

Panel on Commerce and Industry

Extract from minutes of the meeting held on 16 November 2010

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IV. Progress report on the comprehensive review of the Research and Development Centres

(LC Paper No. CB(1)389/10-11(03) -- Administration's paper on review of operating costs of the Research and Development Centres

LC Paper No. CB(1)389/10-11(04) -- Paper on Research and Development Centres under the Innovation and Technology Fund prepared by the Legislative Council Secretariat (updated background brief)

LC Paper No. CB(1)473/10-11 -- Administration's paper on the InnoCarnival 2010 (tabled at the meeting and subsequently issued to members on 17 November 2010))

Presentation by the Administration

4. At the Chairman's invitation, Commissioner for Innovation and Technology (CIT) briefed members on the review of operating costs of the Research and Development (R&D) Centres under the Innovation and Technology Fund (ITF), as set out in the Administration's paper (LC Paper No. CB(1)389/10-11(03)). Members were also briefed on the salient features of individual R&D Centres by their respective Chief Executive Officers, as set out in Annex B to the Administration's paper.

Discussion

Industry contribution

5. Mr Jeffrey LAM noted that amongst the five R&D Centres under review, only Hong Kong Applied Science and Technology Research Institute (ASTRI)

and Nano and Advanced Materials Institute (NAMI) were able to meet the targeted level of industry contribution of 15%. He opined that the Administration should step up effort to enhance the level of industry contribution to the projects run by the Centres.

6. CIT responded that the Administration attached great importance to raising the level of industry contribution in R&D projects because the higher degree of contribution, the stronger industry interest in the project concerned, and hence the greater chance of success of commercialization. Deputy Commissioner for Innovation and Technology (DCIT) supplemented that amongst the Centres, NAMI and ASTRI had a higher number of collaborative projects (12 and 8 respectively) which required industry contribution of at least 30% of the project cost. In fact, NAMI had been building a cluster in photovoltaic technologies, whereas ASTRI had made good progress in light-emitting diode (LED) lighting projects. Through these R&D projects, overseas companies were attracted to set up their bases in Hong Kong. For example, ASTRI had signed a US\$2 million contract on anti-shaking technologies for digital cameras with a company in the United States which had recently set up its operation in the Hong Kong Science Park.

7. Dr Samson TAM considered the current level of industry contribution of at least 10% for platform projects reasonable, given that the industry sponsors would not own the intellectual property of the projects. He was keen to ensure that more contract research projects could be undertaken in future as these were good indicators of the strength of the R&D Centres. He also enquired how ASTRI would make use of the spin-off model to further its objectives.

8. CIT responded that the Administration had endeavored to raise the level of industry contribution in R&D projects and was making good progress. As a first step towards attracting more industry contributions, the Administration would encourage the wider use of the R&D deliverables in the public sector, such as the use of LED lighting in public housing estates of the Housing Authority and the use of radio frequency identification technology in the medical sector. The realization of R&D deliverables in the public sector should help enhance the prospect of commercialization of the R&D results in the private sector. On the spin-off model, CIT explained that this was a common practice in other countries. ASTRI also had experience in transferring its R&D results to the industry through spin-off which could involve buying out the technology developed by ASTRI and with/without the ASTRI research team. ASTRI would consider how best this model could be adopted under its projects taking into account past experience and the current circumstances. Given that ASTRI projects were often undertaken with public funding support, it was unlikely that all projects would adopt the spin-off model. For projects like those undertaken to support the public

sector (e.g. law enforcement agencies), there might also be little commercial interest and the spin-off model would not be applicable. She envisaged that ASTRI would adopt a balanced approach. On the issue of IP, ITC would conduct a review in 2011 to address all related issues such as IP rights and benefit-sharing arrangements in commercialization.

9. Chief Executive Officer, Hong Kong Applied Science and Technology Research Institute added that the spin-off model in ASTRI might take many forms. ASTRI encouraged the development of spin-off environment such as the setting up of companies at the Hong Kong Science Park by ASTRI's partners in collaborative projects to take forward the technologies developed, the signing of exclusive licensing agreements, and financing from third party investors, including venture capitalists (VCs). The ASTRI Board of Directors was also interested in exploring the option of direct spin-off through divesting of certain projects.

Admin 10. In response to Dr Samson TAM's request, CIT advised that the Administration would provide a more detailed breakdown of the industry contribution of the various Centres by project nature (i.e. platform, collaborative and contract research projects), as set out in table 6 of LC Paper No. CB(1)389/10-11(03).

