacity in the developed world, Under-supply in the developing world'.

MOBILE AFRICA:

World's fastest growing mobile market

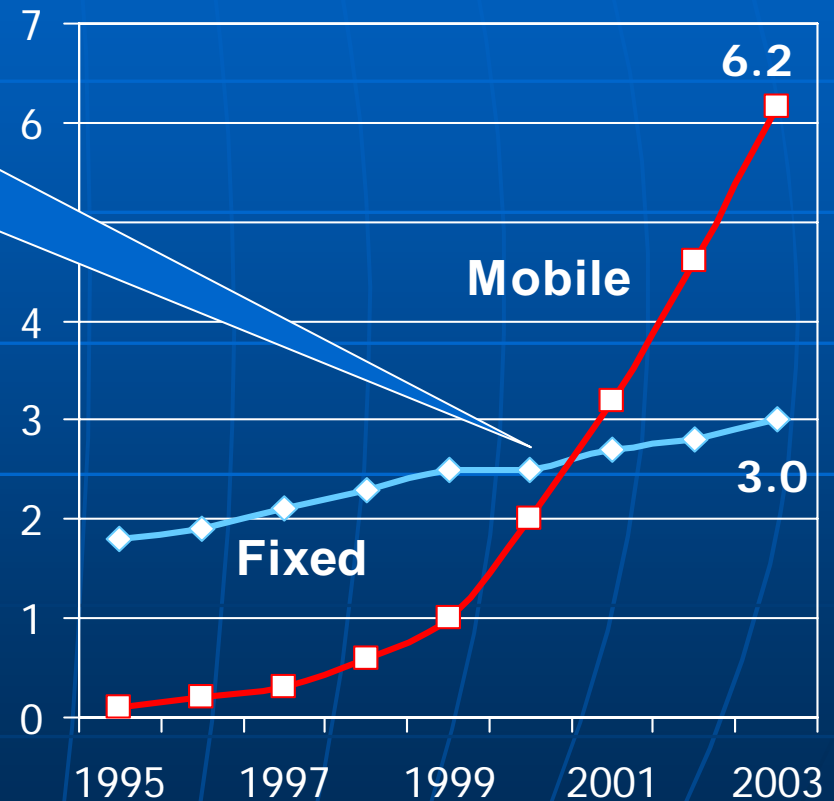
Mobile cellular subscribers
Annual Average Growth
1998-2003



Mobile predominant method of telecommunications in Africa

- Mobile passed fixed in 2001
- 43 African countries (78%) have more mobile than fixed telephone subscribers
- Almost 70% of African telephone subscribers use mobile

