

CRADLE OF OPPORTUNITY

From small beginnings, Malaysia's technology-based industries have the potential to bloom into large global market grabbers.

IF YOU'VE GOT what it takes, we'll try to get you what you need,' says Dr Mohamad Salleh Ismail, co-ordinator of Technology Park Malaysia (TPM), to small- and medium-scale technology-based industries.

A firm believer in the ability of Malaysians making it big in technology-based industries, Salleh says that the time has come for entrepreneurial Malaysians to put on their thinking hats to create innovative and marketable products and grab a slice of the global pie.

Salleh believes Malaysia has the formula for success. 'We've got the natural resources and human resources to succeed. It's hard work, no doubt, but let's make it work.'

The combination of good entrepreneurial skills and technology is quite a potent mix. Add sound management catalyst to the compound and the sky's possibly the only limit to business success.

At TPM, brilliant scientific and technological ideas can be nurtured into business realities. The park is like a 'godfather' to budding inventors and entrepreneurs, Salleh tells **Malaysian Business**. But one must have a pioneering spirit and the guts to confront new frontiers, he adds.

Things are looking up for the maturing TPM. Established by the Ministry of Science, Technology and Environment in early 1988, it is currently nestled in a 60ha site in Bandar Tun Razak, Cheras. But the tech park is expanding. A 240ha premise has recently been selected at Bukit Jalil, just off the Kuala Lumpur-Seremban Highway, to facilitate further expansion. The ingredients have been chosen to develop TPM into a full-fledged technology park.

With growing public awareness of the role of TPM in the national economy, particularly to the manufacturing sector, Salleh is both optimistic and confident that more small- and medium scale technology-based entrepreneurs will join the park once it is ready in early 1992. He hopes to have about 100 companies in the new park, but he is quick to point out that 100 is not the maximum number.

The present TPM does not have the privilege of being situated near a university or a research institution to enjoy the opportunities of technology transfer and interchange. Realising this shortcoming, Salleh says that the new site at Bukit Jalil has been carefully selected to ensure that research facilities are within the vicinity, in addition to good transport and communication infrastructure.

TECHNOLOGY PARK MALAYSIA
A Focus For Action

Promotes the efficient use of technological information.	Provides management advice and marketing information.
Facilitates the flow of strategic information to Malaysian industries.	Encourages & trains technology entrepreneurs.
Upgrades the technical capability of high-tech industries & develops an efficient & viable sector.	Actively works with the sources of technology such as universities, govt R&D organisations, large- and medium-size companies.
Obtains equitable terms & liaises with overseas companies on matters of technology transfer.	Houses new govt R&D institutions and collaborative regional R&D projects.
Promotes the commercialisation and applications of technology.	Displays innovative and high-tech products.

For one, the Bukit Jalil site will be much closer to major institutions of higher learning like Universiti Malaya, Universiti Kebangsaan Malaysia, Universiti Teknologi Malaysia and Universiti Pertanian Malaysia in addition to research centres like Mardi, Puspati, Mimos, Porim, Rim, IMR, Frim and Sirim.

Construction is already underway, but Salleh says that development of the area, especially the infrastructure, will be undertaken in stages. He declines, however, to reveal the exact cost of the project which obviously runs into the millions of ringgit.

The new TPM at Bukit Jalil will also comply with International Standards Organisation (ISO) 9000 requirements.

ISO 9000 is a quality management system (QMS) which has been adopted as Malaysia's *de facto* national system. According to Salleh, ISO 9000 is crucial if Malaysian products want to penetrate the European markets.

Technology parks are also known as science parks, research parks or innovation centres, depending on the parameters in which they operate. Despite the difference in names, the fundamentals are the same - to enhance small and medium-scale technology-based industries and propel them to greater contributions to the national economy.

In Malaysia, TPM serves as an incubator centre for the commercialisation of research and development (R&D).

Dr John C. Allen, chief executive of Newtech Science Park and Innovation Centre in Britain, who visited TPM recently, reiterated the point, 'Technology parks should not function as life support machines, but rather as incubators. They should also not be seen as an answer to every problem, especially unemployment.'

Salleh says the function of TPM is to create indigenous technological capabilities. The tech park supports industrial entrepreneurship, offers a conducive environment for the growth of hi-tech industries and provides a vital link between industry, the government, R&D institutions and

universities. Unlike free trade zones and industrial zones, TPM does not play a part in employment creation.

It does not have the capacity to create jobs when small- and medium-scale technology-based industries are being nurtured. Nevertheless Salleh hopes that the small- and medium-size industries being groomed into large corporations will eventually be able to generate employment for the local labour force. But TPM's primary role, to date, is to support growing technology-based businesses in terms of technology transfer, financial and management consultancy and marketing information.

When asked about which technology or science parks in the world he would consider to be the most successful, Salleh picks Taiwan. 'To me, the Taiwanese science parks are the most successful in the world because they are able to generate large corporations out of their small technology-based industries.' He cites the example of Acer, a multi-million dollar computer and information technology company, which was started by two people in a Taiwanese science park about 10 years ago.

The inability to translate needs, especially financial needs into action can stagnate the growth of any business. 'At TPM, we look at business needs very seriously. We don't just wait for our tenants to come to us with their needs. We go one step further. We speculate what is needed, be it financial or technological, and try to arrange for the best sources to meet these needs,' says Salleh. 'People are beginning to understand that TPM is not a play-thing. It's a serious business.'

He calls on local financial institutions to help furnish small- and medium-scale technology-based businesses with loans without collateral. According to Salleh, financial institutions are too strict and stringent with their conditions when it comes to offering assistance without tangible security. 'Many of these companies are merely start-ups with nothing to offer as collateral,' he adds. 'In cases like this, financial institutions should grant loans after reviewing their business plans and viability and the quality of their management.'

Salleh agrees that tenants at TPM should have market-led businesses. 'They must have a defined market. Otherwise, we'll be wasting a lot of time and money on products that cannot sell,' he quips. But he stresses that tenants should ideally be businesses with 'leading edge' technology.

Apart from helpful financial institutions, the lack of support for local inventors is another concern for TPM. Salleh says many Malaysians doubt the capability of locals to invent or improvise. Many would pass snide remarks like: 'What makes you Malaysians think you can do it, if the Europeans and Americans can't?' Salleh says that these attitudes should change. 'We have the capability to create and invent things right here in Malaysia. We should not always look up to the West to do these things.'

The success of TPM cannot be measured by how fast it is churning out hi-tech industries or how much revenue it is bringing into the economy, but rather by a yardstick that was set by TPM itself and not according to the definitions of other technology or science parks. Different parks have different definitions of success and different measures to gauge them by.

A technology park often takes quite a long time to realise its worth. In all fairness, Newtech's Allen says, the success of a technology park should be measured on a five-year time scale. Anything earlier, according to him, would be quite premature and not accurate.

TPM currently has 12 'on-campus' (on-site) tenants at its Incubator Centre, and approximately 15 'off-campus'. Their areas of technological emphases are in computers and communications, microelectronics, environmental technology and biotechnology.