**Symposium on Telecommunications
to Commemorate the 10th Anniversary of the
Fourth Protocol to the GATS
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10 years of regulatory trends

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Agenda

- Intro
- First wave of regulatory reform: ICT Market and Regulatory Trends
- Is it time for a second wave?

WTO Reference Paper 1997

Topics covered:

1. Competition
2. Interconnection
3. Universal Service
4. Licensing
5. Independent Regulators
6. Allocation of scarce resources

Regulation in an era of convergence

- Flexibility & forward-looking approach being adopted worldwide, but tailored to local circumstances, towards a converged regulatory framework
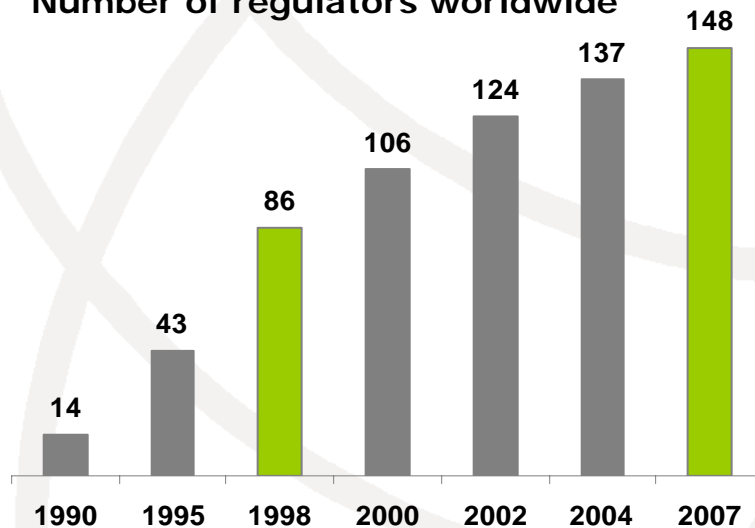- Converging technologies (FMC, etc.)

Changing focus:
- From regulating voice towards regulating data services, multimedia, broadcasting: regulatory parity
- From regulating multiple services over multiple delivery platforms towards NGN regulation
- From regulating PSTN to regulation IP
- Infrastructure sharing
- From heavy-handed regulation to light-touch approach, but also functional separation
- Transparency & accountability
- Adopting and enforcing of clear rules
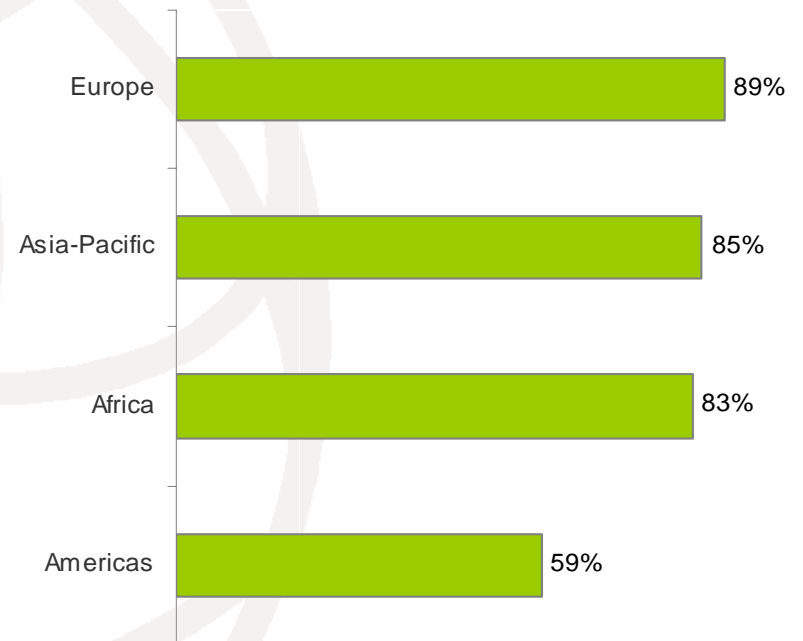- Complexity vs. simplicity (i.e. interconnection, etc.)
- International cooperation

