ITU-T Kaleidoscope 2009
Innovations for Digital Inclusion

Global efforts on Bridging the Digital Divide and the role of ICT standardization

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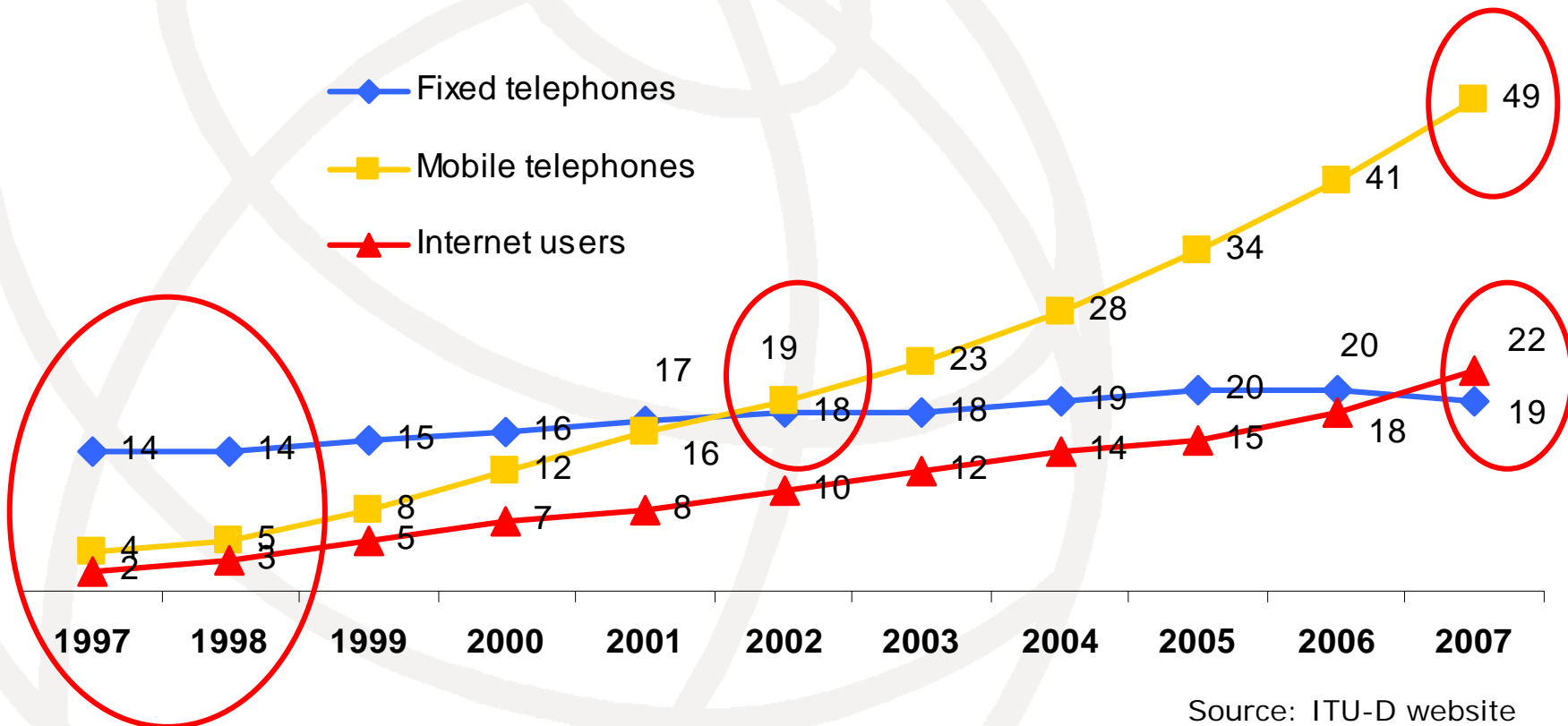**Anatel (Brazil)**

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Agenda

- Background

- Assessing the Digital Divide

- National strategies on Bridging the Digital Divide

- Global efforts on Bridging the Digital Divide

- The role of ICT standardization

- Conclusion

Background

- Telephone and Internet penetration rates worldwide (1997-2007)

