African Telecommunications: Towards a Renaissance

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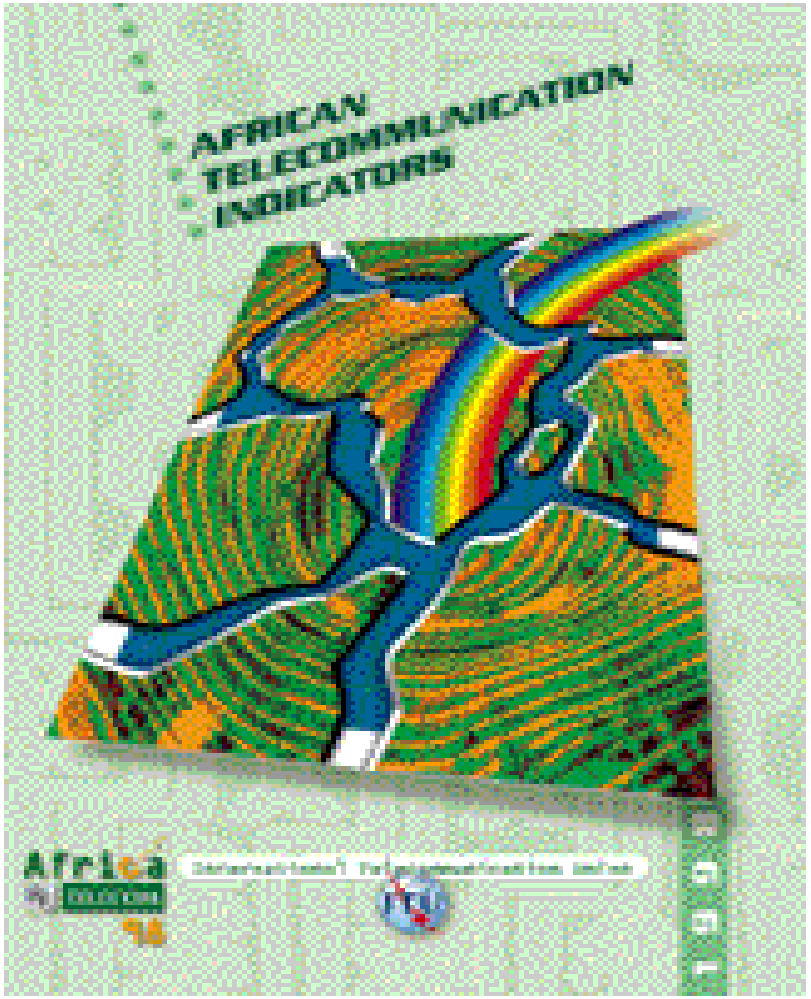
AfriTel 99

Driving Wireless Basic Telephony for Africa

11-12 February 1999, Cape Town, South Africa

Background

- ***"African Telecommunication Indicators 1998"***
  —ITU Report
- ***"The African Connection"***
  —Report of the African Ministers of Communications



www.itu.int/ti/publications/#AF98

Renaissance

ren·ais·sance (rèn´î-säns[1], -zäns[1], rèn[1]î-säns´, -zäns´, rî-nâ[1]sens) *noun*

1. A rebirth or revival.
2. **Renaissance**. **a.** The humanistic revival of classical art, architecture, literature, and learning that originated in Italy in the 14th century and later spread throughout Europe. **b.** The period of this revival, roughly the 14th through the 16th century, marking the transition from medieval to modern times.
3. Often **Renaissance** . **a.** A revival of intellectual or artistic achievement and vigor: *the Celtic Renaissance.* **b.** The period of such a revival.

[French, from Old French, from *renaistre*, to be born again, from Vulgar Latin **renâscere*, from Latin *renâscì* : *re-*, re- + *nâscì*, to be born.]

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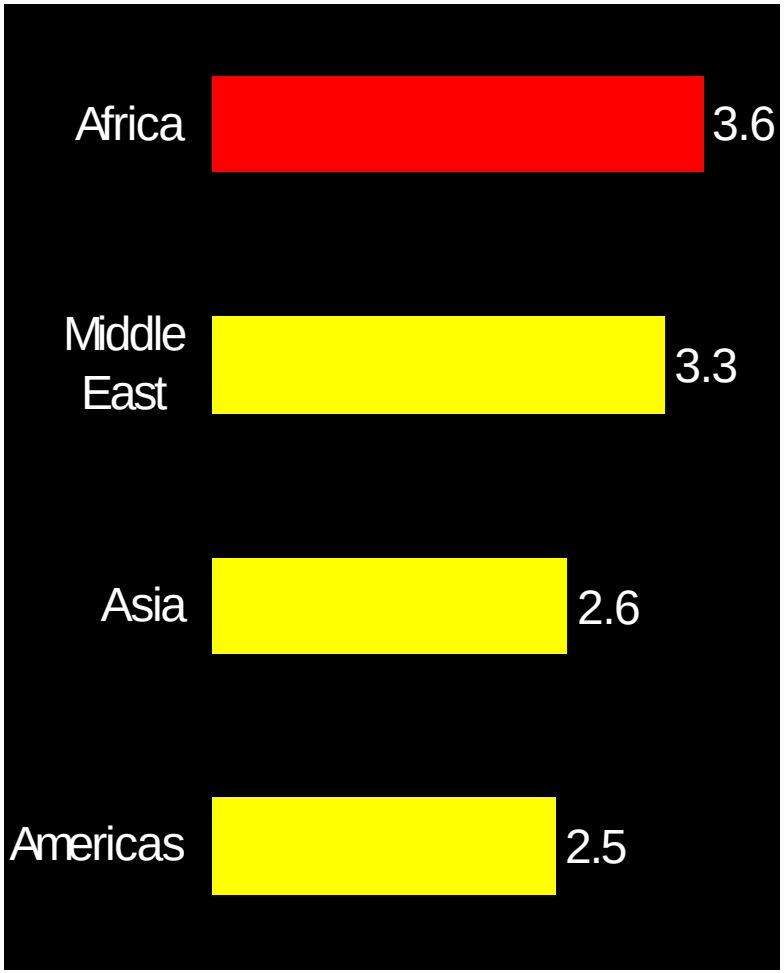
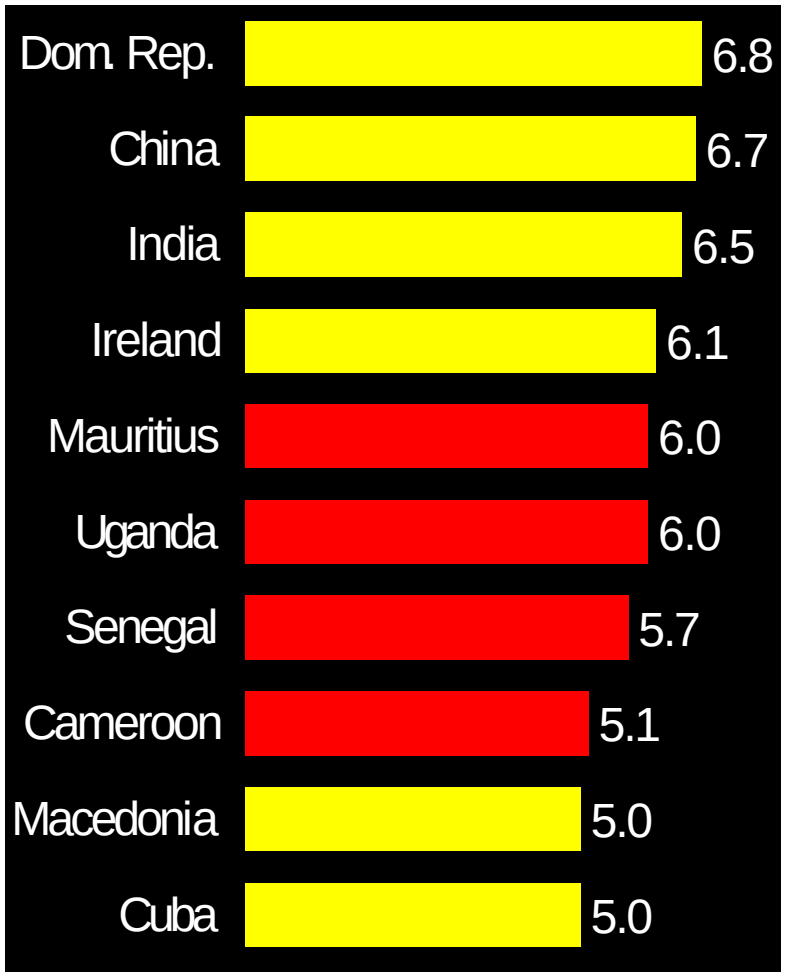
Economic renaissance

