

Asia's No.1 Gateway



Building a New Smart City in Asia:

Songdo International City in Incheon, S. Korea

14th April 2011

Kwon Hyung LEE



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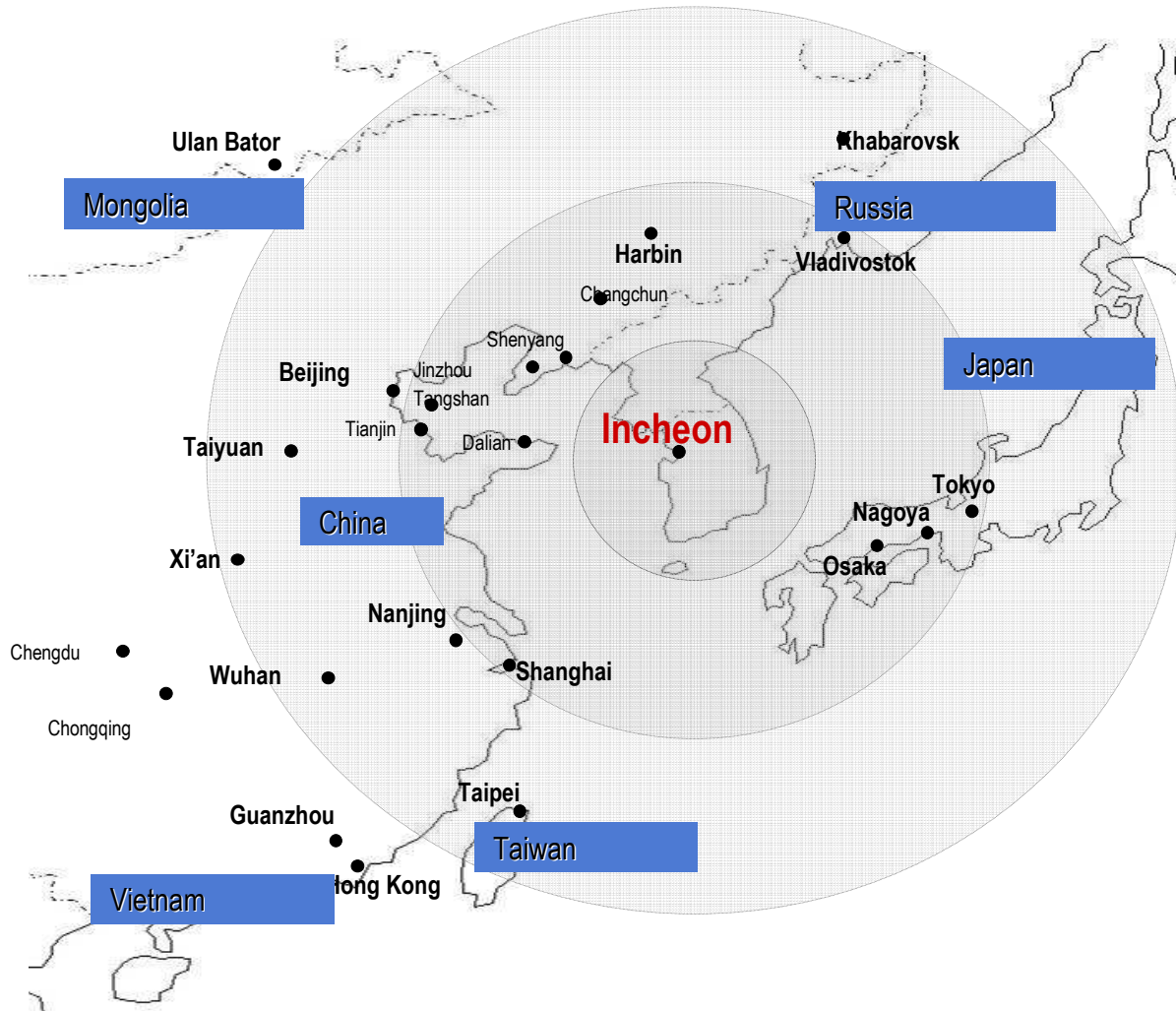


I. Introduction: Incheon & IFEZ

From Incheon to Magdeburg



Competitive Location



Located in the center of Northeast Asia
- one of the **3 largest trade blocks**
- **24% of global GDP**
- **1.5 billion** of population
(1/3 of world's population)

Connected
- to **61 cities** each with over **1 million population**
- within **3.5 hours' flight**.

Inclusive of
- **25 million domestic consumers**
in the vicinity of IFEZ

Competitive Location



Competitive Location



Population Size & GRDP by Region

		Population(2008)		GRDP(2008)	
		Thousand	%	Bil. USD	%
Capital Region	Incheon	2,692.7	5.4	35.3	4.6
	Seoul	10,200.8	20.6	187.0	24.3
	Gyeonggi-Do	11,292.3	22.8	148.9	19.4
	Sub-total	24,185.8	48.8	371.3	48.3
Metro-politan City (Non-capital region)	Busan	3,564.6	7.2	43.0	5.6
	Daegu	2,492.7	5.0	25.0	3.3
	Gwangju	1,422.7	2.9	16.7	2.2
	Daejeon	1,480.9	3.0	17.8	2.3
	Ulsan	1,112.4	2.2	33.7	4.4
	Sub-total	10,073.3	20.3	136.1	17.7
Others(Non-capital region)		15,281.3	30.8	260.7	33.9
Total		49,540.4	100.0	768.1	100.0

Incheon Free Economic Zone(IFEZ)



Cheongna

Total Area : 18km²

**Int'l finances, Leisure,
Automobiles, Robot**



Yeongjong

Total Area : 138km²

**Logistics, Tour,
Leisure**

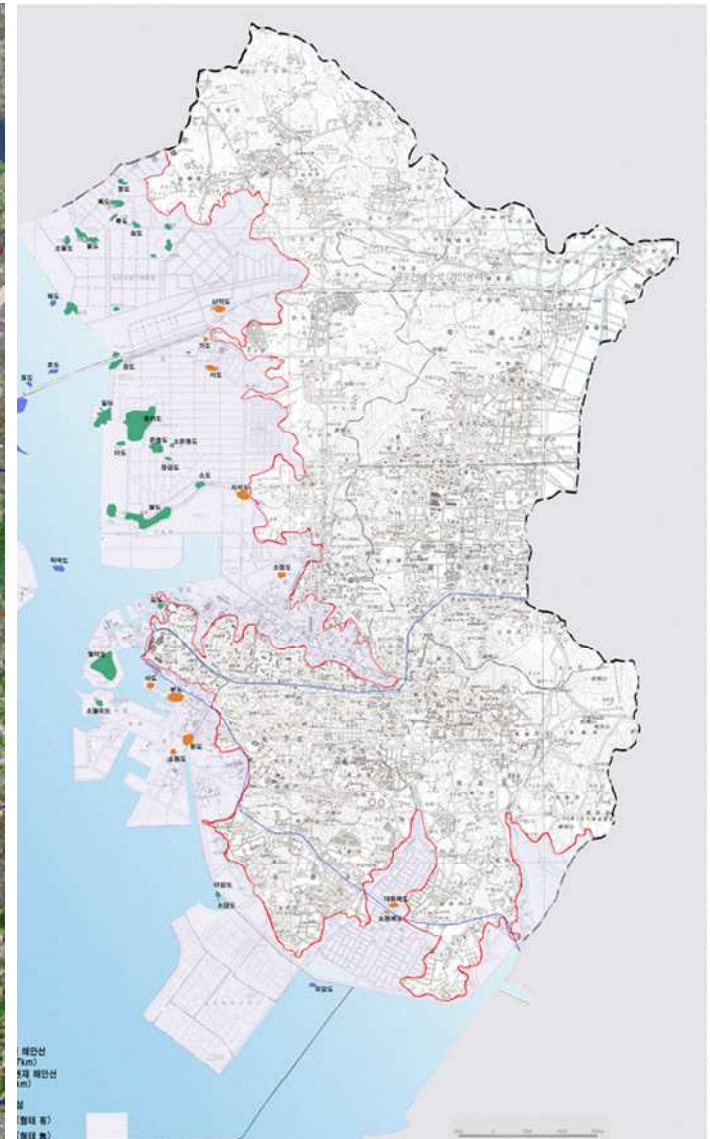
Songdo

Total Area : 53km²

**Int'l Business,
IT, BT, Logistics**



The Land Reclaimed in Incheon



Songdo: construction completed



Songdo: under construction



Superior Infrastructure

World-best Incheon Int'l Airport

- Airport Service level : World's best
- Cargo Volume: World's 2nd (2008: 2.4 million tons)
- Passenger Traffic: World's 10th (2008: 30 million persons)
- 63 airlines connecting to 161 cities in 50 countries



Fast Growing Seaport

- Annual growth of over 20% from 2005 to 2007
- Incheon New Port by 2020 (30 container berths, 1.4km² hinterland)
- Occupation of 65% Cargo Volume to China

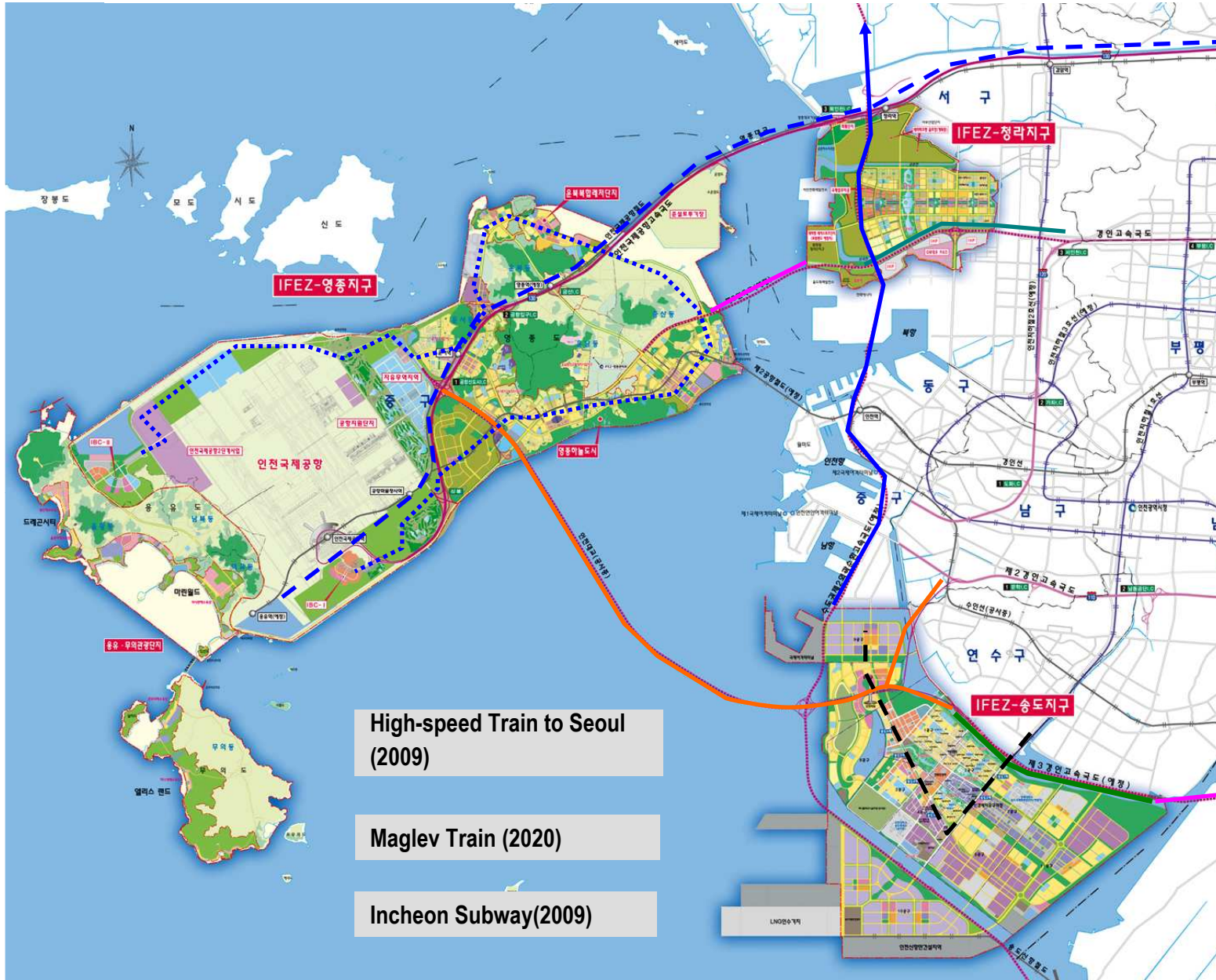


Inland Transportation

- Incheon Grand Bridge : World's fifth cable-stayed suspension bridge(12.3km)
- The 1,2,3 Seoul-Incheon Expressways, 2nd Seoul Outer Beltway
- Incheon Airport Express Railway, Incheon subway lines, YeongJong Magnetic Levitation Railway



