

By Hand

28 September 2017

The Honourable Carrie LAM CHENG Yuet Ngor GBM GBS
The Chief Executive
Office of the Chief Executive
Tamar
Hong Kong

Dear Mrs LAM

**Views from the Hong Kong Institution of Engineers to the Chief Executive for
Formulation of 2017-18 Policy Address**

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 2017-18 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.

Yours sincerely



Ir Thomas CHAN Kwok Cheung
President
The Hong Kong Institution of Engineers

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TKCC/ML

Enclosure

Views from the Hong Kong Institution of Engineers to the Chief Executive for Formulation of 2017/18 Policy Address

The Hong Kong Institution of Engineers (HKIE) is always proactive in responding to issues of importance to the engineering profession as well as Hong Kong's future. We support the Administration in formulating progressive, forward-looking strategies with positive impacts to the profession and the general public. While continuously improving the infrastructure system to build a quality society, it is equally important for the Administration to develop policy and strategy in building up and enhancing the soft infrastructures¹ of the City. The HKIE would like to put forth our views on the forthcoming Policy Address to the Administration for consideration.

Strengthening Hong Kong's Leading Role

2. The rapid growth of the Mainland provides Hong Kong with strong back up for development. Having closer connection with the Mainland and extensive overseas business network, Hong Kong should upkeep our unique position in the global scene. The HKIE hopes that the Administration will strive to engineer Hong Kong to reach the new horizon and strengthen our leading role, not just in financial side but other potential development areas. We hope the Administration to set a broader vision in the long term, fostering Hong Kong to become not just a "super connector" but the most preferable business and development partner with other cities in the Mainland and the other countries.

3. The Administration is suggested to develop a more centralised infrastructure management and development initiative with a long-term vision. In particular, persistently upgrading the hardware is essential to maintain the competitiveness, livability, sustainability, social well-being and advantages of Hong Kong. We should maintain a steady programme for infrastructure projects to keep the momentum of development for our city and the professionals/ various economic sectors. The Administration should keep investing in our infrastructure with stronger transportation network, a new Central Business District development (such as Kwai Chung and New Territories North to diversify the crowded urban area), better social infrastructure facilities, and provide sufficient and top-grade IT/ convention/ supporting facilities and services to facilitate businesses as well as innovation/ technology development and exchange to be taken place here. In the course of doing that, the Administration should relentlessly explain to the community that those planned and constructed infrastructure developments are meant to build a "quality society" so as to project a positive image and counterbalance the anti-development sentiment.

4. For Hong Kong to further develop, increasing land supply on all fronts is important to meet housing, economic, social needs, and to enhance the per capita living area. We suggest the Administration to set a clear objective on the distribution

¹ *Soft infrastructures refer to happiness, culture, education, environment, preservation, core values, legal system, disparity, quality of people, etc.*

and density of population in the long term, and review the maximum domestic plot ratio and land development restrictions when setting out the land supply strategies. We support creative, multi-pronged and efficient land use measures through creating new land and maximising the development values of existing land such as developing underground space, caverns, container terminal areas and brownfield sites. To enhance efficient use of the new land obtained and balance different development needs, the Administration should also regularly assess the necessities, priorities and timeframe for various initiatives of land supply.

5. We welcome the Administration to foster Hong Kong as a global hub of professionals and talents. The Administration should take lead in coordinating initiatives on promoting mobility of talents/ professionals to facilitate their residing in Hong Kong to work and innovate. Hong Kong should also strive for hosting international events that attract entrepreneurs, talents and business leaders around the world and provide a favourable platform for them to exchange, collaborate and form business partnership.

6. Envisaging that various development initiatives and construction projects are to be launched along the regions under the Belt and Road initiative and the Guangdong-Hong Kong-Macau Bay Area development plan, and as the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone will provide a springboard for Hong Kong professionals to develop beyond the local territory, the HKIE hopes that the Administration can further team up with our professionals to strive for qualifications recognition and approval of professional practice of Hong Kong's professionals in the Mainland, and further promote the Hong Kong brand of professional services to other provinces/ cities in the Mainland and to the world.

Striving for Green Development

7. For sustainable development to be achieved, it is crucial to harmonise the environmental protection with the needs for development. According to the Hedley Environmental Index by the School of Public Health of the University of Hong Kong², five people are killed by air pollution every day. Hong Kong air quality level does not match up with the quality of city development. Noting that the Mainland and other countries have achieved with higher proportion of power generated from the renewable energy ("RE"), we urge the Administration to study the possibility of increasing RE potential to beyond the set target of 3 to 4 per cent after Year 2030 for the long-term fuel mix in electricity generation. The Administration should also conduct intensive studies for the introduction of Feed-in Tariffs as a financial incentive in RE, distributed power generations and all other potential sustainable energy resources for utility customers through selling back to the grid.

