

Industrial Park Development and Management Strategy in Bulgaria

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I. Introduction

1. Research Purpose and Scope

▶ Research Purpose

- ▷ To support in establishing policy direction toward industrial park development and investment promotion based on Korea's experience on industrial park development and management policy

▶ Research Scope

- ▷ A concept of industrial park means a specific area where to be designated and developed for collective constructions of plants and infrastructures with the objective of development of manufacturing industry.
- ▷ This research focuses on industry development and FDI promotion through the effective area designation, development, and management of industrial parks in Bulgaria

2. Importance of Industrial Parks and its planning

▶ **Benefits of Industrial Park**

- ▷ **The economic aspects of enterprise**
 - ▶ **Businesses' easy and convenient access to industrial locations**
 - ▶ **Improved efficiency in facility investment through clustering of infrastructure**
 - ▶ **Cost saving by locating manufacturing-related facilities**
 - ▶ **Improving competitiveness by stimulating cooperation through clustering of related businesses**
- ▷ **The land and SOC aspects**
 - ▶ **Industrial parks enable intensive and efficient use of limited land.**
 - ▶ **Efficiency of SOC investment is improved by systematic development of SOC such as roads, ports, water systems and power systems.**
- ▷ **The environmental perspective**
 - ▶ **Minimizing impacts of industrial locations by installing and operating environmental pollution prevention facilities in packages.**

2. Importance of Industrial Parks and its planning

▶ **Importance of the industrial park planning**

▷ **Linkage to industrial policy**

- ▶ **Types, location, and major facilities of industrial park are different according to the target industries.**

▷ **Characteristics of real estate**

- ▶ **Long time delays for planning, finance, design, construction**
- ▶ **Huge investment in SOC such as roads, ports, water systems, pollution prevention facilities and power systems**
- ▶ **Durability**

▷ **Importance of management more than construction**

- ▶ **Continuous maintenance and upgrading of clustering**
- ▶ **Prevent from intrusion of heterogeneous land use(ex: mixing of factory and housing)**

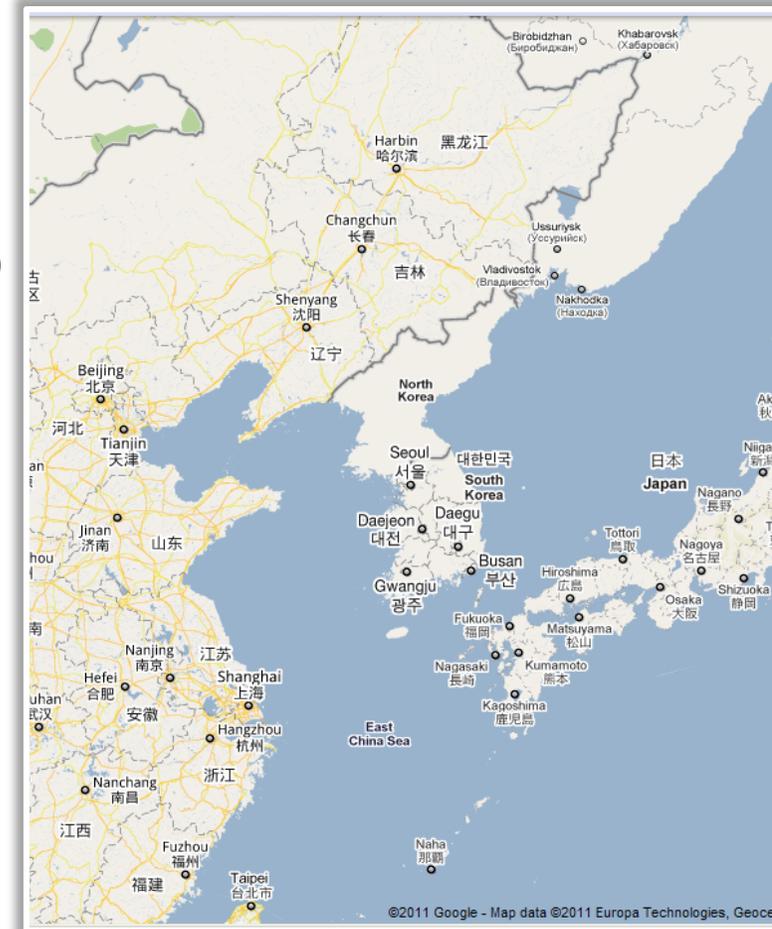
II. Industrial location Policy in Korea

1. Status of Industrial Parks in Korean Economy

▶ Introduction of Korean Economy

- ❑ Republic of Korea (ROK)
- ❑ Population : 48,860,500 (2012 est.)
 - Capital : Seoul (9,778,000)
- ❑ GDP per capita : \$31,700 (PPP, 2011)
- ❑ Unemployment Rate : 3.4%(2011)
- ❑ Industries :
 - Electronics, Telecommunications,
 - Automobile, Chemicals, Steel,
 - Shipbuilding
- ❑ Exports : World Rank 8 (2011)
- ❑ Imports : World Rank 9 (2011)

Source : CIA World Fact Book



1. Status of Industrial Parks in Korean Economy

- ▶ Total number of industrial parks(2012): 993
- ▶ Occupying 65% of manufacturing production, 76% of exports, 44% of manufacturing employment

Status of industrial parks(2012)

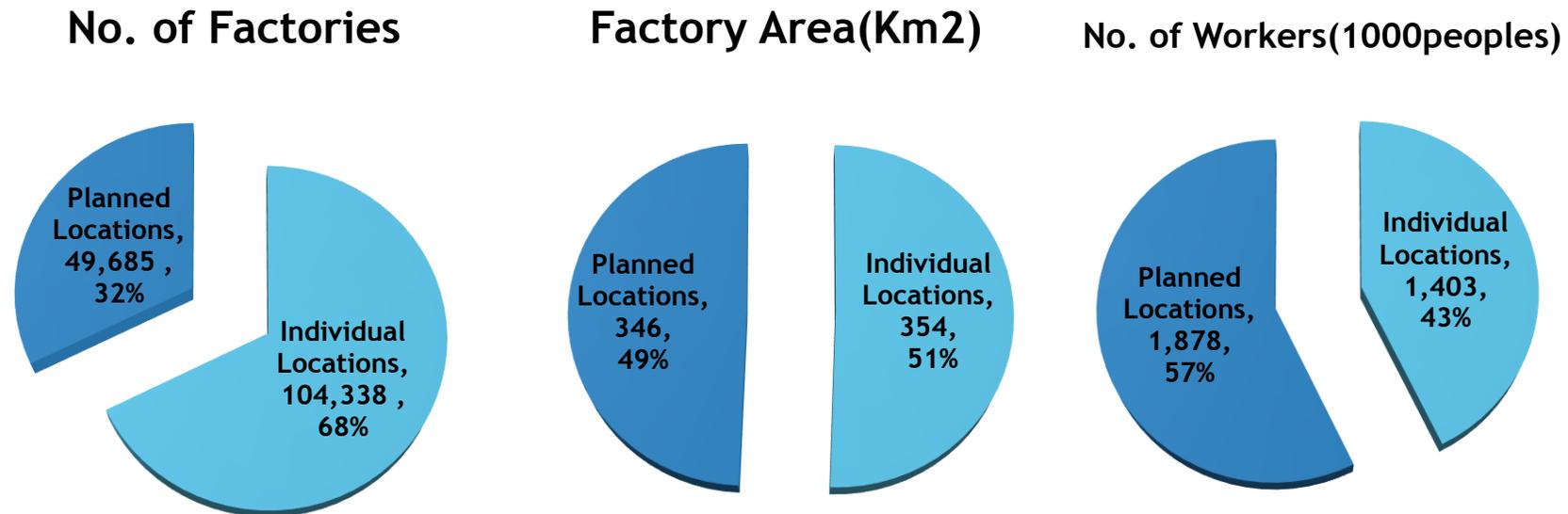
구분	Number of Parks	Area(1000 m ²)	Companies	Workers (1000peoples)	production(100bil KRW)	Export (bil. \$)
National Industrial Park	41	792,287	46,352	1,072	6,796	267.4
Local Industrial Park	497	493,984	23,082	664	3,087	151.0
Urban High-Tech Park	11	2,271	152	1	1.6	0.01
Agricultural Industrial Park	444	70,963	6,208	139	489	11.6
Total	993	1,359,505	75,794	1,878	10,374	430.1

