



年報 Annual Report 2021-22







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推行 Implemented

652

個綜合服務項目 new integrated service projects



# 營運摘要

# **Operational Highlights**

- ◆ 推行652個綜合服務項目
- ◆ 開展105個新研發項目(見第48頁「主要績效指標」)
- ◆ 取得40項專利註冊;推行70個引用生產力局專利的新項目
- ◆ 年內綜合服務收入達港幣**6億6千6百萬元**
- ◆ 工業4.0的相關服務收入增長**36%**(2018/19起的年均增長率)
- ◆ 超過90%技術項目已應用於工業項目
- ◆ 全年收入同比增長13%
- Implemented 652 new integrated service projects
- Kickstarted 105 new R&D projects (See page 48 "Key Performance Indicators")
- Obtained 40 patents and commenced 70 new projects using HKPC's patents
- Consolidated Service Income reached HK\$666 million
- ♦ **36%** Industry 4.0 (i4.0) related service income growth (Annual growth rate since 2018/19)
- More than 90% of technical projects applied to industrial projects
- Income growth of 13% year over year

# 中小企支援 SME Support

家中小企 SMEs

- ◆ 服務超過14,000家中小企
- ◆ 90%採購自本地企業,當中約75%購自中小企
- ◆ 年內獲批申請涉及的總政府資助額約港幣**21億元**,已發放 的資助額超過港幣**16億元**
- Served over 14,000 SMEs
- 90% local procurement of which 75% purchased from SMEs
- Approved Government funding of around HK\$2.1 billion within the year of which over HK\$1.6 billion had been disbursed to applicants



# 殊 榮 Accolades

- ◆ 85 個本地及海外殊榮
  - 85% 為前三甲
  - 89% 由政府資助計劃支持
- ♦ **85** local and overseas accolades
  - **85%** Top-three
  - 89% Supported by Government Funding



帶領來自超過70間學校逾 Led over

500

名學生創下「機械人集體編程」 健力士世界紀錄

students from over 70 schools to achieve Guinness World Record for Mass Robot Programming

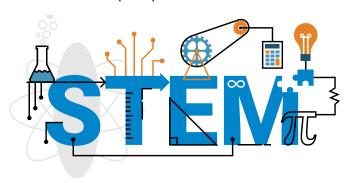
# 未來技能 FutureSkills

- ◆ 帶領來自超過70間學校逾500名學生創下「機械人集體編程」 健力士世界紀錄
- ◆ 舉辦533個「未來技能FutureSkills」 收費培訓課程及156個免費課程,逾30,000人參加
- ◆ 舉辦108場 STEM活動,共有來自超過100所學校逾5,300位 師生參與
- Led over 500 students from over 70 schools to achieve Guinness World Record for Mass Robot Programming
- Delivered 533 fee-charging FutureSkills training programmes and 156 non-fee-charging courses, with over 30,000 participants in total
- Held 108 STEM activities with over 5,300 students and teachers from over 100 schools participated

# 舉辦 1 0 8

場 STEM 活動,共有來自超過100所學校逾5,300 位師生參與

STEM activities with over 5,300 students and teachers from over 100 schools participated





舉辦 Held

92

場行業諮詢活動 industry consultation events

# 持份者及客戶 Stakeholder Engagement & Customers

- ◆ 舉辦92場行業諮詢活動
- ◆ 26,327人次參加生產力局研討會、工作坊、會議、展覽及免費培訓課程
- ◆ 客戶滿意指數評分:9.2/10
- Held 92 industry consultation events.
- 26,327 people attended HKPC's seminars, workshops, conferences, exhibitions and free training courses.
- Customer Satisfaction Index Score: 9.2/10



# 我們的服務 – 香港生產力促進局及其附屬公司 2021-22 How We Serve - HKPC and Its Subsidiaries 2021-22



# 再工業化:香港製造 Reindustrialisation: Made in Hong Kong

◆ 生產力局全力配合香港特別行政區政府推動再工業化的政策,利用創新科技為香港企業建立多條智能及自動化生產線,並提供「一條龍」支援,由可行性研究、工廠佈局、生產線設計以至配對政府資助基金及培訓科研人才,協助本地製造業轉向高增值生產,透過運用傳感器、物聯網及機器視覺等「工業40」技術成就先進製造,提升產能同時節省用地、人手及生產時間,讓優質的「香港製造」品牌發光發亮。





♦ HKPC fully aligns with the HKSAR Government in its policy of promoting reindustrialisation by helping Hong Kong enterprises to establish a number of intelligent and automated production lines with innovation and technology (I&T). Our "one-stop" support includes the whole process from feasibility studies, factory layout and production line design to matching government funding and training tech talents. With the adoption of i4.0 advanced manufacturing technologies such as sensors, Internet of Things (IoT) and machine vision to enhance production capacity and saving land, manpower and production time, we assist local manufacturers in moving towards high value-added production and letting the trusted mark of "Made in Hong Kong" brand shine.

# 食品業 Food Industry

- 為廚房壹號有限公司的中央廚房建設U形緊湊佈局的**食品加工智能生產線\***, 減少材料重覆運送,提升生產效率
- 為聯泰香港鮮蛋液有限公司設立香港首條**鮮蛋液智能生產線\***,將有助大幅提高產能2至3倍,並提升食品安全
- 為怡加新(香港)實業有限公司設立香港首條新鮮粟米汁智能生產線\*,除大幅 提升產能外,亦通過智能感應器收集及監測生產數據,以先進科技改進殺菌技 術
- 為Transform (HK) Co., Ltd. 建設**鹼性健康飲用水智能生產線**<sup>#</sup>,優化其生產流程、 提升產能及出品質素
- An **intelligent production line for food processing\*** for CK One Limited, with a U-shape layout to address concern on land constraint and speed up the entire process by minimising the chance of duplicated transfer of materials
- Hong Kong's first intelligent production line of fresh liquid eggs\* for Luen Tai
  Hong Kong Fresh Liquid Eggs Limited, which will help increase production by 2 to 3
  times as well as enhance food safety
- Hong Kong's first intelligent production line for fresh corn juice\* for 2 Plus 3 (HK)
  Industrial Company Limited, collecting and monitoring production data by intelligent
  sensors to improve the sterilisation process as well as production capacity
- An intelligent production line for healthy alkaline drinking water<sup>#</sup> for Transform
   (HK) Co., Ltd. to optimise the production process and increase the production
   capacity and quality

#### 建造業

## **Construction Industry**

- 為蘇利亞有限公司建設香港首 條鋼筋摩擦壓接智能生產線\*, 利用智能化工廠預製組件提升 建築構件的質量及供應的穩定 性
- Hong Kong's first rebar friction welding smart production line\* for So Li Ah Company Limited, leveraging intelligent factory to prefabricate components and improve the quality of building components and supply stability

<sup>\*</sup> 成功申請創新科技署「再工業化資助計劃」

<sup>#</sup>成功申請創新科技署「投資研發現金回贈計劃」

<sup>\*</sup> Successfully applied for the Reindustrialisation Funding Scheme under the Innovation and Technology Commission (ITC)

 $<sup>{\</sup>tt\#Successfully\ applied\ for\ the\ Research\ and\ Development\ Cash\ Rebate\ Scheme\ under\ the\ ITC}$ 

#### 紡織/製造業

#### **Textile / Manufacturing Industry**

- 為 Nanoshields Technology Limited 度身設計和建立兩條納 米纖維過濾材料智能靜電紡絲生產線\*,並為其員工提 供工業4.0及智能技術培訓;將有助提升產量超過60%, 每年可生產超過300噸材料用作製造個人防護裝備和濾 水器
- 為力勁機械國際有限公司開發**智能化全自動自除塵自監控可移動式口罩機**<sup>#</sup>,自帶除塵系統,可在任何環境快速投入生產,有助緊急應對突發全球衛生事故
- 為偉聯塑膠有限公司在本地開發及建立光學自適鏡片智能生產線<sup>#</sup>,佔地不多且只需兩人操作,最多每小時可生產100塊鏡片,平均36秒即可生產一片
- 為Western Tool & Mold Limited 開發具備實時環境控制的 智能生產噴漆房,提升飛機部件的噴漆穩定性,次品率 降低15%
- Custom design and set up of two intelligent electrospinning production lines for nanofiber filter material\* for Nanoshields Technology Limited, as well as i4.0 and intelligent technology training for their staff, with the aim of raising output by more than 60% and producing over 300 tonnes of material annually for personal protective equipment and water filters
- A smart module type mask production machine with self-cleaning system<sup>#</sup> for L.K. Machinery International Limited, offering a plug-and-play mask production solution in any environment for responding quickly to global health emergencies
- An intelligent production line for optical adaptive lenses<sup>#</sup> for Wai Luen Plastic Company Limited, occupying less space and requiring only two persons to operate, with a maximum production output of 100 lenses per hour and average production speed of 36 seconds for one lens
- An intelligent production paint booth with realtime environmental control for Western Tool & Mold Limited, enhancing stability of painting process of aircraft components and reducing defect rate by 15%

## 中醫藥業

#### **Chinese Medicine Industry**

- 為位元堂藥廠有限公司設立智能自動化GMP產品包裝生產系統,利用機器視覺技術監察系統表現來提升產品包裝質素及穩固度
- 為保心安藥廠有限公司研發內置實時數據採集功能的全自動智慧GMP產品包裝設備<sup>#</sup>,每小時可包裝3,000 瓶藥油,滿足複雜和嚴格的中藥產品包裝要求
- 為太和洞藥廠有限公司設計和製作能處理多層不同 材質包裝中成藥的模組原型\*,用於玻璃小瓶裝的多 層包裝、摺疊和封口工序,涉及不同材質、硬度、 張力的包裝物料。該原型將作為日後開發的智能包 裝系統的核心組件
- An automated packaging system with intelligent control software for Chinese medicine products in compliance with GMP for Wai Yuen Tong Medicine Co. Ltd., with machine vision technology for enhancing product packaging quality and robustness
- A fully-automated intelligent packaging system for GMP products\* with built-in real-time data collection feature for Po Sum On Medicine Factory Limited, enabling wrapping of 3,000 bottles of medicine oil per hour complying with complex and strict packaging requirements of traditional Chinese medicine products
- A module for multi-layer packaging with diverse materials of Chinese medicine product\* for Tai Wo Tung Medicine Co. Ltd., which involves wrapping, folding and sealing of glass bottle packaging with a wide range of packaging materials (in term of texture, hardness and tension). The prototype will serve as the core module in a smart manufacturing system to be developed in the future

- ◆ 與港大經管學院合作,於2021年7月至9月進行《香港再工業化研究》,期間成功訪問184間企業,探討香港食品科技、健康科技及綠色科技發展「再工業化」的條件、可行性以及所面對的挑戰,結果顯示「新一代半導體」為「再工業化」中極具潛力發展的新興產業。
- ◆ 年內舉辦了42個活動/研討會,於粵港澳大灣區推廣再工業化及其他生產力局服務;來年將會繼續舉辦再工業化相關推廣活動及進行調研報告。
- Collaborated with HKU Business School to conduct the Reindustrialisation Study – Hong Kong from July to September 2021 exploring the conditions, feasibility and challenges faced by Hong Kong's FoodTech, HealthTech and GreenTech to realise reindustrialisation. 184 companies were interviewed and results showed that "new generation semiconductors" have the potential to develop into an emerging industry of reindustrialisation.
- Organised 42 activities / seminars in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), including Hong Kong, to promote reindustrialisation and other HKPC services. We will continue to organise such promotional events as well as to conduct research studies on related topics in the next year.

