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Panel on Commerce and Industry

Meeting on 21 February 2006

**Background Brief on
Establishment of Research and Development Centres under the
New Strategic Framework for Innovation and Technology Development**

Purpose

This paper outlines past discussions by Members on the initiative to establish Research and Development (R&D) Centres under the Administration's new strategy for innovation and technology development, with particular reference to the establishment of an R&D Centre on information and communications technologies (ICT).

New strategic framework for innovation and technology development

R & D Centres

2. The Administration explained to the Panel on Commerce and Industry (CI Panel) at the meetings on 18 January and 17 May 2005 the implementation of a new strategic framework for innovation and technology development. The key features of the new strategy are –

- (a) identification of technology focus areas in which Hong Kong has competitive edges and where there is the potential for meeting market needs; and
- (b) provision of funding support for the establishment of R&D Centres in the identified focus areas and R&D projects under specific focus themes to upgrade applied R&D efforts, facilitate technology transfer to the relevant industries and promote commercialization of the R&D deliverables in the relevant areas.

3. On 30 June 2004, the Innovation and Technology Commission issued a consultation paper for a two-month public consultation on the focus areas and the proposal of setting up R&D Centres. According to the Administration, the vast majority of the respondents were supportive of the general direction and key initiatives of the new strategy.

4. At the meeting of the CI Panel on 18 January 2005, the Administration informed members that taking into account the feedback received in the consultation exercise and based on the relevant criteria of a market-driven and demand-led approach under the new strategy, the Administration planned to set up, as the first step, R&D Centres under four technology focus areas, i.e. automotive parts and accessory systems; logistics and supply chain management enabling technologies; textiles and clothing; and nanotechnology and advanced materials. As part of the development plan under the new strategy, the Applied Science and Technology Research Institute (ASTRI) will subsume R&D Centres under another five focus areas in communications technologies, consumer electronics, integrated circuit design, opto-electronics and Chinese medicine under its existing operation infrastructure and take forward these areas as its research priority areas in its five-year plan.

5. The R&D Centres will be hosted by local tertiary educational institutions. They will coordinate R&D efforts in the relevant focus areas and maintain close relationship with the industry to ensure that R&D deliverables would be relevant to the industry's needs and the long-term development of the industry. The R&D Centres will set up their own Steering Committees and Technical Advisory Committees to provide advice on the research direction and technical aspect of individual projects respectively. The R&D Centres will have an initial term of operation of five years. Each of them will be set up as a separate legal entity such that it can play an independent and impartial role in fostering cooperation among the R&D institutions and cooperation with industry partners. The Administration has undertaken to report the operation and performance of the R&D Centres to the CI Panel on an annual basis.

Three-tier funding model

6. To implement the new strategy, the Administration adopts a three-tier funding model under the Innovation and Technology Fund (ITF)¹ to support applied R&D in Hong Kong. Tier one involves the establishment of R&D Centres to provide a focal point for conducting R&D in specific focus areas for application in the relevant industries in order to enhance their competitiveness and the longer-term technology development of the relevant industries to help transform the industries into high technology and high value-added industries. Tier two involves the funding of R&D projects under different focus themes with a much

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 the Innovation and Technology Commission and comprises four programmes, namely the Innovation and Technology Support Programme, University-Industry Collaboration Programme, General Support Programme and Small Entrepreneur Research Assistance Programme.

more specific and defined scope with a view to helping relevant industries meet their identified technology needs and requirements. Tier three involves the funding of more forward-looking and innovative R&D projects.

R&D Centre on Information and Communications Technologies

7. The CI Panel is generally in support of the institutional arrangement and operational model of R&D Centres under the new strategy framework. Regarding the establishment of R&D Centres in specific technology focus areas, members have noted the dissatisfaction of the information and technology sector that ICT has not been selected as one of the focus areas for the setting up of a dedicated R&D Centre. At the meeting on 17 May 2005, the Panel sought the Administration's views on the matter.

8. The Administration's response was that the scope of ICT covers a wide spectrum of technologies and industries and as such, it would be difficult for a dedicated R&D Centre on ICT to have a sharp focus to define a clear development direction. Nevertheless, the Administration recognized the importance of ICT as a tool without which the advancement and development of other technology areas would not be possible. The Administration has assured members that it will continue to support R&D projects in areas closely related to ICT, such as consumer electronics, logistics and supply chain management enabling technologies, and digital entertainment. According to the Administration, ICT-related projects have taken up a substantial share of the projects supported by ITF and the Applied Research Fund (ARF)².

