

By Hand

14 December 2015

The Honourable LEUNG Chun Ying GBM GBS JP
The Chief Executive
Office of the Chief Executive
Tamar
Hong Kong

Dear Mr Leung

On behalf of the Institution, I am pleased to present to you our views and suggestions as set out in the enclosure for your consideration in the preparation of the 2016 Policy Address.

With our expertise and experience, the Institution welcomes the opportunity to work with the Government on areas of concern for the benefits of the profession and the general public as a whole.

Thank you.

Yours sincerely



Ir CHAN Chi Chiu
President
The Hong Kong Institution of Engineers

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**Views from the Hong Kong Institution of Engineers
to the Chief Executive for the Formulation of 2016 Policy Address**

General

The Hong Kong Institution of Engineers (HKIE) is always earnest in joining hands with the Administration and the community to build a prosperous Hong Kong. We hope that the Administration can devise far-sighted strategies and pragmatic policies as the driver for further development. Through enriching the initiatives in sustaining the development of Hong Kong, we aspire for more room for the engineering profession to progress and betterment of livelihood of all citizens. The Institution would therefore like to provide our views and suggestions for consideration.

Enhancing Hong Kong Competitiveness

2. The HKIE believes that enhancing competitiveness of Hong Kong should always be the top agenda of the Administration. The “One Belt, One Road” Vision initiated by the Mainland Authority is surely the best opportunity now and in future through which Hong Kong can lift our competitiveness. With sound foundation and system, Hong Kong strategically plays an important role to assist realising the initiative under this Vision, which in turn can bring considerable long-term benefits to all Hong Kong citizens.

Infrastructural Development

3. Keys to the essence of “Belt Road Initiative” are connectivity, coordination and bonding between China and other countries from near in South East Asia to far in Europe, Middle East and Africa. We expect that the Initiative will increase the demand for services in regional and international logistics, communication, and travelling. Having established as the Asia’s World City, Hong Kong can leverage on our geographical advantage to seize the leading role as the logistical and transportation hub under the “Belt Road Initiative”. To put this into tangible actions, the HKIE strongly supports expediting the construction of Third Runway System of the Hong Kong International Airport as well as the connecting transport link of the Airport with the surrounding districts within and adjacent to the territory. We also advocate for a more ambitious plan in enriching the port facilities and road/ railway network to better prepare Hong Kong to accommodate the increased supply chain flow and logistic/ people movement. We also support the Administration to lay down concrete action plans in enhancing the corresponding information technology and communication infrastructures to support those activities. It is only through building a strong foundation in the infrastructural facilities will Hong Kong be able to maintain superiority in our positioning as the logistical and transportation hub, and through which Hong Kong can maintain as the international financial and trade centre to meet the increased business activities under the “Belt Road Initiative”.

4. The Administration should also better equip Hong Kong to assume the “soft” role to cater for the increased international exchange and communication prompted from the “Belt Road Initiative”. Hence, the Administration should devise plans to enhance the facilities and capacity for convention, exhibition, business and recreational travelling. With the enhanced transportation infrastructures and corresponding facilities, Hong Kong can then drive for hosting more summits, conferences, and programmes of regional and international nature that would facilitate the collaboration and interactions with other regions under the “Belt Road Initiative”.

Managing Project Planning and Implementation

5. However, the HKIE is worried on the stagnation and delay in kicking-off of essential infrastructural projects in recent years, which will further exert strain on the project lead-time and control of cost/ resources allocation. Consequently, it will diminish the momentum of Hong Kong in keeping up with the pace of the exponential development under the “Belt Road Initiative”.

6. The HKIE would therefore urge the Administration to lay down vision and planning for the long-term construction projects in Hong Kong and set up a stronger consultation mechanism for securing public consensus in implementing the projects orderly. Moreover, the Administration should also schedule the future projects evenly to avoid causing pressure on manpower requirements on professionals and skilled labours.

Sustaining Engineering Profession

7. It is indisputable that enhancing Hong Kong competitiveness will require a pool of quality professionals. The HKIE, being the only institution representing the engineering professionals in Hong Kong, concerns on the development of our profession and further room for our contribution to the development of Hong Kong. We admire the past efforts in infrastructural development such as the Ten Major Infrastructure Projects that have enlivened the economy and the opportunities for the professionals. We are eagerly awaiting further measures of the Administration in laying down the blueprint for future infrastructural development and strengthening the pool of professionals including the Hong Kong engineers.

