

Investing in Telecommunications and ICTs in Developing Markets *Shifting the Paradigm*

Eric Nelson
International Telecommunication Union
Bureau of Telecommunication Development

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Investing in Telecommunications and ICTs in Developing Markets: *Shifting the Paradigm*

- Why Focus on Telecommunications/ICTs?
- What's the Role of Private Investment?
- What Are the Trends in Private Investment?
- What Are Risk Factors in Developing Markets?
- How Can the Risk Factors be Mitigated?
- What are the Opportunities in Developing Markets?
- Conclusions
- Where Do We Go from Here?

Why Focus on Telecommunications/ICTs?

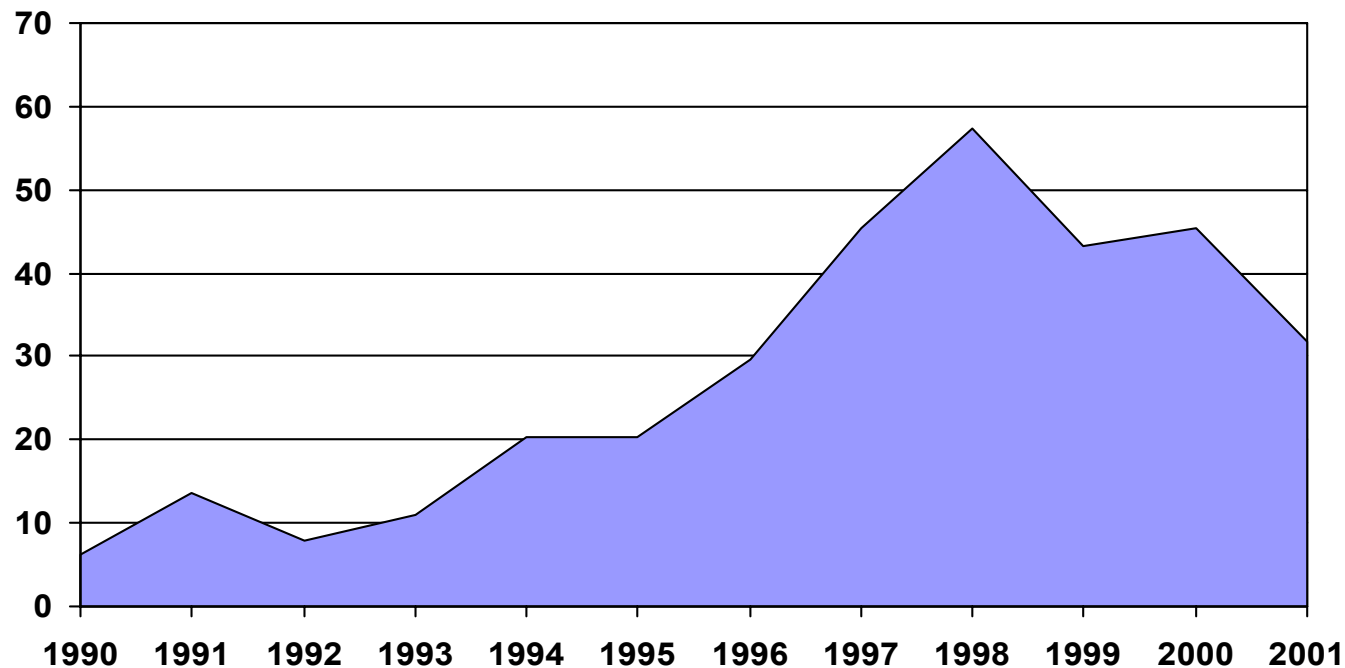
- Economic Development
- Governance
- Education
- Health
- Environment
- Social interaction/cultural identity
- Entertainment

What's the Role of Private Investment?

- More than half of the countries in the world have privatized their incumbent operator
- Another quarter of the the countries in the world have allowed private participation in new mobile/fixed networks
- Less than one fifth of the world have no private participation in their telecom sector

