

# 推動新科技應用 銜接數碼化時代

## Promoting Application of New Technology Connecting to the Digital Era

**機**電工程營運基金(營運基金)一直致力擔當客戶的可靠合作伙伴，共同創造更大的公眾價值。我們積極聆聽，了解客戶需要，並持續努力應對挑戰。

早於2013/14年度，我們已主動制訂第一份為期五年的企業策略發展計劃，涵蓋需要提升機電工程服務的範圍，積極落實措施，務求精益求精，並致力應用新科技，以幫助客戶應對時代急劇轉變的挑戰，與時並進。

今年，營運基金綜合過往的經驗以及檢視未來的長遠發展，並且建基於第一個策略計劃的佳績，再制訂第二個五年策略計劃。我們會以創新科技持續革新，迎接數碼化時代的挑戰，期望營運基金未來能夠再創新景象，並以客戶需要為前提，以社會利益為依歸，創造最大的公眾價值。

**T**he Electrical and Mechanical Services Trading Fund (EMSTF) is committed to serving as our clients' reliable partner, working together to create even greater public value for community betterment. To this end, we listen proactively to understand clients' needs and try every effort to make continuous improvements.

Starting from 2013/14, we have taken the initiative to formulate our First Five-year Strategic Plan, covering the necessary scope for enhancement of electrical and mechanical (E&M) services. We have been working in full swing on the implementation of various measures and application of new technology to help clients meet the ever-changing challenges of the new era and keep pace with the times.

This year, EMSTF consolidated our past experience and reviewed the future long-term development. Based on the fruitful results of the first strategic plan, we formulated our Second Five-year Strategic Plan. We will make continuous improvements through innovation and technology (I&T), meeting the challenges in the digital era. We hope that EMSTF will scale new heights and create public value for community betterment on the premise of meeting clients' needs and in the interest of our community.

### 第一個五年策略計劃 成效顯著

我們的第一個五年策略計劃以應用新科技為基礎，加強服務質素，帶動行業發展，建立員工才能與關懷文化，優化知識管理及提倡應用環保節能科技。這些策略方向在過去五年為營運基金取得豐碩成果，讓客戶得到全面、優質及物有所值的工程服務。

### 優化客戶服務

營運基金通過應用流動數碼技術，設立「顧客為本電子平台」，並於今年3月底在接近300個政府場地全面使用，支援維修工作管理，提供實時工作狀況；再配合即將落成的全新「客戶服務中心」，便可為客戶提供一個更有效率的資訊溝通平台，加強與客戶聯繫。我們亦優化合約管理，確保服務質素，協助客戶提供更佳的服務惠及廣大市民。

### 應用新科技 推動創新

我們不斷為客戶引入新科技設施，以節省能源和提高效能，例如無油磁浮式製冷機

和用以檢視電力系統狀況的紅外線熱能探測器等。目前，一些客戶的重要場所裝置的機電設備，已經應用實時遙距監察技術，再配合綜合樓宇管理系統，便能更有效地監察系統運行狀況，確保設備正常運作。我們亦制訂合適的維修及保養計劃，為客戶提供快速應變、高效可靠的技術支援服務。

### 加強資產管理

我們早於2014年已引進ISO 55001資產管理標準，近年亦協助客戶為不同的機電系統取得認證，完善資產管理。在機電系統技術方面，我們成立了不同的工作小組訂定機電資產所需採納的技術標準，目前四類機電系統（空調、電力、自動梯和升降機、照明）的技術指引已經推出並應用於客戶場地，使這些機電資產獲得適切管理，時刻保持最佳運作狀態。



### 培訓人才配合客戶發展需要

我們聯同業界組成香港機電業推廣工作小組，推動行業發展及吸引年青人加入；同時為業界培訓人才，推行「合作培訓技術員先導計劃」，讓學員到不同的機構實習，學習跨範疇的知識。此外，我們又制訂和施行才能矩陣、成立卓越中心暨優才訓練基地、建立知識管理平台，透過這些人才培訓措施，讓機電業得以平穩發展，以配合客戶與時並進的需要，協助客戶為業務未來的機遇和挑戰作好準備。

