

Panel on Commerce and Industry

**Informal meeting with delegation of the Parliament of Finland,
the Subcommittee for Trade and Industry, Finance Committee
on 3 April 2006, 10:15 am - 11:00 am**

Brief on innovation and technology development in Hong Kong

Purpose

This brief provides an overview on the current framework for innovation and technology development in Hong Kong and highlights the role of the legislature.

Current framework

New strategic framework for innovation and technology development

2. The Administration has explained to the Panel on Commerce and Industry at a number of meetings the implementation of a new strategic framework for innovation and technology development. The key features of the strategy are –

- (a) identification of technology focus areas in which Hong Kong has competitive advantages and where there is the potential for meeting market needs; and
- (b) providing funding support for the establishment of Research and Development Centres (R& D Centres) in the identified focus areas and undertaking 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 products in the relevant areas.

3. Under the new strategy, the Government adopts a three-tier funding model to support applied R&D in Hong Kong. Tier one involves the establishment of R&D Centres for conducting R&D in specific focus areas for application in the relevant industries to enhance their competitiveness and longer-term technology development for transformation into high technology and high value-added industries. Tier two involves the funding of R&D projects under different focus themes with a more specific and defined scope to help specific industries meet their identified technology needs. Tier three involves funding of more forward-looking and innovative R&D projects.

R&D Centres

4. In order to strengthen collaborative applied research activities between the industries and research organizations, the Innovation and Technology Commission (ITC) is in the course of setting up five R&D Centres for the undertaking of industry-oriented research in identified technology focus areas. These technology areas are crucial for upgrading Hong Kong's industry base to move up the value chain. The Centres will be established with support from ITC funding and will be commissioned to provide a one-stop shop for technology transfer and commercialization through the following roles –

- Undertaking industry research
- Provision of technology and market intelligence
- Provision of a platform for the exchange of Intellectual Property/innovation technology
- Technology development, transfer and knowledge dissemination
- Intellectual Property commercialization.

5. The R&D Centres are expected to work closely with local universities and R&D institutions which possess considerable research strengths in the technology focus areas so that the R&D Centres can leverage on their resources and competitive edge. Under the market-driven and demand-led approach, these institutional partners will coordinate R&D efforts and maintain close relationship with the industry to ensure that the R&D deliverables would be relevant to the industry's needs and long-term development. Each of the R&D Centres will set up its own Steering Committee and Technology Committee to provide guidance on the research direction and technical aspects of the research projects.

6. Each R&D Centre is required to establish detailed guidelines on its corporate governance, including –

- (a) the management and control of the operation of the Centre;
- (b) mechanism for periodic update and review of the R&D programme;
- (c) project vetting, management and administration, and review mechanism;
- (d) reporting requirement, submission of annual report of the Centre and progress report of the projects to the Steering Committee and Technology Committee; and
- (e) control and auditing arrangements.

7. The five R&D Centres now being set up are in the following specific technology focus areas –

- (a) Automotive Parts and Accessory Systems;
- (b) Logistics and Supply Chain Management Enabling Technologies;
- (c) Nanotechnology and Advanced Materials;
- (d) Textile and Clothing; and
- (e) Information and Communications Technologies.

8. Different from the other four R&D Centres which will be established as independent legal entities, the R&D Centre on Information and Communications Technologies (ICT) will be established within the existing organizational infrastructure of the Applied Science and Technology Research Institute (ASTRI), which is a limited company wholly owned by the Government.

9. According to the Administration, the five R&D Centres would become operational by end of April 2006.

Relevant institutions involved in innovation and technology

The Innovation and Technology Commission

10. The mission of the ITC in the Commerce, Industry and Technology Bureau is to spearhead Hong Kong's drive to become a world-class, knowledge-based economy. To this end, it will –

- Promote and support applied research and development, and technology transfer and application.
- Foster an innovation and technology culture in the community, and promote technological entrepreneurship.
- Facilitate the provision of infrastructure and development of human resources to support innovation and technology.
- Formulate, develop and implement the Government's policies, programmes and measures to promote innovation and technology.
- Promote internationally accepted standards and conformity assessment services to underpin technological development and international trade.
- Develop high calibre and motivated staff to contribute to Hong Kong's technological advancement.

