

Standardization Activities on ICT

15 Dec.2008

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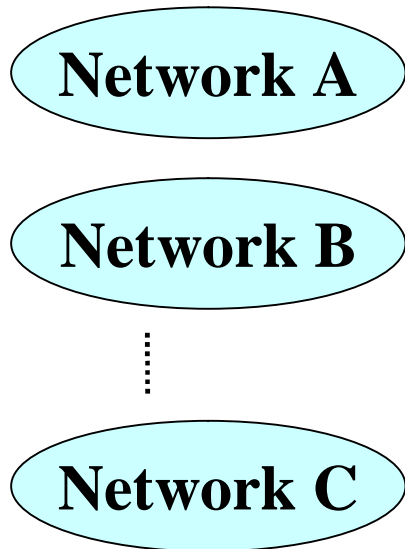
“Very primitive questions”

(Q1) What is “Standard” ?

(Q2) Then, what is “Standardization” ?

Interconnectivity and Interoperability ensured through Standardization

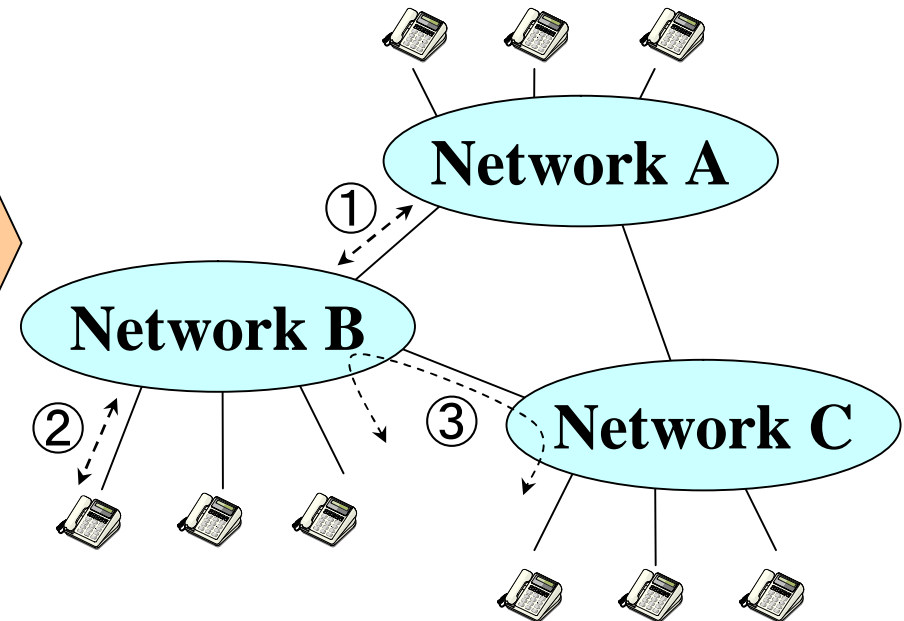
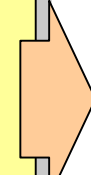
Different networks



Standardization, such as on

- Coding,
- Signaling and
- Protocol,

is required for Interconnectivity and Interoperability.



