

By post and by fax at 2978 7569

14 May 2012

Clerk to Panel on Commerce and Industry
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central Hong Kong

[Attn: Ms May LEUNG]

Dear Ms Leung

**Legislative Council Panel on Commerce and Industry – Meeting on 15 May 2012
Views on “Promotion of innovation and technology in Hong Kong”**

Thank you for inviting the Institution to put forth our views on the captioned subject.

In response to your invitation, we are pleased to provide herewith our views and suggestions on the subject for your consideration.

Thank you.

Yours sincerely



Ir CHAN Fuk Cheung
President
The Hong Kong Institution of Engineers

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FCC/WC

Enclosure

**Legislative Council
Panel on Commerce and Industry**

**Views from the Hong Kong Institution of Engineers on
“Promotion of innovation and technology in Hong Kong”**

In response to the invitation from the captioned panel, the Hong Kong Institution of Engineers (HKIE) is pleased to provide our views on the subject as set out below for consideration.

2. The HKIE upholds the vision on the sustained excellence in the engineering profession and pursues the long term development of Hong Kong. We believe that engineering plays an indispensable role in the contribution through innovation and technology. In fact, our engineers in various disciplines actively participate in research and development initiatives in generating and discovering new technologies, and actively adopt these new technologies in building our community and bringing quality living to the public. Hence, innovation is an important value creation asset for our future.

3. It is well aware that our world has since been stepping into the sixth wave of innovationⁱ, which is to be engineered by new knowledge production and application. We believe that Hong Kong should maintain our competitive edge by using technology and innovation to drive our development and excellence. As such, we strongly support on promotion of innovation and technology in Hong Kong.

4. Innovation and technology are elements which should be collectively built in within the overall system of Hong Kong society and our development. Promotion of innovation and advancement in technology should be knitted in every process of the activities in our society. It would require collaboration among various parties, namely government, academic and research community, and industry and business sector, to steer and facilitate the public to engage in the process of development through innovation and technology. In particular, we trust that the government has the ultimate role and responsibility to create a favourable backdrop and facilitate the environment for realising practitioners’ concerted efforts into meaningful outcomes. The HKIE hence regards that the government should establish as a role model and facilitator, by ways of fostering academic and applied research, promoting industries and businesses to focus on innovation and technology, strengthening the relevant infrastructure, and breeding suitable human resources.

5. We advocate that the government should take strong initiatives and persistent efforts in promoting research, and in particular, applied research. While we understand that commercialisation of research findings is crucial to attract wider and further investment in research and development (R&D) on technology, the government should encourage seed research projects from the community. More financial assistance such as subvention could be considered to the academic and research institutions for their R&D projects.

6. Towards the industry and business sector, government funding is suggested to be further increased to promote innovation and technology development in the small and medium enterprises (SME). With more financial aid to upgrade the apparatus and recruit/retain the professionals, the SME could be equipped with a better platform to engage in research activities where the findings resulted could benefit the community as a whole.

7. The government should also lead the initiative of generating a platform and database consolidating the research results and technological achievements of the territory over the years, for facilitating further new innovative ideas to be derived from our current achievements and for better cultivation and promotion of innovation and technology culture.

8. We also suggest that the government should not merely focus on cost but instill other criteria, such as judgment on the application of new technology and innovativeness, in assessing the bidders and suppliers for government tender and procurement, so as to trigger the industries and suppliers to progressively proceed in embracing innovation and technology in their new product and service development.

9. However, we believe that the government should also enhance the relevant infrastructure to facilitate the development of innovation and technology industries/businesses in Hong Kong. Land space, hardware and venue facilities, data and internet networking etc are essential means on which the government should target in facilitating private sector's participation in innovation and technology development.

10. Last but not the least, we believe that the ultimate driver for sustainable promotion of innovation and technology development should be our younger generation. Resources and initiatives spent on education are therefore the most important strategic focus of the government.

11. We believe that the sense of creative thinking, receptiveness of innovative ideas, and appreciation of technology should be fostered when one is young. As such, we strongly advocate a strategic and progressive overhaul of education curriculum and teaching methods in primary and secondary schools, such that creativity, analytical mindset and problem-solving skills should be promoted against rote learning. Corresponding to this, we suggest that teacher training and teaching resources should be complemented and enhanced for the purpose. After all, the HKIE always stresses that concept of innovation and knowledge/skill in generating new technology should be well integrated and fully represented in the curriculum, and should further be assimilated in teachers' training.

12. In tertiary education sector, the government should promote equipping students with skills in employing advanced innovation and problem-solving techniques through the general and professional education in the undergraduate studies. Moreover, the government should actively promote closer exchange between the academics and private sectors. For instance, more government-initiated programmes could be organised to enhance communication among them. The teaching and research staff of tertiary

institutions could visit local industries and business sector on regular basis to get familiarised with current industrial/business development and situation in Hong Kong, while they would at the same time update the private sector counterparts of the latest local and international research and technological development trends.

13. Further, the exchanges will be able to bring the situations and challenges faced by the industries to the awareness of the academics and other university students. Similarly, through better understanding of the potential as well as limitations experienced by the academics and researchers, the private sectors could grasp the possible development opportunities in technology, as well as join hands with and show their support to the researchers for promoting fruitful research for the overall benefit of Hong Kong's future development.

¹UNESCO (2010). UNESCO REPORT - Engineering: Issues, Challenges and Opportunities for Development.