

For discussion
on 16 June 2009

**Legislative Council
Panel on Commerce and Industry**

Mainland-Hong Kong Technology Co-operation

Purpose

This paper briefs Members on collaboration underway between Hong Kong and the Mainland to promote technological development.

Background

2. The Mainland is our hinterland and the largest market for our goods and services. The Government is committed to strengthening co-operation between the Mainland and Hong Kong in innovation and technology. Hong Kong has the proven infrastructure to support the development of high technology industries, including internationally-renowned universities; a robust intellectual property protection regime and sound legal system; state-of-art science and the necessary technology assets such as the Hong Kong Science Park, Cyberport and Research and Development (R&D) centres, etc. The Mainland is a vast potential market, has extensive manufacturing bases, rich human resources and strong research capabilities. Through combining the strengths of both the Mainland and Hong Kong, the technological developments in both places can be further enhanced.

3. Over the years, Hong Kong has established technological co-operation frameworks with the Mainland at the central, provincial and municipal levels.

Co-operation at the Central Level

4. In 2004, the then Commerce, Industry and Technology Bureau and the Ministry of Science and Technology (MOST) jointly established the "Mainland-Hong Kong Science and Technology Co-operation Committee" (the Committee) to formulate and coordinate technology exchanges and collaboration initiatives between Hong Kong and the Mainland. The Committee is currently co-chaired by a Vice Minister of MOST and the Secretary for Commerce and Economic Development, with members drawn from government departments and research institutes responsible for technology development in the Mainland and Hong Kong.

5. MOST has actively supported technology exchanges between Hong Kong and the Mainland. For example, to celebrate the 10th Anniversary of the Hong Kong Special Administrative Region, MOST and Hong Kong co-organized the Forum on “Joining Hands in Building an Innovative Nation” in May 2007 in Hong Kong. MOST also encouraged relevant organizations in the Mainland to participate in the Innovation Expo held in Hong Kong in September 2007, and helped to arrange exhibits such as the “Three Gorges Project” and State Science and Technology Awards to showcase major national science and technology achievements at the Expo.

Partner State Key Laboratory

6. The State Key Laboratory (SKL) scheme is one of the major national technology development schemes managed by MOST. SKLs carry out innovative research taking into account the national technology development direction, national economy, social development and national security aspects. Organisations setting up SKLs must have high quality research teams and a good environment for conducting research and experiment. Hong Kong’s universities are keen to contribute to the nation’s scientific and technological development through the SKL scheme. Three universities have sought MOST’s agreement to set up five partner SKLs in Hong Kong in conjunction with the relevant SKLs in the Mainland.

7. In late 2007, the Innovation and Technology Commission (ITC) agreed with MOST to coordinate the invitation of applications for the establishment of SKLs in Hong Kong. This was the first time that formal applications for SKLs were invited in Hong Kong. Preliminary assessments on the applications were conducted by the Research Grants Council and the results were submitted to MOST for their consideration in 2008. The results of the applications will be announced shortly.

State Science and Technology Awards

8. The State Science and Technology Awards (SSTAs), organised by the State Council, are highly prestigious awards in the science and technology fields in the Mainland. The Awards aim to reward citizens and organisations that have made outstanding contributions to scientific and technological progress. The Government has been invited by the National Office for Science and Technology Awards to co-ordinate and submit nominations from Hong Kong for three categories of SSTAs, namely the State Technological Invention Award, State Scientific and Technological Progress Award and State Natural Science Award (SNSA). In 2008, two of Hong Kong’s nominations, namely the research project “Carboranes and Metallacarboranes: Synthesis, Structure and Reactivity” and “Chaos Anti-control and Generalised Lorenz Systems Family – Theory and Applications”, received SNSA second-class awards.

Co-operation with the Provincial Government of Guangdong

9. In 2003, the governments of Hong Kong and Guangdong jointly established the “Guangdong-Hong Kong Expert Group on Cooperation in Innovation and Technology” to promote co-operation in high technology and commercialization of technology achievements to enhance the productivity and competitiveness of enterprises in both Guangdong and Hong Kong.

Guangdong-Hong Kong Technology Co-operation Funding Scheme

10. As a major initiative of the Expert Group, ITC and the Department of Science and Technology of Guangdong (DSTGD) have launched the “Guangdong-Hong Kong Technology Co-operation Funding Scheme” (TCFS) annually since 2004. The TCFS aims to encourage more collaboration between research institutions and enterprises in Guangdong and Hong Kong in carrying out applied R&D projects.

11. On the Hong Kong side, the TCFS is a sub-programme under the Innovation and Technology Support Programme of the Innovation and Technology Fund. Under the TCFS, the Hong Kong side accepts applications made by organisations incorporated in Hong Kong, while the Guangdong side accepts applications with organisations established in Guangdong. Applicants will have to demonstrate an element of Guangdong-Hong Kong co-operation (e.g. collaboration between research institutes and/or enterprises in Guangdong and Hong Kong). Guangdong and Hong Kong process applications received respectively having regard to their own regulations and procedures.