- A variety of services
- A variety of terminals

- ① between Networks
- ② between Network and Terminal
- ③ between Terminals

Merits of Standardization

1 Efficient provision of telecommunications services

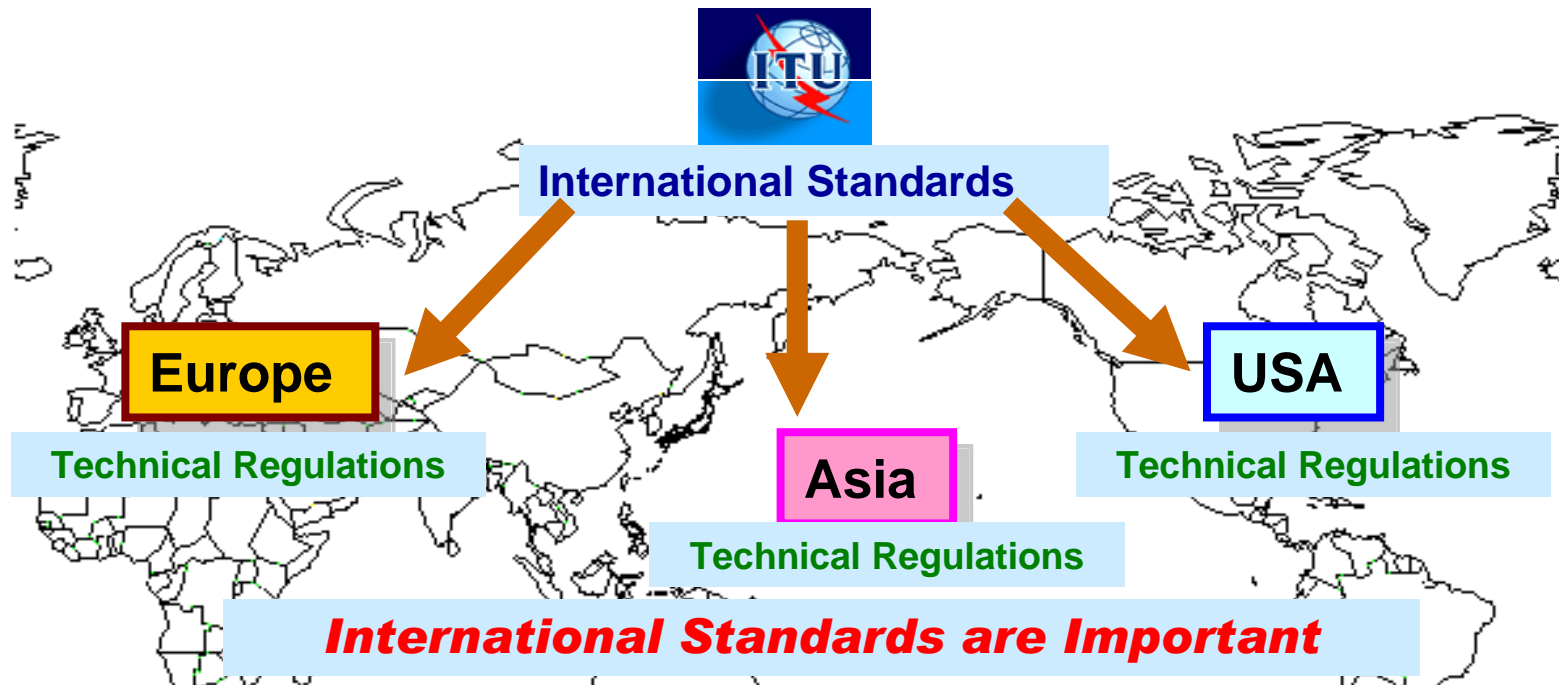
- (1) Generalizing network facilities, terminal equipment, associated parts, etc.
- (2) Assuring interconnectivity (to make more open access to networks)
- (3) Assuring security, proper quality, etc.
- (4) Reducing costs due to mass production
- (5) Facilitating international procurement
- (6) Utilizing telecommunication resources such as radio waves and telecommunication circuits, with efficiency.

2 Promotion of competition in the telecommunications field

- (1) Reducing entry barriers by assuring interconnectivity
- (2) Expanding global markets through easily setting up international networks
- (3) Increasing multi-carriers and multi-vendors of telecommunication systems,

etc.

- **Agreement on Technical Barriers to Trade (TBT)** stipulates that Members shall use **International Standards** as a basis for their **technical regulations**.



-Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade.

-Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.

“mandatory” / “voluntary”

“mandatory” standards

“voluntary” standards

For example,

#1: Output voltage of telephone terminals ...

