

High-tech industry in Taiwan

Support for high-tech ventures

C. H. Cheng, L. Y.C. Hsiao, and C. J. Tsai

The high-tech industry is rapidly growing into a major driving force in the world economy and this development is mirrored in Taiwan. More and more high tech ventures are coming into existence, even in many developing countries. High-tech industries are knowledge-intensive and are best promoted through incubator systems and technology parks, where R&D support is available. This article provides an overview of the development of high-tech industries in Taiwan.

Mr. C. H. Cheng

Chairman, Department of Accounting

Tel: (+886-7) 6577711 Ext. 5401

Fax: (+886-7) 6577056

E-mail: chunhao@isu.edu.tw

Mr. L. Y. C. Hsiao

Associate Professor and Director

Department of Public Policy and Management

I-Shou University,

1 Section 1, Hsueh-Cheng Rd.

Ta-hsu Hsiang, Kaohsiung County,

Taiwan 84008

Tel: (+886-7) 6578175

Fax: (+886-7) 6577249

E-mail: Luke@ppm.isu.edu.tw

Mr. C. J. Tsai

Director, Innovation Incubator

Associate Professor, Department of

Materials Science and Engineering

National Tsing Hua University

101, Section 2 Kuang Fu Road,

Hsinchu, Taiwan, 300130

Tel: (+886-3) 5736132

Fax: (+886-3) 5722366

E-mail: ijtsai@mse.nthu.tw

Introduction

Taiwan is the thirteenth largest exporter in the world. As much as 48.6 per cent of its total exports is comprised of US\$ 59.3 billion worth of high-tech products. Thanks to the rapid changes in the world economy, the high-tech industry has become the most important driving force for the economic growth of the country. Taiwan in turn plays an important role in the world economy.

In the 1970s, industrial development in Taiwan focused on the chemical engineering sector. The economy, greatly affected by the oil crisis, was in a recession. This was when a decision was made to form a new industrial infrastructure, in order to insulate the local economy from externally induced fluctuations.

The focus then shifted from industrial infrastructure towards capital-inten-

sive industry. In the 1980s, after analyzing global competitiveness, technology trends and future markets, Taiwan focused on a few carefully selected technologies, which it strategically developed. Major considerations were pollution issues, high value-addition, low energy dependence, etc. Thanks to this timely change, Taiwan's economy became an example to developing countries.

Early development of high-tech

Now in the 21st century, the economic infrastructure of the world is undergoing a new revolution. To Taiwan, this simply means new challenges to face and resolve. The rapid development of the high-tech industry became the foundation for a knowledge-based economy.

Both the labour-intensive industry and the capital-intensive industry were typically manufacturing-based, with limited research and development (R&D)