

機電工程營運基金報告

ELECTRICAL AND MECHANICAL SERVICES TRADING FUND REPORT



抱負 VISION

致力提供優質機電工程服務，精益求精，以提升市民的生活質素。

To improve the quality of life for our community through continuous enhancement of our electrical and mechanical engineering services.

使命 MISSION

客戶 CUSTOMER

提供優質的工程方案，以滿足客戶的需要。

Providing quality engineering solutions to satisfy our customers' needs.

員工 STAFF

建立一支卓越的員工隊伍，並維持和諧的工作環境。

Developing a competent workforce and maintaining a harmonious environment.

部門 ORGANISATION

掌握科技發展和流程改善，以提供更佳服務。

Keeping pace with technology development and process improvement for service enhancement.

信念 VALUES

誠信 INTEGRITY

我們秉持誠信，維持良好道德操守。

We uphold honesty and integrity to embrace an ethical culture.

出色服務 SERVICE EXCELLENCE

我們提供安全可靠、高效率、具成本效益和優質的服務。

We provide safe, reliable, efficient, cost-effective and quality services.

關懷 CARING

我們關懷員工、客戶和市民大眾，並重視環保。

We care for our staff, customers, community and the environment.

以客為本 CUSTOMER FOCUS

為滿足客戶的各種需要，我們盡心竭力，積極提供工程方案，以贏取客戶的信任和支持。

We focus on the needs of our customers and provide engineering solutions in a proactive and responsible manner to win their trust and support.

承擔 COMMITMENT

我們言行一致，信守承諾。

We do what we promise.

常務委員會 EXECUTIVE BOARD

主席 Chairman



韓志強 太平紳士
Mr Hon Chi-keung, JP
發展局常任秘書長(工務)
Permanent Secretary for Development (Works)

成員 Members



陳志明 太平紳士
Mr Chan Chi-ming, JP
發展局副秘書長(工務)2
Deputy Secretary for Development (Works) 2

秘書 Secretary



羅肇嫻 女士
Ms Lo Siu-han, Cynthia
機電工程署主任秘書
Departmental Secretary, EMSD



陳帆 太平紳士
Mr Chan Fan, Frank, JP
機電工程營運基金總經理(機電工程署署長)
General Manager, EMSTF
(Director of Electrical and Mechanical Services)



戴德謙 太平紳士
Mr Tai Tak-him, JP
機電工程署副署長/營運服務
Deputy Director/Trading Services, EMSD

管理委員會 MANAGEMENT BOARD



主席 Chairman

1 陳帆 太平紳士
Mr Chan Fan, Frank, JP
機電工程營運基金總經理
(機電工程署署長)
General Manager, EMSTF
(Director of Electrical and Mechanical Services)

成員 Members

2 戴德謙 太平紳士
Mr Tai Tak-him, JP
機電工程署副署長/營運服務
Deputy Director/Trading Services, EMSD

3 張丙權 太平紳士
Mr Cheung Ping-kuen, Michael, JP
機電工程署助理署長/1
Assistant Director/1, EMSD

4 麥家俊 先生
Mr Mak Ka-chun
機電工程署助理署長/2
Assistant Director/2, EMSD

5 張國輝 太平紳士
Mr Cheung Kwok-fai, JP
機電工程署助理署長/3
Assistant Director/3, EMSD

6 李碧雲 女士
Ms Li Pik-wan, Clara
機電工程署財政經理
Finance Manager, EMSD

7 王文剛 先生
Mr Wong Man-kong
機電工程署員工關係主任
Staff Relations Officer, EMSD

秘書 Secretary

8 羅肇嫻 女士
Ms Lo Siu-han, Cynthia
機電工程署主任秘書
Departmental Secretary, EMSD

* 李英明先生出任機電工程署助理署長/2至2016年1月22日
Mr Li Ying-ming, Larry was Assistant Director/2, EMSD up to 22 January 2016
* 羅雪芬女士出任機電工程署財政經理至2015年10月11日
Ms Law Suet-fan, Rebecca was Finance Manager, EMSD up to 11 October 2015
* 羅福基先生出任機電工程署員工關係主任至2015年7月8日
Mr Law Fuk-ki was Staff Relations Officer, EMSD up to 8 July 2015

* 韋志成太平紳士出任發展局常任秘書長(工務)至2015年4月6日
Mr Wai Chi-sing, JP was Permanent Secretary for Development (Works) up to 6 April 2015

業務回顧與前瞻 OPERATIONS REVIEW AND OUTLOOK

機電工程營運基金在2015/16年度的財務表現達標，符合業務計劃。期間承辦商費用雖不斷上升，但營運基金整體財務表現平穩，總收入為57.64億港元(2014/15年度：54.92億港元)，收入回報率為4.8%(2014/15年度：5.3%)，與我們以微利營運的方針一致。

The financial results of the Electrical and Mechanical Services Trading Fund in 2015/16 are consistent with our targets in the business plan. Despite rising contractor cost, EMSTF's overall financial performance was steady, with return on revenue (ROR) at 4.8% (2014/15: 5.3%) and total revenue at HK\$5,764 million (2014/15: HK\$5,492 million). This is in line with our slim-profit operating principle.

戴德謙太平紳士
Mr Tai Tak-him, JP
機電工程署副署長/營運服務
Deputy Director/Trading Services, EMSD



整體表現

此外，我們於2015/16年度也更新了關鍵績效指標，以更有效量度我們在各方面的整體表現及進行持續改善。成績亦載於此報告。至於策略業務及企業支援單位的服務匯報，則載於隨後的章節。

2015/16 年度重點

我們雖在2016年初流失了機場管理局部分投標項目，但年內整體營業額仍有增長，主要是由於為新落成的客戶場地提供服務，以及服務規模擴大。年內，醫院管理局也開始以新模式將電子醫療儀器及機電服務納入公開投標中，我們努力就此挑戰作好準備。

自2013/14年度以來，我們每年都就推行五年策略計劃的進度作出報告，以落實「透過與客戶的伙伴關係，創造公眾價值惠利市民」這企業目標。我們欣然報告在這個第三年度，策略推行續有進展，特別是在提供優質服務、建立員工才能及持續綠色作業方面，而優化知識管理和成為業界典範方面的進度，也見成果。五大策略環環緊扣，一個策略取得進展，也必帶動其他策略向前發展。

客戶服務水平持續提升

我們已於年內完成由顧問進行的可行性研究，為推出以顧客為本電子平台方式運作的全面革新客戶服務中心展開首階段工程。客戶在可行性研究期間，與我們及顧問分享寶貴意見，我們深表感謝。首階段工程預料於2017年年底完成，屆時系統便可在接到客戶報告故障的來電後自動指派工作，透過流動裝置通知相關員工。儘管如此，這只是建立新客戶服務中心的第一步，日後還有幾個階段進行。

另一改善措施是於2015年把每月客戶電話意見調查的受訪人數，由210人增至460人，務求聽取更多不同服務範疇的客戶意見。現時，任何客戶感到「不滿意」的個案，都會立即呈交由總工程師跟進，個案得到解決後，同事會與其他策略業務單位分享所得經驗和教訓，以免同類情況重演。

OVERALL PERFORMANCE

Furthermore, the Key Performance Indicators (KPIs) have been revised in 2015/16 to better gauge our overall performance in different aspects for continuous improvement, and the KPI results are included in this report. Services Review of our Strategic Business Units (SBUs) and corporate supporting units are set out in the subsequent chapters.

2015/16 HIGHLIGHTS

Our business volume has expanded mainly due to new venues we served and increase in scale of services, despite losing some tenders from the Airport Authority in early 2016. We also noted the new approach of the Hospital Authority to adopt open tendering for both biomedical equipment and electrical and mechanical services, and we had been working hard to prepare for this challenge.

Since 2013/14, we have reported every year our progress of the five-year strategic plan in achieving the corporate goal of “creating public value for community betterment through partnership with our clients”. We are pleased to report in this third year that there was continuous progress in the strategic implementation, most notably in the areas of delivering excellent service, building staff capacity and sustaining green operation. Also seeing progress were initiatives in enhancing knowledge management and becoming a trade model. Indeed, the five strategies are interrelated and advancement in one area would help drive the others forward.

CONTINUOUS CUSTOMER SERVICE ENHANCEMENT

Following the completion of a feasibility study by a consultant this year, the phase one work of a completely revamped Customer Service Centre (CSC) operating on a Customer-Centric e-Platform has already commenced. We are deeply thankful to our clients for sharing their views with us and our consultant in the feasibility study. Upon the targeted completion of phase one by late 2017, the system would be capable of automatically assigning jobs when fault calls come in, and the staff concerned would be notified in real-time via their mobile devices. That being said, this is only the first step towards building our new CSC, with remaining phases to be done.

A related initiative was expanding the sample size of our monthly telephone survey of clients from 210 to 460 respondents in 2015, thus covering more clients in different service types. Any “unsatisfactory” case is now promptly escalated to the chief engineer for his follow up. The lessons learnt are then shared with other SBUs to prevent recurrence.

業務回顧與前瞻

OPERATIONS REVIEW AND OUTLOOK

加強資產管理及承辦商管理

我們不斷努力為客戶加強機電資產管理，我們在將建築信息模擬和資產管理結合方面的創新工作，進展良好且獲業界認同。與此同時，我們也開始以一套在營運基金內部標準統一的方法，為客戶的機電資產重新分類，繼而採用更嚴謹的操作與維修保養程序，並特別着重更換和提升老化資產的工作，以減少故障及提升資產表現。

員工認為最近推行的提升「維修外判合約表現監察系統」在管理我們的承辦商上有效用。我們更善用承辦商表現評核機制，密切監察表現欠佳的承辦商，並敦促其作出改善，同時又可表揚出色的承辦商。我們也以各種途徑向承辦商宣傳安全訊息，提高其安全意識與水平。

提升員工能力及知識管理

年內，我們繼續研訂員工才能矩陣，以找出部門所需才能和培訓需要，從而提升同事的專業能力。由於營運基金的工作範疇極廣，牽涉的工程界別繁多，因此制訂才能矩陣的過程較原先構想的複雜。我們先在2016年年中完成編製專業職系的才能矩陣，然後便建立技術職系的才能矩陣。當研訂工作完成後，整套才能矩陣會為同事提供一套定義清晰且妥為記錄的才能指標，協助員工提升能力。我們也於2015年9月加強了技術員培訓計劃，讓學員更能把握日常操作所需。

另一範疇是提高對同事在財務和營運方面的匯報。日常事務如事故報告提交、承辦商發票付款安排等，必須適時處理。從重要事故中汲取的經驗和教訓也應妥為記錄，並與其他策略業務單位分享，促進企業學習和提升質量。此舉與我們優化知識管理、鼓勵分享和促進機構學習的策略一致。在財務管理系統中引入利潤中心，令管理層及各個負責利潤中心的同事，更有效監察和控制業務表現。

綠色作業有突破

為協助客戶達到政府所要求的目標，在2015年起的五年內節省5%用電量，我們已為他們構想出更多節能工程方案，特別是優化空調系統能效表現的重新校驗方案。此外，同事也就撥款申請的程序向客戶提供意見，並為客戶準備全面的撥款申請方案。

STRENGTHEN ASSET MANAGEMENT AND CONTRACTOR MANAGEMENT

We have kept our momentum in helping clients with their E&M asset management (AM). Our innovative development in integrating Building Information Modelling with AM was in good progress and well recognised by the industry. In parallel, we have started re-categorisation of clients' assets with a standardised methodology throughout EMSTF, followed by a more rigorous O&M regime and putting more emphasis on aging asset replacement and retrofitting to reduce faults and enhance asset performance.

