

电子产业的未来和韩中合作方案
Collaboration Opportunities between
Korean and Chinese Electronic Industry

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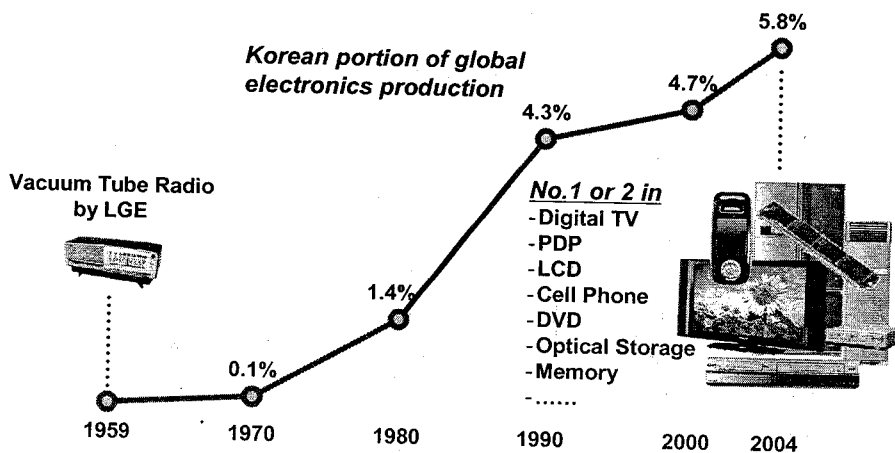


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Korean Electronics Industry



◆ Though the beginning was humble



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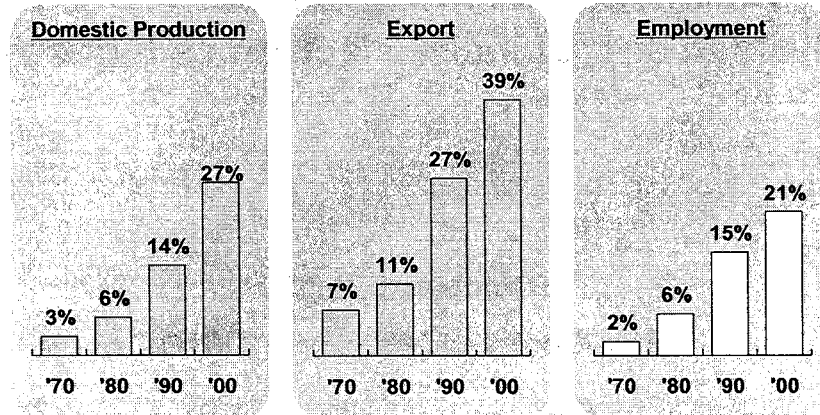
1

Korean Electronics Industry



◆ Has been the growth engine of Korean economy

Electronics portion of Korean economy in terms of



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Global Electronics Industry



◆ Greater China accounts for 22% of global production.

Country	2001		2002		2003		2004	
	\$B	%	\$B	%	\$B	%	\$B	%
USA	321	28.2	279	25.9	286	26.5	302	25.1
Japan	189	16.7	162	15.1	170	15.7	180	14.9
China	95	8.3	120	11.2	147	10.1	177	14.7
Korea	54	4.7	60	5.6	64	5.5	70	5.8
Germany	49	4.3	47	4.3	46	4.1	47	3.9
UK	46	4.0	39	3.6	38	3.9	38	3.2
Singapore	35	3.1	36	3.4	36	3.3	38	3.2
Malaysia	40	3.5	38	3.5	40	3.2	44	3.6
Taiwan	39	3.4	39	3.6	40	4.0	43	3.6
France	31	2.7	29	2.7	28	2.6	28	2.4

(The Yearbook of World Electronics Data, 2005)

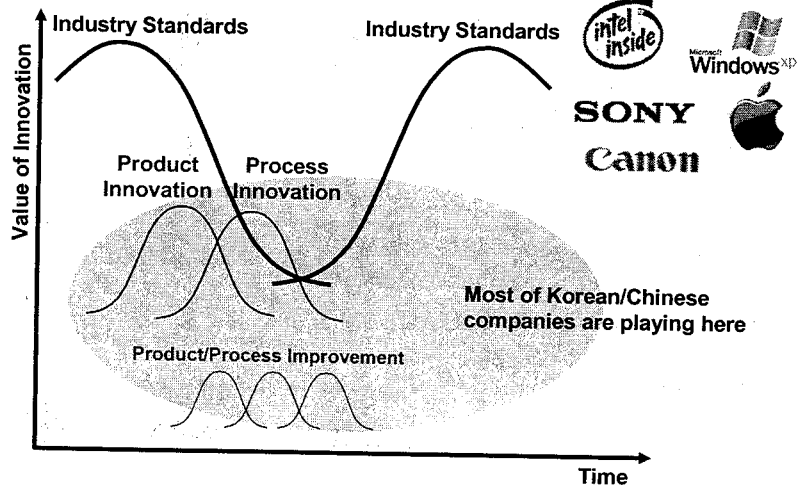
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The Other Side of the Glory



