evaluating the cost of the handset and mobile telephony as a barrier to uptake

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ITU

- Founded in 1865
- An impartial, international organization that helps governments and the private sector to work together to coordinate the operation of telecommunication networks and services, and to advance the development of communications technology
- 189 member states and over 600 (primarily private) sector members
as a United Nations agency, the ITU has an obligation to produce statistics covering its sector. This is in line with other specialized agencies that publish statistics covering their respective field of operations. This forms part of the global statistical system of the UN.

inside ITU, it has been called upon “...to survey countries and produce world and regional reports, in particular on...world telecommunication developments.”
data collection

how?
- two Telecommunication Indicator Questionnaires per year addressed to government agencies in charge of ICT/telecom, or operator
- online research
- annual reports

what?
- telephone network
- mobile services
- traffic/tariff
- quality of service/staff
- revenues & investment
- broadcasting
- information technology
  - pc
  - internet subscribers/users
  - broadband/bandwidth

Data is entered into the World Telecommunication Indicators Database
beyond statistics

- world telecommunication development report
- regional reports on ict/telecom developments
- case studies (www.itu.int/ict/cs)
Annual average growth rate in mobile subscribers, 1999-2004:

<table>
<thead>
<tr>
<th>Region</th>
<th>1999-2004 Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oceania</td>
<td>20.5</td>
</tr>
<tr>
<td>Americas</td>
<td>22.8</td>
</tr>
<tr>
<td>World</td>
<td>28.9</td>
</tr>
<tr>
<td>Europe</td>
<td>25.9</td>
</tr>
<tr>
<td>Asia</td>
<td>34.4</td>
</tr>
<tr>
<td>Africa</td>
<td>58.9</td>
</tr>
</tbody>
</table>

Fixed Line: 62%
Mobile Line: 56.7%

Source: ITU
Mobile creates digital opportunities

Mobile subscribers per 100 inhabitants, 2004

- Europe: 71.3
- Oceania: 62.38
- Americas: 42.46
- World: 27.43
- Asia: 18.58
- Africa: 8.97

Source: ITU

Telephone (fixed and mobile) subscribers in Nigeria, (000s)

- Mobile 2004: 8
- Fixed 2004: 7.2

Yearly statistics for 1999-2004:

- 1999: Mobile 0.5, Fixed 0.5
- 2000: Mobile 0.7
- 2001: Mobile 1.9
- 2002: Mobile 1.3
- 2003: Mobile 3.3
- 2004: Mobile 9'147

Source: ITU
the least wired continent on earth..

Source: ITU
fixed to mobile substitution

- cutting the cord
- going straight to mobile

Global growth rates, in % per year

Source: ITU
reasons for mobile boom

• regulatory
  • competition
  • privatization
• technical - easier to roll-out than fixed line network
• cost
  • decreasing mobile tariffs
  • pre-paid / no monthly subscription
Percentage of countries with partly or fully private incumbents, by region, 2004

- Arab States: 43%
- Africa: 42%
- Asia-Pacific: 53%
- Americas: 74%
- Europe&CIS: 77%

Mobile market structure in Africa, number of countries

- No network
  - 93 to 96: 16
  - 97 to 00: 17
  - 01 to 04: 2

- No competition
  - 93 to 96: 27
  - 97 to 00: 27
  - 01 to 04: 32

- Competition
  - 93 to 96: 21
  - 97 to 00: 14
  - 01 to 04: 14

Source: ITU
**Cost of mobile**

**Cost for one minute call on mobile network, US$**

- **UK**
- **US**
- **Nigeria**
- **Senegal**
- **Russia**
- **Kyrgyzstan**
- **India**
- **Indonesia**
- **Brazil**

**Prepaid mobile subscribers as % of total subscribers, 2004**

- **Africa**: 87%
- **Europe**: 62%
- **World**: 46%
- **Oceania**: 48%
- **Asia**: 31%
- **Americas**: 45%

**Source:** ITU
the potential of ULCH

- million € ?: will low-cost handsets bring more growth, help bridge the divide and bring more & better business?

- a number of reasons to believe so...
mobile has fewer barriers

- the most important barriers to higher ICT (telephone, internet etc) levels are
  - infrastructure
  - skills/education
  - cost

source: researchICTafrica.net
Here’s some good news for operators & manufacturers

- e-access study
- people are prepared to pay relatively high price for mobile telephony
- perhaps...
  - benefits of mobile phone compensates for cost
  - GDP per capita is not the perfect proxy to determine income levels and potential number of customers

![GDP per capita and spending on telecommunications](source: researchICTafrica.net)
other findings from the study

Average time to reach the next phone from the house on foot, in minutes, Namibia, 2004

- Public payphone
- Telecentre
- Private telephone kiosks

Do you share your mobile phone? Rwanda, 2004

- Work colleagues
- Neighbours
- Friends
- Family

source: researchICTafrica.net
findings highlight

- the demand side for mobile phones is very high
- there is little user information on handsets and how much (low-income) users are prepared to pay

source: researchICTafrica.net
how many are still without a mobile?

Note: 100 million mobile subscribers, 100 million people that are not (yet) mobile subscribers
evaluating demand and supply side benefits: cooperation for information

- the users’ point of view: evaluating the need & potential for mobile phones
  - household ict surveys that include questions to identify needs/barriers

- the suppliers’ point of view: handset manufacturers and operators
  - need to evaluate lowest possible cost (limit of profitability) based on subscriber numbers and ARPU
  - distribution/re-selling mechanisms
    - provide free/subsidized handsets
    - create local businesses (micro-credits etc)
  - increase « value » of mobile phone
    - applications, services and distribution mechanisms that address local needs