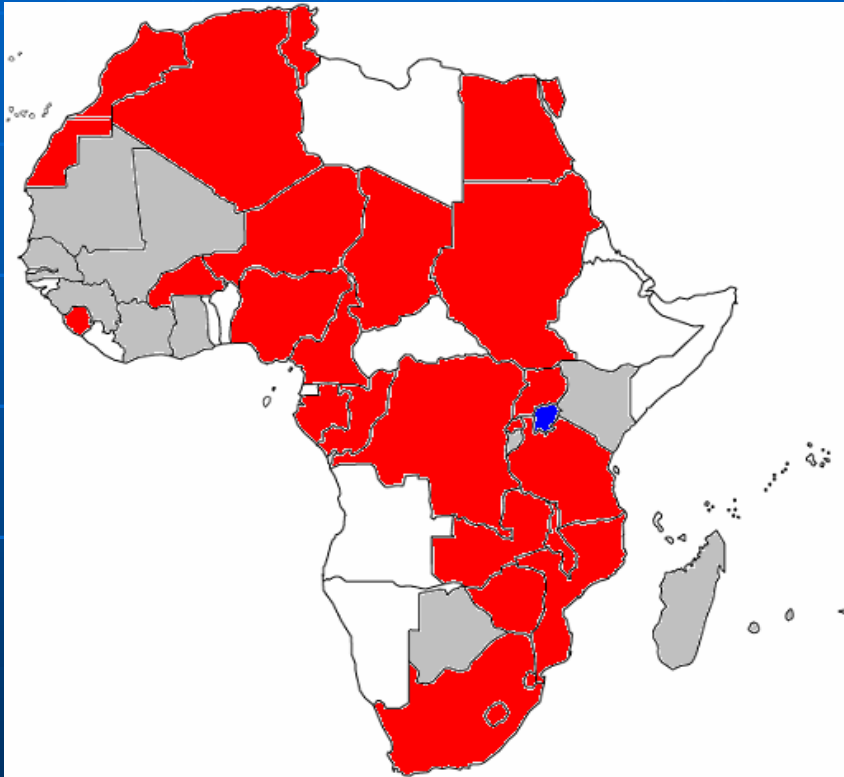
Subscribers per 100 inhabitants



MOBILE BUSINESS

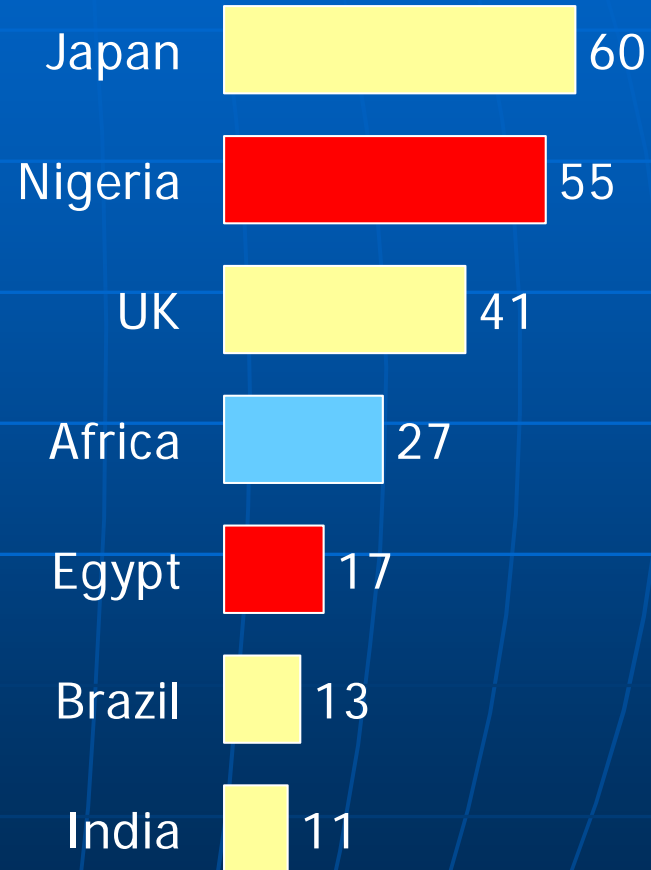
Strategic investors in Africa,
2003