The enhanced Performance Monitoring System for Maintenance Contract recently implemented was found useful for staff to manage our contractors. The contractors' appraisal performance system was better utilised, so that unsatisfactory performers can be monitored closely for improvement whilst outstanding contractors are praised. We have also promoted safety to our contractors through various channels to raise their safety awareness and standards.

STEPPING UP STAFF COMPETENCY AND KNOWLEDGE MANAGEMENT

Meanwhile, we have furthered our work in developing a Staff Competency Matrix which will enhance the professionalism of our colleagues by identifying the departmental competence and training needs. The process is more complicated than it appears, as the variety of our work is extensive and involves numerous engineering disciplines. We have compiled the matrix for professional staff in mid-2016, and the matrix for technical staff is to be followed. When completed, the overall matrix will give a set of better-defined, documented competency objectives for building up staff competency. In addition, we have enhanced our Technician Training Scheme in September 2015 for better equip our trainees for meeting operational needs.

Another area is to raise staff reporting in operational and financial aspect. Operational matters like incident report submission and payment of contractor invoices must be handled in a timely manner. Lessons learnt from major incidents must be well documented and shared with all SBUs for corporate learning and quality enhancement. This is consistent with our strategy to enhance knowledge management, sharing and organisational learning. With the implementation of the profit centres in the financial management system, management can monitor and control business more effectively with delegated staff responsible for profit centre financial performance.

GREEN OPERATION BREAKS NEW GROUND

To help clients fulfil the 5% electricity saving target over five years from 2015 as required by the Government, we have come up with more energy engineering solutions for them, in particular the retro-commissioning of air-conditioning systems to optimise their energy performance. We also managed to prepare a holistic bid and advised clients on the fund bidding process.

綠色作業的另一佳績，就是機電署總部大樓取得「綠建環評既有建築」的鉑金級認證。作為首幢取得這項認證的政府既有建築物，我們希望藉此為其他既有建築物樹立好榜樣。

客戶科技工作與未來「智能城市」

因應2014年的客戶意見調查，我們十分重視科技應用，並已成立數個由不同總工程師領導的工作小組，專門探討在電力、空調、升降機及自動梯、車輛、消防設施等方面的最新科技，目的是協助客戶制訂創新的方案，讓客戶進行環保而智能的操作。工作小組與業界及學界也有定期接觸和交流，包括各種科技及其他工程範疇的知識，如操作及維修保養與安全，並促進業界的長遠發展。

展望與致謝

近年營運基金最大的挑戰，是如何處理承辦商成本持續上升和資產老化的問題，同時要以有限的人手，有效地管理不斷擴大的服務組合，今年也不例外，而這也正是我們五大策略旨在解決的問題。我們也在機電服務方面作好準備，讓香港發展成為低碳及智能城市。

今年適逢機電工程營運基金20周年誌慶，我們在此先向客戶致謝。倘若沒有客戶確實的支持，營運基金根本無法生存。我們現時及以往的員工也同樣重要，有賴他們盡忠職守，努力不懈，群策群力，營運基金才能屢次化危為機，變得更關懷、更靈活。

我們衷心感謝常務委員會的指引和寶貴意見，也多謝各承辦商及業界的支持。2016年是機電工程營運基金成立20周年，我們期望看見營運基金的健康發展。



戴德謙
機電工程署副署長/營運服務

Another milestone in green operation was that the EMSD Headquarters Building obtained the BEAM Plus Existing Buildings Platinum certification. We hope that, being the first government existing building to receive such certification, our headquarters might set an example for other existing buildings to follow.

TECHNOLOGY FOR CLIENTS AND FUTURE “SMART CITIES”

In response to Customer Opinion Survey 2014, we attach great importance to technology applications. We set up several Working Groups led by chief engineers to explore advance technologies in areas such as electricity, air-conditioning, lifts and escalators, vehicles and fire service facilities. The aim is to help clients come up with innovative solutions for green and smart operation. The Working Groups also have regular contact and interaction with the trades and academics, covering technologies and other engineering aspects like operation and maintenance practices, safety as well as the long term development of the trade.

OUTLOOK AND APPRECIATION

The challenge, as in recent years, remains how to cope with rising contractor cost and aging equipment, and to manage effectively an expanding service portfolio with limited number of staff. This is precisely what our five strategies aim to tackle. We are also preparing from the E&M service side in supporting the community to meet the low-carbon and smart city development.

On this auspicious occasion of EMSTF's 20th anniversary, we must first thank our clients for their unfailing support throughout the years without which EMSTF would not have survived in the first place. Equally important is our current and former staff whose commitment, hard work and team spirit have made it possible for EMSTF to emerge from every crisis with greater care and resilience.

Our heart-felt appreciation also goes to the Executive Board for its guidance and advice. We also thank our contractors and the trades for their support. The year 2016 marks the 20th anniversary of the trading fund, and we look forward to seeing the healthy development of EMSTF.



Tai Tak-him
Deputy Director/Trading Services, EMSD

營運服務 TRADING SERVICES

建設綠色健康社區

香港擁有七百萬的龐大人口，而且人口老化問題日益嚴重，維護市民健康已成當務之急。我們決心成為市民及客戶的最強後盾，繼續竭盡所能，為公立醫院及醫療部門提供操作及維修保養服務。

在2015/16年度，我們成功與政府化驗所續簽為期五年的服務水平協議，並投得為醫院管理局（醫管局）18家公立醫院提供生物醫療儀器維修保養服務的兩年合約。與此同時，因應醫管局將自2017年起為轄下醫院及診所的電力、機械、空調和樓宇服務系統、生物醫療工程系統，以及綜合電子系統的操作及維修保養服務作公開招標，我們已展開相關的投標籌備工作。

我們一直關注高能源效益技術的最新發展。為減少能源消耗，我們已開始為瑪麗醫院等多家醫院引入無油磁浮式製冷機，取代老化的風冷式製冷機。
We always keep an eye on the latest high energy-efficiency technology. To reduce energy consumption, we started replacing aging air-cooled chillers with the new oil-free chillers for hospitals including the Queen Mary Hospital.

BUILDING A GREEN AND HEALTHY COMMUNITY

With a huge population of over seven million and an ever-deteriorating aging problem in Hong Kong, the safeguarding of citizens' health has become a top priority for us. We are determined to be the strongest supporter of our citizens and clients by sparing no efforts in continuing to provide O&M services for public hospitals and healthcare departments.

In 2015/16, we successfully renewed our five-year Service Level Agreement (SLA) with the Government Laboratory and secured a two-year contract from the Hospital Authority (HA) for the maintenance of biomedical equipment at 18 public hospitals. We also started the preparation for the open tender for the O&M services for electrical, mechanical, air-conditioning and building services systems, biomedical engineering systems and general electronics systems at HA's hospitals and clinics from 2017 onwards.



透過「巡視式能源調查」，我們審視了伊利沙伯醫院等多家醫管局轄下急症醫院的能源使用模式，以協助客戶節省能源支出。
Through the "Walk-around Energy Survey", we carefully reviewed the energy usage patterns at HA's acute hospitals, such as the Queen Elizabeth Hospital, and helped our clients achieve energy cost saving.

服務模式由服務水平協議轉為公開招標，這個轉變對我們來說是項重大挑戰。醫管局是營運基金的最大客戶，我們期望憑藉過去近20年為醫管局提供優質服務的經驗，可讓我們繼續以可靠的醫院工程服務，為市民的健康和福祉作出貢獻。

我們重視每位客戶的意見及建議，因此在2015/16年度推出嶄新的「客戶探訪計劃」，以了解臨床醫護人員在運作上有何需要及期望，從而改善我們的技術支援和服務。計劃推出後反應正面，我們會繼續推行和加強這項客戶服務新猷。

年內我們亦協助消防處把救護車設計標準化。經優化的救護車更能滿足使用者的需求，並可以加快未來採購時由發出訂單至交付的流程，從而加快救護車的供應。

在醫療場地推廣能源效益和環保措施是我們另一項重要任務。在2015/16年度，我們進行了「巡視式能源調查」，仔細審視醫管局轄下多家急症醫院的能源使用模式，尋找能源管理機會，為醫管局制訂全面的能源組合方案。我們以全面的綠色作業策略，協助醫管局訂立路線圖，以節省能源成本和減少溫室氣體排放。

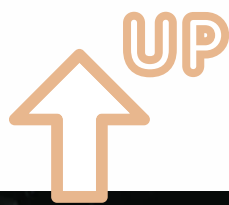
Our transition in service model from SLA to open tender had been quite a challenge for us. HA is the largest client of the EMSTF. We have been serving HA for nearly two decades and we are keen to continue delivering reliable hospital engineering services for the health and well-being of the community.

We treasure feedback and suggestions from every client and as such a new "client visit" programme was launched in 2015/16. The objective of this programme was to gain better understanding of the operational requirements and expectations of clinical staff in order to enhance our technical support and services offered to them. The programme was well received and we will continue to roll out and enhance this customer service initiative.

During the year, we also helped the Fire Services Department to standardise the design of its ambulances, so that user needs could be better satisfied, and the enhanced design would speed up the order-to-delivery process in future procurements, shortening the time for supply of ambulances.

Promoting energy efficiency and green initiatives at healthcare premises is another major mission of our team. In 2015/16, we critically reviewed the energy usage patterns in HA's acute hospitals through the "Walk-around Energy Survey" to identify energy management opportunities and developed a comprehensive energy portfolio for HA. By adopting a holistic green operation strategy, we assisted HA in charting a roadmap to achieve energy cost savings and greenhouse gas emission reduction.

營運服務 TRADING SERVICES



我們於伊利沙伯醫院為員工提供鍋爐檢修訓練，以提高他們的操作和維修保養知識及技術水平，薪火相傳。

We conducted on-site training in boiler maintenance at the Queen Elizabeth Hospital to enhance our staff's O&M knowledge and technical capabilities, thereby passing on expertise to younger colleagues.