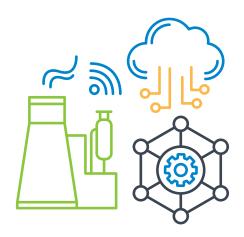
<sup>\*</sup> 成功申請創新科技署「再工業化資助計劃」

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# 先進製造 Advanced Manufacturing

- ◆ 生產力局一直致力協助港資企業為其在香港及 香港以外的生產線升級轉型,利用工業4.0技術 實踐先進製造,提升生產力。
- ◆ 生產力局推行「工業4.0升級與認可計劃」,已 幫助20多個行業共70多家企業應用智能製造的 技術進行生產,包括:
  - 為佛山市南海奔達模具有限公司研發的工業4.0汽車輪轂模具智能製造系統<sup>#</sup>,讓企業生產設備綜合效率提升20%、準時交付率提高20%,生產成本更節省高達30%。此項目於2021年獲生產力局頒發智能製造「工業4.0信息物理生產系統」認可證書,同年再榮獲於大灣局區首批「佛山市數字化智能化示範車間」殊榮。
  - 協助武漢華中數控股份有限公司和力博信息技術有限公司獲得「工業4.0信息物理生產系統」認證,促進大灣區智能製造發展。
  - 為富強塑膠五金製品廠有限公司大灣區廠 房研發適用於微型馬達五金零件的智能型 多工位精密沖壓生產系統,讓生產線無須 人手當值,而產品合格率和交付準時率分 別提升至99%及100%。
  - 成功協助健大企業有限公司升級其在大灣 區的生產線,實現實時監控的無紙化車 間,滿足國際汽車工業要求,90%以上工 單自動排產,整體設備效率提高了15%。
  - 協助鴻利達塑膠製品有限公司開發人工智能數字化管理系統,升級其在大灣區的生產線,通過大數據分析和人工智能算法,令企業可生產準確數量的產品,整體庫存減少30%。
- ◆ 生產力局研發的「SMART PATCH」獲得「2022年 日內瓦國際發明展」最高榮譽「評審團嘉許金 獎」。它是兼容5G通訊的通用工業物聯網(ⅡoT) 設備,讓新舊機器能夠互相溝通,幫助多家本 地及海外企業以較低成本實踐智能生產。

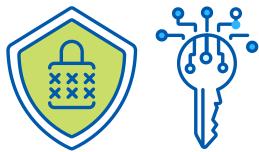
- ♦ HKPC is always committed to assisting Hong Kong enterprises in upgrading and transforming their production lines, whether within or outside Hong Kong, towards advanced manufacturing using i4.0 technologies for enhancing productivity.
- HKPC has been implementing the Industry 4.0 Upgrade and Recognition Programme, assisting over 70 enterprises from over 20 industries in applying intelligent manufacturing technologies in their production, including:
  - Assisted Foshan Nanhai Superband Mould Co., Ltd. to build an **i4.0 intelligent manufacturing system for automobile wheel hub**\*, raising the overall efficiency of production equipment by 20% and ontime delivery rate by 20%, while saving production costs by up to 30%. In 2021, this project was awarded the "i4.0 CPPS" (Cyber Physical Production System) certificate of recognition for intelligent manufacturing by HKPC, as well as being listed as the first batch of Foshan's digital and intelligent demonstration workshops.
  - Assisted Wuhan Huazhong Numerical Control Co, Ltd. (HuazhongCNC) and Transformation Technology Limited to obtain the "i4.0 CPPS" certification, fostering intelligent manufacturing in the GBA.
  - Developed **smart manufacturing system for metal stamping industry** for Wealthy Plastic Manufacturer Co., Ltd, enabling unmanned production of their GBA production line while increasing product qualification rate and on-time delivery rate to 99% and 100% respectively.
  - Assisted Kenta Enterprise Company Limited to upgrade its production line in the GBA, realising paperless workshops with real-time monitoring to fulfil industrial requirements of the international automotive industry. The system automatically assigns more than 90% of production planning, improving the Overall Equipment Effectiveness (OEE) by 15%.
  - Assisted Hongrita Plastics Limited in developing an Al-Based Digital Management System (DMS) to upgrade its production line in the GBA. With big data analytics and artificial intelligence algorithms, the production materials and equipment can be fully controlled to produce the right quantity of products, thus reducing the inventory by 30%.
- → HKPC's SMART PATCH won the highest accolade of Gold Medal with Congratulations of Jury at 2022 Geneva International Exhibition of Inventions. A universal Industrial Internet of Things (IIoT) device compatible with 5G, it allows digital communications between old and new machines so as to enable intelligent production for a number of local and overseas companies at a lower cost.

<sup>\*</sup>成功申請創新科技署「再工業化資助計劃」

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# 數碼化與網絡安全 Digitalisation & Cyber Security

- ◆ 2021年推出「中小企數碼化入門方案包」,旨在讓中小企業通過嘗試客服機械人、業務數據分析、雲端辦公室軟件、網絡安全評估、社交媒體內容分析等方案,踏上數碼轉型的升級之旅,協助中小企以低價格門檻開展數碼轉型。
- ◆ 疫情下,各行各業均期望透過數碼轉型來改善營運模式,以適應「新常態」。生產力局透過大數據諮詢、服務機械人、物聯網、智能運作及系統整合等,積極協助中小企簡化工作流程,減省勞動密集的工序,降低製造成本,及提高營運效率;並利用數碼科技和網上營商,幫助中小企適應新營商模式,打破地域界限,及透過舉辦網上論壇及為員工提供培訓等開拓新客源。
- ◆ 積極利用科技,協助社會服務業界數碼轉型及 簡化工作流程,例如:
  - 在香港賽馬會慈善信託基金支持下推出 「賽馬會資訊科技支援計劃」,為本港非牟 利機構提供全面的免費資訊科技顧問及諮 詢服務,至2022年3月底已完成**66**個項目
  - 為香港社會服務聯會(社聯)完成為期兩年的「資訊保安審計先導計劃」,為400多個系統、伺服器或網站進行資訊保安風險評估和審計服務;為1,600多名非牟利機構員工提供資訊保安培訓;同時為業界制訂資訊科技保安實務指南
  - 在民政事務局(現為民政及青年事務局)的 支持下先後主辦了四屆「種籽聯盟」計劃, 透過「一對一」配對商界企業及社企,協助 社企利用資訊科技改善營運;自2016年起 至今已有34間社企受惠

- ◆ Launched **Digital Transformation Starter Kit** in 2021 enabling SMEs to embark on the journey of digital transformation to experience affordable and value-for-money solutions such as customer service robots, business data analysis, cloud-based office software, network security assessment, and social media analysis.
- ◆ Industries are looking for ways to improve their business models through digital transformation to adapt to the "new normal" amid the pandemic. HKPC actively assists SMEs to streamline workflow, reduce labour-intensive processes, lower cost and improve efficiency through big data consultation, service robots, IoT, smart operations and system integration; as well as adopting digital technologies and e-commerce to break the geographical boundaries and expand customer base through hosting online forums and providing online training for employees.
- Active use of technology to assist the digital transformation and streamlining of work processes for the social service industry, for example:
  - Launched **The Hong Kong Jockey Club IT Support Programme for NGOs** with the support of the Hong Kong Jockey Club Charities Trust, providing non-profit organisations (NPOs) in Hong Kong with comprehensive free IT consultancy and advisory services. As of end March 2022, **66** projects have been completed.
  - Completed a two-year Pilot Project of Information Technology Security
     Audit for Non-governmental Organisations of the Welfare Sector in
     Hong Kong for the Hong Kong Council of Social Service (HKCSS). HKPC
     provided IT security risk assessment and audit service to more than 400
     systems, servers or websites, provided IT security training to more than
     1,600 NPO employees. An IT security practice guide for the sector has been
     compiled.
  - Organised annual **SEED Programme** for four years with the support from the Home Affairs Bureau (now the Home and Youth Affairs Bureau), aiming to improve operations of Social Enterprises (SEs) with information technology by pairing them up with synergistic corporate partners. There have been **34** SE beneficiaries since the programme launched in 2016.





- ◆ 生產力局轄下的香港電腦保安事故協調中心為本地企業及互聯網用戶提供資訊保安事故的消息和防禦指引,提高市民資訊保安意識,防止黑客入侵中小企電子商貿設備。其工作包括:
  - 年內共處理7,478宗保安事故
  - 提供24小時免費事故報告熱線
  - 舉辦免費研討會
  - 與業界、政府機構及國際協調中心合作, 監察、收集及分析攻擊模式,盡早為企業 發出資訊保安警報
  - 為企業提供建議,以應對網絡攻擊、加密 貨幣、元宇宙及其他新興科技的保安風 險;並為企業定期進行網絡及系統保安檢 查等
  - 為個人用戶提供有用資訊,如啟用多重身分驗證、應對QR code潛在風險、小心提防釣魚攻擊或可疑電郵等
  - 2021年與國際刑警組織及香港警察網絡安全及科技罪案調查科展開「碩將行動」,淨化香港網絡環境,通知受感染或錯誤配置的系統擁有者並提供保安建議,以防止受到DDOS攻擊,行動涵蓋約12萬部有潛在漏洞的電腦裝置
  - 聯同生產力局舉辦「香港網絡保安新生代 奪旗挑戰賽2021」,旨在提升年青人的網 絡保安意識,及培育更多有志投身資訊保 安行業的人才,逾940名本地中學、大專 院校學生及資訊科技精英參加上述比賽

- HKPC's Hong Kong Computer Emergency Response Team Coordination Centre (HKCERT) facilitates information disseminating of computer security incidents for local enterprises and internet users and promotes information security awareness among citizens, preventing hackers from invading SMEs' equipment for e-commerce. It had:
  - handled **7,478** security incidents
  - provided free 24-hour hotline services for incident reporting
  - organised free seminars
  - collaborated with the industry, government bodies and international coordination centres to monitor, collect and analyse attack patterns and issue timely alerts to enterprises
  - offered advice to enterprises on dealing with cyber attacks and other emerging security risks involving cryptocurrencies, metaverse and etc.; and conducted regular network and system security inspections for enterprises
  - offered useful information for individuals, such as enabling multi-factor authentication, preventing potential security risks of QR codes, phishing attacks or suspicious emails, etc.
  - collaborated in a joint operation "Attenuator" with Interpol and Cyber Security and Technology Crime Bureau of the Hong Kong Police Force in 2021 to clean up Hong Kong's network environment and avoid DDoS attacks by notifying the owners of infected or misconfigured systems and providing security advice. The operation covers approximately 120,000 potentially vulnerable computer devices
  - joined with HKPC to organise Hong Kong Cyber Security New Generation Capture the Flag Challenge 2021 to enhance the cyber security awareness of young people and nurture more IT talents. Over 940 players from secondary schools, tertiary institutions, and IT elites took part in the competition



# 智慧及綠色生活科技 Smart & Green Living Technology

- ◆ 生產力局全力配合香港特區政府公佈的《香港智慧城市藍圖2.0》及《香港氣候行動藍圖2050》,致力利用先進創新科技,促進香港綠色智慧城市發展;並大力支持及推動綠色科技研發,以配合香港於2050年及生產力局於2040年實現碳中和的目標。
- ◆ 推動於智慧出行、智慧生活和機械人科技研發 上採用5G及物聯網等先進技術,全方位支援各 行各業、社會各界開發新產品並落地應用,讓 市民大眾的生活質素得到改善。

## ◆ 5G應用:

- 2021年4月「**5G新世代應用展館**」隆重開幕,兩期展覽合共展出超過**20**項涵蓋建造業、物業管理、醫療界、製造業、運輸業、零售業等嶄新5G方案及應用,展覽獲逾**50**家本港公私營機構支持;生產力局並成為全港唯一研發機構雲集四大本地電訊營運商、涵蓋3個不同頻帶的5G基站,鋭意為工商業界提供全面的5G測試服務平台。
- 生產力局轄下的汽車科技研發中心(APAS) 研發香港首個5G遙距自動駕駛汽車應 用,利用5G網絡低時延和高速傳輸的優點,遠程駕駛者可觀看由車輛發送的實時 路面高清影像,實現安全可靠的遙距駕駛。
- 生產力局研發的「**5G遙控機械手臂**」能透 過5G高速網絡,流暢傳送即時影像予遠程 操作員,同時將操作指令傳送到遠端的機 械手臂,工人無需於極端天氣下在戶外工 作。

- → HKPC fully supports the HKSAR Government's "Hong Kong Smart City Blueprint 2.0" and "Hong Kong's Climate Action Plan 2050" and commits to using advanced innovative technologies to promote the green and smart city development in Hong Kong. HKPC makes all efforts to support and promote the research and development (R&D) of green technologies for achieving the carbon neutrality goal of the city by 2050 and that of HKPC by 2040.
- ♦ Fosters the adoption of advanced technologies such as 5G and IoT in the R&D of smart mobility, smart living and robotics, and supports all walks of life and the community to develop and use new smart products to ensure better quality of life.

# ♦ 5G applications:

- Opened in April 2021 and supported by over 50 organisations from both the public and private sectors in Hong Kong, 5G Future Hall showcased over 20 new 5G solutions and applications in its two phases of exhibitions, covering construction, property management, medical, manufacturing, transport and retail solutions. HKPC is the first R&D organisation in Hong Kong to have the 5G base stations for all four local 5G telecommunications operators covering 3 frequency bands, providing enterprises with a comprehensive testing platform for 5G applications.
- HKPC's Automotive Platforms and Application Systems R&D Centre
  (APAS) developed the first 5G tele-driving application in Hong
  Kong for an autonomous vehicle. Utilising the low latency and ultrahigh bandwidth of 5G network, it enables teledriving by real-time highresolution video transmission from the vehicle for a reliable and realistic
  remote driving experience.
- HKPC's 5G remote controlled robotic arm with gesture facilitates fluent live-streaming to remote operator and agile control response with highspeed 5G connection. It can be used for outdoor tasks so that work under adverse weather is no longer required.