GDP growth, Developing regions, 1998 % change



Source: International Monetary Fund. www.imf.org/external/pubs/ft/weo/weo1298/index.htm

20 fastest growing economies, 1999 GDP growth



Source: Economist Intelligence Unit. www.eiu.com/pressrelease/WOUTPR99.html

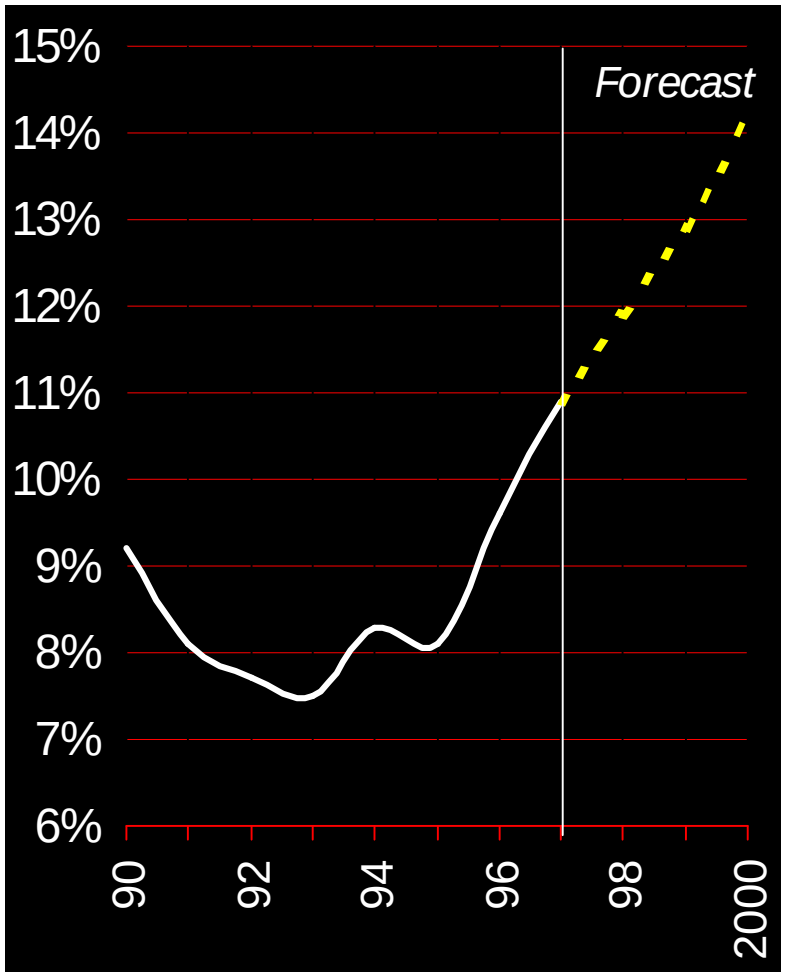
Telecom renaissance

- African telecom sector booming
- Various telecom market segments in Africa—fixed, mobile cellular, Internet—growing at highest rates of decade
- Africa has highest growth rate in telecoms among all world regions

Fixed line growth

- Africa currently experiencing its highest growth rate in main telephone lines of the decade
- 5 PTO privatizations in 1996-97 compared to just one between 1990-95
- Installed base of 15 million lines (end 97) will double by 2003

Africa: Annual growth in main telephone lines

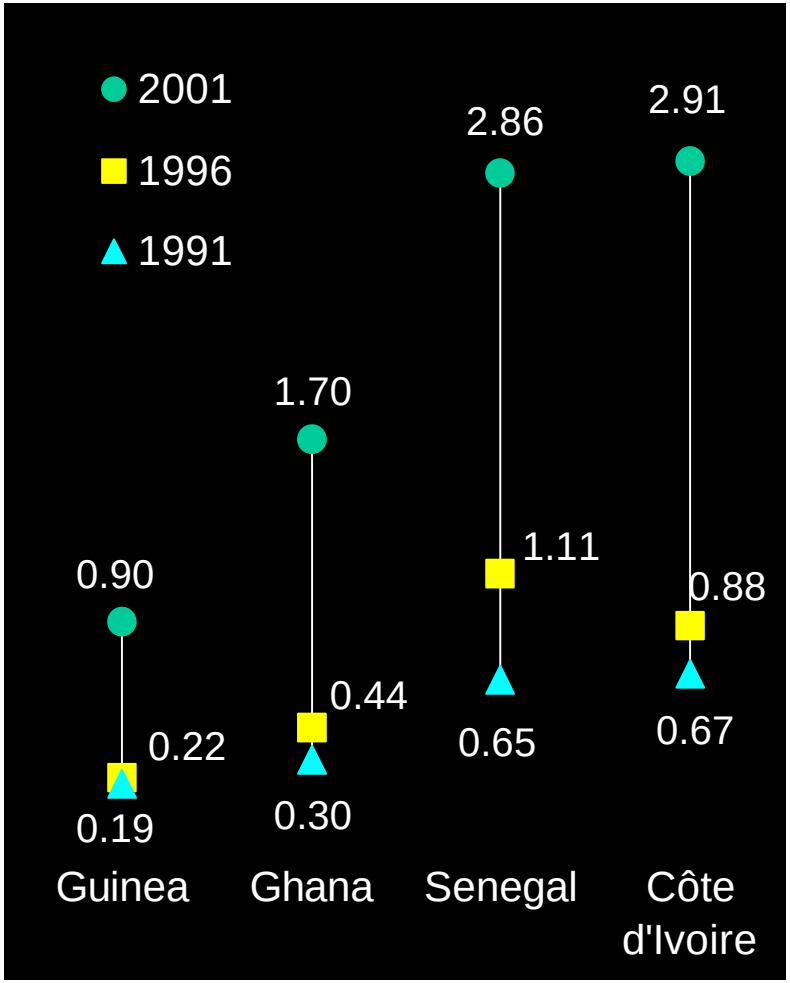


Source: ITU.

