

For information

On 19 April 2011

Legislative Council Panel on Commerce and Industry

**Progress Report on the Promotion of
Innovation and Technology Development in Hong Kong**

PURPOSE

This paper updates Members on the progress of Government's effort in promoting innovation and technology which is one of the Six Industries where Hong Kong enjoys clear advantages.

LATEST DEVELOPMENT

Hong Kong Science Park

2. The Hong Kong Science Park is the major infrastructure in support of innovation and technology development in Hong Kong. The Government's decision to implement the development of Phase Three is a major step forward. On completion of Phase Three, the total gross floor area of research & development (R&D) offices, laboratories and supporting facilities in Science Park will be increased from the existing 225,000m² to 330,000m². The Hong Kong Science and Technology Parks Corporation (HKSTPC) plans to promote in Phase Three the further growth of biotechnology and green technology on top of the existing successful clusters of electronics, information technology and telecommunications and precision engineering.

3. Development of Phase Three is actively underway. HKSTPC has appointed consultants for project management, lead design and quantity

surveying to undertake the detailed design of buildings and the preparation of the works tender documents with a view to the staged completion from late 2013 to 2016.

4. The HKSTPC also manages three Industrial Estates. We have prepared a separate paper “Latest Developments of Industrial Estates” for the Panel’s information.

R&D Cash Rebate Scheme

5. The R&D Cash Rebate Scheme was launched on 1 April 2010 with a commitment of \$200 million. Its aims to reinforce the research culture among business enterprises and encourage them to establish stronger partnership with local public research institutions. Under the Scheme, enterprises conducting applied R&D projects with the support of the Innovation and Technology Fund (ITF), or in partnership with local designated research institutions, will enjoy a cash rebate equivalent to 10% of their investments. In its first year of operation, the Scheme approved over 200 applications with a total cash rebate of around \$5.8 million.

6. Response to the Scheme is less favourable than originally envisaged. Possible reasons can be that the operation of the Scheme remains new, there is no deadline for applying, slow progress in individual ITF projects, the level of rebate not attractive enough, etc. The Innovation and Technology Commission (ITC) will review the Scheme (including scope, level of rebate, etc.) and introduce improvement measures as appropriate. We will consult the Panel separately.

Promotion of Innovation and Technology in the Public Sector

7. Progress has been reported to the Panel on 15 March 2011 under the paper “Progress on Improving the Innovation and Technology Fund and Promotion of Use of Innovation and Technology in the Public Sector” (LC Paper No. CB(1)1531/10-11(03)).

Comprehensive Review of R&D Centres

8. As Members recall, we reported to this Panel in November 2010 on the review of the operating costs of the five R&D Centres under ITF (viz Automotive Parts and Accessory Systems R&D Centre, Hong Kong Research Institute of Textiles and Apparel, R&D Centre for Logistics and Supply Chain Management Enabling Technologies, Nano and Advanced Materials Institute, and the Hong Kong Applied Science and Technology Research Institute). The review concluded that general administrative expenditure of the R&D Centres did not account for an excessively high proportion of their operating budget.

9. Upon completion of this, we have moved on to the next and even more important leg – reviewing the performance and cost-effectiveness of the 5 Centres. We will report to this Panel again before the end of the year.

Review of Strategy in Promoting R&D of Chinese Medicine (CM)

10. There have been considerable new developments and changes in the Chinese medicines sector in the past decade, including:

- (i) the Hong Kong Council for Testing and Certification (HKCTC) was established in 2009, and issued a report in March 2010, which stated that the CM industry is one of the industries that has strong potential demand and opportunity for testing and certification services. The HKCTC subsequently selected CM as one of 4 trades to focus effort in developing testing and certification services and formed a CM panel to provide a platform for collaboration among stakeholders;
- (ii) after years of development, the research capabilities and infrastructures of local universities in CM area have been enhanced, and the universities have been collaborating to conduct basic and applied research in CM. Besides, they also explore the feasibility of integrative Chinese and western medicines;

- (iii) HKSTPC has been actively developing a biotechnology industry cluster in recent years. Apart from the biotechnology buildings completed in Science Park Phase Two, the preparative work of Science Park Phase Three development is in progress. The HKSTPC will promote the further growth of biotechnology (including CM and western pharmaceuticals) as one of its major clusters;
- (iv) since 2002, the Hospital Authority (HA) has been collaborating with different non-government organisations and universities to set up 14 CM clinics in phases, to provide modernised CM out-patient services for the public. This will be increased to 18 CM clinics in the near future;
- (v) there is an increasing interest from western pharmaceutical companies to develop new drugs from CM. They consider that the basic research and clinical trial capabilities of Hong Kong is of international standard and can play an important role in the R&D of new generation of drugs. In addition, the 2011-12 Budget states that Hong Kong is well-placed to develop into an international clinical trial centre and a translational research centre. The HA will set up Phase I clinical trial centres in Queen Mary and Prince of Wales Hospitals.