掌握最新的環保節能技術，及協助客戶採用這些技術，對提升節能效益至為重要。我們已開始以新的無油磁浮式製冷機取代老化的風冷式製冷機。新型製冷機採用最新的節能技術，能有效減少醫院的能源消耗。為確保新型製冷機能高效運作，我們邀請海外專家舉行了一系列導師培訓工作坊，並舉辦多次內部培訓，以助員工掌握最新的技術和知識。

盡責的員工團隊是我們提供可靠醫療服務的關鍵。為鼓勵員工，我們安排高級管理人員親自頒發嘉許信以表揚他們的優秀表現，並會邀請有關員工與同事分享他們在工作上的成功經驗。

面對未來數年將有更多公立醫院及醫療場地落成，我們已作出準備，審視自身的資源安排，為新場地制訂高效可靠的服務計劃。同時，我們也致力裝備員工，提升其專業知識和技能，務求貫徹我們團隊的服務信念——盡心為醫護人員、病人及其家屬的福祉服務。

Commitment in mastering the latest green technologies and helping our clients to apply them is essential to the enhancement of energy efficiency. We began the replacement of aged air-cooled chillers with the new oil-free chillers, which employ the latest high energy-efficiency technology, to reduce energy consumption in hospitals. To equip our staff with advanced skills and knowledge to ensure the newly installed oil-free chillers always perform their best, a series of "Train the Trainer" workshops delivered by overseas experts as well as internal trainings were conducted.

A dedicated team of staff is essential to our provision of reliable services to the healthcare sector. We motivated our staff by arranging the senior management staff present appreciation letters to them in person in recognition of their work and by inviting them to share their success stories with colleagues.

With more new public hospitals and healthcare venues to be commissioned in the coming years, we have reviewed our setup and planned for the delivery of effective and reliable services for the new venues. We strive to equip our team with the essential knowledge and expertise, and will remain committed to our service values — serving in the best interest of patients and their families as well as healthcare workers.

體驗醫院前線工作

嘗試代入別人的角色有時的確可以促進溝通，這正是衛生工程部高級工程師梁雪輝先生當初構思「影子工作」計劃時的目的。他表示：「前線員工在員工滿意度調查中提出，希望管理人員能加強與前線員工溝通。」他受此啟發而構思出計劃，並邀請衛生工程部一位總工程師率先參與試驗，為同事樹立榜樣。

該名總工程師於2015年11月25日下午5時至晚上11時的值班時段，參與兩位監工和一位高級技工在屯門醫院機房的工作，包括清潔海水冷卻空調系統的隔濾器、除去當中的甲殼和其他垃圾、檢查機房設備和接聽呈報故障的電話，從中體驗前線同事的日常工作和感受他們面對的壓力。

梁先生說：「我們事前已向前線同事介紹這項計劃，並告訴他們這不是演戲，他們可放心把日常工作交給總工程師去做，即使是棘手的工作也不用擔心。」

衛生工程部另有幾位高級工程師和工程師亦先後參與了「影子工作」計劃，加深了他們對前線工作的了解，亦加強了與前線員工的溝通。

FRONTLINE WORK SHADOWING AT HOSPITALS

Trying to stand in someone else's shoes does help communication sometimes. This is indeed the purpose of the Work Shadowing initiative proposed by Mr Leung Suet-fai, senior engineer of the Health Sector Division. "A comment from frontline staff in the Staff Satisfaction Survey is that professionals should communicate more with them," he said. Inspired, he then developed the concept and invited his chief engineer to be the first to participate in the pilot programme to set an example for other colleagues.

The chief engineer joined the work of two work supervisors and a senior artisan in the plant room at Tuen Mun Hospital on the 5-11 pm shift on 25 November 2015. He cleaned the strainer for the sea water-cooled air-conditioning system, removed the barnacles and other rubbish inside, checked the condition of plant facilities, and took fault calls from clients in the hospital to experience the daily routine of the frontline staff and the pressure they faced.

"We briefed the frontline staff about the programme beforehand and told them it was not a show. They could just assign him any task they perform every day, without having to worry about the difficulty of such work," he said.

A few senior engineers and engineers from the division have also taken part in the work shadowing programme to better understand and communicate with frontline staff.



藉着「影子工作」計劃，我們的工程師(左)有機會在高壓電掣房親身體驗前線員工(右)的日常工作。Under the Frontline Work Shadowing Programme, our engineer (left) had a chance to experience first-hand the daily routine of a frontline staff (right) in a High Voltage Switch Room.



作為「影子工作」計劃的一部分，工程師(左)在前線員工(右)的協助下為冷卻塔的水樣本進行基本測試。As part of the Frontline Work Shadowing Programme, our engineer (left) conducted basic testing on a water sample extracted from a cooling tower with the assistance from a frontline staff (right).

營運服務 TRADING SERVICES

提升生活質素

前往街市購物是不少香港市民日常生活中不可或缺的環節。我們的市政服務團隊繼續利用綜合樓宇管理系統，遙距監測街市內的配電系統、升降機及自動梯等主要設施的操作狀況，務求為市民提升該等設施的可用性及可靠性。

我們與食物環境衛生署（食環署）緊密合作，於2015/16年度開始為37個街市更換機齡超過20年的老化升降機及自動梯，並計劃於未來兩年進行更多同類更換工程。鑑於街市設施的使用率極高，我們更換自動梯時會採用適合室外使用的設計，以提升可靠性。我們亦正着手為食環署街市的自動梯申請ISO 55001認證，以加強其資產管理，而認證的籌備工作應會在2016年第三季完成。

ENHANCING OUR QUALITY OF LIFE

Shopping at municipal markets is many Hong Kong citizens' daily routine. Our municipal services team has continued to use Integrated Building Management System (iBMS) to remotely monitor the operating status of key facilities in markets, such as power distribution systems and lifts and escalators, to maximise their availability and reliability for citizens.

Working closely with the Food and Environmental Hygiene Department (FEHD), we have started replacing aged lifts and escalators of over 20 years in 37 markets in 2015/16, with more such replacements planned for the next two years. In view of the heavy usage pattern in markets, the new escalators will be outdoor design for higher reliability. We have also been working on ISO 55001 certification for escalators in FEHD markets to enhance asset management. Preparations for certification should be completed by the third quarter of 2016.

我們把食環署轄下楊屋道街市一部老化的自動梯更換為適合室外使用的設計，以提升其效能。同事正利用平板電腦從綜合樓宇管理系統讀取新自動梯的實時數據。

We replaced an aging escalator with an outdoor design at Yeung Uk Road Market for FEHD to enhance its performance. Our colleague uses his tablet to get real-time data of the new escalator from iBMS.



綜合樓宇管理系統讓同事能取得土瓜灣市政大廈暨政府合署內各個機電系統的實時數據，從而進一步完善系統管理和提升設備的可靠性。iBMS enables our staff to acquire real-time data of various E&M systems in the To Kwa Wan Market and Government Offices Building, thus ensuring better system management and higher equipment reliability.



至於其他客戶場地，亦陸續應用各種科技。郵政總局於年內安裝了綜合樓宇管理系統，此舉不但令設備的可靠性提高，同時亦能節省營運成本。在能源效益方面，我們試行在香港文化博物館及中央郵件中心安裝能提高製冷機組能效表現的裝置，有關裝置可使兩個場地的用電量節省多達15%。我們計劃日後將綜合樓宇管理系統及製冷機組優化技術擴展至更多場地，讓市民可享用更可靠及更具能源效益的設施。

Technology was also applied to other client venues. During the year, iBMS was installed at the General Post Office, leading to higher equipment reliability and operation cost savings for the client. On the energy efficiency front, trial installations to optimise chiller plant performance were carried out at the Hong Kong Heritage Museum and the Central Mail Centre, which could save as much as 15% electricity consumption. Our plan is to extend iBMS and chiller optimisation to many more venues in future, so that the public may enjoy more reliable and energy efficient facilities.



(右)同事正檢查九龍灣中央郵件中心的製冷系統，確保運作可靠。
(Right) Our staff is conducting inspection to ensure reliability of the chiller system at the Central Mail Centre in Kowloon Bay.

我們利用紅外線熱能探測器定期監測製冷機電掣箱的溫度，防止出現過熱的情況。
Using an infrared thermal scanner to regularly monitor the switch panel of a chiller to prevent overheating.



營運服務 TRADING SERVICES

游泳是本港很受歡迎的消閒活動之一。鑑於外國曾發生泳客被泳池吸水系統吸住而遇溺的事故，我們於是檢視全港公眾泳池的設計，確保皆符合本港及外國標準。不過，為了令設施加倍安全，我們主動建議在其中三個泳池試用安全真空釋放系統，結果證明該系統是有效的額外安全裝置，可令循環泵在泳池排水口受阻時自動停止運作，釋放被吸住的泳客或物件。我們已建議修改泳池的設計指引，把安全真空釋放系統納入日後新建泳池的設計中。按情況需要，我們會與康樂及文化事務署(康文署)商討為現有泳池進行相應改裝。

與此同時，我們為高山劇場新翼提供的舞台燈光操作及維修保養服務，將會納入我們與康文署簽訂的服務水平協議內，以進一步整合我們在高山劇場的服務。我們更與康文署及食環署緊密合作，在2015年4月2日晚上11時起的21個小時內，完成更換駱克道數據中心一組老化的製冷機組。該數據中心對多項網上服務的運作非常重要，包括預約康文署康樂設施和申領酒牌等。經過周詳策劃和籌備、細心量度，以及多次一絲不苟的模擬測試，加上客戶及承辦商的通力合作，我們的團隊最終順利並準時完成工程，令客戶十分滿意。

Swimming is one of the popular pastimes in Hong Kong. Learning from overseas incidents where swimmers have been entrapped by the swimming pool water suction system, we initiated a review of the design of all public pools designs in Hong Kong and found that their design complied with local and overseas standards. However, to be doubly safe, we proactively recommended a trial application of the Safety Vacuum Release System (SVRS) to three swimming pools. The trial proved the SVRS to be an effective additional safety device as it could cause tripping of the circulation pump resulting in the release of trapped swimmer or object. We have recommended to revise the pool's design guidelines to include the SVRS in new swimming pools in future. Where appropriate, retrofitting proposals for existing swimming pools would be discussed with the Leisure and Cultural Services Department (LCSD).

At the same time, our O&M services for stage lighting at Ko Shan Theatre New Wing will become part of the Service Level Agreement with LCSD, making our services more seamless for Ko Shan Theatre. With close collaboration with LCSD and FEHD, we replaced an aging chiller plant at the Lockhart Road Data Centre within just 21 hours starting from 11 pm on 2 April 2015. The Data Centre was critical to the operation of many online services such as booking of LCSD recreational facilities and application for liquor licences. With meticulous planning and preparations, attention to detail in measurement and careful simulations, as well as good co-ordination with both clients and contractors, our team completed the task smoothly and on time, to clients' great satisfaction.



我們在香港文化博物館試行安裝能提高製冷系統能效表現的裝置，為客戶節省能源及成本，並為市民帶來難忘的綠色參觀體驗。

We carried out trial installations to optimise chiller plant performance at the Hong Kong Heritage Museum so as to save energy and cost for the client and give the public a more inspiring and greener museum experience.

空調方案具創意

市民可能未必知道，大會堂空調系統曾經在2015年6月5日因一條海水冷卻喉管損毀，導致空調供應短暫中斷。

負責大會堂空調系統維修保養事宜的市政工程師王銘鴻先生，迅速與他的團隊及客戶(康文署)合作，在大會堂紀念花園裝設一個臨時製冷機組。在6月6日，該機組已開始運作，讓大會堂的室溫維持在約攝氏25.5度。

王先生說：「我們在36小時內完成所有工作，包括安裝機組、接駁喉管和鋪設電線。」他的團隊與客戶攜手處理所有相關事宜，例如安全問題，以及在大會堂張貼通告讓使用者和訪客知悉空調供應的情況。期間客戶並沒有收到任何市民的投訴。我們的團隊能在短時間內為客戶多走一步，提供應急方案，深獲客戶讚賞。

INNOVATIVE AIR-CONDITIONING SOLUTION

The public might not be aware that a damaged sea water cooling pipe of the air-conditioning system caused a temporary suspension of air-conditioning at City Hall on 5 June 2015.