Expanding the Global Reach of Hong Kong Engineers

8. The HKIE hopes that the “Belt Road Initiative” can offer a new path for the development of Hong Kong engineers. It is envisaged that there will be considerable investment from China and Asian regions for infrastructural development in support of the Initiative. Hence, the need for engineering expertise in these areas is expected to be high in near future. We are proud to state that the talents and achievements of Hong Kong engineers have been of world-class after years of endeavours. We believe that our engineering experiences and expertise would be of considerable value

to China and the neighbouring countries in their infrastructural development. The HKIE would therefore request for more assistance from the Administration to support promoting our engineering professionals for international recognition and for securing the relevant project contracts globally.

Development of Hong Kong Professionals

9. The HKIE suggests the Administration to continue enhancing the professional services and professional standards, especially in engineering, technology and innovation. Hong Kong needs to adopt a proactive approach to sustain the development of professionals to expand their capacity for further contribution to Hong Kong. Hence, we suggest the Administration to re-introduce the Professional Services Development Assistance Scheme (PSDAS), which has been shown constructive in attracting and triggering quality researches and studies on enhancing the Hong Kong professionals' development.

Fostering Next Generation of Engineering Professionals

10. Hong Kong needs to have an adequate pool of quality engineering professionals and technical personnel to engineer the development of Hong Kong. Only through attracting new blood to enter the profession can the engineering and construction profession sustain in the coming years. To better identify and foster the future talents in various engineering disciplines, the HKIE opines that the Administration should take steps to instill more engineering-related substances into the curriculum of primary and secondary schools. Meanwhile, the funding for tertiary education, continuous professional development, and research in engineering and technology should be progressively increased. We also expect that the Administration should offer more internship and training opportunities for fresh engineering graduates to nurture them to be the future professional engineers.

Manpower Development

11. The HKIE is also concerned on the lack of technical grade personnel experienced not just in the construction industry but other sectors. We believe that Hong Kong should encourage more secondary schools to offer technical and applied technology subjects to cater for senior secondary students of different aptitudes. The Administration should also encourage tertiary institutions to recognise the qualifications on technical and applied technology subjects of secondary school leavers when considering their applications for admission. In particular to the training of technicians and supervisory grade staff, the HKIE believes that the Administration should provide necessary support and assistance to various public-funded and private-funded post-secondary institutions in focusing on offering Higher Diploma courses in technological and technical disciplines, so as to ensure that there will be a healthy balance of next generations equipped with the corresponding capabilities in developing the career in relevant areas.

Land and Housing Supply

12. Property price has become a heated agenda among all sectors in Hong Kong. The availability of affordable residential properties is essential for the living quality of Hong Kong citizens. To facilitate more housing supply, the HKIE supports the initiatives for new development areas proposed in Lantau, Hung Shui Kiu and North East New Territories. However, while we believe that increasing housing supply is the most effective measure, it is well aware that this depends on whether Hong Kong can have sufficient new land for construction of new residential flats.

13. In the short-run for increasing land supply, the Administration may consider rezoning suitable land and releasing some green belts of low ecological value for residential land use. However, the balance between development and environmental conservation must be well-maintained. It is suggested that the Administration should have thorough planning and assessment on the environmental impact before seeking public views on relevant measures.

14. In the mid- and long-run, the HKIE strongly supports the Administration in carrying out multi-pronged approaches in creating more land, such as reclamation, creation of artificial islands in Central Waters, and further development of underground space and caverns. We urge the Administration to speed up further feasibility studies and better engage the community stakeholders in reaching feasible consensus to enhance the land supply in Hong Kong through these means.

Innovation and Technological Development

15. According to the Global Competitiveness Report 2014-2015¹, while Hong Kong manages to maintain within the rank of the top ten in the world, various indexes under “Technological Readiness” show that Hong Kong ranks much lower and behind the other developed countries, such as 18th in “availability of latest technologies” and 19th in “firm-level technology absorption”. More alarmingly, it is noted that Hong Kong ranks much behind in the various indexes of “Innovation”, on aspects such as “capacity for innovation” (32nd), “quality of scientific research institutions” (32nd), “university-industry collaboration in R&D” (28th), and “availability of scientists and engineers” (36th). The same situation is also reflected in the Global Innovation Index 2015², in which Hong Kong ranks 31st in “Knowledge and Technology Outputs” and 19th in “Human Capital and Research”.

16. Innovation and technology development is not just essential for sustaining engineering profession’s excellence but also a major pillar for steering Hong Kong to

¹ Professor Klaus Schwab, & Economic Forum World. (2014). *The Global Competitiveness Report 2014 - 2015*. Retrieved from The World Economic Forum:
<http://www.weforum.org/reports/global-competitiveness-report-2014-2015>, 2 December 2015

² Dutta Soumitra, Lanvin Bruno, & Wunsch Vincent Sacha. (2015). *The Global Innovation Index 2015: Effective Innovation Policies for Development*. Retrieved from Cornell INSEAD WIPO:
<https://www.globalinnovationindex.org/content/page/GII-Home>, 2 December 2015

be a competitive power in future. As Hong Kong is a highly developed region with vision to maintain our competitive edge, the current situation reflects that there is still much room for improvement in our capacity on research, innovation and technological development. Hong Kong has been lagging behind, but we must leap forward.