Fixed line growth drivers

- **Economic upswing**
- **Internet**
- **Telecommunication liberalization**

Main telephone lines per 100 inhabitants. 4 "privatizers".

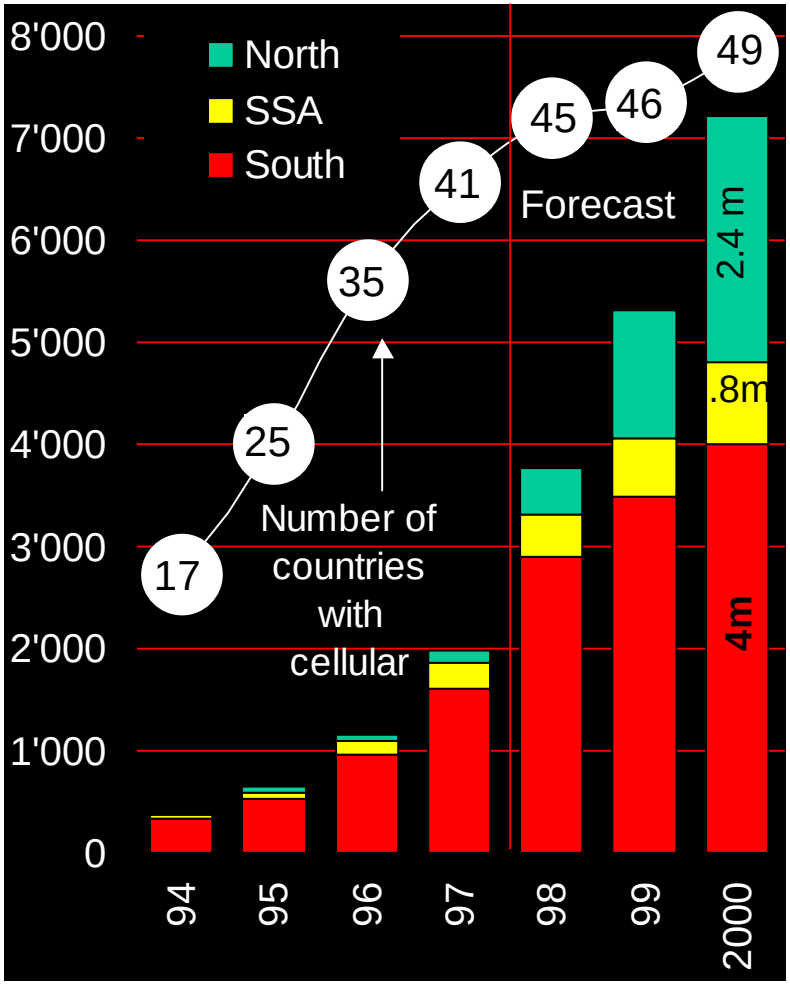


Source: ITU.

Mobile cellular growth

- Over 70% growth in 1997 and probably 1998
- 19 new private operators in last two years
- 1 million subscribers in '96, 2 million in '97, almost 4 million in '98 and probably over 7 million at end of 2000

African mobile cellular subscribers (000s)



Source: ITU.

Mobile cellular growth drivers

- **Substitute**
- **Rapid deployment**
- **Competition**
- **Strategic partners**
- **GSM / Roaming**

Substitution chart: Variety of market structures / reasons:

DR Congo: War (cellular only way to communicate)

