



## Innovation and Technology

**Promotion of Innovation and Technology:** Innovation and technology are drivers for economic growth and the key to enhance competitiveness of our industries. The Innovation and Technology Commission (ITC) was set up on July 1, 2000 with the mission to spearhead Hong Kong's drive to become a world-class, knowledge-based economy. The ITC supports mainly applied research and development (R&D) and technology transfer and application; fosters an innovation and technology culture in the community; promotes technological entrepreneurship; provides technological infrastructure; facilitates the development of human capital to support innovation and technology; and promotes internationally accepted standards and conformity assessment services.

The ITC also works closely with other government departments, the industrial and business sectors, tertiary institutions and industrial support organisations to promote applied R&D in different technology areas, as well as the upgrading of foundation industries.

Following a comprehensive review and a public consultation exercise, the ITC set up five R&D centres in April 2006 to promote applied R&D in five technology focus areas, namely automotive parts and accessory systems; information and communications technologies; logistics and supply chain management enabling technologies; nanotechnology and advanced materials; and textiles and clothing. Since their establishment, the Centres have been working closely with the industries in conducting industry-oriented R&D and promoting technology transfer to the relevant industries, thereby helping technology upgrading and enhancing the competitiveness of the industry in the Greater PRD region. As at the end of January 2011, 364 projects from the R&D Centres were approved involving total project cost of \$2.3 billion

**Steering Committee on Innovation and Technology:** In January 2004, the Government established the Steering Committee on Innovation and Technology to coordinate the formulation and implementation of innovation and technology policy and ensure greater synergy among different elements of the innovation and technology programme. The Steering Committee is chaired by the Financial Secretary with members from relevant Government bureaux, academia, industry, and innovation and technology organisations.

**Funding Schemes:** The ITC manages the following funding schemes to encourage Hong Kong companies to develop innovative ideas and technology businesses.

**The Innovation and Technology Fund (ITF):** The Government set up the ITF in November 1999 with an injection of \$5 billion. It aims to support projects that contribute to innovation and technology upgrading in industry. There are four programmes under the ITF to cater for different needs: Innovation and Technology

Support Programme; University-Industry Collaboration Programme; General Support Programme; and Small Entrepreneur Research Assistance Programme. As at the end of January 2011, 2 345 projects with a total ITF funding of \$5.8 billion were approved. Most of the funded projects were related to information technology (21%); electrical and electronics (19%); and manufacturing technology (11%).

**Research and Development Cash Rebate Scheme:** In April 2010, the Government introduced the R&D Cash Rebate Scheme to reinforce the research culture among enterprises and encourage them to establish stronger partnership with local research institutions. Under the Scheme, we will provide a cash rebate equivalent to 10 per cent of the applied R&D investments by enterprises. The Scheme covers projects funded by ITF and applied R&D projects conducted by enterprises in partnership with local designated research institutions. As at end of January 2011, 180 applications with a total cash rebate of \$5 million were approved.

**Technological Infrastructure:** The ITC helps develop world-class support infrastructure to facilitate technological upgrading and development of the industry.

**The Hong Kong Science and Technology Parks Corporation (HKSTPC)** was established in May 2001 to offer one-stop infrastructural support services to technology-based companies and activities. It offers a comprehensive range of services to cater for the needs of industry at various stages, ranging from supporting technology start-ups through an incubation programme, providing premises and services in the Science Park for applied R&D activities, creating and sustaining a design cluster in the InnoCentre to providing land and premises in the industrial estates for production.

The 22-hectare **Hong Kong Science Park** located in Pak Shek Kok is an important part of our infrastructure in support of the Government's mission to turn Hong Kong into a regional hub for innovation and technology. It provides a conducive environment to nurture world-class clusters, through making available suitable buildings for lease to technology-based enterprises to carry out R&D work. Its target sectors are electronics; information technology and telecommunications; biotechnology; precision engineering; and green technology (including renewable energy and environmental technology). The Park is being developed in three phases. Phase 1 was officially opened in June 2002. Phase 2 is being completed in stages from 2007 to 2011. Development of Phase 3 is underway, construction will commence in 2011 and the first batch of buildings will be ready in late 2013.

The Science Park provides state-of-the-art laboratories and shared facilities which help reduce the capital investment of R&D companies in product design and development and enable rapid entry of new products

onto the market at lower cost. The facilities include the Integrated Circuit (IC) Design Centre, IC Development Support Centre, Secure Virtual Intellectual Property Chamber, Material Analysis Laboratory, Wireless Communications Test Laboratory, Solid State Lighting Test Laboratory, Biotechnology Support Laboratory and the Solar Energy Technology Support Centre.