◆ Poor track record in creating industry standards



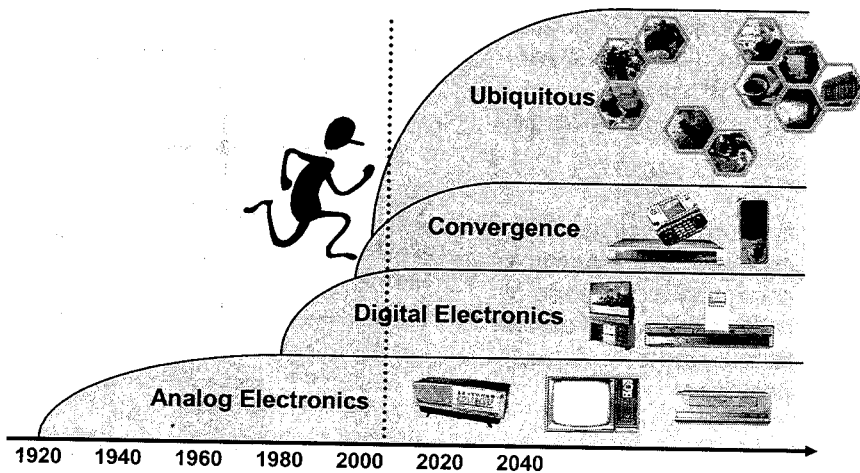
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4

Future of the Electronics Industry



◆ More dramatic changes are yet to come.



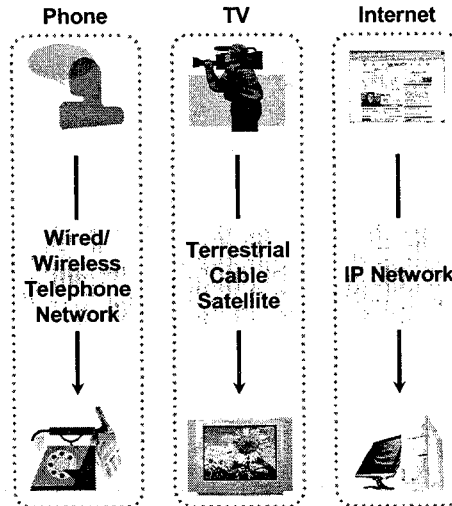
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5

Digital Convergence



- ◆ Digitalized information can be stored into any media, transferred by any network, retrieved/played by any device.
- ◆ Expanded scope of competition requires a company to be good at utilizing external assets to become a "solution" provider.



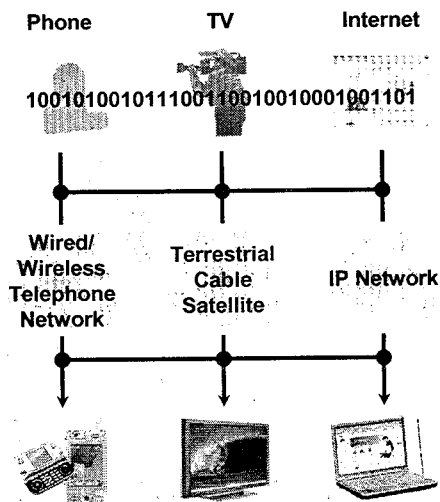
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6

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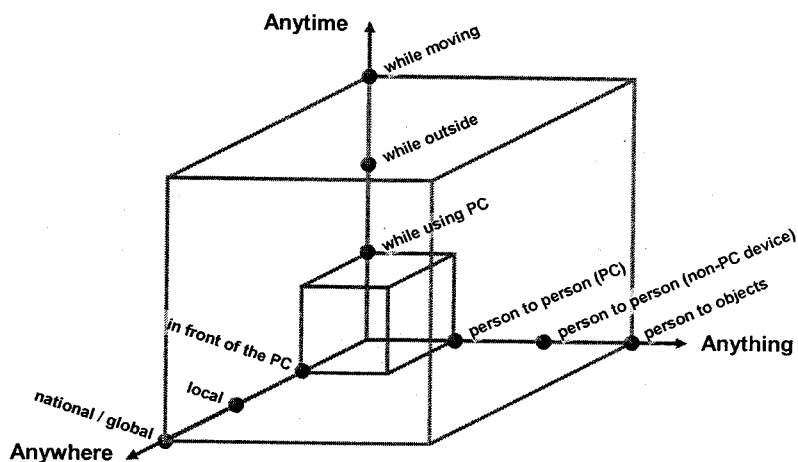
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Ubiquitous Environment



- ◆ The ultimate vision of the information society
- ◆ Dramatic expansion of experience / interaction space



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Enabling Technology



Broadband/Seamless Network



People use the network, but don't recognize it.