Average Revenue Per User (ARPU)
Per month, 2003, US\$



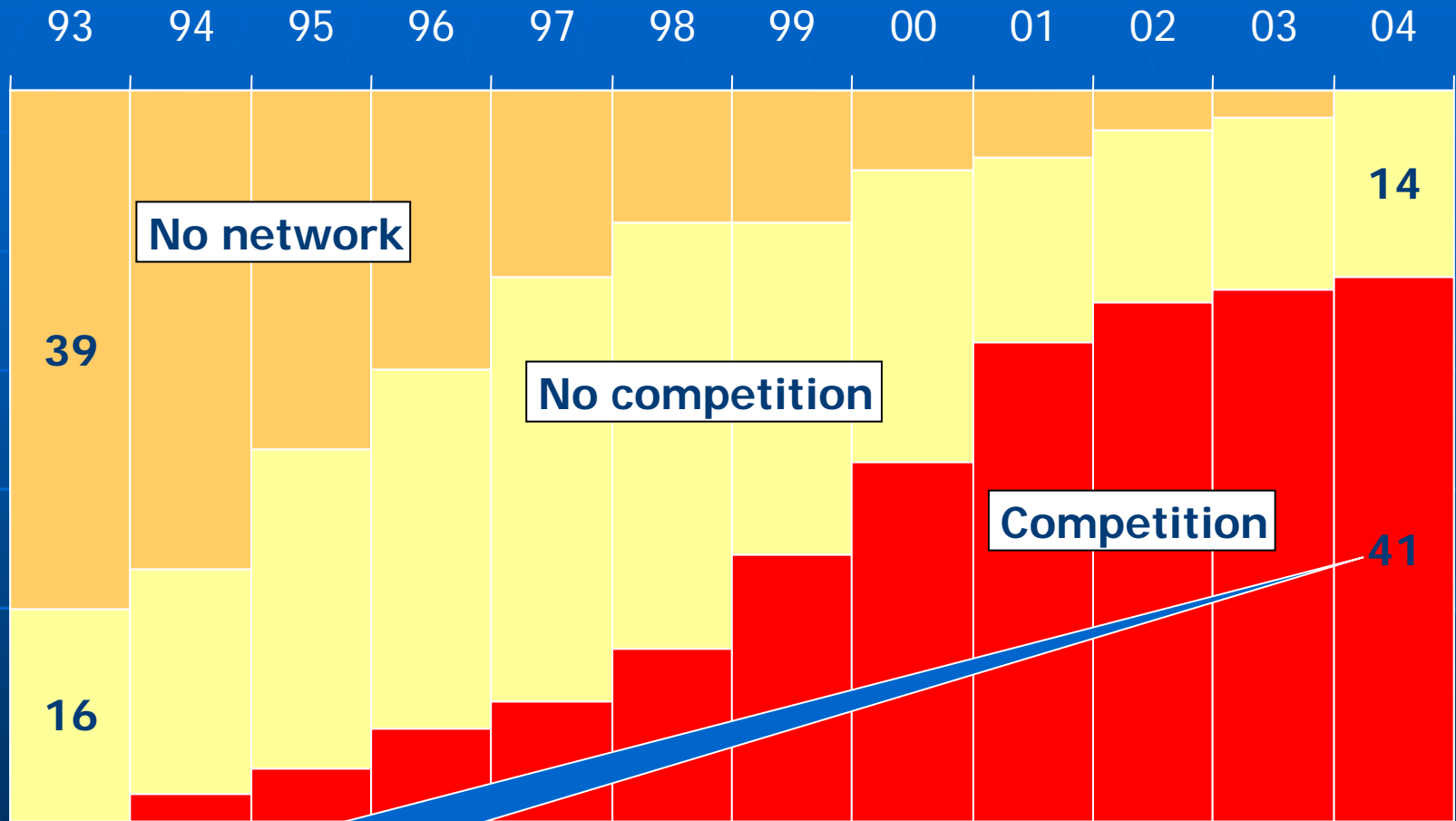
CelTel, MTN, Orascom, Vodacom

Other strategic investors
(> 1 country)



