Broadcasting and Telecom Convergence in Korea

- Some Issues and Problems to be solved -

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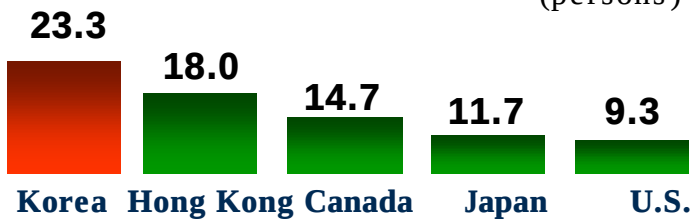
1. Korean ICT Industry Overview

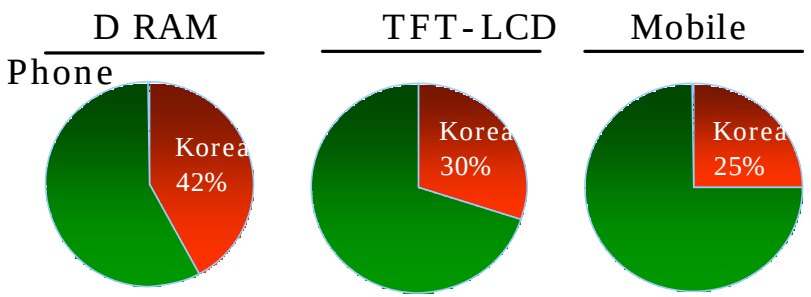
ICT Business has been leading the Korean Economy since mid 1990's

Broadband in Korea

■ No. 1 Propagation in the world : 23.3 / 100 (persons)

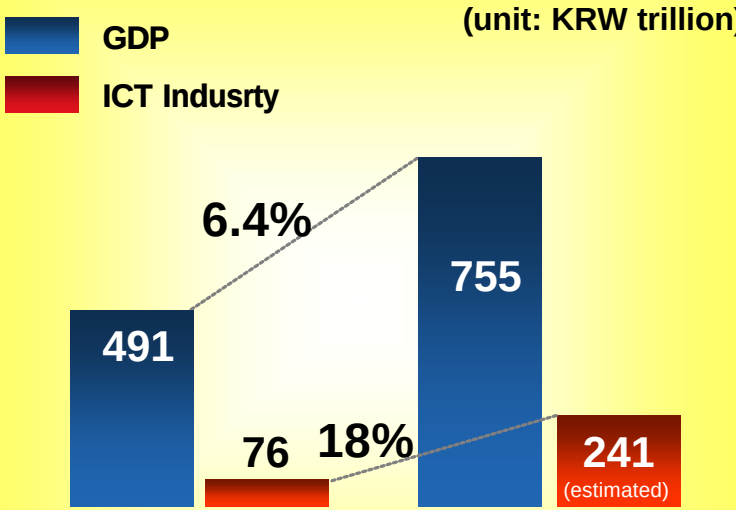


Major global products



Annual Growth Rate of Korean ICT Biz. : 18%

(1997~2004)

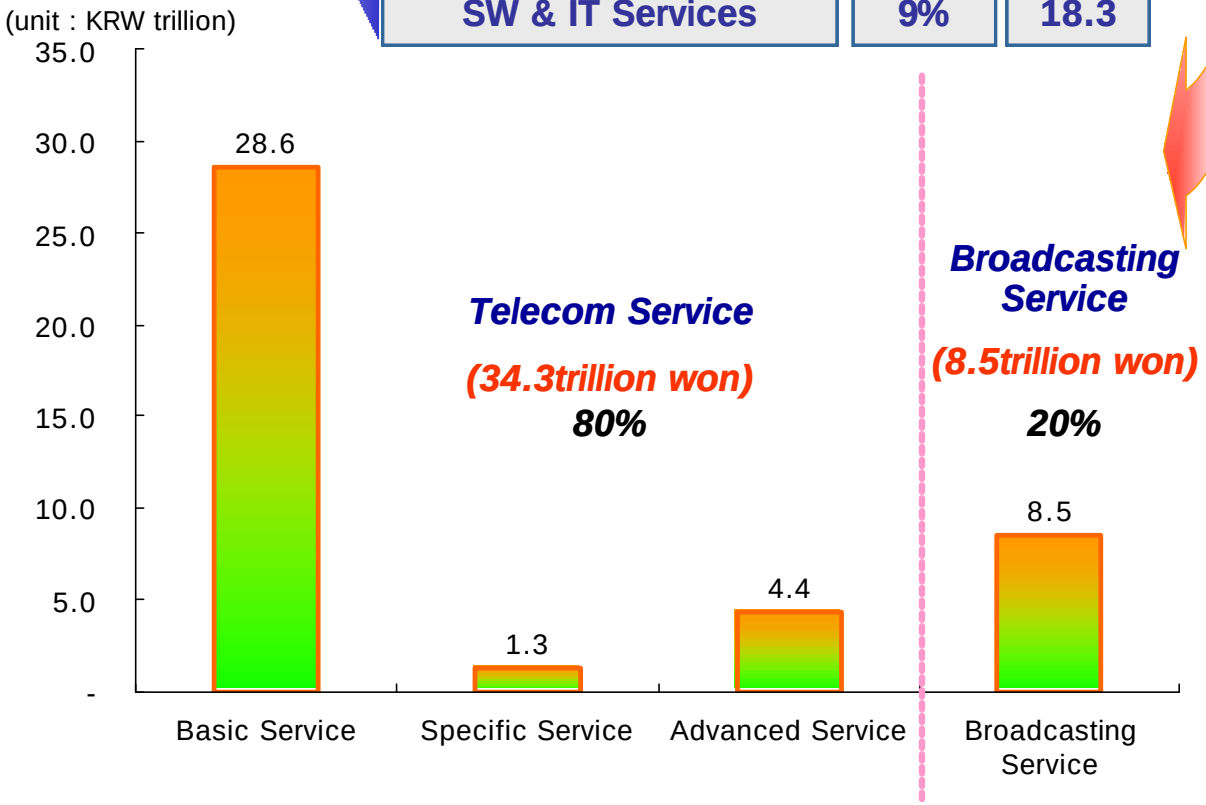


1. Korean ICT Industry Overview (cont'd)

< Production of the Korean ICT Industry in 2003>

(unit : KRW trillion)