11. It can be seen from the above developments and changes in the past decade that more and more parties have become interested in and also capable of contributing to the development of CM in HK in various ways. As such, the Government considers that a comprehensive review is appropriate. The scope of review includes the current landscape and the needs of the CM sector, the ways in which of integrating the efforts of Government most effectively, industry, academic and research sectors to cope with the future development needs, and the roles and cost-effectiveness of the Hong Kong Jockey Club Institute of Chinese Medicine (HKJCICM) after a decade of its operation.

12. HKJCICM was established in May 2001 as a joint-venture limited

company of the Applied Science and Technology Research Institute (ASTRI) and the Hong Kong Jockey Club Charities Limited (HKJCCL) each having 50% share of the Institute. It is located in the Science Park and the Hong Kong Institute of Biotechnology in Shatin. In mid 2010, HKJCICM had a total of 22 staff. Since middle of last year, a number of incidents had revealed internal problems of HKJCICM, e.g. various cases of complaints and staff departure (a total of 13 staff resigned between June and December 2010. As at February 2011, HKJCICM has only 9 employees). The recurrent cost of HKJCICM is funded by ASTRI while its R&D project cost is funded by the Hong Kong Jockey Club Charities Trust. The main reason for putting HKJCICM under ASTRI at the outset was that HKJCICM could benefit from ASTRI's administrative and financial support. However, in the course of its development, ASTRI has increasingly focused its work on information and communications technologies, which is not related in any way to the promotion of CM development.

13. Last year, the Government suggested the Board of HKJCICM to engage consultants to conduct a comprehensive review of HKJCICM. The report was completed and submitted to the HKJCICM Board and ITC for consideration in March this year.

14. The report pointed out that while HKJCICM has made some achievements in the past 10 years, its overall cost effectiveness is not satisfactory. On project funding, HKJCICM has supported 18 projects with total funding amount of \$108 million over the last 10 years (or around \$10 million/year on average), which is equivalent to only about 1/5 of the HKJCCL's pledged \$500 million funding support to HKJCICM. On the recurrent costs (including staff salaries, office expenditure, publicity and promotion expenses, etc.), the expenditure of HKJCICM in the last 3 financial years was some \$8 million/year. In the 2011-12 financial year, ASTRI has reserved \$10 million for the recurrent budget of HKJCICM.

15. The consultancy report has proposed 3 options for the future of HKJCICM : –

- (i) maintaining the status quo;
- (ii) a complete revision of HKJCICM's roles and functions; and
- (iii) setting up of a new committee under Government to coordinate all relevant work. The new committee will be chaired by the Commissioner for Innovation and Technology while secretariat support will be provided by ITC. The new committee will include representatives from Government, the industry, academic and research institutions in the CM sector. HKJCICM will then be disbanded.

16. After gauging the views of various stakeholders, ITC considers that Option 3 is most desirable. Since the coordination of work on promoting CM development in Hong Kong has become increasingly complex, a new Government-led committee will be more effective in coordinating the collaboration of all parties in promoting the R&D and testing of CM.

17. The results of the review and detailed proposals will be submitted to the Boards of the two shareholders of HKJCICM, i.e. HKJCCL and ASTRI, for consideration. However, it has to be stressed that Government attaches great importance to the development of CM in Hong Kong and will make every effort to continue to support and promote the R&D and testing of CM in the interest of the community.