### 推動綠色政府建築的先鋒

機電工程署總部大樓於2016年獲香港綠色建築議會頒發「綠建環評既有建築」最終鉑金級證書，是第一幢獲得這項最高評級的現有政府大樓，為香港現有建築物實踐綠色作業起示範作用。一直以來，營運基金積極協助客戶採用創新的節能減排方案及引入更多高能效的機電設備，務求所有政府建築物，以2013/14年度為基準，於2019/20年度能夠達成減省5%耗電量的目標。



### The First Five-year Strategic Plan Achieving Prominent Results

Our First Five-year Strategic Plan, based on the application of new technology, aims to strengthen the quality of our services, lead trade development, build staff capacity and caring culture, enhance knowledge management and promote the use of green and energy saving technologies. These strategies have helped EMSTF achieve excellent results in the past five years, providing comprehensive, high-quality and value-for-money engineering services to our clients.

### Enhancing Services to Clients

With the application of mobile technology, we have established the Customer Centric e-Platform (CCeP). Since the end of March 2018, CCeP has been put into full operation in nearly 300 government venues to support maintenance work management with real-time job status. Together with the upcoming Customer Service Centre (CSC), we are able to offer our clients a more efficient information and communication platform, and strengthen our ties with clients. We have also enhanced contract management to ensure EMSTF's service quality, enabling our clients to provide better services to the public.

### Applying New Technology to Promote Innovation

We have constantly introduced new technology for clients to save energy and improve efficiency. Examples are the magnetic oil-free chillers and the infrared thermal scanners for power system

inspection. At present, we have applied real-time remote monitoring technology to E&M equipment at some of our clients' major venues. Coupled with the integrated Building Management System (iBMS), the E&M systems can be monitored more effectively, ensuring their proper operation. We have also formulated appropriate maintenance plans, providing clients with agile, efficient and reliable technical support services.

### Enhancing Asset Management

As early as 2014, we introduced ISO 55001 asset management standard for our works. In recent years, we have also helped our clients improve their asset management and acquire various certifications for their E&M systems. As for E&M system technology, we have set up different working groups to define technical specifications for different types of E&M assets. At present, we have promulgated technical guidelines for four types of E&M assets, namely air-conditioning, electrical, lift and escalator, and lighting systems. The guidelines are applied to clients' venues to ensure that the related E&M assets are properly managed and kept in optimal operating conditions at all times.

### Training Talents to Meet Clients' Development Needs

Together with trade partners, we formed the Hong Kong E&M Trade Promotion Working Group to promote trade development and attract young people to join the industry. Meanwhile, we launched the Pilot Cooperative Apprentice Training Scheme to facilitate

trainees to undergo internship in different organisations and acquire cross-discipline knowledge. In addition, we developed and implemented competency matrix, established Centres of Excellence cum Talent Training Base and set up a knowledge management platform. Through these talent development initiatives, we can ensure a steady development of the E&M trade, and also address our clients' needs to keep pace with the times, getting them well-prepared for future opportunities and challenges.

### Pioneering Role in the Promotion of Green Government Buildings

The EMSD Headquarters attained Final Platinum Rating in BEAM Plus Existing Buildings by Hong Kong Green Building Council in 2016. It is the first existing government building to receive this highest rating, serving as a role model for existing buildings implementing green practices. All along, EMSTF has been proactively assisting clients in adopting innovative energy saving and emission-control solutions and introducing more energy-efficient E&M equipment, such that all government buildings will achieve the target of 5% reduction in electricity consumption by 2019/20, using the consumption in 2013/14 as the baseline.







## 第二個五年策略計劃 以創新科技銜接數碼化時代

憑藉過去應用新科技的經驗，營運基金未來五年將以「創新及科技」為核心元素，致力為客戶提供創新的機電工程方案，並培育機電團隊和重整企業架構，滿足客戶的業務需要。我們還會培養新的機構文化，運用創新科技及推動機電數碼化。我們期望以第二個五年策略計劃為藍圖，達致「透過與不同持份者的伙伴關係，創造公眾價值及改善社會」的企業目標。

### 利用相關數據制訂數碼化工程方案

為配合發展智慧城市和應對氣候變化的政策，營運基金會持續為客戶提供數碼化機電工程及創新方案。為了制訂最適切的數碼化機電工程方案，我們將為客戶的重要機電資產進行數碼化，包括提升感應裝置、數據傳輸、數據儲存、數據分析等。這些數碼化機電工程方案不但有助提升客戶機電資產至最佳運作狀態，而且有效達致預測性維修保養，提升設備的可用性與系統的可靠度。此外，為強化監察數