Fixed telephones
Mobile telephones
Internet users

Fixed telephones: 14, 14, 15, 16, 17, 18, 18, 19, 20, 20, 19

Mobile telephones: 4, 5, 8, 12, 16, 19, 23, 28, 34, 41, 49

Internet users: 2, 3, 5, 7, 8, 10, 12, 14, 15, 18, 22

1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Source: ITU-D website

Background

- Trends:
  - Slowdown in fixed telephone penetration

  - Great increases in mobile phone and Internet penetration
    - Mobile phones -> multimedia devices
    - Internet speeding up social, cultural and economic interactions
    - ICTs evolution -> Internet Economy

Background

- Issues:

  - Uneven ICT development
    - Trendsetters x Trend-followers
    - Economic drawback
  - Gap in the adoption of new technologies:
    - Gap in access and knowledge

  - DIGITAL DIVIDE

Background

- 1998: Resolution 73 of the ITU Plenipotentiary Conference
  - Highlighted the importance of ICTs to social and economic development
  - Started the organization of WSIS

- 2000: UN Millennium Summit
  - Millennium Development goals: to ensure that ICTs are available to all
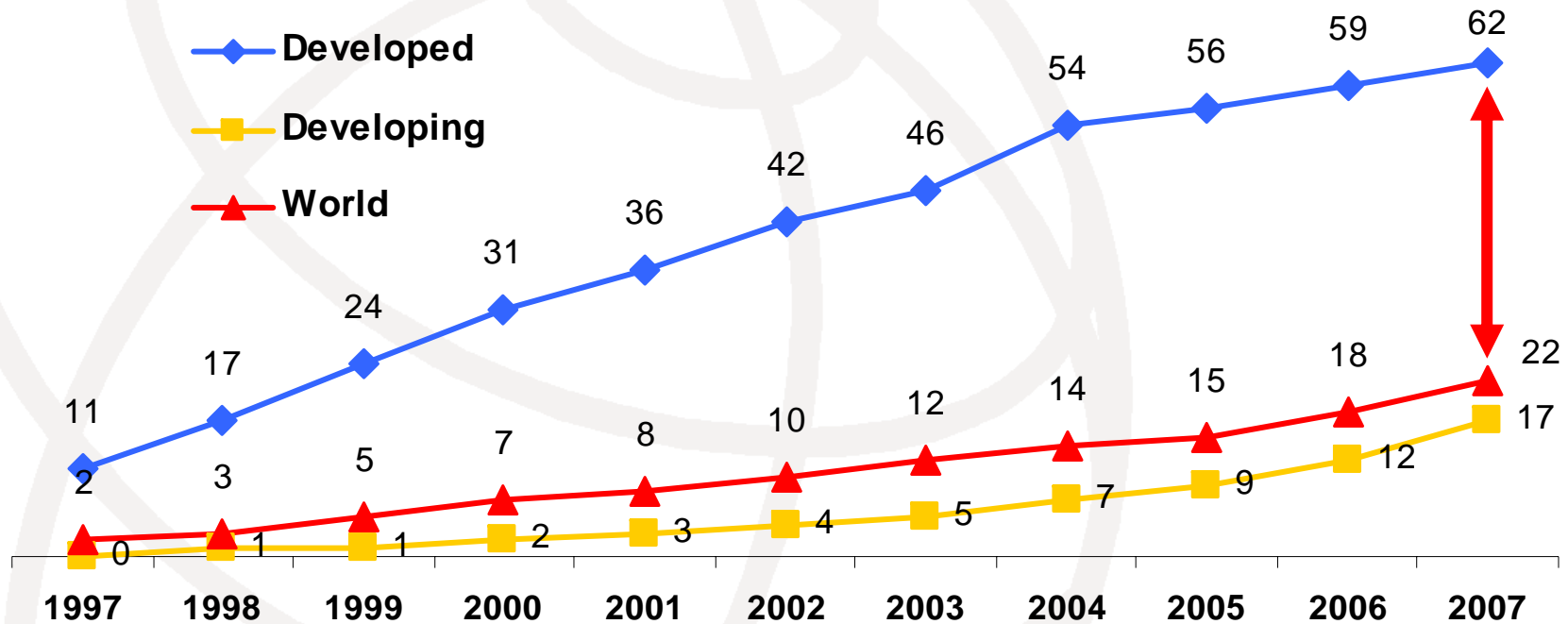
Assessing the Digital Divide