8. It is noted that fuel vehicles and vessels largely account for the air pollution at the roadside. Promoting the use of electric vehicles ("EVs") in Hong Kong will be a way out. Hence, we suggest the Administration to set a concrete target for the use of EVs and roll out plans and initiatives to facilitate and promote EVs to be further adopted by public transport companies and individual drivers. We also suggest the

² *School of Public Health, The University of Hong Kong. Hedley Environmental Index*
Website: <http://hedleyindex.sph.hku.hk/html/en/index.php>

Administration to encourage the service operators in introducing green ferries by replacing the old diesel combustion engine.

9. Following the completion of the Greening Master Plan in 2012³, we are of the opinion that the Administration should put the Plan into wider implementation actions. Green development is the responsibility of every sector. The HKIE suggests the Administration to take the lead in urging and engaging the private sector to share the responsibility for green development and conduct their business activities in a sustainable way. We also look forward to more public-private partnership in rolling out green actions as well as incentives and measures to facilitate the community to participate.

10. Exacerbated climate change is likely to increase our city's vulnerability to adverse impacts like flooding, landslide, etc. The Administration shall critically review our city and communities' resilience and derive pragmatic plans to improve the adaptability and recovery of various infrastructure systems in case Hong Kong is affected by catastrophes or extreme events brought by climate change.

11. The HKIE suggests the Administration to continue supporting the recycling industry and identify more measures that can help the practitioners to upgrade their operational technology and efficiency.

Smart City

12. Direction for developing Hong Kong as a Smart City has been much agreed by the public, yet the progress appears to be sluggish aside from the plan of conducting the pilot study in East Kowloon. The HKIE has always been advocating the Administration to promptly develop a concrete plan with milestones set for implementation of Smart City initiatives in the whole territory of Hong Kong.

13. As a first step, the Administration is recommended to activate smart government initiatives, with enhanced use of big data analytics for administrative operations as well as enhancing the Government websites to enable more convenience for the public to obtain public information and access the public services online. Cross-departmental collaboration within the Government and public-private partnership in implementing data sharing and utilising smart concepts to enhance the delivery of public and social services should also be encouraged. In particular, some areas that are of high relevance to the daily living of the citizens, such as transportation, utilities and IT services, should be of high priority for the Administration to set action plans for increasing the implementation of smart initiatives.

14. It is also suggested enhancing the platform for data sharing to facilitate convenient access of and/or making request for available data held by the Government. We particularly hope that the Government can release more planning/construction-related data to facilitate professionals in carrying out corresponding design, studies and relevant constructions projects more effectively.

³ *Civil Engineering and Development Department. Greening Master Plan Homepage*
Website: <http://www.cedd.gov.hk/eng/greening/>

Innovation and Technology Development

15. Innovation and technology should be the driving force behind Hong Kong's economy and the key to enhance competitiveness of our industries. The HKIE has always been advocating the Administration to progressively increase the funding on research and technology to encourage different sectors to develop and make use of innovative ideas and technologies to improve the daily life of Hong Kong people and enhance our economic development. The Administration is suggested to set mid- to long-term funding targets on research and technology by making reference to other technologically advanced regions.

16. To instill innovation in the engineering and construction industry, it is encouraging to note that the Administration has introduced innovation and creativity as one of the tender evaluation criteria in the procurement of some public works projects.

17. Particular to the construction industries, the Administration should take the lead in the promotion of Building Information Modelling (BIM) technology. It is suggested specifying the requirements of adopting BIM in outsourced public works contracts with unified sets of standards and specifications and providing more training and guidance on the use of BIM to work personnel. With significant push for the use of BIM and new technologies in works projects, adequate resources and funding should be injected to stimulate the industries to acquire both the hardware and software, including equipping construction professionals in particular engineers with the BIM knowledge and skills in the foreseeable future.

18. The HKIE suggests the Administration to encourage more public-private partnership in instilling new technology in construction projects and encourage academic/ industry collaboration for applied engineering/ technology researches and application of research outcomes in the construction industries. The Administration should also consider developing a more open platform to help match the universities and the private sector for university-industry partnership in developing downstream research and development.