Inland Transportation



Seoul Outer Highway (2012)

Highway to Seoul (2013)

C-Y Bridge (2014)

Incheon Bridge (2009)

Songdo Coastline Rd (2009)

Highway to Seoul (2010)

High-speed Train to Seoul (2009)

Maglev Train (2020)

Incheon Subway (2009)

IFEZ: Building a New City



Compact City

- Business, High-tech industry, Medical, Education, Culture & Art, Shopping, Tourism, Golf & Leisure



Intelligent City

- U-transit, U-environment protect, U-security, U-disaster prevention, U-information service will be available.



Green City

- Greenery & Waterfront accounts for 32% of total area
- ‘Green Urbanism’ pilot project for *LEED for Neighborhood Development* certification

* LEED(The Leadership in Energy and Environmental Design)
: Green Building Rating System, developed by the U.S. Green Building Council

IFEZ: Building 4 Hubs



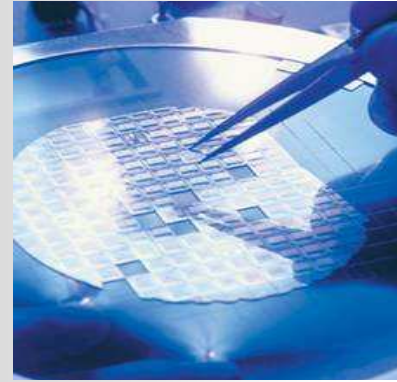
Business Hub

- Attracting headquarters operating production bases in China and North East Asia



Logistics Hub

- Sea & air multi-modal logistics with Incheon Int'l Airport & New Incheon Port



IT-BT Hub

- Offering high-standard ICT infrastructure and business base for corporations & R&D centers



Leisure & Tourism Hub

- World-class hotels and leisure facilities
- Eco-friendly tour spots

IFEZ: Making a Better Living Environment

International Schools



- World-class educational programs : Kindergarten to Grade 12 with advanced curriculums
- Features : Digital library, Pool, Gym, Auditorium, Music center, Sports ground etc.

International Hospital



- 300~500 beds general hospital
- Serving qualified medical services with the world's best facilities and staffs
- Special Act on International Hospitals

Housing



- Special housing sale for employees of foreign-invested enterprises
- Providing diversified housing types to induce people of creative class from all over the world

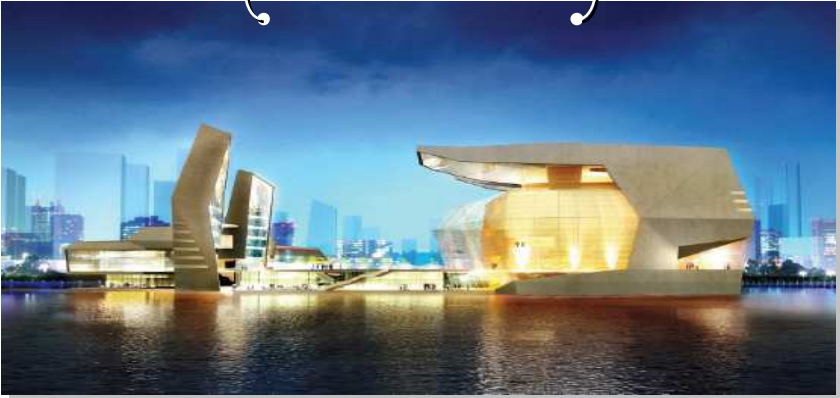
Leisure & Culture Facilities



- For upgraded quality of life, providing culture & leisure facilities
- IFEZ Arts center, prestigious golf courses, Museum and Design Hall in Milano Design City, Motor Speedway & Marina

IFEZ: Making a Better Living Environment

IFEZ Art Center



Central Park

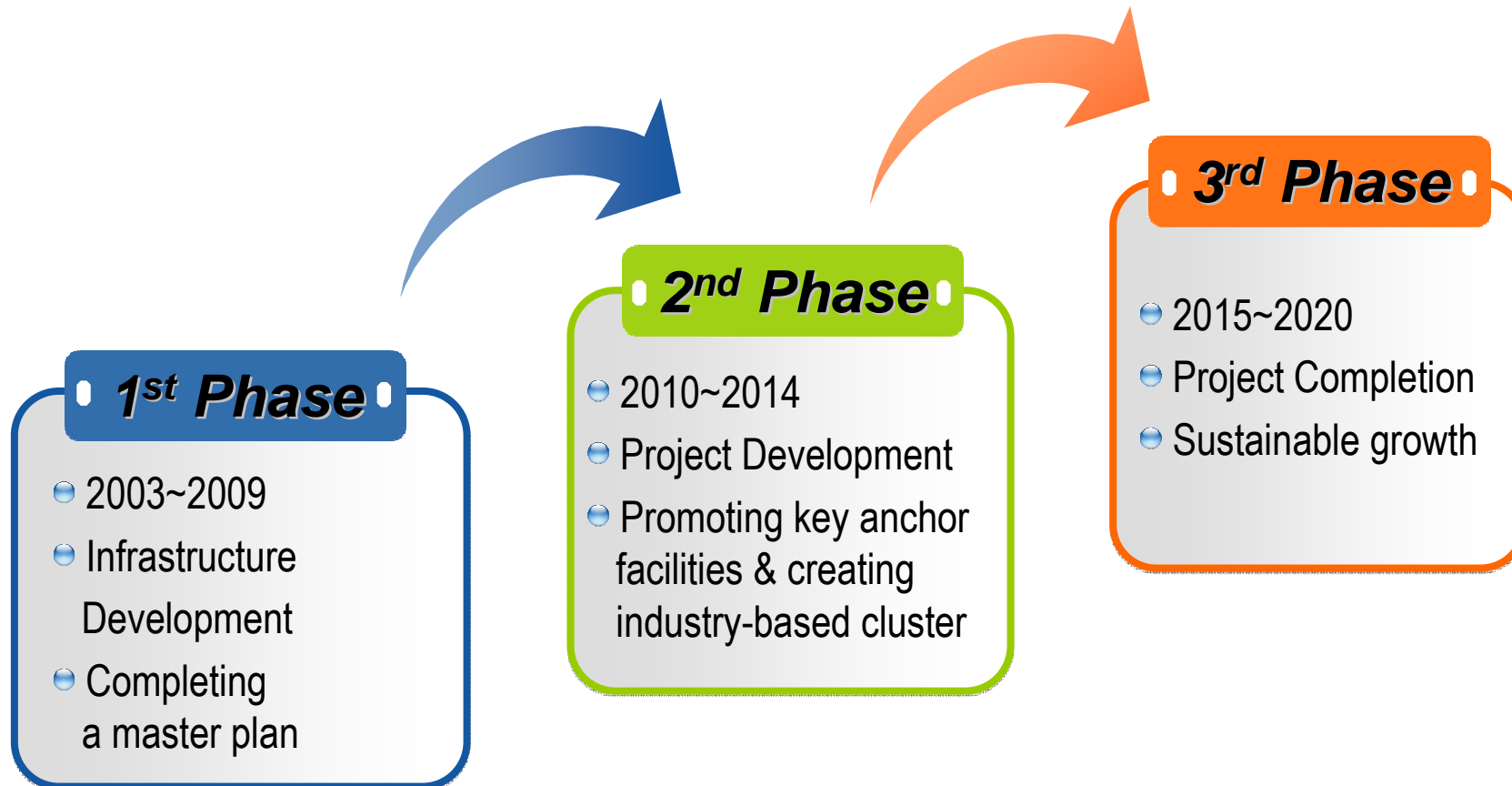


Canal Walk(Shopping Street)

