Regional Development Forum 2008

"Bridging the Standardization Gap in Developing Countries"

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Strengthening Involvement of Developing Countries in ICT Standards Development

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What is standardization?

Consumers
- Protection

Enterprises
- Strategic
- Product interoperability and maintainability

Suppliers
- Technical, quality assurance

Stakeholders

Governments
- Advance national competitiveness
- Promote domestic markets
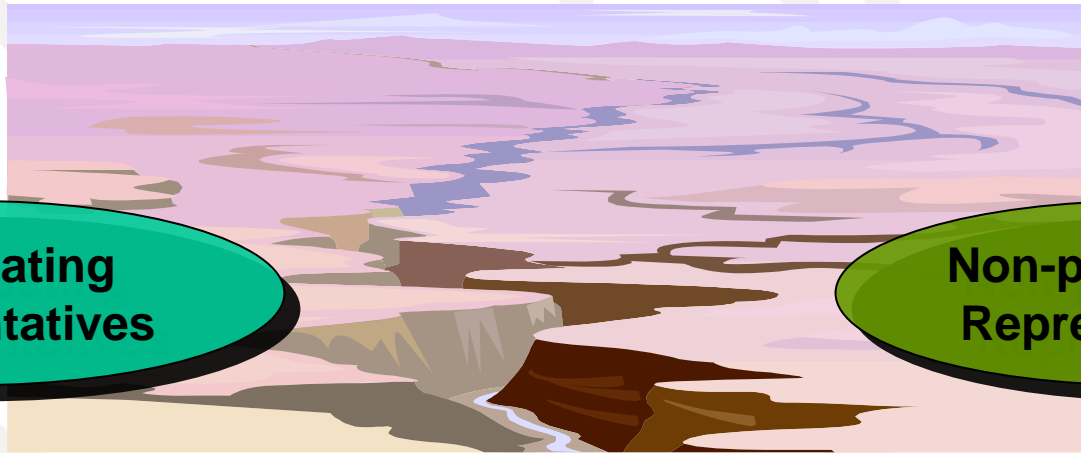- Protects the public interest

Academics
- Promote research results

Standardization is a tool for stakeholders

What is the standardization divide?

- Disparity in the ability of those who <u>access</u>, <u>implement</u>, <u>contribute to</u> and <u>influence</u> international standards (ITU TSB Definition)

Participating Representatives
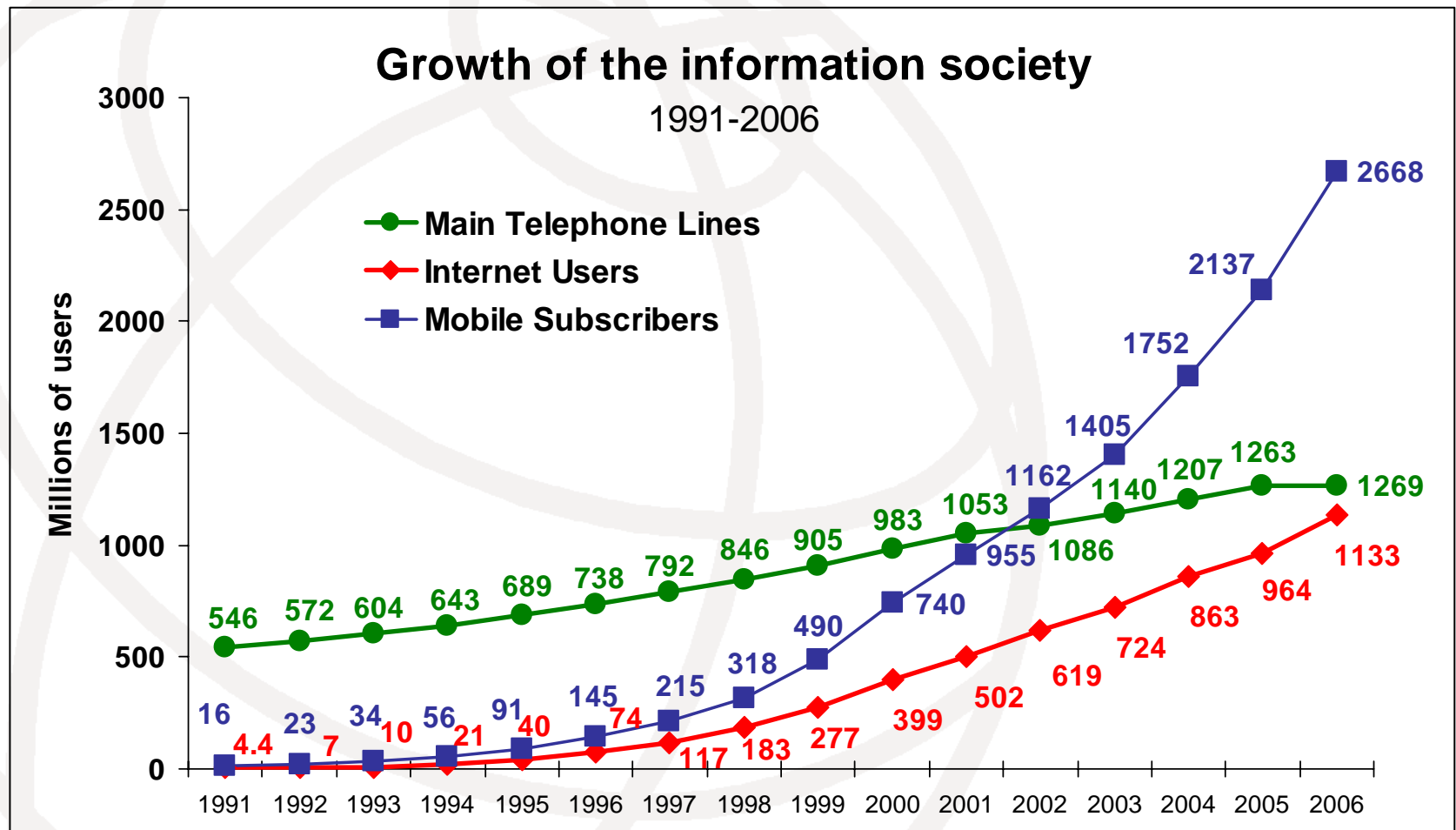
Non-participating Representatives

