

**Fortieth Meeting of
the Business Facilitation Advisory Committee**

***Agenda Item 2 : E&M InnoPortal for Facilitating
Application of Innovation and Technology
in the Government***

Purpose

This paper briefs Members about the E&M InnoPortal established by the Electrical and Mechanical Services Department (“EMSD”) to facilitate application of Innovation and Technology (“I&T”) in the Government in collaboration with the I&T sector.

Background

2. The work of EMSD covers two portfolios. Firstly, the department ensures the E&M safety for the public and promote energy saving by enforcing ordinances related to electricity, gas, lifts and escalators, amusement rides, railway and energy efficiency. Secondly, the department provides one-stop comprehensive professional and quality E&M engineering services in respect of system operation and maintenance, project management, vehicle servicing and procurement, etc. for more than 100 government departments and public bodies.

3. The EMSD has long been promoting the application of new technology in a wide range of government services. For example, the EMSD has spearheaded the introduction of the LPG vehicles to reduce emissions from local vehicles, and oil-free chillers for improving the energy efficiency of air-conditioning systems. The EMSD also provide tailored technical support to government departments to adopt new technology including the award winning “Central Command System of Marine Police” and “Smart Fever Screening at border control points for the Department of Health”. The EMSD also owns several technology patents such as the testing platform for constant current regulator for airfield lighting, and the application of Building Information Modelling in Asset Management (“BIM-AM”).

4. The EMSD has also been supporting universities and start-ups to apply for Innovation and Technology Fund (ITF) for E&M and energy saving related research projects, principally under the Innovation and Technology Support Programme (“ITSP”)¹ and Public Sector Trial Scheme (“PSTS”)², amongst various financial supportive schemes offered by the Innovation and Technology Commission (“ITC”). Upon completion of field trials, if an I&T solution is considered suitable for large-scale expansion and implementation, the EMSD also supports other government departments to apply for the TechConnect (Block Vote) under the Innovation and Technology Bureau to implement proven I&T solutions at a wider scale.

5. According to the universities and start-ups, they often encounter difficulty in convincing target users to try out their novel products and solutions, and this remains a key hindrance to the further development and adoption of innovative technology. There is a need to help the universities and start-ups develop credible job references. On the other hand, government departments sometimes encounter difficulty in identifying feasible I&T solutions to meet their needs. As such, there is a need to effectively publicize the needs of government departments and the I&T solutions on offer with a view to enhance their effective matching for further trying out and implementation.

E&M InnoPortal

Use of government facilities as the testing ground for I&T

6. Under the circumstances, in support of the directive of 2017 Policy Address on development of I&T, the EMSD launched an online platform, the E&M InnoPortal, in March 2018. The platform lists the service wishes of various government departments and public organisations. Through an automatic notification function, the platform informs interested parties such as universities and start-ups of the potential engagement or procurement opportunities of such service wishes, so that they can then propose relevant I&T solutions for matching.

¹ The Innovation and Technology Support Programme (“ITSP”) supports R&D projects undertaken by local universities/degree-awarding institutions as well as public research institutions.

² The Public Sector Trial Scheme (“PSTS”) which supports public sector bodies to try out new technologies or products developed from ITF projects and by incubatees/graduate tenants of the Hong Kong Science and Technology Parks Corporation and Cyberport. Since late 2017, there are so far 4 cases which successfully applied the PSTS funding with EMSD’s support, with related funding grant totaling \$3.4 million.

For successfully matched wishes and solutions, the EMSD will carry out field trials to assess whether the solutions can indeed address the intended needs of the government departments and public organizations. The trials, in the form of prototype testing, pilot projects, etc., will take place in the EMSD Headquarters or other suitable government premises. Upon completion of the tests, the EMSD will upload validated performance reports onto the E&M InnoPortal for reference by the public.

7. The E&M InnoPortal on one hand helps government departments and public organizations identify opportunities and solutions to enhance their services with new technologies, while the universities, I&T start-ups and SMEs, leveraging government facilities as a testing ground, can make use of the opportunity for live trial of their products and gain experience from field trials to refine and prove their solutions. Upon completion of the trials, the universities, I&T start-ups or SMEs will receive objective and impartial performance reports from the EMSD, so that other stakeholders may also refer to the reports in trying or adopting these solutions, thereby helping the further promotion of the solutions for wider applications.

I&T showcase and demonstration

8. The EMSD established the E&M InnoZone in its headquarters building in September 2018. It is a dedicated zone for showcasing I&T solutions and products under the E&M InnoPortal. The E&M InnoZone serves to supplement the E&M InnoPortal to provide an offline platform to promote the latest developments and application of innovative technologies.