11. The Steering Committee on Innovation and Technology of ITC is responsible for coordinating the formulation and implementation of innovation and technology policies, and ensuring greater synergy among different elements of the innovation and technology programme. The Steering Committee is chaired by the Secretary for Commerce, Industry and Technology and comprises 13 members from relevant Government bureaux, academia, industry and innovation and technology organizations.

12. The ITC administers the Innovation and Technology Fund (ITF), which was set up in 1999 to finance projects to help promote innovation and technology upgrading in manufacturing and service industries with a view to enhancing Hong Kong's economic development. The ITF comprises four programmes, namely the Innovation and Technology Support Programme, University-Industry Collaboration Programme, General Support Programme and Small Entrepreneur Research Assistance Programme.

The Hong Kong Applied Science and Technology Research Institute

13. The ASTRI conducts research and development for transfer to industry for commercialization with a view to upgrading the technological level of Hong Kong's industry and creating new technology-based industries.

The Hong Kong Science and Technology Parks Corporation (HKSTPC)

14. The HKSTPC offers infrastructural support to technology-based companies and activities. Commencing operation since May 2001, HKSTPC is a statutory body formed by merging the former Hong Kong Industrial Estates Corporation, the Hong Kong Industrial Technology Centre Corporation and the Provisional Hong Kong Science Park Company Ltd. It provides a one-stop service to industry, from nurturing technology start-ups through the incubation programme, providing premises and services in the Science Park for applied research and development activities, to offering land and premises in the industrial estate for production.

The Hong Kong Productivity Council (HKPC)

15. The HKPC promotes productivity excellence through the provision of integrated support across the value chain of Hong Kong firms, in order to achieve more effective utilization of resources, enhance the value-added content of products and services, and enhance the industry's international competitiveness.

The Hong Kong Design Centre Limited (HKDC)

16. The HKDC is a multi-disciplinary design centre which aims at promoting design as a value-added activity; raising design standards and design-related education; and enhancing the profile of Hong Kong as an innovative and creative hub.

Role of the legislature

Monitoring of policy

17. The Panel on Commerce and Industry is tasked, among other things, to monitor and examine government policies and issues of public concern relating to commerce, industry, business and services promotion, innovation and technology, intellectual property and inward investment matters, as well as to provide a forum for the exchange and dissemination of views on these policy matters.

18. In considering the Administration's new strategy for innovation and technology, the Panel has raised the following concerns –

- (a) While the R&D Centres can provide R&D support for enterprises which lack the resources to undertake their own R&D work, the publicly funded R&D Centres should not become the R&D arm of individual enterprises.
- (b) Before embarking on any R&D projects, market research should be undertaken to ensure that there is a genuine market demand for the project deliverables.
- (c) Industry support and participation in the R&D projects should be solicited, and the R&D results should be capable of being adopted or commercialized by the industries concerned.
- (d) The Administration should give careful consideration to the arrangements for granting licence or sharing of intellectual property rights generated from the R&D projects.
- (e) A suitable number of research personnel recruited from places outside Hong Kong would help instil an international vision into the R&D projects.

Funding

19. The Administration's funding proposals which included the establishment of the R&D Centres were considered and approved by the Finance Committee (FC) of the Council on 24 June 2005.

20. Whilst members were in general supportive of the Administration's funding proposals for enhancing innovation and technology development, some members considered that the Administration should carefully assess the extent of the benefits which the R&D Centres could bring to the local workforce, particularly in terms of job opportunities, pointing out that the bulk of the manufacturing processes for parts and accessories of the products developed as a result of the R&D projects would likely be carried out in the Pearl River Delta Region. The cost-effectiveness of the technology upgrading projects financed by the ITF should

also be quantified. Some members also expressed concern as to why the bulk of the funding for the R&D projects should be provided by the Government rather than the industries themselves. They considered that the industries should also be required to contribute to the funding of R&D projects. The Administration took note of members' view.

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Legislative Council Secretariat
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