Standardization divide typically defined with respect to divide between developing and developed countries

Why should stakeholders be involved in standardization?

- Enables consumers (e.g., service providers) to make better choices
  - Draft better RFPs and reference current technology standards
  - Be better informed about equipment to buy
- Lowers infrastructure cost
  - Ensures competition exists between vendors
- Means to provide feedback on standards activities and understand ongoing work
  - Influence standards work
  - Advance stakeholder knowledge of standards
  - Provide faster Return on Investments (ROI)
  - Reduce Total Cost of Ownership (TCO)
  - Generate more sales

Participation in global standards development helps bridge standards divide dimensions
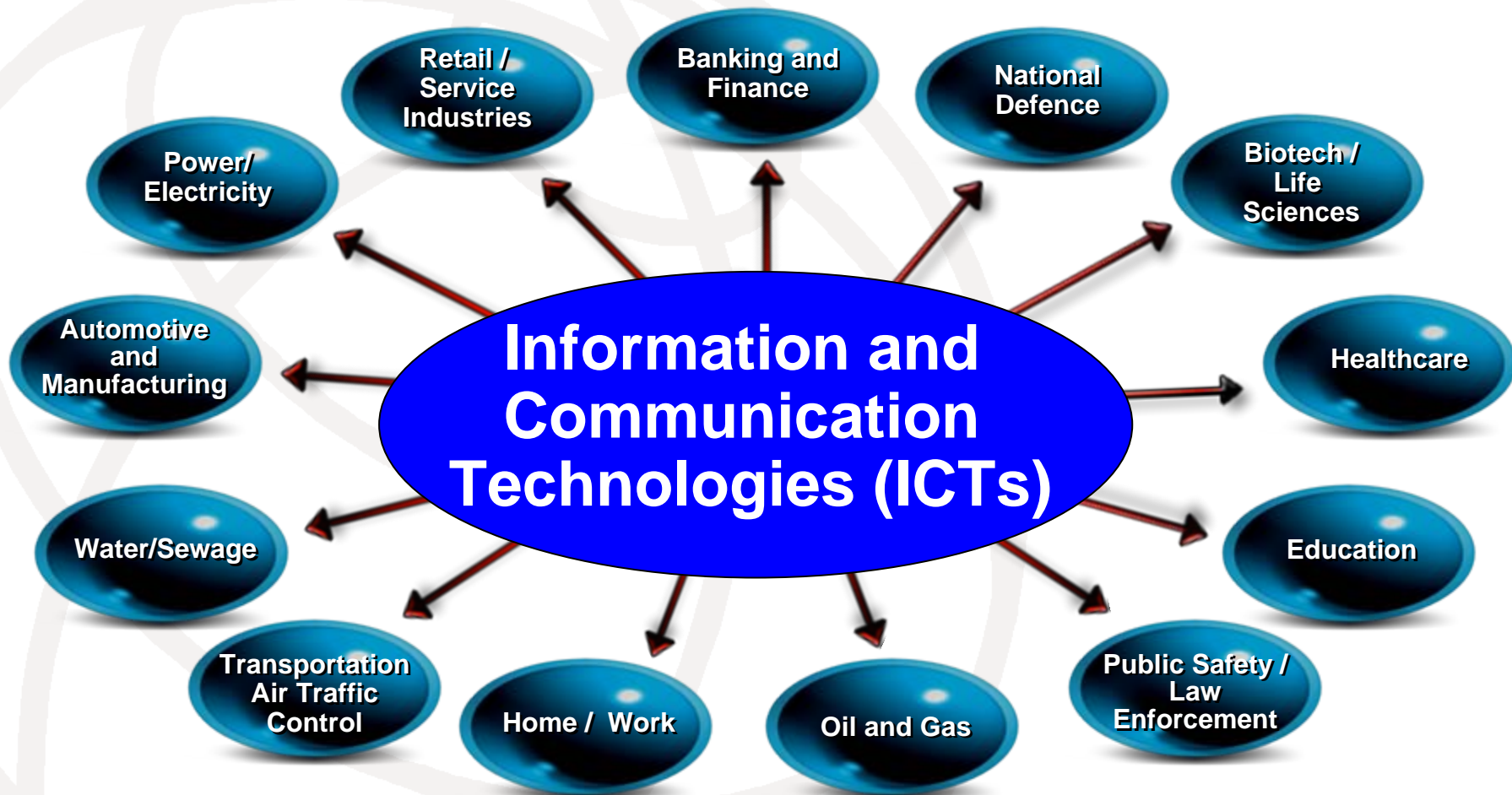
A global information society is emerging