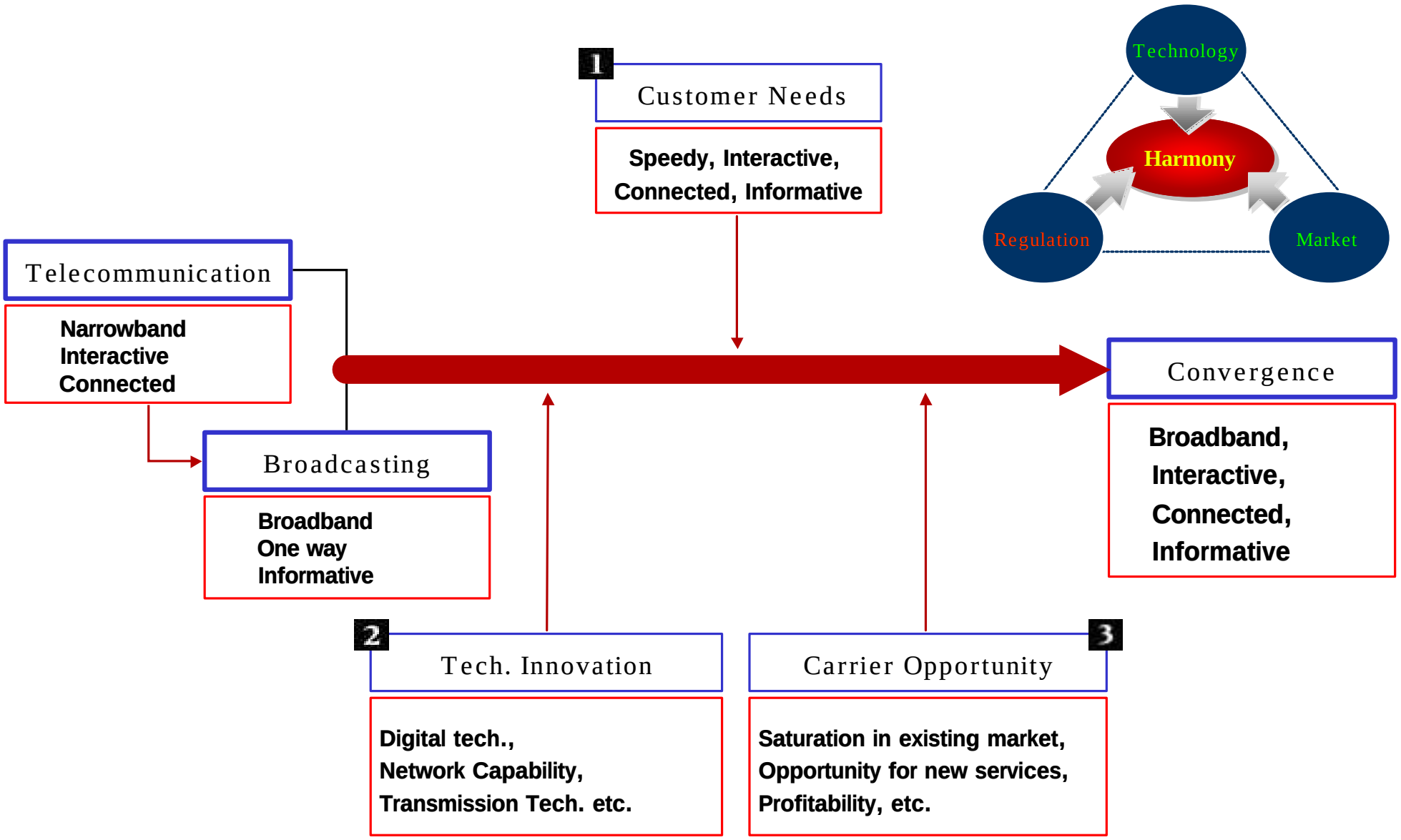
204.7 (trill. KRW)			
	ICT Services	21%	42.8
	ICT equipments	70%	143.6
	SW & IT Services	9%	18.3



