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Panel on Commerce and Industry

Meeting on 15 June 2010

**Updated background brief on
Research and Development Centres
under the Innovation and Technology Fund**

Purpose

This paper provides background information on the establishment of the Research and Development (R&D) Centres under the Innovation and Technology Fund (ITF)¹ and a summary of views and concerns expressed by Members at previous discussions.

Background

2. On 30 June 2004, the Innovation and Technology Commission (ITC) issued a consultation paper to invite public views on a new strategic framework which included the development of 13 proposed technology focus areas² and a proposal to set up R&D centres. The Administration proposed that the strategy of innovation and technology development should emphasize five key elements, namely focus, market relevance, industry participation, leverage on the Mainland, and better coordination among different elements of the innovation and technology programme. According to the Administration, the vast majority of respondents

¹ The ITF was set up as a statutory fund under the Public Finance Ordinance (Cap. 2) by resolution of the Legislative Council on 30 June 1999. On 9 July 1999, the Finance Committee approved the proposed injection of HK\$5 billion into ITF which came into operation on 1 November 1999. The ITF is currently administered by ITC and comprises four programmes, namely the Innovation and Technology Support Programme, University-Industry Collaboration Programme, General Support Programme and Small Entrepreneur Research Assistance Programme.

² The 13 proposed focus areas are: (1) Advanced Manufacturing Technologies; (2) Automotive Parts and Accessory Systems; (3) Chinese Medicine; (4) Communications Technologies; (5) Consumer Electronics; (6) Digital Entertainment; (7) Display Technologies; (8) Integrated Circuit Design; (9) Logistics/Supply Chain Management Enabling Technologies; (10) Medical Diagnostics and Devices; (11) Nanotechnology and Advanced Materials; (12) Opto-electronics; and (13) Textile and Clothing.

supported the general direction and key initiatives of the new strategy.

3. After consulting the Panel on Commerce and Industry (the Panel) on 17 May 2005 on the proposal to implement a new strategic framework and a three-tier funding model under the ITF, the Administration submitted a funding proposal to allocate a total of \$358.7 million from the ITF to take forward the new strategic framework. The proposal was approved by the Finance Committee (FC) on 24 June 2005. Under the new strategic framework, the Administration has adopted a three-tier funding model under the ITF to support applied R&D in Hong Kong, as follows:-

- (a) Tier one which involves the establishment of five R&D centres for conducting R&D in specific focus areas;
- (b) Tier two which involves the funding of R&D projects under different focus themes with a more specific and defined scope; and
- (c) Tier three which involves funding of more innovative R&D projects.

Research and Development Centres

4. In order to strengthen collaborative applied research activities between the industries and research organizations, the following five R&D Centres were set up in April 2006 for an initial operation of five years:

- (a) R&D Centre for Automotive Parts and Accessory Systems (hosted by the Hong Kong Productivity Council);
- (b) R&D Centre for Logistics and Supply Chain Management Enabling Technologies (jointly hosted by the University of Hong Kong, the Chinese University of Hong Kong and Hong Kong University of Science and Technology);
- (c) R&D Centre for Nanotechnology and Advanced Materials (hosted by the Hong Kong University of Science and Technology);
- (d) R&D Centre for Textiles and Apparel (hosted by the Hong Kong Polytechnic University); and
- (e) R&D Centre for Information and Communications Technologies (hosted by the Hong Kong Applied Science and Technology Research Institute³)

³ Unlike the other four R&D Centres which are established as independent legal entities, the R&D Centre for Information and Communications Technologies is established within the existing operational infrastructure of Applied Science and Technology Research Institute, which is a limited company wholly owned by the Government.

5. Under the market-driven and demand-led approach, R&D Centres are responsible for coordinating R&D efforts and maintaining close relationship with the industry to ensure that the R&D deliverables would be relevant to the industry's needs and long-term development. With the support of the ITF, R&D Centres provide a one-stop shop for technology transfer and commercialization through the following roles:

- (a) undertaking industry research;
- (b) provision of technology and market intelligence;
- (c) provision of a platform for the exchange of Intellectual Property/innovation technology;
- (d) technology development, transfer and knowledge dissemination; and
- (e) intellectual property commercialization.