Source: KICOX, Status Statistics on Industrial Park, 2013

1. Status of Industrial Parks in Korean Economy

- ▶ **Planned Location:** Locating in the land well prepared for industries based on the comprehensive plans
- ▶ **Individual Location:** Factory establishment wherever users desire. Allowing users select lands of their choice, but complicated administrative procedures and high cost for infrastructure(including pollution prevention facilities)

Status of planned and individual location in Korea(2012)



Source: KICOX, Statistics on Factory Registration, 2013

1. Status of Industrial Parks in Korean Economy

Korea's Industrial Parks by Decade



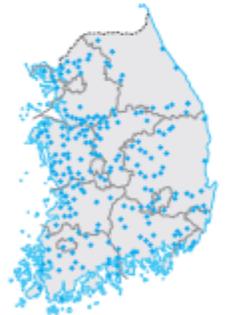
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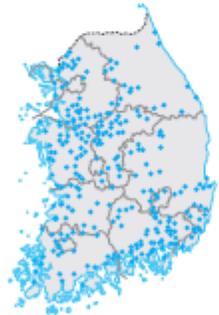
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<1990s>



<2000s>

- 1960s: Designated in the Seoul Metropolitan Area and the southeastern area and private-led industrial park in main cities
- 1970s: Intensively develop coastal industrial parks in the southeastern area with favorable locations for heavy and chemical industries
- 1980s: Accelerate inland industrial park development mainly in Chungcheong Area as Local Industrial Parks and Agricultural Industrial Parks were developed
- 1990s: Develop mainly in urban areas and the Seoul Metropolitan Area (adjacent to Gyeonggi and Chungcheong Areas)
- 2000s: Diversify locations

Source: 2011 Modularization of Korea's Development Experience: Industrial Park Development Strategy and Management Practices(2012), Ministry of Strategy and Finance, pp.60

1. Status of Industrial Parks in Korean Economy



Seoul Guro Industrial Park(1970s)