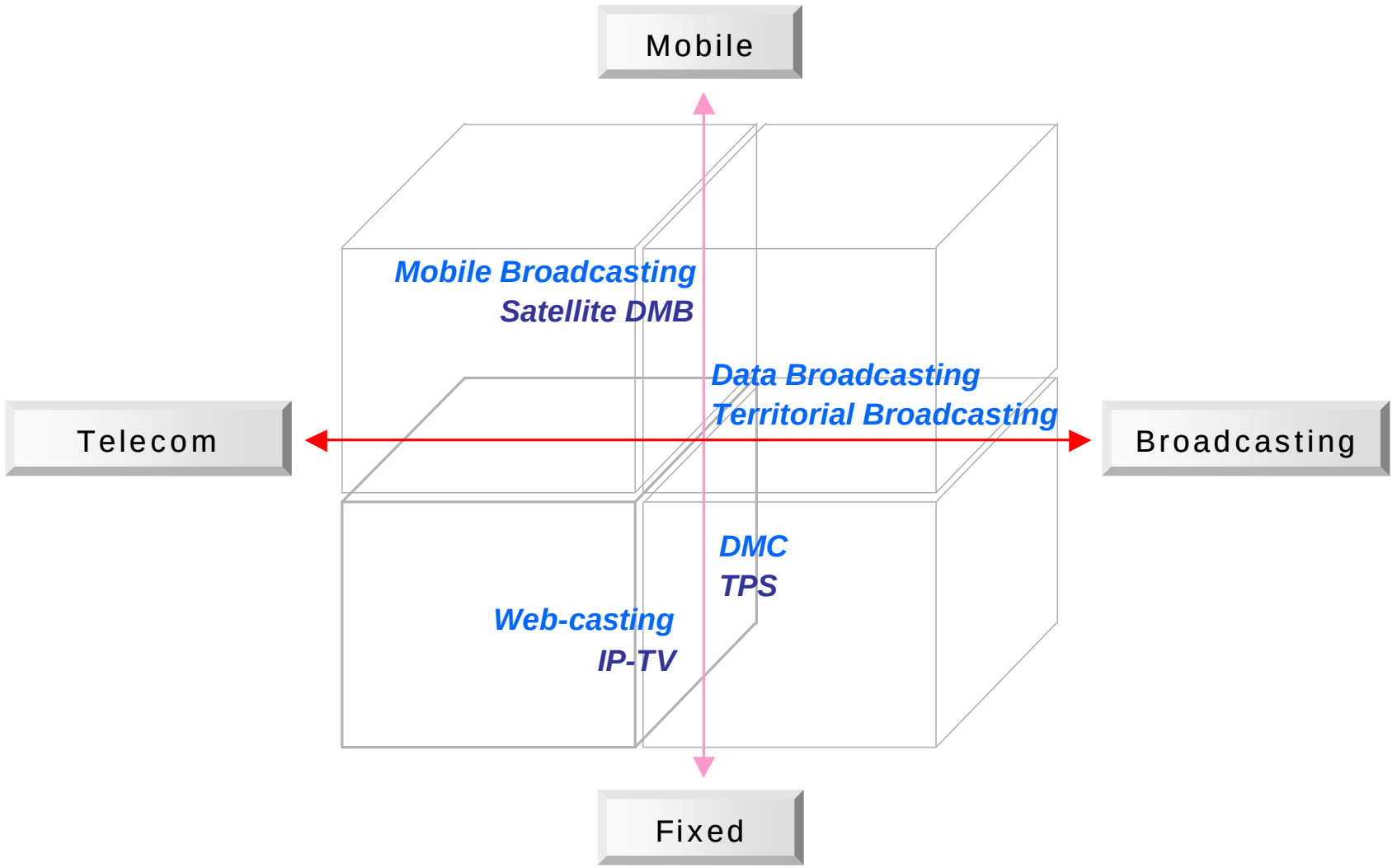
- **GDP of ICT Industry in 2003 was valued at 204.7 trillion won**
- **GDP of Telecom and Broadcasting Service was 42.8 trillion won**
  - **Telecom Service: 34.3 trillion won, 80% of the Service market**
  - **Broadcasting Service: 8.5 trillion won, 20% of the Service market**
- **Broadcasting Service market only occupies ¼ (a quarter) of the whole Telecom Broadcasting market**

*** 1 USD = 1010.5 WON**

2. Why Convergence?



3. Current Status and Prospects



3. Current Status and Prospects

Status of Telecommunication and Broadcasting Convergence

Network level : By broadened telecomm. network and digitalized broadcasting

- **Casting services by telecomm. networks : Web-casting, Mobile TV, DMB, IP-TV, etc.**
- **Comm. Services by broadcasting networks : high speed Internet by Cable modem, etc.**

Service level : By digitalization of contents

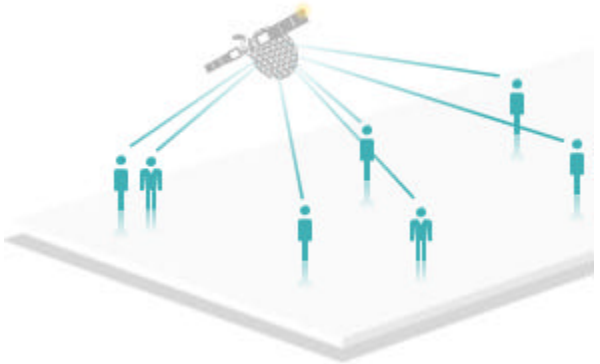
- **Web-casting, VOD, Mobile TV, DMB, Data Broadcasting, Triple Play Service, etc.**
- **Delay of converged services deployment due to sectional disputes over their jurisdiction**

Service Provider level

service	Telecomm. area	Broadcasting area
DMC	▪ Hanaro Telecom ▪ Dacom acquired Powercom and starts BSI DMS business	▪ KDMC : Expanded its service available to major cities over the nation ▪ CJ CableNet, BSI : Seoul/Gyeonggi Province
IP-TV	▪ High-speed internet providers like KT, Hanaro Telecom lead the way	▪ PC-Vision from Powercom ▪ CATV carrier
Web-casting/ Data Broadcasting	▪ VOD service provided by high-speed internet service providers ▪ Hanaro Telecom acquired the license of Data Broadcasting	▪ Service provided by terrestrial broadcasting networks ▪ Skytocuh from KDB (Data broadcasting)
VOD/ Mobile TV	▪ VOD service provided by high-speed internet service providers ▪ June from SKT, Fimm from KTF	▪ Failure in special broadcasting service provider establishment
DMB	▪ SKT starts satellite DMB business	▪ Terrestrial broadcasting network's DMB business participation

* DMC : Digital Media Center * KDB : Korea Digital Satellite Broadcasting Corp. * DMB : Digital Multimedia Broadcasting

Satellite DMB



- Transmitter: Satellite; Receiver: Mobile Terminal
- Service Provider: TU Media Corp. (2004.12.)
- Time Plan for Service

	Trial	Demonstration	Regular SVC
Schedule	’05.1.10~3.31	’05.4.1~4.30	’05.5.1~
Tariff	free	free	pay
Channel	9 Channel(Video3/Audio 6)	36 Channel (Video 14/Audio 22)	