MOBILE POLICY

Mobile market structure in Africa, number of countries

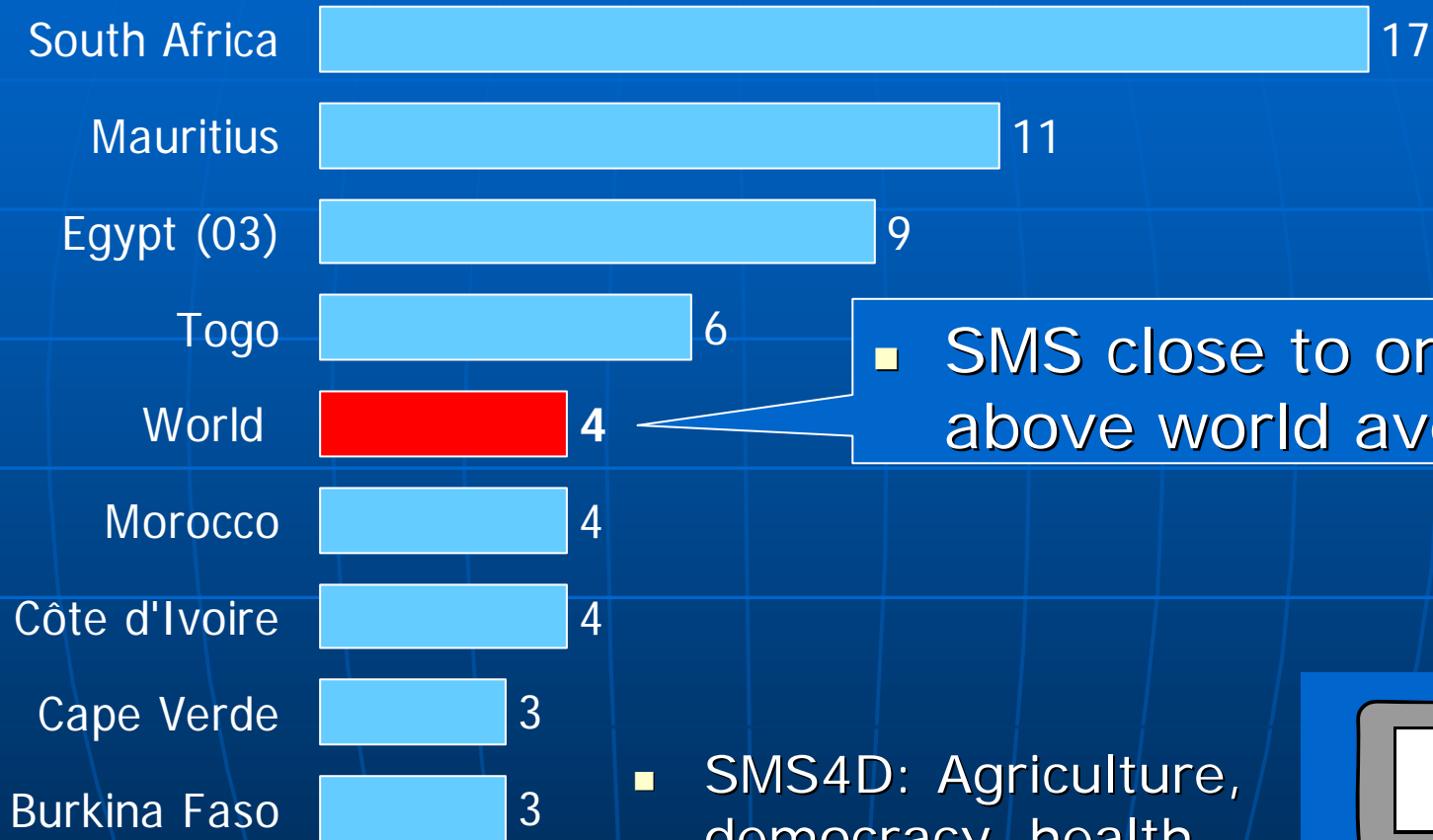


• Majority allow competition

- Enhancing competition
- Universal access

2G

SMS per subscriber per month, 2002



■ SMS close to or above world average

- SMS4D: Agriculture, democracy, health, finance
- GSM dial-up



What Africa Wants

- A development community that will be true Partners
- As a major force supporting national ICT strategies.
- Not chanting old development fallacies
 - “they only need Water, Food & Shelter, but “Phones & Computers are luxuries for the poor”; “the private sector will take care of it”;
- Dedicated ICT resources/teams within aid agencies;
 - that understand the knowledge-based economy and rationale for ICT for development’.
- Sustainable programs that can effectively chart the potential impact of ICTs across the full range of economic and social measures
- Leveraging funds aimed at those countries where availability is scarce
- Secure & transparent exchange of knowledge, expertise, technology, trade and culture

The Key is Partnership

- Ownership of the process by developing countries
- Collaboration on the basis of equity and fairness
- Effective dialogue between developing and industrialised countries

- Public private partnerships (PPPs)
 - industry, government, civil society & international community

- Governments Coherent policies & Enabling environment in Trade, Investment, Legal and Regulatory

- ICT in the key sectors of education, food and agriculture, trade, health, e-government and e-commerce.

