

# **Keys for Promoting Future Industry Investment in Taipei City: Focus on Eight Directions, Uphold Two Principles, and Implement Five Strategies**

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The Industry, Science and Technology International Strategy Center (ISTI) of the Industrial Technology Research Institute helps Taipei City grasp the challenges faced by industries and invest resources in the right places for Taipei City to target the next wave of investments amid rapid changes in industrial development, prepare for development, and uncover key elements for investments by companies in the specific industries. ISTI analyzed future trends and industrial clusters and conducted in-depth interviews with companies to draw up conclusions for recommended targets and feasible strategies for Taipei City's future investment promotion.

## **Eight Key Investment Targets**

The research analyzed future trends in industries, key themes of importance to Taiwan as a whole, factor endowment analysis for Taipei City, and industrial development potential to identify the next wave of investments in Taipei City. They include emerging technologies, biotech medicine, clean technology, robotics, media and entertainment, smart city development, fintech, and new business start-up. In terms of the future market scale and growth rate of the eight major industries, 5G, AR/VR, blockchain, healthcare, and smart city applications are expected to achieve the highest growth while fintech, media and entertainment, 5G, information security, and robotics shall attain the largest market scale.

## **Two Strategies and Principles for Promoting Investment**

The research proposes two main universal investment promotion principles based on an analysis of international investment promotion strategies and in-depth interviews with companies: The first is to formulate "an overall strategy that can be achieved by the government but not by the private sector; the second is to formulate "an action plan that can be fulfilled in Taipei but not by any other city" ("form local alliances" and shift

the focus back to Taipei City; the best way to the top is to identify a path we excel, our niches, and our creativity).

### **Five Investment Promotion Implementation Strategies**

To formulate a strategy, the Project referenced the Microeconomics of Competitiveness (MOC) course structure of Harvard Business School and proposed a structure encompassing the industry's upstream, midstream, and downstream parts included in industrial development as well as the supply and demand clusters, research development system, marketing and promotion system, service and value-added systems, and government policies and resources systems. The healthy development of these sectors has profound impact on the development of the industry (detailed in the figure below). The core cluster refers to upstream, midstream, and downstream sections of the industry. Related supply-end clusters refer to the suppliers of metals, petrochemicals, and other raw materials required for production in core clusters. Related application-end clusters refer to the final application industries that implement actual use of products and services. The research and development system refers to the research and development system formed by schools, corporate R&D institutions, research service companies (RSCs), and companies. They provide R&D technologies to operators of core clusters. The marketing and promotion system refers to the assistance for product marketing and promotion for core clusters. They include government foreign trade units, associations, and marketing entities, and channels. Service and value-added systems refer to the final software and hardware integration and value added to products by system integrators, end product brands, and service providers for the demand end. Government policies and resources systems refer to resources for industrial development, talent cultivation, funding and investment, related policies and regulations, and public infrastructure (science/industrial parks, land, water and electricity, telecommunications).