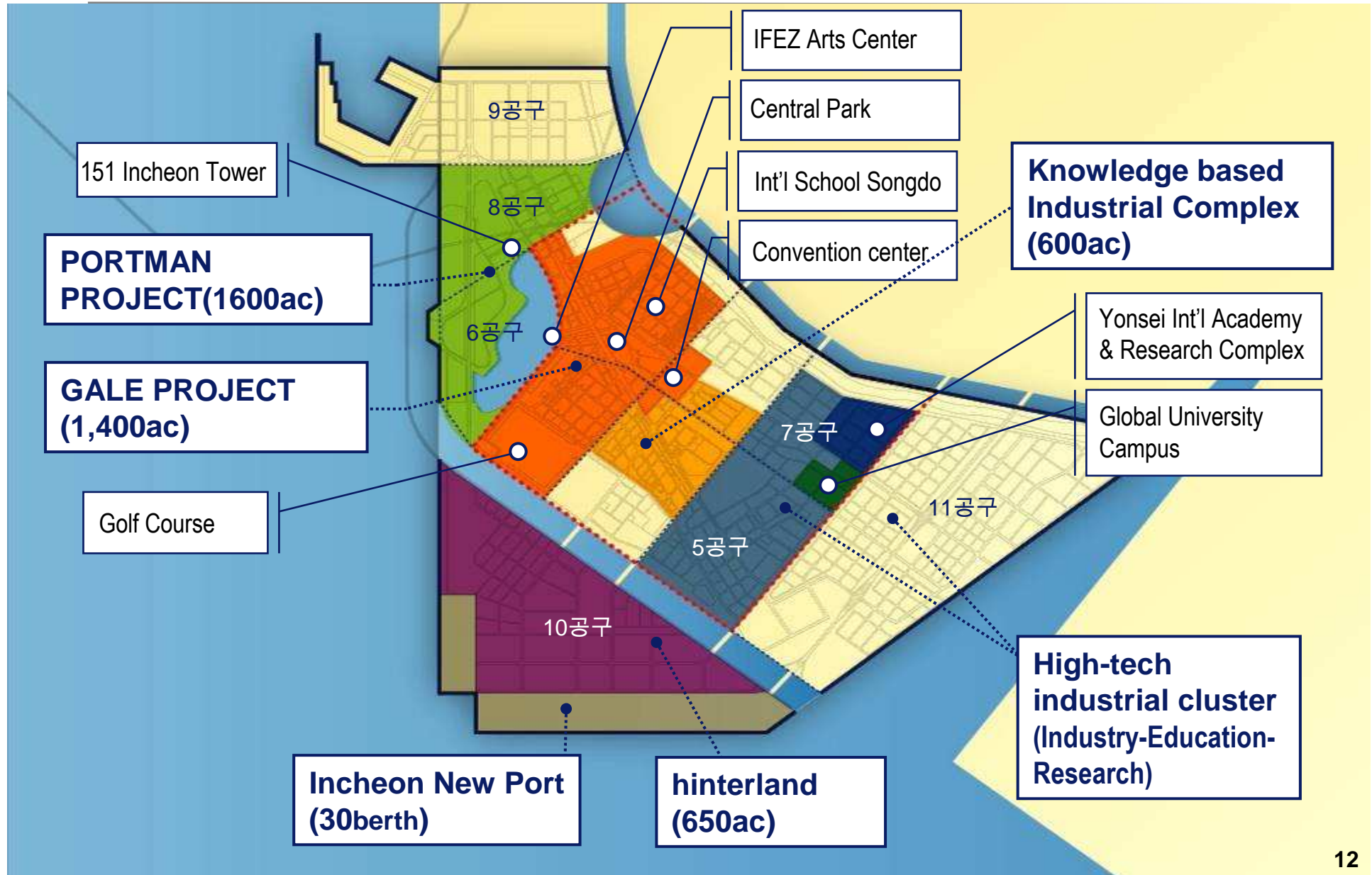


Jack Nicklaus Golf Club

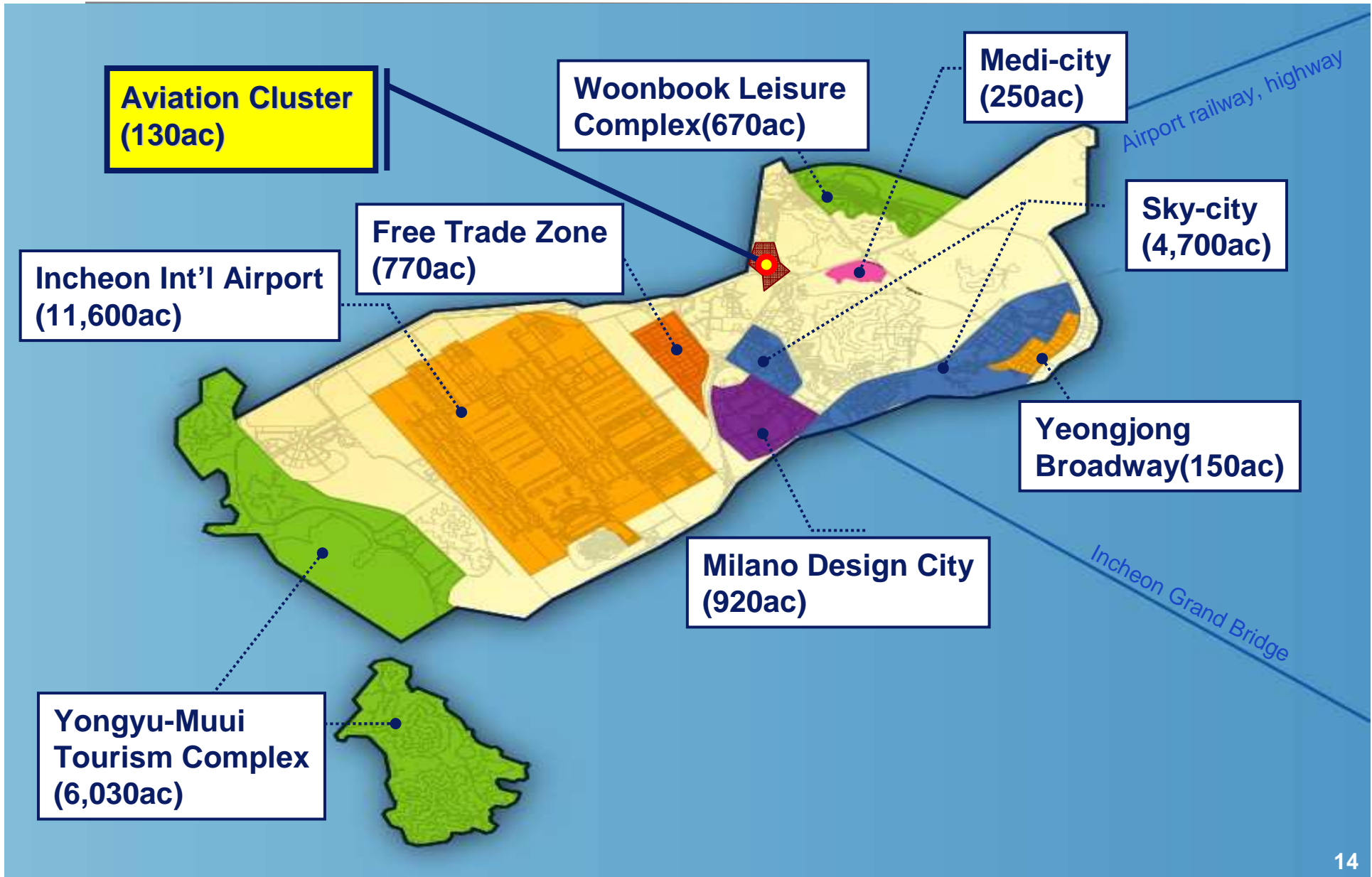
Development by Phase



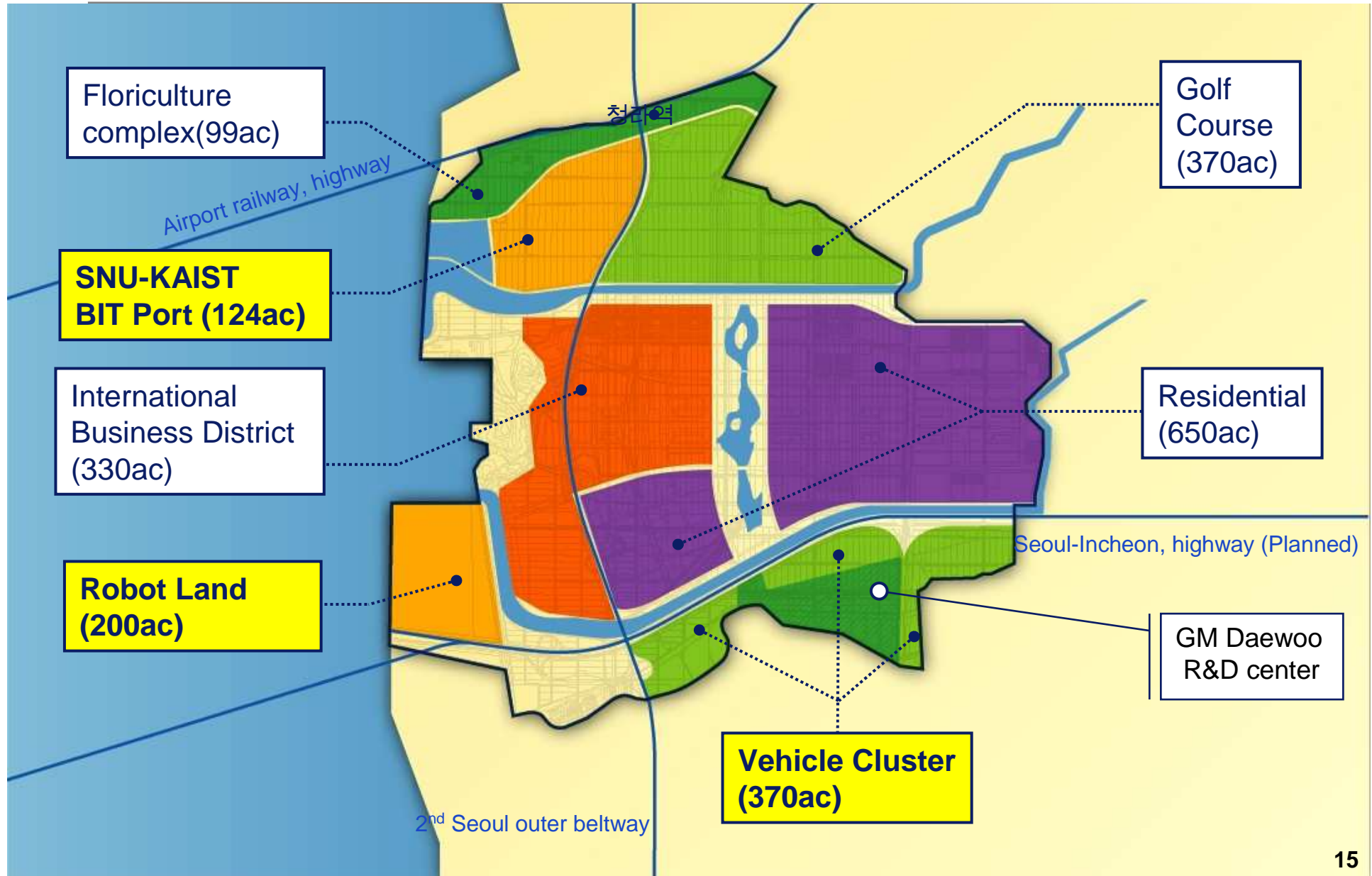
Songdo: Int'l Business & Knowledge Industries