- Wealth gap between countries
  - Gap in financial investment potential
  - Gap in science, education and knowledge (human resources)

- The role of ICTs
  - Reduce these gaps
  - Foster economic and social development
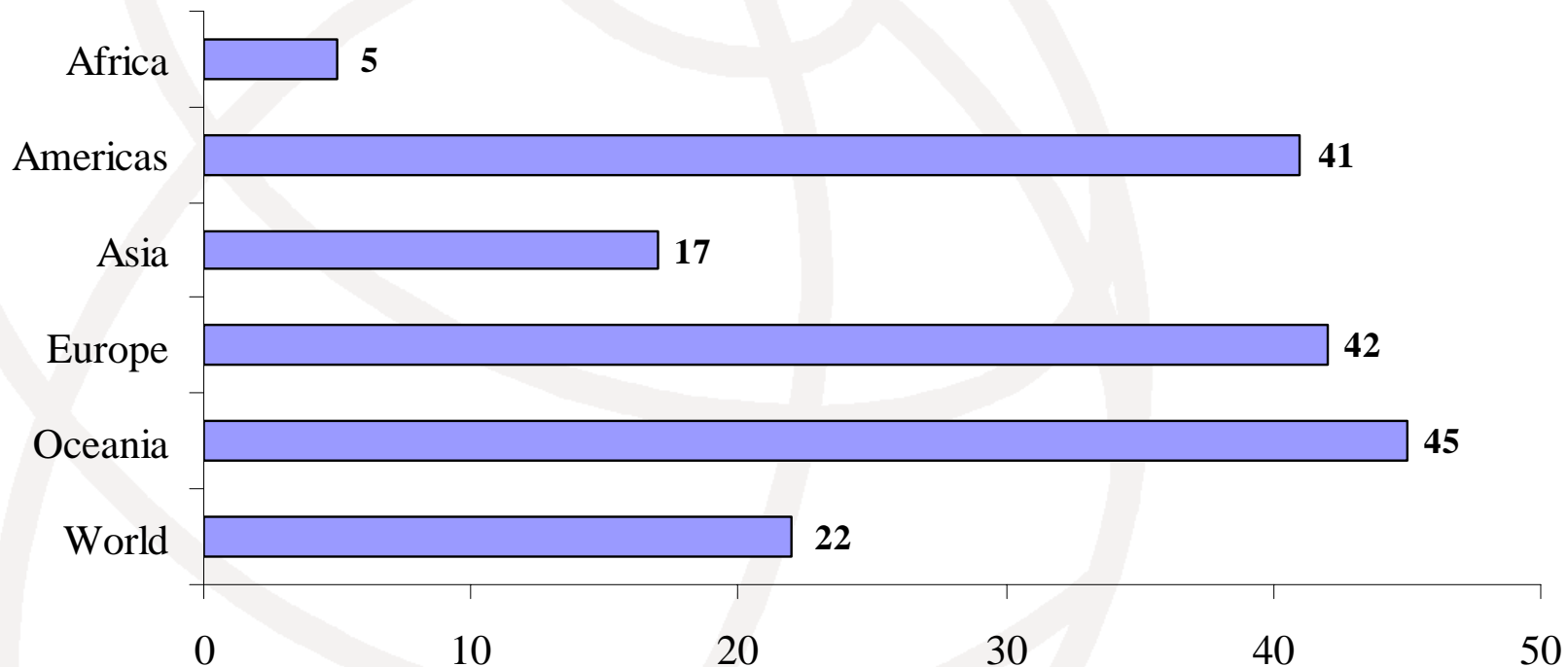
Assessing the Digital Divide

- Internet penetration rate (1997-2007)

