

From opium den to micro-electronics: Return of Hong Kong adds 'superb S&T asset' to China

When Hong Kong returned to the fold of the Peoples Republic of China (PRC) on 1 July 1997, China acquired many assets which will contribute very significantly to the unstoppable drive of China becoming, in just 50 years since its Revolution, the unquestioned military and economic powerhouse of the Asian and Pacific half of the Globe.

One such asset is the Hong Kong University for Science and Technology (HKUST). An US inter-agency study team on materials research visited China in June 1995. The following extract from the tour report of this team speaks for itself:

'The Hong Kong University for Science and Technology was incorporated in April 1988 as a world-class technological University. Its objectives are to educate men and women who will contribute to Hong Kong's economic and social well-being and to promote research development, and entrepreneurship in the Asia-Pacific region. The university is publicly funded and comprises four schools. The Schools of Science, Engineering and Business and Management provide both undergraduate and postgraduate education through to the doctorate. The University also includes a number of interdisciplinary Research Institutes and a Technology Transfer Center to facilitate technical collaborations between industry and the University. It had an undergraduate student body of 3,116 and 796 graduate students with a faculty of 360 in the 1993-1994 academic year. Most of the faculty are educated in the US.

'This is a remarkable institution which has grown from a mere concept seven

years ago to a startup campus four years ago and now (1995) to a thriving enterprise with more than 400 faculty and 5000 students. Perched on a hill with "superb facilities" and a magnificent view of the harbor, this University is rapidly becoming a symbol of the technology strategy of Hong Kong.

'In a free-ranging discussion, the (US) team described our mission and our preliminary conclusions about the materials research scene in the PRC. They (HKUST), too are pursuing interaction with the best of these universities and institutes on the mainland for the same reasons that US companies must—lower cost manufacturing and access to a vast potential market in addition, there is the obvious motivation associated with the transition in 1997.

'We discussed the potential impact of the imminent transition of Hong Kong to the PRC. The interdependency between the business in Hong Kong and the mainland, already significant, will certainly grow. For example, we were told that manufacturing employment in Hong Kong has decreased dramatically in recent years from ~900,000 to 400,000, but that simultaneously employment of these businesses in the mainland has increased from near nothing to 3.5-4.0 million. HKUST will play a significant role in the linkage between Hong Kong high tech industry and the mainland by their own design as well as with the encouragement of the Hong Kong government. As an example of the latter situation, they are participants in tripartite research teams encouraged

by the HK government which are designed to link an HK university, and HK business, and a mainland China institution. They encouraged our team to consider HKUST in this "broker" role in our recommendations to the US government, as well as emphasizing their own capabilities for direct cooperation with laboratories in the States.

'Activities and assessment: We were then taken on a brief tour of the facilities of the MCPC and a related Micro-Electronics Processing Centre (MPC). These facilities, housed in "superb quarters" designed for them, and equipped with a very generous startup grant from the government, *are the equal of any in the world*. Some would say that as a result of the completely integrated information network and the special design features and fully equipped nature of the characterization and processing equipment, *these facilities exceeded those found in a single institution anywhere*. It was interesting to learn that most of the equipment of the MPC was being purchased from the US in addition to high quality, this was attributed to the US university origin of the most of the faculty who will use the MPC, and their predilection to use the equipment they had been exposed to in the States.

'We were left with the impression of *a superb university in its early developing years, one which will have to be reckoned with in the field of materials research, and one which may serve as a valuable partner and broker in subsequent dealings with mainland institutions.*'