Seoul Guro Industrial Park(present)-Apartment-type
Factory Buildings



Daegu Sunseo Industrial Park



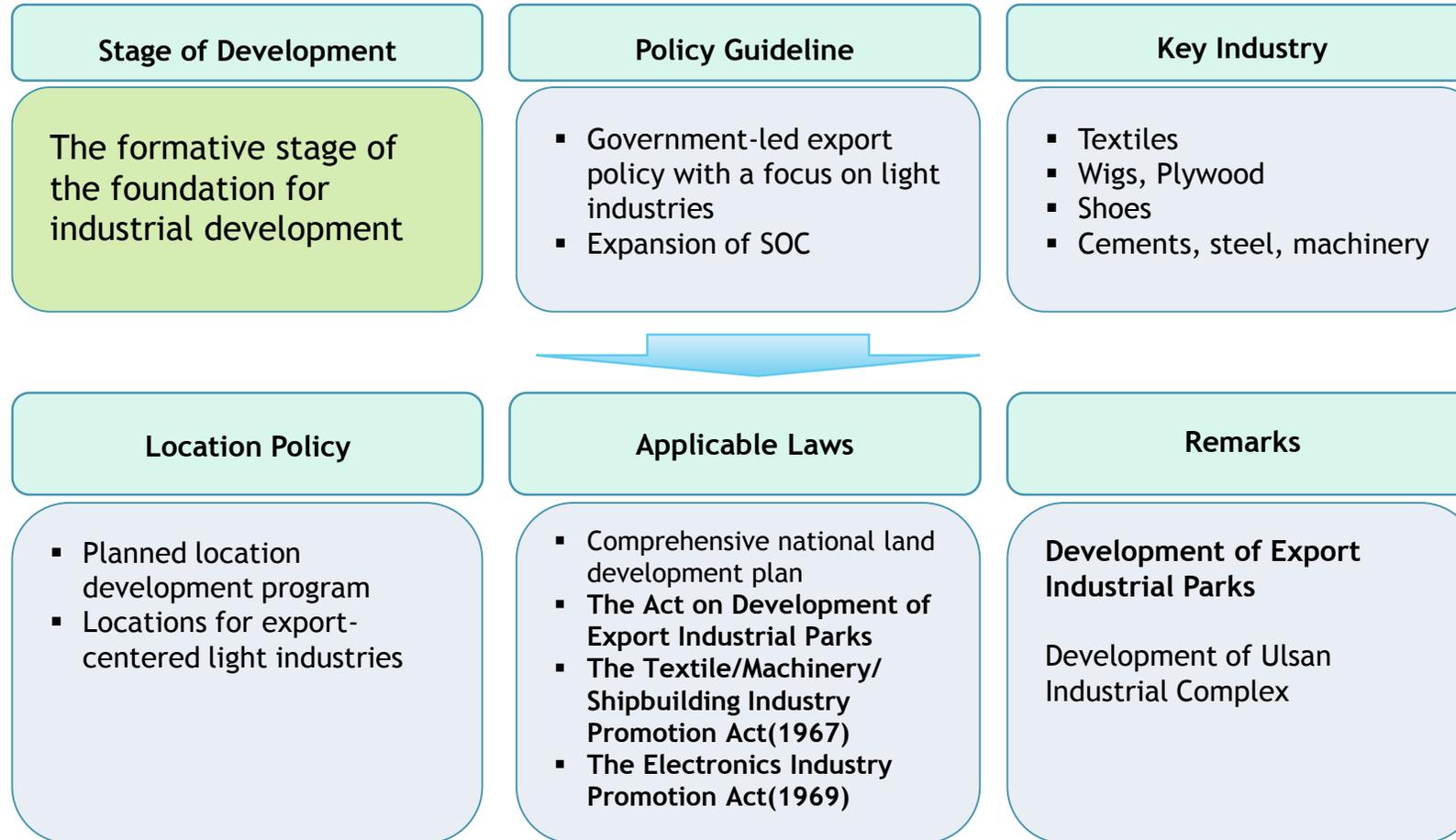
Yeosoo Industrial Park



Busan Noksan Industrial Park

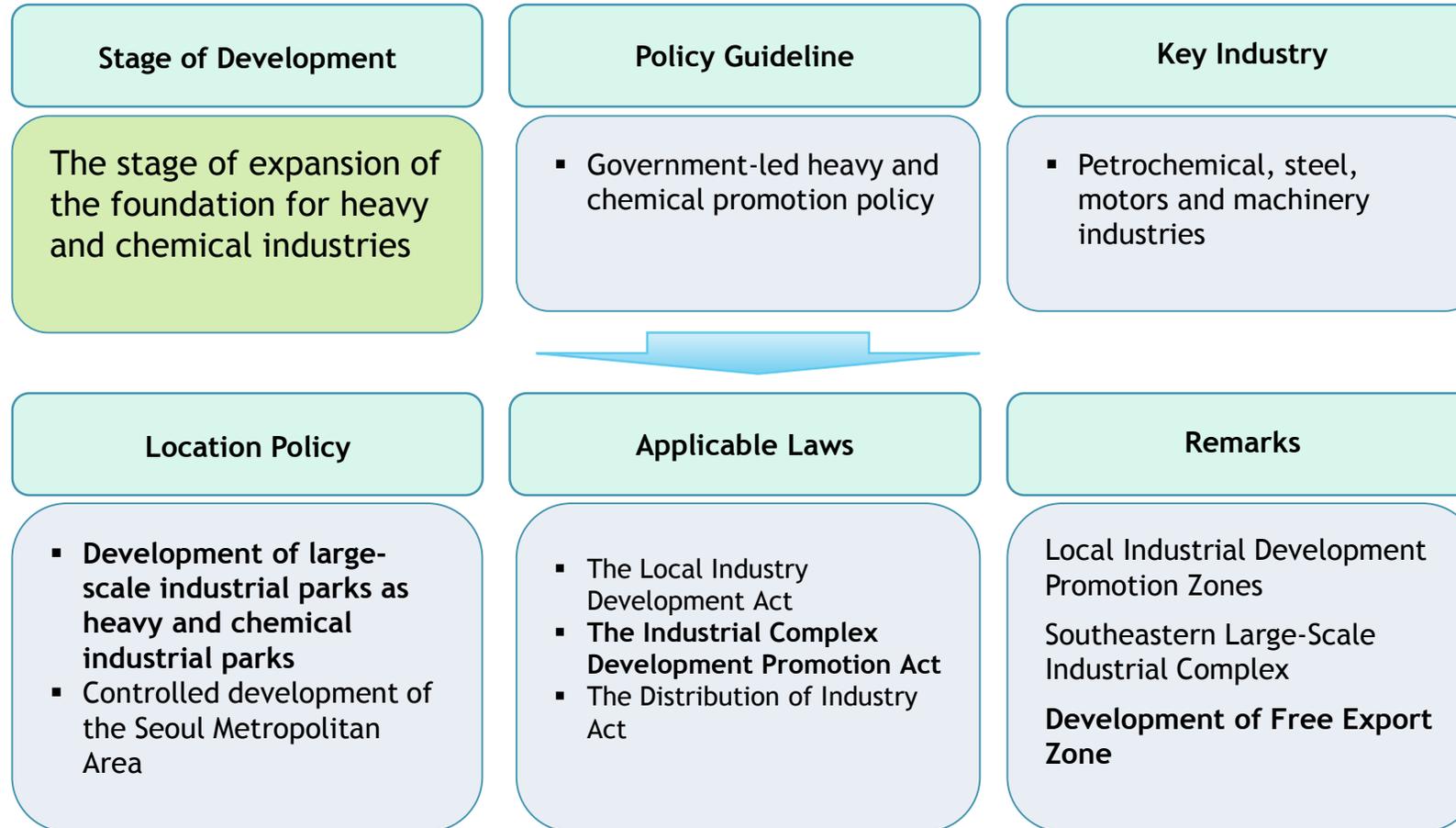
2. History of Korea's Industrial Location Policy

▷ 1960s : Export-Driven Industrial Development Policy



2. History of Korea's Industrial Location Policy

▷ 1970s : Fostering of Heavy and Chemical Industries



2. History of Korea's Industrial Location Policy

▷ 1980s : Balanced National Development

Stage of Development	Policy Guideline	Key Industry
<p>The stage of adjustment of industrial structure</p>	<ul style="list-style-type: none"> ▪ Industrial rationalization of heavy and chemical industries ▪ Development of tech-intensive industries into export industries 	<ul style="list-style-type: none"> ▪ Semiconductors, electronics and motors
Location Policy	Applicable Laws	Remarks
<ul style="list-style-type: none"> ▪ Improvement of internal stability of industrial parks ▪ Development of industrial parks in the under-developed regions ▪ Development of Agricultural & Industrial Parks 	<ul style="list-style-type: none"> ▪ The Seoul Metropolitan Area Planning Act ▪ The Small and Medium-Sized Enterprises Promotion Act ▪ The Agricultural and Fishery Income Development Promotion Act ▪ The Industry Development Act(1986) 	<p>Southwestern Large-Scale Industrial Complex</p> <p>Development of Agricultural & Industrial Parks</p>