Facilitating pro-innovation government procurement

9. In line with the 2018 policy address, the Government has promulgated the pro-innovation policy for procuring services by the government bureaux and departments (B/Ds) in April 2019, with the following key requirements:

- (i) as a general rule, tenderers' experience should not be set as an essential requirement, irrespective of the value of the procurement, to encourage competition in procurement and minimise entry barriers (particularly for start-ups and SMEs);

- (ii) in cases where tenderers' experience is set as an assessment criterion in the marking scheme as a desirable feature, the weighting of the experience criterion should be capped at 15% of the total technical marks;
- (iii) for tenders using marking schemes, the normally allowed relative weighting of technical and price assessments of marking schemes has been changed from the then range of 3:7 to 4:6 to a new range of 5:5 to 7:3; and
- (iv) a minimum of 20% of the technical marks should be reserved in the evaluation of the execution plan or technical aspects for assessing innovative suggestions.

In effect, tenders with innovative suggestions will stand a better chance of winning government contracts.

10. Under the policy, the EMSD and the Office of the Government Chief Information Officer ("OGCIO") have been appointed as the Innovation Facilitators to help with the adoption of innovative E&M solutions and IT solutions in the Government, respectively. As an Innovation Facilitator, the EMSD will support B/Ds in identifying suitable E&M solutions, and to advise on suppliers' technical capabilities in meeting the needs of B/Ds. The EMSD is prepared to provide tailor-made assistance on an individual case basis to B/Ds throughout the process from incubation of ideas to large-scale deployment as deemed appropriate. The EMSD will also assist B/Ds in building collaborative partnerships with the I&T sector including start-ups, universities and the trades, strengthening connections between B/Ds and the I&T sector, as well as identifying and developing expertise on strategic enabling technologies. In case of need, the EMSD will assist B/Ds in identifying E&M experts outside the Government for technical advice on technological innovation.

11. The pro-innovation government procurement policy also formally recognizes the use of the E&M InnoPortal as a tool to facilitate the identification of I&T solutions in the relevant procurement process. In support of the policy, the EMSD has stepped up the effort to fully leverage the E&M InnoPortal and connection with the I&T sector to promote the application of I&T in the Government and to co-create I&T solutions for B/Ds.

Establishing I&T strategic partnerships

12. In order that I&T wishes are effectively met with potential I&T solutions, the EMSD is actively exploring opportunities to establish strategic partnerships with major I&T solution providers in Hong Kong and the Guangdong-Hong Kong-Macao Greater Bay Area (“GBA”) through Memoranda of Co-operation (“MoC”).

13. The EMSD signed a MoC with five local universities³ and seven research institutions⁴ in June 2019 to establish strategic partnerships to leverage the E&M InnoPortal and support the application of I&T in the Government. The areas of collaboration include promoting the use of the E&M InnoPortal, identifying I&T solutions for government departments and fostering knowledge and experience exchange, with a view to facilitating the application and development of I&T. These twelve strategic partners, being an ensemble of a significant share of local start-ups and top-notch solution experts from the research and academic institutions, represent a solid support to the EMSD on its future work on I&T.

14. To further extend the strategic partnership towards the GBA, the EMSD signed 3 more MoCs with institutions⁵ from the Guangdong province in August 2019. These GBA strategic partners are also invited to share their latest I&T developments and upload their I&T solutions onto the E&M InnoPortal, and to co-organise seminars, conferences or exhibitions to introduce their I&T solutions to the Government.

I&T Days for fostering collaboration

15. The EMSD has been organizing conferences and seminars called I&T days, in which the I&T sectors including universities, start-ups and research institutions are invited to introduce their I&T solutions to EMSD as well as other government departments, public bodies and the E&M trades with a view to exploring collaboration and trial application of the

³ Including the City University of Hong Kong, the Chinese University of Hong Kong, the Hong Kong Polytechnic University, the Hong Kong University of Science and Technology and the University of Hong Kong.

⁴ Including the Automotive Parts and Accessory Systems R&D Centre, the Hong Kong Applied Science and Technology Research Institute Company Limited, the Hong Kong Cyberport Management Company Limited, the Hong Kong Productivity Council, the Hong Kong Science and Technology Parks Corporation, the Logistics and Supply Chain MultiTech R&D Centre, and the Nano and Advanced Materials Institute Limited.

⁵ Including the Guangdong Provincial Association for Science and Technology, the Guangdong Productivity Promotion Center and the Guangdong Academy of Sciences

I&T solutions. Recently, two I&T Days were held on 11 June 2019 and 6 August 2019, attracting more than 300 and 600 participants respectively. More I&T days will be organized in the future to look for more collaboration opportunities.

Latest Development

16. With slightly more than a year's effort in promoting the E&M InnoPortal, wide recognition from various sectors has been gradually garnered. As of end July 2019, there are more than 180 I&T wishes collected through the E&M InnoPortal, with more than 130 prospective I&T solutions accumulated, covering a wide range of innovative technologies, including artificial intelligence and information analysis, energy efficiency and renewable energy, energy storage and transfer, robotic application, etc. More than 50 I&T trials are being conducted. The total project sum of the matched projects are around \$35 million covering a variety of technologies.

17. Riding on the progress made, the EMSD will continue to strengthen the E&M InnoPortal and consolidate the network with I&T solution providers to enhance the adoption of I&T in the Government and to co-create I&T solutions for providing ever improving government service to the public.

Advice Sought

18. Members are invited to note the content of the paper.

Electrical and Mechanical Services Department
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