Previous discussions

6. The Panel has followed closely the implementation of the new strategic framework for innovation and technology development since 2005. Members were updated on the income and expenditure of the R&D Centres and their progress achieved since their establishment in April 2006 to May 2009. In general, Panel members supported the role of R&D Centres to take forward the new strategy and technology transfer, and hoped the R&D results could help the local industries in the long run.

7. At the meetings on 21 April and 19 May 2009, the Panel followed up on the mid-term review of the operation of the R&D Centres and discussed the funding proposal to extend the operation of the four R&D Centres, namely Automotive Parts and Accessory Systems R&D Centre, Hong Kong Research Institute of Textiles and Apparel, Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies, and Nano and Advanced Materials Institute, up to 2013-2014. Panel members in general supported the continuous development of the R&D Centres, and welcomed the Administration's proposal to adjust the industry contributions to platform projects from 40% to 15% in response to members' suggestions.

8. Some Panel members pointed out that not many exhibitors and manufacturers had established a working relationship with the R&D Centres, and efforts should be stepped up for staging trade shows to strengthen the connection between the Centres and the industry. The Administration should also review if the R&D projects matched with the needs of the industry, and whether the Centres had difficulties in promoting their R&D deliverables. Panel members urged the Administration to speed up the commercialization of R&D deliverables, especially in the Mainland market. They also suggested that the market strategy of R&D

products should be competitive in terms of creativity rather than price, and the R&D Centres should play a critical role in providing novel ideas to the enterprises. As Hong Kong's competitiveness in R&D lagged behind other Mainland cities, members called on the Administration to strengthen cooperation with local and Mainland universities/institutions to fully leverage on their technical hardware and software, and also help the R&D Centres forge closer ties with the manufacturers in the PRD Region.

9. Some Panel members expressed serious concern about the corporate governance of the R&D Centres, including the relatively high level of estimated operating expenditure for the Centres vis-à-vis the level of estimated R&D expenditure. They considered that the operating expenditure for the Centres should be kept at a low level to ensure prudent use of taxpayers' money, and that an ad hoc group with private sector participation should be set up to examine the commercial viability of the Centres in the long run. The Administration assured members that no compromise would be made in the corporate governance of the R&D Centres, and audit committees would be set up in all Centres.

10. Following consultation with the Panel, the Administration has obtained the approval of FC on 19 June 2009 to further allocate a total of \$369 million from the ITF to support the continued operation of the four R&D Centres up to 2013-2014. When discussing the funding proposal, FC members considered that Hong Kong's R&D expenditure was on the low side as compared to its Gross Domestic Product. They urged the Administration to increase investment in R&D to sustain economic development and to train up adequate number of qualified persons for the various R&D fields.

11. On the radio frequency identification (RFID) in the future development of logistics and supply chain management, FC members were of the view that RFID might not be widely used by small enterprises due to the huge costs involved and asked whether there were other research programmes that could benefit the logistics sector. Some FC members urged the Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies to reach out to the frontline operators in promoting affordable use of RFID. FC members also suggested that the Centre should enhance its communication with the two project groups on cyber and IT infrastructure development and on support for small and medium enterprises under the Hong Kong Logistics Development Council, so as to gain a better understanding of the needs of the logistics sector, and work out feasible ways to extend affordable technologies to the enterprises. The Administration assured members that the Centre would endeavour to undertake further research with a view to reducing the costs of RFID technologies, and would step up liaison with the Hong Kong Logistics Development Council to further enhance the Centre's collaboration with the logistics sector.

Latest position

12. The Administration will brief the Panel on 15 June 2010 on the annual progress reports from the R&D Centres and the interim report on the comprehensive review of the R&D Centres.