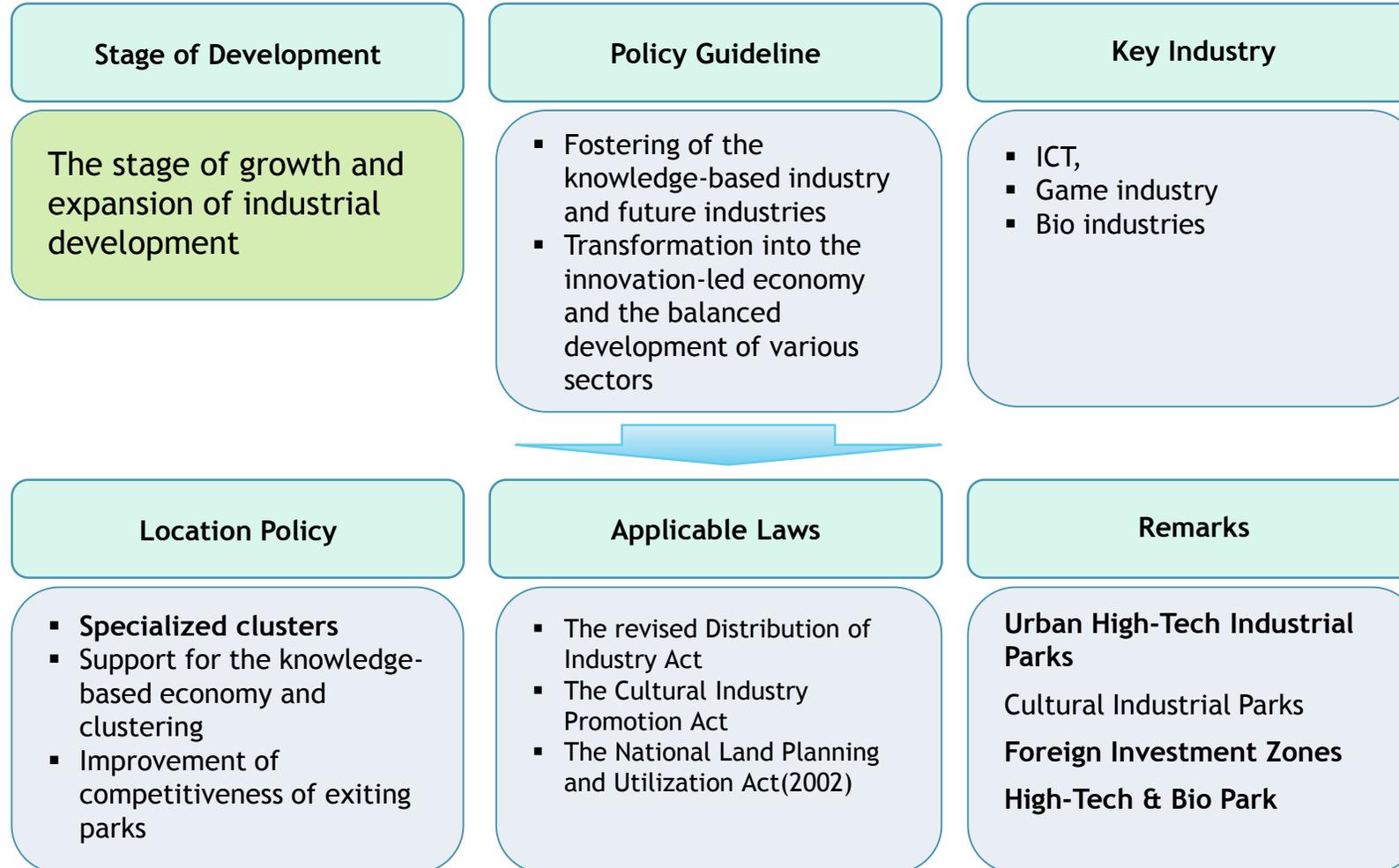
2. History of Korea's Industrial Location Policy

▷ 1990s : Advancement of Industrial Structure

Stage of Development	Policy Guideline	Key Industry
<p>The stage of acceleration of industrial development</p>	<ul style="list-style-type: none"> ▪ Opening and the private-led economic operation(the first half) ▪ Industrial restructuring under IMF guideline(the second half) 	<ul style="list-style-type: none"> ▪ Promotion of the software industry with a focus on services ▪ Development of semiconductors, precision chemistry and automation program
Location Policy	Applicable Laws	Remarks
<ul style="list-style-type: none"> ▪ Diversification of types of locations ▪ Eased regulations on locations ▪ Renaming of industrial parks ▪ Streamlining of development procedures 	<ul style="list-style-type: none"> ▪ The Industrial Location Act ▪ The Distribution of Industry Act ▪ The revised National Land Utilization Control Act ▪ The Act on Special Cases of Industrial and Technical Complex Support 	<p>Increase of location of individual businesses</p> <p>Development of Techno Parks</p> <p>Construction of Apartment-type factory buildings</p>

2. History of Korea's Industrial Location Policy

▷ 2000s : Diversification of Industrial Locations



3. Overview of Industrial Parks

▶ **Types of the Industrial Park**

- ▷ Classified by types of development actors
 - ▶ Industrial park developed by public sectors (central government, local government)
 - ▶ Industrial park developed by private sectors (developer)
- ▷ Classified by different purpose of development
 - ▶ Special economic zone for attracting FDI
 - ▶ General industrial park for promoting domestic industrial firms
- ▷ Classified by different types of development process
 - ▶ Development of an industrial park equipped infrastructure in a pre-selected area
 - ▶ Industrial zone is selected as part of the comprehensive urban planning, allowing private firms to freely engage in development of factories and production of industrial goods.

3. Overview of Industrial Parks

Types of Industrial Park in Korea		
Type	Purpose of Development	Target Region
National Industrial Parks	<ul style="list-style-type: none"> - To promote the nation's key industries and high technology industries, etc. - To develop underdeveloped areas requiring promotion of development or areas where planned industrial parks are stretched over two or more of Provinces 	Underdeveloped regions requiring promotion of development, and regions with infrastructure advantages for the high-tech industry
Local Industrial Parks	<ul style="list-style-type: none"> - To promote appropriate decentralization of industries - To activate local economies 	A region requiring balanced development
Urban High-Tech Industrial Parks	<ul style="list-style-type: none"> - To foster and promote development of the knowledge industry, the cultural industry, the ICT industry and other high-tech industries 	Urban regions with advantages for fostering the high-tech industry
Agricultural Industrial Parks	<ul style="list-style-type: none"> - To attract and promote industries in agricultural and fishing area 	A region having an advantageous location in agricultural and fishing villages

Source: 2011 Modularization of Korea's Development Experience: Industrial Park Development Strategy and Management Practices(2012), Ministry of Strategy and Finance, pp.57

3. Overview of Industrial Parks

Other Types of Industrial Parks			
Type	Characteristics	Purpose of Designation	Target Region
Free Trade Zone	Export Processing Zone	Attract foreign investment, promote trade and promote local development	A region surrounding a harbor, an airport and an existing industrial park
Foreign Investment District	Foreign Company's Factory Sites	Promote attraction of foreign investment	An industrial park and a region where foreign investors wish to invest
Free Economic Zone	Special Economic Zone, Free City	Improve business and living conditions for foreign investors	A region having a high possibility of foreign investment and settlement of foreigners
Techno-Park	Science or Research Park	Joint technology development and activation of local economies through clustering industry, academy and institute	A region having a high possibility of clustering and connection of industry, university and institute

Source: 2011 Modularization of Korea's Development Experience: Industrial Park Development Strategy and Management Practices(2012), Ministry of Strategy and Finance, pp.58-59

