

我國 IC 半導體產業發展之研究

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【摘要】

我國產業結構歷經勞力密集、資本密集、技術密集，到朝向知識密集產業之發展趨勢，期能創造更高的價值，以維持我國經濟發展。鑒於我國科技產業二十多年發展，已建立雄厚基礎，成為全球科技產業重要一環，尤其是資訊電子產業。然面對全球產業結構變遷加速、競爭加劇，為確保我國競爭優勢、強化既有優點，並持續積極創新升級，朝向知識產業發展，以創造更高的價值，是我國產業結構必然的發展趨勢。基於我國科技產業已在國際產業的分工鏈上，取得製造的先進地位，未來將持續以科技製造優勢發展我國成為科技研發中心及知識產業重鎮。

但因我國國內市場小，相較美日歐大廠資源與能力更是有限，然台灣半導體業因新竹科學園區所形成的群聚效應，並造就 IC 設計業的蓬勃發展，建立起世界級的競爭優勢，國內廠商掌握時機，並集中資源在資訊產品，得以成為美日歐資訊大廠的策略夥伴。但隨著成本逐漸下降並已面臨極限，故已到了重新思索將資源有效應用以利價值創造之時機。

關鍵字：高科技產業、產業聚落、半導體、IC 代工、IC 設計

Study on the Development of IC Semiconductor Industry

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【Abstract】

To support the economic development in our country, our industry structure has evolved from the labor intensive, investment intensive, technology intensive to the knowledge intensive industry. More than 2 decade development in Tech industry, it has provided us a firm foundation and become an important part of the global technology industry, especially in the communication IC industry. However, facing the increasing change of structure in the global industry, the intensity of competition in the market place, in order to secure our competitive position, enhance existing positive features, and continue aggressive development program, it is an essential development trend for the industry structure in our country to take in the knowledge industry development to create higher add-in value. Since our technology industry has been on the cooperative chain of the international industry, in order to gain the advanced manufacture position in the future, we should continuously utilize our advanced position in technology manufacturing to develop our country to be a high tech R&D center and knowledge industry base.

In spite of the small domestic market and the limitation of manufacture resource and capacity when compared to those large manufactures in U.S., Japan, and Europe, the Semiconductor industry in Taiwan gains strategic alliance with the large manufactures in U.S. Japan, Europe with the cluster effect at the Shin-Chi high tech industry park, which enables the development of the IC design industry and establishes the world class competitive position, and the seizing of the right opportunities by our manufactures and focus resource in IT products. But, following the gradually decreasing production costs which almost reach the bottom line, it is the time to re-think how to efficiently use existing resource to gain the opportunity to create value.

key word : High Technology Industry, Industry Cluster, Semiconductor, Foundry,

Fables