碼化資產管理的工作，我們將設立區域數碼監控中心，透過互聯網協調各區的數碼化系統，例如綜合樓宇管理系統、地理資訊平台、顧客為本電子平台等，以便優化客戶服務中心的服務流程，全天候遙距監控場地的實時操作數據，以提升機電資產的運作效率和建築物能源表現。

### 深化與業界的協作

我們會建立協作平台，與業界交流經驗和技術，深化彼此間的協作，並參考數碼化資產管理系統收集到的數據分析，訂定最佳操作和維修作業守則，引領行業實踐數碼化機電工程方案，使客戶在不同層面都能獲得嶄新的機電服務體驗。



## 培育掌握數碼化作業的卓越團隊

為建立一支能提供高效應變方案、具備國際視野的卓越團隊，我們將成立機電學院，開發獲資歷架構認可的課程及訓練，並促進與本地、國內及外國的技術交流和擴展培訓領域，為各數碼化作業團隊提供適切的培訓，配合客戶長遠發展需要。



### 成為推動機電數碼化的機構

為推動機電數碼化，我們將重整企業架構，成立創新辦公室，聯繫創科機構及各個客戶部門，共同制訂創新方案。為提升各持份者的參與度，我們將開發部門應用程式及更新電腦系統、建立資訊分享平台及共融空間、優化辦公室環境，以促進交流，培養創新、靈活、協作和透明的機構文化。

如欲了解我們第二個五年策略計劃的詳情，歡迎致電2808 3806與高級工程師陳明義先生聯絡。

## The Second Five-year Strategic Plan Utilising Innovation and Technology to Get Connected in the Digital Era



With our experience in applying new technologies in the past, EMSTF will proceed with the work with “Innovation” and “Technology” as core elements in the next five years. We are committed to providing customers with innovative E&M engineering solutions, nurturing professional and technical teams, and adopting new organisational structures to meet clients’ business needs. We will also develop new corporate culture leveraging on innovative technology and promoting digitisation of E&M services. By means of the Second Five-year Strategic Plan, we hope to achieve our corporate goal of “creating public value for community betterment through partnership with various stakeholders”.

### Formulating Digitised Engineering Solutions with Relevant Data

To cope with the government policies to develop a smart city and respond to climate change, EMSTF will continue to provide clients with digitised E&M engineering and innovative solutions. To formulate the most appropriate digitised E&M engineering solutions, we will speed up digitalisation of our clients’

critical E&M assets, including upgrading of sensors, data transmission, data storage and data analysis. The solutions will not only enhance clients’ E&M assets to the optimal operating conditions, but also strengthen predictive maintenance and improve the assets’ availability and system reliability. On the other hand, to enhance monitoring of digitised asset management, we will establish regional digital monitoring and control centres to coordinate various digital systems such as the iBMS, the Geographic Information System, CCeP, etc. through the Internet for enhancing the service flow of the new CSC. Through continuous monitoring of the real-time operation data, we can improve the operation efficiency of E&M assets and the energy performance of buildings.

### Deepening Collaboration with Trade Partners

We will establish a collaborative platform for exchanging experience and technology with trade partners to deepen our collaboration. With reference to the data collected and analysed by the digitised asset management system, we will develop the best practices for operation and maintenance of E&M assets, leading the trade to implement digitised E&M engineering solutions so that our clients can enjoy new E&M service experience at different levels.



## Equipping Professional Work Teams with Best Practices for Digitisation



To build an excellent work team with global vision and capability to provide emergency support, we will set up the E&M Academy and develop accredited courses and training under the Qualifications Framework. We will also foster technical knowledge exchanges with our local, Mainland and overseas counterparts, and expand areas of training so as to provide appropriate training for the digitisation work team to address our clients’ long-term development needs.

### Being an Organisation Promoting E&M Digitisation

To promote E&M digitisation, we will implement organisation restructuring, and set up the Innovation Office to connect with start-up companies and different client departments in jointly creating innovative solutions. To encourage greater participation of various stakeholders, we will develop departmental applications, upgrade corporate computer systems, set up information sharing platforms and communion space, and ingenious office environment so as to promote communication and cultivate a corporate culture which embraces innovation, flexibility, collaboration and transparency.

For more information on our Second Five-year Strategic Plan, please contact Mr. Chan Ming-ye, Senior Engineer, at 2808 3806.