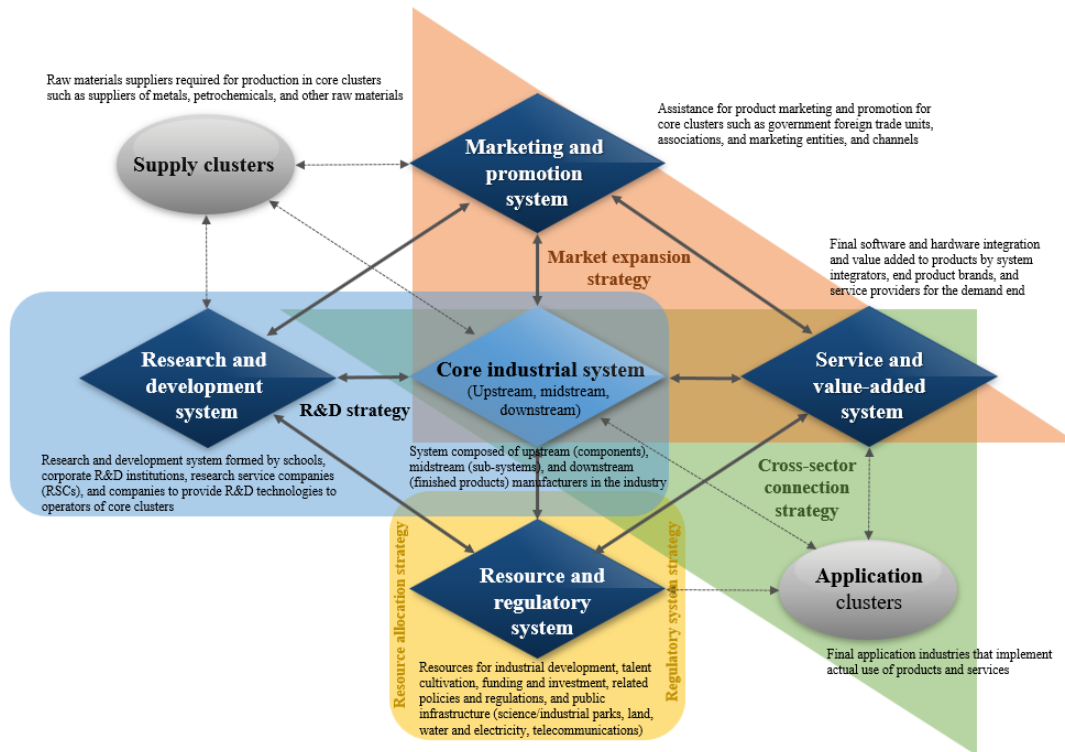


Figure 1 Universal investment promotion strategies

Source: Modified by ISTI based on the Microeconomics of Competitiveness (MOC) course structure of Harvard Business School (2019/02).

Therefore, in terms of the overall strategy, this Project drew conclusions from the aforementioned information and results of in-depth interviews with companies. The government's assistance to the industries can be addressed by five major factors including "establish R&D", "connect production", "assist value creation", "find markets", and "create environment".

(1) Establish R&D: Establish a technology bank for the city or industrial park

The central and local governments proposed many policies to assist value creation in technologies and technical R&D in the industry. However, research in the Project discovered that companies "do not know where the begin". For instance, a company may want to adopt Industry 4.0 but "does not know what to adopt" in the initial period and cannot determine whether it should first adopt automated factories, smart factories,

or predictive maintenance. After it determines its needs, it "does not know who it can call upon to help" and must slowly find partners through the old-fashioned way. We therefore recommend the establishment of a "technology bank" for a city or industrial park and assign a third-party institution (e.g. an association, legal entity, industrial alliance, or an academic institution) for management. The technology bank can help companies determine their actual requirements and integrate the R&D capacities of legal entities, academia, and industries, establish R&D partnerships from upstream to downstream, assist in the use of funding for government technology development plans, and advance the establishment of alliances to develop solutions.

(2) Connect production: Create a virtual platform for the city or industrial park

We discovered from international benchmark cases that foreign countries have begun establishing virtual platforms for industrial parks. They do not strictly require companies and members to be in the same area but they create computer models and databases to connect information, materials, or energy between members on the computer. The measures reduce expensive land purchase fees and allow companies to avoid difficult factory relocation plans to maximize flexibility and options. Industrial parks are therefore recommended to establish "virtual platforms" to connect collaboration networks within the industrial parks and connect dispersed energy and capacity to maximize efficiency.

(3) Assist value creation: Turn the city or park into smart headquarters for providing solutions in the digital age

The integration of the value-added software and platform system is an unavoidable challenge for the industry. Industrial parks are therefore recommended to appoint a third-party unit for management (a leading company or corporate R&D institution of related industries) and assist companies in adopting related smart software applications and provide total solutions (Total Solution) to help achieve innovation and upgrade in the industry.

(4) Find markets: Establish an industry war room for the city or industrial park

Most industries in Taiwan market products through distributors for marketing and sales in foreign markets. They cannot readily obtain information on the demands for product R&D and design and usage status of their end customers. This reduces their control over channels in international markets and their returns on products. The city or industrial park is therefore recommended to establish an "industrial park war room" for a city or industrial park and assign a third-party institution (e.g. an industrial consultancy institution or promotion office) to provide a B2B company information portal, industrial and technology development trends, international market regulations, and market status.

(5) Create environment:

According to the results of in-depth interviews and international benchmark cases in this Project, companies have software and hardware requirements for the environment in cities and industrial parks. Their hardware requirements include the living environment and industrial environment; their software requirements include regulatory systems and funding.

1. Hardware:

(1) Living environment: Strengthen various life and cultural functions (education is particularly important; examples include the RTP sculpture parks in the United States and outdoor theaters).

(2) Industrial environment: The government should establish digital infrastructure and testing grounds (Internet communication infrastructure, smart IoT parks, Taiwan's 5G testing grounds, etc.) and ensure abundant supply of water and electricity. Future testing grounds may be operated by collecting subscription fees or usage fees.

2. Software:

- (1) Regulatory system: Incentives and measures (tax credits, interest subsidies, loan guarantees, etc.).
- (2) Funds: The industrial park can provide matchmaking for funding or venture capital for the industrial park.