Youngjong: International Logistics & Aviation



Cheongna: Vehicle Cluster & Leisure



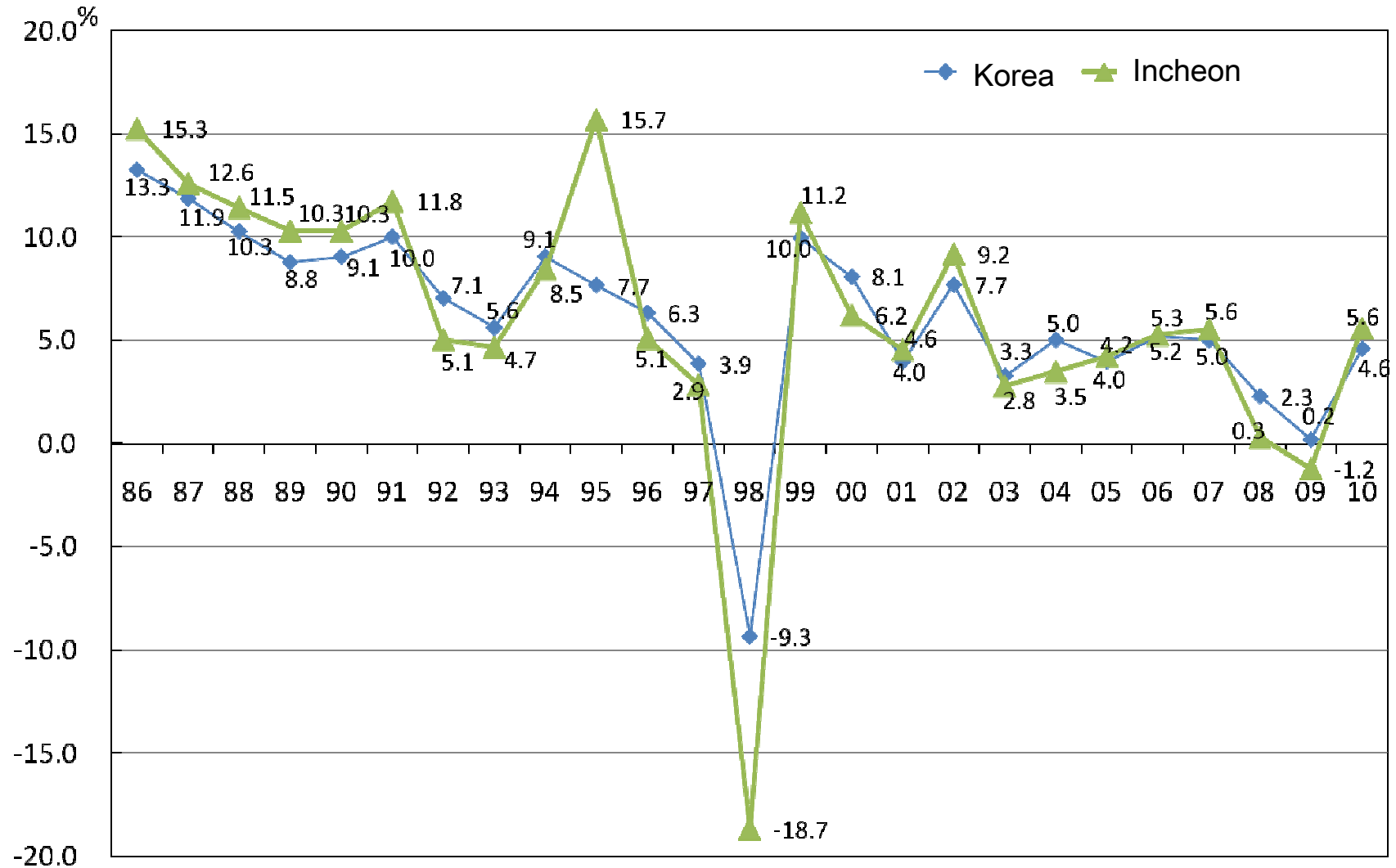
Business Incentives

Category	Support
Land	• Foreign Investment Area : 100 % Exemption
	• Free Trade Zone : 100% Exemption
	• Tariff Free Zone : Same as above
Cash	• R&D Investment : More than 5 Million dollars and 20 Researchers(MS or PhD)
Finance	• Participation of National R&D Project – Full or Part of Research Fund
	• Support of R&D Fund or through Venture Capital
	• Support of R&D Fund through Korea Technology Credit Guarantee
Tax	• Corporate tax · Income tax – First 5 years 100% + 2 years 50%
	• Acquisition tax · Registration tax – First 15 years 100%
	• Tariff – 3 years 100%
	• Corporate and income taxes against dividend revenues of the foreign investor – First 7 years 100% + 3 years 50%
	• Income tax for foreign engineers - First 5 years 100%

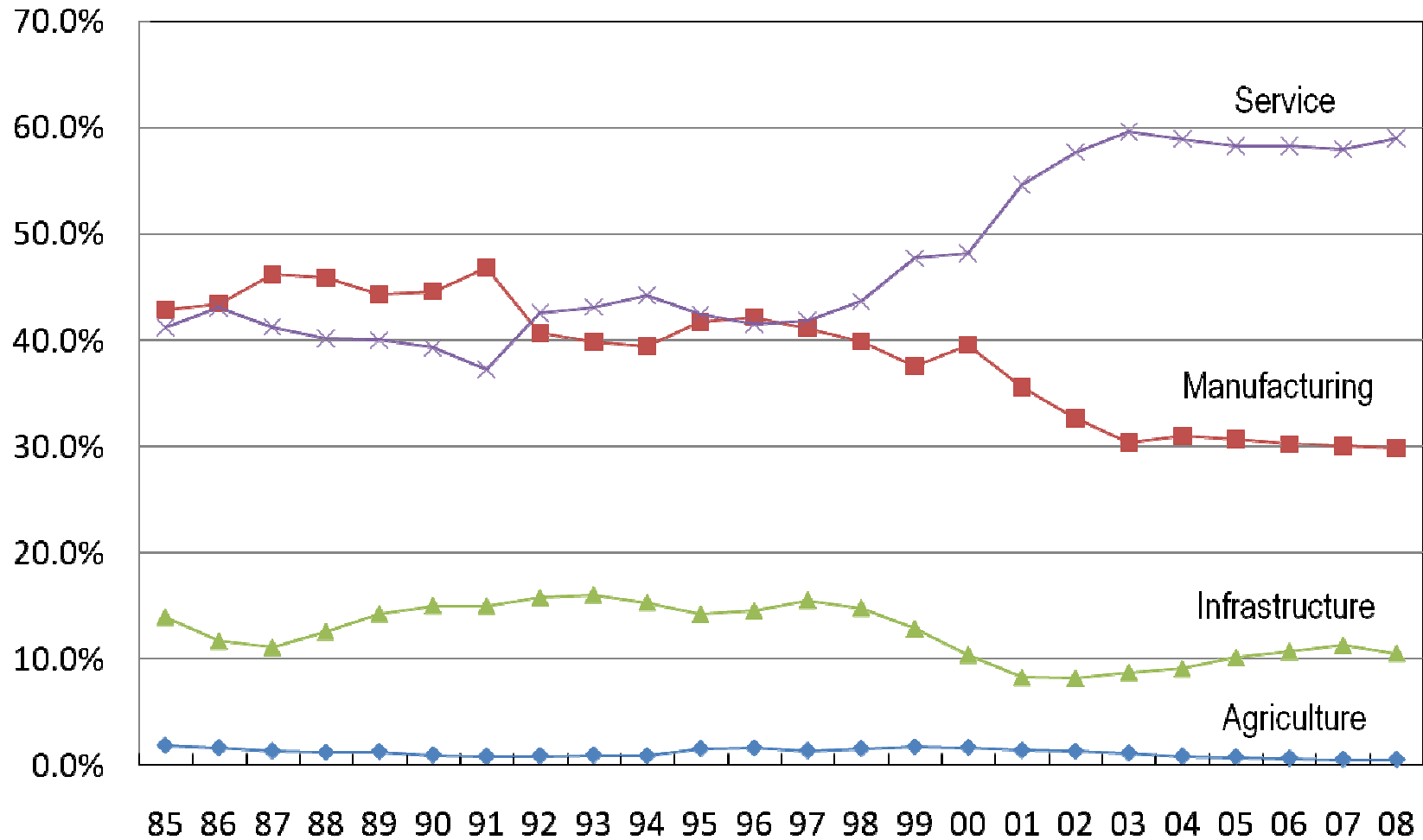


II. Policy Background

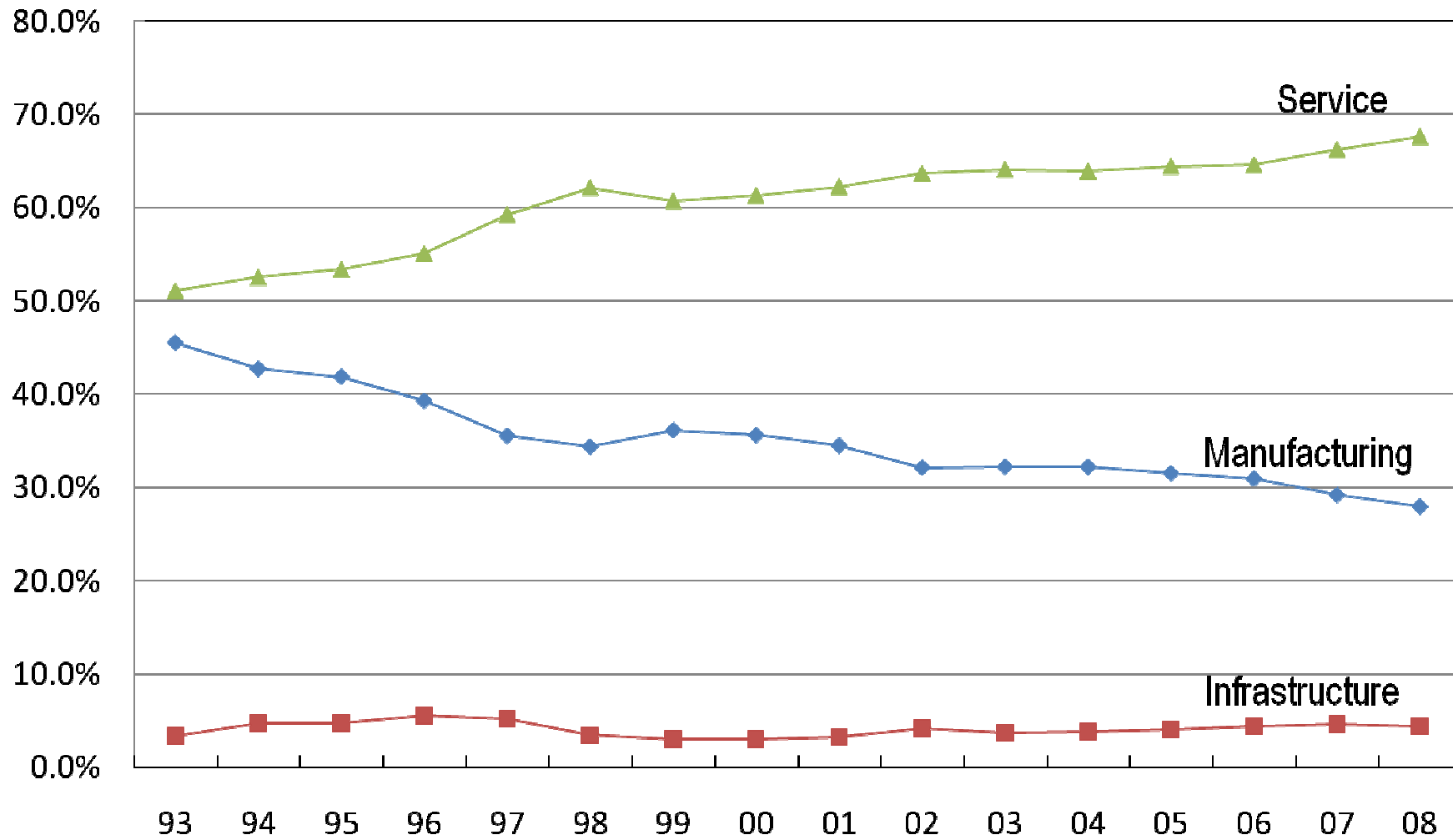
GRDP Growth Rate



GRDP Share by Industry



Employment Share by Industry



Economic Vision of Incheon

Global Business City in Northeast Asia The Leading City of Korean Economy

Strategic Industries

- Logistics Industry
- Automobile Industry
- Machinery/Metal Industry
- ICT Industry
- Biotechnology Industry

IFEZ

- Business Hub
- ICT & BT Hub
- Logistics Hub
- Tourism & Leisure Hub

Innovative Cluster

Industrial Complex

- ▶ Based on National Economy
- ▶ Economies of Scale
- ▶ Physical Capital
- ▶ Picking Domestic Champions
- ▶ Global Exports Market
(Supply-oriented)
- ▶ Protective Measures

