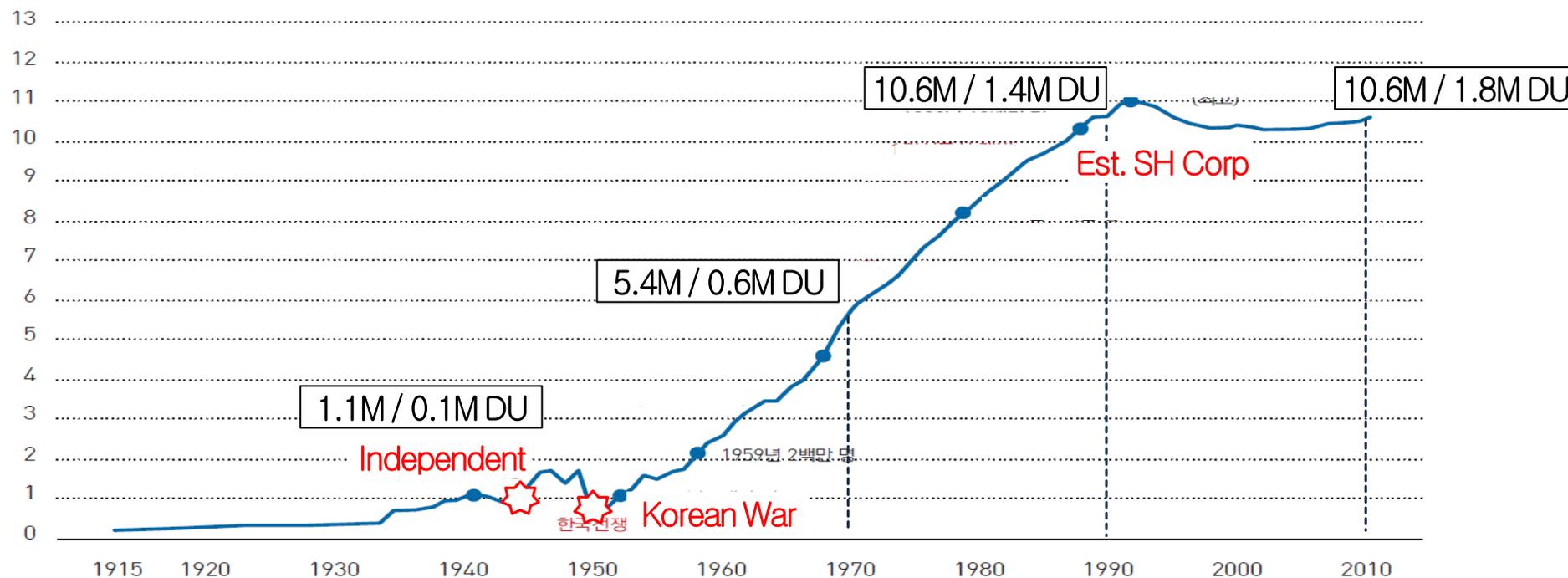




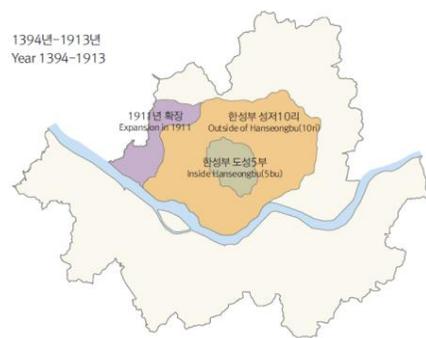
# WHO. WHAT. HOW. MAKES SEOUL SMART

# Overview of Seoul

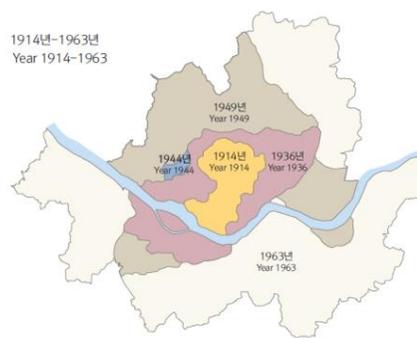
## Population Growth / No. of Dwelling Unit