#### ◆ 智慧出行:

- 生產力局及APAS與業界緊密合作,研發出中速、快速智能電動車充電系統,另外亦配合政府「電動車普及化路線圖」,為公共交通工具制定充電規格及提供技術支援,推動智慧出行。
- 正積極進行有關數據採集的項目,致力研發能實時更新、協助用家尋找最近的停車場或充電站等技術,便利市民出行。
- 相關研發包括「5G遙距駕駛」、「智能的 士咪錶」、「駕駛睡意偵測助理」、「雷達視 覺」、「智能衝燈警報系統」於「2022年日內 瓦國際發明展」獲獎。

# ◆ 機械人及人工智能應用:

- 與路政署合作研發「第二代智能機械臂系統」,每次可連續2公里於高速道路上放置及收回超過200個交通圓筒和100個危險警告燈,減低道路工人的工時及發生意外的風險。
- 與土木工程拓展署及安誠-邁進聯營合作研發「智能隧道質量檢測系統」,是首個採用無人機搭載人工智能處理技術的隧道檢測系統,提升隧道檢測安全。
- 以上機械人及人工智能應用研發均於「2022 年日內瓦國際發明展」獲得殊榮。

#### 綠色科技:

- 「堆填區垃圾滲濾液嶄新化學處理方法」能 有效地將垃圾滲濾液中超過95%色度和60% 難降解有機物去除,大幅減少下游城市污 水廠之處理壓力。此嶄新技術已完成實驗 室及中試階段,現將於香港一個大型堆填 區興建全球首個同類處理系統。
- 「香燭除煙器」及「低煙冥鏹」旨在以創新技術降低傳統宗教儀式對空氣質素造成的影響;其中「低煙冥鏹」內含回收無機填料及助燃劑,燃燒速度加快40%,能顯著減少在燃燒時釋放的煙塵及降低20%熱能,並減輕對化寶爐的損耗。這項物料技術也能應用於其他以焚燒方式處置的紙料,減少二氧化碳的排放。
- 「創新分散式廚餘回收系統」對廚餘進行源頭預先處理,方便後續系統將其轉化成再生能源及動物飼料,令不同種類的廚餘都能有效回收。生產力局已與聯合研發的聯誼工程(國際控股)有限公司簽署技術授權協議,將技術商品化,並在創新及科技基金支援下,由當中的可自動將廚餘液化成漿液的「廚餘再生俠」處理系統進行測試,效果理想,大大簡化廚餘回收,藉此進一步推動此研發日後廣泛應用於本地食肆、商場及屋苑等。

#### Smart mobility:

- Working closely with the industry, HKPC and APAS developed smart fast or medium charging systems for electric vehicles (EVs), and supported the Government's "Hong Kong Roadmap on Popularisation of Electric Vehicles" to formulate charging specifications and provide technical support for public transportation.
- Actively collecting data for developing technologies that can perform realtime update to assist users in finding the nearest parking lot or charging station.
- Related R&D projects including "5G Remote Driving Control", "Smart Taxi Metering System", "Drowsiness-Fighter", "Radar Vision" and "Red Light Violation Prediction System using Image Processing" won awards in the 2022 Geneva International Exhibition of Inventions.

#### Al & robotics applications:

- Developed "Roadbot 2" with Highways Department which can place and collect over 200 traffic cones and 100 warning lanterns, hence fencing off up to 2km of highways in every single operation, with a view to lowering the risk exposed by road workers.
- Developed "35 Tunnel Defect Inspector" with Civil Engineering and Development Department and Hyder-Meinhardt Joint Venture, the first tunnel inspection system based on drone and on-board Al processing technologies to enhance safety of tunnel inspection.
- All these Al & robotics projects won awards in the 2022 Geneva International Exhibition of Inventions.

#### GreenTech:

- "Novel Chemical Treatment Process for Landfill Leachate" effectively removes more than 95% of the colour intensity and 60% non-biodegradable organics from landfill leachate, greatly reducing the pressure of downstream urban sewage plants. This novel chemical treatment process has both the laboratory and pilot stages completed. The world's first treatment system of its kind will be built at a large landfill site in Hong Kong.
- "Smoke Remover for Chinese Incense and Candle Burning" and "Smokeless Joss Paper" are innovative technologies for reducing the impact of traditional religious ceremonies on air quality. Consisting of recycled inorganic fillers and combustion accelerants, "Smokeless Joss Paper" burns 40% faster with 20% less heat energy released to the environment, while greatly reducing smoke and dust and causing less deterioration to the joss paper furnace. This material technology can also be applied to other paper products that are disposed of by combustion, reducing carbon dioxide emissions.
- "Novel Distributed System for Local Recycling of Food Waste" allows different kinds of food waste to be pretreated at source for easy generation into renewable energy and animal feeds at a later stage. HKPC had signed a technology licensing agreement with joint development partner AEL International Holdings Ltd to commercialise the technology. Supported by the Innovation and Technology Fund, the pilot run of "Food TranSmarter" (part of the system for liquefying food waste into slurry automatically) had enjoyed success, fostering a wider application in local restaurants, shopping arcades and residential estates to offer a greatly simplified food waste recycling solution for the community.

- 「延長鮮食保質期冷電漿滅菌系統」是一種非加熱型物理的滅菌方式,無須加入任何防腐劑,便可延長食品保質期達100-300%,提升食品安全並減少食品因腐壞而棄置的廚餘問題。
- 以上綠色科技研發均於「2022年日內瓦國際發明展」獲得殊榮。
- 為一間在安徽滁州地區新建的大型高科技零部件工廠,設計了一套每日處理量可達6,000噸的「先進的工業廢水處理及回用技術」,現階段已完成每日處理量3,000噸系統的安裝及調試。經該套系統產生的回用水排放至工廠超純水系統,直接用於生產線,回用率接近60%。

#### 健康科技:

- 與香港中文大學合作研發「近視風險因素 監測智能眼鏡」,旨在監測兒童的觀看習慣 及近視風險因素,從而減慢兒童近視加深 的速度。
- 與機電工程署及威迪科技有限公司合作研發「智能無線護士站呼叫系統」,能夠確保在醫院環境內遠距離穩定傳輸訊號。
- 與 澳 科 環 球 有 限 公 司 合 作 研 發 「KetoMetrics 高性能減脂管理解決方案」 透過測量呼吸酮濃度,監察人體的減脂速率,從而協助減肥人士規劃健康飲食。
- 與保心安藥廠有限公司合作研發「首創智能傳統中成藥 GMP生產規範的包裝系統」,能精確地模擬繁雜的手工包裝工序並兼容多種不同尺寸的包裝物料,傳承百年品牌的包裝外觀,不僅人均生產力提升300%,更能滿足複雜和嚴格的中成藥 GMP驗證要求。
- 「適用於食品及保健食品的高效率高壓萃取 技術」提高保健食品中生物活性物質及有 效成份的提取率。
- 以上健康科技研發均於「2022年日內瓦國際發明展」獲得殊榮。

## ◆ 樂齡科技:

- 積極推動樂齡科技,邀請社聯出席兩場「5G新世代樂齡科技應用參觀及分享會」, 讓同工們了解最新配合5G的樂齡科技應用 方案。
- 生產力局研發的「樂齡護理監察系統」能有效地為護理院舍實時監察長者的身體狀況,該系統於康城松山府邸(院舍暨日間中心)的首階段試用已於2021年12月完成,反應理想,我們正優化這套系統以供其他院舍試用。

- "Cold Plasma Disinfection System for Extending Shelf Life of Fresh Food" is a non-destructive physical disinfection process which can effectively extend shelf life of food by 100-300% without adding any preservatives, enhancing food safety and reducing food waste due to spoilage.
- All these GreenTech projects won awards in the 2022 Geneva International Exhibition of Inventions.
- Designed the "Advanced Industrial Wastewater Treatment and Recycling System" for a new and large high-tech parts factory in Chuzhou, Anhui with a daily processing capacity of 6,000 tonnes. A system with a daily processing capacity of 3,000 tonnes has completed the installation and commissioning at the current stage. The recycled water generated by this system is discharged to the factory's ultra pure water treatment system and used directly in the production line. The recycling rate is nearly 60%.

#### HealthTech:

- Developed "MY-O-Analyzer" with The Chinese University of Hong Kong for children to monitor their viewing habits and myopia risk factors, thus slowing down children's myopia progression.
- Developed "Smart Wireless Nurse-call System" with Electrical and Mechanical Services Department and Weltek Technologies Co. Ltd. to ensure steady and long range signal transmission in hospital environment.
- Developed "KetoMetrics High Performance Fat Loss Management Solution" with AusMed Global Limited, a breath ketone analyser providing precise ketone measures to monitor rate of fat loss and assist overweight people in planning healthy diets.
- Developed "An Intelligent System for Complicated Packaging of Traditional Chinese Medicinal Oil in Compliance with GMP" with Po Sum On Medicine Factory Limited to imitate the cumbersome handcraft packaging technique precisely, which suits the diverse kinds of packaging requirements in terms of materials and sizing and complies with strict GMP regulatory requirements. The per capita productivity has increased by 300% while retaining its century-old packaging and appearance.
- Developed "Highly Efficient High Pressure Extraction System for Food and Healthy Food" to enable the extraction of bioactive compounds with high yield from a range of healthy food.
- All these HealthTech projects won awards in the 2022 Geneva International Exhibition of Inventions.

#### GeronTech:

- Actively promoted the development of Gerontechnology (GeronTech) and invited representatives of the HKCSS to two sessions of "5G Future Gerontechnology Application Tour and Sharing Seminar" to learn about the latest 5G GeronTech applications.
- Developed the "Smart Elderly Health Care Monitoring System" for real-time monitoring of the physical conditions of elderly home residents had been on a successful preliminary trial at Pine Villa, LOHAS Park. The trial was completed in December 2021 and we are optimising the system for conducting further trials in other elderly homes.





# 相關政府綠色資助:

- 回收基金為業界提供支援,以促進本港回 收再造業的可持續發展。年內,此項總額 達港幣20億元的基金共批出97個申請項 目,資助總額約港幣6千8百萬元;並於 2022年3月推出「一次性前線回收業員工資 助計劃」,向前線回收業員工提供財政支 援,以肯定他們自第五波新冠病毒疫情爆 發以來的盡心服務。
- 清潔生產伙伴計劃自2008年推出至2022年3 月底,已批出4,279個申請項目及活動,資 助額超過港幣 2億7千5百萬元。累計批出 632個示範項目,每年可節省能源2,788太 焦耳,合共為區內減少超過15,087公噸空 氣污染物及320萬公噸污水排放。而今期 伙伴計劃自去年6月推出至2022年3月底, 共批出429個申請項目及活動,資助額約 港幣7千2百萬元。
- 智慧交通基金旨在資助本地機構或企業進行創新科技研究和應用,以便利出行、提升道路網絡或路面使用效率和改善駕駛安全。至2022年3月底,計劃共批出14宗申請,獲批申請涉及總資助額超過港幣8千萬元。
- 第三方物流服務供應商資助先導計劃旨在 資助物流業透過科技應用提升效率及生產 力。至2022年3月底,計劃共批出118宗申 請,獲批申請涉及總資助額超過港幣7千萬 元。

## Related green funding schemes by the Government:

- Recycling Fund facilitates the upgrading of the operational capabilities of the recycling industry for sustainable development. During the year, around HK\$68 million was approved for 97 projects under the HK\$2 billion Fund. A new scheme namely One-off Frontline Recycling Staff Support Scheme (OFRSS) was introduced in March 2022 to provide financial support to the frontline staff of the recycling business in recognition of their anti-epidemic efforts since the outbreak of the fifth wave of the COVID-19 epidemic.
- Cleaner Production Partnership Programme had approved over HK\$275 million for 4,279 projects and activities between its launch in 2008 and end March 2022. The 632 approved demonstration projects contributed to annual energy savings of 2,788 tera-joules, and reduction of air pollutant emissions of over 15,087 tonnes and effluent discharges of 3.2 million tonnes. Since the launch of the current phase of the programme in June 2021 to end March 2022, a total of 429 applications and activities had been approved, with a funding amount of approximately HK\$72 million.
- Smart Traffic Fund aims to provide funding support to local organisations or enterprises for conducting research and application of innovation and technology (I&T) with the objectives of enhancing commuting convenience, enhancing the efficiency of the road network or road space, and improving driving safety. As of end March 2022, the programme approved 14 applications involving funding of over HK\$80 million.
- Pilot Subsidy Scheme for Third-party Logistics Service Providers
  aims to encourage the adoption of technology by the logistics sector
  for enhancing efficiency and productivity. As of end March 2022, the
  programme approved 118 applications involving funding of over HK\$70
  million.