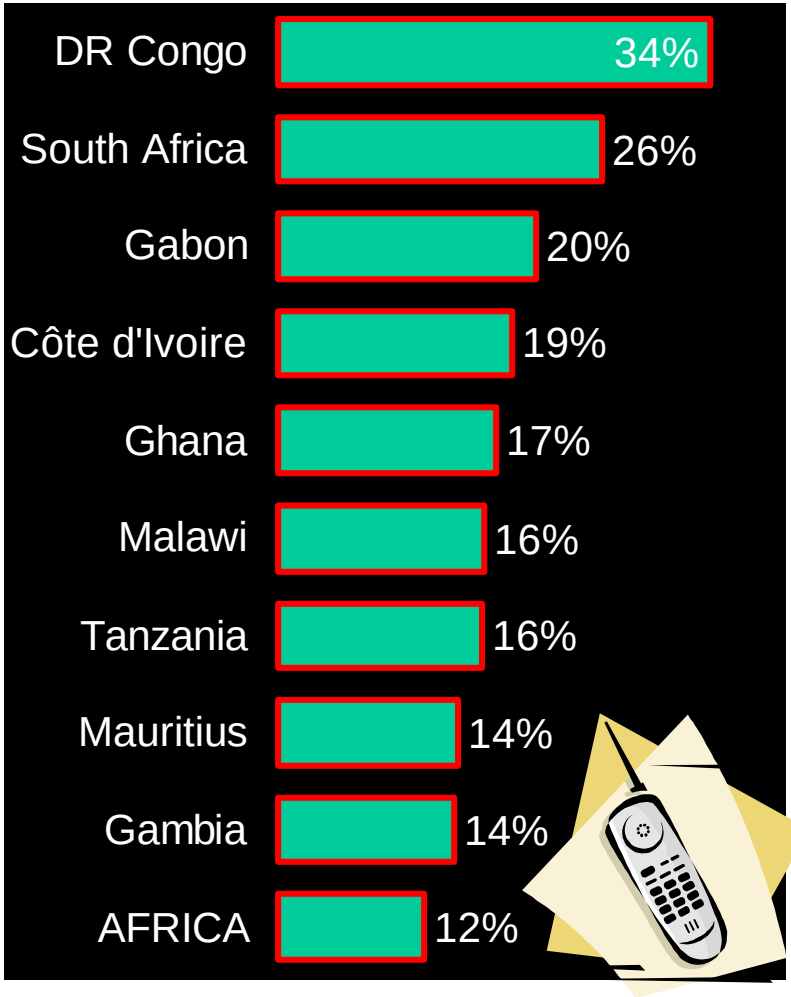
S. Africa: Success of GSM duopoly

Cote d'Ivoire: high substitution after just a little over a year

Ghana: 3 operators

Malawi: monopoly

Mobile cellular as % of total telephone subscribers, 1997

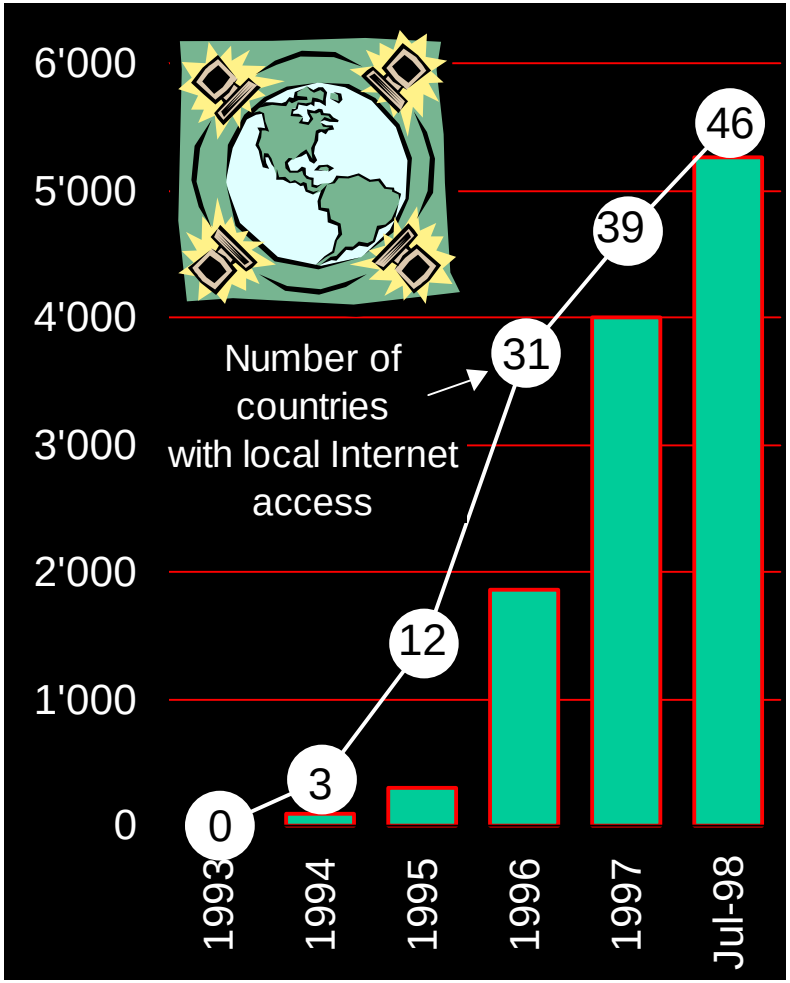


Source: ITU.

Internet

- ***Internet hosts*** **: By mid-1998 there were about 150 000 Internet host computers in Africa.**
- ***Internet Service Providers*****: Around 400 African ISPs by the end of 1998.**
- ***Internet users:*** **By the end of 1998, there were over 1 million Internet users on the continent (850 000 in South Africa).**

Sub-Saharan Africa
Internet host computers

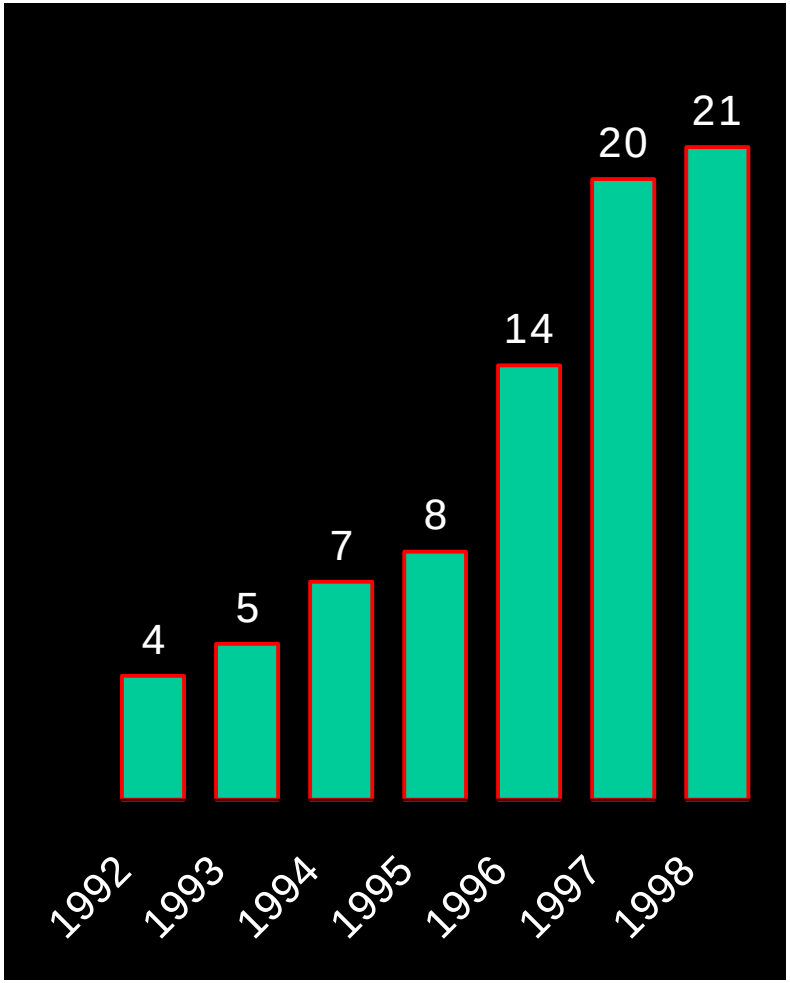


Source: ITU, Network Wizards (www.nw.com).

Regulatory trends

- **Regulatory reform gathering momentum:**
  - **Separation of posts and telecom**
  - **Creation of regulators**
  - **Privatization**
  - **Introduction of competition**