12. To promote closer technology co-operation, a new category of joint funding projects was introduced to the TCFS in 2007. Under this category, principal co-operation partners of the Guangdong side and Hong Kong side have to submit funding applications to the relevant authorities of Guangdong and Hong Kong for their respective part of an R&D project. The project should generate benefits to both Hong Kong and Guangdong. Guangdong and Hong Kong will conduct joint assessment and jointly fund those R&D projects that are selected by both sides.

13. From 2004 to 2008, both sides supported more than 850 projects under the TCFS with a total funding of about \$1.9 billion. These projects cover a wide range of technology areas, including electric vehicle technologies, radio frequency identification (RFID) applications, biomedical technology as well as energy saving and environmental protection technologies.

Other co-operation initiatives

14. Apart from the TCFS, ITC and DSTGD have also pursued other initiatives that promote technology co-operation between Hong Kong and Guangdong. For

example, with the establishment of Hong Kong's R&D Centres in 2006, ITC and DSTGD have organized roadshows to Guangzhou, Foshan, Shenzhen and Dongguan to introduce Hong Kong's R&D Centres to Guangdong's research institutes and enterprises in order to explore co-operation opportunities. ITC will continue to work with DSTGD to promote collaboration of research teams and institutions to further improve the technology and innovation capabilities of the two places.

15. Apart from the Guangdong Province, ITC has also worked with the Science and Technology Departments of other provinces in the Mainland to promote technology co-operation, usually in the form of visits to research institutes and universities.

Co-operation with Shenzhen Municipal Government

16. In May 2007, the governments of Hong Kong and Shenzhen signed a co-operation agreement to take forward the concept of "Shenzhen-Hong Kong Innovation Circle". The agreement enables Hong Kong and Shenzhen to consolidate their technological resources and build on their complementary strengths, with a view to promoting the overall economic development and competitiveness of both places.

17. Under the agreement, the two governments have set up a Steering Group, co-chaired by the Secretary for Commerce and Economic Development and the Science and Technology Adviser to the Mayor of Shenzhen, with senior officials from various departments as members, to facilitate high-level exchanges and co-ordination of technology collaboration between the two sides. Since the signing of the agreement, both sides have taken forward a number of collaboration initiatives, including setting up a new joint funding scheme for applied R&D projects under the framework of Hong Kong's TCFS scheme with Guangdong, setting up a Shenzhen-Hong Kong Productivity Foundation in Shenzhen to provide support services to the manufacturing industry, and setting up a "Shenzhen-Hong Kong Innovation Circle" zone in the 2007 and 2008 China Hi-Tech Fair held in Shenzhen to promote technology co-operation between the two places.

18. Hong Kong and Shenzhen have also pursued major technology collaboration projects. In May 2008, the governments of Hong Kong and Shenzhen worked together to successfully invite DuPont, a US enterprise, to locate its global thin film photovoltaic business headquarters and research centre in the Hong Kong Science Park and its manufacturing facilities in Shenzhen. The DuPont project is the first major technology collaboration project under the "Shenzhen-Hong Kong Innovation Circle". DuPont's research center in Hong Kong Science Park opened in March 2009. Hong Kong will continue to work with Shenzhen to attract more overseas enterprises with this approach to conduct research in Hong Kong.

19. In March 2009 the governments of Shenzhen and Hong Kong agreed on an action plan for technology co-operation in the coming three years. The action plan comprises 24 co-operation projects in various fields including biomedical, integrated circuit, RFID technology, solar energy and industrial design. Co-operation partners comprise government departments, universities, R&D institutions and community organisations from both sides. It underlines the extensive support for the development of the “Shenzhen-Hong Kong Innovation Circle” from the R&D sectors of both places.

Way Forward

20. We will continue to strengthen our co-operation with various levels of government in the Mainland on promoting technological developments, with particular focus in co-operation with the governments of Guangdong and Shenzhen.

21. The “Outline of the Plan for the Reform and Development of the Pearl River Delta” (the Outline) announced by the National Development and Reform Commission in 2008 underlines the need to develop high technology industries and the establishment of innovative mechanisms for the co-operation between Hong Kong-Shenzhen and Hong Kong-Guangzhou. Our efforts in co-operating with the governments of Guangdong and Shenzhen to promote technology collaboration between Hong Kong and the Pearl River Delta Region are in line with the direction set out in the Outline. We look forward to further strengthening of technology co-operation between Hong Kong and the Pearl River Delta Region with the implementation of the Outline.

Commerce and Economic Development Bureau
June 2009