Industrial Park Development and Management Strategy in Bulgaria

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(KIET)
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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

<table>
<thead>
<tr>
<th>구분</th>
<th>Number of Parks</th>
<th>Area(1000㎡)</th>
<th>Companies</th>
<th>Workers(1000peoples)</th>
<th>production(100bil KRW)</th>
<th>Export(bil.$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Industrial Park</td>
<td>41</td>
<td>792,287</td>
<td>46,352</td>
<td>1,072</td>
<td>6,796</td>
<td>267.4</td>
</tr>
<tr>
<td>Local Industrial Park</td>
<td>497</td>
<td>493,984</td>
<td>23,082</td>
<td>664</td>
<td>3,087</td>
<td>151.0</td>
</tr>
<tr>
<td>Urban High-Tech Park</td>
<td>11</td>
<td>2,271</td>
<td>152</td>
<td>1</td>
<td>1.6</td>
<td>0.01</td>
</tr>
<tr>
<td>Agricultural Industrial Park</td>
<td>444</td>
<td>70,963</td>
<td>6,208</td>
<td>139</td>
<td>489</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>993</td>
<td>1,359,505</td>
<td>75,794</td>
<td>1,878</td>
<td>10,374</td>
<td>430.1</td>
</tr>
</tbody>
</table>

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)

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**Status of planned and individual location in Korea(2012)**

<table>
<thead>
<tr>
<th></th>
<th>No. of Factories</th>
<th>Factory Area(Km²)</th>
<th>No. of Workers(1000 peoples)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Planned</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locations</td>
<td>49,685</td>
<td>1,878</td>
<td>1,403</td>
</tr>
<tr>
<td><strong>Individual</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locations</td>
<td>104,338</td>
<td>1,403</td>
<td></td>
</tr>
</tbody>
</table>

Source: KICOX, Statistics on Factory Registration, 2013
1. Status of Industrial Parks in Korean Economy

Korea’s Industrial Parks by Decade

- **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**: Diverse locations

1. Status of Industrial Parks in Korean Economy

Seoul Guro Industrial Park (1970s) → Seoul Guro Industrial Park (present) - Apartment-type Factory Buildings

Daegu Sungseo Industrial Park
Yeosoo Industrial Park
Busan Noksan Industrial Park
2. History of Korea’s Industrial Location Policy

1960s: Export-Driven Industrial Development Policy

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Policy Guideline</th>
<th>Key Industry</th>
</tr>
</thead>
</table>
| The formative stage of the foundation for industrial development | • Government-led export policy with a focus on light industries  
• Expansion of SOC | • Textiles  
• Wigs, Plywood  
• Shoes  
• Cements, steel, machinery |

<table>
<thead>
<tr>
<th>Location Policy</th>
<th>Applicable Laws</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| • Planned location development program  
• Locations for export-centered light industries | • Comprehensive national land development plan  
• The Act on Development of Export Industrial Parks  
• The Textile/Machinery/Shipbuilding Industry Promotion Act(1967)  
• The Electronics Industry Promotion Act(1969) | Development of Export Industrial Parks  
Development of Ulsan Industrial Complex |
### 1970s: Fostering of Heavy and Chemical Industries

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Policy Guideline</th>
<th>Key Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>The stage of expansion of the foundation for heavy and chemical industries</td>
<td>Government-led heavy and chemical promotion policy</td>
<td>Petrochemical, steel, motors and machinery industries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location Policy</th>
<th>Applicable Laws</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of large-scale industrial parks as heavy and chemical industrial parks</td>
<td>The Local Industry Development Act</td>
<td>Local Industrial Development Promotion Zones</td>
</tr>
<tr>
<td>Controlled development of the Seoul Metropolitan Area</td>
<td>The Industrial Complex Development Promotion Act</td>
<td>Southeastern Large-Scale Industrial Complex</td>
</tr>
<tr>
<td></td>
<td>The Distribution of Industry Act</td>
<td>Development of Free Export Zone</td>
</tr>
</tbody>
</table>
### 2. History of Korea’s Industrial Location Policy