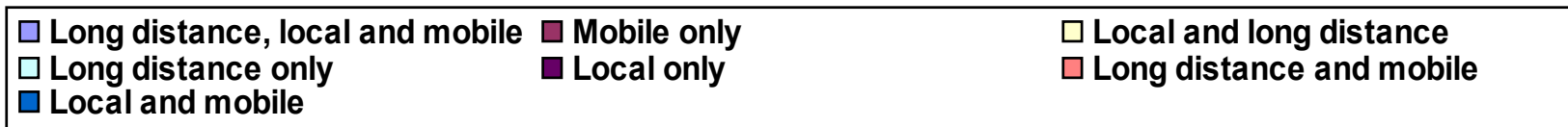
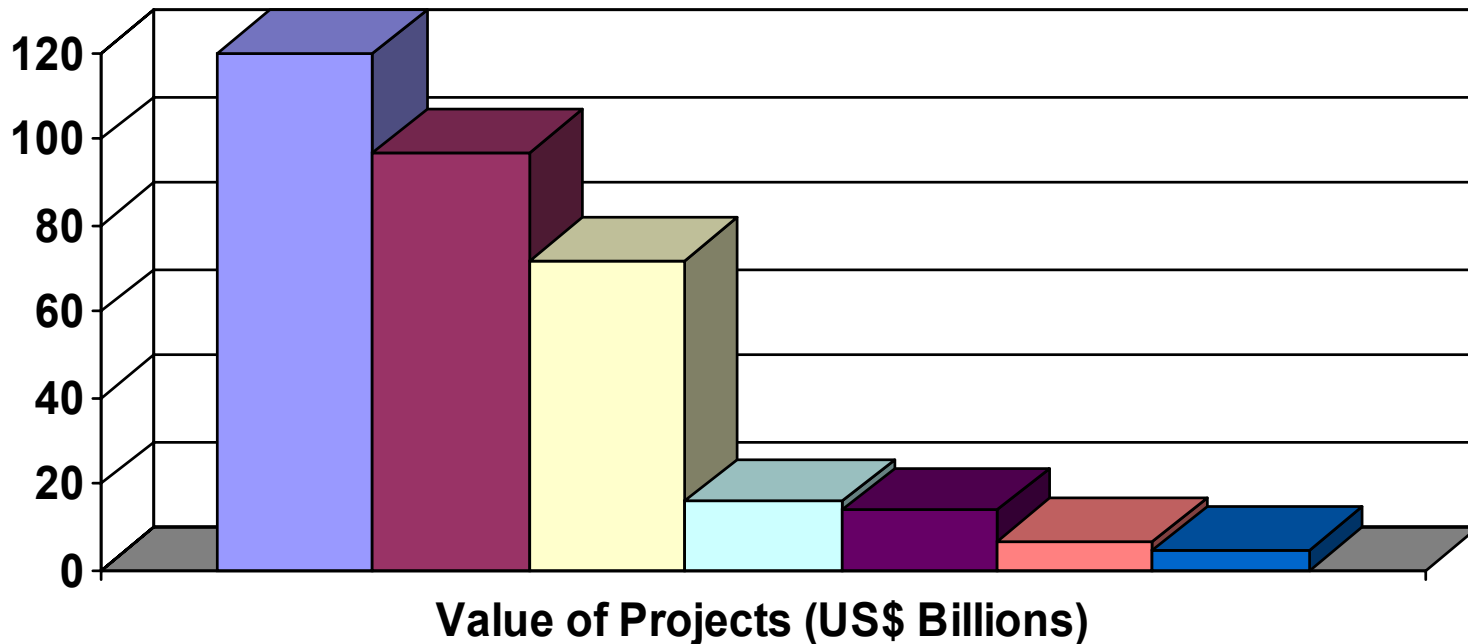
What are the Trends in Private Investment?

Global Annual Private Investment in Telecommunications: 1991-2001
(US\$ billions)



Source: World Bank, PPI Database

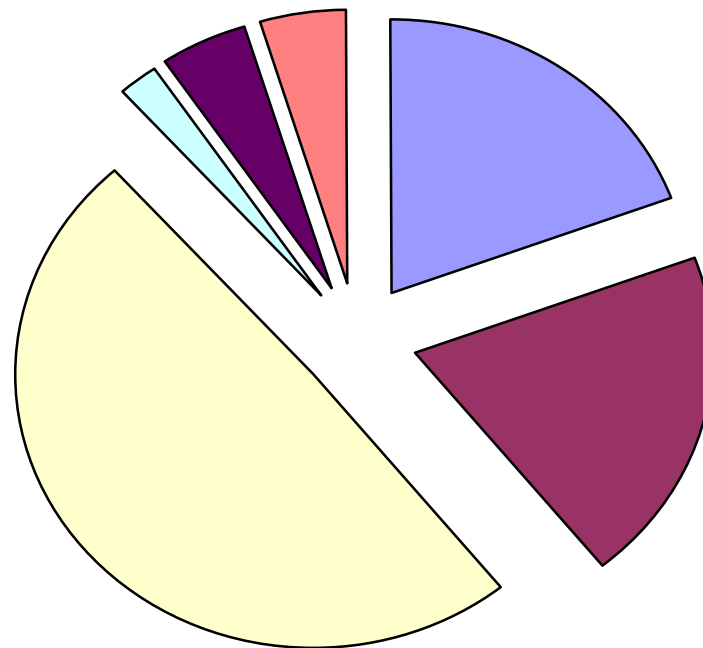
Private Sector Investment in Telecom Projects, by Industry Segment, Cumulative 1991-2001