# 大灣區 Greater Bay Area

- ◆ 與清華大學自動化系及清華珠三角研究院 三方合作的「香港智能自動化技術應用聯 合研究中心」已正式啟用。雖受持續疫情 影響,三方依然展開了四個項目的合作, 包括基於外骨骼機器人的資料獲取系統; 智能排產計劃;建基於數位孿生、多模態 識別及AR技術的遠端虛擬機器人操作及維 護系統;設備故障診斷及預測性健康管理 系統。聯合研究中心將持續面向智能製造 共性技術問題,開發創新的解決方案,支 援企業發展智能製造和先進製造。
- ◆ 2021年10月起輪任為「粵港澳大灣區生產 力促進服務聯盟」理事長單位,為期三 年,夥拍大灣區多家機構與學府,提升大 灣區企業綜合競爭力,與中小企共襄大灣 區創科發展,以全力配合《國家「十四五」 規劃》大灣區國際科技創新中心建設。
- ◆ 位於福田的深圳創新及技術中心正組建一 支數據分析團隊,充分利用大灣區豐富的 科研人才庫,協助研發工作。
- ◆「在莞港資企業升級轉型輔導計劃」年內共 計協助完成8家在莞企業的轉型升級(基本 評估4家、專項輔導4家)。
- ◆「生產力局大灣區未來人才發展中心」年內舉辦了國際認證課程如瑞士商學院工商管理博士課程;營運大灣區知創企業家網絡;為工商業界舉辦如跨境營商、智能製造等不同主題的知創企業家公益論壇,以及企業培訓服務、考察團服務等活動,服務參加者超過700人,並與行業專家及各界商協會等超過100個單位合作。

- ♦ Jointly launched the Hong Kong Joint Research Lab for Application of Intelligent Automation Technology with Department of Automation of Tsinghua University and the Research Institute of Tsinghua, Pearl River Delta. Although affected by the ongoing epidemic, the three parties still collaborated on four research projects, including data acquisition system based on exoskeleton robot; intelligent production scheduling plan; remote virtual robot operation and maintenance system based on digital twin, multimodal recognition and AR technology; and fault diagnosis and predictive health management systems. The joint lab will continue to develop innovative solutions for generic technical problems of smart manufacturing, and support enterprises to develop smart and advanced manufacturing.
- Rotating as the chairing organisation of the Guangdong-Hong Kong-Macao Greater Bay Area Productivity Promotion Service Alliance for a term of three years starting from October 2021, partnering with GBA institutes and schools to join hands with SMEs to boost the overall competitiveness of GBA enterprises and promote I&T development in the GBA, in full support of the country's 14<sup>th</sup> Five-Year Plan to develop GBA as an international I&T hub.
- HKPC Shenzhen Innovation and Technology Centre in Futian is setting up a data analytics team, tapping the extensive GBA talent pool to assist in our R&D works.
- Our Dongguan TURN programme assisted 8 enterprises located in Dongguan to transform and upgrade (Basic assessment – 4 companies, Designated consultation – 4 companies).
- During the year, the HKPC GBA FutureSkills Centre organised internationally-recognised courses such as the Doctoral of Business Administration programme of SBS Swiss Business School; operated the GBA InnoPreneur Network; held GBA InnoPreneur Forums with various themes such as cross-border business and intelligent manufacturing for the industrial and commercial sectors; and organised corporate trainings and tours, serving over 700 people and collaborated with over 100 industry experts and business associations.





# 未來技能 FutureSkills

- ◆ 於2021年4月至5月進行了《香港未來工作與技能》問卷調查,訪問了本港逾600名僱主及在職人士對於混合辦公模式及職場數碼技能的看法,調查結果獲傳媒廣泛引用。
- ◆ 生產力局根據調查結果制訂了「未來技能 FutureSkills」框架,涵蓋從科技知識到溝通與 管理的14個主題,透過培訓讓不同年齡層及行 業的人士掌握在未來工作成功的必要技能。
- ◆ 與民航處合作推行先導計劃,敲定小型無人機培訓綱要和考核準則,以配合民航處推出的小型無人機「進階訓練機構計劃」。計劃自2021年7月開展至2022年3月底,舉辦了18個相關課程,共297人參與。

# ◆ 生產力學院:

- 年內舉辦了533個「未來技能FutureSkills」 收費培訓課程及156個免費課程,共30,193 人參加,範疇涵蓋環境科技、資訊科技、 管理系統及製造技術。
- 2022年3月疫情嚴峻時開放**免費網上學習平台**,課程涵蓋炙手可熱的嶄新科技應用及 最新顧客服務趨勢等,讓中小企員工在家 抗疫,同時裝備「未來技能」。
- ◆ 首辦「未來職場趨勢及FutureSkills科技」研討 會,吸引超過100位本地人力資源專才及業內 人士參加。
- ◆ STEM(科學、技術、工程和數學)教育亦是「未來技能FutureSkills」其中一個重要主題,生產力局疫下依然不遺餘力推廣STEM教育,與創科界及教育界協力以不同形式舉辦逾百場STEM活動,聯繫了超過5,300名師生及多所STEM教育機構,並服務超過100間中小學,期望能提高社會大眾對STEM科目的興趣,掌握數碼技能以提升競爭力,迎接未來新趨勢。



- Conducted The Future of Work & Skills Survey between April and May 2021, interviewing over 600 local employers and employees for their views on hybrid work and digital skills at work. The results were widely quoted by the mass media.
- The FutureSkills Framework with 14 key areas from technological knowledge to communication and management was defined according to the survey results, enabling people of all ages and industries to acquire essential skills through training for success in the future workplace.
- Collaborated with the Civil Aviation Department (CAD) on a pilot scheme to validate the training syllabus and assessment criteria of small unmanned aircraft (SUA) to facilitate the Small Unmanned Aircraft Advanced Training Organisation Scheme (SUA ATO Scheme) announced by the CAD. Since its launch in July 2021 to end March 2022, 18 courses had been organised with a total of 297 participants.

## HKPC Academy:

- Delivered 533 fee-charging FutureSkills training programmes and 156 non-fee-charging courses with 30,193 participants, covering topics in Environmental Technologies, Information Technologies, Management Systems and Manufacturing Technologies in the year under review.
- Opened its Online Learning Platform for free in March 2022 in view of the hardship brought upon to the SMEs under the epidemic, enabling SME employees to learn and upskill while at home. Programmes cover the hottest new technology applications and new trends in customer service.
- Held its first Future of Work & Tech Experience Day attracting over 100 human resources (HR) professionals and industry practitioners.
- ♦ STEM (science, technology, engineering and mathematics) education is one of the key areas of FutureSkills. HKPC continued its relentless promotion of STEM education despite the epidemic. It held over a hundred of STEM activities of various types with the I&T and education sectors, liaised with over 5,300 teachers and students and a number of STEM education partners, and serviced over 100 primary and secondary schools in order to raise public interest of STEM subjects, and help them master digital skills through training to enhance competitiveness and embrace future new trends.



## ◆ 知創空間:

- 年內舉辦了108場以初創及STEM教育為主題的活動,包括不同類型的STEM工作坊、導師培訓及親子培訓工作坊系列。STEM課程涵蓋人工智能、物聯網、機械人、航空和無人機及編程教育等,當中有12個更是網上課程,以支援學生在疫情期間繼續吸取STEM知識。
- 年內舉辦了33場機器操作及安全培訓。
- 主辦年度活動TechEd科技教學展。該活動與香港教育工作者聯會及香港物聯網協會協辦,共24間 STEM 教育機構、本地學校及6間科技企業參與,當中主題論壇以「未來技能與教育」為題,聚焦嶄新概念「元宇宙」對未來STEM教育的衝擊。場內更設有多個展覽攤位、體驗區和創意工作坊,展出最新的智慧校園科技及應用方案。
- ◆ 帶領來自超過70間學校的逾500名學生於1小時內集體編程以人形、車形、無人機形等機械人呈現多種動作,成功創下「機械人集體編程」健力士世界紀錄。活動旨在激發年青人對機械人科學及科技應用的興趣,掌握計算思維及編程技巧,促進本地創科人才發展。
- ◆ 夏季、冬季及其他與創科有關的實習計劃提供 職場實戰及學習機會,為超過90個大專生加入 科研行列鋪路。
- ◆ 舉辦「Smarter Talent Gala」招聘日,為希望投身創科界別的人才開啟入行大門,吸引超過 200人出席,反應熱烈。

## Inno Space:

- Hosted 108 activities on startups and STEM education, including STEM public workshops, Train the Trainer and Parent-Child webinar series. STEM topics such as Al, IoT, robotics, aviation, drones and coding education were covered, among which 12 were conducted online to support students' continuous learning during the pandemic.
- 33 sessions of machine and safety training were held over the year.
- Organised signature event TechEd Mini-Expo in collaboration with the
  Hong Kong Federation of Education Workers and IOT HK Association with
  24 STEM education partners, local schools and 6 l&T enterprises to feature
  "FutureSkills in Education", especially the impact of "Metaverse" on future
  STEM education. The event also included exhibition booths, experience
  zones and creative workshops to showcase the latest smart campus
  technology and application solutions.
- Led over 500 students from over 70 schools to simultaneously programme robots including humanoid robots, vehicles, and drones to perform various actions within one hour, setting a new Guinness World Record on Mass Robot Programming. The event aimed to stimulate young people's interest in robotic science and technology applications, help them master computational thinking and programming skills, and thus contribute to the development of local innovative talents.
- Summer, winter and other internship programmes provided real-life experience and learning opportunities for more than 90 tertiary students, paving the road for their engagement in technology R&D.
- ♦ Held the Smarter Talent Gala recruitment day to open the door for those yearning to pursue a career in the I&T, attracting over 200 talents with an overwhelming response.



# 中小企及初創企業支援 SME & Startup Support

- 中小企資援組不時舉辦及參與外展活動,包括 走訪商會、商業組織、共享工作空間及工商大 廈,以及專責協助中小企配對合適的資助計劃 方案,解答申請疑難;年內共舉辦及參與56項 外展活動、2場展覽會和18場研討會,並處理 超過4,700項查詢。
- ◆ 中小企一站通「一站式」支援香港中小企及初創 企業持續發展及提升競爭力。
  - 於2021年4月起推出專為中小企和初創公司而設的「知創企業家網絡」(InnoPreneur Network)O2O(線上線下)交流平台,定期舉辦線上線下活動如「聚匯」、研討會等,就最新營商資訊、科技升級轉型及政府資助計劃等方面,提供便捷和適切的支援。
  - 全年度合共錄得超過7,000人次參與線上線下活動;並處理約130項有關申請資助、 業務發展及技術支援相關的查詢。
- ◆ 舉辦年度重點活動ForeSight智瞻2022,為本地中小企捕捉來年發展大趨勢,四場論壇雲集17位政商創科名人,吸引超過12,000人次線上線下參與,並同步直播至大灣區供觀眾收看。
- ◆ 與工業貿易署舉辦2021政府資助基金博覽+,為中小企和業界提供適切的支援,了解各項政府資助計劃。三天展期共吸引近14,000人次線上線下參與,提供逾300場半小時「一對一」免費諮詢服務及收到約6,000項有關資助基金查詢。
- ◆ 與運輸及房屋局(現為運輸及物流局)舉辦物流 科技博覽,共設29個展覽攤位,幫助本地物流 中小企掌握行業的最新科技趨勢並善用政府資 助,吸引約300人參觀。
- 2021年6月獲委任為科技券計劃秘書處,至2022年3月底,計劃共批出6,299宗申請,獲批申請涉及的總資助額約港幣9億7千萬元,以資助本地企業/機構使用科技服務和方案,以提高生產力或將業務流程升級轉型,從而長遠加強競爭力。



- ♦ SME ReachOut has organised and participated in outreach events from time to time, including visits to various chambers, business organisations, coworking spaces and industrial and commercial buildings; and helps SMEs identify funding schemes and handle application inquiries. SME ReachOut has organised and participated in 56 outreach activities, 2 exhibitions and 18 seminars, and answered over 4,700 inquiries over the year.
- SME One strives to facilitate local SMEs and Startups to sustain their businesses' competitiveness.
  - Launched **InnoPreneur Network**, a new O2O (online-to-offline) one-stop SME and startup platform in April 2021 to provide timely assistance and comprehensive information on market insights, technology transformation and government funding schemes through a range of virtual and physical events such as "MeetUp" and seminars.
  - Captured over 7,000 participants online and offline, and handled 130 enquiries on funding schemes, business development and technical support.
- Organised signature event ForeSight 2022 to help local SMEs capture major development trends in the year ahead. The four thematic forums gathered 17 political, business and innovation and technology heavyweights, capturing over 12,000 participants online and offline with live broadcast to the GBA.
- Organised 2021 Fund Fair PLUS with the Trade and Industry Department to provide prompt support to SMEs and industries and introduce various government funding schemes to them. The three-day event attracted around 14,000 visitors online and offline, and offered over 300 half-an-hour one-onone free consultation services and received around 6,000 enquiries on funding schemes.
- Organised LOGTECH Expo with the Transport and Housing Bureau (now the Transport and Logistics Bureau) to keep local logistics SMEs abreast of the latest technological trends of the sector and to make better use of government funding. The event was supported by 29 exhibitors and attracted around 300 participants.
- Acted as the secretariat of the **Technology Voucher Programme** which aims to subsidise local entities on the use of technological services and solutions to improve productivity, or upgrade or transform their business processes, in order to enhance long-term competitiveness. From June 2021 to end March 2022, the Programme approved **6,299** applications involving funding of around **HK\$0.97** billion.