VS

Innovative Cluster

- ▶ Based on Regional Economy
- ▶ Economies of Agglomeration
- ▶ Social Capital, Knowledge
- ▶ Foreign Direct Investment
- ▶ Global Production Network
(Demand-oriented)
- ▶ Competitive Environment

Competitive Regional Clusters

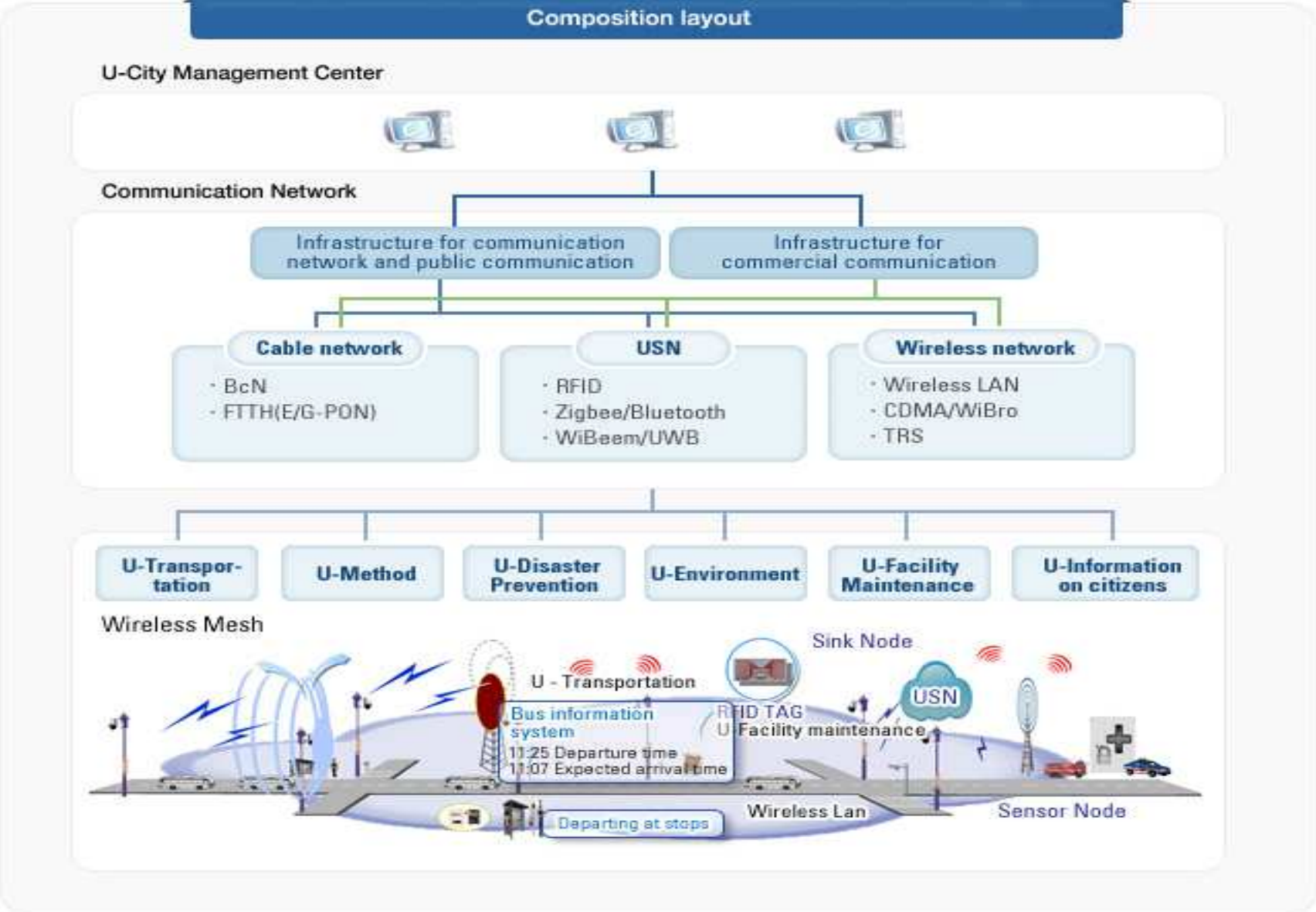
Policy Brief, May 2007(OECD)

- ◇ Many regions that were historically production centres are losing out to lower-cost locations and are reorienting their activities to higher value-added non-manufacturing industries or R&D-intensive manufacturing niches.
- ◇ The public sector response has been an increased attention to the importance of linking firms, people and knowledge at a **regional level** as a way of making regions more innovative and competitive.
- ◇ A clear rationale for the public sector to support clusters concerns the transaction costs and coordination costs in bringing the appropriate actors together.