## Urbanization of Seoul



1394



1914



1975



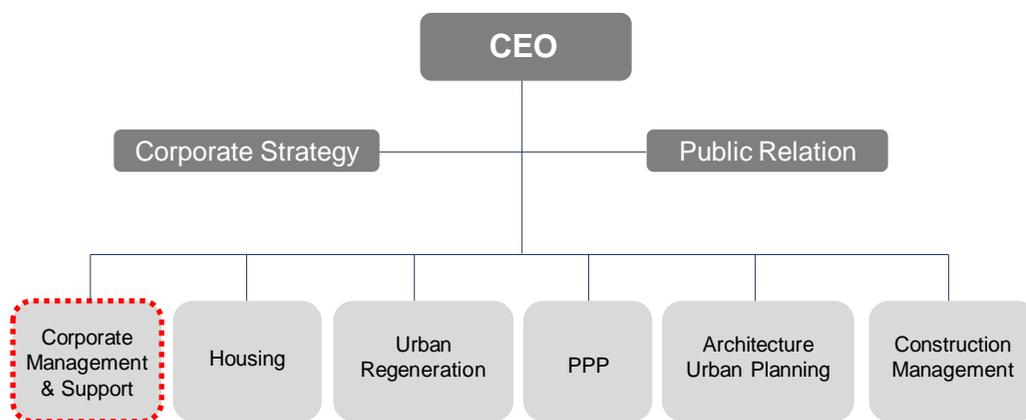
2010

# Introduction of SH

- Established in **1989** by



- Vision : Housing Welfare & Urban Regeneration
- Asset : US\$ 22 billion <sup>(17)</sup>
- Budget : US\$ 5 billion <sup>(17)</sup>
- Organization & Personnel  
(6 divisions/16 departments/64 offices, **1,300** employees)



- **ODU**

(Exporting planning & expertise in urbanization of Seoul)





# Best Practice : Eunpyeong New Town (Mixed-Density Project)

## Overview

- Location : Eunpyeong-Gu, Seoul
- Area : **350ha**
- Status : 100% completion (2003~2011)
- Housing : 17,464 DU(Sales: 10K, Lease: 7K)



## Main Development Features

### Korean Traditional Housing Construction

- Area: 36,150m<sup>2</sup>(95 lots)
- Urban Korean traditional housing model presentation



### Incineration Plant

- If garbages are put into a drop hole, they move through transport pipelines and into incinerator automatically



### Smart City

- Creation of CCTV, wireless & wired networks and integrated control center
- Operation of security CCTV systems, U-Home Information provision service, illegal parking crackdown service, digital library system



# Best Practice : **Garden 5 (The Southeastern Logistics District)**

## Overview

- Location : Songpa-Gu, Seoul
- Area : **56ha**
- Status : 100% completion (2004~2010)
- Total Cost : US\$ 1.17 Billions

## Character

- This project was initiated for the relocation of merchants, as the Cheongyecheon restoration project was promoted.
- Establishment of advanced logistics complex and activation of local economy



## Garden5 **Life**



- Use : Shopping & Cultural Facilities
- Area : 41K<sup>m</sup><sup>2</sup>, B5~11F
- GFA : 426K<sup>m</sup><sup>2</sup>
- Stores : 5,366ea

## Garden5 **Works**



- Use : Industrial Offices
- Area : 13K<sup>m</sup><sup>2</sup>, B5~10F
- GFA : 120K<sup>m</sup><sup>2</sup>
- Stores : 734ea

## Garden5 **Tool**



- Use : Warehouse/Sales/Culture
- Area : 28K<sup>m</sup><sup>2</sup>, B5~10F
- GFA : 274K<sup>m</sup><sup>2</sup>
- Stores : 2,270ea

# Best Practice : Sangam DMC (Digital Media City)

## Overview

- Location : Mapo-Gu, Seoul
- Area : **170ha**
- Status : 90% completion (1998~2010)
- Housing : 5.2K DU(Sales: 3.6K, Lease: 1.6K)



## Main Development Features



**DMC Media Industry Complex**

- Area : 337,000m<sup>2</sup>
- Promoting IT industry, digital media and entertainment industry
- Tenants : MBC, CJ E&M, YTN, Samsung SDS, LG CNS, National IT Industry Promotion Agency, etc.