Mr Wong Min-hung, Kevin, the subject engineer in the Municipal Sector Division, promptly worked with the client LCSD and his team to install a temporary chiller plant at the City Hall Memorial Garden. By 6 June, the plant was already operating to maintain the venue's temperature at around 25.5 degrees Celsius.

"Everything was done within 36 hours, including installation, pipe connection and cable wiring," said Kevin. The team worked with the client to tackle all related issues like safety, and put up notices at the venue to alert users and visitors to the air-conditioning situation. No complaints were received from the public. The client appreciated the team's extra efforts in providing an interim solution in a short period of time.



為籌備實施都市固體廢物收費，我們的車輛工程分部最近協助環境保護署(環保署)完成一項為期三個月的試驗計劃，為政府垃圾收集車(垃圾車)安裝垃圾桶自動點算系統。我們協助為三輛垃圾車加裝一套在收集桶上應用射頻識別技術的系統，用作自動點算和記錄相關資料，例如垃圾桶所屬樓宇及傾倒次數等。有關數據會實時傳送到中央伺服器，以便日後推行收費機制。我們認為安裝自動點算系統不但便利客戶，還能提高市民減少製造廢物的意識。

To prepare for the implementation of municipal solid waste charging, our Vehicle Engineering Sub-division recently helped the Environmental Protection Department (EPD) complete a three-month trial of an automated bin-counting system installed on government refuse collection vehicles (RCVs). We helped retrofit three RCVs with a system which applied radio frequency identification technology on the collection bins that would automatically count and record information such as buildings to which the bins belonged and the number of bins collected. Data were transferred real-time to the central server that would facilitate the fee charging mechanism in future. We see such work as helping clients and raising awareness of citizens in minimising waste generation.



為協助環保署籌備實施都市固體廢物收費，我們為垃圾桶自動點算系統進行為期三個月的測試。測試期內系統錄得零故障，而測試結果亦令人滿意。

To help EPD prepare for the implementation of municipal solid waste charging, we conducted a pilot test on the automated bin-counting system. The three-month trial had zero fault, and the testing result was satisfactory.

營運服務 TRADING SERVICES

讓市民安全安心

我們的工作範疇廣泛，涵蓋與安全和保安相關的服務，包括項目設計與實行、測試和驗收，以及機電系統和設施的操作及維修保養。我們的工作與城市的安全、保安及治安息息相關。

2015/16年度其中一個里程碑，是完成消防處消防及救護學院的工程。位於將軍澳的消防及救護學院已於2016年3月由行政長官主持開幕儀式。我們就設計和興建特製的實火模擬事故訓練設施提供機電支援，其中最新安裝的模擬設施包括實物原大的飛機、船隻及火車實景模型，讓消防員可在高度像真的環境下接受訓練。我們將於2016年年底完成學院所有機電設施的接收工作，開始提供操作及維修保養服務。

HAVING A SAFE AND SECURE CITY

Our work covers a wide range of services related to safety and security, from project design and implementation to testing and commissioning and O&M services for E&M systems and facilities. The city's safety and security as well as law and order are all relevant to our work.

A milestone in 2015/16 was the completion of the Fire and Ambulance Services Academy (FASA) of the Fire Services Department for which we provided E&M support to design and build the specialised live fire training simulators. Located at Tseung Kwan O, FASA was opened in March 2016 by the Chief Executive. The latest simulators installed were life-size mock-ups of an aircraft, a ship, a train, etc. to facilitate drills for firefighters in a highly realistic setting. We shall complete the taking up of O&M services for all E&M facilities in the Academy by end of 2016.



位於將軍澳的消防及救護學院設有多項實物原大的實景模型，例如圖中的飛機模型。我們為這些火警模擬事故訓練設施的設計及興建提供機電支援，確保消防員在安全可靠的環境下接受訓練。

Full-size mock-ups such as this aircraft have been installed at the Fire and Ambulance Services Academy located at Tseung Kwan O. The E&M support we provided in designing and building the fire simulators ensures the safety and reliability of training for firefighters.

年內，香港海關為跨境貨櫃車檢測工作購置了兩部流動X光車輛。我們協助客戶安排採購，並為車輛提供日常維修保養服務。另外，香港警務處轄下於友翔道的新油麻地警署於2016年5月起投入服務，我們為該警署提供機電系統操作及維修保養服務。

我們另一項與治安相關的工作，就是為剛翻新並於2015年9月啟用的終審法院大樓提供服務。在這歷史悠久的大樓，我們為司法機構在多個法庭安裝了先進的視聽和即時傳譯系統。有關系統讓使用者能透過觸感顯示控制屏，閱覽呈堂證據及法庭文件，並能將法庭的聆訊過程即時轉播到大樓內不同地點，更可以進行視像會議，讓身在法庭以外其他地點的證人參與。由於大樓受《古物及古蹟條例》保護，機電設施安裝工作面對極大挑戰，必須採用創新的解決方法，確保大樓的文物價值不受任何影響。

During the year, the Customs and Excise Department has procured two mobile X-ray vehicles for inspection of cross-border container trucks. We helped the client arrange the procurement and provided ongoing maintenance of the vehicles. For the Hong Kong Police Force, we will take over the new Yau Ma Tei Police Station on Yau Cheung Road, scheduled for opening in May 2016, for O&M services for E&M systems.

Also related to law and order was our work at the newly renovated building of the Court of Final Appeal that began operation in September 2015. In this historic building, we installed for the Judiciary advanced audio-visual and simultaneous interpretation systems in the courtrooms. The system enables viewing of evidence and court documents on touchscreen control panels, supports real-time broadcast of court proceedings at various locations in the building, and video conferencing with witnesses at other locations. As the building was protected by the Antiquities and Monuments Ordinance, installation of E&M facilities was highly challenging, and innovative solutions were deployed to ensure zero impact on the heritage aspects of the building.

我們為新油麻地警署安裝了大型太陽能熱水系統。系統利用太陽輻射產生熱水，並可減省能源支出。
We installed a large-scale solar water heating system at the new Yau Ma Tei Police Station. The system harnesses the heat in solar radiation to produce hot water and saves energy cost.



新油麻地警署內的緊急發電機，是由我們提供操作及維修保養服務。

We provide O&M services for the emergency generator at the new Yau Ma Tei Police Station.



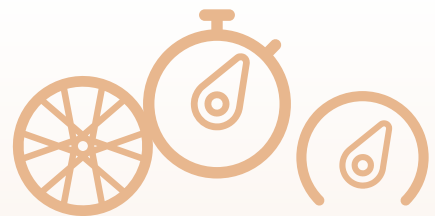
營運服務 TRADING SERVICES

年內，我們接收了由前中區政府合署東座和中座翻新而成的律政中心的機電設施，提供操作及維修保養服務。我們也正進行準備工作，於2016/17年度接收設有30多個法庭及先進設施的西九龍法院大樓，為這幢大型建築物的機電設施提供操作及維修保養服務。能為法律相關建築物的設施提供操作及維修保養服務，創造高效舒適的環境，以便法律程序順利執行，讓公眾在法治下享有公義平等，我們十分欣喜。

During the year, we also received the Justice Place, renovated from the former East Wing and Main Wing of Central Government Offices, for O&M services. Preparations are now underway to receive in 2016/17 the West Kowloon Law Courts Building, a major venue with over 30 courtrooms and state-of-the-art facilities, for O&M services. We are happy to have contributed in providing O&M services for the facilities in law-related buildings so as to bring about an efficient and pleasant environment where legal proceedings can be smoothly conducted to uphold justice and equity for the public based on the rule of law.



我們在終審法院安裝的視聽系統，能將法院聆訊即時轉播至大樓內多個地點。同事正於控制室內監察法庭的情況。
The audio-visual systems which we installed in the Court of Final Appeal can provide live broadcast of court hearings at various locations inside the building. Our colleague monitors the courtrooms from the control room.



2015/16年度，我們接收了律政中心的機電設施，由經驗豐富的操作及維修保養團隊提供專業服務。

Our experienced O&M team provides professional services for the Justice Place taken over in 2015/16.



不斷學習 教導後輩

KEEP LEARNING AND MENTORING YOUNG COLLEAGUES

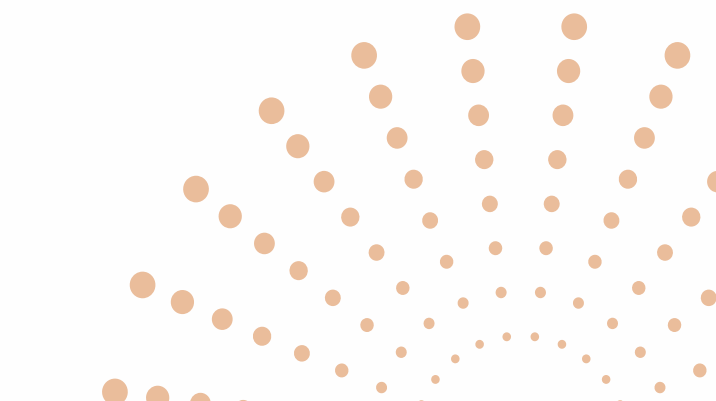


提到傳授技術給年青一輩，孫永良先生是機電署其中一位好導師。身為一級監工，他帶領14位同事，負責營運基金所有客戶部門的非道路流動裝置和運載工具（例如高爾夫球車、剪草機、拖拉機、鏟車和沙灘運輸車）的維修保養工作。他對機械設備的興趣濃厚，對同事和承辦商的技術水平要求也極高。他說：「我們的挑戰是流動運載工具的市場不斷推陳出新，科技日新月異，我們必須不斷學習，才能把工作做好。」

When it comes to imparting technical skills to the younger generation, Mr Sun Wing-leung is often cited as one of the good mentors in EMSD. As a Work Supervisor I, he supervises about 14 colleagues who handle the maintenance and repair of all EMSTF clients' non-road mobile plants and carriers such as golf carts, lawnmowers, tractors, forklifts and beach carriers. He has a passion for mechanical gadgets, and demands very high technical standards from colleagues and contractors. "Our challenge is that mobile carriers with new technologies develop rapidly in the market. We must keep learning to be able to do the work well." he said.

當被問及在教導年青同事時有沒有什麼「獨門秘方」，孫先生表示他會讓同事觀摩他的做法，再指導他們兩、三年，同事就可以勝任了；而耐心正是當中的關鍵。

Does he have a "secret formula" to mentor young colleagues? According to Mr Sun, he will let them observe him doing the work, coach them for two to three years, and they will pick up the skills. Patience is the key.