Growth of the information society

1991-2006

Main Telephone Lines
Internet Users
Mobile Subscribers

ICTs at the centre the global information society

Retail / Service Industries

Banking and Finance

National Defence

Power/ Electricity

Biotech / Life Sciences

Automotive and Manufacturing

Information and Communication Technologies (ICTs)

Healthcare

Water/Sewage

Education

Transportation Air Traffic Control

Home / Work

Oil and Gas

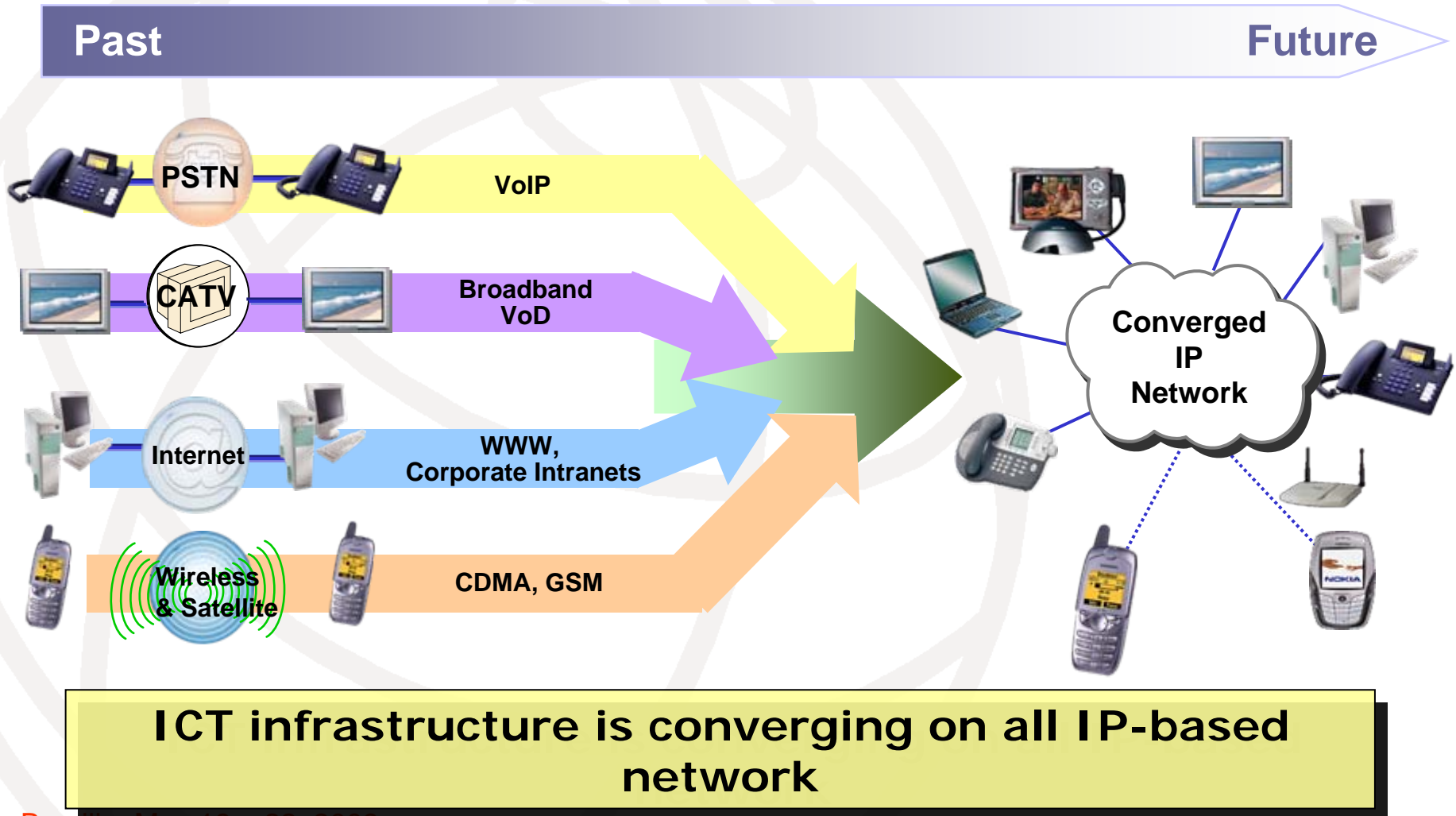Public Safety / Law Enforcement

Information and Communication Technologies (ICTs) power the global information society

Critical infrastructures depend on ICT infrastructure

| Retail | Finance | Mfg. | Transport | Energy | Public Safety |

ICT Infrastructure
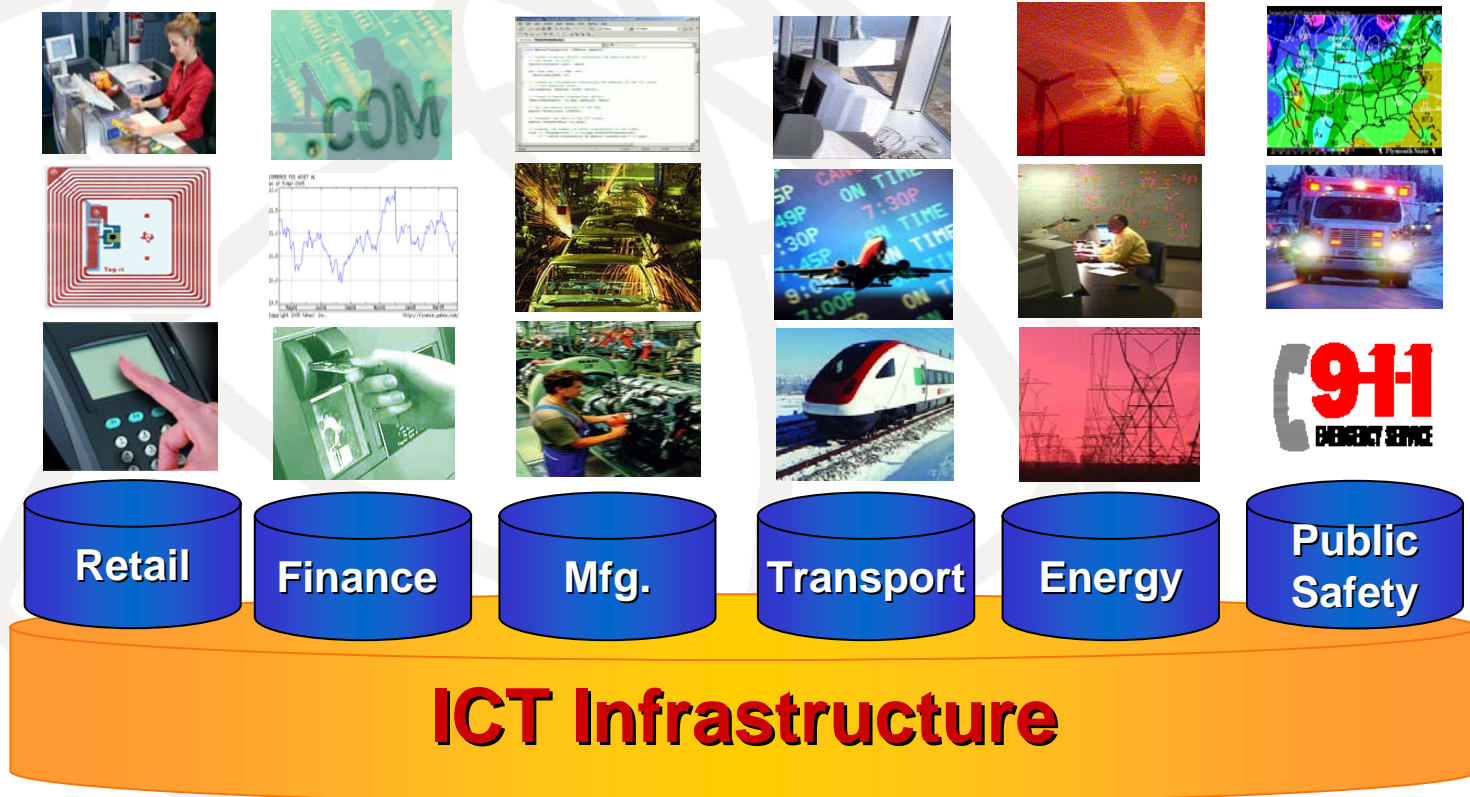
Standardization of ICTs become even more critical to protect societies critical infrastructures