International Telecommunication Union

Trends in
Telecommunication
Reform
Convergence and regulation
1999

Effective regulation

Number of regulators worldwide

Bar chart:
- 1990: 14
- 1995: 43
- 1998: 86
- 2000: 106
- 2002: 124
- 2004: 137
- 2007: 148

Percentage of regulators in each region, 2007

Bar chart:
- Europe: 89%
- Asia-Pacific: 85%
- Africa: 83%
- Americas: 59%
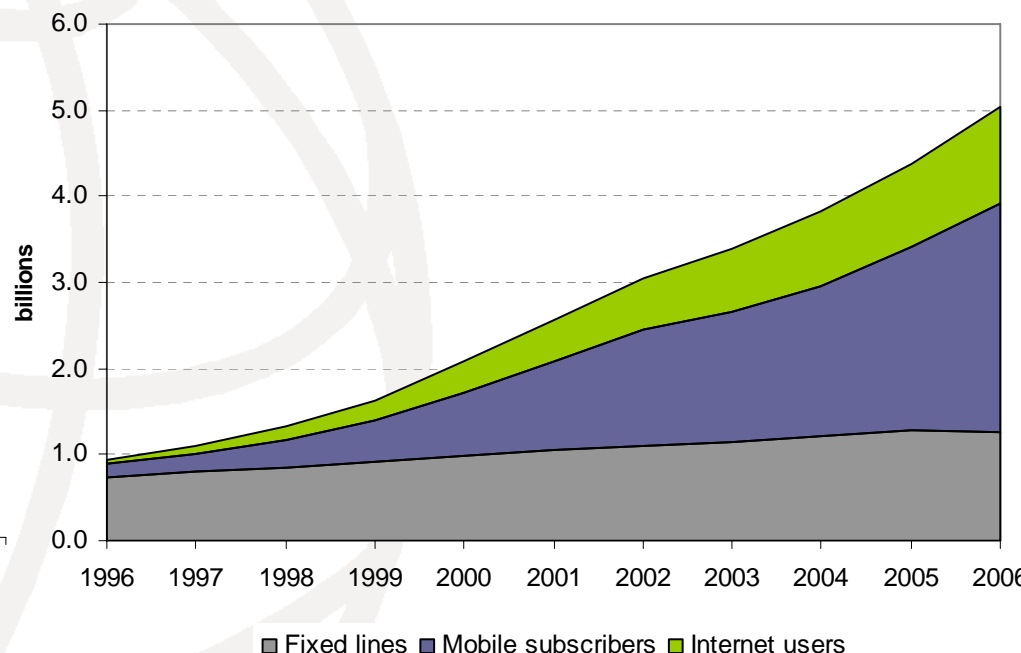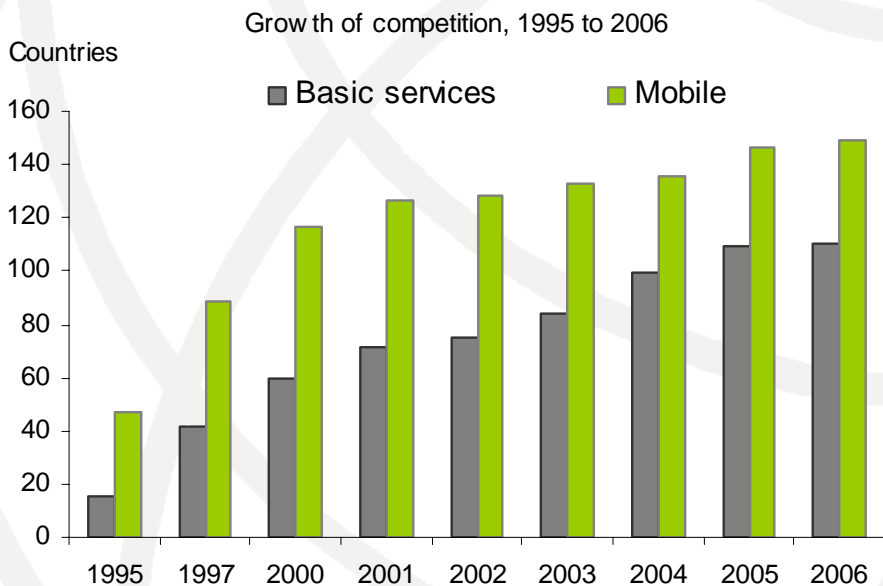
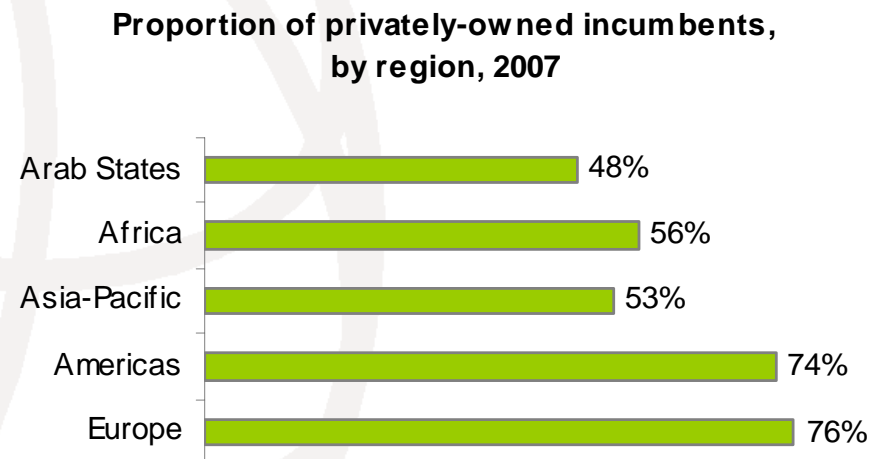Source: ITU World Telecommunication Regulatory Database
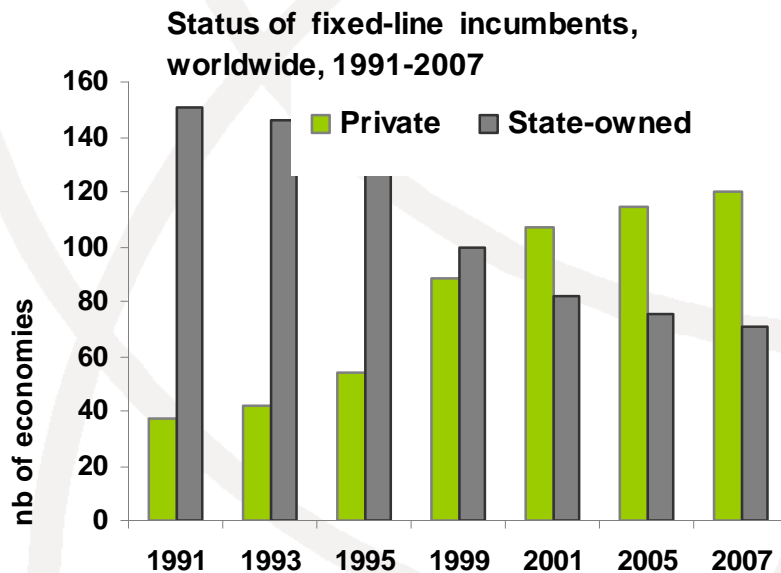
Competition