Enhancing Funding

17. The strong commitment of the Administration for innovation and technology is indispensable. We hope that the Administration should give priority in allocating more resources for tertiary institutions in conducting research. More funding support should also be provided to encourage collaboration between the public and private sectors and academia for driving research on innovation and technology, and for converting research outcomes into practical use.

Fostering a Hi-Tech Culture

18. Hong Kong needs to cultivate a common vision in the community for embracing innovation and technology. This is also essential to foster youngsters and talents to assume the role as future technology pioneers and entrepreneurs. The HKIE suggests the Administration to put further endeavours to lay down a platform for confluence of technological talents and professionals to exchange, collaborate and educate. The Administration should also take the lead in facilitating exchanges of ideas and closer partnership in research and development (R & D) locally and globally. After all, the Administration's dual roles in leading and supporting will be essential in creating a conducive environment for innovation and technological development in Hong Kong.

Starting from Community – Smart City

19. Technology development can and should start from the community. The Administration should ambitiously develop action plans of fostering Hong Kong as a Smart City. We need a holistic strategy for transforming and developing the territory (i.e. both new development areas and urban renewal) by aptly using new technology in constructing our community. The Administration needs to set out tangible short-term targets as well as long-term driving goals for energising Government-citizen as well as public-private partnership to push forward the Smart City initiatives. The HKIE eagerly awaits the Administration to engage our engineers as well as other professionals to work out the action plans.

Environmental Protection

20. Hong Kong is highly developed and relatively affluent, but there is much worry among citizens for the cost of development to our living condition. The HKIE, however, believes that development can go hand in hand with environmental protection. We hope that the Administration can strengthen measures to protect our environment and build up public confidence that development can also enhance

environmental protection. The HKIE believes the 3Rs Principle (Reduce, Reuse, & Recycle) should be embedded in every public policy that concerns the living of the public.

Promoting Electric Vehicles

21. According to the 2013 Hong Kong Air Pollutant Emission Inventory³ of the Environmental Protection Department, road transport accounted for 59% of carbon monoxide pollutant, and for around 20% of each of the pollutants of sulphur dioxide (SO₂), nitrogen oxides (NO_x), respirable suspended particulates (RSP or PM₁₀), fine suspended particulates (FSP or PM_{2.5}), and volatile organic compounds (VOC). We believe that the Administration should seriously address the matter to secure clean roadside air for the community.

22. We believe that Electric Vehicles (EVs) is a very good means for Hong Kong to cut down roadside pollution. The HKIE would therefore like to invite the Administration to demonstrate more efforts to promote EVs in Hong Kong. While noting that the popularity of EVs is seriously hampered by constraints like insufficient charging stations, high cost, and slow charging time, etc., we hope that the Administration can encourage the increase of charging stations convenient to the users, especially in the old housing areas and carparks. Tax reduction schemes for purchase of EVs and economic incentives to the commercial vehicle owners on using EVs should be developed. The Government departments should also commit to take the lead in using more EVs for government vehicles.

Energy Management and Saving

23. The HKIE supports that the Administration should formulate an unambiguous policy on energy saving across all sectors. We agree that energy users should have sufficient understanding of their energy usage pattern. This could be enabled through wider application of modern devices such as smart meter, home energy management system, etc. together with user-friendly analysis tools. The Administration should encourage deployment of Advanced Metering Infrastructure (AMI) which is a fundamental platform to enable consumption data collection and provision of data-based behavioural programmes to customers. This could also help to drive change in the energy usage behaviour in the long run.

Supporting Recycling Industry

24. The HKIE believes that the Administration should take the lead in supporting recycling industry. We note that the high operation cost is a major problem faced by the recycling industry. The high transportation cost of collecting recyclables and inadequate site for the recycling infrastructures have constrained the viability of

³ Air Science Group, Environmental Protection Department (2015). *2013 Hong Kong Emission Inventory Report*. Retrieved from Environmental Protection Department, HKSAR: http://www.epd.gov.hk/epd/english/environmentinhk/air/data/emission_inve.html, 4 December 2015

recycling industry development in Hong Kong. The practitioners of the industry also find it difficult financially to access to modern recycling technologies for further reprocessing in Hong Kong. The HKIE thinks that the Administration should never be conservative in supporting recycling industry on addressing these difficulties.