- Leverage financial support aimed at those countries where availability is scarce

- Better coordination among donors

The Focus For Developing Countries

- On Socio-Economic Benefits
- Not on Technology!
- On how Technology and Knowledge can be used
 - to take hold of Opportunities, but face daunting Challenges
 - To go for growth and combat poverty
 - To resolve the legacies of the past
 - To be confident about complex emerging opportunities in the future, whilst sustaining basic survival in the present
- A fairer Deal – Lower Costs more assistance
- Need to reach critical mass
- Technology Transfer

(The Future is Bright the Future is Knowledge)

International Collaboration

International Telecommunication Union (ITU) assistance relating to WSIS

- Improving ICT connectivity for all
- Building confidence and security in the use of ICTs
- Building an enabling environment
- Providing wider access to ICT applications
- Measuring progress

World Summit on the Information Society (WSIS-2)

- Africa's Voice must be heard loudly in what will be the global accord on information and wealth.
- "Ahead of us is a whole century in which knowledge economies will dominate the world"
- Africa wants to take charge of its responsibilities
- The governance of the Internet
- Global action to fund digital opportunities

Partnerships

Commission for Africa's Recommendations on ICT

- Makes strong recommendations on ICT and the media.
- Focus on the major opportunities that the explosive growth of mobile phones
- Potential growth of other ICTs (both new and traditional) could bring to Africa
 - *“access to ICTs and the global electronic marketplace not only offers social and economic development opportunities to citizens in the developing world, but such access also helps to cultivate the entrepreneurial spirit of disadvantaged peoples the world over.*
- DFID finance for ICT infrastructure in Africa,
 - as part of the UN Task Force
 - and role in gathering co-ordinated donor support for NEPAD's regional ICT infrastructure plans.

Technologies

- GSM & CDMA mobiles offering converged voice, video and data network.
- WLAN technologies such as Wi-Fi and Wi-Max which can distribute the backbone connection to the members of the community
- IP VSAT
 - **can cost-effectively provide backbone** connectivity to remote communities even where traditional landline networks is lacking
 - With WiMax Tails

VOIP In Africa

“Adoption of VoIP in Africa – Policies

- Increase competition,
- lowering prices – particularly for international component of traffic –
 - for exploitation by less reputable operators, with no interest in development
- Need to evaluate the impact on national operators
 - They need adequate income to develop the national infrastructure and satisfy rural obligations

Innovative Use of ICT Technologies

e-Elephants

- **The 'elephant schools' of Thailand**

Trained elephants at the forefront of a unique campaign deliver education to three million people in remote areas

PICTURES: PATRICK AVENTURIER/GAMMA



As part of the non-formal education programme, children in Jok Phok village watch Thai language programmes on television



Elephants cross the mountains of Om Koi district in northern Thailand



Elephants leave Jok Phok village

Case Study

- Imfundo – ICT for Education in Africa DfID
- 1989 Dr. Fred Binka - “Health Net Project”
 - to improve the quality of life in Northern Ghana.. Communications and information exchange, with digital satellite mapping, educating and building a database of the populations there.
- In 2001 SATELLIFE with the Red Cross –
 - use of handheld computers, PDAs (Personal Digital Computers), to conducting surveys of mothers and caregivers during a measles vaccination campaign in Ghana
- Cape Verde Internet hostsBox 3.1: Santa Catarina Telecentre Source: RIPE.

Thank You