Source: World Bank, PPI Database

Value of Private Sector Investment in Telecommunications, by Global Region: Cumulative 1991-2001

Total \$US331 Billion



 East Asia and Pacific	 Europe and Central Asia	 Latin America/ Caribbean
 Middle East/ North Africa	 South Asia	 Sub-Saharan Africa

Source: World Bank, PPI Database

What Are Risk Factors in Developing Markets?

- Overarching civil/governmental/ institutional factors
- Macroeconomic factors
- Infrastructure factors
- Human capital
- Intellectual property protection
- Supply and distribution channels
- Sector dynamics

Sector Dynamics

- Size of market
- Potential profitability
- Regulatory risks and costs
- Time to market
- International bandwidth constraints

How Can the Risk Factors be Mitigated?

- Roles of international and regional organizations
- Investors' technology choices
- Investors' business models
- Financial considerations

Developing Market Groupings

- Large urban markets
- Large rural markets
- Small urban markets
- Small rural markets
- Small low-income island markets

Large Urban Developing Markets

- Market characteristics
 - Telephone subscribers increased 32% from 1.4 million in 1999 to 1.8 million in 2001
 - Teledensity increased from 8.48 per 100 inhabitants to 10.52
 - PCs in use increased 39% from 301,000 to 419,000
 - Internet users increased 271% from 163,000 to 605,000
- Investment climate
 - Relative high literacy rate—88%
 - Relatively high electricity access—83%
 - GDP per capita—\$1,270
 - High unemployment rate—32%
 - Only 57% live above poverty level
 - Manageable business start-up costs—59% of GDP/capita
 - Relatively negative governance indicators

Large Rural Developing Markets

- Market characteristics
 - Telephone subscribers increased 67% from 1.3 million in 1999 to 2.2 million in 2001
 - Teledensity increased from 2.80 per 100 inhabitants to 4.40
 - PCs in use increased 26% from 223,000 to 282,000
 - Internet users increased 298% from 47,000 to 187,000
- Investment climate
 - Relative low literacy rate—52%
 - Relatively low electricity access—30%
 - Low GDP per capita—\$542
 - Relatively modest unemployment rate—19%
 - Only 55% live above poverty level
 - High business start-up costs—136% of GDP/capita
 - Relatively negative governance indicators

Small Urban Developing Markets

- Market characteristics
 - Telephone subscribers increased 332% from 2.1 million in 1999 to 9.2 million in 2002
 - Teledensity increased from 10.87 per 100 inhabitants to 44.67
 - PCs in use increased 34% from 357,000 in 1999 to 478,000 in 2001
 - Internet users increased 134% from 281,000 in 1999 to 657,000 in 2002
- Investment climate
 - Relative high literacy rate—81%
 - Relatively high electricity access—80%
 - GDP per capita—\$1,877
 - Relatively modest unemployment rate—18%
 - Only 63% live above poverty level
 - Modest business start-up costs—29% of GDP/capita
 - Modestly negative governance indicators

Small Rural Developing Markets

- Market characteristics
 - Telephone subscribers increased 305% from 333,000 in 1999 to 1.4 million in 2002
 - Teledensity increased from 2.78 per 100 inhabitants to 8.80
 - PCs in use increased 435% from 88,000 in 1999 to 471,000
 - Internet users increased 750% from 24,000 in 1999 to 514,000
- Investment climate
 - Relative modest literacy rate—64%
 - Low electricity access—24%
 - Low GDP per capita—\$532
 - High unemployment rate—24%
 - Only 48% live above poverty level
 - High business start-up costs—91% of GDP/capita
 - Fairly negative governance indicators