**Rental Housing for foreigners (DMC Ville)**

- Area : 9,313m<sup>2</sup>
- Capacity : total 175 units, 30,535m<sup>2</sup> floor area
- Available to foreign residents in Seoul



**High-Tech Industry Center**

- Area : 17,070m<sup>2</sup>
- Capacity : over 225 tenants, floor area 77,191m<sup>2</sup>
- Provide tenants with spaces for manufacturing facilities

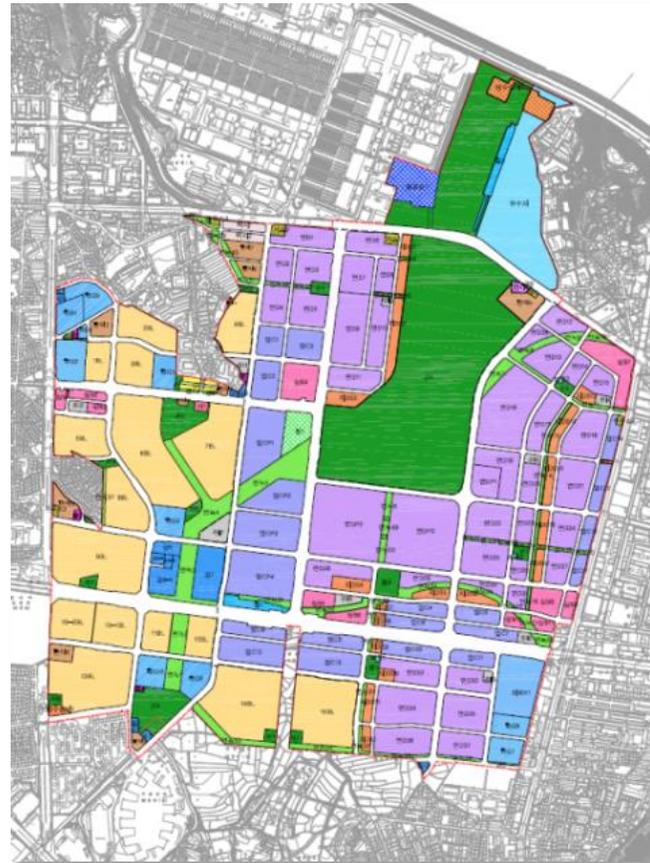
# Best Practice : **Magok District (Mixed-use Industrial Complex)**

## Overview

- Location : Gangseo-Gu, Seoul
- Area : **367ha**
- Status : 70% completion (2007~current)
- Housing : 12K DU(Sales: 6K, Lease: 6K)

## Land Use

- Industrial Complex : 81ha
- Business & Commercial : 39ha
- Residential Area : 60ha
- Infrastructural Facilities : 187ha



**Before**



**After**



Magok District is a self-sustainable city containing a global R&D cluster, LG, E-land and Lotte Headquarters, Ehwa Womans University Medical center, MICE and commercial facilities

# Planning : **Redevelopment for Prison Site**

## Overview

- Location : Songpa-Gu
- Area : **8.4ha**
- Housing, Industrial Complex, Office, Park Connection

## Character

- Redevelopment planning for vacated prison site
- Open to all development uses to rejuvenate the area and provide affordable housing and start-ups space for young people



Knowledge Industry Center



Residential Complex



Young Entrepreneurial zone & Exhibition



Community Facilities



Prison

Before



# Planning : Regeneration at Yongsan & Sewoon District

## Yongsan International Business District



## Sewoon District Urban Regeneration



### Overview

- Location : Yongsan-Gu, Seoul
- Area : **51ha**
- Status : Planning
- Total Cost : US\$ 30 Billions



### Overview

- Location : Jongro-Gu, Seoul
- Area : **44ha**
- Status : Planning
- Total Cost : US\$ 14 Billions