#### 1980s: Balanced National Development

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Policy Guideline</th>
<th>Key Industry</th>
</tr>
</thead>
</table>
| The stage of adjustment of industrial structure | ▪ Industrial rationalization of heavy and chemical industries  
▪ Development of tech-intensive industries into export industries | ▪ Semiconductors, electronics and motors |

<table>
<thead>
<tr>
<th>Location Policy</th>
<th>Applicable Laws</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| ▪ Improvement of internal stability of industrial parks  
▪ Development of industrial parks in the under-developed regions  
▪ Development of Agricultural & Industrial Parks | ▪ 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) | Southwestern Large-Scale Industrial Complex  
Development of Agricultural & Industrial Parks |
2. History of Korea’s Industrial Location Policy

1990s: Advancement of Industrial Structure

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Policy Guideline</th>
<th>Key Industry</th>
</tr>
</thead>
</table>
| The stage of acceleration of industrial development | - Opening and the private-led economic operation (the first half)  
- Industrial restructuring under IMF guideline (the second half) | - Promotion of the software industry with a focus on services  
- Development of semiconductors, precision chemistry and automation program |

<table>
<thead>
<tr>
<th>Location Policy</th>
<th>Applicable Laws</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| - Diversification of types of locations  
- Eased regulations on locations  
- Renaming of industrial parks  
- Streamlining of development procedures | - 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 | - Increase of location of individual businesses  
- Development of Techno Parks  
- Construction of Apartment-type factory buildings |
### 2. History of Korea’s Industrial Location Policy

#### 2000s: Diversification of Industrial Locations

<table>
<thead>
<tr>
<th>Stage of Development</th>
<th>Policy Guideline</th>
<th>Key Industry</th>
</tr>
</thead>
</table>
| The stage of growth and expansion of industrial development | ▪ Fostering of the knowledge-based industry and future industries  
▪ Transformation into the innovation-led economy and the balanced development of various sectors | ▪ ICT,  
▪ Game industry  
▪ Bio industries |

<table>
<thead>
<tr>
<th>Location Policy</th>
<th>Applicable Laws</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| ▪ Specialized clusters  
▪ Support for the knowledge-based economy and clustering  
▪ Improvement of competitiveness of exiting parks | ▪ The revised Distribution of Industry Act  
▪ The Cultural Industry Promotion Act  
Cultural Industrial Parks  
Foreign Investment Zones  
High-Tech & Bio Park |
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

<table>
<thead>
<tr>
<th>Type</th>
<th>Purpose of Development</th>
<th>Target Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Industrial Parks</td>
<td>- To promote the nation’s key industries and high technology industries, etc.</td>
<td>Underdeveloped regions requiring promotion of development, and regions with infrastructure advantages for the high-tech industry</td>
</tr>
<tr>
<td></td>
<td>- To develop underdeveloped areas requiring promotion of development or areas where planned industrial parks are stretched over two or more of Provinces</td>
<td></td>
</tr>
<tr>
<td>Local Industrial Parks</td>
<td>- To promote appropriate decentralization of industries</td>
<td>A region requiring balanced development</td>
</tr>
<tr>
<td></td>
<td>- To activate local economies</td>
<td></td>
</tr>
<tr>
<td>Urban High-Tech Industrial Parks</td>
<td>- To foster and promote development of the knowledge industry, the cultural industry, the ICT industry and other high-tech industries</td>
<td>Urban regions with advantages for fostering the high-tech industry</td>
</tr>
<tr>
<td>Agricultural Industrial Parks</td>
<td>- To attract and promote industries in agricultural and fishing area</td>
<td>A region having an advantageous location in agricultural and fishing villages</td>
</tr>
</tbody>
</table>
# 3. Overview of Industrial Parks

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

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.
### 3. Overview of Industrial Parks

#### Location Selection Process of Industrial Parks

<table>
<thead>
<tr>
<th>Step</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of location condition</td>
<td>- Analysis of project conditions including location, transportation and surrounding environment</td>
</tr>
<tr>
<td>Survey of location demand</td>
<td>- Review of development possibility of industrial park through survey of location</td>
</tr>
<tr>
<td>Feasibility study</td>
<td>- General analysis of location demand, profitability and ripple effect including economic feasibility study through project cost estimation</td>
</tr>
<tr>
<td>Selection of business types to be invited and preparation of basic plan</td>
<td>- Reflecting the level of supplied price, forecasting sales prospect, set-up of business types to be attracted and consumer needs based on the location demand of the enterprises</td>
</tr>
<tr>
<td>Decision of project promotion feasibility</td>
<td>- Development decision based on location condition, demand, feasibility, business types to be attracted and basic program</td>
</tr>
</tbody>
</table>
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.