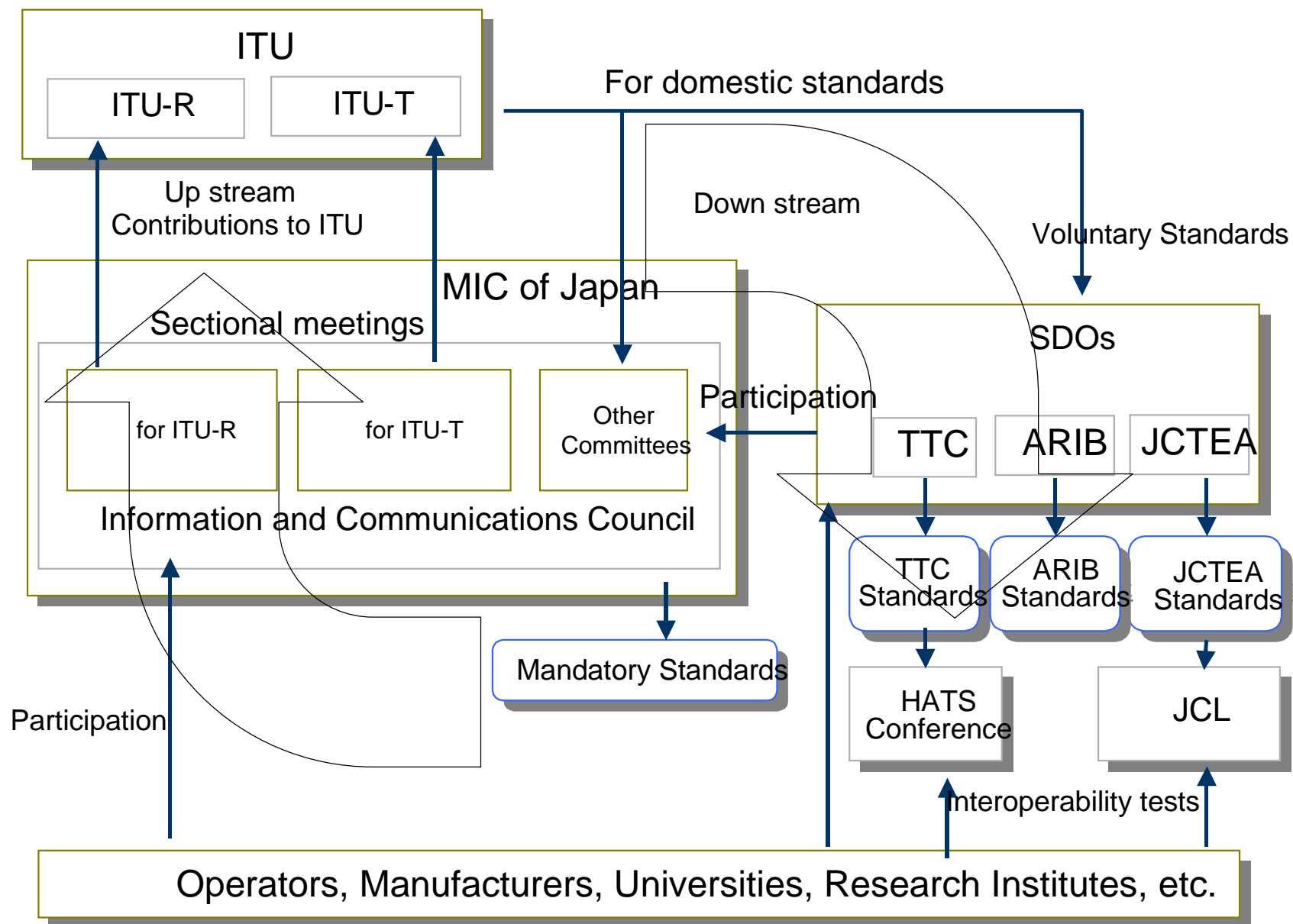
#2: Assignment of telephone numbers ...

#3: Protocols for FAX ...