(左)透過綜合樓宇管理系統，我們在收到大樓的故障或預警信息後，可迅速搶修機電設備。
(右)粉嶺法院大樓是我們設於客戶場地的多個卓越中心之一，營運基金藉此培育員工的專業技能。
(Left) Immediate fault repairs can be carried out once our staff receives alarms or fault reports through iBMS.
(Right) Fanling Law Courts Building is one of our Centres of Excellence at client venues for sustaining EMSTF's in-house expertise.

營運服務 TRADING SERVICES

配合政府 慳電節流

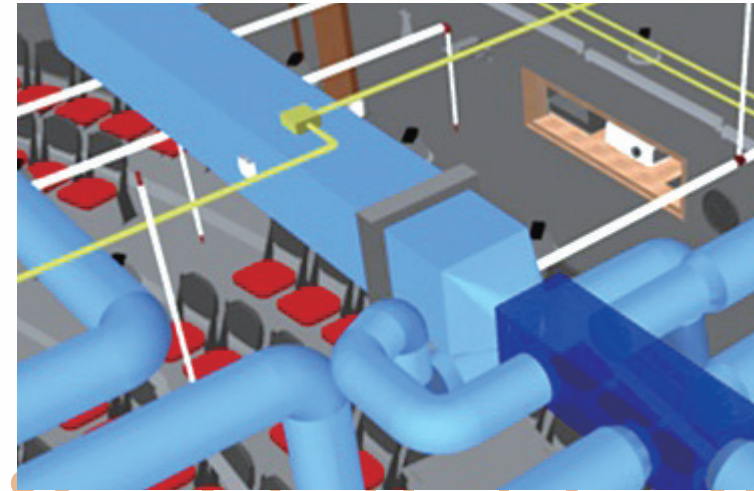
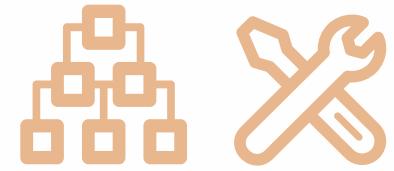
我們亦不時支援政府推行的其他新猷，例如行政長官在2015年的《施政報告》中提出，以2013/14年度為基線，在未來五個財政年度把政府建築物的用電量減少5%。作為政府建築物機電裝置的維修保養服務供應商，我們是協助客戶制訂相應能源策略計劃的最佳人選。我們擬訂了一份清單，列出用電量最高的344幢政府建築物。在環境局撥款資助下，我們於年內為清單上首150幢建築物進行能源審核並找出能源管理機會，以達到省電目標。我們將在下一個財政年度為清單上的另一批建築物進行類似工作。

營運基金已動員所有策略業務單位，特別是為政府建築物提供機電設施操作及維修保養服務的團隊，透過各類工程，協助客戶達到節能目標。我們提出的方案包括改善管理模式、改裝設備、採用更智能的操作方法以盡量提升系統的能效表現，以至涉及長遠投資的主要裝置更換計劃。我們亦應用嶄新科技，當中包括優化中央控制監察系統，以盡量提升空調系統的能效，以及採用無油磁浮式製冷機、變速驅動冷氣機及分體式冷凍機、發光二極管泛光照明裝置和配備電力再生裝置的變頻變壓式升降機。

HELPING GOVERNMENT SAVE ENERGY AND RESOURCES

From time to time we also support the Government in implementing other pioneering initiatives. A task arising from the Chief Executive's 2015 Policy Address was to save 5% electricity consumption in government buildings in the next five financial years, using 2013/14 as the baseline. Being the maintenance agent of E&M installations for government buildings, we are well positioned to help our clients develop energy strategy plans accordingly. A list of 344 government buildings with the highest electricity consumption was drawn up. Funded by the Environment Bureau, we have conducted energy audits for the top 150 buildings on the list and identified energy management opportunities to achieve the saving target. The coming financial year will see the next batch of buildings on the list going through a similar exercise.

EMSTF has mobilised all its Strategic Business Units, in particular the team that provides E&M operation and maintenance services to government buildings, to help clients achieve the energy saving goal via different types of works. The solutions range from better housekeeping, equipment retrofits, more intelligent operating methods to optimise system performance, to major plant replacements that require long-term investment. New technologies applied include Central Control Monitoring System upgrading to optimise energy efficiency of air-conditioning systems, as well as the use of oil-free chillers, variable speed drives for coolers and split-type units, LED floodlighting and variable voltage variable frequency lift drives with regenerative power, among others.



我們在機電署總部大樓推行先導計劃，將建築信息模擬技術與資產管理系統結合，以提升建築物操作及維修保養的效率和加強資產管理。圖片顯示我們演講廳的建築信息模擬模型。
We launched a pilot project to integrate BIM technology with Asset Management System at the EMSD Headquarters Building to enhance the efficiency of O&M services in buildings and reinforce asset management. The pictures show the BIM model of our Lecture Theatre.



此外，政府內部正推行「0-1-1」計劃，即在2015/16至2017/18三個財政年度內，合共節省2%經常性開支。本着與客戶同甘共苦的精神，我們在服務質素不變的情況下，主動就多項服務水平協議提供一次性減價，讓客戶節省開支。

Also related is the Government's service-wide "0-1-1 Envelope Savings Programme", i.e. a total of 2% recurrent savings over three financial years to be achieved from 2015/16 to 2017/18. In the spirit of supporting our clients through thick and thin, we have offered one-off price reduction in many Service Level Agreements without compromising our service quality, thus helping clients reduce cost.

一如去年提及，我們繼續支持發展局的倡議，探討把建築信息模擬技術應用到建築物操作及維修保養服務上的好處，並嘗試將建築信息模擬技術與資產管理系統結合，以求提升效率。在機電署總部大樓推行的獲獎先導計劃在2015/16年度繼續進行，而我們亦與其他工務部門、公營機構及業界分享經驗。

As reported last year, we continued to support the Development Bureau's initiative to explore the benefits of applying Building Information Modelling (BIM) technology to O&M services in buildings, and attempted to integrate BIM technology with Asset Management (AM) System for greater efficiency. Our award-winning pilot project at EMSD Headquarters Building continued during 2015/16 and we have been sharing experience with other works departments, public organisations and the trade.



我們參與「綠建環評社區」先導計劃的經驗，有助我們協助其他政府建築物加入「綠色」及社區友善設施。

Our experience in participating in the BEAM Plus Neighbourhood pilot scheme enables us to help other government buildings plan their "green" and community-friendly features.

營運服務 TRADING SERVICES

我們亦陸續與其他部門分享「綠建環評」認證工作的經驗。我們在2014/15年度已獲得「綠建環評既有建築」暫定鉑金級評級，並在2016年獲得最終認證。此外，我們已參與「綠建環評社區」先導計劃，邀請社區持份者及機電署同事構思為總部外的露天廣場加入「綠色」及其他社區友善設施。其他部門亦可能有興趣知悉我們參與該項先導計劃的經驗。

Another area where we have been sharing experience with other departments is BEAM Plus certification. We have obtained BEAM Plus Provisional Platinum Rating for Existing Buildings in 2014/15, and we have achieved final certification in 2016. Our experience in participating in the BEAM Plus Neighbourhood pilot scheme, under which we have engaged the community stakeholders and EMSD staff to plan “green” and other community-friendly features in our headquarters piazza, might also be of interest to other departments.



不論我們身在何方，均可透過與綜合樓宇管理系統連接的平板電腦，實時監測建業中心各個系統的操作狀況。
No matter where we are, the operating status of different systems in the APB Centre can be monitored in real-time via a tablet connected with iBMS.



照亮投票站

投票及點票站必須有足夠燈光，以清楚顯示票站的位置及讓票站內所有活動得以順利進行。營運基金負責為選舉事務處所有選舉的投票及點票站加裝照明設施，以確保票站光線充足。

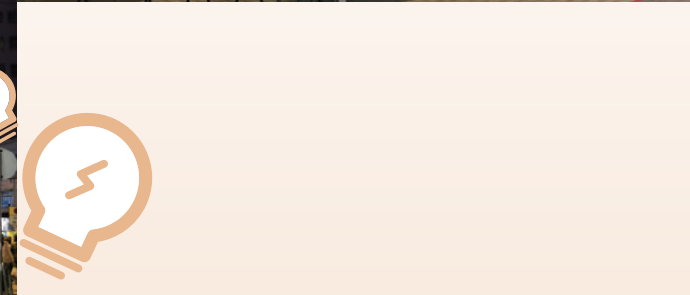
舉例來說，我們就2015年11月22日舉行的2015年區議會選舉，在兩個星期內為495個投票及點票站加裝28 000多個燈泡，而180位同事更在投票當日進行實地檢測，並提供候命支援服務。另一個例子是在2016年2月28日舉行的立法會新界東地方選區補選，我們為154個投票及點票站加裝多個燈泡。

由於票站通常是由官立學校、體育場地、社區會堂或鄉公所改裝而成，大多只能在投票日的前一天才交出場地讓工作人員布置準備，因此進行模擬票站測試極為重要。此外，在投票日安排足夠人手候命以處理故障維修工作，也是一項挑戰。

負責立法會補選票站照明工作的工程策劃部工程師王家強先生表示：「幸得團隊事前的充分準備和周密協調，當天只收到幾宗故障報告。」



(右)我們在2016年2月28日為立法會補選的各個投票及點票站提供照明裝置候命支援服務，以確保票站在投票日運作暢順。
(Right) We provided stand-by support services for the lighting installations at various polling and counting stations on 28 February 2016 so as to ensure their smooth operation on the polling day of the LegCo By-election.



為配合2015年區議會選舉，我們在兩個星期內為495個投票及點票站加裝28 000多個節能燈泡，以提供臨時照明。
To support the 2015 District Council Election, we provided temporary lightings at the 495 polling and counting stations which included more than 28 000 energy saving light bulbs within two weeks.

營運服務 TRADING SERVICES

路路暢通 全民得益

我們客戶部門的工作涉及香港的海陸空交通服務，而我們在2015/16年度的工作反映了我們為客戶在服務市民方面的進展。

香港國際機場新中場客運廊於2015年12月啟用，我們的機場團隊為有員工駐守中場客運廊的政府部門提供機電設施操作及維修保養服務。中場客運廊提供20個停機位，並利用旅客捷運系統的延伸部分連接至一號客運大樓，每年可處理多達額外1 000萬旅客人次。另外，我們也成功取得機場一般抽水系統的操作及維修保養服務合約，並正為助航燈系統維修保養合約的續約事宜作準備。

機場團隊也同時服務有員工駐守機場的其他政府部門，例如民航處。團隊已開始協助該處實施能源優化系統，包括把設備提升至更節能的型號，以及改變使用者的操作方法及行為。

PROVIDING A SMOOTH JOURNEY FOR ALL

The work of our clients encompasses air, sea and land transport services in Hong Kong and our work in 2015/16 reflected the progress we made for our clients in serving the public.

Our airport team provides O&M services for E&M facilities of the government departments with staff stationed at the new Midfield Concourse of the Hong Kong International Airport opened in December 2015. The Concourse provides 20 parking stands, connects to Terminal 1 via an extension of the Automated People Mover system and can serve up to an additional 10 million passengers every year. We also won the tender to provide O&M services for the airport's general pumping system, and have been preparing the renewal of the maintenance contract for the airfield ground lighting system.