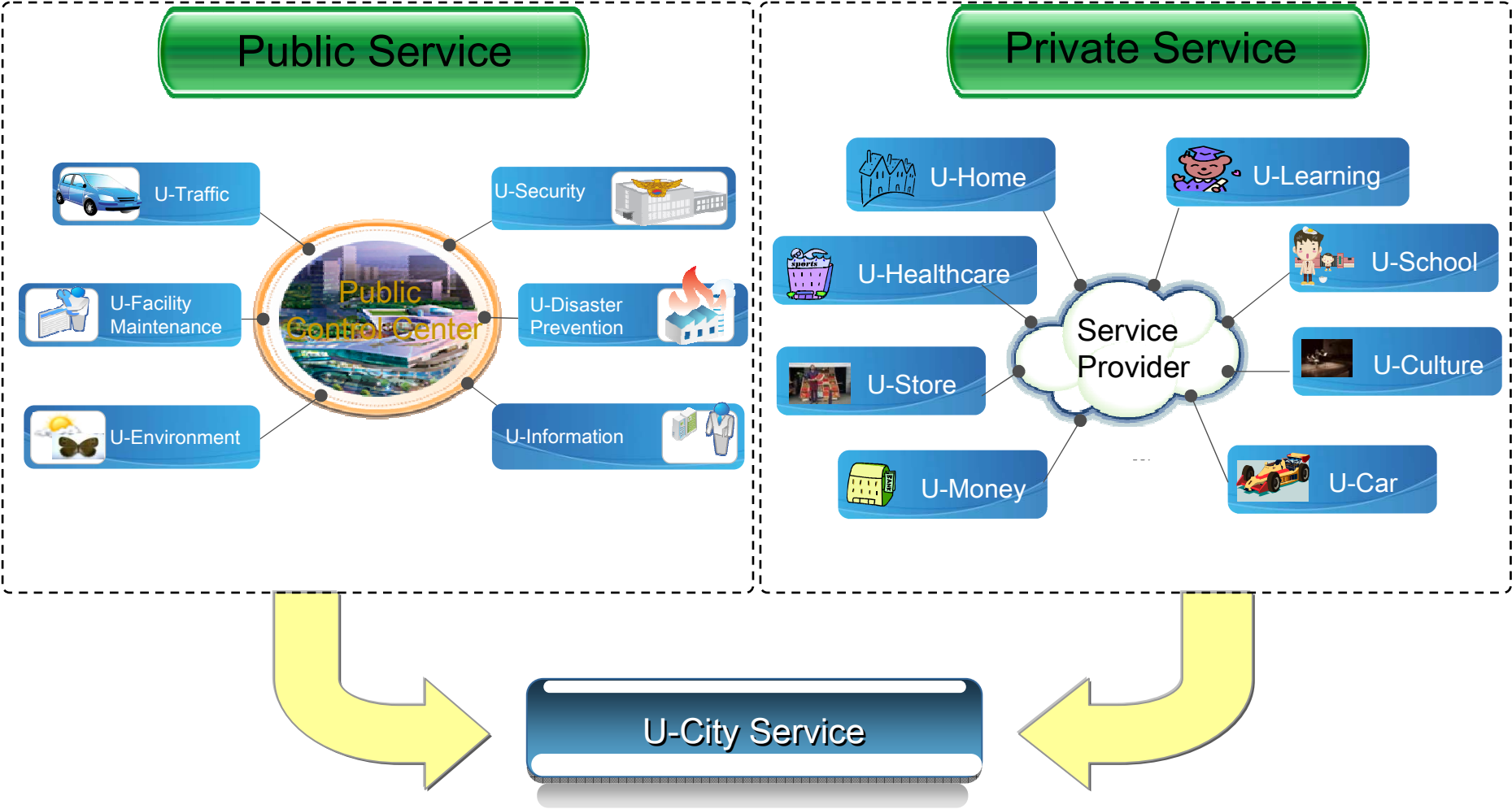


III. Business-led Smart City

U-City Infrastructure & Service



Public Private Partnership



Incheon & Cisco



- Cisco Global R&D Center
- 2014 Asian Games
- Business-model export



Tomorrow City



Tomorrow City



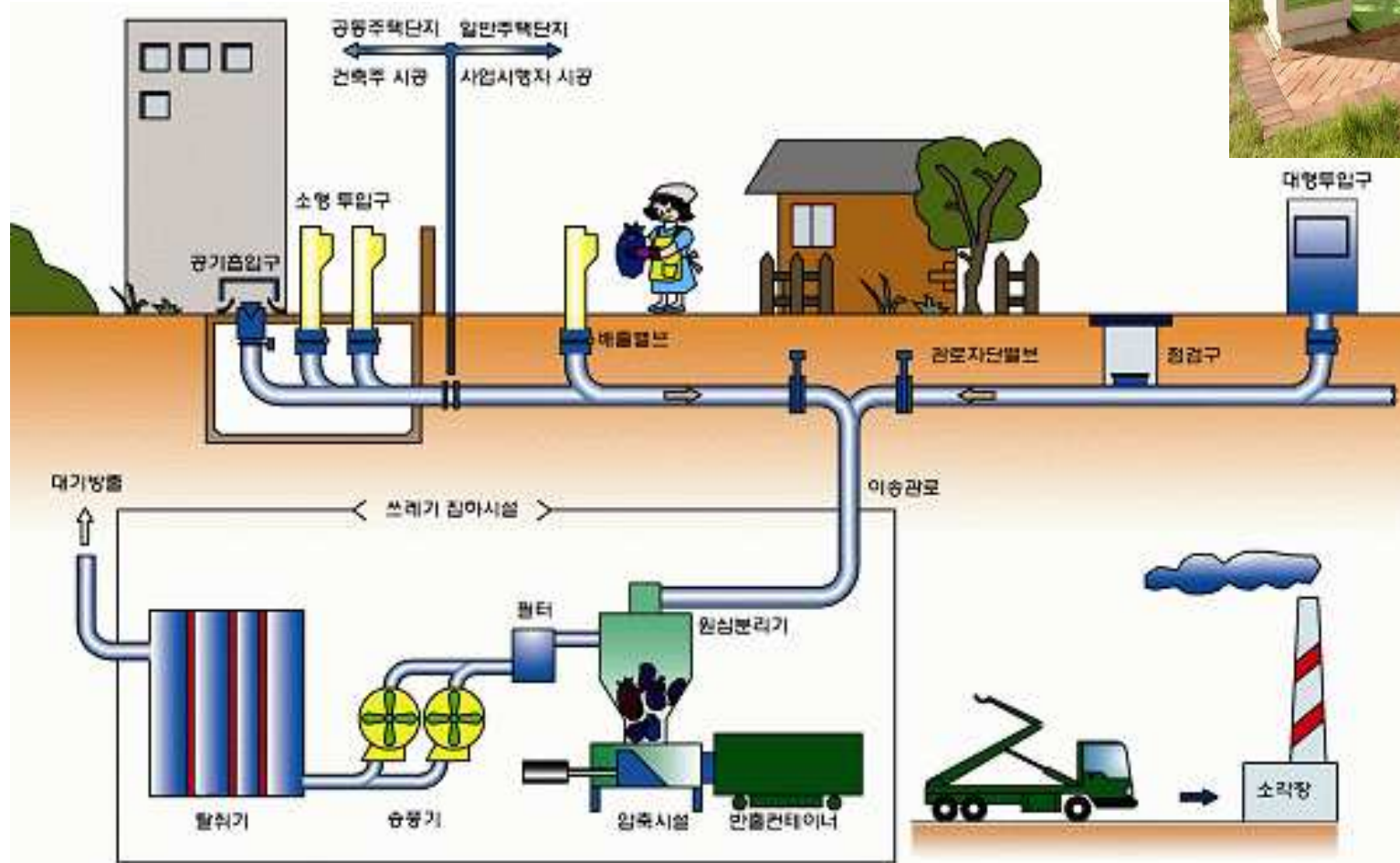
Tomorrow City



RFID-USN Center



Automated Waste Collection System



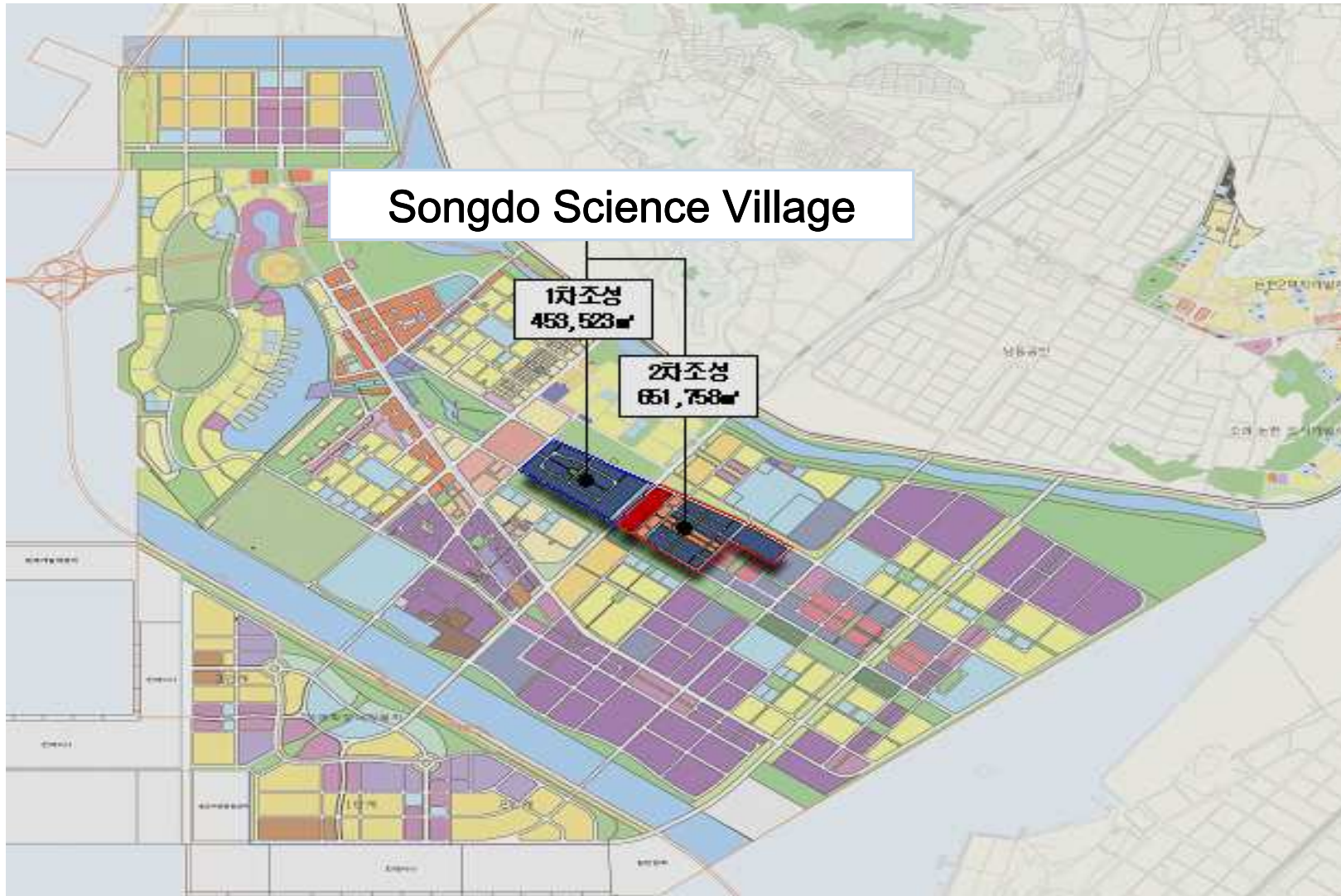
Songdo Techno-Park

- Established in 1998
- Industrial Complex completed in 2005
- Expanded into Science Village by 2013

Section		2010
Tenant	Company	129
	Institute	17
	Total	146
Employee		4,000
Sales		2.3 Billion Dollars



Songdo Science Village



Songdo Science Village



Songdo Science Village

Expanded Complex



IT Center



BT Center



Mechatronics Center



Posco R&D Center

Songdo Science Village: Street Mall

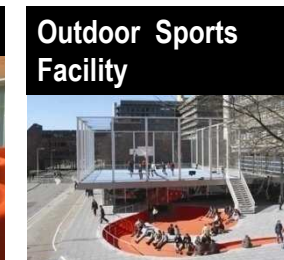
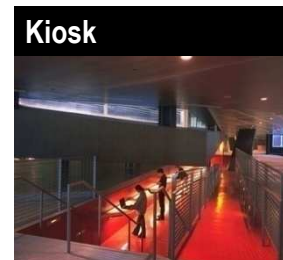
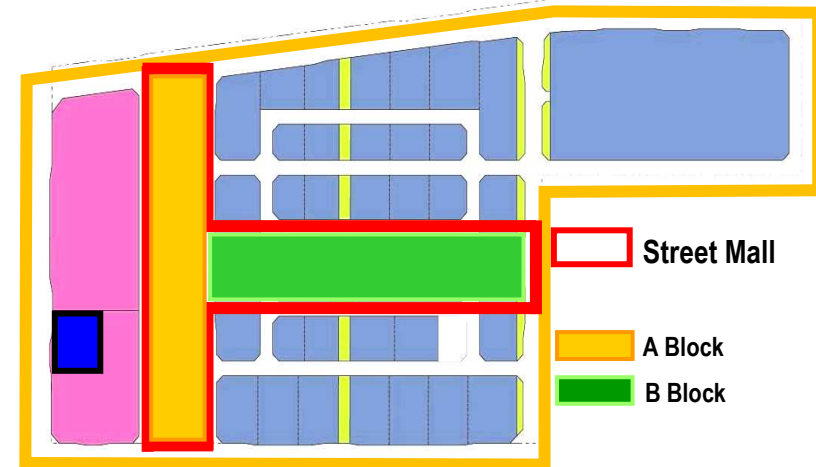
- Developer : Songdo Technopark
- Land Area : 74,000 m²
- Building Area : 431,000 m²
- Completion year : 2012. 2
- Investment size : 610 Million USD