- Tariff

	Tariff
Subscribtion fee	20,000won
Basic Package	13,000won
Premium Package	Additional pay

*** 1 USD = 1010.5 WON**

Terminal (Car)

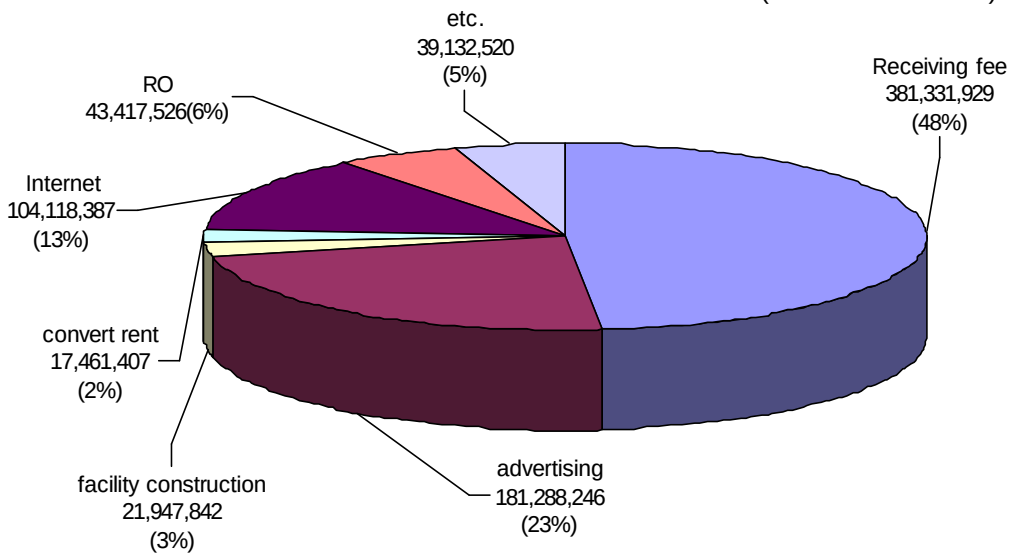
Terminal (Handheld)

Triple Play Service(1)

- TPS is being jointly provided by CATV Carrier (System Operator :SO) and Telecomm. operator
  - **Currently, 99 SOs among total 119 SOs are providing Broadband Internet Services.**
  - **Internet service portion among total revenue of SOs has been increased from 13% in 2002 to 16% in 2003.**

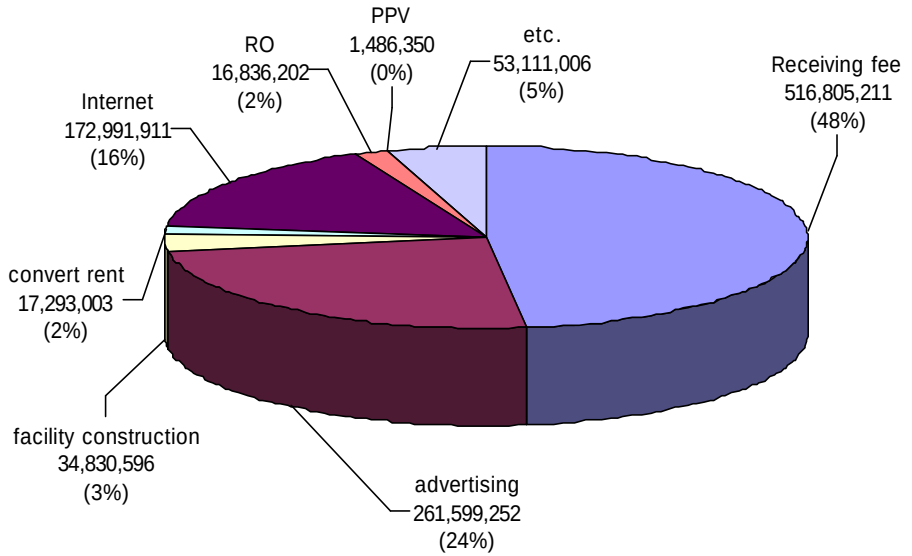
Revenue Structure of System Operator (in 2002)

(unit: KRW thousand)



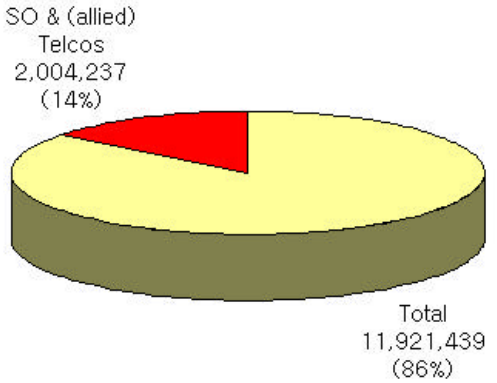
Revenue Structure of System Operator (in 2003)

(unit: KRW thousand)



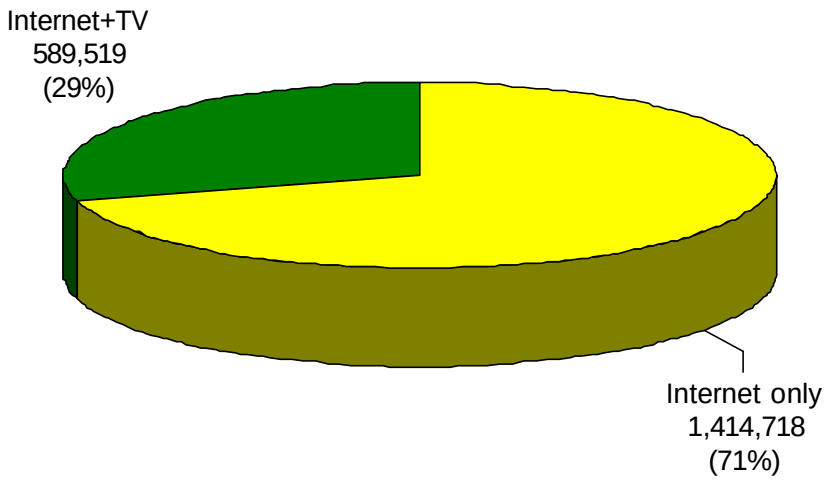
Triple Play Service(2)