- ◆ 中醫藥發展基金旨在促進中醫界和中藥界的發展,並分為「企業支援計劃」和「行業支援計劃」兩個資助範疇,以惠及不同層面的從業員和機構。年內,此項總額達港幣5億元的基金共批出2,178個申請項目,資助總額超過港幣3千9百萬元。
- ◆ BUD專項基金自2021年7月起分階段推出新一輪優化措施,包括擴大資助地域範圍至涵蓋所有與香港簽署促進和保護投資協定(「投資協定」)的經濟體及增加每家企業的累計資助上限至600萬元。截至2022年3月底,專項基金已批出4,469個內地和自貿及投資協定計劃項目,總資助額超過港幣24億9千萬元。
- ◆ 專利申請資助計劃旨在鼓勵本地公司及發明者 藉申請專利以保障其智慧成果,並把成果轉 化為其資產。年內,計劃共批出港幣3千50萬 元,涉及122個項目。

- Chinese Medicine Development Fund aims to promote the development of the Chinese medicine sector and Chinese medicine drug industry, benefiting the industry at different levels through its Enterprise Support Programme and Industry Support Programme. During the year, more than HK\$39 million was approved for 2,178 projects under the HK\$500 million Fund.
- ♦ BUD Fund launched a new round of enhancement measures by phases starting from July 2021, including an extension of the geographical coverage to include all economies with which Hong Kong has signed Investment Promotion and Protection Agreements ("IPPAs") and increasing the cumulative funding ceiling per enterprise to \$6 million. As of end March 2022, BUD Fund granted over HK\$2.49 billion and 4,469 projects to both the Mainland and FTA & IPPA Programmes.
- Patent Application Grant (PAG) aims to assist local companies and inventors to capitalise on their intellectual works through patent registrations. During the year, HK\$30.5 million were granted for 122 projects.







# 擔任政府資助基金秘書處 Secretariat for Government Funding Schemes

- ◆ 中醫藥發展基金
- ◆ 清潔生產伙伴計劃
- ♦ 發展品牌、升級轉型及拓展內銷市場的專項基金
- ◆ 遙距營商計劃(已於2020年10月31日截止申請)
- ◆ 綠色就業計劃:大專畢業生資助項目(2021年度申請於2021年9月30日截止)
- ◆ 本地口罩生產資助計劃(已於2020年4月24日截止申請)
- ◆ 專利申請資助計劃
- ◆ 第三方物流服務供應商資助先導計劃
- 回收基金
- ◆ 零售業人力需求管理科技應用支援計劃(已於2021 年4月1日截止申請)
- ◆ 智慧交通基金
- 科技券計劃

- Chinese Medicine Development Fund
- Cleaner Production Partnership Programme
- Dedicated Fund on Branding, Upgrading and Domestic Sales
- Distance Business Programme (Application closed on 31 October 2020)
- Green Employment Scheme: Graduates Subsidy Programme (Application for Year 2021 closed on 30 September 2021)
- Local Mask Production Subsidy Scheme (Application closed on 24 April 2020)
- Patent Application Grant
- Pilot Subsidy Scheme for Third-party Logistics Service Providers
- Recycling Fund
- Retail Technology Adoption Assistance Scheme for Manpower Demand Management (Application closed on 1 April 2021)
- Smart Traffic Fund
- Technology Voucher Programme









# 同心抗疫 Concerted Efforts to Fight COVID-19

- ◆ 生產力局科研成果「零排放可換電池低地台電 動車」改裝為**疫苗接種「健康車」**,自2022年3月 初起加入前線抗疫行列,為各區市民服務。
- ◆ 疫情下為中小企提供生產力局指定服務50%費用寬減。
- ◆ 積極配合政府的疫苗接種計劃及「疫苗通行證」 安排,保障社會健康。員工除可獲每針一天疫 苗假期或補假,亦同時推出「關愛家人疫苗假期」,鼓勵員工陪伴家人接種疫苗。
- 研發多款適用於不同場景的智能服務機械人, 例如客戶服務機械人、前線醫療服務機械人、 消毒機械人等,疫情期間在港鐵站、醫院等服 務,為社會大眾提供適時支援,不但可避免人 與人直接接觸,更可解決因員工染疫而導致人 手不足的問題。
- ◆ 政府於2020年疫情嚴峻時適時推出「本地口罩生產資助計劃」,生產力局擔任此計劃的秘書處,為20條本地口罩生產線提供資金援助。截至2021年6月,所有獲資助口罩生產線的供應期已完結,計劃合共為政府供應了4億6千9百萬個口罩。除了作為這項計劃的秘書處,生產力局亦在計劃以外為52條本地口罩生產線提供機器調試的技術支援。
- ◆ 擔任遙距營商計劃秘書處,旨在資助企業於疫情期間採用資訊科技方案,維持營運和提供服務。至2022年3月底,計劃批出並獲申請人接納的申請達25,745宗,涉及的總資助額約港幣16億8千萬元。

- One of HKPC's R&D projects, the Zero Emission Low Platform Electric Vehicle with Swappable Battery Function was converted into "VaxMobile" and joined the frontline anti-epidemic ranks since early March 2022.
- Offered 50% concession to SMEs under the epidemic for selected HKPC services.
- Fully supported the government's vaccination programme and the Vaccine Pass arrangement to safeguard public health. Special day-off arrangement was announced for staff members to accompany family members receiving jabs, as well as paid leaves for staff receiving vaccines.
- Developed various types of Intelligent Service Robots such as customer service robots, frontline medical service robots and disinfection robots to perform duties at MTR stations, hospitals and various scenarios, providing timely support to the community amid the pandemic by reducing direct contact between people and solving the challenges of manpower shortage due to staff infection.
- ◆ The HKSAR Government timely introduced the Local Mask Production Subsidy Scheme in 2020 following the COVID-19 outbreak. HKPC is the secretariat of the Scheme to subsidise 20 local mask production lines. The supply periods of all these subsidised production lines had ended by June 2021. The whole Scheme contributed to the supply of 469 million masks to the Government. Apart from the role as the Secretariat, HKPC also provided outside the Scheme technical support on machine testing and commissioning for 52 local mask production lines.
- Act as the secretariat of the **Distance Business Programme** which aims to provide funding support for enterprises to continue business and services during the pandemic through IT solutions. As of end March 2022, the programme approved **25,745** applications which were accepted by the applicants, involving funding of around **HK\$1.68 billion**.



# 策略合作 Strategic Collaborations

- ◆ 與聯誼工程(國際控股)有限公司簽署技術授權 協議,將與生產力局共同研發的「廚餘全面轉 化系統」商品化。
- ◆ 與清華大學自動化系及清華珠三角研究院三方 合作的「香港智能自動化技術應用聯合研究中 心」於年內正式啟用。
- ◆ 成為 Grow with Google 香港合作夥伴,透過旗下生產力學院推出與Google 設計的 Grow with Google 全球數碼培訓課程,為首間本地機構同時提供 Grow with Google 中的 YouTube Creator Academy 及 Google Cloud 線上課程。自2021年7月至2022年3月底,共舉辦了4個課程,約500人參與。
- ◆ 與港大 渣打香港150週年慈善基金金融科技學院、數碼港合作展開一項金融科技人才研究, 冀為香港金融服務業提供指引,擴展金融科技 人才庫。
- ◆ 簽署多項諒解備忘錄:
  - 與職業訓練局承諾共同培育香港新一代創 科人才,並提供職場培訓及實習機會。自 2021年12月開展合作至2022年3月底,共**5** 位來自職業訓練局轄下院校的實習生於生 產力局實習。
  - 與澳洲 Australian Cyber Emergency Response Team (AUSCERT)於網絡安全事故應變及處 理方面展開合作。
- ◆ 簽署多項合作框架協議:
  - 與山東淄博市科學技術局共同加強科技創新。
  - 與深圳數據交易有限公司建立跨境數據流 通試點。
  - 與珠西創谷(江門)科技園有限公司簽訂 「江港企業發展中心」及「江港澳科技轉移 中心」合作。
  - 與武漢華中數控股份有限公司(華中數控) 簽訂「工業4.0智能製造技術轉移」市場推 廣、人才培訓、工業4.0專案推行諮詢及顧 問服務協定。
  - 與廣州鐵路職業技術學院、華中數控、中 德技術有限公司開展校政企合作,致力構 建政校企高技能人才培養平台,開創實踐 專業資格考核認證與互認,助大灣區企業 提升專業知識和技能。

- Signed a technology licensing agreement with AEL (International Holdings) Limited to commercialise "Food Waste Total Recycling System", a joint innovation by HKPC and AEL.
- The "Hong Kong Joint Research Lab for Application of Intelligent Automation Technology", established with Department of Automation of Tsinghua University and the Research Institute of Tsinghua, Pearl River Delta, was opened during the year.
- Became a partner of Grow with Google in Hong Kong to launch the Grow with Google global digital training courses designed by Google through HKPC Academy. HKPC is the first local organisation to offer both YouTube Creator Academy and Google Cloud online courses. From July 2021 to end March 2022, 4 courses were organised with around 500 participants.
- Established a partnership with The University of Hong Kong Standard Chartered Hong Kong 150<sup>th</sup> Anniversary Community Foundation FinTech Academy and Cyberport to conduct a FinTech Talent Study to provide guidance for financial services industry to enhance the FinTech talent pool.
- Signed Memorandum of Understanding (MOUs) with:
  - The Vocational Training Council (VTC) to jointly nurture a new generation of I&T talent in Hong Kong through on-the-job training and internship opportunities. Since the collaboration started in December 2021 to end March 2022, **5** interns from VTC's institutions had on-the-job training at HKPC
  - The Australian Cyber Emergency Response Team (AUSCERT) to collaborate on cyber security incident response and handling.
- Signed collaboration framework agreements with:
  - Zibo Municipal Science and Technology Bureau of Shandong Province to strengthen technological innovation.
  - Shenzhen Data Exchange for a testing project for cross-border data transfer.
  - Pearl River West InnoValley Limited (Jiangmen) to co-establish Jiangmen-Hong Kong enterprise development centre and Jiangmen-Hong Kong-Macao technology transfer centre.
  - HuazhongCNC of Wuhan for the collaboration on "Industry 4.0 Intelligent Manufacturing Technology Transfer", offering marketing, talent training and i4.0 project consultation.
  - Guangzhou Railway Polytechnic, HuazhongCNC and CG Tech Corp Limited to build a high-skilled talent training platform for the Government, schools and enterprises and establish practical professional qualification assessment and mutual recognition, helping enterprises in the GBA to improve their major knowledge and skills.