# Sharing lessons from the cities in Singapore & Korea for **Smart City**

**Singapore : 5.6M ppl in 100% urbanized city**

**Korea : 52M ppl in 162 cities approx. 87% urbanized**  
(9K ~ 10M / 25M for Seoul Metropolitan)

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- **Resolve or Provide Solution for Urban Issues**
  - It does not have to be the latest technology

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 (e.g. Urbanization, industry, culture, structure of population, living pattern)
- **Build Platform**
  - New city and existing city

# Public – Private – People Partnership

Character of 4P (Public-Private-People Partnership)

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- **Public** (e.g. central or local government or special development agencies)
  - Understand city or urban context (i.e. economical, social and cultural context) for direct implementation, mid/longer-term planning
  - Decide topic for implementation (e.g. boost economy, resilient city, crime free town, zero-energy town, walkable city)

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- **Partnership for 3P**
  - System based on the transparent process for obtaining, analyzing and sharing data

# Smart City in Korea

Holistic approach  
in limited area

>

Connected approach by  
independent system

	U-City (1 <sup>st</sup> Generation)	Smart City

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Driven by	Central government / Local development corporation (top down)	3P (top down + bottom up)

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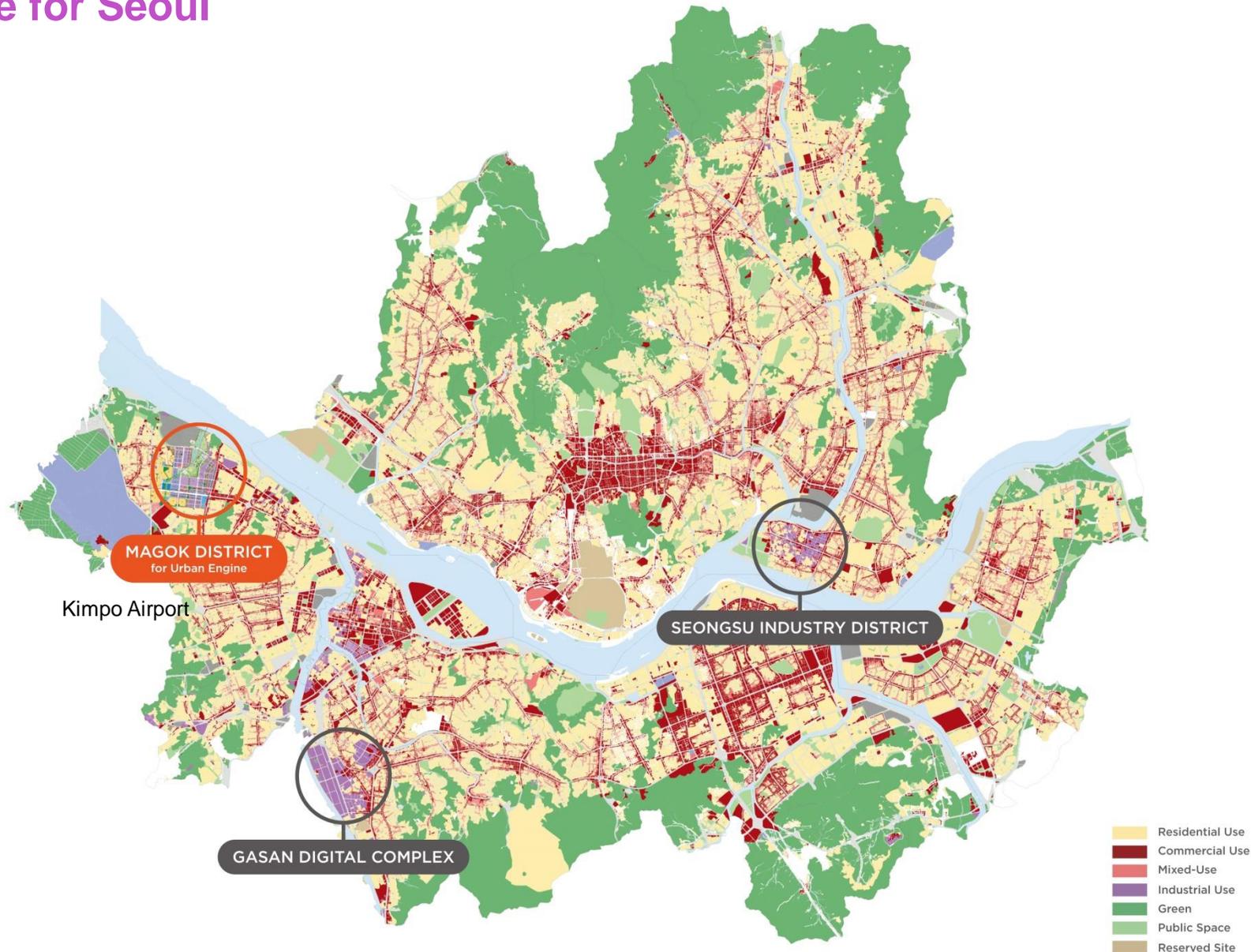
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Field	Transportation, Safety, Urban Disaster	+ Environment, administration, education, employment, etc