A Block



B Block

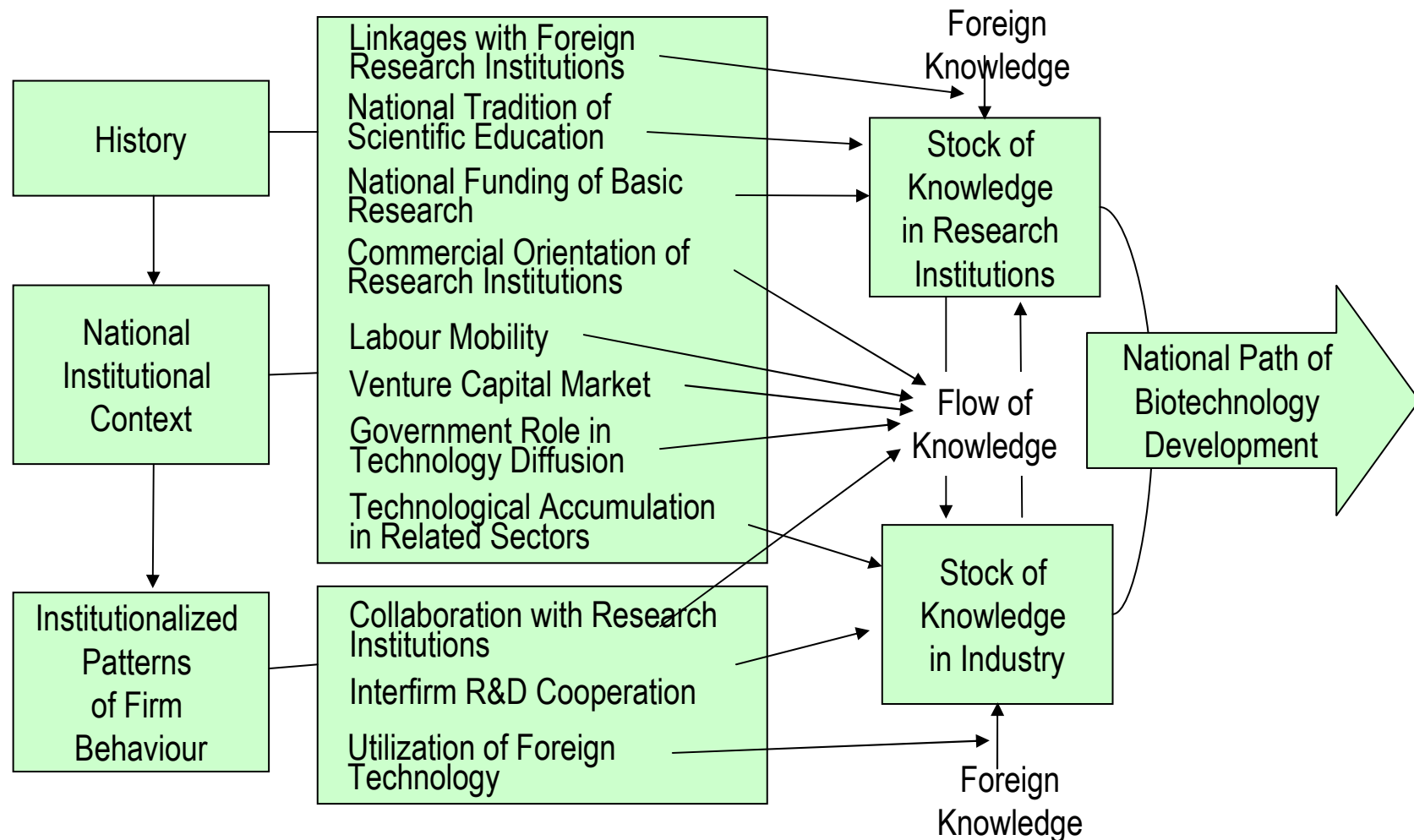




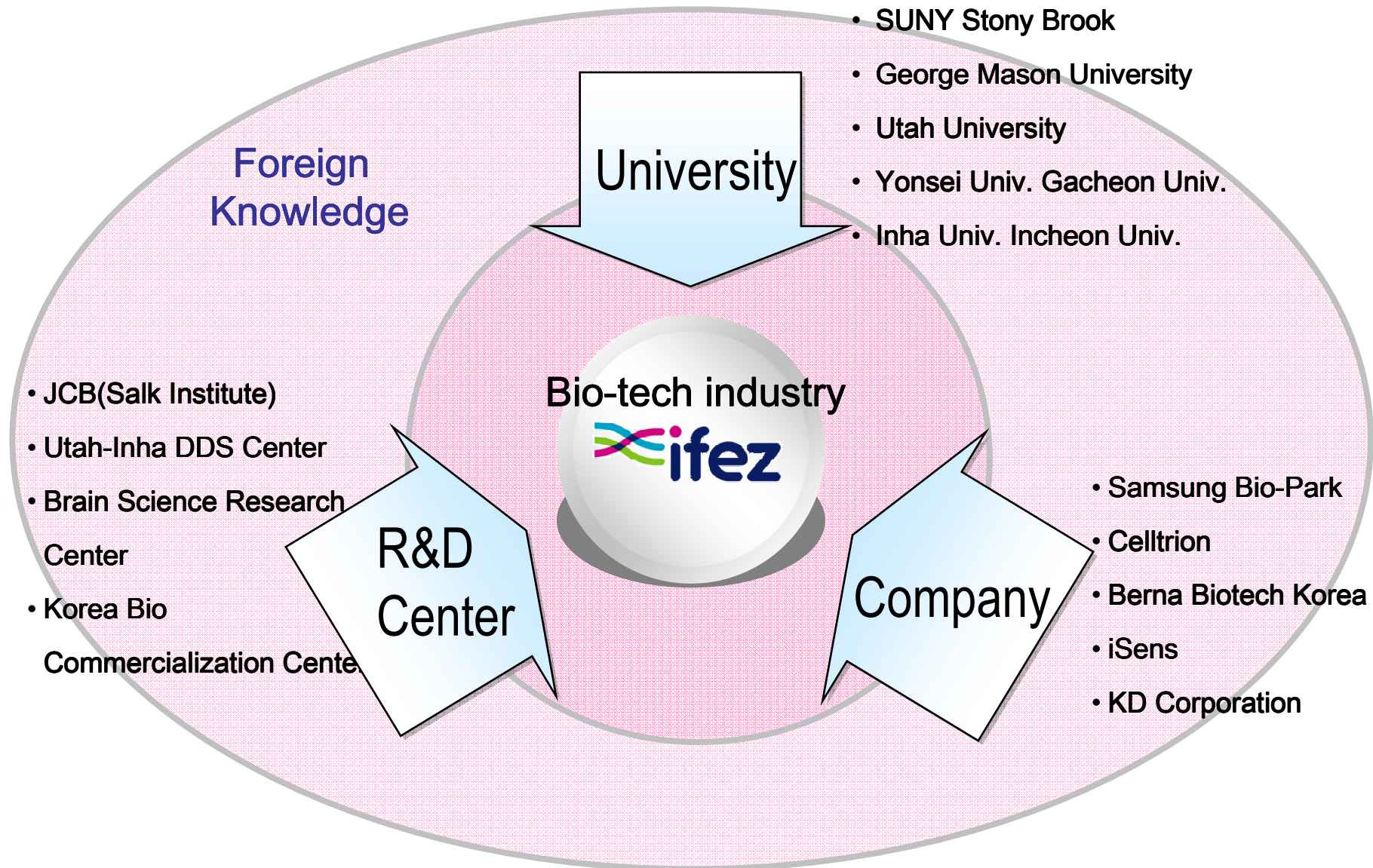
IV. Biotechnology Industry

Biotechnology Innovation System

- Susan Bartholomew(1997), 'National Systems of Biotechnology Innovation: Complex Interdependence in the Global System', *Journal of International Business Studies*.



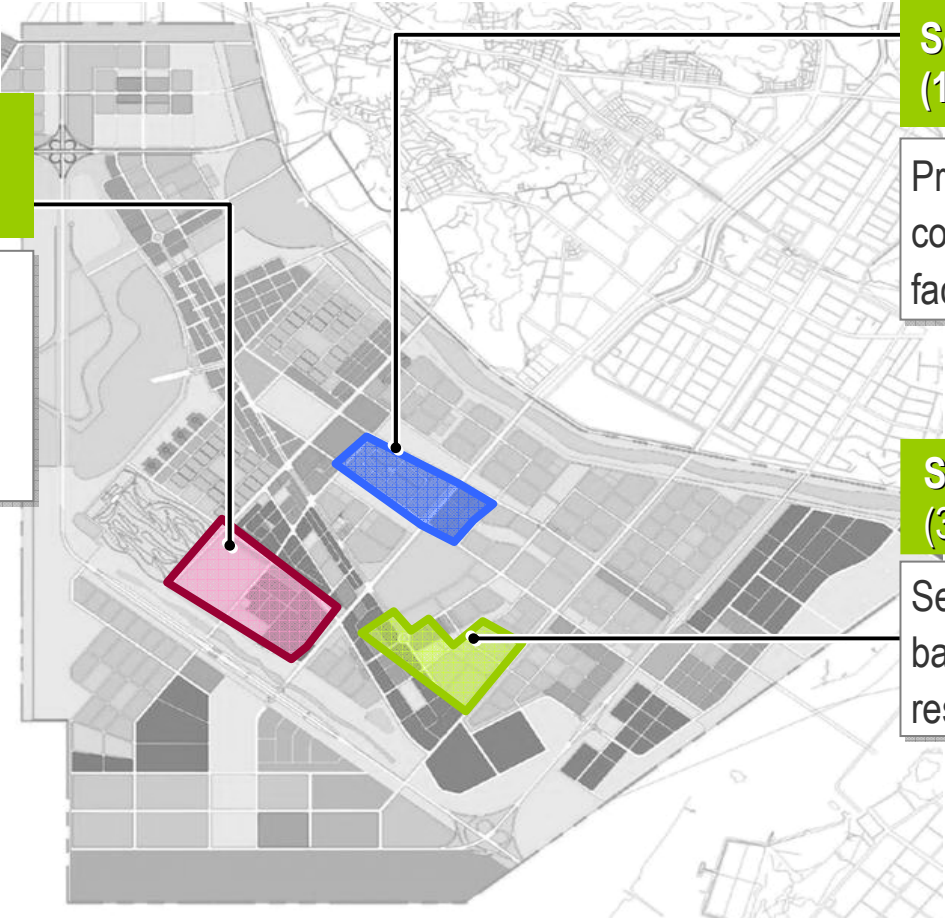
Tripartite Innovative Cluster in Bio-industry



Bio-clusters in Songdo

Songdo Bio-Medi Park
(287,332 m², 71 acres)

Serves as a cluster in the fields of individualized and regenerative medicine/ pharmacy



Songdo Techno Park
(137,191 m², 34 acres)

Provides support to start-up companies and incubation facilities

Songdo Bio-Medi Park II
(345,000 m², 85 acres)

Serves as a globalization base for manufacturers and research centers

Companies



<Celltrion>

- **FDA approved cGMP manufacturer** of animal cell culture (CMO)
- Joint venture between Vaxgen and KT&G
- Established in 2006
- Total size of 190,706m² (2 plants)



<Berna Biotech Korea>

- **Global vaccine manufacturer**, EMEA approved
- Crucell of the Netherlands holds 100% ownership (FDI USD 30mil)
- Established in 2010
- Total size of 24,421m²



<iSens>

- **FDA approved manufacturer of medical device** (blood glucose monitoring sensor)
- USD 5million invested by Agametrics of USA
- Will be established in 2011 , Total size of 6,560m²



<KD Corporation>

- **Silica gel and associated silicate products manufacturer**
- Will be Invested by YMC, Japanese HPLC manufacturer (FDI USD 12mil)
- Will be established in 2011
- Total size of 6,777m²



Samsung Bio-Park



Link with Universities and R&D Centers



R&D Centers



<Brain Science Research Center>



<Songdo Technopark>

U&I DDS
Center
(Univ. of Utah)

jCB
(Salk Institute)

Korea Polar
Research Institute



<Lee Gil Ya Cancer and
Diabetes Institute>



<Korea Conformity Laboratories>



<Korea Bio Commercialization
Center>

Clinical Centers

Inha University Hospital



- Regional Clinical Support Center designated by National Clinical Trial Agency(2008)
- Domestic Patent(569), International Patent(15)

Gachon University Gil Hospital



- MOU with Clinical Trial Center of Humboldt University Charité Hospital which is specialized in initial clinical trial (Germany)
- Collaboration with Karolinska University Hospital(Sweden)

Bio-industry Support Center(Songdo TP)

- Operating Public Labs
 - 35 Instruments
- Technology Support
 - Fermentation, purification and analysis services
- Training
 - Instrument and Technology
- Networking
 - Incheon Bioindustry Association