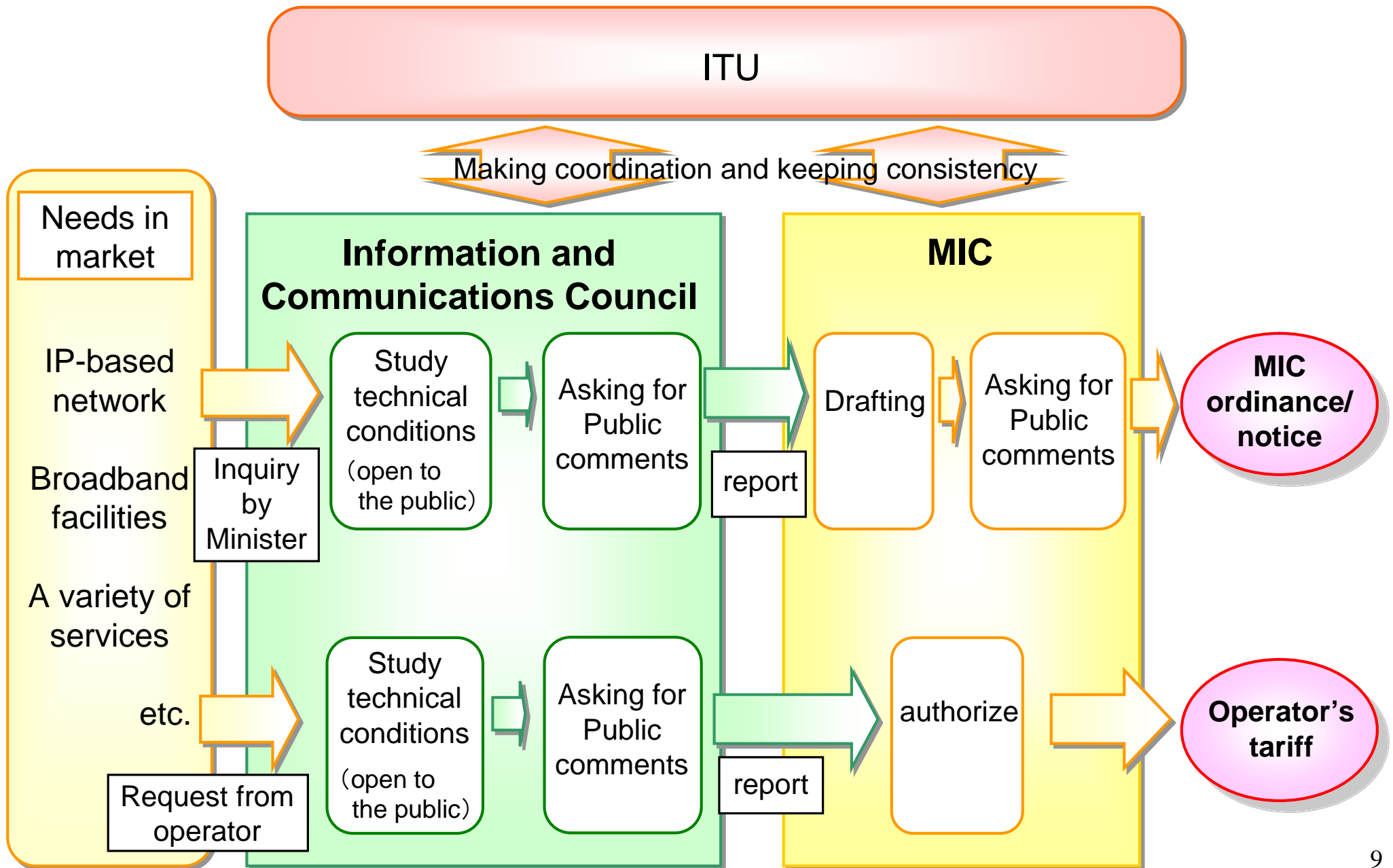
#4: Mobile phone systems ...

#5: Mobile internet access ...

Standardization activities in Japan (for ITU Standards)