Everyone and everything is connected

@ Home

On the Road

Out in the World

@ Work

RFID

We live in a world of inter-connected devices and objects

ICT infrastructure in transition

Past → **Future**

- PSTN → VoIP
- CATV → Broadband VoD
- Internet → WWW, Corporate Intranets
- Wireless & Satellite → CDMA, GSM

→ Converged IP Network

ICT infrastructure is converging on all IP-based network

The role of ICT standards development organizations

ACCREDITED BODIES

Information Technology

Telecommunications

Global

Regional

National

FORA & CONSORTIA
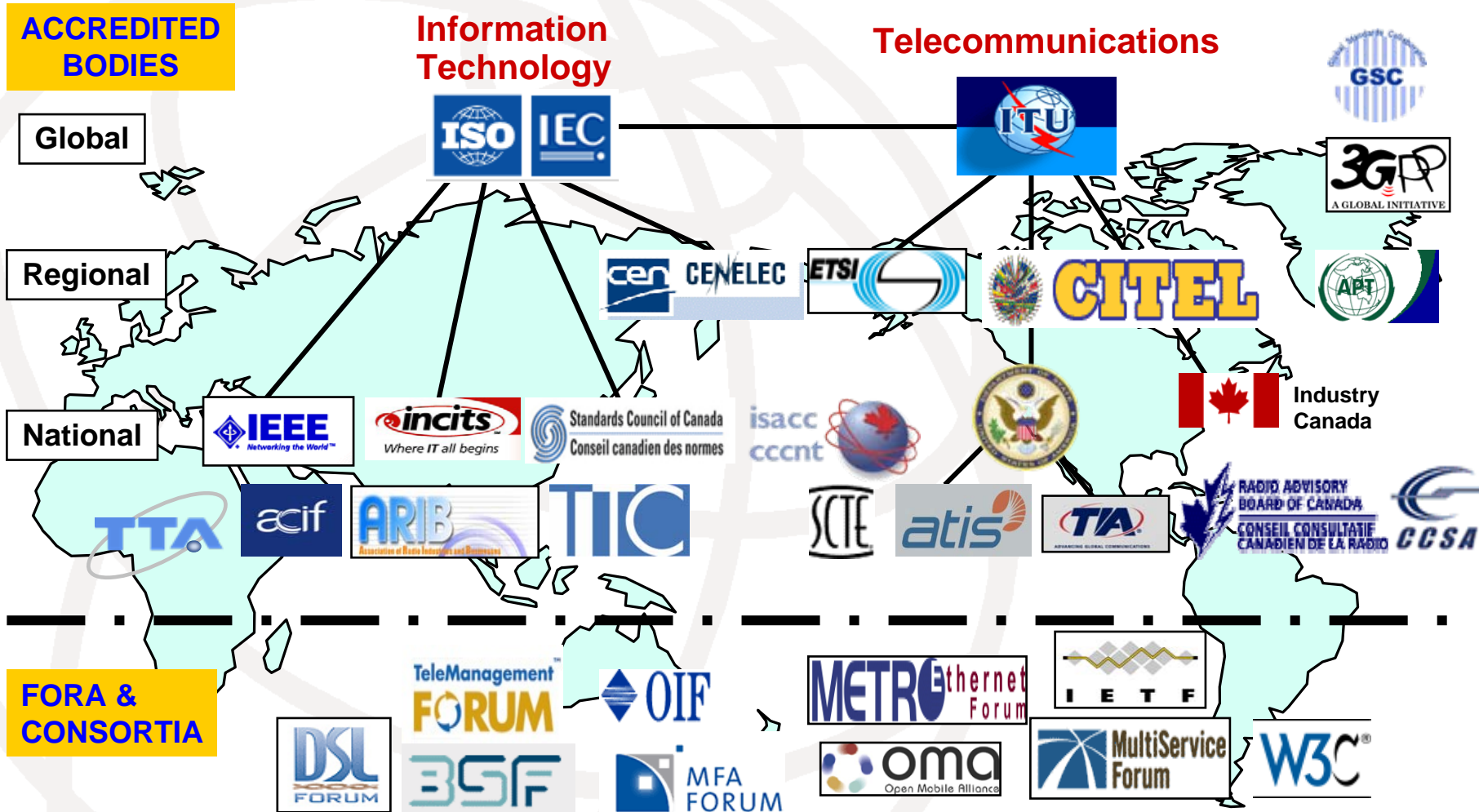
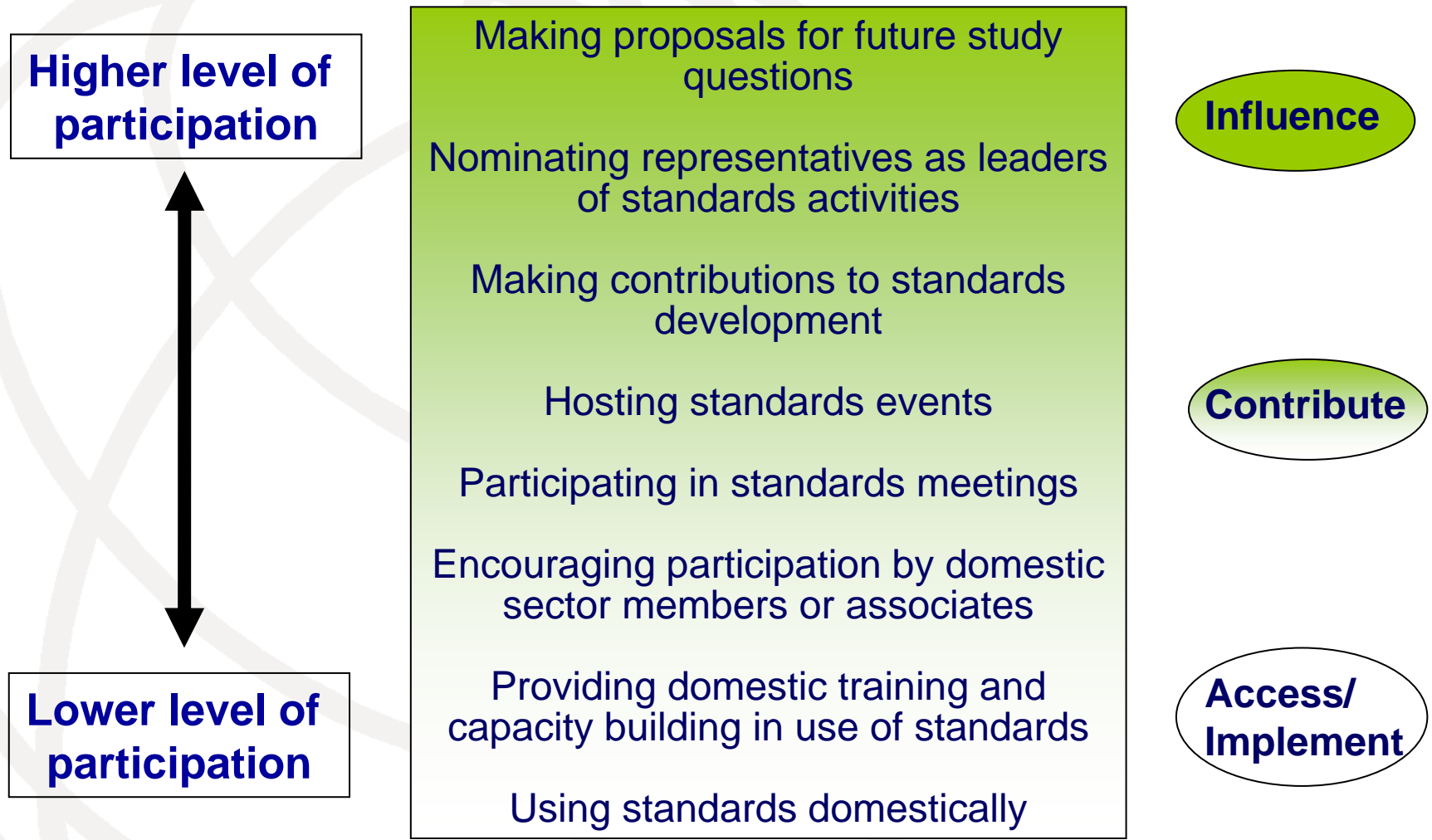**ICT standards deal with complexities of convergence**