19. To encourage a wider application of innovation and technology in the public, the HKIE suggests the Administration to roll out promotional activities through different channels and provide technical support to the community so as to foster a vibrant innovation culture in the society. The Administration should consider providing incentives to promote innovations that lead to better local engineering and manufacturing support (e.g. modular construction, steel bending, etc) as well as further cultivating an innovative culture and environment locally.

Population Assets

20. The HKIE considers that strategic population, manpower and education policies are essential to optimise our demographic structure, nurture our future successors and plan for our mid- and long-term supply of manpower resources in order to support steady and sustainable development of Hong Kong. To unleash the potential of the local labour force, the Administration should carry out effective measures for attracting and facilitating women to remain in the job market, promoting to the private

sectors on the deferral of retirement age, as well as improving the social status of engineering and related construction professions to attract talented and enthusiastic youngsters to become the next generation of engineers.

21. In order to enhance the competitiveness of Hong Kong's workforce in the knowledge-based economy, we suggest the Administration to strengthen the education/ training provisions and foster manpower resources for diverse economic sectors/ industries in response to future economic development. More importantly, "quality trainings" should be provided in schools and the industry to help nurturing young engineers and equipping them with the knowledge on cutting-edge technologies and new skills to stay competitive. The HKIE strongly supports the Administration to continue reinforcing the STEM (Science, Technology, Engineering and Mathematics) education in school curriculum and extra-curricular activities to motivate and inspire young students, so as to better prepare them to pursue higher education and careers in technology, engineering, and science and to become tomorrow's engineers and other technology professionals.

22. In view of the foreseeable ageing population in the society, the Administration should put efforts in building an age-friendly environment and tapping the valuable pool of elderly manpower resources.

Supporting Local Engineering and Construction Companies

23. Escalating project cost and tight manpower supply are two major issues that the construction industry in Hong Kong is facing. The report "International Construction Cost 2017: Cost Certainty in An Uncertain World"⁴ states that Hong Kong is second only to New York in construction costs among the cities in the world. While Hong Kong is still expecting waves of new construction projects to be launched, the shortage of construction operatives has been driving up construction costs and delaying project completions. In view of these, we recommend the Administration to collaborate with the engineering/ construction industry to roll out effective measures to attract new entrants, particularly young people, such as enhancing training opportunities and improving working condition and construction site safety. The Administration is also suggested to schedule future major projects evenly to avoid fluctuating demand for manpower and construction materials that would affect the employment opportunities and cost of construction materials.

24. Small construction companies which make up 90% of the industry are acting mostly as the subcontractors of the construction projects, while only a number of big construction companies are capable of handling projects requiring sophisticated technology. It is also observed that the international service providers with extensive experiences are in a more advantageous position in bidding the Government's engineering/ construction projects. To foster the development of local engineering consultants and construction companies and to improve the deliverables of the industry, the Administration should roll out initiatives for encouraging joint ventures

⁴ Arcadis (2017). *International Construction Cost 2017: Cost Certainty In An Uncertain World*.
Website:

https://www.arcadis.com/media/2/C/F/%7B2CFC680C-A57E-43EA-99B4-0F4A784F7D51%7D%AC11059_ICC%202017_FINAL_WEB%20SINGLE%20PAGES_NA-Opt.pdf

or other forms of collaboration among local engineering consultants and construction companies. The Administration is also recommended to review the current consultant procurement system by enhancing transparency, open and fair competition, public accountability and value for money.

25. To those companies contributing to the construction industry, cash flow is their lifeblood. Slow or factored payment to the receiving parties, who have completed their provision of service or supply of materials, could lead to conflicts among the contracting parties and deterioration of quality. Certainty of getting entitled payment promotes the collaboration of the contracting parties and project performance. There is indirect stimulus to the players in the construction industry to drive their price down. Considering that the proposed Security of Payment Legislation (SOPL) has been extensively consulted amongst the stakeholders in the industry, the Administration is recommended to achieve the enactment of the SOPL within the shortest duration.

Conclusion

26. The HKIE hopes that the Policy Address will reveal to the public the future directions of the Administration for developing Hong Kong, in both its hardware as well as software. In particular, the HKIE hopes that the Administration can lay down concrete plan to bring opportunities for our citizens both within and outside our territory. Apart from focusing on what to build for the hard infrastructure, the HKIE advocates that the Administration must spend no less effort on building up and enhancing the soft infrastructure under a balanced development perspective. Our engineering professionals are always ready to support the Administration on initiatives that would promote a Happy, Livable and Sustainable Quality city for the betterment of Hong Kong.