3. Overview of Industrial Parks

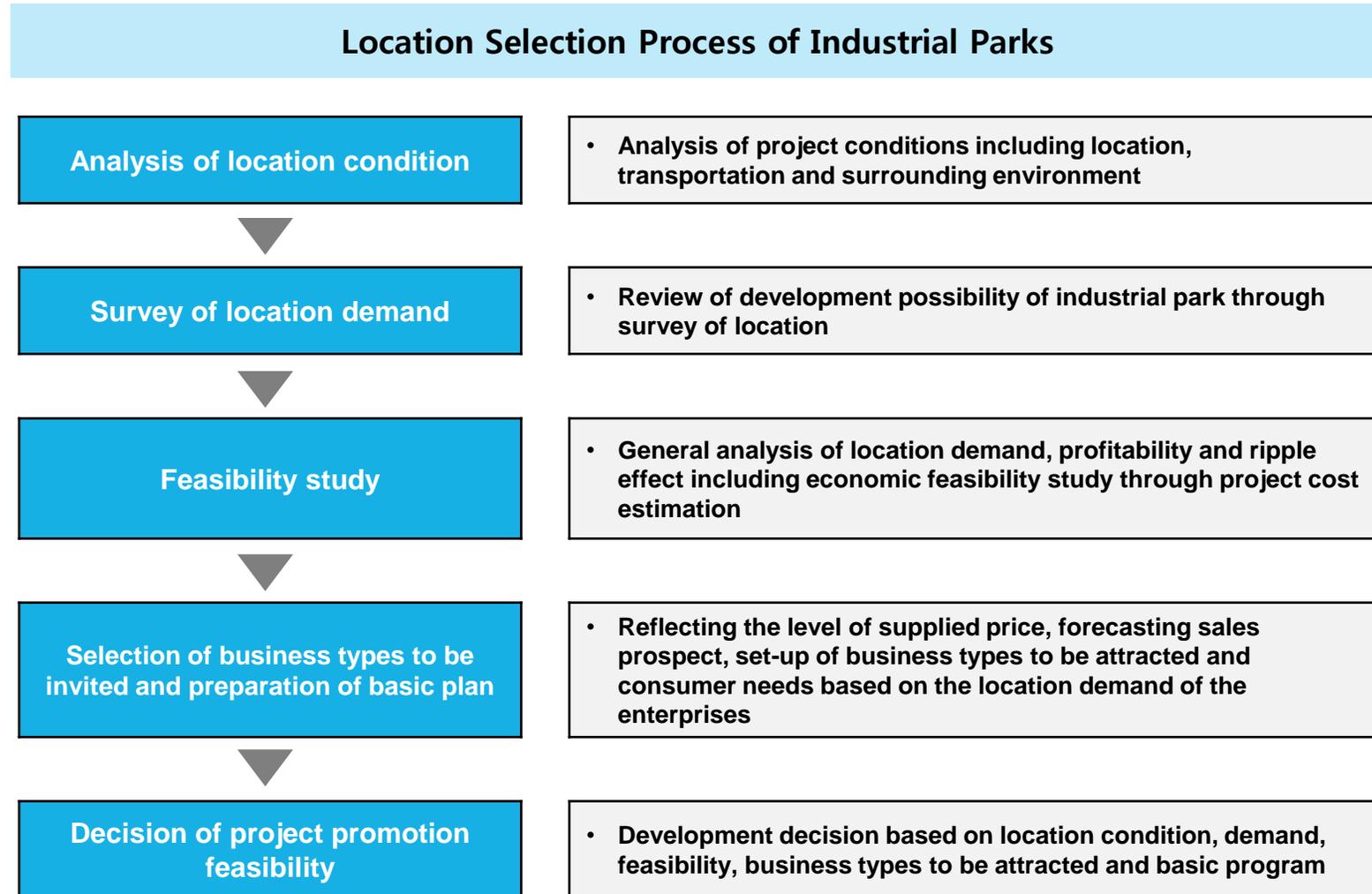
▶ **Procedures of Industrial Park Development**

- ▷ The project for development of industrial parks consists of land development and construction of infrastructure.
 - ▶ **Land development** : To arrange lands for enterprises and those for supporting facilities to enhance efficiency and functions of the industrial park.
 - ▶ **Construction of infrastructure** : To supply of the infrastructure required for an industrial park, which includes water supply, electricity, energy, transportation, sewage and waste treatment, prevention of environment pollution

▷ Procedures of Industrial Park Development



3. Overview of Industrial Parks



4. Legal System Related to Industrial parks

- ▶ **Development: “Industrial Site and Development Act”**
 - ▶ The purpose of this act is to promote balanced development of nation and sustained industrial progress through efficient supply of industrial locations and appropriate allocation of industries.
 - ▶ This act defines the general procedures related to designation and development of industrial parks.
 - ▶ Main Contents : designation procedures by various types of industrial parks(national, local, urban high-tech and agricultural industrial parks), guidelines for development of industrial parks, location of enterprise outside of industrial parks(zone for inducing factory establishment), etc.
 - ▶ Central administrative agency : Ministry of Land, Infrastructure and Transport , Korea Land and Housing Corporation(LH)

4. Legal System Related to Industrial parks

- ▶ **Management: “Industrial Cluster Development and Factory Establishment Act”**
 - ▶ The purpose of this act is to contribute to sustained industrial development and balanced regional development by developing industrial clusters, supporting establishment of factories and systematical managing industrial parks.
 - ▶ This act consists of three parts. The first part defines establishment of factories, the second part the way to activate industrial clusters and the third part administration of industrial parks.
 - ▶ Central administrative agency : Ministry of Industry, Trade and Energy
Korea Industrial Complex Corporation(KICOX)

4. Legal System Related to Industrial parks

▶ **Points of the industrial park management**

▷ **Efficiency of land use(Zoning)**

- ▶ The industrial park needs to be managed where its uses of land must be separated from that of residential and commercial areas.

▷ **Characteristics of public goods**

- ▶ To enhance competitiveness of tenant firms, the government needs investment on industrial infrastructure so that industrial park can lower its rents in relative to market price.

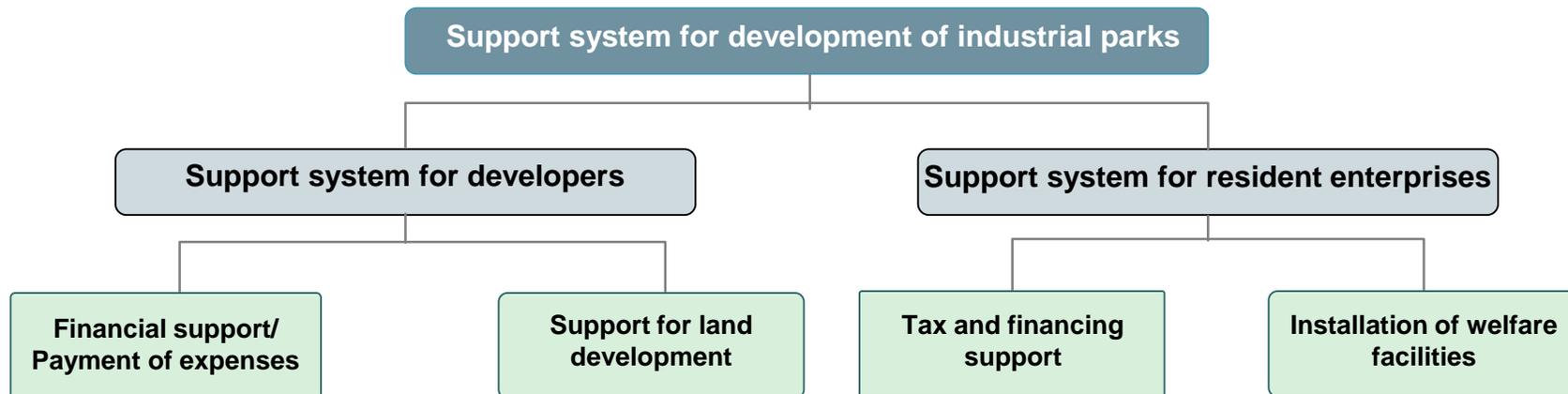
▷ **Regulation of permitted industries(target industries)**