Growth in competition and in nb of subscribers, selected services

Growth in fixed lines, mobile cellular subscribers and Internet users, in billions, 1996-2006

Growth of competition, 1995 to 2006

Countries

- ■ Basic services
- ■ Mobile

billions

- ■ Fixed lines ■ Mobile subscribers ■ Internet users

Source: ITU World Telecommunication Regulatory Database

Private ownership worldwide, 2007

Status of fixed-line incumbents, worldwide, 1991-2007

Legend: ■ Private ■ State-owned

y-axis: nb of economies (0, 20, 40, 60, 80, 100, 120, 140, 160)
x-axis: 1991, 1993, 1995, 1999, 2001, 2005, 2007

Proportion of privately-owned incumbents, by region, 2007

Region	Proportion
Arab States	48%
Africa	56%
Asia-Pacific	53%
Americas	74%
Europe	76%

Sector reform

Privatizations of incumbent operators worldwide, 1997

State-owned incumbent

Partially privatized
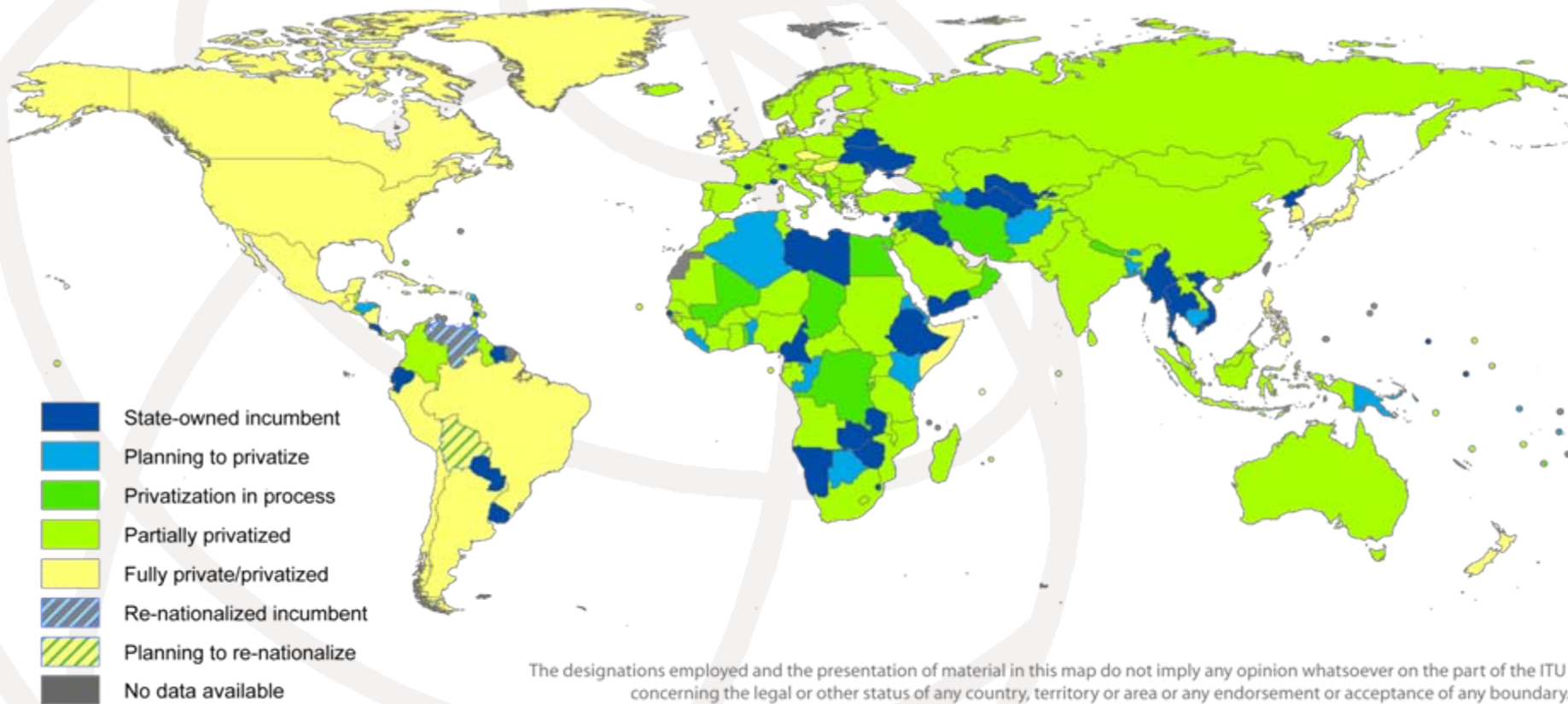
Fully private/privatized

The designations employed and the presentation of material in this map do not imply any opinion whatsoever on the part of the ITU concerning the legal or other status of any country, territory or area or any endorsement or acceptance of any boundary.

Source: ITU World Telecommunication Regulatory Database

Sector reform

Privatizations of incumbent operators worldwide, 2007

Legend:
- State-owned incumbent
- Planning to privatize
- Privatization in process
- Partially privatized
- Fully private/privatized
- Re-nationalized incumbent
- Planning to re-nationalize
- No data available

The designations employed and the presentation of material in this map do not imply any opinion whatsoever on the part of the ITU concerning the legal or other status of any country, territory or area or any endorsement or acceptance of any boundary.

Source: ITU, Trends in Telecommunication Reform 2007: The Road to NGN.