Number of African telecom regulatory agencies



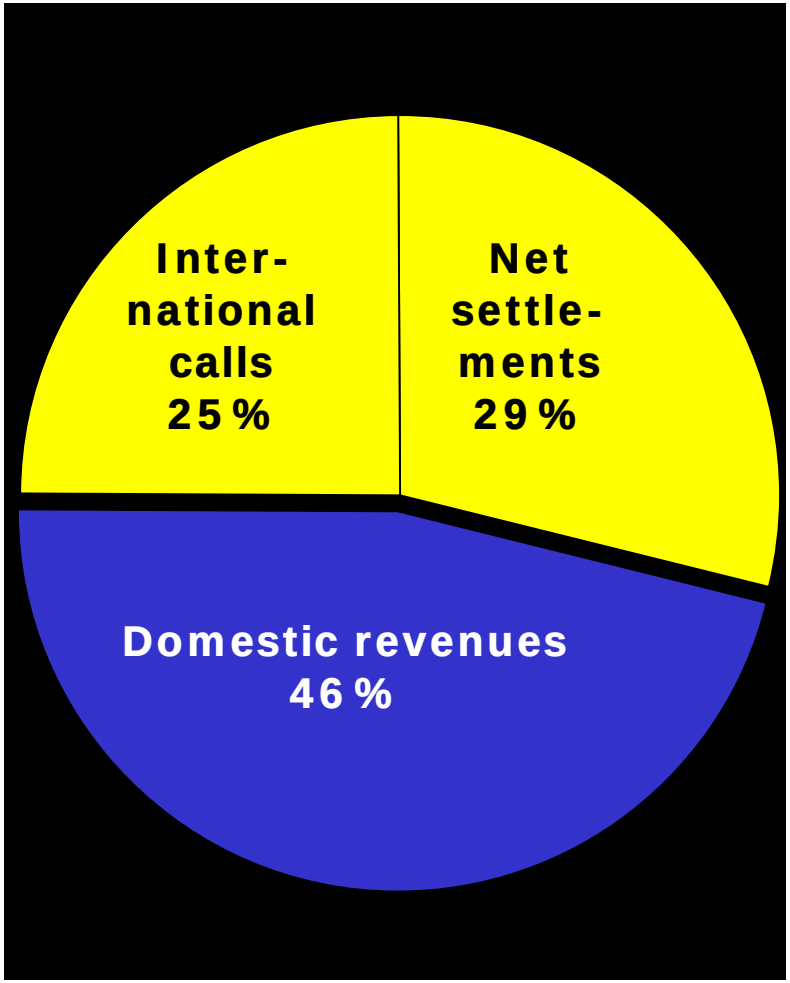
Source: ITU.

International traffic

- Africa highly dependent on international telephone revenue
- Accounting rate issue of important concern
- ITU country case studies for Africa:
  - Lesotho
  - Mauritania
  - Senegal
  - Uganda

(www.itu.int/wtpf/cases/index.htm)

Senegal. Sources of telecom revenue, 1996

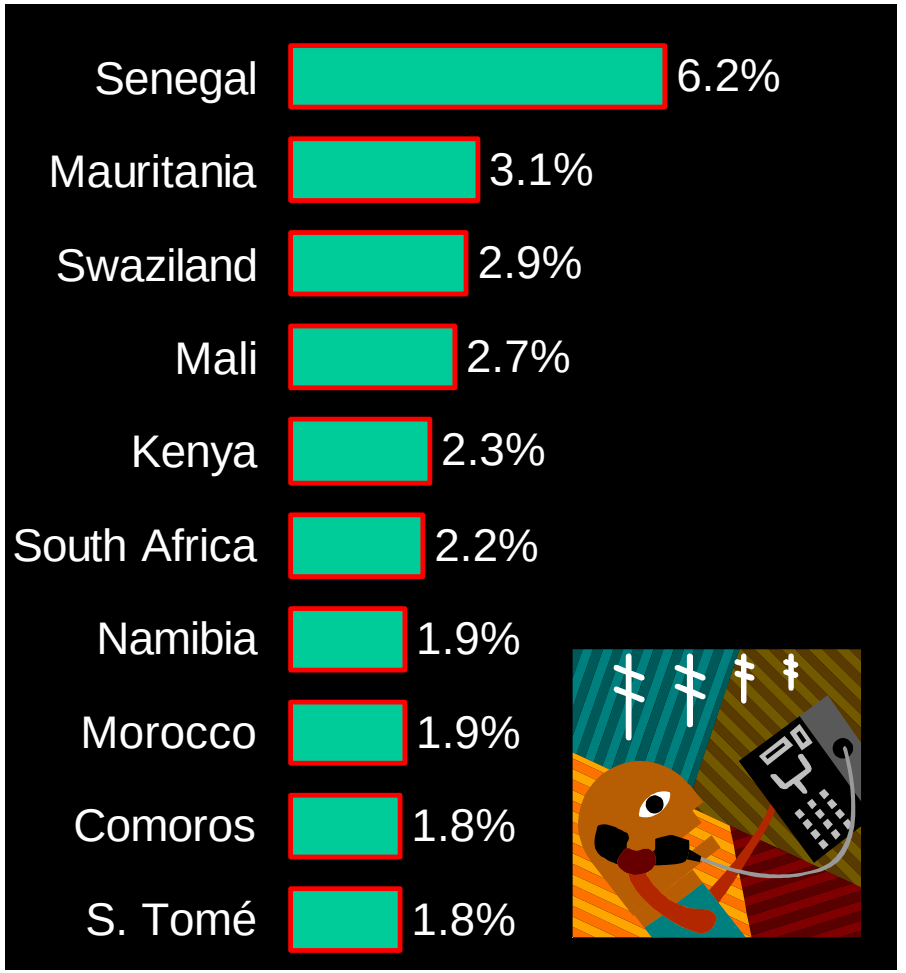


Source: ITU Senegal Country Case Study. www.itu.int/wtpf/cases/Senegal/index.htm

Universal access

- **Universal access more relevant for Africa than universal service**
- **Distance and time from telephone relevant indicators**
- **Widespread public telephone availability cornerstone of universal access policy**

Payphones as % of main telephone lines, 1996



Source: ITU.

The African Connection

- **Report of the African Ministers of Communication — May 1998**
- **Originated at African Ministers Workshop in preparation for Africa Telecom '98**
- **"Road Map" for enabling Africa's launch into the "Information Age"**

Full report available at: http://www.telecom98.co.za/africonnect.html

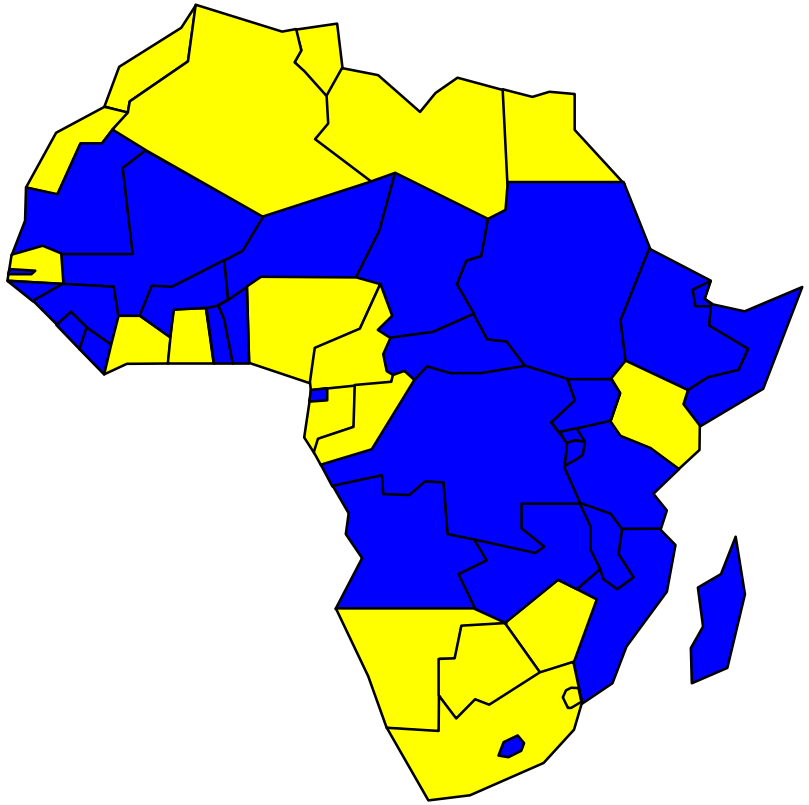
The African Connection - Contents

- Special Programme for Least Developed Countries & Rural Telecom Development
- African Telecom Policy and Regulatory Framework Development Programme
- Human Resources Development Programme
- Programme for Financing and Funding Telecom Development in Africa
- African Telecom Priority Projects
- Programme for the Development of the Information Society in Africa