9. On the proposed establishment of R&D Centres in the specific technology focus areas, the Administration has pointed out in its paper submitted for the Finance Committee (FC) meeting on 24 June 2005 that there is general and industry support for the setting up of an R&D Centre on ICT to cover four research priority areas of communications technologies; consumer electronics; integrated circuit design and opto-electronics as identified by ASTRI. In order to create better synergy and coordination among these four areas and avoid overlapping, the Administration supports the approach of allowing ASTRI to establish a single R&D Centre on ICT to develop the four research programmes. The Administration has explained that since ASTRI is an applied research institution set up as a limited company wholly owned by the Government, the organization and management infrastructure is already in place. ASTRI does not propose to establish a separate legal entity to run the R&D Centre. The Centre would be subsumed as a unit within ASTRI. Other than the institutional structure, the operation of ASTRI's R&D Centre on ICT is similar to those proposed by other institutions and in line with the operational model and general guidelines stipulated for the R&D Centres.

² The ARF is a government-owned venture capital fund set up in 1993 to provide funding support to technology ventures. Its longer-term aim is to increase the technology capability and competitiveness of local industry. The ARF is administered by the Applied Research Council, a company wholly owned by the Government and formed specifically for this purpose. Since 2000, the CI Panel has been receiving written reports on the implementation of ARF on a quarterly basis.

10. According to the Administration, ASTRI has estimated that the establishment of the R&D Centre on ICT within ASTRI's existing organizational infrastructure would require an extra operating expenditure of about \$60 million per annum over the five-year period. As the Government has already supported ASTRI's operating cost through recurrent subvention, the Administration informed FC that it was critically reviewing how the extra R&D-related operating expenses could reconcile with the recurrent subvention to ensure optimal and cost effective use of public resources. It has advised that it will separately seek FC's approval to fund ASTRI's requirements as appropriate in due course.

11. The relevant funding submission, which comprises other funding proposals for the establishment of R&D centres, was considered by FC on 24 June 2005 and approved by the majority of FC members voting.

Latest position

12. At the meeting of the CI Panel on 17 January 2006, Hon SIN Chung-kai suggested that the Panel should discuss issues relating to the R&D Centre on ICT, including –

- (a) the operating costs of the R&D Centre in the first five-year period and the recurrent subvention from different source that can be procured ; and
- (b) the development plan for the R&D Centre, including the management of the Centre, the mechanism for cooperation with the industry partners and the criteria for selecting priority research areas and projects for development.

13. The Panel has decided to follow up the subject at its meeting on 21 February 2006.

References

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

List of relevant papers

| Committee | Paper | LC Paper No. |
|--|---|---|
| Meeting of Panel on Commerce and Industry on 18 January 2005 | <ul style="list-style-type: none"> ✧ Administration's paper : "New Strategic Framework for Innovation and Technology development and Review of the Applied Research Fund" ✧ Background brief on funding support for innovation and technology development ✧ Letter dated 18 January 2005 from Hon SIN Chung-kai on "Review of the Innovation and Technology Fund and Applied research Fund" ✧ Letter dated 4 February 2005 from the Administration responding to Hon SIN Chung-lai's letter ✧ Minutes of meeting | <p>CB(1)690/04-05(04)</p> <p>CB(1)688/04-05</p> <p>CB(1)747/04-05</p> <p>CB(1)882/04-05(01)</p> <p>CB(1)863/04-05</p> |
| Meeting of Panel on Commerce and Industry on 17 May 2005 | <ul style="list-style-type: none"> ✧ Administration's paper : "Implementation of New Strategic Framework for Innovation and Technology Development" ✧ Background brief on new strategic framework for innovation and technology development ✧ Minutes of meeting | <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 | <ul style="list-style-type: none"> ✧ Administration's paper : INNOVATION AND TECHNOLOGY FUND HEAD 111 - INNOVATION AND TECHNOLOGY New Subhead "Establishment of Research and Development Centre for Nanotechnology and Advanced Materials" New Subhead "Establishment of Research and Development Centre for Textile and Clothing" New Subhead "Establishment of Research and Development Centre for | <p>FRC(2005-06)21</p> |

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| | <p>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>FC125/04-05</p> |
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