- **29% of total SO internet service subscribers subscribed to joint service of Broadcasting + Internet**
- **38% of SO Internet service subscribers are using Internet services of their allied Telcos.**
  - **Allied Telcos with SOs for Internet services : Hanaro Telecom, Thrunet, Dreamline**



Subscribers of Internet Service provided by SO

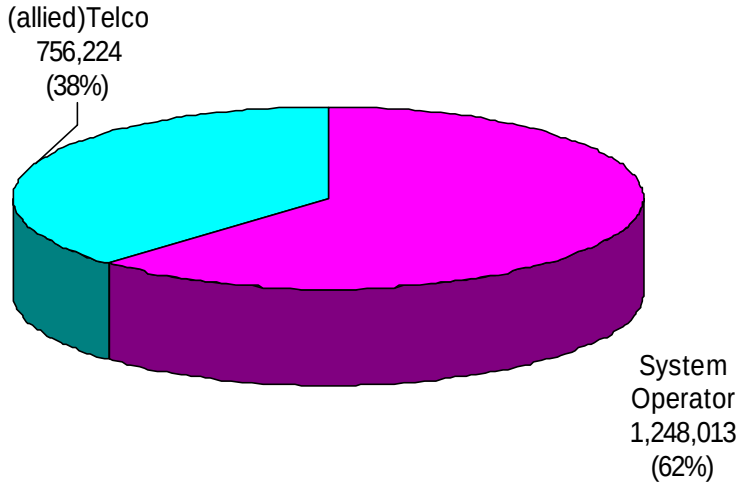
(unit : subscriber)



In Year 2004

Subscriber of Internet Service provided by Carrier

(unit : subscriber)