Functional Separation

- A new kind of re-structuring?
- Separation of legacy fixed line operators' non-replicable or bottleneck assets into a new business division which provides wholesale access
- This wholesale access division is kept separate from the incumbent's own retail divisions
- Australia, Ireland, Italy, Mongolia, New Zealand, Sweden and U.K.

Licensing

- Technology and service neutrality
- Transparency (criteria, procedure time, terms, etc.)
- Expansion in the number of services that are subject to only minimal or even no licensing, and
- Development of converged licensing frameworks that break down traditional service-based and technology-based licensing distinctions.
- Ensuring a level playing field between legacy operators and new market players
- What about Voice over IP?

» **GSR Best Practice Guidelines on Licensing (2004)**
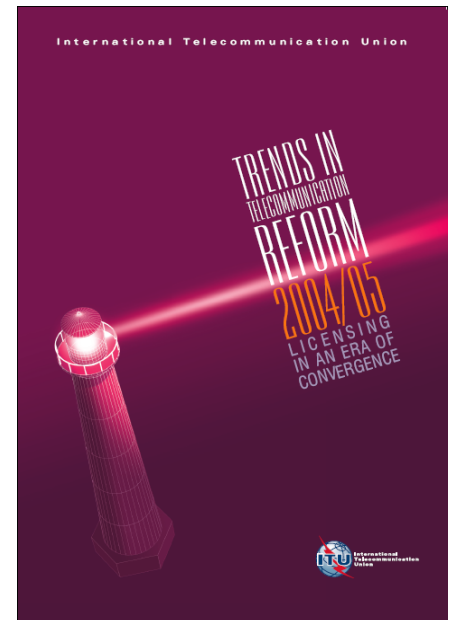
Interconnection Trends

- **Who has to provide?**
  - Different countries may require interconnection from **incumbents** or **dominant operators** or **operators with SMP**
  - Increasingly, countries take a technology neutral approach and impose interconnection obligations on **all network operators**
  - Still **asymmetric regulation** places heavier interconnection obligations placed on major suppliers

- **When is it provided?**
  - Immediately through Reference Interconnection Offer
  - Deadlines (e.g. 3 months – to 135 days from time of request)

- **How much does it cost?**
  - Cost-oriented rates, using fully allocated costs, LRIC or others
  - Benchmarking
  - Privately negotiated

- **What information is available?**
  - Role of regulators' websites to publish RIOs
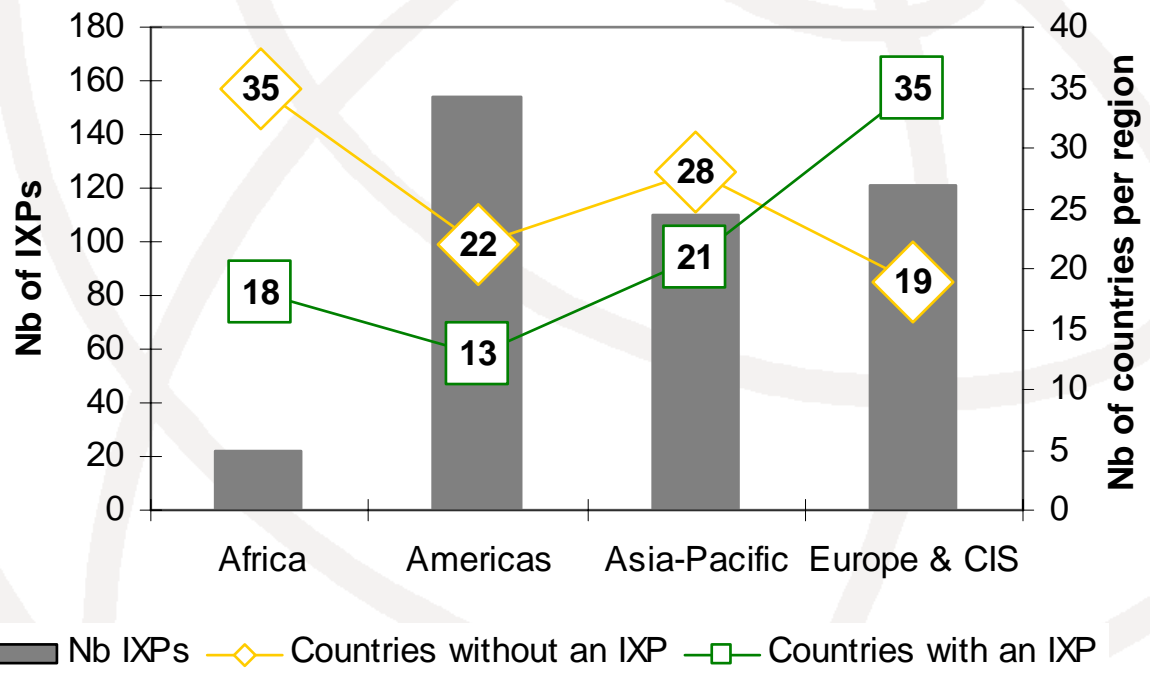
- **Dispute settlement**