- ▶ Select permitted industries(target industries) and only permitted industries to reside in the industrial parks
- ▶ A tenant firm needs to sell the land to another firm that is also specialized in permitted industries.

5. Government Support for Industrial parks

► Overview

- ▶ In general, it is a rule that project operators shall be responsible for expenses arising from development and recover the costs by selling the developed parks.
- ▶ However, as the industrial park development project involves a significant portion of the public facility costs for building roads and industrial water and sewage system, the government is partially paying the costs.



5. Government Support for Industrial parks

(1) Incentives for Developers

- ▶ **Items which the central and local government may subsidize**
 - Construction expenses for an access road to the parks from the main road
 - Construction expenses for water supply facilities, sewerage, and waste water treatment facilities
 - Land purchase expenses for the purpose of leasing land(ex: Free Trade Zone)
 - Expenses for relocation or regeneration projects
- ▶ **Reduction or Exemption of taxes, and financial assistance**
 - Acquisition tax, registration tax and property tax are exempted for the land purchased by developers
 - The central and local government may provide financial assistance for efficient development of industrial parks.

5. Government Support for Industrial parks

(2) Incentives for Resident Enterprises

▶ Reduction or Exemption of Taxes

- 100% exemption of registration tax and acquisition tax, and 50% reduction of property tax

▶ Financial Assistance

- Agricultural Industrial Parks : Subsidization of the capital expenditure and the operating expenses of resident enterprise
- Urban high-tech industrial parks : Low-interest financing for the projects of resident enterprises

▶ Support of Welfare Facilities

- A management agency may operate support services such as improvement of energy efficiency, promotion of labor relations and vocational training.
- A lot of welfare facilities are installed and managed by the agency

III. Current Status on Development and Management of Industrial Park in Bulgaria

1. Current Status on Industrial Park Development

▶ Types of Industrial Park

- ▶ **Industrial parks developed by public sectors : National parks, municipal parks**
- ▶ **Industrial park developed by private sectors**
- ▶ **All industrial parks in Bulgaria have the primary goal of attracting FDI, but local companies aren't discouraged in any way.**

▶ National parks by NCIZ

- ▶ **National Company Industrial Zone PLC(NCIZ) which is a state-owned company has a total of 8 projects.**
 - Total area 6.6 Km², Built-up area 74,000m², Open-air warehouses 225,500m²
- ▶ **3 functioning free trade zones, 5 zones under development** (Sofia-Bozhurishte Economic Zone, Industrial & Logistics Park Burgas, Industrial Zone Karlovo, Telish, Vama-West)

1. Current Status on Industrial Park Development

- ▶ **Free Zones in Bulgaria**
 - ▶ **Mainly locate to strategic transport locations**
 - ▶ **6 zones : 3 free zones(Rousse, Vidin, Svilengrad) are owned by NCIZ, while the rest are privately-owned.**
 - ▶ **Main advantages : VAT and duty exemption, convenient currency exchange, unrestricted repatriation of profits overseas, and a semi-autonomous organisation structure**

- ▶ **Incentives provided to industrial park developers**
 - ▶ **The lack of legislation to effectively regulate and support for industrial parks development in Bulgaria -> Major challenge**
 - ▶ **Certified priority projects are granted opportunities for financial assistance for the construction of physical infrastructure elements**
 - ▶ **Priority investment projects require an approval by the Council of Ministers.**

2. Management and Operation of Industrial Parks

▶ Managing the Industrial Park

- ▶ **As a 100 % state-owned company, NCIZ must comply with certain regulations. NCIZ can only sell land to certified investors under the Investment Promotion Act (IPA).**
- ▶ **In the case of priority investment projects, NCIZ can sell land at market or lower prices.**
- ▶ **Industrial parks in Bulgaria don't designate target industries. While certain industries are encouraged, other sectors wouldn't be strictly prohibited as long as they comply with environmental regulations for allowed levels of gas emissions, noise etc.**
- ▶ **At present, there is no legal framework to regulate and support the development, management and operation of industrial parks in Bulgaria. The lack of relevant law represents a considerable impediment to making them more competitive on a global scale.**

2. Management and Operation of Industrial Parks

▶ National Company Industrial Zones

- ▶ NCIZ is a holding company established in 2009 with a 100 % state ownership of the capital.
- ▶ The company aims to support the implementation of both foreign and domestic investment projects.
- ▶ The company is specialized in the design, construction, marketing and management of industrial parks.

Organizational structure of NCIZ



3. SWOT Analysis on Industrial Park in Bulgaria

Strengths

- ▶ **Advantageous geographic location – strategic logistics hub, allowing easy access to the EU, the Middle East, etc.**
- ▶ **High overall quality of Bulgarian education and availability of skilled workforce**
- ▶ **Competitive land prices**
- ▶ **Favorable business climate, stable macroeconomic indicators, the lowest corporate tax in Europe (10%), low labor costs**

Weaknesses

- ▶ **Small domestic market**
- ▶ **Weak technical competitiveness of manufacturing companies**
- ▶ **More and more young and skilled workforce tends to go abroad (Increasing “brain drain”)**
- ▶ **Financial issues related to the construction of all the infrastructure for new industrial zones**

3. SWOT Analysis on Industrial Park in Bulgaria

Opportunities

- ▶ **Becoming a preferred investment destination for foreign investment among the CEE countries**
- ▶ **Opportunities for exchanging experiences and good practices in the field of industrial park development and management**

Threats

- ▶ **Risk of repeated political instability (e.g. early elections, public protests)**
- ▶ **Risk of frequent changes in the legal framework, leading to uncertainty**
- ▶ **Insufficient transparency and effectiveness in the country's judicial system compared to other countries**
- ▶ **Possible delays in infrastructure construction**

IV. Policy Tasks for Efficient Development and Management of the Industrial Park in Bulgaria

1. Strategy for Development of Successful Industrial Parks

▶ **[Strategy 1] Development of industrial parks around metro area is necessary**

- ▷ (As Is) Industrial parks currently developed by NCIZ tends to be small in size, dispersed around country, and located around logistic centers.
- ▷ (To Be) In order to promote knowledge intensive industries using high quality workforce, larger sized industrial parks needs to be developed around metro area where adequate labor procurements are easy.
- ▶ Not only be provided with pertinent physical infrastructures such as transportation, power and water supply, the industrial parks must also be provided with pertinent innovation infrastructures such as technology support and training facilities.
- ▶ Instead of emphasizing on dispersing small-scale industrial parks around country, NCIZ could pursuit for a best practice model by developing few industrial parks that have competitiveness in land price, infrastructure and transportation.