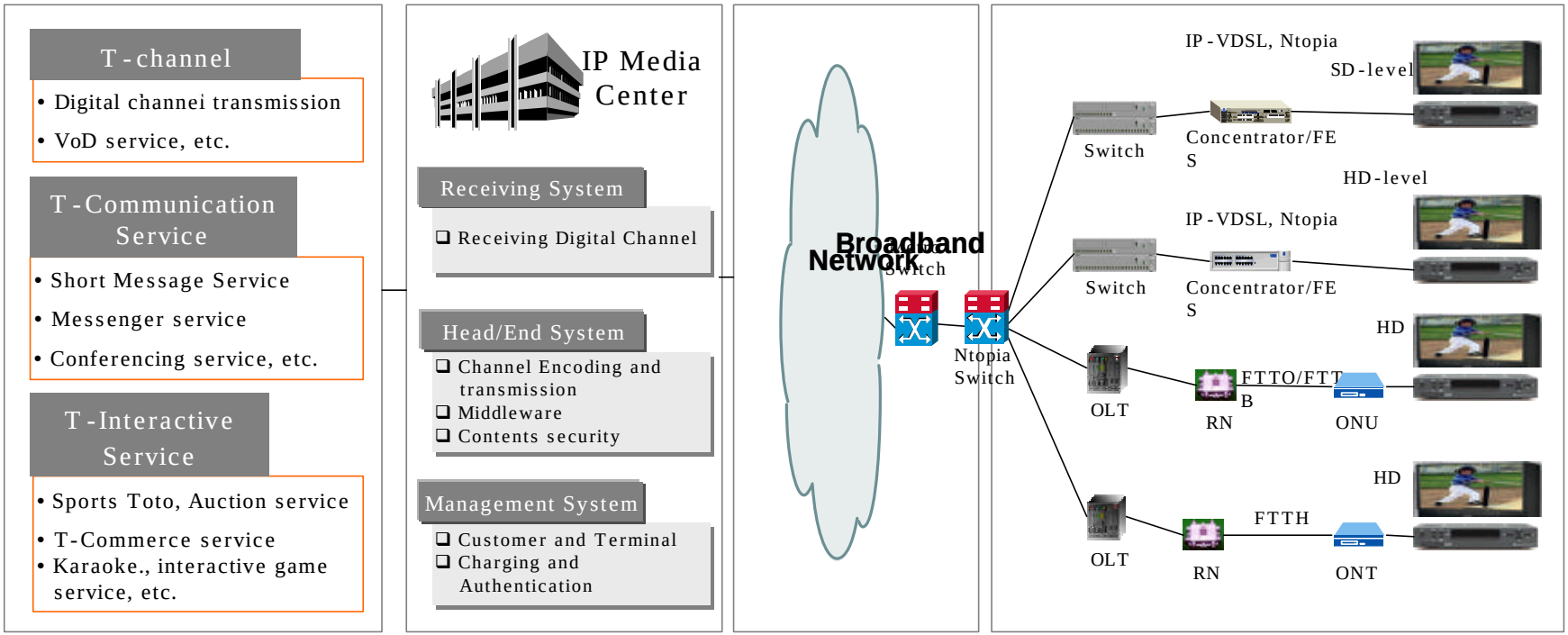


In Year 2004

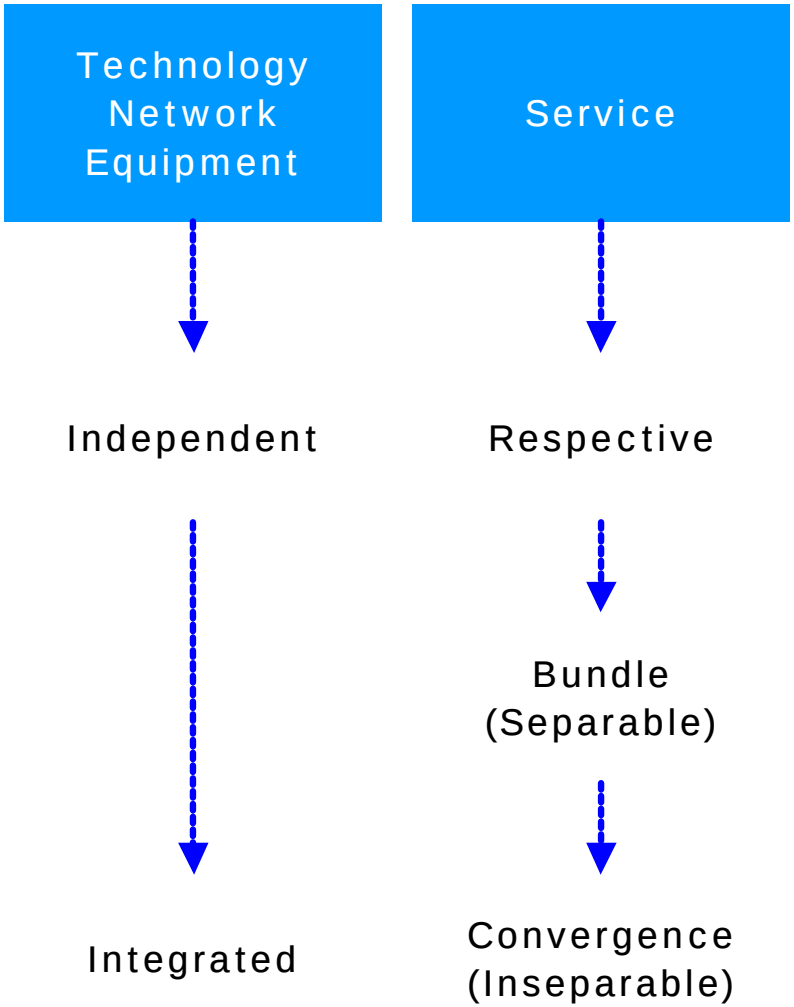
3. Current Status and Prospects

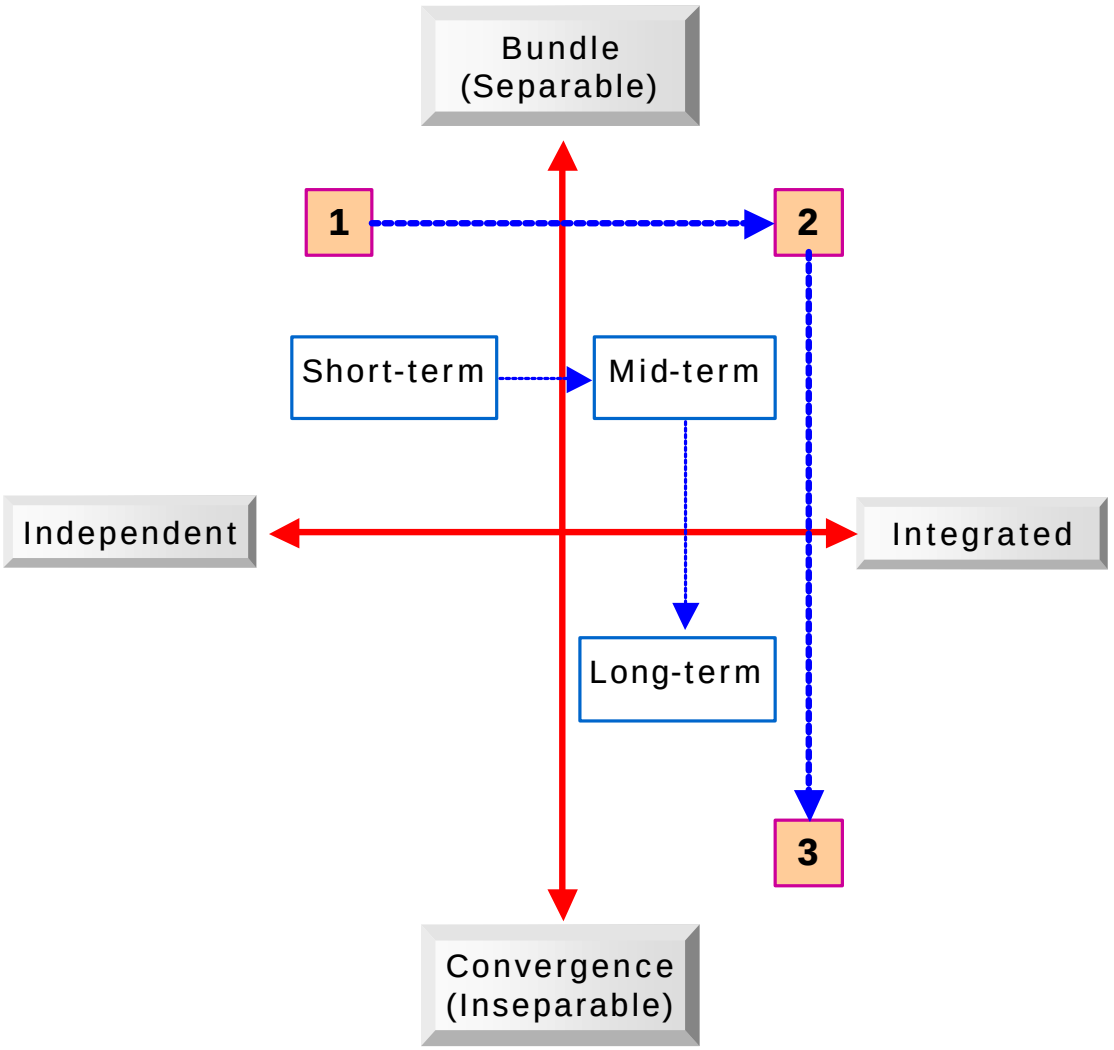
IP-TV

- **IP-TV service is being carried out by KT, SK Telecom/Hanaro Telecom, and Dacom as one of the BcN(Broadband Convergence Network) projects**
- **It aims to provide not only simple Internet access but also various up-to-date services such as HD motion picture service, flexible time broadcasting, VoD, interactive education service by connecting IP Networks and TV sets using a set top box**
- **Sectional disputes over the jurisdiction on IP-TV service are still going on.**