The team also serves other government departments with staff stationed at the airport such as the Civil Aviation Department. We have begun to help it implement an energy optimisation system, involving both equipment upgrades to more energy efficient models as well as bringing about changes in operation practices and behaviour of users.



我們不分晝夜為機場新中場客運廊的滑行道助航燈提供維修保養服務，確保其運作正常。
We work round the clock to provide maintenance services for the airfield ground lighting of the taxiways of the new Midfield Concourse at the airport to ensure its normal operation.



我們協助海事處提升其船隻航行監察服務系統和提供維修保養服務，確保船隻航行及監察工作的效率。

We help the Marine Department upgrade and maintain its Vessel Traffic Services System to ensure efficient vessel navigation and monitoring.

2016年3月開始運作的海事處船隻航行監察服務系統(航監系統)，是本港海上交通服務的里程碑。航監系統現已發展至第三代，擁有高性能的電腦網絡、先進的數碼固態雷達，以及設於新的船隻航行監察中心(航監中心)的八台綜合操作員工作站。系統運用電腦屏幕，使船隻追蹤和導航援助服務可全部於無紙環境下完成。我們的項目團隊過去數年一直協助客戶更新和提升航監系統，他們於2016年農曆新年期間為新的航監系統及航監中心進行測試和校驗，工作尤為忙碌。我們的角色是協助客戶提升香港水域船隻導航和監察工作的質素。

市民或已注意到，啟德郵輪碼頭日益繁忙，停泊量上升至每年110至120艘。我們的團隊已不斷增加人手，應付需求日增的機電服務。我們喜見郵輪碼頭正逐漸成為旅客到訪香港及亞洲各地的重要門戶。

陸上交通方面，政府於2016年8月接收東區海底隧道(東隧)，而我們也一直忙於相關的準備工作。政府接收東隧後，我們負責監察隧道營辦商的機電設施操作及維修保養服務。同時，城門隧道交通管制及監察系統的更換工程亦已完成。

A milestone in sea transport was the commencement of operation of the Marine Department's Vessel Traffic Services (VTS) System in March 2016. The VTS, now in its third generation, comprises a network of powerful computers, sophisticated digital solid state radars and eight integrated operator stations at the new Vessel Traffic Centre (VTC) where vessel tracking and navigational assistance services can be all done on screen in a paperless environment. Our project team that has been helping the client replace and upgrade VTS in the past few years was particularly busy during the Chinese New Year in 2016 with the testing and commissioning of the new VTS System and VTC. Our role was to facilitate the client to enhance the quality of vessel navigation and monitoring in Hong Kong waters.

The public may have noticed that the Kai Tak Cruise Terminal has been getting busier, with the number of cruise calls rising to about 110 to 120 per year. Our team there has been stepping up manpower in order to satisfy the increasing E&M service needs. We are delighted that the Cruise Terminal is becoming an increasingly important gateway for tourists visiting Hong Kong and other places in Asia.

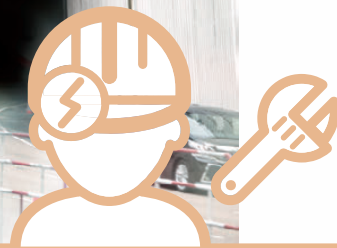
As to land transport, we have been working busily on preparation work related to the takeover of the Eastern Harbour Crossing by the Government in August 2016. After the takeover, we are responsible for monitoring the O&M services provided by the tunnel operator for E&M facilities. Meanwhile, replacement of the Traffic Control and Surveillance System at Shing Mun Tunnels has also been completed.

營運服務 TRADING SERVICES



我們資訊服務中心的人員提供24小時服務，處理客戶的故障報告。

Our staff at the Information Services Centre is ready round the clock to handle clients' fault reports.



政府於2016年8月接收東區海底隧道後，我們將負責監察隧道營辦商的機電設施操作及維修保養服務。

After the takeover of the Eastern Harbour Crossing by the Government in August 2016, we would be responsible for monitoring the O&M services for E&M facilities of the tunnel operator.

年內，我們完成了全港交通燈監察系統與地理資訊系統平台結合的工作。同時，全港行人天橋升降機及自動梯的監察系統、行人及行車隧道的抽水系統及所有主要客戶部門總部大樓的配電系統，亦已經與地理資訊系統結合。有了由地理資訊系統支援的實時遙距監察功能，我們便可更快地回應客戶的故障報告和進行維修。此外，我們的資訊服務中心也變得更有效率，因為當任何設施出現故障時，已結合地理資訊系統的平台就會即時顯示故障位置，以便採取行動。

快將落成的港珠澳大橋是連接內地的陸路運輸新通道。興建中的人工島上的新過境設施，將包括供我們的客戶部門（例如路政署、入境事務處、香港海關、香港警務處、消防處等）使用的各種機電系統。屆時我們的機電操作及維修保養業務範疇將大幅擴大，而我們現時正進行一切必要的準備工作。

During the year, we completed the integration of the city's traffic light monitoring system with the Geographic Information System (GIS) platform. Likewise, the monitoring systems of all footbridge lifts and escalators, pedestrian and vehicle subway pumping systems as well as power distribution systems at headquarters buildings of all major client departments have also been integrated with GIS. The GIS-enabled real-time remote monitoring has made fault response and rectification for clients much faster. Our Information Services Centre is now also more efficient as any facility with a reported fault can be instantly located on the GIS-integrated platform for action.

Also on the horizon is the Hong Kong-Zhuhai-Macao Bridge which will provide a new land transport link to the Mainland. The new boundary crossing facilities on an artificial island being built will include various E&M systems for our client departments, such as the Highways Department, the Immigration Department, the Customs and Excise Department, the Hong Kong Police Force, the Fire Services Department, etc. This would expand our O&M portfolio significantly and we are making all necessary preparations.

保養偏遠地區的雷達站以守護航空安全

機電工程營運基金為客戶提供的服務有時涉及偏遠地點，例如大欖角機場多普勒天氣雷達站便坐落屯門一個山頂，面向香港國際機場。機場及車輛工程部高級工程師胡偉傑先生的團隊負責其維修保養工作，他表示在他的團隊所負責的雷達站之中，大欖角機場多普勒天氣雷達站已算是較易到達的一個。

大欖角機場多普勒天氣雷達站於2014年落成啟用，安放了香港天文台新的風切變氣象雷達。該雷達可搜集氣象數據，並即時向於機場升降的飛機發出有關風切變的預警，以保障航空安全。胡先生的團隊為雷達站提供定期的維修保養及故障維修服務。由於航班安全十分重要，因此雷達站的任何故障都必須立即修妥。他說：「雷達站在過往兩年運作良好，而我們的團隊也一直24小時隨時候命。」

TAKING CARE OF RADAR STATIONS IN REMOTE LOCATIONS FOR AVIATION SAFETY

EMSTF's client work sometimes takes us to far-flung locations. The Brothers Point Terminal Doppler Weather Radar (TDWR) Station, for example, sits on a mountain top in Tuen Mun directly facing the Hong Kong International Airport. According to Mr Wu Wai-kit, Eddie, Senior Engineer of the Airport and Vehicle Engineering Division, whose team handles its maintenance and repair, this is already one of the more accessible radar stations serviced by his team.

Commissioned in 2014, the TDWR Station was constructed to house the Hong Kong Observatory's new windshear weather radar, which collects meteorological data and provides timely windshear alerts to flights to and from the airport for safeguarding aviation safety. Mr Wu's team provides regular maintenance and fault repair services for the station. As flight safety is critical, any fault in the station must be repaired immediately. "The station has been operating smoothly in the past two years and our team is on 24-hour stand-by at all times," he said.



雖然大欖角機場多普勒天氣雷達站坐落屯門偏遠的山頂上，但當有需要時，我們都會馬上趕赴現場進行維修。
Although the TDWR Station sits on a remote mountain top in Tuen Mun, we are ready to provide repair services anytime.



我們為香港天文台的大欖角機場多普勒天氣雷達站提供機電設施維修保養服務，保障本港的航空安全。
To ensure aviation safety in Hong Kong, we provide maintenance services for the E&M facilities at the TDWR Station of the Hong Kong Observatory.





服務香港市民並提升他們的生活質素是我們的首要任務。我們以五大策略為行動綱領，引領我們如何為客戶部門提供服務，以及如何向員工、承辦商、自然環境、弱勢社群及全體市民履行我們的社會責任。

適逢營運基金慶祝成立20周年，就讓我們在此回顧營運基金成立至今，在企業支援及管治工作方面走過的漫長歷程。早期由不同部別負責的培訓、溝通、品質、安全及資訊科技支援等工作，經過多年來的演變和發展，如今已整合成為一套全面且不斷改進的企業支援及管治職能，在一名助理署長的帶領下，由營運基金內其中一個科別根據目前的策略框架執行，再配合其他單位及部別給予的支援，為部門提供服務。此外，為了更全面反映及監察營運基金的表現，在2015/16年度我們採用一套新的關鍵績效指標。

以下是2015/16年度的工作重點。

五大策略及企業進展

提供優質服務

為客戶部門提供優質機電工程服務是我們的首要工作。我們在2016年年初已積極籌劃「2016年客戶意見調查」，並廣邀客戶參與。該項調查已於6月22日至8月3日期間進行。根據上一次在2014年進行的同類調查，以8分為滿分計，我們的客戶滿意指數創下6.22分的歷史新高。儘管2016年的調查是在2015/16年度之後進行，但我們欣然報告，客戶滿意指數在2016年再創新高，以8分為滿分計，我們取得6.45分。這也反映了我們在過去兩年不斷改進服務的成果。

與此同時，我們優化了每月客戶電話意見調查的機制，包括增加抽樣訪問的次數由每月210次至460次，同時亦把訪問涵蓋的範圍由維修保養擴大至包括工程策劃，此舉有助我們擴展至接觸更廣闊的客戶層面及搜集更多的意見。

Serving the people of Hong Kong to improve their quality of life is our top priority. Our tool is a framework of five strategies which guides not only how we work for client departments, but also how we discharge our social responsibilities towards our staff, contractors, the environment, the disadvantaged in the community and indeed every citizen of Hong Kong.

As we celebrate EMSTF's 20th anniversary, it is interesting to note the long journey in corporate support and governance work that we have undertaken since the earliest days of EMSTF. What started as dispersed activities like training, communication, quality, safety and IT support, etc., have evolved and progressed over the years to become a coherent set of dynamic corporate support and governance functions grouped under a branch led by an Assistant Director, guided by our current strategic framework, with the support of other units and divisions, to provide services to the Department. Moreover, we adopted a set of newly defined Key Performance Indicators in 2015/16, in order to comprehensively reflect and monitor the performance of EMSTF.

This is an update of our endeavours in 2015/16.