# 3 Major Industrial Complex in Seoul

## Urban Engine for Seoul



# Magok District

## Completed U-City and Planning for Smart City

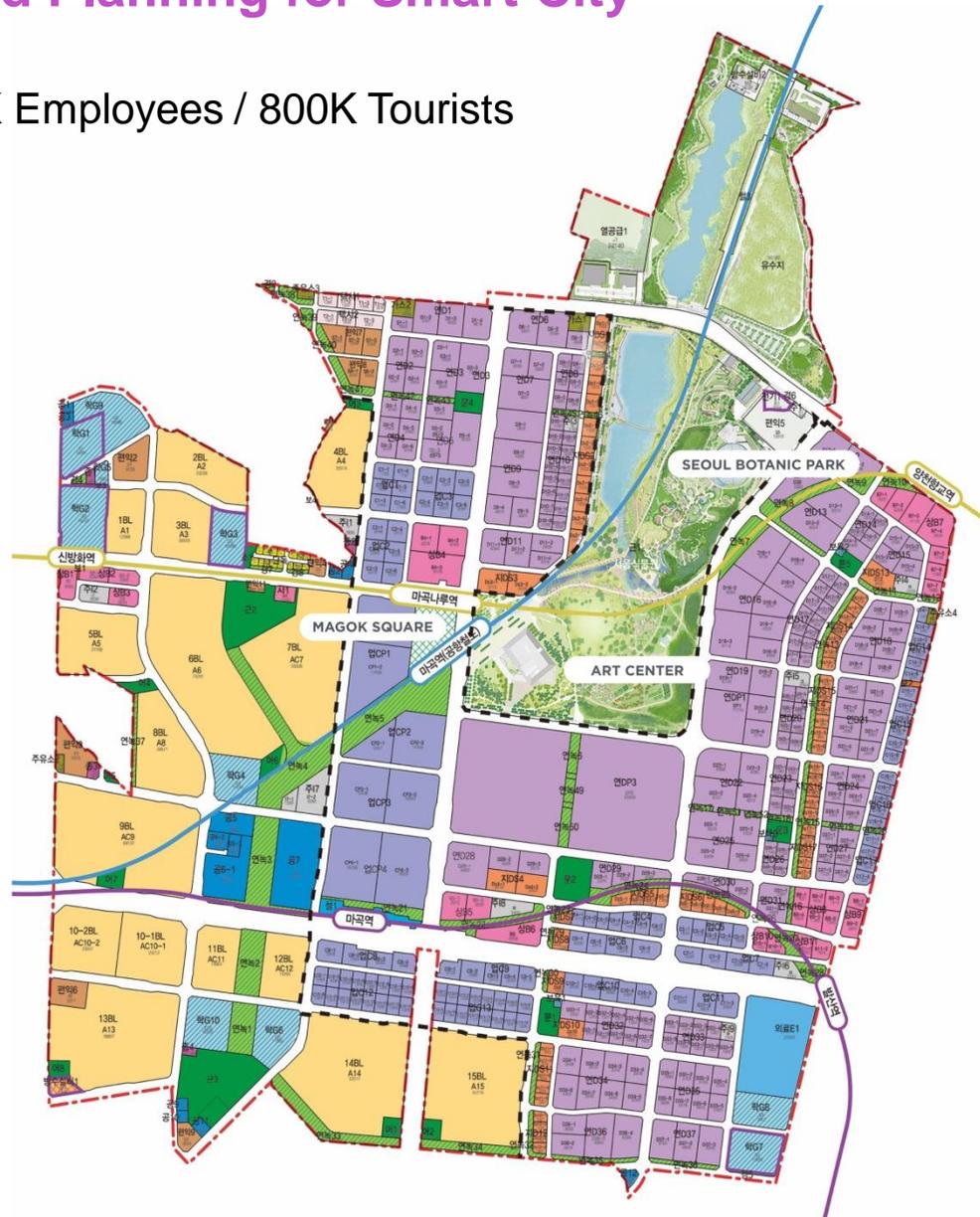
- 12K Units Resident / 100K Employees / 800K Tourists