3. Current Status and Prospects





Telecomm. and Broadcasting Convergence : Transition from the 1st wave to the 2nd wave

	1st wave (Short-term)	2nd wave (Mid-term)	3rd wave (Long-term)
Convergence Level	Service Level Convergence	Terminal Level Convergence Platform / Network Integration	Contents Level Convergence (multi network, multi-services)
Service Characteristics	Simple service coupling	One-stop, seamless service convergence	Complete service convergence of Telecomm. and Broadcasting
Competition Type	Competition in a specific Biz., Strategic Alliance, Vertical Integration	Competition in consortium, business sector Horizontal Integration	Monopolized market, Redefined role-sharing in a big market
Regulatory Characteristics	Regulation on vertical integration and transition towards monopoly, etc.	Regulation on horizontal integration such as M&A, Dispute over jurisdiction on converged services, etc.	Comprehensive, integrated, and weakened regulation

4. Regulatory Systems of Telecomm. and Broadcasting

		Telecommunication		Broadcasting	
Objective		Efficient management of telecomm. services and markets		Responsibility for the public interest of broadcasting	
Object of Regulation		Telecomm. Operators (equipment + service provision)		Broadcasters who plan broadcasting program comprehensively, or partly for some specific broadcasting areas	
AGENCY	POLICY	MIC (Ministry of Information and Communication)	Telecommunications policy - making	MoCT	Broadcasting Policy - making and promotion
				Broadcasting Commission	Basic broadcasting plan, Operation of channels and programs
				MIC	Policy on technology, equipment,frequency
	REGULATION	Communications Commission	Regulation of pre/post unfair transactions	Broadcasting Commission	Regulation of operators, contents, financial aspects
		Infocommunication Moral Committee	Regulation of contents	Pictures Grading Commission	Regulation of picture contents
		Fair Trade Commission	Regulation of unfair transactions and actions of operators (e.g. M&A)		

4. Regulatory Systems of Telecomm. and Broadcasting

	Telecommunication	Broadcasting
Classification of Services	Wired vs. wireless, voice vs. data No clear criteria for converged services	By transmission network: Terrestrial Broadcasting, CATV, Satellite Broadcasting No clear criteria for other broadcasting services except those mentioned above
Regulatory Systems	common carrier : Licensing special category telecommunications operator : Registration value added common carrier : Application	Terrestrial Broadcasting : Licensing CATV service : Licensing Satellite Broadcasting : Licensing Broadcasting Channel use : Registration Relayed CATV service : Licensing Transmission Network service : Registration
Business Area	Involvement in another categorized business is permitted	Involvement in another categorized business is not permitted

5. Major Issues and Problems

1

Satellite DMB / Terrestrial DMB

Issues

- Disputes over Domain/body of regulation : Telecomm? or Broadcasting??
- Interpretation of the definition of a broadcasting operator : Addition of "Mobile multimedia broadcasting" (Revised Broadcasting Act., 2004. 3.)
- Retransmission of terrestrial broadcasting contents: permitted on a negotiation basis between operators
- Reallocation of radio frequency resources regionally
- Cross business between Telecomm. and Broadcasting sector

Problems

- Lack of an efficient and harmonized regulatory system is blocking the successful deployment of new DMB service on time. (Time-to-Market)
- Delay of the service deployment results in inefficiencies in terms of return on investment, securing global market share, and additional investments, etc.

  e.g. TU Media: paying 1.6 bil. KRW/month of satellite operation cost (Satellite life = 12years)

5. Major Issues and Problems

IP-TV

'01.03	'04. 03.	'04.08	'04. 09.	'04. 12.	'05. 01-02	'05. 02.
IP-TV Planning in BcN project	Revision of Broadcasting Act	1st stage of BcN project CATV operators failed to entering into the BCN Demo. project	Broadcasting Commission: announced the illegality of IP-TV According to the Current Telecomm. Act	Telecomm. Operators requested a permission to provide IT-TV svc. <-> BC & CATV operators	Review of IP-TV Business in prime Minister's office	MIC renamed iP-TV as ICOD (Internet Contents on Demand) with restricted scope of the service