1. Strategy for Development of Successful Industrial Parks

▶ **[Strategy 2] Industrial parks land should be allowed for mixed-use development**

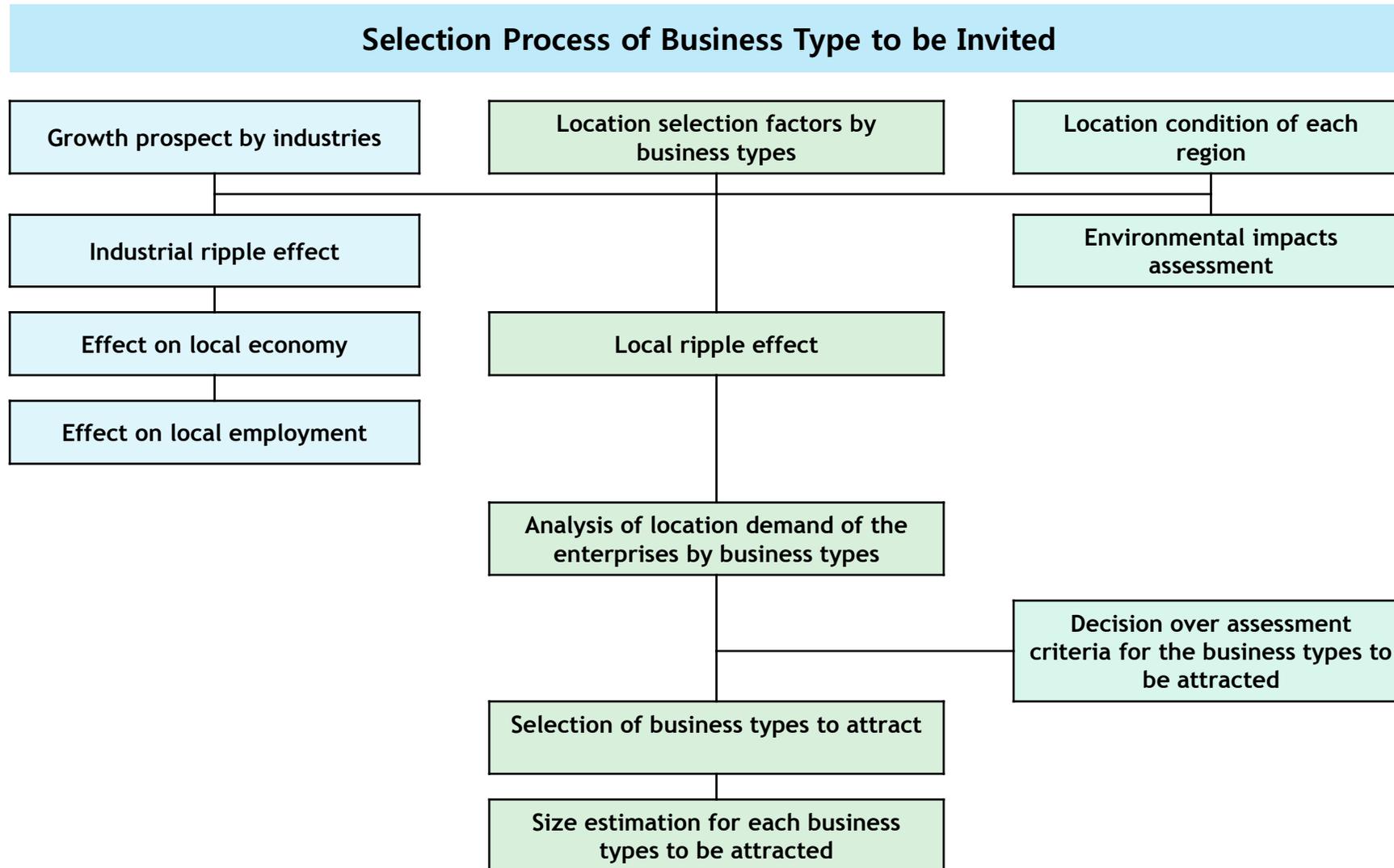
- ▷ (As Is) Currently, “land use plan” exclusively allow uses of sites for factory and warehouse.
- ▷ (To Be) The regulation should extend for uses of sites for residential, commercial and multi-cultural facilities.
 - ▶ Industrial location policy needs to be comprehended with cluster and urban development perspectives.
 - ▶ Strictly separating factory sites from residential and commercial sites is outmoded in times of industrial convergence. Technopark-type development of industrial parks is necessary.

1. Strategy for Development of Successful Industrial Parks

▶ **[Strategy 3] Foster specialized industrial parks by promoting specific industries by industrial sites**

- ▷ (As Is) There is no regulation on limiting type of business activities by industrial parks.
- ▷ (To Be) Target industries must be selected by different industrial parks and infrastructures necessary for certain target industries should be developed.
- ▶ Industrial parks development with emphasizing on promoting target industries could serve as a good medium for linking regional and land development policy with industrial (investment) policy.

1. Strategy for Development of Successful Industrial Parks



1. Strategy for Development of Successful Industrial Parks

Location Condition by Business Types(1)

Types of Business	Location Condition
Food processing, Non metal manufacturing, wood processing	<ul style="list-style-type: none"> • The accessibility to raw materials producing areas is important • If raw materials are imported, the factory should be located near a port
Textiles	<ul style="list-style-type: none"> • The location at any place is allowed as far as labor force and industrial water are available • A convenient access to a market is required for clothes industry
Leather	<ul style="list-style-type: none"> • The industry should be located at an area near a river or the sea for treatment of wastewater
Paper	<ul style="list-style-type: none"> • As a capital-intensive industry where automated production lines for processing is required, this pollution-causing industry is a large energy consumer • Therefore, a region where electric supply is sufficient and damages by water pollution can be minimized is ideal
Petrochemical materials	<ul style="list-style-type: none"> • As naphtha and ethylene, which are the raw materials, are liquefied and gaseous, a combinat is formed with the naphtha decomposition unit as a center • Supply of clean industrial water is important for the fine chemical industry
Synthetic resin rubber	<ul style="list-style-type: none"> • Accessibility to the market
Rubber	<ul style="list-style-type: none"> • Land, Electricity and labor force are main factors determining locations

Source: Industrial Park Development in Korean Economy, Korea Industrial Complex Corp., pp.98

1. Strategy for Development of Successful Industrial Parks

Location Condition by Business Types(2)