9 Subway Line 9

AIRPORT Airport Line

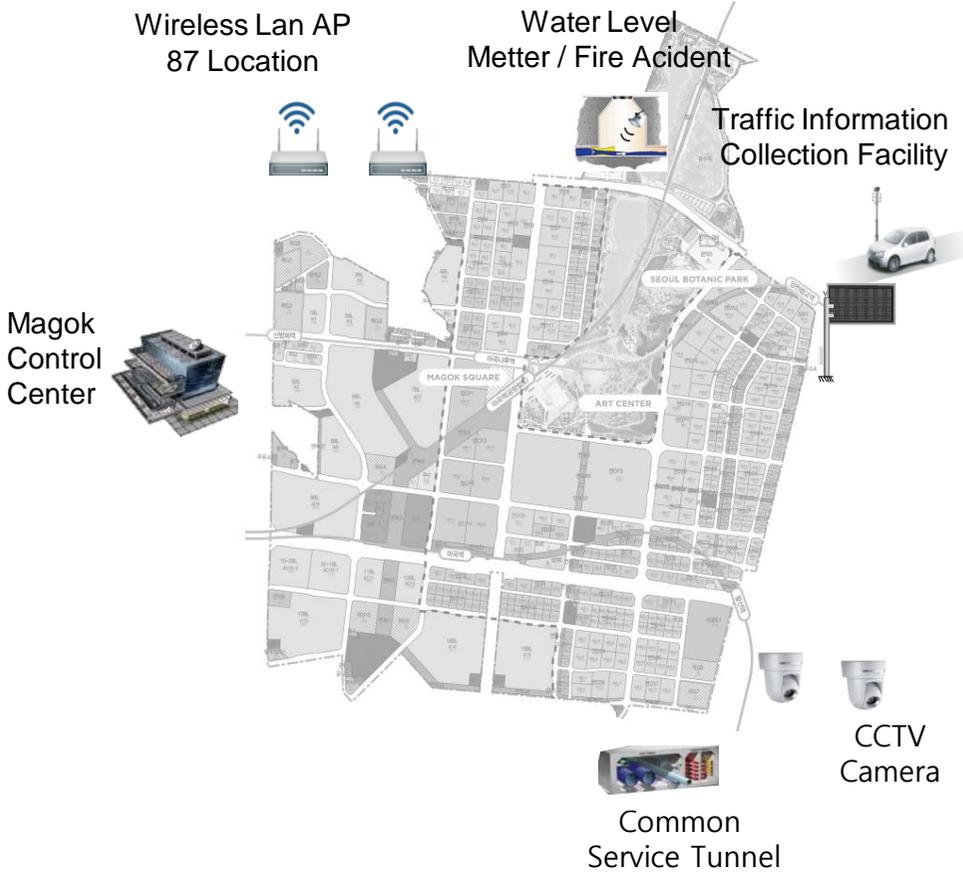
5 Subway Line 5



- Residential Use
- Commercial Use
- Mixed-Use
- Industrial Use
- Green
- Support Facilities
- Public Office