References

13. A list of relevant papers is in the **Appendix**.

Council Business Division 1
Legislative Council Secretariat
11 June 2010

List of relevant papers

Committee	Paper	LC Paper No.
Meeting of Panel on Commerce and Industry (CI Panel) on 17 May 2005	<p>Administration's paper : "Implementation of New Strategic Framework for Innovation and Technology Development"</p> <p>Background brief on new strategic framework for innovation and technology development</p> <p>Minutes of meeting</p>	<p>CB(1)1496/04-05(03)</p> <p>CB(1)1497/04-05</p> <p>CB(1)1794/04-05</p>
Meeting of Finance Committee on 24 June 2005	<p>Administration's paper :</p> <p>INNOVATION AND TECHNOLOGY FUND HEAD 111 - INNOVATION AND TECHNOLOGY</p> <p>New Subhead "Establishment of Research and Development Centre for Nanotechnology and Advanced Materials"</p> <p>New Subhead "Establishment of Research and Development Centre for Textile and Clothing"</p> <p>New Subhead "Establishment of Research and Development Centre for Automotive Parts and Accessory Systems"</p> <p>New Subhead "Establishment of Research and Development Centre for Logistics and Supply Chain Management Enabling Technologies"</p> <p>New Subhead "Establishment of an Incubation-cum-Training Centre to support Digital Entertainment Development by the Hong Kong Cyberport Management Company Limited"</p> <p>New Subhead "Development of technologies and facilities to design and build mechanical watch movements by the Chinese University of Hong Kong"</p> <p>Minutes of meeting</p>	<p>FCR(2005-06)21</p> <p>FC125/04-05</p>
Meeting of CI Panel on 21 February 2006	Administration's paper : "Research and Development Centre on Information and Communications Technologies"	CB(1)903/05-06(05)

Committee	Paper	LC Paper No.
	<p>Background brief on establishment of research and development centres under the new strategic framework for innovation and technology development</p> <p>Minutes of meeting</p>	<p>CB(1)904/05-06</p> <p>CB(1)1148/05-06</p>
<p>Meeting of CI Panel on 21 November 2006</p>	<p>Background brief on Current Strategic Framework for Innovation and Technology Development</p> <p>Administration's papers :</p> <p>(a) Research and Development Centres</p> <p>(b) Issues related to the operation and management of the Applied Science and Technology Research Institute</p> <p>Minutes of meeting</p>	<p>CB(1)279/06-07</p> <p>CB(1)278/06-07(03)</p> <p>CB(1)278/06-07(04)</p> <p>CB(1)485/06-07</p>
<p>Meeting of CI Panel on 17 July 2007</p>	<p>Administration's paper : "Strategic Framework for Innovation and Technology Development — Progress Report on Research and Development Centres"</p> <p>Minutes of meeting</p>	<p>CB(1)2088/06-07(04)</p> <p>CB(1)120/07-08</p>
<p>Meeting of CI Panel on 17 June 2008</p>	<p>Background brief on Research and Development Centres under the Innovation and Technology Fund</p> <p>Administration's paper : "Strategic Framework for Innovation and Technology Development — Progress Report on Research and Development Centres"</p> <p>Minutes of meeting</p>	<p>CB(1)1865/07-08(04)</p> <p>CB(1)1865/07-08(03)</p> <p>CB(1)2257/07-08</p>
<p>Meeting of CI Panel on 21 April 2009</p>	<p>Background brief on Research and Development Centres under the Innovation and Technology Fund</p> <p>Administration's paper : "Strategic Framework for Innovation and Technology</p>	<p>CB(1)1286/08-09(08)</p> <p>CB(1)1286/08-09(07)</p>

Committee	Paper	LC Paper No.
	<p>Development — Progress Report on Research and Development Centres"</p> <p>Minutes of meeting</p>	CB(1)2281/08-09
Meeting of CI Panel on 19 May 2009	<p>Background brief on Research and Development Centres under the Innovation and Technology Fund</p> <p>Administration's paper on mid-term review of the Research and Development Centres: Funding proposal</p> <p>Minutes of meeting</p>	<p>CB(1)1286/08-09(08)</p> <p>CB(1)1551/08-09(05)</p> <p>CB(1)2643/08-09</p>
Meeting of Finance Committee on 19 June 2009	<p>Administration's paper :</p> <p>INNOVATION AND TECHNOLOGY FUND HEAD 111 - INNOVATION AND TECHNOLOGY</p> <p>Subhead 104 Establishment of Research and Development Centre for Nanotechnology and Advanced Materials</p> <p>Subhead 105 Establishment of Research and Development Centre for Textile and Clothing</p> <p>Subhead 106 Establishment of Research and Development Centre for Automotive Parts and Accessory Systems</p> <p>Subhead 107 Establishment of Research and Development Centre for Logistics and Supply Chain Management Enabling Technologies</p> <p>Minutes of meeting</p>	<p>FCR(2009-10)27</p> <p>FC19/09-10</p>