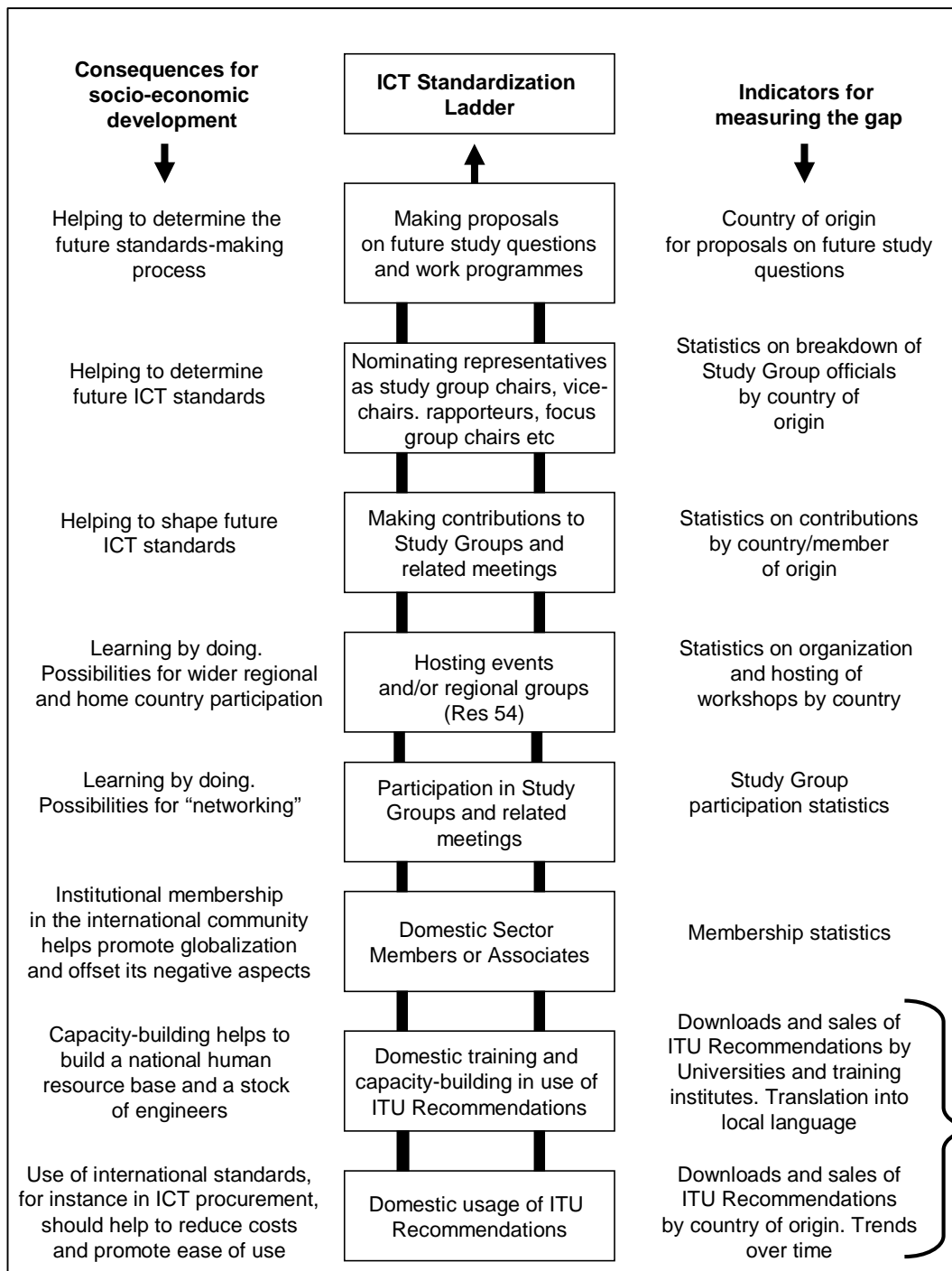


Due process for establishing mandatory standards



(Q3) What is “Standardization Gap” ?

What are your actual problems regarding standards/standardization?

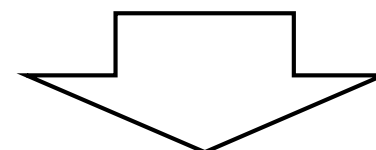


Document C07/EP/8-E in ITU Council 2007

“BRIDGING THE STANDARDIZATION GAP (RES. 123)” by Director of TSB

Defining

- Standardization *development* gap
- Standardization “Ladder of *development*”



- Focusing on *the ability to create standards*
- Based on *the ability to use standards*

Res. 17 Telecommunication standardization in relation to the interests of developing countries

- 1 Cooperation with the ITU regional offices & relevant regional organizations.
- 2 Providing free electronic copies*.
- 3 Encourage participation from developing countries.
- 4 Study of priority questions of developing countries.

Res. 44 Bridging the standardization gap between developing & developed countries

1 Action Plan

- Strengthening standard-making capabilities
- Assisting developing countries in standards application
- Human resource building
- Flagship groups for BSG
- Fundraising for BSG

2 Encourage more highly developed countries to establish cooperation programs with developing countries with regards to technical regulation and conformity assessment.

Discussion about BSG at WTSA-08 (3)

Res. 26 Assistance to the regional tariff groups

Res. 43 Regional preparations for WTSAAs

Res. 54 Creation of regional groups

- Strengthen Regional Groups

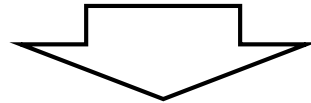
Summary: Noteworthy points

- 1 Recognizing the importance of collective efforts from *both developed and developing countries*.
- 2 Trying to utilize *regional* efforts/activities.
- 3 Discussing the *specific and actual activities* in response to *developing countries' requests/priorities*.
- 4 Recognizing *3 disparities*:
 - voluntary standardization
 - mandatory technical regulations
 - conformity assessment

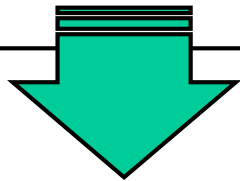
“ITU Mark” Program

Background

Non-smooth operability of ICT equipments, especially in developing countries, because of lack of credibility.



Something to ensure interoperability is necessary.



“ITU Mark”

- Show *end-to-end interoperability/interconnectivity* of ICT equipments from *different manufactures* on a *global scale* in accordance with *ITU-T Recommendations*.
- Discussed at TSAG (Dec. 2007 & Jul. 2008) and WTSA-2008

(Q4) Does “Standard” guarantee interoperability?

Resolution 76 at WTSA-08

“Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU mark programme”

ITU-T studies ...