# Smart City in Magok District

## Core Services for Integrated System from U-City to Smart City

Core Services	Infra Network Diagram
Crime Prevention	 <p>The diagram illustrates the infrastructure network for the Magok District. Key components include:</p> <ul style="list-style-type: none"> <li><b>Wireless Lan AP 87 Location:</b> Two wireless access point icons are shown at the top left.</li> <li><b>Water Level Metter / Fire Accident:</b> A sensor icon is located at the top center.</li> <li><b>Traffic Information Collection Facility:</b> A car icon is shown on the right side.</li> <li><b>Magok Control Center:</b> A server rack icon is on the left side.</li> <li><b>Common Service Tunnel:</b> A tunnel icon is at the bottom center.</li> <li><b>CCTV Camera:</b> Two camera icons are at the bottom right.</li> </ul> <p>Geographic labels on the map include: SEOUL BOTANIC PARK, MAGOK SQUARE, and ART CENTER.</p>
Transportation	
Working Environment	
Energy Efficiency	
Disaster Management	

# Smart City in Magok District

## Core Services for Integrated System from U-City to Smart City

Core Services	Infra Network Diagram
<p><b>Crime Prevention</b>                      Separated camera system</p>	<p>The diagram illustrates the infrastructure network for the Magok District. A central <b>Magok Control Center</b> is connected via a <b>U-City</b> network (represented by blue lines) to several key services: <b>Wireless Lan AP</b> (87 locations), <b>Water Level Metter / Fire Accident</b> sensors, <b>Traffic Information Collection Facility</b>, <b>CCTV Camera</b> systems, and a <b>Common Service Tunnel</b>. The map also shows landmarks like <b>MAGOK SQUARE</b>, <b>ART CENTER</b>, and <b>SEOUL BOTANIC PARK</b>.</p>
<p><b>Transportation</b>                      Analyzing real time mass transportation data</p>	
<p><b>Working Environment</b>                      Analyzing individual home, office, factory data separately</p>	
<p><b>Energy Efficiency</b>                      Constructing Smart Grid (e.g. common service tunnel)</p>	
<p><b>Disaster Management</b>                      Detecting disaster situation through sensors</p>	