Addressing the standardization divide

- **Participation** in standards development directly relates to the **dimensions** of the standardization divide
  - Access
  - Implementation
  - Contribution
  - Influence
- Barriers to participation
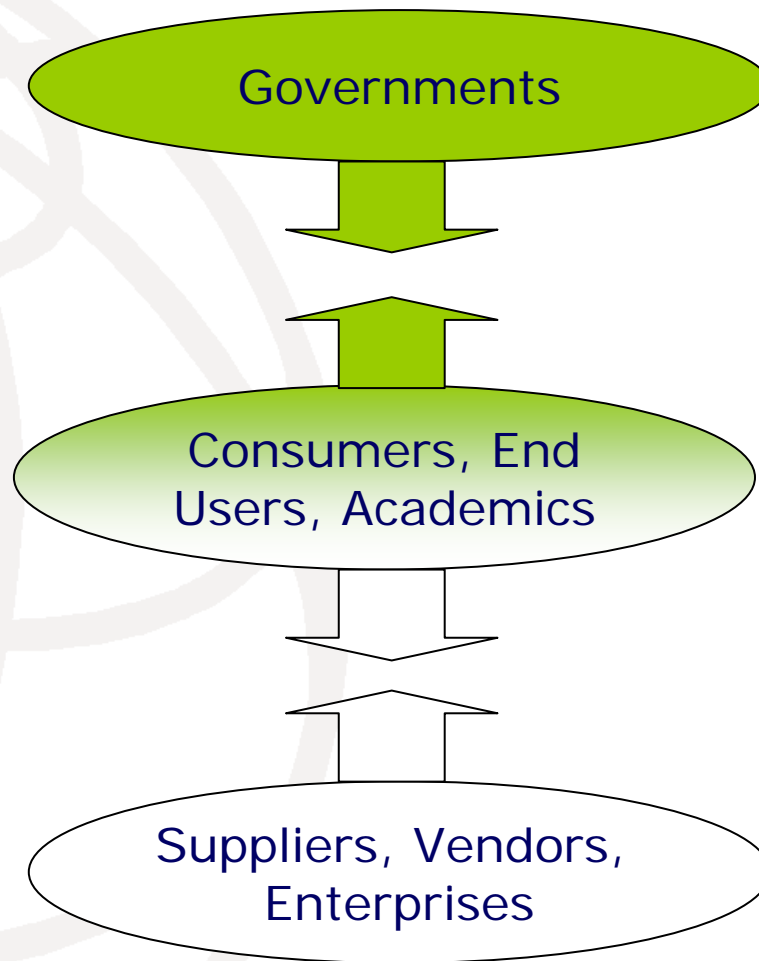- Solutions and best practices to addressing the barriers to participation

Standardization divide hinges on standards development participation

Participation levels in ICT standards development process

Higher level of participation

Lower level of participation

Making proposals for future study questions

Nominating representatives as leaders of standards activities

Making contributions to standards development

Hosting standards events

Participating in standards meetings

Encouraging participation by domestic sector members or associates

Providing domestic training and capacity building in use of standards

Using standards domestically

Influence

Contribute

Access/ Implement

Participation by stakeholder groups in standards development process

Making proposals for future study questions

Nominating representatives as leaders of standards activities

Making contributions to standards development

Hosting standards events

Participating in standards meetings

Encouraging participation by domestic sector members or associates

Providing domestic training and capacity building in use of standards

Using standards domestically

Governments

Consumers, End Users, Academics

**Suppliers, Vendors, Enterprises**

Barriers to participation in ICT standards development process

- Accessibility
- Long-term Participation
- National policy making processes
- Lack of technical expertise
- Ongoing process between meetings

- Informal procedures
- Cost
- Networking and alliances
- Private and/or NGO representation
- Culture and language
- Transparency
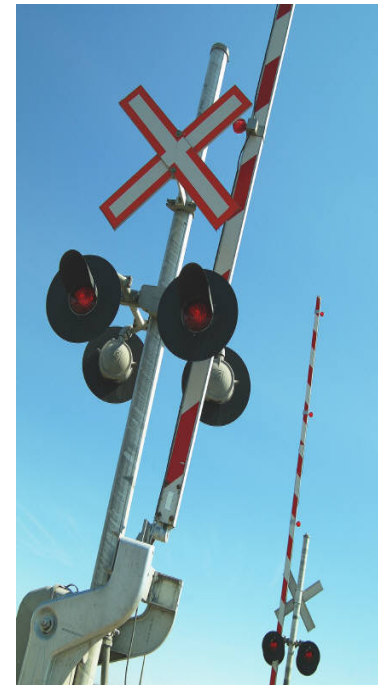
Key common barriers contributing to standardization divide