生產力局 2021/22 **HKPC Attaining** 





HKPC Attaining Record High of 38 Awards at 2022 Geneva International Exhibition of Inventions 生產力局於「2022年日內瓦國際發明展」

獲獎歷屆最多

勇奪38項殊榮

評審團嘉許金獎 **Gold Medal with Congratulations of Jury SMART PATCH** 

# Gold Medal 金獎

Novel Chemical Treatment Process for Landfill Leachate Side Seam Topstitching Machine 堆填區垃圾滲濾液嶄新化學處理方法



Roadbot 2 第二代智能機械臂系統



Super Lightweight Magnesium-Lithium Alloy 超輕鎂鋰合金材料



自動側縫壓線縫紉機

Hong Kong Awards for Industries 2021-22 香港工業獎 2021-22

**Equipment and Machinery Design Award Certificate of Merit** 設備及機械設計優異證書



**Multi-stage Plasma Polishing of Metallic Object** 多段式等離子抛光技術



Multi-Metallic Sheet Accumulative Roll Bonding and Stamping Technologies 多種金屬板材累積疊軋與沖壓技術



# 銀獎

# Silver Medal

- Al Master 人工智能師傅
- Smart Taxi Metering System 智能的士咪錶



Smoke Remover for Chinese Incense and Candle Burning 香燭除煙器



- Smokeless Joss Paper 低煙冥鏹
- Novel Distributed System for Local Recycling of Food Waste 創新分散式廚餘回收系統
- Cold Plasma Disinfection System for Extending Shelf Life of Fresh Food 延長鮮食保質期冷電漿滅菌系統



MY-O-Analyzer (My-Optical-Analyzer) 近視風險因素監測智能眼鏡



35 Tunnel Defect Inspector 智能隧道質量檢測系統



Automatic Multifunctional Road Maintenance Robot

多功能自動道路維修機械人



- Smart Wireless Nurse-call System 智能無線護士站呼叫系統
- KetoMetrics High Performance Fat Loss Management Solution KetoMetrics 高性能減脂管理解決方案
- Al for Metal Fracture Analysis System 人工智能金屬製品表面缺陷檢測系統
- Advanced Dual Laser Polishing 先進雙重激光混合打磨



Low Temperature Metal-Plastic Overmoulding Technology 低溫金屬 - 塑膠包覆成型技術



- Refill Friction Stir Spot Welding Technologies for Dissimilar Materials 異種材料回填式攪拌摩擦焊接技術
- Robolift a platform for robots for working in multi-storey buildings 機械人升降機通用平台



FitEasy - AI Assisted Virtual Fitting Mobile App for People with Reduced Mobility
人工智能輔助虛擬試衣流動應用程式



Fast Heat Dissipation and Low Thermal Expansion Aluminum-Silicon-Graphite Composite 高導熱、低膨脹鋁 - 矽 - 石墨複合材料



Intelligent Foam Removal Robot 智能污水除泡機器人

# 銅獎

## **Bronze Medal**





- Drowsiness-Fighter 駕駛睡意偵測助理
- Red Light Violation Prediction System Using Image Processing 智能衝燈警報系統
- Radar Vision 雷達視覺
- An Intelligent System for Complicated Packaging of Traditional Chinese Medicinal Oil in Compliance with GMP

合乎中成藥 GMP 規範的智能包裝系統

- Highly Efficient High Pressure Extraction System for Food and Healthy Food 適用於食品及保健食品的高效率高壓萃取技術
- An Intelligent Fine Chinese Tea Practitioner Robot 智能精品茶藝機械人
- 3D Cap Logo Printer 帽子 Logo 三維列印系統
- The Universal Elgorithm: A Vision-based Al Algorithm for Robot-Elevator Interaction 通用機械人與電梯互動運算法
- Smart Egg Waffle Making System 自動化雞蛋仔生產線 Hong Kong Institution of Engineers (HKIE) MIS Industry Award 2021 2021 年香港工程師學會製造、工業及系統工業獎 Bronze Award (Reindustrialisation) 銅獎(再工業化)
- Digital Lean Analyser 數碼化精益分析器
- Photosensitive Antimicrobial Coating 光敏抗菌塗層

# 年度剪影 The Year in Pictures





85個本地及海外殊榮 85 Local and Overseas Accolades

5G新世代應用展館 **5G Future Hall** 



智瞻 2022 Foresight 2022



以先進製造成就「香港製造」 Fostering "Made in Hong Kong" with **Advanced Manufacturing** 



香港電腦保安事故協調中心(HKCERT)與國際刑警組織及 香港警察展開「碩將行動」,淨化香港網絡環境 Joint operation "Attenuator" by HKCERT, Interpol and Hong Kong Police Force to clean up Hong Kong's network environment



中小企資援組: 2021 政府資助基金博覽 + SME ReachOut - 2021 Fund Fair PLUS



「未來職場趨勢及 Future Skills 科技」研討會 **Future of Work & Tech Experience Day** 



夏季實習計劃 **Summer Internship** 



香港再工業化研究 Reindustrialisation Study – Hong Kong



生產力局多款智能服務機械人協助執行前線抗疫任務 HKPC's Intelligent Service Robots Supporting Frontline Staff to Fight COVID-19



締造「機械人集體編程」健力士世界紀錄 Guinness World Record on Mass Robot Programming



獲委任推行小型無人機「進階訓練機構計劃」先導計劃 HKPC Collaborated on the Pilot Scheme for Small Unmanned Aircraft Advanced Training Organisation Scheme



「Smarter Talent Gala 」招聘日 Smarter Talent Gala



TechEd 科技教學展 TechEd Mini-Expo



與職業訓練局簽署諒解備忘錄, 共同培育新一代創科人才 Signed MOU with VTC to jointly nurture a new generation of I&T talent



冬季實習計劃 Winter Internship





1967 年成立的法定機構,專業知識涵蓋不同範疇 A multi-disciplinary organisation established by statute in 1967





# 願景 Vision

成為科技創新、技術應用和價值創造的賦能者及 促進者,為社會、經濟和環境提供綜合支援,全 面促進香港成為國際創新科技中心。

To be the key enabler and catalyst of innovation, applied technology and value creation, delivering social, economic and environmental impact for bolstering Hong Kong as the international innovation and technology hub.

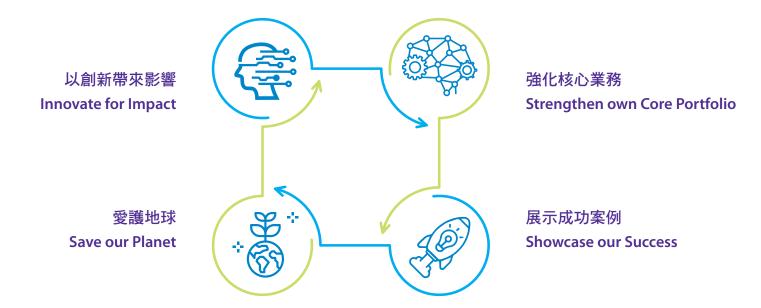


# 使命 Mission

致力推動技術以提升香港 企業生產力。

Relentlessly drive technologies to enhance productivity of Hong Kong enterprises.

# 發展方向 Strategic Direction



# 經費來源 How We Are Funded

生產力局約三成經費來自政府年度一筆過的 撥款資助,其餘約七成的收入主要來自各類 收費服務、政府資助的應用研發項目及工商 業支援項目。 The HKSAR Government provides us with an annual grant that accounts for approximately 30% of our income. The other 70% is generated by various fee-charging services, competitive government-funded applied R&D programmes, and industry support initiatives.

# 技術轉移 Technology Transfer

積極與本地工商界及世界級研發機構合作, 開發應用技術方案,為產業創優增值。透過 產品創新和技術轉移,成功推出多種由市場 主導的專利技術,發掘本地和海外市場在授 權和技術轉移服務中的龐大商機,致力讓科 研落地。 HKPC partners and collaborates with local industries and enterprises and worldclass R&D institutes to develop applied technology solutions for value creation. It also benefits a variety of sectors through product innovation and technology transfer, with commercialisation of multiple market-driven patents and technologies, bringing enormous opportunities abound for licensing and technology transfer, both locally and internationally.



2019 新型冠狀病毒疫情席捲全球,至今仍然對社會和各經濟體系帶來深遠的影響,香港亦難於倖免。在過去一年的財政年度,各行各業仍然受到疫情肆虐所帶來的影響困擾,導致周邊的環境出現各種轉變,促使我們以更先進、更創新、更合時的科技為中小企創優增值,將科研成果落地,為企業進一步提升生產力「成就智上」。

While COVID-19 has continued to sweep across societies and economies worldwide, Hong Kong is no exception. Every sector is still impacted by the pandemic in the past financial year. As the pandemic unfolds and reshapes the world around us, it is more important than ever that HKPC stands firm in its commitment to turning ideas into practical applications, yielding higher productivity for Hong Kong enterprises through our advanced innovation and technologies to "Make Smart Smarter".

承接去年採取的抗疫措施,生產力局在這個充滿 挑戰的時期,再加強對中小企的支援,並推出更 多措施幫助企業渡過難關。

此外,數十年來「香港製造」一直是深受信賴的優質標誌,亦讓我們引以為傲。香港在發展高增值先進製造方面前景明朗,特別在2022年初《北部都會區發展策略》公佈後,業界勢將擁有充足的發展空間,並匯萃精英人才。我們期待為業界提供更多支援,共同把握這個令人振奮的機遇,推動香港發展成為國際創科中心,正如我們一直協助眾多企業建立具備先進技術的智能生產線。

儘管 2019 新型冠狀病毒病造成的破壞帶來許多挑戰,我們在 2021-22 財政年度仍取得不少令人鼓舞的成果:

- 各項主要績效指標 (KPIs) 順利達標;
- 大灣區業務總收入增長13%,成績斐然;
- 90%以上的技術項目已應用於工業項目;
- 獲得破紀錄的85項本地及國際殊榮;
- 逾22億港元經本局協助處理的政府資助已發放予申請人。

Further to the anti-pandemic measures we adopted in the previous year, HKPC has dedicated and given even stronger support to SMEs in this challenging time with additional measures to help enterprises get through hard times.

"Made in Hong Kong" has been a trusted mark of quality and what we are proud of for decades. Hong Kong sees a bright future in developing advanced manufacturing for high value-added production, especially after the promulgation of the "Northern Metropolis Development Strategy" in early 2022 which will offer ample room for development and become a cluster of industry talents. We look forward to providing more industry support for capitalising on this exciting opportunity to foster Hong Kong's growth into an international innovation and technology (I&T) hub, just like how we assisted numerous enterprises in setting up intelligent production lines with advanced technologies.

While the disruption caused by the COVID-19 pandemic has brought many challenges, we have still witnessed some very encouraging results in the financial year of 2021-22:

- The targets of all the Key Performance Indicators (KPIs) have been met;
- The aggregate income derived from the Greater Bay Area (GBA) has seen impressive growth of 13%
- More than 90% of our technical projects have been applied in industrial projects;
- HKPC has received a record-breaking 85 local and international accolades;
- Over HK\$2.2 billion of approved Government funding handled by HKPC has been disbursed to applicants.

在社會期望不斷提高的環境下,本局堅守良好的 企業管治,這對於我們達成對公眾的使命甚至超 越持份者的期望至關重要。本著這種精神,生產 力局修訂了理事會成員的行為守則,以進一步在 理事會提倡良好的企業管治常規。

在企業管治方面,我很高興地向各位報告:生產 力局理事會於 2021 年 11 月獲頒 2021 年度傑出 董事獎及董事會多元化卓越嘉許。這兩個獎項是 對各理事會成員在新常態下追求優秀企業管治的 肯定。生產力局也很榮幸成為獲頒獎項的法定/ 非分配利潤組織類別的唯一得獎者。

一如過往 55 年,生產力局憑藉獨特的專業知識和經驗,率先推動行業智能化、豐富創科人才庫,及協助中小企獲取資源以利用創科提升生產力和競爭力。回顧這個充滿挑戰的財政年度,本局繼續專注以下六個重要工作範疇:

- 先進製造
- 再工業化:香港製造
- 智慧及綠色生活科技
- 未來技能
- 數碼化與網絡安全
- 中小企及初創企業支援

展望未來,生產力局將繼續勇往直前、敢於創新、 追求卓越。我們將繼續為中小企創造價值,讓他們 的夢想成真;同樣重要的是,我們將致力讓「香港 製造」品牌發光發亮,讓香港人引以自豪。

最後,我衷心感謝各理事會成員、香港特別行政 區政府、生產力局所有同事,及業界夥伴和專業 人士在過去一年給予本局的大力支持和信任。在 努力為我們的社區帶來改變的同時,我們期待著 迎接一個更健康、更繁榮、更具智慧的世界。 In an environment where society's expectations are increasing, HKPC maintains its unwavering commitment to a good corporate governance which is essential to accomplishing its public missions or even exceeding the expectations of its stakeholders. In this spirit, HKPC has revised the Code of Conduct for the Council Members in an effort to further advocate good corporate governance practices in the Council.