OUR FIVE STRATEGIES AND CORPORATE PROGRESS

Deliver Excellent Service

Our first duty is to provide excellent E&M engineering services to client departments. As of early 2016, we commenced the preparation for the Customer Opinion Survey (COS) 2016 and soliciting clients' participation in the survey which was conducted between 22 June and 3 August. The previous COS in 2014 achieved a record high Customer Satisfaction Index (CSI) of 6.22 out of 8. Though the 2016 COS was beyond the timeframe of 2015/16, we are delighted to report that it achieved a new record high CSI of 6.45 out of 8, as a result of various improvements we made in the past two years.

Meanwhile, we have enhanced our monthly telephone survey mechanism including an increase of sample size from 210 to 460 cases per month and an extension of coverage from maintenance to project works. The enhanced survey mechanism has helped us broaden our reach to more customers and solicit more comprehensive feedback.

關鍵績效指標 Key Performance Indicators	2015/16	
	目標 Target	成績 Result
1. 收入回報率(%) Return on Revenue (%)	3.4	4.8
2. 新收入(\$百萬) New Business and Growth of Business (\$M)	145	267.97
3. 客戶滿意指數[以8分為滿分] Customer Satisfaction Index [on an 8-point scale]	—	6.22 ¹
4. 年內續訂的服務水平協議(%) Percentage of Service Level Agreement (SLA) Renewed during the Year (%)	95	95.84
5. 每月電話調查客戶滿意度(%) Percentage of Satisfaction Level Based on Monthly Customer Feedback (%)	95	99.14
6. 每名營運基金員工接受訓練的日數 Training Days/Staff (no. of training days per staff for EMSTF)	4.5	4.29 ²
7. 員工滿意指數[以10分為滿分] Staff Satisfaction Rating [on a 10-point scale]	—	6.4 ¹
8. 員工建議計劃 Awards for Staff Suggestion Scheme Proposal (no.)	75	134
9. 達到服務水平協議所訂的表現目標(%) Percentage of SLA Service Performance Target Compliance (%)	99	99.84
10. 每千名營運基金員工須呈報的意外宗數(每千人計算) Reportable Accidents per 1 000 EMSTF Staff (no. per 1 000 staff)	5	3.82
11. 違反法例次數 Statutory Non-compliance (no.)	0	0
12. 耗電量(千瓦小時)[機電工程署總部大樓、數據中心及各策略業務單位] Electricity Consumption (kWh) [EMSD Headquarters, Corporate Data Centre and all SBUs]	10 838 767 ³	10 750 467 ⁴

¹ 2014年調查所得的指數。下一次調查將會在2016/17年度進行。
These were the results from the surveys conducted in 2014. The next surveys would be conducted in 2016/17.

² 培訓管理系統正進行提升以記錄所有的員工培訓活動。
Training Management System is being upgraded to record all training activities attended by staff.

³ 2013/14年度的耗電量扣除客戶使用量。
Baseline electricity consumption (exclude client usage) as of FY2013/14.

⁴ 正常化後2015/16年度的耗電量扣除客戶使用量。
Normalised electricity consumption (exclude client usage) as of FY2015/16.

資訊服務中心是我們與客戶就故障及維修工作進行溝通的主要平台。年內，我們就如何改善和優化資訊服務中心的服務，完成了一項可行性研究，目標是把中心提升為一個嶄新的「顧客為本電子平台」，作為日後設立的客戶服務中心的骨幹。該客戶服務中心將比現時的資訊服務中心更先進，並大量應用流動資訊科技。有關工作已開始分階段推行。此外，我們已全面革新中央投訴登記冊。這個具備提示功能的中央系統能幫助我們回應及記錄客戶及市民的投訴，以方便管理層監察及作出跟進行動。

現時是流動通訊的年代，通訊應用程式不但帶來各種方便，同時也能提高生產力。我們推出一個全新的智能電話流動網上平台，以利便客戶在網上呈報非緊急故障維修事項。我們亦推出一個名為「維修外判合約表現監察系統」的流動應用程式，以加強監察承辦商在維修保養工作方面的表現，讓負責有關工程項目的人員能更適時地向客戶匯報工作進度。

品質是優質服務的重要一環。在企業層面上，我們已為營運基金六個策略業務單位和各個企業支援單位的品質管理系統及環境管理系統認證，全面提升至最新的ISO 2015年版本。我們亦會將各單位個別的綜合管理系統合併，整合成單一及更統一的綜合管理系統，當中包含一個ISO 9001系統、一個ISO 14001系統及一個OHSAS 18001系統。有關的合併和過渡工作將分別於2016及2017年完成。

Our Information Services Centre (ISC) is our hub of fault-and-repair communications with clients. We completed a feasibility study during the year to revamp and upgrade the ISC to a higher level where a new Customer Centric e-Platform will provide the backbone for a future Customer Service Centre, a more advanced version of the current ISC, making use of mobile technology. Phased implementation has already begun. Also, we have revamped the Central Complaint Registry to help us respond to and document complaints from clients and the public in one centralised system, with the implementation of bring-up reminder functions to facilitate management monitoring and take follow-up actions.

In this age of mobile communication, applications can boost convenience and productivity. A new mobile web platform on smart phones for reporting non-emergency fault repair cases online was launched, making fault reporting much easier for clients. A mobile application named Performance Monitoring System for Maintenance Contract was also launched to enhance monitoring of maintenance jobs performed by contractors so that project officers can report progress to clients in a more timely manner.

Quality is an integral part of service excellence. At the corporate level, we have adopted a holistic approach in transiting our various Quality Management System and Environmental Management System certifications to the latest ISO 2015 versions for all six Strategic Business Units (SBUs) and Corporate Supporting Units. All our Integrated Management Systems (IMS) for different units will then be merged and converted to become a single, more unified and aligned IMS, comprising one ISO 9001, one ISO 14001 and one OHSAS 18001 system. The merging and transition will be completed in 2016 and 2017 respectively.

企業管理 CORPORATE STEWARDSHIP



超過200位同事及嘉賓參與「品質及安全日2015」，一同分享和表揚同事在提升服務質素及工作安全方面的經驗和成果。

More than 200 staff members and guests participated in the Quality and Safety Day 2015. We shared and appreciated the contribution of our staff in enhancing quality and safety at work.

在員工層面上，我們繼續邀請同事參加營運基金常設的「品質、環境及生產力推廣計劃」，以提出新的理念，改善服務質素和提升職安健水平。2015年12月，我們舉辦了一年一度的「品質及安全日」。我們就此收到百多份員工建議書，競逐「最佳增值個案服務獎」及「最佳職安健改善個案獎」，而得獎者已於活動當天進行簡報和領獎。

贏得公務員體制的獎項，是營運基金服務優質的證明。年內，營運基金有三位同事獲頒發2015年公務員事務局局長嘉許狀，另有兩個團隊分別在2015年公務員優質服務獎勵計劃的「部門合作獎」及「隊伍獎（一般公共服務）」中奪得獎項。

年內，我們試行把「新工程合約」表格應用於部分合約。我們透過使用新的表格，協助各個策略業務單位採購工程服務。在2016年，我們在機電署總部完成了一項有關融合建築信息模擬技術及資產管理的先導計劃，以加強建築物的資產管理，以及操作和維修保養工作。該項計劃將會在2016/17持續推行。

At the staff level, we have continued to invite new ideas from colleagues to improve quality, occupational safety and health under our ongoing Quality, Environmental and Productivity Promotion Programme. For our annual Quality and Safety Day held in December 2015, over 100 submissions were received from staff competing for the Best Service Delivery Enhancement Award as well as the Best Occupational Health and Safety Enhancement Project Award. Winning entries were showcased and given awards on that day.

Winning civil service awards is a good testimony to EMSTF's service excellence. Three staff members were honoured with the Secretary for the Civil Service's Commendation Awards in 2015, while two EMSTF teams received awards in the Civil Service Outstanding Service Award Scheme 2015 under the "Partnership Award" and "Team Award (General Public Service)" categories respectively.

The New Engineering Contract forms were adopted for some trial contracts in the year. We have assisted various SBUs in procuring engineering services by using the new forms. Subsequent to the completion of a pilot test at EMSD Headquarters in 2016, our pioneering work in applying Building Information Modelling cum Asset Management System to enhance O&M work and asset management in buildings will be continued during 2016/17.



機電署三位優秀同事在2015年獲頒公務員事務局局長嘉許狀。典禮當日，行政長官梁振英先生與獲獎同事握手道賀及拍照留念。

Three of our outstanding staff members were awarded the Secretary for the Civil Service's Commendation Awards in 2015. The Chief Executive the Honourable C Y Leung shook hands with the awardees and posed for a photo together.



革新後的機電署網站引入多項新元素，例如流動裝置兼容版本，並榮獲「2015最佳.hk網站獎」的榮譽嘉許。

The revamped EMSD website includes many new features such as the mobile-compatible version and has attained the Honourable Mention in the "Best .hk Website Awards 2015".

機電署網站年內也進行了大革新。已於2015年11月推出的新網站，更切合流動電話格式及更易於瀏覽，而版面設計也更加以人為本。新網站在香港互聯網註冊管理有限公司舉辦的「2015最佳.hk網站獎」比賽中獲得榮譽嘉許。

成為業界典範

香港公共基建工程持續如火如荼地進行，市場對機電業工人及專業人員的需求甚殷。作為由19家機電機構組成的香港機電業推廣工作小組的領導機構，我們在年內再推出多項機電業推廣及招聘活動，包括參與一連四天假香港會議展覽中心舉行的「教育及職業博覽2016」，以「機電大街」的方式吸引年青人入行。展覽期間舉行的「機電業主題日」也深受求職者歡迎。

The EMSD website also underwent a major revamp during the year. The new site, launched in November 2015, is mobile phone-friendly, easy to navigate and comes with a more people-oriented design. It won the Honourable Mention award in the Hong Kong Internet Registration Corporation Limited "Best .hk Website Awards 2015".

Become a Trade Model

As public infrastructure continues to boom in Hong Kong, demand for E&M workers and professionals remains high. As the leader of the Hong Kong E&M Trade Promotion Working Group comprising 19 related E&M organisations, we have again spearheaded many promotion and recruitment activities including participation in the four-day Education & Careers Expo 2016 at the Hong Kong Convention and Exhibition Centre, using the "E&M Street" approach to attract young talents to the industry. The Electrical & Mechanical Day held during the Expo also proved popular with job seekers.



在「教育及職業博覽2016」，機電署首次採用「機電大街」的方式，透過一站式的行業展覽及專題講座，向青年人介紹機電業的前景及發展。

In the Education & Careers Expo 2016, EMSD for the first time adopted the "E&M Street" approach, featuring a one-stop industry exhibition and topical seminars, to introduce youngsters to the career prospects and development of the E&M industry.



過去60年，政府技術人才培訓計劃成功培育逾5 000名機電業技術人才。新一屆學徒會秉承前人的精神，繼續以專業才能貢獻社會。In the past 60 years, the Government Apprentice Training Scheme has nurtured more than 5 000 E&M professionals. Our new trainees will continue to uphold the legacy of their predecessors and make contribution to the community through their professionalism.



企業管理 CORPORATE STEWARDSHIP

為期三天的「『你』想機電探索日」共吸引逾1 200名市民入場參觀，活動讓年青人有機會認識機電署的日常工作，加深對機電業的了解。

The three-day E&M Discovery Day drew more than 1200 visitors, offering youngsters a golden opportunity to gain an insight into our daily work and develop a better understanding of the E&M trade.