1. Overall effects on ITU & manufactures
2. Legal & national/international regulatory implications
3. Cost of set up of facility
4. Location of testing facility
5. Measures to be take to build the necessary human-resource capacities

HATS (Harmonization of Advanced Telecommunication Systems) Conference

- Non-Profit organization established in 1988
- To ensure the interconnectivity/interoperability of telecommunication equipments of different manufactures in order to give a users' convenience.
- Members: ICT manufacturers, vendors, carriers, TTC, MIC
Secretariat: Communications and Information network Association of Japan (CIAJ)

Main functions of HATS

- 1) Setting out programs for testing
- 2) Issuing testing guidelines
- 3) Implementing connectivity tests
- 4) Describing the basis for TTC

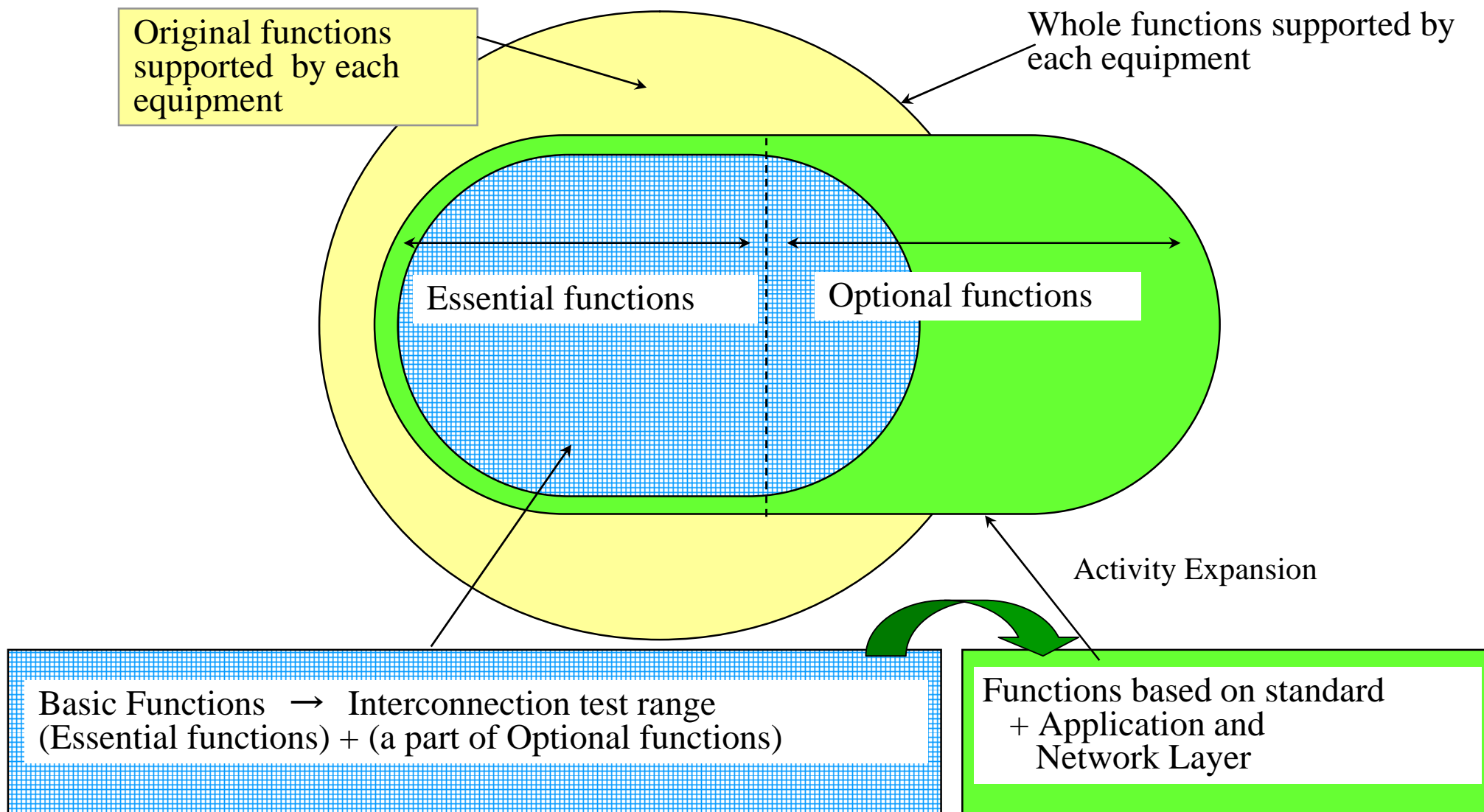
Types of interconnectivity testing

- 1) Tests conducted using only those devices that are subject to testing
- 2) Round robin testing on all devices
- 3) Terminal-to-terminal testing on real lines