Support system for development of industrial parks

- Support system for developers
  - Financial support/Payment of expenses
  - Support for land development

- Support system for resident enterprises
  - Tax and financing support
  - Installation of welfare facilities
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

Selection Process of Business Type to be Invited

- Growth prospect by industries
- Industrial ripple effect
- Effect on local economy
- Effect on local employment
- Location selection factors by business types
- Local ripple effect
- Analysis of location demand of the enterprises by business types
- Decision over assessment criteria for the business types to be attracted
- Selection of business types to attract
- Size estimation for each business types to be attracted
1. Strategy for Development of Successful Industrial Parks

<table>
<thead>
<tr>
<th>Types of Business</th>
<th>Location Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food processing, Non metal manufacturing, wood processing</td>
<td>• The accessibility to raw materials producing areas is important</td>
</tr>
<tr>
<td></td>
<td>• If raw materials are imported, the factory should be located near a port</td>
</tr>
<tr>
<td>Textiles</td>
<td>• The location at any place is allowed as far as labor force and industrial water are available</td>
</tr>
<tr>
<td></td>
<td>• A convenient access to a market is required for clothes industry</td>
</tr>
<tr>
<td>Leather</td>
<td>• The industry should be located at an area near a river or the sea for treatment of wastewater</td>
</tr>
<tr>
<td>Paper</td>
<td>• As a capital-intensive industry where automated production lines for processing is required, this pollution-causing industry is a large energy consumer</td>
</tr>
<tr>
<td></td>
<td>• Therefore, a region where electric supply is sufficient and damages by water pollution can be minimized is ideal</td>
</tr>
<tr>
<td>Petrochemical materials</td>
<td>• 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</td>
</tr>
<tr>
<td></td>
<td>• Supply of clean industrial water is important for the fine chemical industry</td>
</tr>
<tr>
<td>Synthetic resin rubber</td>
<td>• Accessibility to the market</td>
</tr>
<tr>
<td>Rubber</td>
<td>• Land, Electricity and labor force are main factors determining locations</td>
</tr>
</tbody>
</table>

Source: Industrial Park Development in Korean Economy, Korea Industrial Complex Corp., pp.98
### 1. Strategy for Development of Successful Industrial Parks

<table>
<thead>
<tr>
<th>Types of Business</th>
<th>Location Condition</th>
</tr>
</thead>
</table>
| **Steel Processing** | • 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** | • 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** | • 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** | • 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** | • 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** | • A coastal port with deep water to which large ships can access is essential |
| **IT, BT and NT** | • 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

A New Concept of Industrial Park Management

Clustering of industrial park
• Technical exchange and joint research among firms
• Network with other industries
• Network among industry, university, institute and government

Management, maintenance and repair of the industrial park
• Promotion of mater plan for management
• Maintenance of the facilities
• Sales and lease of land

Integrated environmental management
• Management of environmental facility
• Building of Eco-Industrial Parks
• Scenery management

Upgrade of industrial structure
• Upgrade of the structure of industrial parks
• Regeneration of industrial parks

Support for local industry fostering
• Local strategic industry-oriented support
• Linkage with local industrial promotion programs
• Cooperation with local industry supporting institutions

Support for business operation
• Support of funds, human resources, and ICT introduction
• Development of logistics and overseas sales channels

Attraction of enterprises and expansion of overseas investment

Reasonable linkage with spaces
• Linkage with urban development plans
• Infrastructure expansion and arrangement
• Analysis on linkage with urban development plans
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.