Bio Research Complex



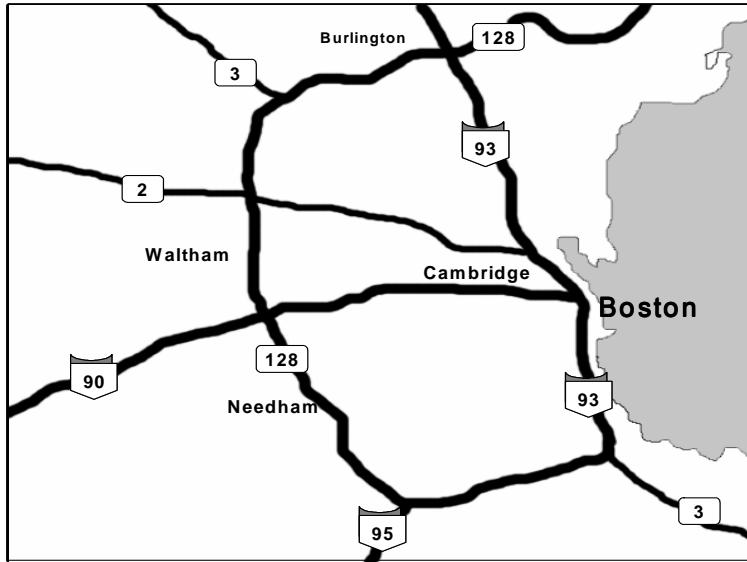
BT Center in Science Village





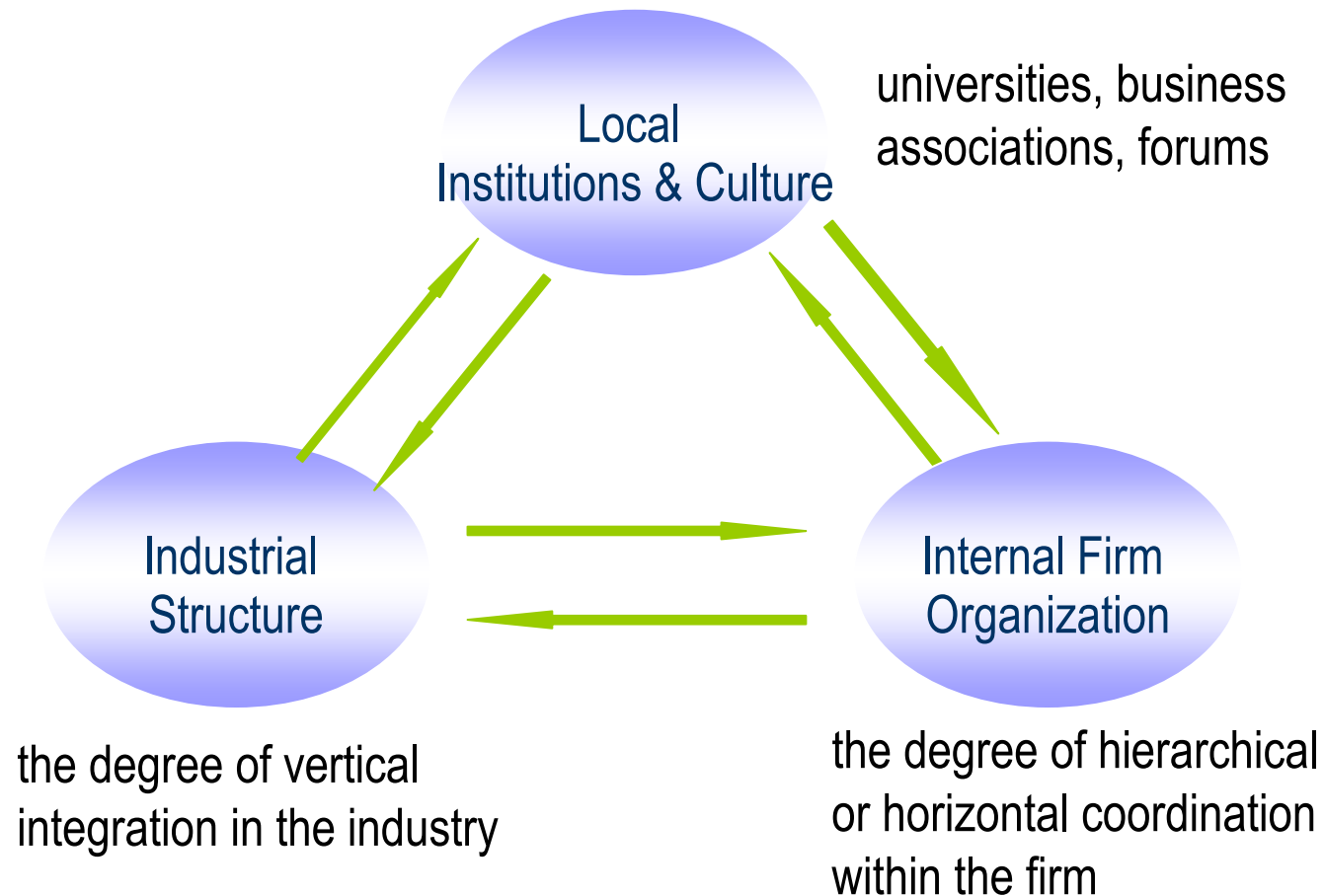
V. Concluding Remarks: the Challenges Ahead

Silicon Valley vs Route 128



Local Industrial Systems

- AnnaLee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*, Harvard Univ. Press, 1994.



Silicon Valley vs Route 128

Silicon Valley

- ▶ Regional Network-based Industrial System
- ▶ Open communication
- ▶ Cooperative Network
- ▶ Regional advantage
- ▶ Stanford University

VS

Route 128

- ▶ Independent Firm-based Industrial System
- ▶ Vertical communication
- ▶ Self-reliant practices
- ▶ Economies of scale
- ▶ Massachusetts Institute of Technology(MIT)

- ▶ Cooperative network and culture among companies
- ▶ Industry-university cooperation with timely and face-to-face communication

Radioactive Rain Fear



Thank you!



Contact Information

Kwon Hyung LEE

Incheon Development Institute

168Simgok-Ro, Seo-Gu, Incheon, South Korea

404-190

Office) +82.32.260.2637

Mobile) +82.11.663.1301

On the Web : <http://www.idi.re.kr>

Founding Purpose & Functions

The Incheon Development Institute (IDI) is committed to help the Incheon Metropolitan City establish and implement regional policies by conducting researches and surveys on various tasks and issues the city faces.

- Conducting surveys and researches on mid- & long-term development plans and main issues regarding city government administration
- Carrying out research projects on behalf of governments, government-invested agencies, and private organizations
- Engaging in cooperation with research institutions at home and abroad and conducting comparative review of international research results

History

1995~1999



- Mar. 1995 Enactment of an Incheon Government Ordinance regulating the foundation of the 21 Century Research Center for the Incheon Metropolitan City
- Aug. 1995 Registration of incorporation, 1st Chairman of the board of directors Choi, Ki-Sun inaugurated
- Mar. 1996 1st President Kim, Hak-Joon inaugurated
- Apr. 1996 Official opening of the Center
- Jan. 1997 Renamed the Center the Incheon Development Institute
- Mar. 1999 Signed an agreement on friendship, exchange and cooperation with Kitakyushu Urban Association (Japan)

2000~2004



- Jul. 2002 Chairman of the board of directors Ahn, Sang-Soo inaugurated
- Dec. 2002 Signed an agreement on research cooperation with Korea Institute for Industrial Economics & Trade
- Nov. 2003 Signed an agreement on friendship, exchange and cooperation with Development Research Center of Dalian People's Government (China)
- Nov. 2003 Signed an agreement on friendship, exchange and cooperation with Qingdao Academy of Social Sciences (China)
- Apr. 2004 Signed an agreement on collaboration for regional economic development with Incheon Chamber of Commerce & Industry
- Nov. 2004 Signed an agreement on academic exchange and research collaboration with Tianjin Academy of Social Sciences (China)

History

2005~2007



- Jun. 2006 Signed an agreement on research collaboration in the area of construction and transportation with Korea Institute of Construction & Transportation Technology Evaluation and Planning
- Aug. 2006 Signed an agreement on research cooperation in the area of academic and technology with Korea Land Corporation-affiliated Land & Urban Research Institute
- Nov. 2006 Signed an agreement on academic exchange and research collaboration with The University of Kitakyushu (Japan)
- Nov. 2006 Signed an agreement on academic exchange and research collaboration with Shandong Academy of Social Sciences (China)
- Dec. 2006 Signed an agreement on research cooperation with Korea Housing Corporation-affiliated Housing & Urban Research Institute
- Apr. 2007 Signed an agreement on academic exchange and research collaboration with Shandong Institute for East-Asia Studies (China)

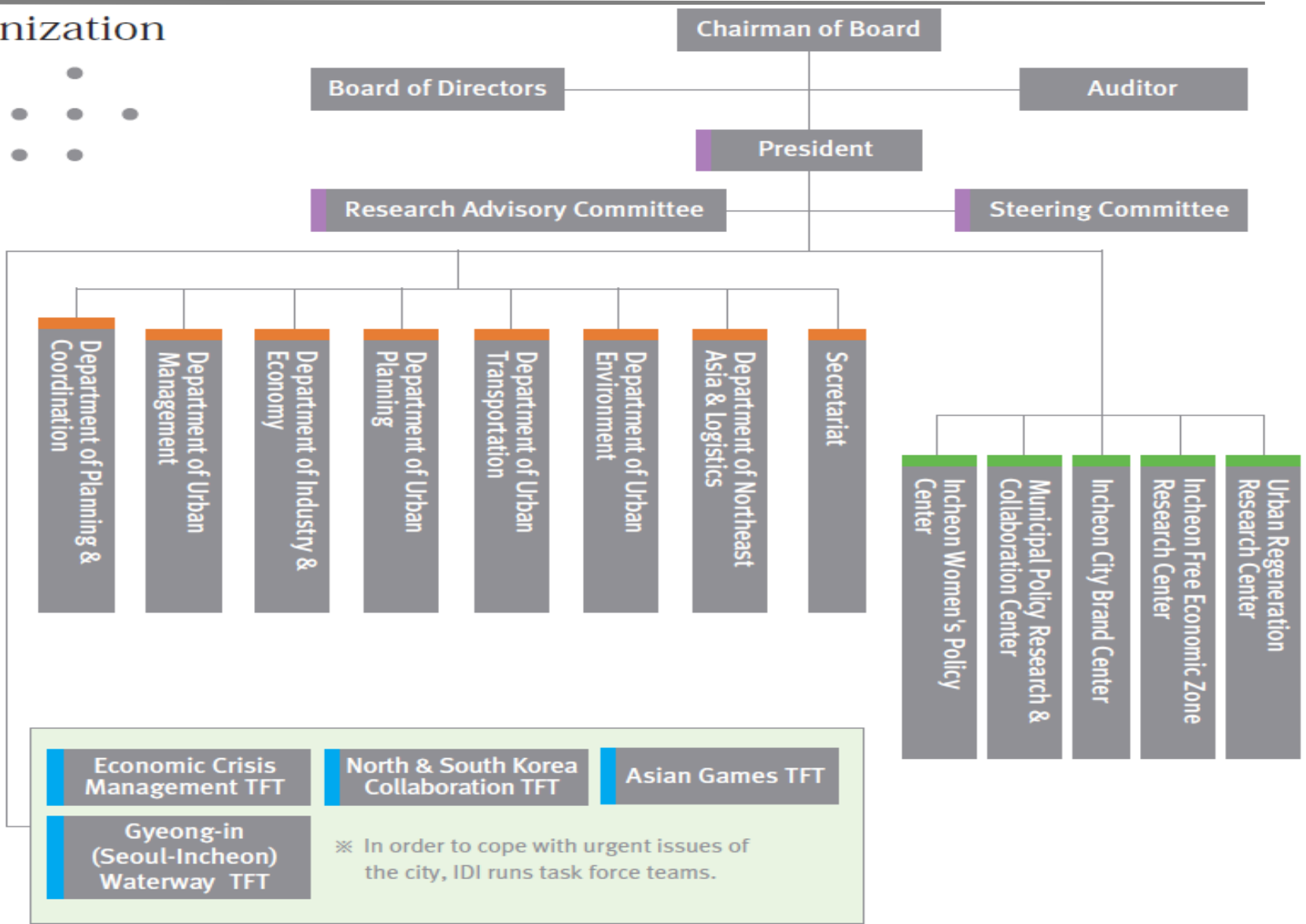
2009~2010



- Apr. 2009 Signed an agreement on academic and research exchange with Inha University
- Jun. 2009 Signed a MOU on academic exchange and research collaboration with University of Technology, Sydney (Australia)
- Jul. 2009 Signed an agreement on academic exchange and research collaboration with China Development Institute (China)
- Dec. 2009 Signed a MOU on academic exchange and research collaboration with Hochiminh City Institute for Development Studies (Vietnam)
- Apr. 2010 Signed a multilateral agreement on exchange and cooperation with Incheon Business Agency, Incheon Tourism Organization, Incheon Center for International Cooperation & Exchange, and Incheon Urban Development Corporation
- Apr. 2010 11th President Lee, Chang-Koo inaugurated
- Oct. 2010 Signed a MOU on academic exchange and research collaboration with European Institute for Comparative Urban Research (Netherlands)

Organization

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-
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※ In order to cope with urgent issues of the city, IDI runs task force teams.