Commercialization

11. Mr Vincent FANG opined that R&D was vital to the overall economic development of Hong Kong. He noted the lack of interest from the private sector in collaborative projects, and the declining trend in the level of industry contribution, especially in Hong Kong Automotive Parts and Accessory Systems R&D Centre (APAS) and Hong Kong Research Institute of Textiles and Apparel (HKRITA). Noting that the projects of some of the Centres, such as NAMI and ASTRI, were more popular than others, he opined that resources should be focused on these Centres to speed up commercialization. Sharing a similar concern, Mr Jeffrey LAM noted that R&D effort would be wasted if the results could not be commercialized. He opined that the Administration should identify the most popular R&D projects in each of the Centres with a view to speeding up their commercialization process.

12. CIT agreed that technology developments of some of the R&D Centres, such as HKRITA, had become matured and despite the hard work of colleagues, might be difficult to attract substantial industry contributions easily, whereas the core business of other Centres, such as NAMI and ASTRI, was becoming more and more popular nowadays. This was partly due to the fact that the technologies under research at NAMI and ASTRI were applicable to a wider range of sectors. With the completion of the comprehensive review in about

one year's time, the Administration would be in a better position to determine the technology areas where resources should be focused.

13. CIT added that it was opportune for the Administration to refine its policy framework for promoting innovation and technology development. In the comprehensive review on the overall performance of the Centres, the Administration would explore the possibility of shortening the processing time of applications for funding under the ITF framework, as well as facilitating the trial of R&D products in the public sector, so that researchers and product developers could gain more solid experience to fine-tune their products and increase the chances of commercialization.

Innovation and technology culture

14. Noting that the findings of the current review had not been very encouraging, Ms Emily LAU expressed concern about the way forward for the R&D Centres, and the dwindling number of young talents joining the R&D industry. She quoted Professor Vivian YAM of the University of Hong Kong, who recently won the L'Oreal-Unesco Women in Science award, as saying that doing scientific research in Hong Kong was a lonely business. Ms LAU hoped that the Administration would nurture a more supportive atmosphere for scientific research in Hong Kong, encourage private participation and help the R&D Centres tap the business opportunities in the Mainland.

15. In response, CIT agreed that although Hong Kong had a good supply of quality science and engineering graduates, not many of the young talents chose to pursue a career in the R&D sector due to the constraint of job opportunities. There was a need to foster a stronger culture that placed more importance in innovation and technology. In this connection, the InnoCarnival 2010, which formed an integral part of the InnoTech Month 2010, was recently held at the Hong Kong Science Park to promote an innovation and technology culture amongst the community. Throughout the 9-day period, some 104,000 visitors attended the event, which was 46% over the last year's figure. Looking ahead, a scholarship programme would be organized in the coming year in collaboration with the private sector to stimulate the interest of the young people in R&D. In this regard, she called for members' support for the proposal to promote "Innovation and Technology in Public Sector" under ITF which aimed at fostering an innovation and technology culture in the public sector.

16. On private sector participation, CIT advised that one major contributing factor to the success of R&D from overseas experience was the availability and contribution of private capital, in particular from VCs, to support projects with good realization/commercialization potential. However, such a culture had yet

to gain roots in Hong Kong. The Administration observed that VCs tended to be more interested in projects in the Mainland or other economies in the region. Therefore, apart from encouraging contribution to R&D projects from the local industry, the Administration was aiming to explore other sources, including VCs. On a strategic level, Hong Kong's R&D development would be geared toward complementing the implementation of the National 12th Five-Year Plan.

17. DCIT added that to promote the innovation and technology culture, the R&D Cash Rebate Scheme was launched in April 2010 to reinforce the research culture amongst business enterprises and encourage them to establish stronger partnership with designated local public research institutions. Under the Scheme, enterprises conducting applied R&D projects with the support of the ITF, or in partnership with local designated research institutions, would enjoy a cash rebate equivalent to 10% of their investments.

Operating cost

18. Noting that the expenditure on administrative support in 2009-2010 in three of the R&D Centres, namely HKRITA, ASTRI and Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies, was over 30%, Mr Jeffrey LAM enquired about the possibility of reducing the operating costs of the R&D Centres through the provision of central supporting services.

19. CIT responded that the Administration had concluded in the current review that there should be some form of central support to the R&D Centres, for example, in the provision of basic information for annual salary adjustment. Moreover, the option of co-location of the Centres to lower operating cost should be considered and this would also facilitate synergy through more frequent contacts and discussions between the Centres. A decision on the way forward as to whether the Centres would merge, disband or maintain the status quo would be made upon completion of the comprehensive review by early 2012.

Summing up

20. The Chairman said that the Panel noted the findings and observations on the current review of the operating costs of the R&D Centres, and looked forward to the early completion of the comprehensive review.

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