Source: ITU-D website
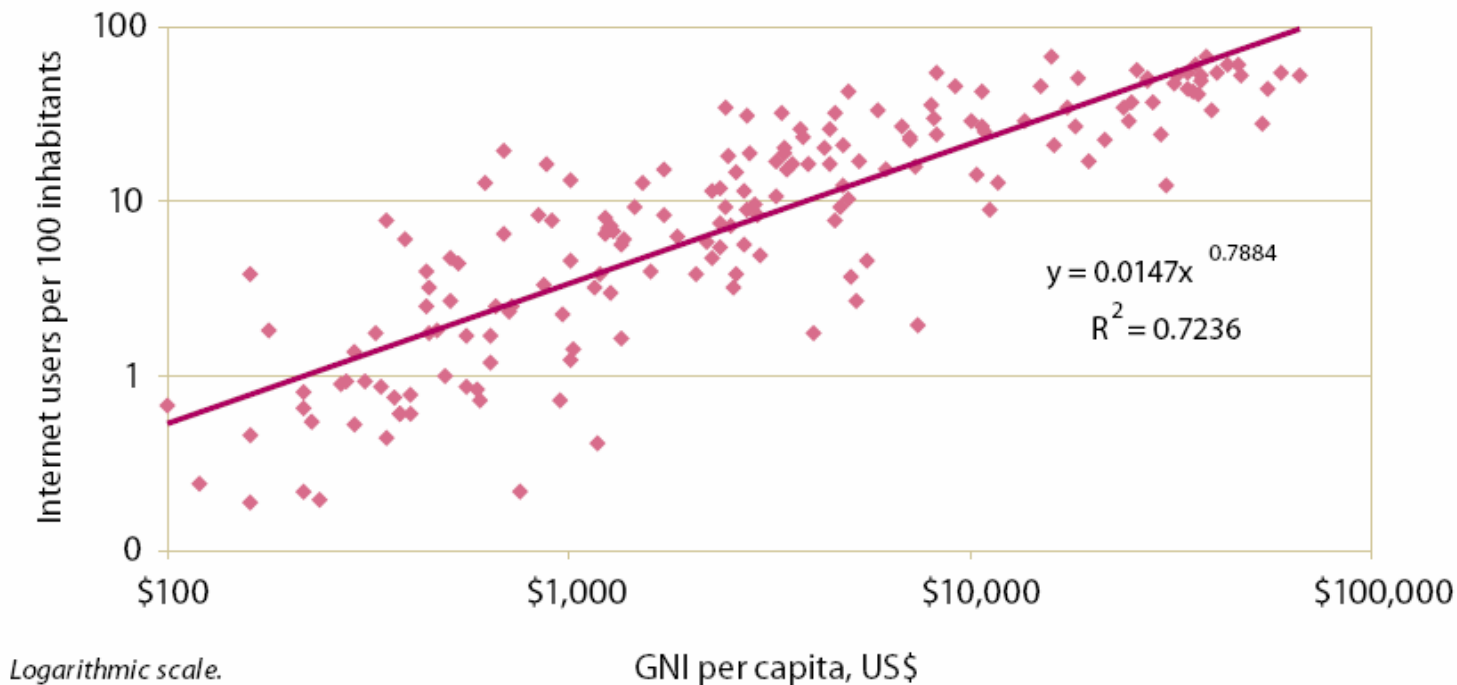
Assessing the Digital Divide

- Internet penetration per region (2007)

Region	Value
Africa	5
Americas	41
Asia	17
Europe	42
Oceania	45
World	22

Source: ITU-D website

Assessing the Digital Divide

- Correlation between GDP per capita and Internet usage (2005)

Internet users per 100 inhabitants vs GNI per capita, US$ (Logarithmic scale.)