Talking about corporate governance, I am pleased that the Council of HKPC obtained the Directors of the Year Awards 2021 and Special Recognition of Excellence in Board Diversity in November 2021. The twin awards represent an unswerving recognition of the concerted efforts of all the Council Members in the pursuit of good corporate governance amid the New Normal. HKPC is also proud to be the only awardee in the Statutory/Non-profit-distributing Organisations category among the award recipients.

As in the past 55 years, with our unique expertise and experience, HKPC has pioneered in making the industry smarter, enriching the I&T talent pool, and helping SMEs obtain resources to adopt I&T to enhance productivity and competitiveness. In the financial year under review, HKPC furthered its focus on innovation to impact six key areas in the tough and challenging times:

- Advanced Manufacturing
- Reindustrialisation: Made in Hong Kong
- Smart & Green Living Technology
- FutureSkills
- Digitalisation & Cyber Security
- SME and Startup Support

Going forward, HKPC will remain bold and proactive in pursuing innovation and excellence. We will continue to deliver values to SMEs and make their dreams become practical. What is equally important is that we will strive to make the "Made in Hong Kong" brand a shining jewel and pride for Hong Kong.

Last but not least, I would like to extend my heartfelt thanks to all Council Members, the HKSAR Government, colleagues of HKPC and fellow industry partners and professionals for their staunch support and trust over the past year. We are looking forward to a healthy, more prosperous and smarter world in the years to come, as we strive to make a difference for our communities.

主席 **林宣武**, GBS, JP **Willy Lin**, GBS, JP Chairman

# 主席 Chairman

# 林宣武, GBS, JP **Mr Willy Lin Sun-mo**, GBS, JP

美羅針織廠(國際)有限公司董事總經理 Managing Director, Milo's Knitwear (International) Ltd.

# 副主席 Deputy Chairman

# 黃志光

# Mr Patrick Wong Chi-kwong

退休 Retired

# 成員

Members

# 陳允誠 Mr Bryant Chan Wan-sing

永勤有限公司總裁

President, Wynnewood Corp Ltd.

#### 陳婉珊, MH Ms Clara Chan Yuen-shan, MH

利記控股有限公司行政總裁

Chief Executive Officer, Lee Kee Holdings Ltd.

# 陳偉聰 Mr Ricky Chan Wai-chung

精美汽車工業有限公司行政總裁

Chief Executive Officer, Jing Mei Automotive Ltd.

#### 鄭浩維 Mr Brian Cheng Ho-wai

Generation Hong Kong 行政總裁

Chief Executive Officer, Generation Hong Kong

## 徐晉暉, JP Mr Marvin Hsu Tsun-fai, JP

大華安全系統有限公司董事

Director, Diaward Electronic Security Systems Ltd.

# 郭敏宜 Ms Mandy Kwok Man-yee

退休

Retired

#### 劉敏儀 Ms Vivien Lau Man-yee

怡中航空服務有限公司及怡中機場地勤服務有限公司 行政總裁

Chief Executive, Jardine Airport Services Ltd. & Jardine Air Terminal Services Ltd.

## 梁頌恩, MH Ms Juan Leung Chung-yan, MH

香港工會聯合會副理事長

Vice-Chairman, The Hong Kong Federation of Trade Unions

# 潘志威 Mr Bernard Poon Che-wai

安永企業財務服務有限公司戰略與交易諮詢合伙人 Partner, Strategy and Transactions, Ernst & Young Transactions Ltd.

## 潘偉賢 Ir Paul Poon Wai-yin

中電學院校長

Vice Chancellor, CLP Power Academy

#### 譚金蓮 Ms Jenny Tam Kam-lin

港九勞工社團聯會副主席

Vice Chairman, Federation of Hong Kong and Kowloon Labour Unions

# 譚嘉因, MH, JP Prof Tam Kar-yan, MH, JP

香港科技大學工商管理學院院長

Dean of School of Business and Management, The Hong Kong University of Science and Technology

## 陳祖恒 Hon Sunny Tan

立法會議員

Legislative Council Member

# 唐智強, GBS Mr Donald Tong Chi-keung, GBS

職業訓練局執行幹事

Executive Director, Vocational Training Council

# 楊嘉燕 Ms Karmen Yeung Ka-yin

畢馬威會計師事務所合夥人

Partner, KPMG

## 于健安, BBS, JP Mr Emil Yu Chen-on, BBS, JP

啟東電線電纜有限公司總經理

Director and General Manager, Keystone Electric Wire & Cable Co. Ltd.

# 政府官員 Public Officers

蔡淑嫻,」P Ms Annie Choi Suk-han,」P

創新及科技局常任秘書長

Permanent Secretary for Innovation and Technology

潘婷婷, JP Ms Rebecca Pun Ting-ting, JP

創新科技署署長

Commissioner for Innovation and Technology

盧世雄、JP Mr Brian Lo Sai-hung, JP

工業貿易署署長

Director-General of Trade and Industry

歐錫熊, JP Mr Andrew Au Sik-hung, JP

政府經濟顧問

Government Economist

何錦標,」P Mr Raymond Ho Kam-biu,」P

勞工處副處長(勞工事務行政)

Deputy Commissioner for Labour (Labour Administration)

# 成員變動情況 (2022年1月1日生效)

Membership Changes (Effective Date 1 January 2022)

#### 新任成員 New Members

陳偉聰

Mr Ricky Chan Wai-chung

鄭浩維

Mr Brian Cheng Ho-wai

潘志威

Mr Bernard Poon Che-wai

譚金蓮

Ms Jenny Tam Kam-lin

唐智強,GBS

Mr Donald Tong Chi-keung, GBS

# 離任成員 Outgoing Members

莊子雄

Mr Steve Chuang Tzu-hsiung

馮英偉,MH

Mr Wilson Fung Ying-wai, мн

李秀琼

Ms Amy Lee Sau-king

李凱 於 2021 年 9 月 21 日辭任

Mr Li Hoi Resigned on 21 September 2021

尤曾家麗,GBS,JP

Mrs Carrie Yau Tsang Ka-lai, GBS, JP

# 核數師 Auditor

香港立信德豪會計師事務所有限公司 BDO Limited

# 法律顧問 Legal Adviser

鴻鵠律師事務所

Bird & Bird

的近律師行

Deacons

截至 2022 年 3 月 31 日 As at 31 March 2022



在 2019 新型冠狀病毒病疫情的陰霾下,剛過去的財政年度仍然 充滿挑戰。儘管我們面對重重困難,生產力局仍堅定不移支持香港 業界,並繼續努力推動技術發展,致力提高業界生產力和營運效率。

The past financial year has continued to be a challenging year under the shadow of the COVID-19 pandemic. Despite the headwinds prevailing around us, HKPC remains steadfast in our commitment to supporting Hong Kong industries, constantly driving technologies with a view to enhancing productivity and operational efficiency.

在此非常時期,我們整合更多資源支援員工和社區。我們協助中小企於新常態下開拓新機遇的措施及方案包括:使用本局指定服務半價寬減、設立讓本地企業/僱員在家中仍可提升技能的免費網上學習平台,以及推出囊括不同數碼轉型方案、極具成本效益的「中小企數碼化入門方案包」。

此外,我們還為員工提供接種疫苗特別假期及在家工作安排,並提供全面的資訊科技支援。其他措施包括為員工提供免費快速抗原檢測試劑和口罩,以及設置消毒機械人,時刻保持局內環境清潔衛生。疫情期間,我們各場地設施均嚴守政府的疫苗通行證政策,以確保公眾健康和安全。

We have also gathered up our support for our staff and the community during the challenging times. Initiatives and measures catered for the SMEs to open up new opportunities in the New Normal include half price concession on selected HKPC services, free online learning platform for HK enterprises/employees to upskill while at home and "Digital Transformation Starter Kit" with cost-effective packages of selected IT solutions.

Measures catered for our staff include special leave for taking vaccination and work-from-home arrangement with full IT support. Other measures include the provision of free Rapid Antigen Test kits and masks for staff, as well as having disinfection robots in place to keep the environment hygienic and clean. Throughout the pandemic, our venues adhere to the Government's Vaccine Pass Policy to ensure public health and safety.

回顧此財政年度,本局確立並專注發展以下四大目標:

#### 以創新帶來影響

創新一直是本局的核心願景和使命。我們繼續在 六個關鍵領域取得進展,為員工、客戶及社區創 建更智能化的未來和價值。

本局透過推廣工業4.0先進技術,加強工業生產及 營運上的創新科技應用,以提升生產力及產品質 素,推動香港先進製造的長遠發展。創新技術轉 型無疑有助解決中小企的一些業務痛點。他們需 要的不一定是強如火箭般的高端科技,反而是能 夠解決他們當前問題的具體技術知識與策略。

在「再工業化」方面,本局與港大經管學院合作進行《香港再工業化研究》,以探討工業4.0 在香港的潛力,並於2021年11月公布主要研究結果,重點關注食品科技、健康科技及綠色科技三大行業。該報告有助社會了解香港再工業化的現時發展及相關支援。本局今年已成功協助多家企業建設智能生產線,例如:「廚房壹號」的食品生產線,以及成為再工業化資助計劃(RFS)下首個獲批最高資助額的Nanoshields智能靜電紡絲生產線項目。本局將繼續推動香港高增值產業的發展,讓「香港製造」品牌在國際舞台上大放異彩。

# 展示成功案例

在研發成果方面,我們很自豪地報告,整體而言,我們90%以上的技術項目已應用於工業項目。同樣引以為傲的是,我們的零排放可換電池低地台電動車改裝成流動疫苗接種「健康車」(VaxMobile),協助對抗第五波疫情。「健康車」靈活且移動性強,可迅速於香港不同地點提供疫苗接種外展服務。

我們的創新研發再次在國際舞台上揚威,於「2022年日內瓦國際發明展」中,共38項創新研發項目獲得嘉許,創下香港最佳成績。其中,「SMART PATCH」更奪得最高榮譽「評審團嘉許金獎」殊榮。它是高科技的5G物聯網設備,讓廠商能夠以最小的投入來為新舊設備增添智能元素,並已獲來自不同行業的客戶在其智能生產線中使用。

## 愛護地球

本局高度重視智慧城市發展,致力讓社區變得 更智能及更環保。我們以產品生命週期思維(life cycle perspective)出發,期望達至 2040 年實現碳 In the financial year under review, HKPC has identified and focused on the following four goals and objectives:

#### **Innovate for Impact**

Innovation has always been a core theme in HKPC's vision and mission. We have continued to build on our progress on six key areas to create a smarter future and value for employees, clients and the community.

HKPC endeavours to facilitate advanced manufacturing in Hong Kong in the long run by fostering innovative use of technologies in industrial production and operation to enhance productivity and product quality with the adoption of i4.0. Such transformation certainly helps solve the pain points SMEs have come across in their business. Rocket science may not be the best solution in some cases, all they need are some specific strategies with technical knowhow to resolve their issues.

On Reindustrialisation, HKPC, in collaboration with the HKU Business School, conducted the "Reindustrialisation Study – Hong Kong" to explore the potential of i4.0 in Hong Kong, and presented the key findings in November 2021 with focus on three industries: Food Technology (FoodTech), Health Technology (HealthTech) and Green Technology (GreenTech). The report assisted the community to understand the current reindustrialisation development in Hong Kong and identify related support available. For HKPC this year, we successfully assisted a number of enterprises in implementing intelligent production lines, such as the FoodTech application for CK One, and the Nanoshields intelligent electrospinning production lines project which was the first one with maximum funding approved under the Re-industrialisation Funding Scheme (RFS). HKPC will continue to promote the development of high value-added industries in Hong Kong and make "Made in Hong Kong" brand shine on the international stage.

## **Showcase our Success**

On R&D achievements, we are proud to report that overall speaking, more than 90% of our technical projects have been applied to industrial projects. We are also proud to have converted our Zero Emission Low Platform Electric Vehicle with Swappable Battery Function into "VaxMobile", a mobile vaccination station to help combat the fifth wave of the COVID-19 epidemic. Flexible and highly mobile, "VaxMobile" quickly provided vaccination outreach services to different locations in Hong Kong.

Our R&D innovations have once again shone on the international stage and won a record high of 38 accolades at the 2022 Geneva International Exhibition of Inventions, the best results for Hong Kong. Among the honours, "SMART PATCH" won the top accolade of Gold Medal with Congratulations of Jury. A high-tech 5G IoT application, it provides intelligence to new and old machines with minimal effort and has been adopted by a number of our customers in their intelligent production lines across industries.