Issues

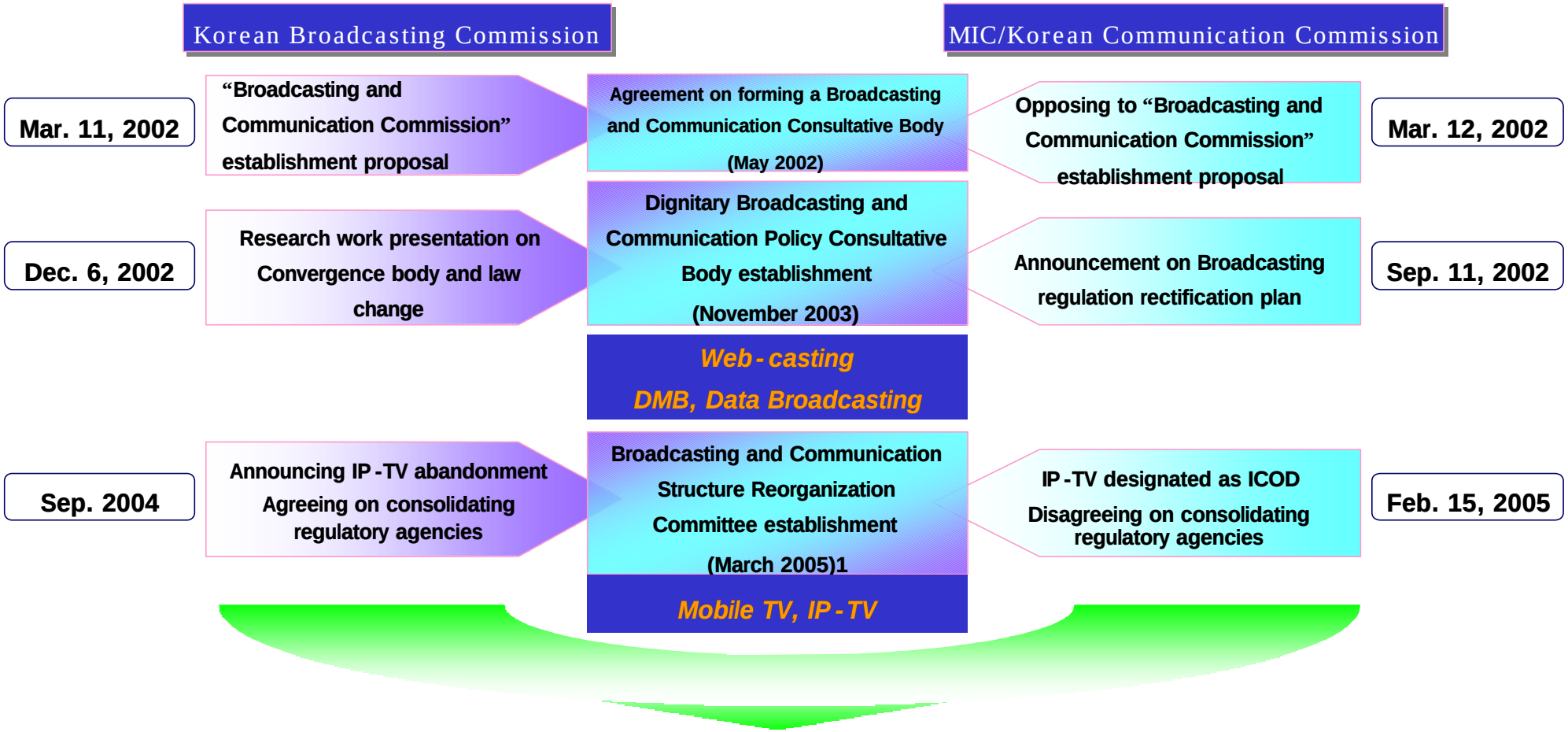
- **Rev. Broadcasting Act (2004. 3) is not sufficient to provide any ground for the IP-TV service (from the end of 2004)**
  - **BA. Art.2 Cl.1 : Broadcasting – TV, Radio, Data, and MMB(mobile multimedia broadcasting)**
  - **BA. Art.2 Cl. 3&4 : Broadcasting operators – Terrestrial, CATV, Satellite, and Broadcasting channel operator**
- **Telecomm. Act: no ground for IP-TV service, (illegal according to BA.)**
- **Retransmission of terrestrial TV program through IP-TV: forbidden?, or just a kind of contents??**

Problems

- **Rigidity of regulation → service delay → Time-to-Market, ROI, Market and new investment,...**
- **Consumer's right to use any new, convenient service ??**

*** Recent movement to revise the BA. : to add new kind of broadcasting operators... (←→ MIC)**

2 Conflicts and Discords between Regulatory Agencies



What would be the appropriate regulatory system for current Korean situation?

6. Things to be Considered

- Difference in regulatory philosophy, lack of rules and regulations, or overlapped regulation etc. in newly converged area may hinder industrial development and decrease customer benefit
  - **Communication area: Encouraging active competition and promoting customer benefit**
  - **Broadcasting area: Relatively strict regulation to secure the public benefit**
- It is necessary to reform law and current regulatory system that impede revitalization of converged services already available from technical development.
  - **Negative effect of applying broadcasting regulation to Fimm, June, IP-TV, VOD**
- Establishing regulatory system which promotes consistent advancement of IT sector business such as IT839 Project while maintaining the independence of broadcasting business
  - **Establishing policy coordination mechanism to improve regulatory efficiency**
  - **Investigating the possibility of separate regulation on networks (including service) and contents respectively**


Thank you !
IT R&D Global Leader
ETRI

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Dr. Kishik PARK was educated at Seoul National University, in the Rep. of Korea, where he obtained a first class honours degree of B.A. in 1982 and M.A. in 1984 respectively. And he got Ph.D. Degree in the field of Telecommunications Policy in 1995. In 2004, he has got another Ph.D. Degree majoring in Internet QoS, Computer Science at Paichai University.

He joined ETRI (Electronics and Telecommunications Research Institute) in 1984, and he is currently working as a Vice President of IT Services Research Division. He has more than 20 year research experience in various divisions of ETRI including Info-Communications Technology Division, Telecommunication Systems Division, Information & Telecommunications Technology Division, and Protocol Engineering Center, etc.

He has been currently serving as the Chairman of SG3 of ITU-T after the 8 year Vice-Chairmanship of ITU TSAG (Telecommunications Standardization Advisory Group) since 1996 internationally as well as serving as a Advisory Board Member of ASTAP (Asia-pacific STAndardization Program) regionally.

Dr. Park has been also acting as a member of National R&D Evaluation committee, Vice-Chairman of Technical Assembly of Telecommunication Technology Association(TTA) of Korea, a Member of National Telecom. Standardization Committee of Korea, and the manager of W3C Korean Office. In addition, he has also actively carried out some important roles recently such as the Chairman of the 9th GSC (Global Standards collaboration) meeting, the President of IPv6 Forum Korea, the Chairman of the KRnet 2004 Operation Committee.