2015年是機電署技術人才培訓計劃60周年紀念，我們藉此機會舉辦一連串慶祝活動，包括在機電署總部大堂舉行的回顧展覽。我們也透過「教師發展日」和「『你』想機電探索日」等推廣活動，招募新血參加見習工程師訓練計劃及技術員訓練計劃。

以營運基金在機電市場的領導地位，我們有責任在操作及維修保養工作方面採用最佳做法並保持高安全標準，以及向業界其他人士推廣這些做法。年內我們為我們的承辦商舉辦了兩場承辦商研討會，分享最新的安全心得及資訊，並推出流動電話應用程式，方便承辦商在維修保養期間以智能電話隨時隨地取得在假天花內進行工程的許可證。

我們完成檢討部門的《安全及健康手冊》，當中涵蓋業界提供的寶貴意見。我們根據勞工處於2015年年中向業界提出的最新安全要求，加強了針對高空工作的安全措施。

The year 2015 marked the 60th anniversary of EMSD's Apprentice Training Scheme, an occasion for a series of celebration events including a retrospective exhibition at the lobby of EMSD Headquarters. We also leveraged the occasion to recruit new blood to join our Engineering Graduate Training Scheme and Technician Training Scheme, via promotional activities such as Teacher's Day and E&M Discovery Day.

Given EMSTF's leading position in the E&M service market, we have the responsibility to adopt best practices in O&M work and maintain high standards of work safety, as well as to promote these to others in the trade. For our contractors, we held two Contractor Forums in the year to share the latest safety tips and information, and launched a mobile application so that contractors could obtain permit-to-work for ceiling void works anytime anywhere on their smart phones during the maintenance period.

We completed reviewing our Safety and Health Handbook with valuable input from the trade. We enhanced the measures for work-at-height in accordance with the Labour Department's latest requirements introduced to the trade in mid-2015.



我們在年內舉辦了「假如我畫署長」繪畫比賽，讓同事發揮無限創意，並提高他們對部門的歸屬感。圖為冠軍作品。

We organised the "If I Draw 3Ds" drawing competition in 2015. Our staff can give full play to their creativity, and their sense of belonging can also be enhanced. Pictured are the winning pieces.

建立員工才能與關懷文化

建立員工才能固然重要，但營造一個關懷員工的環境，讓同事既能協助營運基金實現業務目標，又可從工作中得到滿足感、促進個人成長和平衡工作與生活，也同樣重要。

年內我們已制訂員工才能矩陣，並於2015年9月推出經優化的技術員訓練計劃，有關計劃更着重實務訓練的成效，以切合各個策略業務單位的業務需要。另一重點工作是在主要客戶場地設立更多卓越中心，這些中心旨在讓營運基金員工建立和提升為主要機電系統進行操作及維修保養的專業技能，並成為其他客戶場地的典範，同時也作為前線員工及見習人員的實習基地。

為了更緊密維繫員工，年內我們除了舉辦定期活動，例如兩年一度的家庭同樂遊藝會（是次主題為營運基金20周年），還推出不少新猷供員工參與，包括邀請見習技術員投票選出新的見習技術員制服設計；邀請所有員工參與「機電署宣傳大使」招募及選舉，協助提議和揀選適合機電署的宣傳大使；還有舉行「假如我畫署長」繪畫比賽，全部都深受同事歡迎。另一項新活動是於2015年11月舉行首個「啟迪論壇」，讓來自各策略業務單位的同事分享心得，主題為標書評審及投標前準備。至於工會方面，自2016年開始，機電工程署署長與11個工會的聯席會議由每年舉行一次改為每半年一次。

一如往年，我們繼續委託香港家庭福利會為所有員工提供輔導服務，而借調往其他部門的機電署員工也可享用這項服務。同時，我們也舉行各種有關情緒、精神和身體健康的工作坊，幫助同事平衡工作與生活，保持身心健康。

Build Capacity and Caring Culture

Staff capacity building is important, so is fostering a caring environment for our colleagues so that they can help EMSTF achieve its goals while attaining job satisfaction, personal growth and work-life balance.

As we developed the Staff Competency Matrix, an enhanced Technician Training Scheme was also launched in September 2015 with greater emphasis on practical training effectiveness to suit the SBUs' business needs. Another focus was to launch more Centres of Excellence (CoEs) at major client venues. CoEs aim to build up and sharpen in-house O&M expertise of major E&M systems and become trade models for other venues. CoEs also double as on-the-job training ground for frontline staff and trainees.

To better engage staff, a number of new initiatives were introduced, in addition to regular activities like the biennial fun fair with a theme on EMSTF 20th Anniversary for staff involvement. The new initiatives included inviting technician trainees to vote for a new technician trainee uniform design, a departmental Mascot Hunt cum Mascot Survey that invited all staff to help propose and indicate their preferred mascot for EMSD, and an "If I Draw 3Ds" drawing competition, all well received by colleagues. Another new event was the first Enlightenment Forum held in November 2015 which focused on sharing knowledge about tender evaluation and pre-tender preparations with colleagues from all SBUs. As to 11 unions, the Joint Union Meeting with the Director of Electrical and Mechanical Services became a half-yearly instead of an annual event from 2016 onwards.

As in past years, we continued to commission the Hong Kong Family Welfare Society to provide counselling services to all staff. EMSD staff seconded to other departments can also enjoy the service. Meanwhile, various workshops on emotional, mental and physical health were held to help colleagues achieve work-life balance and well-being.

企業管理

CORPORATE STEWARDSHIP



管理人員及一眾嘉賓共同主持家庭同樂遊藝會的開幕儀式。
Our management staff and guests officiated at the opening ceremony of the fun fair.

流動通訊科技與員工息息相關，為使用輪椅的員工及常以手推車運送貨物和文件的同事通行無阻，我們推出了一項以智能電話操控方式，代替現有的通行證進出總部大樓先導計劃，配合「遙控開門」應用程式，可利用智能電話遙距開啟總部大樓內的部分門鎖，而不影響保安。目前已有約100位機電署員工在流動電話上安裝了應用程式，以測試系統操作。預期現有的出入控制系統會逐步被取代和更新，屆時員工及訪客在總部大樓內出入便會更方便快捷。

優化知識管理

在籌備多時之後，全新的「知識群體網站」已於2015年8月推出，方便員工建立網上知識分享群體。新網站的主要特色之一，是設有三個以主題為本的智庫，分別為工作小組智庫、事故報告智庫及工程策劃團隊智庫。網站同時具備可讓同事合作撰寫文件的新功能，使員工協作更為便捷。

為配合部門制訂員工才能矩陣的工作，我們引進和試行一個名為「知識地圖」的全新知識管理工具，以助各策略業務單位及部別確定和編集矩陣之下任何重要的知識需求。「知識地圖」有助員工就具體的操作程序搜尋專門知識，而高層管理人員也可用以制訂人力資源策略。我們已於2015/16年度完成有關的先導計劃，並會於2016/17年度推出更多「知識地圖」。

知識管理對建立員工才能、提高品質和生產力都十分重要，也有助我們記錄和分享知識，以作出正確的決定，並繼續走在工程與管理領域的前端。我們會繼續為員工加強和推廣各種知識群體和知識管理工具。

Mobile technology is relevant to staff engagement. To create a barrier-free environment for staff using wheelchairs and staff frequently transporting goods and documents in trolleys, we have begun a pilot for wireless smart access control system with a “mobile door control” application that can unlock doors in our headquarters building via smart phones, instead of access card, from a distance while maintaining security. Around a hundred EMSD staff members have already installed the application for a system trial, and gradual implementation is expected when the existing access control system is replaced to improve convenience for colleagues and visitors alike.

Enhance Knowledge Management

After much preparation, a new Knowledge Communities Portal was launched in August 2015 to better facilitate the set-up of virtual knowledge sharing communities. A key feature of the new portal is three theme-based knowledge hubs, namely knowledge hub for working groups, knowledge hub for incident reports and knowledge hub for project teams. The portal also has a new co-authoring function that makes collaboration among staff much easier.

To tie in with EMSD's initiative to develop a Staff Competency Matrix, we introduced a new knowledge management pilot tool called the Knowledge Map (K-map) for all SBUs and divisions to identify and codify any critical knowledge needs under the Matrix. K-maps will be useful to individuals looking for expert knowledge in specific operational processes, and to senior management in planning human resource strategies. The pilot project was completed in 2015/16 and more K-maps would be produced in 2016/17.

Knowledge management is vital to capacity building as well as quality and productivity improvements. It also helps us document and share knowledge, enabling us to make the right decisions and stay at the forefront of the fields of engineering and management. We shall continue to improve and promote our various knowledge communities and knowledge management tools to our staff.



遊藝會當日，總部地下廣場人頭湧湧，同事與親友都樂在其中。

The piazza of our headquarters was packed with colleagues and visitors who all had a blast that day in fun fair.



持續綠色作業

我們的目標，是以可持續發展的方式執行每項工作及與所有持份者溝通。我們為日常運作不同方面（例如綠色採購及節省電力、用水和用紙等天然資源）訂下各種量化指標，並全部達標。我們近年也一直努力在總部大樓進行多項工作，務求以身作則，於2016年使大樓成為首幢獲得「綠建環評既有建築1.2版」最終白金級評級認證的政府大樓。

另外值得一提的是，我們參加了「綠建環評社區」先導評估，反映我們重視與鄰近社區持份者建立綠色和諧的關係，有關評估已於2016年完成。此外，由2016/17年度起，我們開始籌備把總部大樓與啟德發展區的區域供冷系統連接起來，把我們的空調系統由目前以獨立的製冷機組操作，改裝為以區域供冷方式提供空調，屆時可大大節省能源和減少碳排放，讓營運基金的運作更環保。

Sustain Green Operation

Our aim is to operate in a sustainable manner in everything we do and in our interactions with all stakeholders. Numerous quantitative targets have been set and achieved in our daily operations such as green procurement and saving natural resources like electricity, water and paper. To lead by example, we have also been working hard on our headquarters building in the past few years with the aim of making it the first government building to obtain BEAM Plus Existing Buildings V1.2 Final Platinum Rating in 2016.

Also worth noting is our participation in the BEAM Plus Neighbourhood pilot-assessment, which was completed in 2016. The pilot assessment underscores the importance we attach to a green, harmonious relationship with stakeholders in our immediate neighbourhood. In a different development, we have started making preparations in 2016/17 to connect our headquarters building to the District Cooling System in Kai Tak Development. This will convert our air-conditioning system from a local chiller plant to that of district cooling supply, thus saving energy and reducing carbon emissions significantly to make our operations more environment-friendly.



知識群體網站的新用戶版面更易於使用，並且新增了更多機電知識區。

The new menu of Knowledge Communities Portal is more user-friendly, and the Portal is enriched with more E&M Knowledge Areas.

為增加機電署總部大樓的綠化面積，我們在大堂設置一幅垂直室內綠牆。

To increase the greening areas in the EMSD Headquarters Building, we took the initiative to install a vertical indoor “green wall” at the lobby.