LDCs & Rural Telecom Development

- Sector restructuring
- Identify priority project areas
- Rural telecommunication development
- Technical assistance

33 of 48 LDCs in Africa



Telecom Policy & Regulatory Framework Development

- Comprehensive and coordinated telecom policy at continental level
- Establishment of national regulatory agencies and regional associations
- Coordinated frequency management
- Rapid implementation (by June 2000)

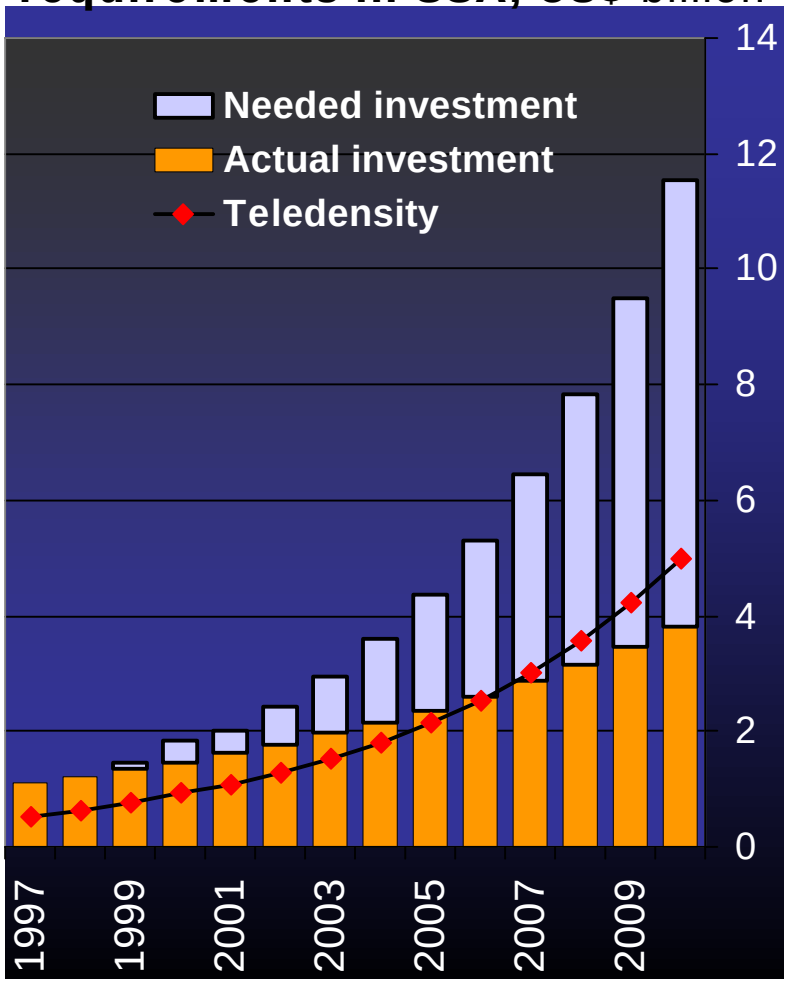
Human Resources Development

- Database of African telecom experts
- Database of human resource needs
- African Human Resource Development Policy
- African Centres of Excellence
- Network of human resource institutions
- Common accreditation and certification

Financing & Funding Telecom Development in Africa

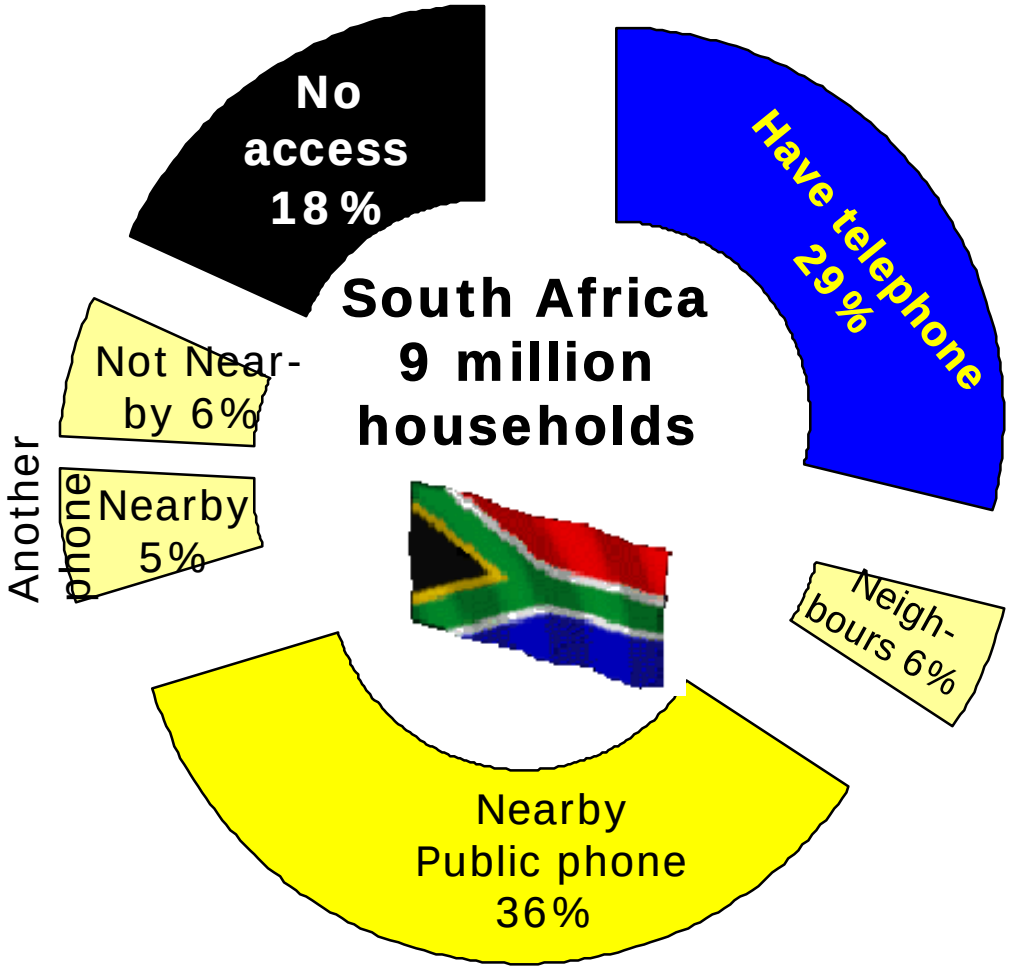
- Measuring levels of investment
- Development of African Telecommunications Indicators
- Exchange of information and expertise on financing

Telecom investment requirements in SSA, US$ billion



Source: ITU.