Improving accessibility

Downloads compared with sales of ITU-T Recs
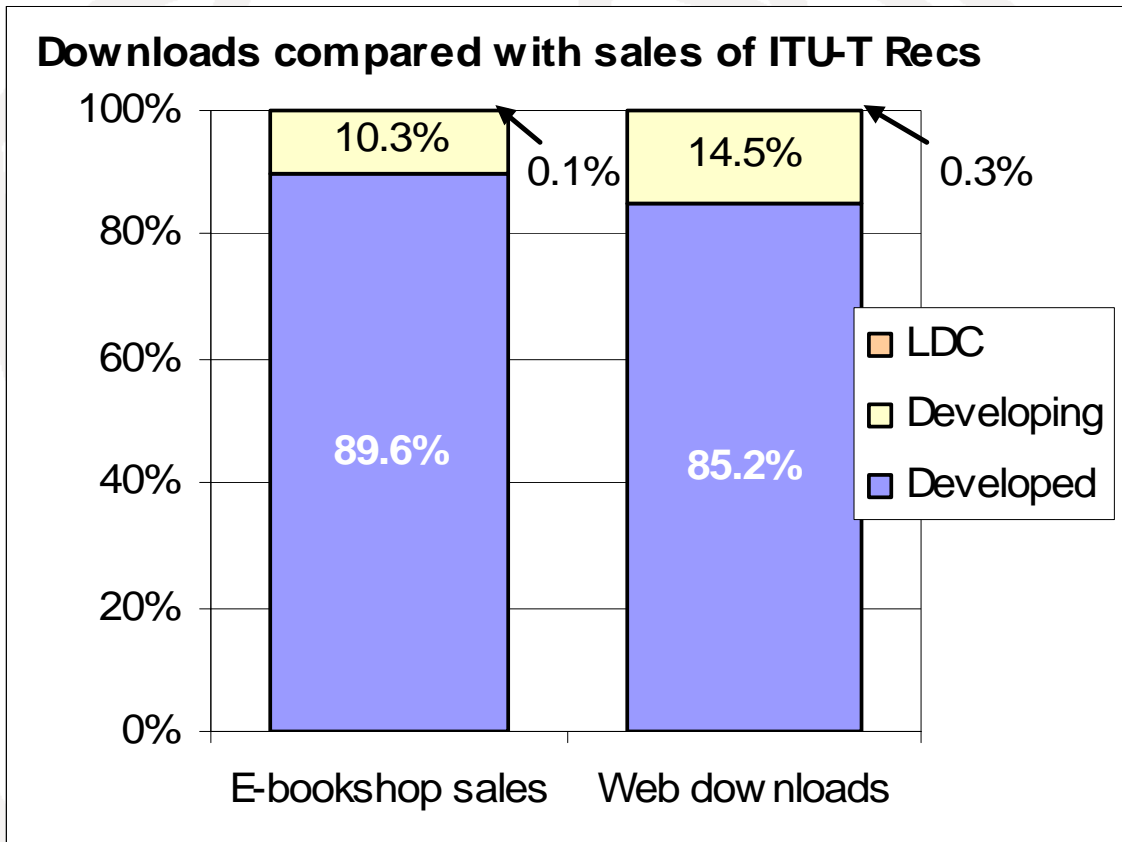
- "E-bookshop sales" relate to Jan-Dec 2006
  - 10.4% from LDC and DC
- Web downloads relate to Jan-May 2007
  - 14.8% from LDC and DC

Overcoming the accessibility barrier helps bridge the standardization divide

What other practical actions can be taken to improve accessibility

- Raise awareness of resources available
- Develop implementation guides for standards
- Develop roadmaps and guide documents for standards
- Sponsor regional workshops

Practical actions to narrow the standardization divide

Solutions and best practices for improving participation

- **Technical assistance**
  - Subsidize travel costs and offer training
- **Regional sub-groups**
  - Set agendas and implement programs locally
- **Internal capacity-building**
- **Human capacity-building**
  - Mentoring and fellowship programs

Must consider solutions adopted by other organizations to improve participation

Summary

- The <u>global information society</u> is powered by ICTs

- The <u>ICT infrastructure is evolving</u> into a converged network, leading to challenges of interoperability, performance and security

- <u>Global ICT standards</u> help address these challenges

- <u>Participation</u> is the key to addressing standardization divide dimensions: access and implementation; contribution; and influence

- Solutions and best practices for improving participation may be adopted from other organizations

We must expand upon actions to improve accessibility and identify additional actions to help overcome all barriers to participation