Trends in Telecommunication Reform
Interconnection Regulation   3rd edition
2000-2001
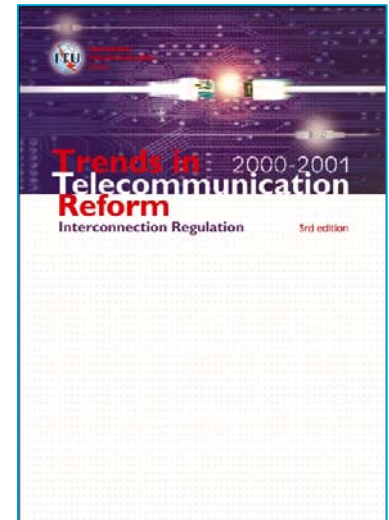
What interconnection information is made publicly available?
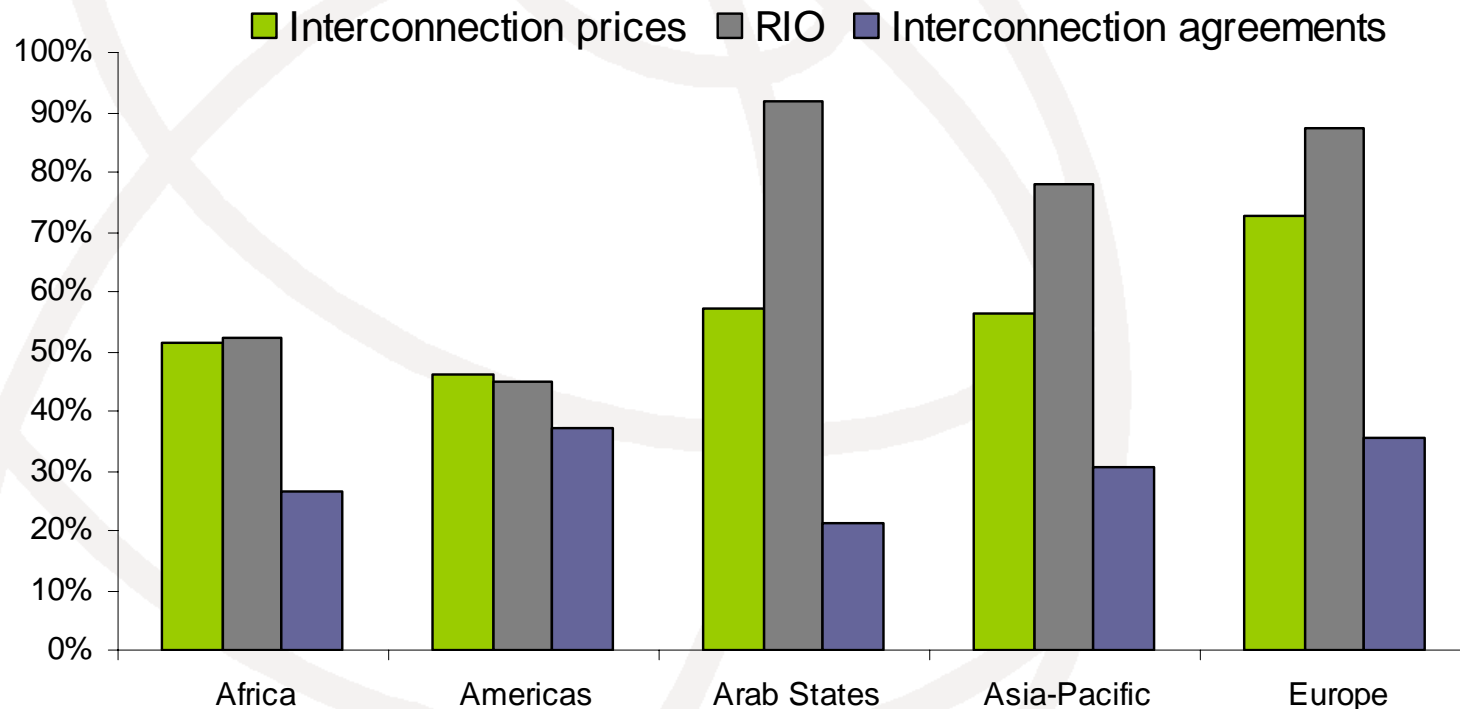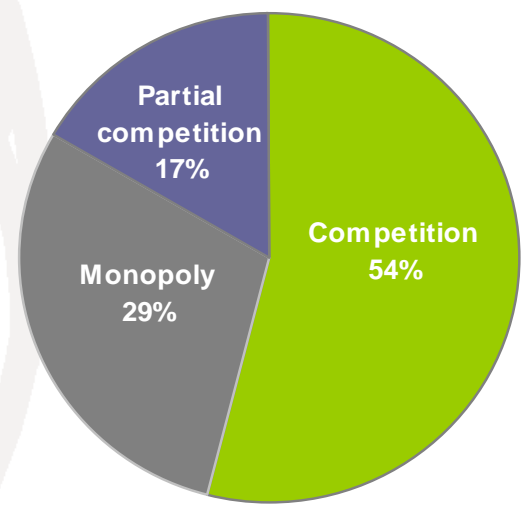