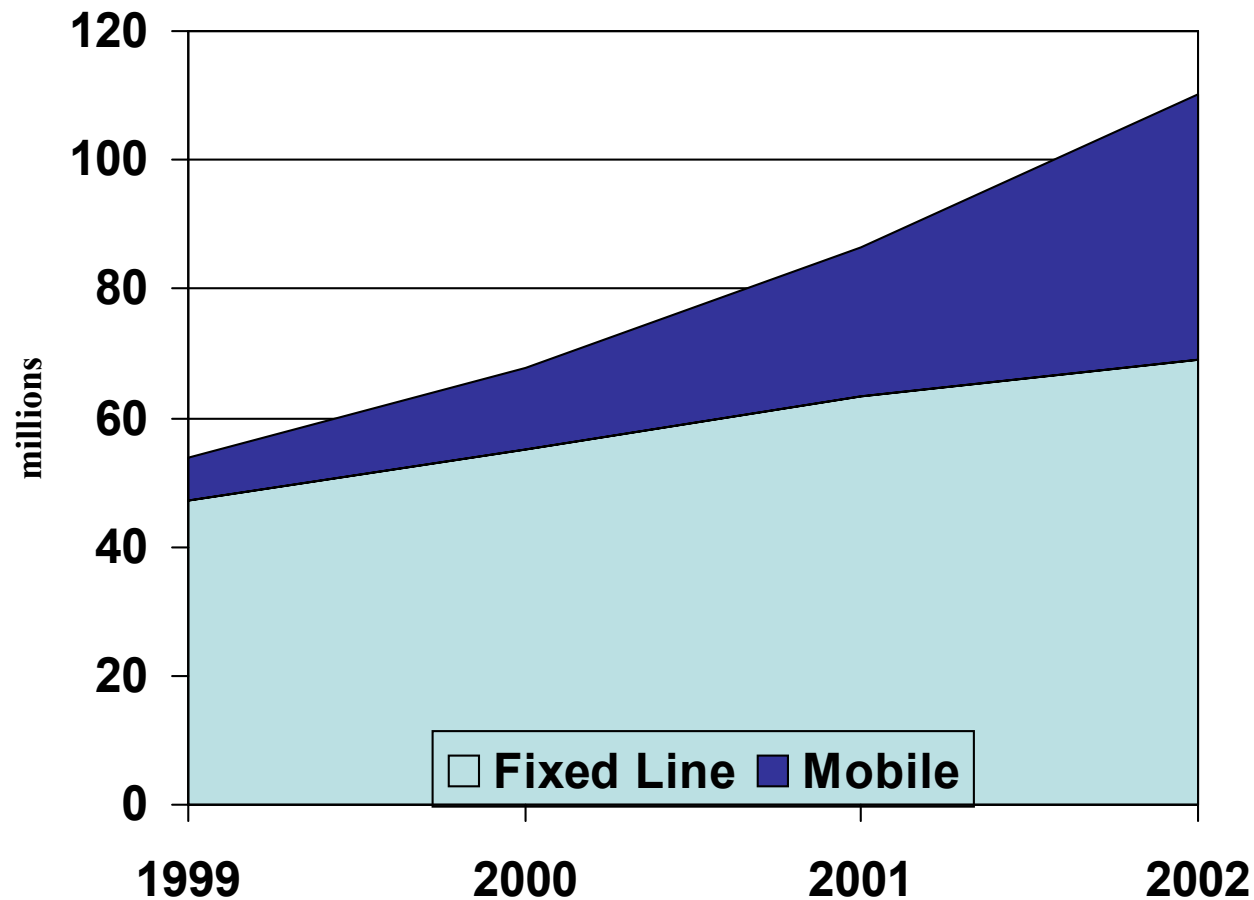
Small Low-Income Island Developing Markets

- Market characteristics
 - Telephone subscribers increased 176% from 49,000 in 1999 to 135,000 in 2002
 - Teledensity increased from 1.00 per 100 inhabitants to 2.70
 - PCs in use increased 25% from 72,000 in 1999 to 90,000 in 2001
 - Internet users increased 75% from 12,000 in 1999 to 21,000
- Investment climate
 - Relative modest literacy rate—62%
 - Very low electricity access—17%
 - Low GDP per capita—\$472
 - High unemployment rate—25%
 - Only 42% live above poverty level
 - Significantly negative governance indicators