Review of Innovation and Technology Fund (ITF)

18. Further to our last report to the Panel in March, we have further reviewed the General Support Programme (GSP) which is the only programme under ITF catering for non-R&D projects that contribute to fostering an innovation and technology culture in Hong Kong (e.g. conferences, exhibitions, youth activities, etc.). Feedback in general is that the funding scope and guidelines of the GSP area bit restrictive/lengthy and as a result the number of applications has fallen in recent years. To improve the situation, ITC has conducted a comprehensive review on the GSP mechanism and prepares to introduce various improvement measures like devising clear marking scheme to enhance transparency and enable more speedy processing of the cases,

removing restrictions considered no longer valid, widening targets of recipients, and conducting of more publicity, e.g., to chambers of commerce, District Councils, universities and schools, etc. The proposed improvements have been endorsed by the GSP Vetting Committee and we intend to roll out the new arrangements in mid 2011.

19. Apart from the GSP, ITC is also reviewing other programmes under the ITF such as the University-Industry Collaboration Programme (UICP) and Small Entrepreneur Research Assistance Programme (SERAP) to see if there are ways of enhancing them to bring about greater impact. In addition, the Steering Committee on Review of Intellectual Property Issues in the Innovation and Technology Sector set up under the chairmanship of Mr Andrew Liao, QC, is actively looking into possible areas of improvement regarding handling of IP matters.

Collaboration with Mainland and the 12th Five-Year Plan

20. “The Outline of the 12th Five-Year Plan for National Economic and Social Development of the People’s Republic of China” (the “12-5” Plan) was promulgated in March 2011. Chapter 57 of the “12-5” Plan dedicated to Hong Kong and Macao affirms the Central Government’s support on Hong Kong’s development in innovation and technology. The ITC will examine how best we should dovetail such development to the best benefit of Hong Kong. From 12 to 15 April 2011, it will lead a delegation of about 40 representatives from local universities, research institutes, Partner State Key Laboratories (SKLs) and industrialists to visit the national Ministry of Science and Technology (MOST) to discuss means of further collaboration.

21. At the provincial and municipal levels, ITC will continue to work closely with relevant authorities in Guangdong and Shenzhen to implement the Guangdong-Hong Kong Technology Cooperation Funding Scheme in 2011. As for our cooperation with Shenzhen, the two cities have been actively promoting the development of the Shenzhen-Hong Kong Innovation Circle. We will organise events to further promote the use of the region as a

technology hub under the Innovation Circle concept.

Funding Support to Partner SKLs in Hong Kong

22. On 18 January 2011, Members of this Panel endorsed the Administration's proposed arrangements for providing direct funding support to Partner SKLs in Hong Kong through ITF. Starting from the 2011/2012 financial year, each Partner SKL will receive an annual financial support up to \$2 million. The total funding for each SKL will hence be \$10 million over a 5-year period (5 years being the cycle for reassessment of SKLs by MOST).

23. All Partner SKLs have been informed of the new arrangements. Their representatives have also been invited to participate in the visit to MOST mentioned in paragraph 20 above.

Promotion of an Innovation and Technology Culture in Hong Kong

24. We would continue to actively cultivate an innovation and technology culture in Hong Kong. The latest new initiative is the Innovation and Technology Scholarship Award Scheme.

25. We have rolled out the Award Scheme early this year to provide a maximum of 30 high achieving non-first and non-final year students in science-related disciplines in local universities the opportunity to strengthen their international/Mainland exposure and gain industry experience. Each successful awardee under the Award Scheme will be given a scholarship of not more than \$100,000. The Award Scheme is funded more or less on a matching basis by the Hongkong Bank Foundation (\$2 million) and ITF. The organiser is the Hong Kong Federation of Youth Groups.

26. The Scheme comprises the following components:

(i) *an Overseas/Mainland Attachment Programme*

Each awardee will have the opportunity to visit an overseas/a

Mainland university/institution for a short-term attachment, e.g., Columbia University, University of Pennsylvania and University College London;

(ii) a Local Internship Programme

Each awardee will work as an intern for 4 to 12 weeks in a local technology company or government department in Hong Kong which is related to their field of study;

(iii) a Mentorship Programme

Each awardee will be assigned to a mentor, who will be an outstanding person in his/her related field of study. Mentors include university presidents, internationally renowned scientists, and successful technopreneurs. An example is Prof David Ho, the AIDS expert; and

(iv) a Service Project Programme

Each awardee will need to participate in community activities relating to innovation and technology, e.g., be tutors during the InnoCarnival workshops.

27. The Selection Panel is chaired by Hon. Andrew Li Kwok-nang and a launching ceremony will be held on 28 April 2011.

ADVICE SOUGHT

28. Members are invited to note Government's latest work in the promotion of innovation and technology.

Innovation and Technology Commission
April 2011