The HKSTPC operates three **industrial estates** and provides land therein at land development cost to both manufacturing and services companies with new or improved technology and processes which can broaden Hong Kong's industrial base and upgrade its technology levels. The existing industrial estates, located at Tai Po, Yuen Long and Tseung Kwan O, provide 217 hectares of land in total. The HKSTPC has completed a study on the revitalisation and repositioning of the industrial estates. The Corporation will take into account the latest industry needs and market situation to implement appropriate measures for the industrial estates to bring the greatest economic benefits to Hong Kong.

The HKSTPC nurtures technology-based and design start-up companies through its **incubation programme** which provides low-cost accommodation as well as management, marketing, financial and technical assistance in the critical initial two to four years of these start-up companies. Each incubatee has an opportunity to access a package of financial aid valued over \$500,000 during the incubation period. The HKSTPC also implements a Small and Medium-sized Enterprise Programme which provides small and medium-sized technology companies; technology-related service providers; financial and legal service providers; and regional headquarters and regional offices with office premises and support services.

**The Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI)** was set up in January 2000. ASTRI performs high quality R&D for transfer to industry for commercialisation with a view to elevating the technology level of our industry and stimulating the growth of technology-based industry in Hong Kong. In April 2006, ASTRI launched the R&D Centre for Information and Communications Technologies which focuses on four technology areas, namely, communications technologies, consumer electronics, integrated circuit design and opto-electronics.

Through its participation in the expanded Internship Programme under the ITF, ASTRI helps enhance local high-technology human resources development by hosting fellows newly graduated from local universities to take part in its R&D projects.

**The Hong Kong Jockey Club Institute of Chinese Medicine Limited (HKJCIM)** was established as a subsidiary of ASTRI in May 2001. Its mission is to promote and support the modernisation and further development of Chinese medicine in Hong Kong through co-ordination of related activities and strategic support for scientific and evidence-based development programmes.

**The Hong Kong Productivity Council (HKPC)** promotes productivity excellence of Hong Kong industry through the provision of integrated support across the value chain, from achieving more effective utilisation of resources, enhancing the value-added content of products and services, to enhancing the industry's international competitiveness. Its principal sectoral focus is on manufacturing, particularly on Hong Kong's foundation

industries, and related service activities, while the main geographical focus is Hong Kong and the Pearl River Delta Region.

Anchored to its core competence in manufacturing technology, information technology, environmental technology, and management systems, HKPC has been helping Hong Kong industry in technology and process upgrading; and helping innovative industries to move up the value ladder and tap new business opportunities.

**Human Capital:** Provision of suitable human resources is essential to the promotion of innovation and technology in Hong Kong. Towards this end, the ITC introduced an Internship Programme in 2004 to attract promising science and engineering graduates to take part in ITF-funded R&D projects to better equip them for a future career in industrial and commercial R&D. As at the end of January 2011, a total of 761 interns positions were approved.

**Technology co-operation with the Mainland:** The Government strives to strengthen co-operation between Mainland and Hong Kong in innovation and technology. Through combining Mainland's rich human resources and research strengths with Hong Kong's capability and experience in applied research and commercialization, the competitiveness of the industries in both places can be enhanced.

The State Ministry of Science and Technology and the Government of the Hong Kong Special Administrative Region have jointly established the "Mainland and Hong Kong Science and Technology Co-operation Committee" to formulate technology collaboration and exchange programmes between the Mainland and Hong Kong in 2004.

Guangdong and Hong Kong have launched the "Guangdong/Hong Kong Technology Cooperation Funding Scheme" since 2004 to encourage collaboration between research institutions and industries of the two places. So far, the governments have jointly funded 30 research projects under the scheme with a total funding of about \$200 million.

Shenzhen and Hong Kong signed a cooperation agreement in 2007 to establish "Shenzhen/Hong Kong Innovation Circle". The two sides have agreed to strengthen exchange and sharing of talents and resources, and encourage closer co-operation between the research institutions of both places. In March 2009, the governments endorsed a "Three-year Action Plan" which contains 24 co-operation projects, with co-operation partners comprising government departments, universities, R&D centres and community organisations from both sides.

**Fostering an Innovation and Technology Culture:** the ITC organises an annual InnoTech Month which comprises exhibitions, seminars, InnoTech workshops, talks and technology competitions to arouse the interest of the general public in innovation and technology. ITC also organises innovation and technology related competitions such as the Hong Kong Student Science Project Competition, and has established the Hong Kong Innovation and Technology Student Club jointly with The Chinese University of Hong Kong to develop the potential of our young talents.