The Case for Low-Income Countries

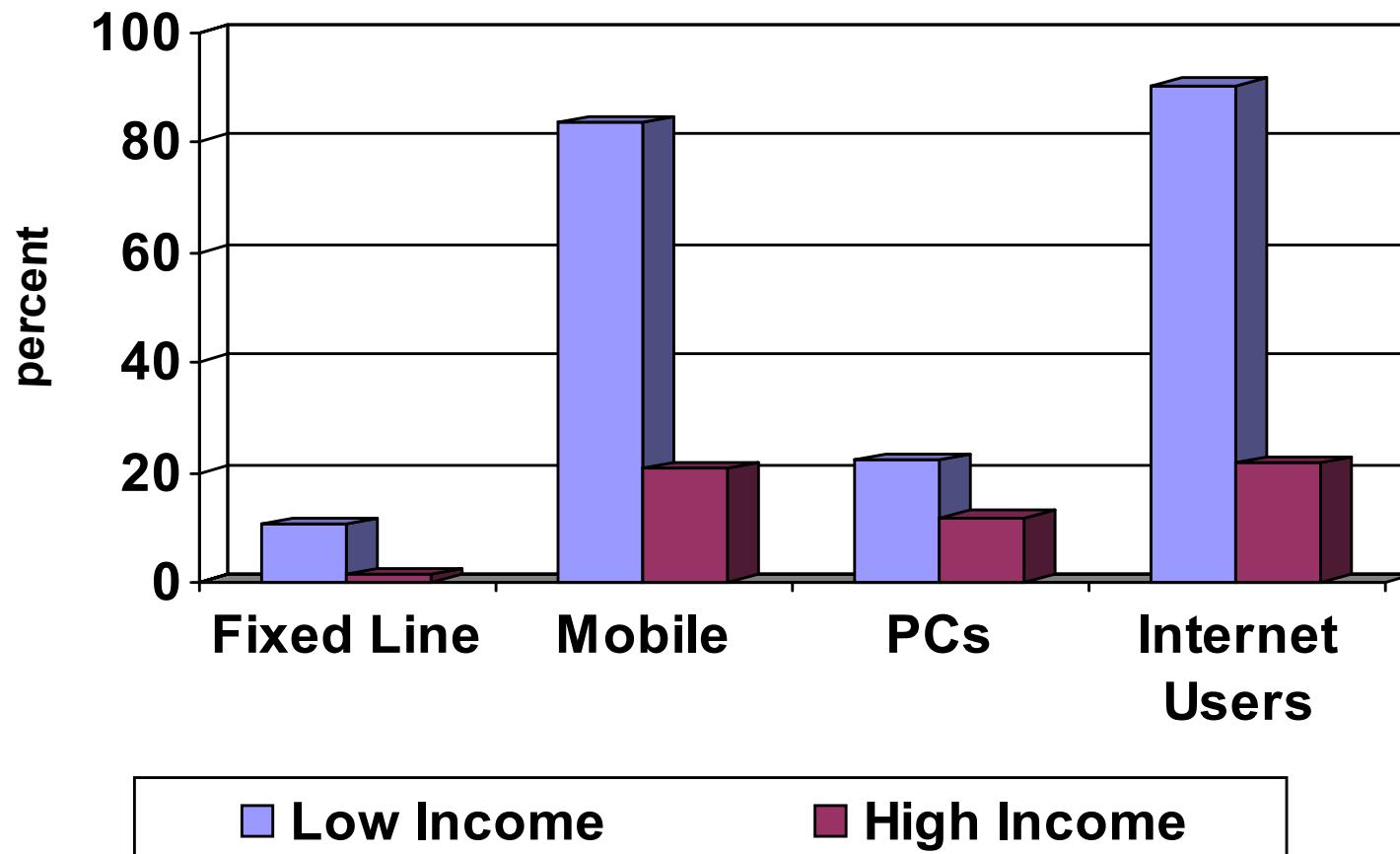
- Fixed-line subscribers grew 46% from 47 million in 1999 to 69 million in 2002
- Mobile subscribers grew 518% from 7 million to 41 million.
- Number of PCs grew 82% from 9 million to 16 million
- Number of Internet users grew 540 percent from 5 million to 32 million

Growth of Fixed and Mobile Subscribers in Low-Income Countries



Source: ITU

1999-2002 Growth Rate Comparisons Between Low-Income and High-Income Countries



Source: ITU

Conclusions

- Telecommunications and ICTs are essential for human development
- Attracting private investment is key to sector development
- Risk factors facing investors in developing markets need to be well understood by governments, investors and int'l organizations
- All stakeholders have a role to play in mitigating risk factors
- There are significant investment opportunities in developing markets

Where do we go from here?

