

**THE UNIVERSITY OF HONG KONG**

Submission to the Panel on Commerce and Industry on  
Promotion of Innovation and Technology In Hong Kong

**Preamble**

This is a paper in response to the call for views on “Promotion of innovation and technology in Hong Kong” on the Government’s policy, commitment, strategy, direction and approach in promoting the development of innovation and technology. As the call of submission was received only on April 27 and the submission deadline is May 7, 2012, only 5 working days are available to consolidate the views on the subject. This paper represents views generally held and expressed on past occasions by the University community, and that of the University management.

**State of Play**

2. It is a generally held view, at least in the academia and research sector, that Hong Kong’s investment in innovation and technology is far from adequate in comparison to other Asian countries in similar state of economic development. The GDP invested in R&D is less than 0.8%, only about half that of the Mainland and substantially below that of Korea, Singapore and Taiwan. This is in contrast to the fact that Hong Kong, despite its size, has the highest proportion of top universities in terms of world-ranking in Asia. One of the weakest performance indices of Hong Kong, according to the World Economic Forum (WEF), is in innovation and technology. The Government, for many years, lacks a clear and committed industrial and technology policy, which was evident when the current-term Government even removed ‘technology’ from its policy bureau and subsumed it under ‘commerce and industry’. While the next-term Government promises to create a new bureau for ‘innovation and technology’, Hong Kong is clearly much lagging in innovation and technology development as compared with other similar economies.

**Moving Forward**

3. It is essential for Hong Kong to have a policy bureau focusing on ‘innovation and technology’ (not just ‘information technology’ as reported). Without such bureau, making innovation and technology one of Hong Kong’s new economic development directions is nothing more than an empty slogan. The most important function of the bureau would be to formulate policies in innovation and technology, develop the matching implementation plan, and working with the rest of the Government departments to execute the plan, including obtaining sufficient financial resources for execution.

4. One of the most significant competitive advantages of Hong Kong has always been our rule of law, our IP protection, and our well-functioning judiciary system, which are most essential for innovation and technology development. This competitive advantage needs to be strengthened in an integrated manner to promote innovation and technology development, and appropriate policy and support from the Central

Government should be sought to realize this competitive advantage to the full. The current review on Hong Kong's patenting system is a good start, which hopefully could result in a substantial enhancement of Hong Kong's position in this aspect.

5. It is generally felt that despite the above-mentioned competitive advantage, Hong Kong lacks a vibrant and sustainable technology industry sector. Most economically developed countries provide incentives, in form of tax credits or tax allowance, for investment in R&D as a means of promoting reinvestment of profit in enhancing innovation and technology. While Hong Kong's low tax rate substantially reduces the effectiveness of such tax policy, some form of incentives should be considered to induce more R&D investment by the industry.

6. Investment and commitment by the Government on innovation and technology are clearly insufficient. The financial investment (as measured by the percentage of GDP) should be substantially increased for both basic research in universities as well as applied research in R&D institutes and in industry. The lack of commitment by the Government is one of the reasons, perhaps the most significant one, why Hong Kong is considered weak in innovation and technology development.

7. Although Hong Kong has started ASTRI (Applied Science and Technology Research Institute) together with 4 other R&D Centers, the scale is very small compared with A\*Star in Singapore, ITRI in Taiwan and ETRI in Korea. Research institutes are breeding grounds to germinate and incubate science and technology research outcomes into practical innovations that can be used in industry. It is also the training platform for young researchers to start their career outside of the academia and contribute directly to the industry. As a comparison, ASTRI has about 600 employees while A\*Star has close to 4,000 employees with 14 cutting edge research institutes.

8. One of the most important strategies for innovation and technology development in Hong Kong is to harmonize with the strategic development plan and direction in the Mainland, especially that of the 12<sup>th</sup> 5-year plan. Hong Kong would not have the necessary resource, market and scale as compared with Mainland China. To avoid being marginalized, Hong Kong must focus on our areas of strength, and ensure we maintain our competitive edge by providing "critical components" in solving those major technology and industrial problems relevant to both Hong Kong and the Mainland.

9. Focusing on our areas of strength that are relevant is critical if Hong Kong really wants to develop innovation and technology as one of the economic pillars. These areas include (but not limited to): (1) clean energy and environment; (2) biomedicine and healthcare technology; (3) drug discovery and development; (4) information and communication technology (ICT); and (5) new materials and nano-technology.

10. The universities in Hong Kong are the largest and most important source of innovation in science and technology. The Government should provide sufficient resources, in monetary and manpower provision terms, to enable the universities to enhance its basic and applied research. This is particular important in the face of the rapid development in the Mainland in the area of self-innovation and development of intellectual properties. Without substantive investment in the part of the Government, Hong Kong's position in innovation and technology could be marginalized and further

deteriorates in comparison to our various neighbouring economies. The support should include but not limited to increase in research funding, through RGC, ITC and other funding channels, increase support of research postgraduate places and post-doctoral fellow support.

11. While a significant increase in funding support is crucial for driving innovation and technology led by Hong Kong's universities, it is equally important for the Government to critically review the existing funding models that were set up to support this direction. Currently the Government has made funding available through various agencies such as ITC, ASTRI and the Science Park, but there is a need to revisit the funding models in a strategic and holistic manner. As research is a very long-term investment where short-term return is not a useful measure of impact, the current funding models should be streamlined (in terms of complex application process, excessive elaborate reporting etc) if we were to see innovation in research flourish in Hong Kong. In addition, as innovation and technology can contribute tremendously to different aspects of society, research funding should be made available through not only the Education Bureau or the Commerce and Economic Development Bureau, but also through other bureaux (e.g. Health, Environment etc) with a sustainable strategy and streamlined approach on innovation and technology development in focused areas. It is strategically essential for the Government to bridge the gaps which hinder the development of a sustainable ecosystem of innovation and technology in Hong Kong.

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