Telecom indicators more appropriate to African conditions



- Households with a telephone

- **Towns with telephone service**
- **Payphones: Per inhabitant, Per main line**
- **Distance from a telephone**
- **Time from a telephone**

Source: Statistics South Africa. 1997 Census in Brief.

African Telecommunications Priority Projects

- Tele-medicine and Tele-health
- Tele-centres
- Tele-education
- African Centres of Excellence
- Terrestrial Telecommunications Infrastructure Development
- Development of and Access to the Internet in Africa
- Tele-Agriculture

Development of the Information Society in Africa

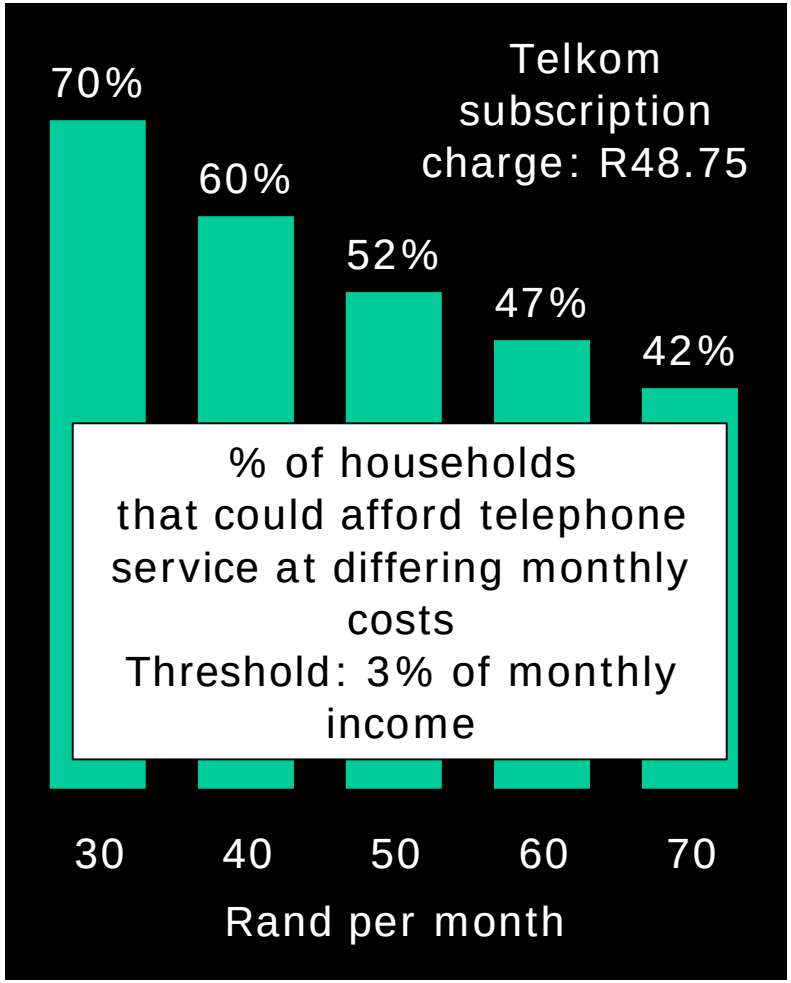
- Develop a Information Society policy framework for Africa
- Networking between African Governments using electronic means
- Convergence of broadcasting and telecommunications

Conclusions

- There is an African Renaissance but…
- … affordability is an issue…
- … plus Africa is not the OECD…
- … these must be dealt with for renaissance to be sustained.

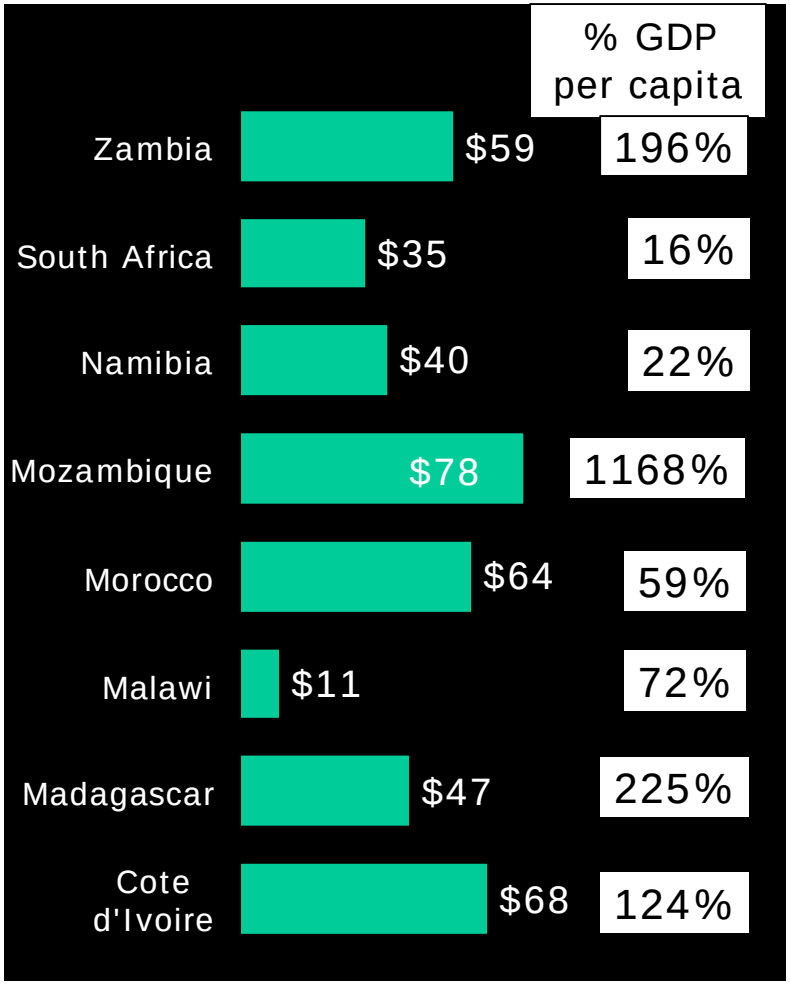
Affordability

South Africa.Telephone service affordability



Source: South African Universal Service Agency. *Universal service and Universal access in Telecommunication in South Africa*.

GSM monthly cellular tariffs.
January 1999, 100 minutes, US$



Source: ITU.