Nat'l Governments

- Develop a national strategy
- Establish advisory group of stakeholders
- Establish necessary political, legal, regulatory, trade, investment climate
- Develop human capital
- Encourage development of renewable energy
- Promote telecom/ICT usage
- Encourage creative business models for foreign/local investors
- Encourage partnerships among stakeholders
- Promote strategies that enable economies of scale

Investors

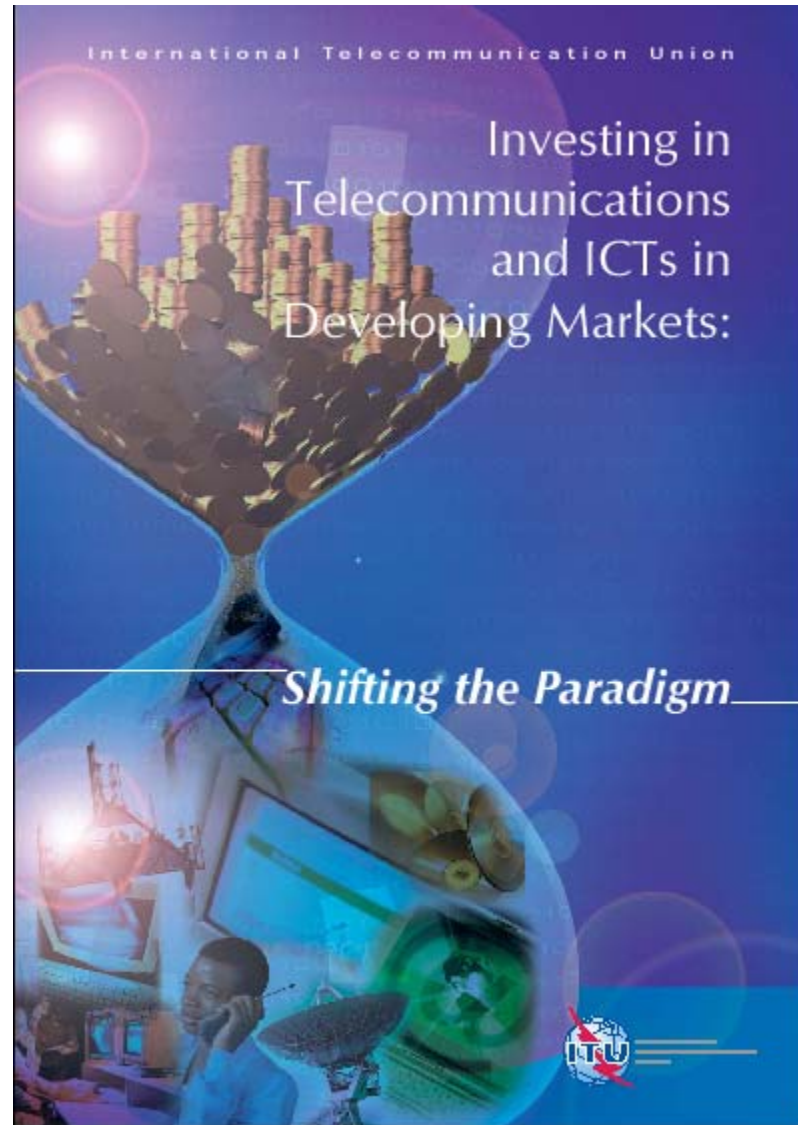
- Promote telecom/ICT applications
- Identify ways to achieve economies of scale
- Partner with other stakeholders
- Create trade associations
- Carefully evaluate technology options
- Consider creative business models
- Identify qualified local partner
- Get involved in helping nat'l government develop nat'l strategy
- Contribute to efforts to develop human capital

What about the role of the ITU?

- Work with governments on national strategies
- Stimulate partnerships among stakeholders
- Conduct appropriate additional research related to attracting investment in developing markets
- Develop “tool kits” for countries wanting to attract investment
- Develop appropriate databases that facilitate matchmaking between investors and opportunities
- Develop additional indicators that more clearly portray telecom/ICT diffusion
- Assist countries with technical advice



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THANK YOU

Eric Nelson
ITU/BDT Special Consultant

eric.nelson@itu.int
www.itu.int/ITU-D/finance/