ITU World Telecommunication Regulatory Database (2005 & 2006)

IXPs and International gateway liberalization

Number of IXPs and number of countries with and without IXP, by region, 2007

Liberalization of the int'l gateway worldwide, 2007

Source: ITU World Telecommunication Regulatory Database

Universal access

- **Universal Sevice Obligation**
  - ➢ Traditional Approach Implemented By Placing Obligations on Fixed Line Monopoly Operator
  - ➢ Goal: universal household connections
  - ➢ Largely achieved in developed world
- **Universal Access Opportunity**
  - ➢ First step: Sector reform measures
  - ➢ Use of funds and smart subsidies combined with competitive auctions
  - ➢ Goal: promote public access to un-served areas
  - ➢ Mobile communications have reached more voice users than through fixed line USO programmes
  - ➢ New steps needed to promote broadband

  » **GSR Best Practice Guidelines on Universal Access (2003)**

Competition, Price and Technology

- ✓ Competitive bidding keeps subsidy, if any, low
- ✓ Lack of competition for access services will impact financial viability
- ✓ Price of services to end users and from incoming calls can make or break financial viability
- ✓ Technology choice can push forward the envelope of financial sustainability and affordability

Towards the second wave of sector reform

- Liberalize the international gateways and VoIP to promote IP services
- Leverage on the success in the mobile market to migrate to IMT technologies
- Leapfrog to fiber backbone and backhaul networks, by providing financial and fiscal incentives to encourage the deployment of backbone infrastructure
- Create national IXPs
- Continue to use market liberalization and competition as a force for development
- Think outside the box
  - ➤ encouraging network deployment with incentives
  - ➤ supporting small-scale deployment in rural areas
  - ➤ Using infrastructure sharing and open access models to promote deployment
- Promote cross-border harmonization for issues like international mobile roaming
- Remember where we started? . . . Convergence!
- First steps taken to address convergence; new issues arising for new applications and services like IPTV and mobile broadcasting

Six degrees of sharing:

Innovative infrastructure sharing and open access strategies to promote affordable access for all

Coming soon!

Trends in Telecommunication Reform 2008:
Open Access & Infrastructure Sharing

8th **Global Symposium for Regulators**

11-13 March 2008

P a t t a y a
T H A I L A N D

http://www.itu.int/GSR08/

Thank you!
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