Recommendations

- Cooperation between government, operators and informal sector
- International, regional & bi-lateral organizations should contribute resources to developing regulatory expertise
- Community access
- Long term view

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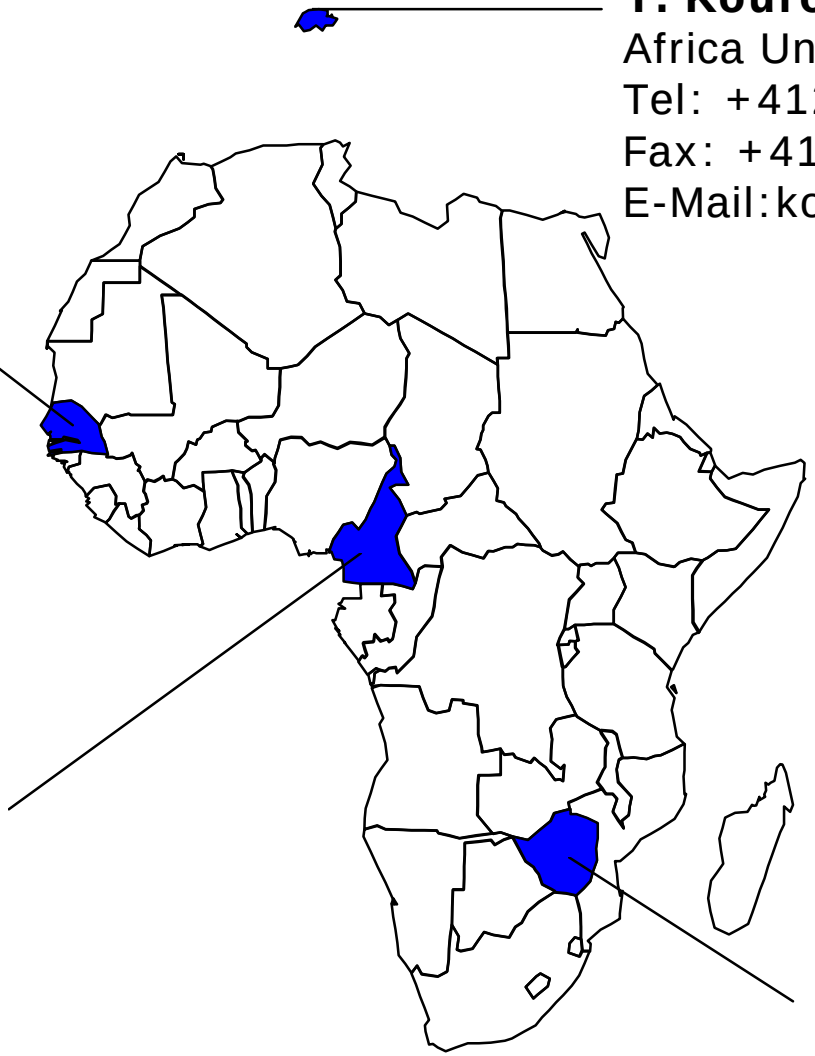

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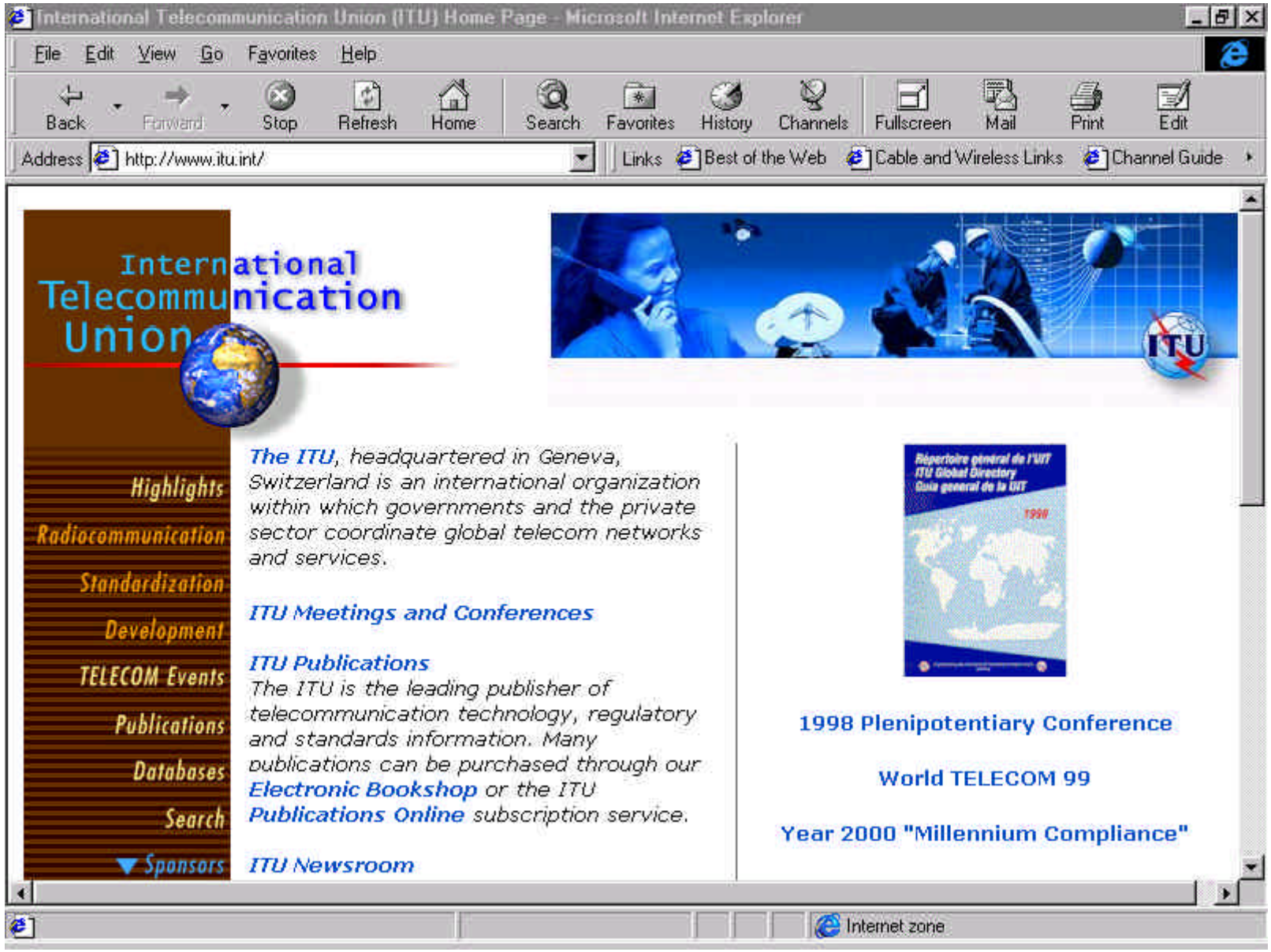

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