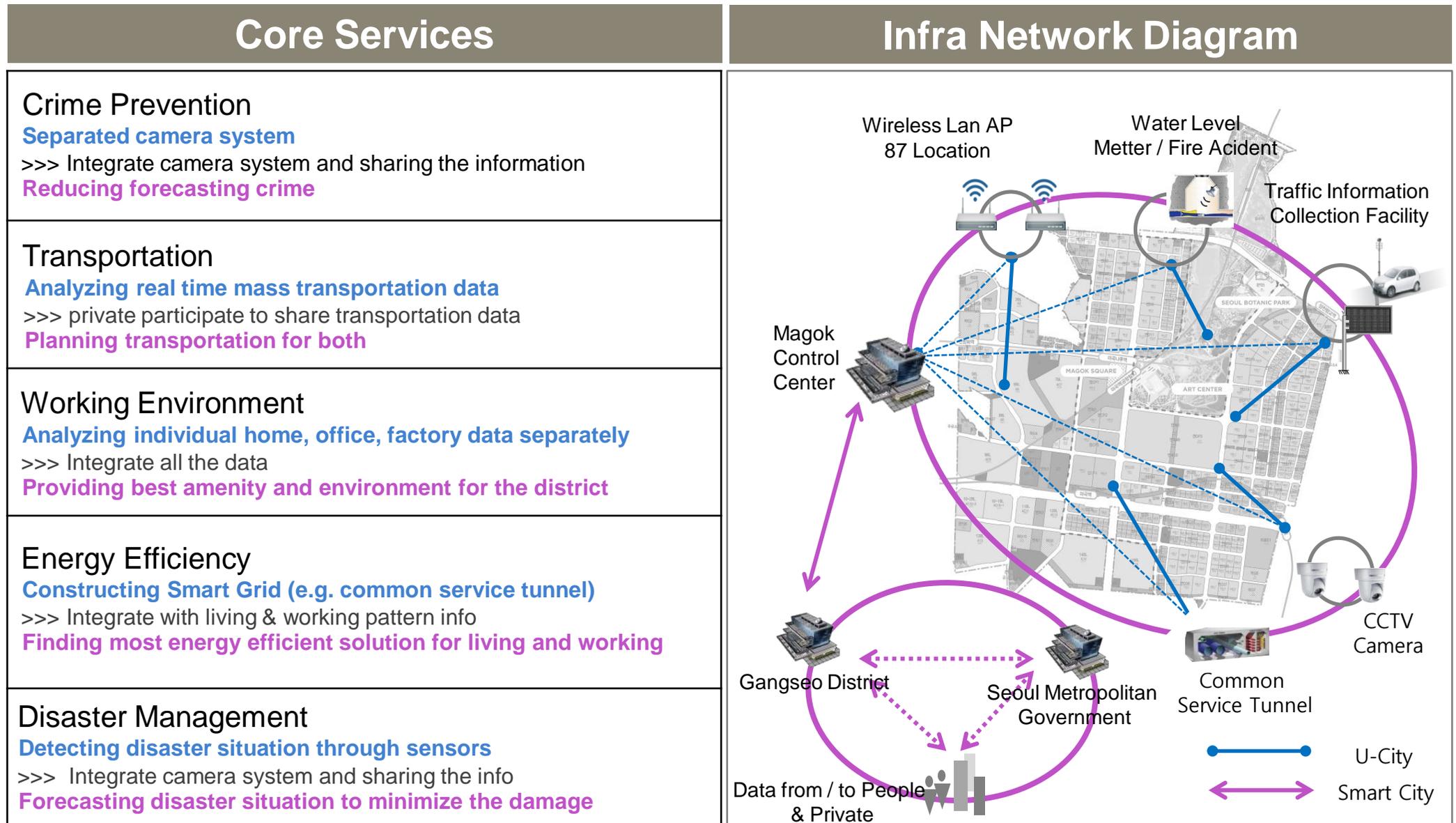
# Smart City in Magok District

## Core Services for Integrated System from U-City to Smart City

Core Services	Infra Network Diagram
<p><b>Crime Prevention</b>  <b>Separated camera system</b>                      &gt;&gt;&gt; Integrate camera system and sharing the information</p>	<p>The diagram illustrates the infrastructure network for the Magok District. A central <b>Magok Control Center</b> is connected via a <b>U-City</b> network (represented by blue lines) to various smart city services: <b>Wireless Lan AP</b> (87 locations), <b>Water Level Meter / Fire Accident</b> sensors, <b>Traffic Information Collection Facility</b>, <b>Seoul Botanic Park</b>, <b>MAGOK SQUARE</b>, and <b>ART CENTER</b>. A <b>Common Service Tunnel</b> and <b>CCTV Camera</b> are also shown as part of the infrastructure.</p>
<p><b>Transportation</b>  <b>Analyzing real time mass transportation data</b>                      &gt;&gt;&gt; private participate to share transportation data</p>	
<p><b>Working Environment</b>  <b>Analyzing individual home, office, factory data separately</b>                      &gt;&gt;&gt; Integrate all the data</p>	
<p><b>Energy Efficiency</b>  <b>Constructing Smart Grid (e.g. common service tunnel)</b>                      &gt;&gt;&gt; Integrate with living &amp; working pattern info</p>	
<p><b>Disaster Management</b>  <b>Detecting disaster situation through sensors</b>                      &gt;&gt;&gt; Integrate camera system and sharing the info</p>	

# Smart City in Magok District

## Core Services for Integrated System from U-City to Smart City



# Smart City in Magok District

Magok Integrated Control Center  
(e.g. operation, analysis, forecast, response, networking)



# 5 Elements for Successful ( ) Urbanization

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**Building Platform for City Smart**

Thank You

[oud@i-sh.co.kr](mailto:oud@i-sh.co.kr)