$y = 0.0147x^{0.7884}$

$R^2 = 0.7236$

Source: WSIS 2007 Report

Assessing the Digital Divide

- Mobile Phone penetration rate (1997-2007)
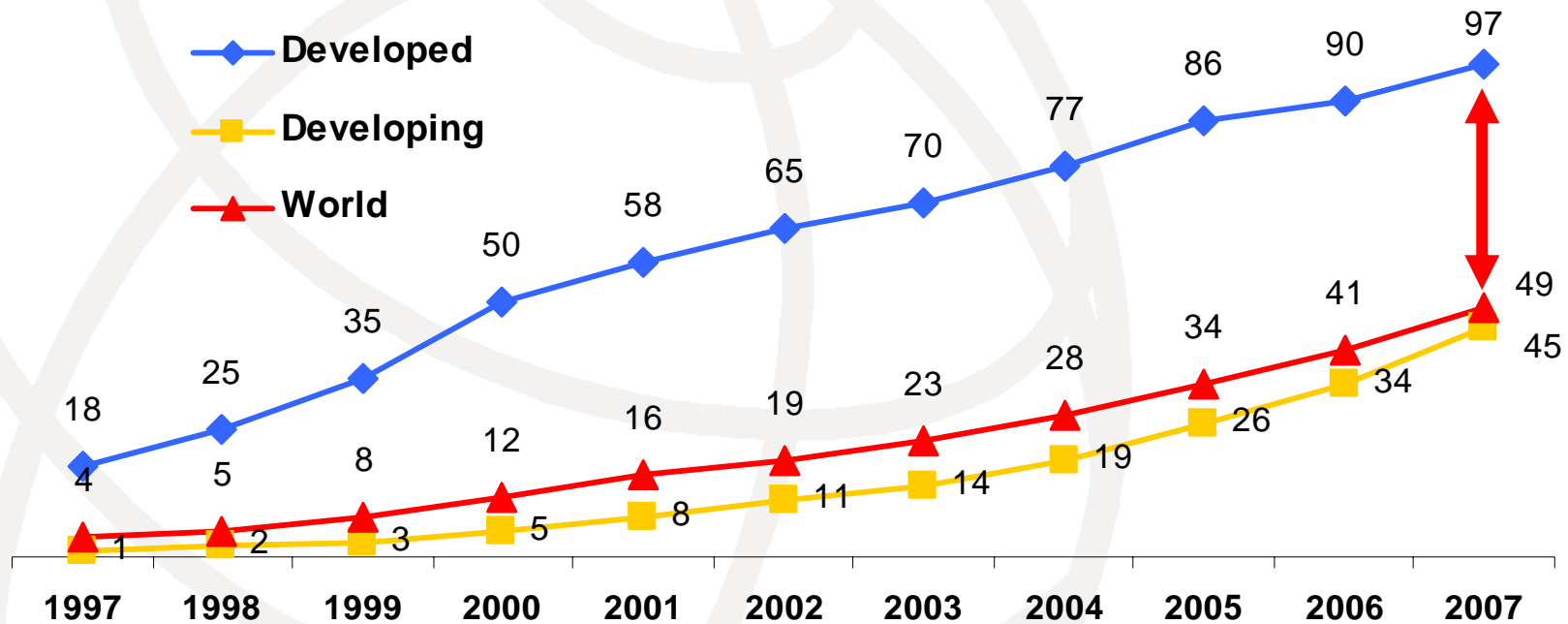
Source: ITU-D website

National strategies on Bridging the Digital Divide

- Goal: to provide affordable and non-discriminatory access to ICTs
  - Market alone cannot guarantee universal access/coverage

- Governments fostering competition and an enabling environment
  - Market regulation
  - Direct/indirect investment

Global efforts on Bridging the Digital Divide

- ITU-D World Telecommunication Development Conferences (WTDC) 2002, 2006 and 2010

- ITU Plenipotentiary Conferences 2002, 2006 and 2010

- World Summit on the Information Society (WSIS) 2003 and 2005

- ITU-T World Telecommunication Standardization Assembly (WTSA) 2004 and 2008

The role of ICT Standardization

- Paragraph 44 of WSIS Declaration of Principles
- Benefits:
  - Economies of scale and scope in production and distribution
  - Interoperability, interconnection and global connectivity
  - Convergence of applications
  - Involvement of developing countries

Conclusion

- Bridging the digital divide leads to digital inclusion

- Digital inclusion is determinant to economic development

- ICT standardization can facilitate the development and adoption of ICTs

Conclusion

- Challenges:
  - Enhancing cross-border trade policies
  - Adapting regulations to the rapid development of ICTs
  - Promoting e-literacy
  - Fostering investment and infrastructure
  - Handling climate change issues
  - Building recognized international standards
  - Involving developing countries

Thank you very much!

¡Muchas gracias!

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