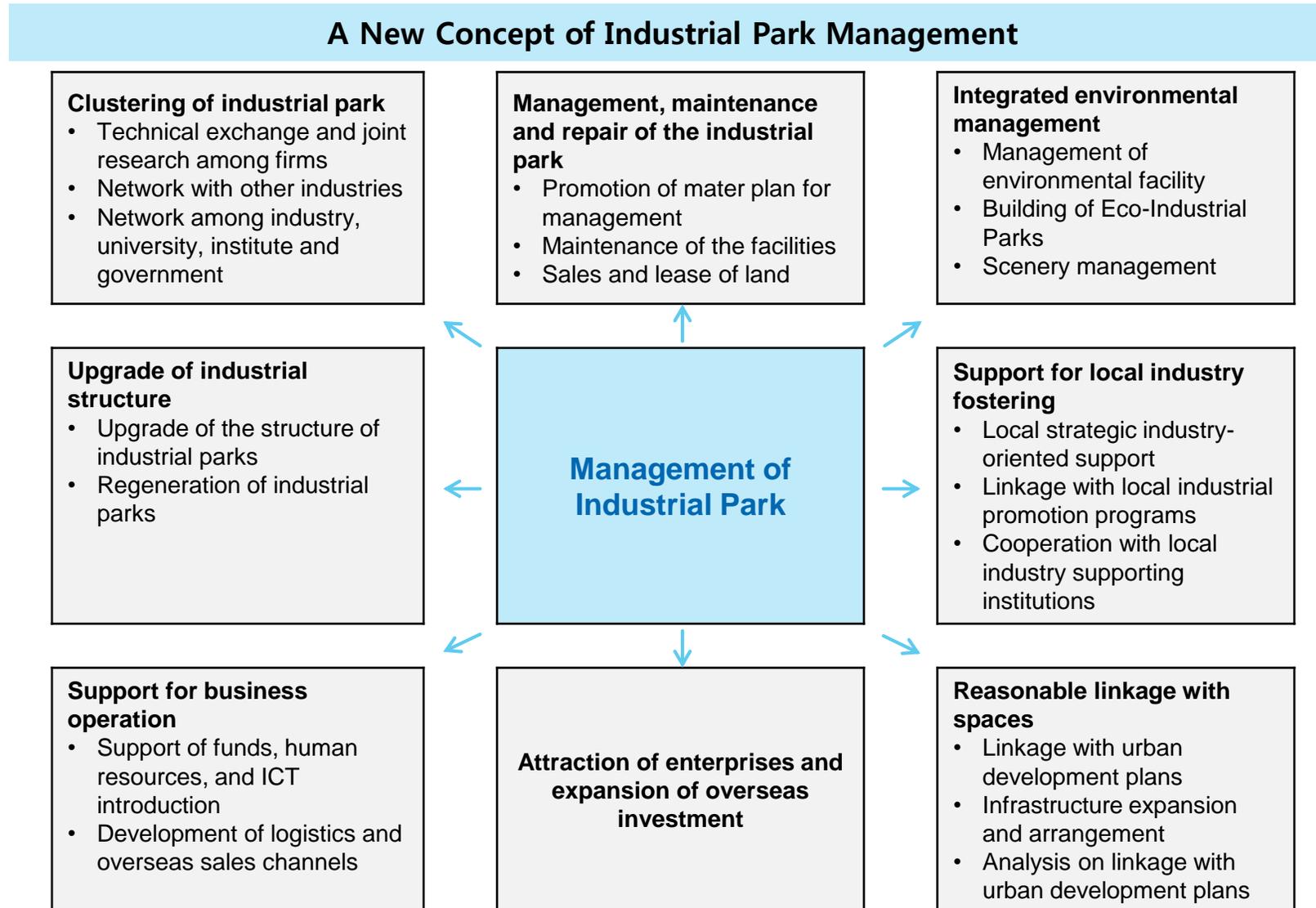
Types of Business	Location Condition
Steel Processing	<ul style="list-style-type: none"> • A port with deep water is essential for transporting iron ore • The steel industry, which is a large energy consumer, requires a location near the market and accessibility to sufficient electricity
Non-ferrous metal	<ul style="list-style-type: none"> • A port facility is essential as the largest portion of raw ore is imported • Sufficient supply of electricity and industrial water is important
Mechanical machine	<ul style="list-style-type: none"> • Horizontal and vertical collaboration system is required to produce raw material, components and finished products, and this industry is characterized by integration. Connections with relevant production industries, large-scale lands and labor force are important • The computer industry should be located at a place without humidity, salt damage and soft ground, and access to skilled labor is required
Electronics	<ul style="list-style-type: none"> • A large-scale land is required • Any location without humidity, salt damage or pollution will be acceptable • However, a place where relevant industries are concentrated will have benefits of clustering, which include sufficient labor force and easy access to an airport
Automobile	<ul style="list-style-type: none"> • As this industry is an assembly industry of which ripple effect on related industries is great, accessibility to component factories is important • The most important location factor is to secure a large-scale land
Shipbuilding/Oil refinery	<ul style="list-style-type: none"> • A coastal port with deep water to which large ships can access is essential
IT, BT and NT	<ul style="list-style-type: none"> • A place with accessibility to high quality human resources, information center and research institutes

2. Strategy for Managing the industrial park as a competitive cluster

▶ **[Strategy 4] Building target industry oriented management and enterprise support system**

- ▷ (As Is) Post-management system after development of industrial parks is insufficient. There are no particular incentives for tenant firms.
- ▷ (To Be) Industrial parks should only allow type of business that fall under specific target industries, and provide target industries oriented incentives.
 - ▶ Development technical support center and manpower training center pertinent to target industries in order support tenant firm's business activities
 - ▶ Establish “industrial park basic management plan” for sustainable management

2. Strategy for Managing the industrial park as a competitive cluster



2. Strategy for Managing the industrial park as a competitive cluster

▶ **[Strategy 5] Enhancing NCIZ-led development and management system**

- ▷ (As Is) NCIZ plays crucial role in developing and managing industrial parks. However, current size and resources are not sufficient for implementation of integrated management of both development and management of industrial parks.
- ▷ (To Be) In order to promote industrial development of Bulgaria, industrial parks that have locational advantages need to be strategically developed at national level. In this context, the role of government agency such as NCIZ is essential.
 - ▶ Increase size of the organization and resources.
 - ▶ Secure particular sites in industrial parks in advance in order to use them as public facilities (innovation center, etc.) in future.

2. Strategy for Managing the industrial park as a competitive cluster

▶ **[Strategy 6] Establishing law and institutional base for integrating development and management of industrial parks**

- ▷ (As is) There is no exclusive law regarding development and management of industrial parks.
- ▷ (To be) a law integrating development and management of industrial parks should be enacted.
 - ▶ Development of industrial parks should not be utilized as part of balanced regional development policy.
 - ▶ The industrial parks development and management policy should therefore, be closely linked with investment promotion policy and industrial policy.