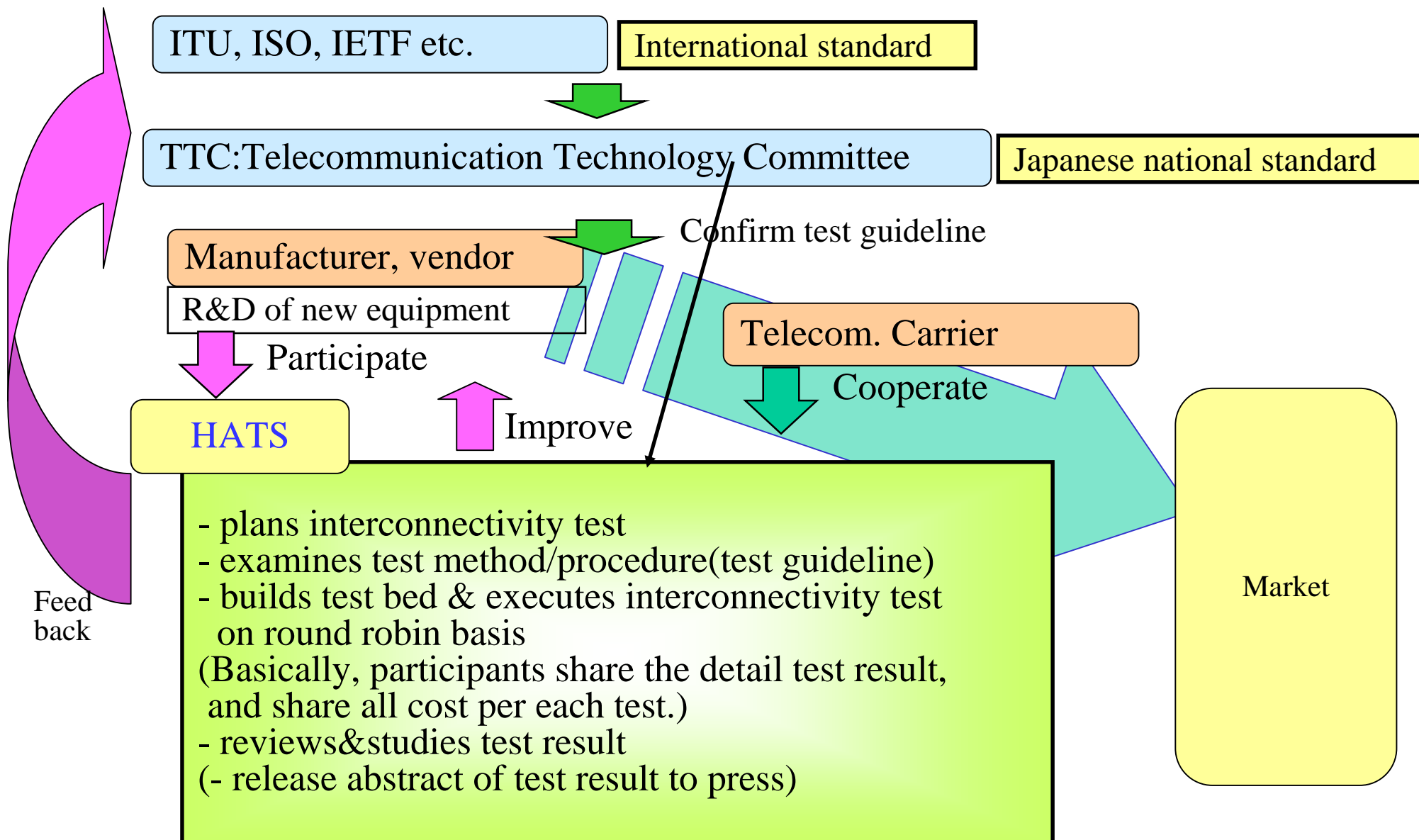
For the details,

<http://www.ciaj.or.jp/hats/e/what/about.html>

The Interconnectivity Test Range Targeted by HATS



Role of HATS



Actual results of HATS test

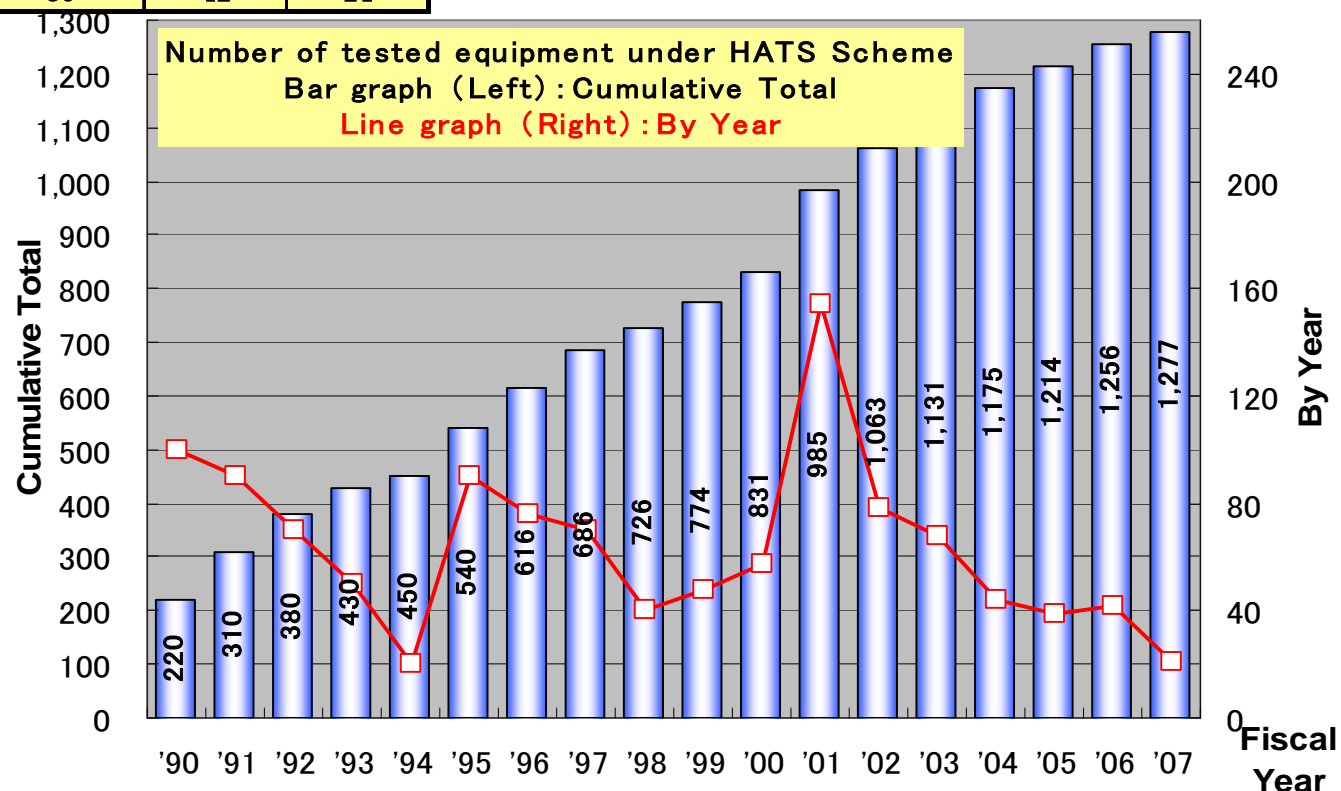
ITEMS	2002	2003	2004	2005	2006	2007
PBX	3	7	5	5	5	5
Facsimile	1	5	0	11	10	0
LAN	24	11	6			
H. 323	17	13	6			
SIP	29	32	23	18	20	10
MPEG4			4	5	4	2
H. 264					3	4
DSL	4					
Total	78	68	44	39	42	21

Number of Info-communication Equipments Tested Under HATS Scheme

(JFY2007, as of 2007/10) ⇒ 21

(TOTAL : JFY1988-2007) ⇒ 1,277

- 1989- ISDN Terminal Adapter/digital telephone, G4 facsimile, PBX, MHS
- 1990- Analog videophone
- 1991- Digital videophone/videoconference, LAN router
- 1996- Super G3 facsimile
- 1997- MPEG2(H.262)
- 1999- LAN router(ATM, IPsec), H.324 videophone, Internet facsimile
- 2000- H.323 videophone(over IP), Color facsimile
- 2001- ADSL, LAN router(IPv6 native/tunnel mode), PBX(VoIP:IP-QSIG), SIP(VoIP), Internet-FAX
- 2002- ADSL(CPE), LAN router(ospf, Ppoe), SIP(VoIP), H.323+, IP-PBX(VoIP:IP-QSIG+), Internet-FAX
- 2003- ADSL, LAN router(VRRP), sYCC colour FAX, H.323, SIP PBX(IP-QSIG)
- 2004- LAN router (Internet VPN: IPsec-IKE), PBX-SIP, H.323, SIP
- 2005- PBX-SIP, IP-FAX, SIP, MPEG4
- 2006- PBX-SIP, IP-FAX, SIP, MPEG4, H.264



Conclusion (?)