Smart Embedded Device



*Object declares what it is.
has relevant shape and size.
has sensing, processing, I/O functions.
understands the context.*

Positioning/Tracking Technology



*Knows where you were, where you are,
where you are heading to.*

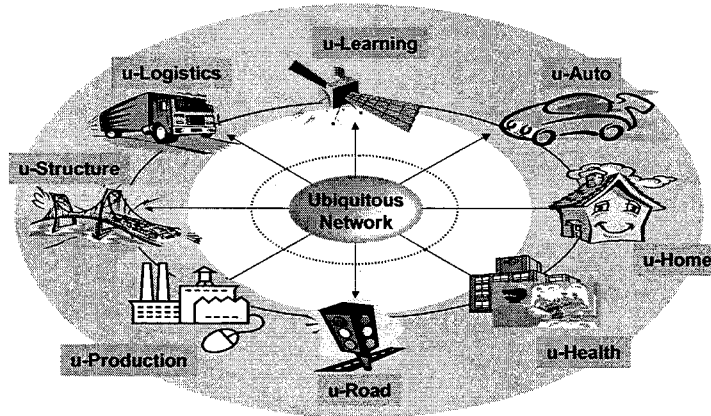
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Ubiquitous Service



- ◆ Imagine and realize it !
- ◆ Unlimited opportunities for new products and services



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10

Are We Ready?



- ◆ Collaborative R&D is needed to catch-up

Nano Technology Patents ('05)	
IBM	168
U. of California	117
Kodak	107
US Navy	107
Micron	83
HP	80
.....	

2WEAR

A runtime for adaptive and extensible wireless wearables

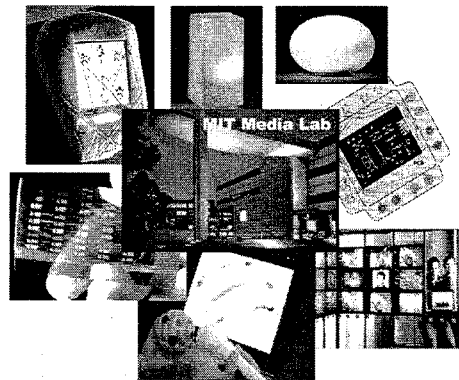
IST-2000-25288

the disappearing **COMPUTER**

US 5,935,517

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WORKSPACE



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11

Implications

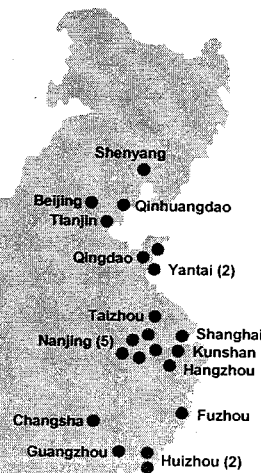


- ◆ Korea and China are required to upgrade their electronics industry structure.
- ◆ One should be a solution provider aiming at end-customers, rather than a separate product/service provider. Convergence and ubiquitous are dual-sided swords offering opportunities and threats.
- ◆ Allowing the ubiquitous initiative to other countries may spoil one's unique lingual/cultural heritage because it's a life environment, not just a tool.
- ◆ Some countries seem to be ahead of us. Close collaboration is needed to catch-up.

LGE in China



- ◆ 23 operations in 15 cities* (including 2 R&D centers)
- ◆ Number of local employees : 14,000
- ◆ Cumulative investment : \$2.6B
- ◆ Sales : \$6B (\$4.1B Export)
- ◆ Collaborative R&D Programs
 - Chinese 3G standards (Beijing University of Post & Communications)
 - Next generation mobile communications (Peking, Tsinghua, Fudan, Sichuan, Xi'an Jiaotong University)



(* including LG Electronics and it's affiliate companies)

Similarities in Future Perspectives



◆ Electronics is the core of both countries' growth strategy

10 Growth Engines of Korea

- Semiconductor
- Display
- Intelligent Robot
- Automobile
- Battery
- Digital TV/Broadcasting
- Mobile Communications
- Home Network
- Contents, S/W
- Biomedicine/organs

(Korean Government, 2003)

National Core Technologies of China

- Info Security
- High Performance Computing
- System on Chip
- High Performance Metal Structure/Material
- Disease Diagnosis
- Integrated Information Network System
- Bio-Environmental Technology
- Biomedicine/Materials
- Software
- Quality/Safety Control of Bio Product
- Mobile Communications
- Eco-friendly Material
- Microelectronics
- Composite Materials
- Nano-Technology/Material
- Digital Multimedia Broadcasting
- Energy
- Genetic Engineering

(China National Research Institute for S&T for Development, 2003)

Suggestions for collaboration



◆ Competence-based, future-oriented co-opetition

- Constructive competition driven by value creation, not cost
- Working together in setting next generation technology standards

◆ Expand collaboration areas/channels

- Manufacturing partnership → R&D partnership
- Joint R&D programs
- People/information exchange among S&T clusters
- International internship programs