#### **Save our Planet**

HKPC attaches high importance on Smart City development, striving to help our community become smarter and greener. We have set a target to become carbon

中和的目標。我們也努力不懈,致力向行業參與 者推廣環境、社會及管治 (ESG),透過創新思維協 助他們為客戶實踐 ESG。

我們亦有多項綠色研發於日內瓦獲獎,包括堆填區垃圾滲濾液嶄新化學處理方法、香燭除煙器、智能污水除泡機器人,以及創新分散式廚餘回收系統。本局的「綠色科技館」於2022年5月開幕,展示最新的綠色科技和創新方案。

#### 強化核心業務

在新常態下,數碼化和網絡安全變得比以往任何時候都更加重要。在這方面,除了前述的「中小企數碼化入門方案包」,本局轄下的香港電腦保安事故協調中心(HKCERT)也一直積極向公眾發放與網絡安全相關的信息、提供防禦指引及各種實用的安全建議。

本局深明培育未來人才至關重要,藉此在數碼時代搶佔先機。在建立本地人才庫方面,本局透過「未來技能」(FutureSkills) 培訓課程及STEM(科學、技術、工程和數學)教育大力支持各年齡層的發展,旨在強化本地創科人才庫。過去一年,超過15,000名學員參加了生產力學院的培訓課程。我們亦舉辦了「TechEd科技教學展」,聯繫本地的STEM 同儕。最值得一提的是,我們與500多名學生一起締造「機械人集體編程」健力士世界紀錄!

我們繼續強化本局的核心使命,為中小企提供支援。年內舉辦的「ForeSight智瞻2022」論壇,讓中小企掌握新常態下的各項趨勢。「2021政府資助基金博覽+」活動亦反應熱烈,共吸引近14,000人次參與,提供逾300場半小時「一對一」免費諮詢服務,收到約6,000項有關資助基金的查詢。今年「知創企業家網絡」(InnoPreneur Network)的成立,則擴大了「中小企一站通」(SME One) 在技術應用和數碼化轉型方面對中小企的支援。

本局並擔任12項政府資助計劃的秘書處。為進一步加強我們對中小企的核心服務,我們於2021年舉辦了「Voice of Customer」活動,向360多家企業(其中93%為中小企)徵集意見,以進一步改善資助計劃的相關服務。我們將推出一站式線上資助申請網站,鼓勵及方便中小企進一步善用政府資助,讓其業務得到更長遠的發展。

neutral by 2040 by embracing life cycle perspective. We have also been working relentlessly on the promotion of Environment, Social and Governance (ESG) to industry players, delivering innovations which enable their clients to achieve ESG.

Some of the award-winning green projects garnered at Geneva include: Chemical Treatment Process for Landfill Leachate, Smoke Remover for Chinese Incense, Intelligent Foam Removal Robot and Food Waste Total Recycling System. Our Green Hall launched in May 2022 showcases the latest green technologies and innovative solutions.

## Strengthen Own Core Portfolio

Digitalisation and cyber security have become more vital than ever under the New Normal. On this front, apart from the aforementioned Digital Transformation Starter Kit, our HKCERT has also been actively distributing security-related information, preparing guidelines and various practical security advice for the public.

HKPC recognises the importance of nurturing future talents to stay ahead of the competition in the digital age. In building a local talent pool, HKPC has dedicated strong support on the development of all ages via FutureSkills training programmes and STEM education, aiming to enrich the local I&T pool of talents. Over 15,000 participants have joined the HKPC Academy's training programmes in the past year. A TechEd Mini-Expo has been held to line up STEM counterparts in Hong Kong. And, most remarkably, we had set a Guinness World Record on Mass Robot Programming with a group of 500+ students!

We continued to strengthen our core mission of providing support to SMEs. "ForeSight 2022" has been organised for SMEs to grasp the New Normal trends. The "2021 Fund Fair PLUS" received an overwhelming response with an attendance of 14,000 people. Over 300 half-an-hour one-on-one free consultation services were provided and around 6,000 enquiries on funding schemes had been received. InnoPreneur Network has been established to help extend SME One's support to SMEs in technology adoption and digital transformation.

HKPC has also acted as the secretariat for 12 Government Funding Schemes. To further strengthen our core services for SMEs, a "Voice of Customer" (VOC) programme has been held in 2021 which helped solicit views from over 360 enterprises (of which 93% were SMEs) for further improvement of our funding-related services. A one-stop online portal facilitated funding applications will be introduced, to encourage SMEs to leverage government funding resources more easily to maximise their businesses.

#### 大灣區

大灣區是中國經濟發展的重要引擎和創科的溫床。自2021年10月起,本局輪任為「粵港澳大灣區生產力促進服務聯盟」(下稱「聯盟」)理事長單位。作為聯盟的理事長,我將努力深化大灣區創新服務的交流與合作,搭建聯盟成員與中小企間的溝通橋樑,以提升大灣區企業的整體競爭力。我們一直透過生產力局大灣區未來人才發展中心,提供「FutureSkills」培訓課程,為大灣區培育人才。

生產力局歡迎政府《北部都會區發展策略》下支持 創科發展的措施,我們將與政府緊密合作,推動 作為策略一部份的創科發展,特別是重點發展香 港具優勢的產業,如科研、先進製造及生命健康 科學等領域,促進香港融入國家發展大局及把握 大灣區的發展機遇。我們正積極研究在港深創新 及科技園成立生產力局分部及相關科技研發基地。

我們相信,中小企可以從小做起,再逐步變大做強,生產力局可助他們成就夢想。我們重視每一家中小企,並將繼續透過我們舉辦的「HKPC集思匯」(HK-INC) 收集業界聲音,包括中藥、半導體、氫能等行業。我們希望透過提供有效的技術解決方案和卓越技術,滿足中小企的未來需求,為中小企創造價值並釋放潛能。

本局支持政府自2022年7月起將創新及科技局更名為創新科技及工業局,不但有助推動再工業化政策,亦有助先進製造業長遠植根香港,令香港發展成為國家《十四五規劃綱要》支持下的國際創新科技中心。

最後,我要感謝所有同事的貢獻、努力和堅持, 尤其在疫情下的困難時期。隨著對病毒認識的增加,以及疫苗和新藥物的突破,社會應可望重拾朝氣,為香港帶來更富活力和更多樣化的發展。 我們期待新一年有更豐碩的成果,並見證更多優秀的中小企實現他們的目標。

總裁 **畢堅文** , MH

## **Greater Bay Area**

The Greater Bay Area (GBA) is a key driver of China's economic development as well as hotbed for innovations. Since October 2021, HKPC has been rotating as the chairing organisation of the Guangdong-HongKong-Macao Greater Bay Area Productivity Promotion Service Alliance. As President of the Alliance, I will endeavour to deepen the exchange and cooperation of innovative services in the GBA, enhancing communications among alliance members and SMEs and boosting the overall competitiveness of GBA enterprises. Through the HKPC GBA FutureSkills Centre, we have been providing FutureSkills training programmes to nurture talent in GBA.

HKPC welcomes the initiatives announced by the Government regarding the support on I&T development under the promulgation of the "Northern Metropolis Development Strategy", and will work closely with the Government to promote I&T development under the Development Strategy, particularly in developing Hong Kong's advantageous aspects, such as R&D, advanced manufacturing, and life and health sciences, facilitating Hong Kong to integrate into the overall development of the country and seize the opportunities in the GBA. We will actively explore the feasibility of establishing an HKPC branch office and related R&D centre at the Hong Kong-Shenzhen Innovation and Technology Park.

We believe that SMEs, starting small nonetheless, can dream big and HKPC is here to help their dreams come true. We value every SME, and will keep collecting industries' voices via our Hong Kong Industry Network Clusters (HK-INC), including industries like Chinese medicine, semiconductors, hydrogen, and many others. We want to deliver values to SMEs and help unlock their potential by providing technical solutions with impact and engineering excellence that meet their needs of tomorrow.

HKPC welcomes the retitling of the Innovation and Technology Bureau as the Innovation, Technology and Industry Bureau, with effect from July 2022, to enhance the policy function of reindustrialisation, facilitate the advanced manufacturing to be firmly rooted in Hong Kong in the long run, and grow Hong Kong into an international I&T hub as outlined in the National 14<sup>th</sup> Five-Year Plan.

To wrap up, I would like to thank all my colleagues for their dedication, hard work, and perseverance, especially during the rough times of the pandemic. With increased knowledge of the virus and breakthroughs in the development of vaccines and new medicines, I am hopeful that the society will rebound with renewed vibrancy and versatility. We are looking forward to a fruitful and rewarding year to come, and seeing many SMEs achieve their goals with flying colours.

**Mohamed D. Butt**, MH Executive Director

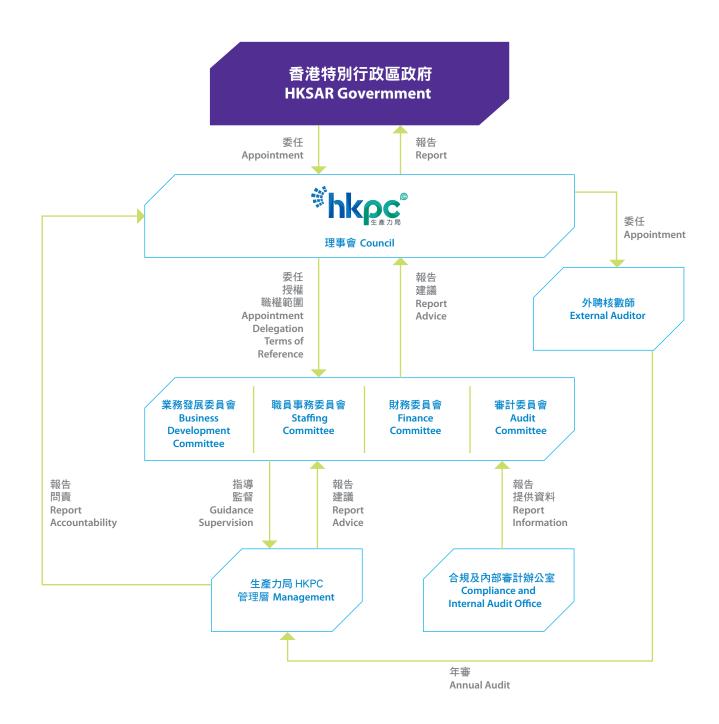


生產力局是受《香港生產力促進局條例》(香港法律第1116章)管轄的法定組織。生產力局致力維持良好企業管治,以履行公眾使命,滿足社會期望。本局極為重視問責、透明度、公平及道德操守,以此作為企業管治架構的基石。

HKPC is a statutory organisation governed by the Hong Kong Productivity Council Ordinance (Chapter 1116 of Laws of Hong Kong). HKPC is fully committed to maintaining good corporate governance as it strongly believes that good corporate governance is essential to accomplishing its public mission and meeting the expectations of its stakeholders. HKPC attaches paramount importance to adopting accountability, transparency, fairness and ethics as the cornerstones of its corporate governance framework.

# 企業管治架構

# **Corporate Governance Structure**



# 理事會

理事會是生產力局的管治組織,為生產力局 履行職能提供策略領導。

理事會成員最多23人,由香港特區政府委任,包括不多於五位政府官員,並於其餘的非官守成員中(包括資方、勞方及專業/學術界代表)委任一位主席及一位副主席。

理事會主席及其他成員均屬非執行性質。在本年度內,理事會召開了三次會議。個別成員的出席紀錄詳列於第44頁。

理事會每年審批生產力局的三年預測、詳盡 的年度計劃及預算及三年策略計劃。

# 理事會成員對財務報告的責任

各理事會成員均明白本身有責任確保本局週 年財務報告的編製,已遵照法例要求及適用 會計準則。

生產力局核數師就本身對生產力局財務報告 審核報告的責任,刊載於獨立核數師報告及 財務報告。

# 理事會委員會

理事會轄下成立了四個委員會,以處理不同 範疇的事務。這四個委員會分別為審計委員 會、財務委員會、職員事務委員會以及業務 發展委員會。各委員會均對理事會負責。

理事會及各委員會的會議紀錄均以不具名方式刊載於生產力局網站(若討論事項涉及敏感或機密商業資料,以及審計委員會會議紀錄則除外)。

# 審計委員會

審計委員會負責在財務報告、風險管理、內部監控,核數師的委任及表現,以及遵從相關法規等方面進行監察並提出建議,提升本局的企業管治水平。審計委員會並獲理事會授權,就責任範圍內的任何相關事項進行調查及協調。職員亦可向審計委員會主席舉報任何違規或不當行為。

本局設有合規及內部審計辦公室支援審計委員會的工作。辦公室向委員會匯報工作進度,而行政上則向總裁匯報。辦公室致力協助委員會保障及促進生產力局的企業管治水平。

審計委員會由一位理事會成員擔任主席,現 時共有七位成員。在本年度內,委員會召開 了三次會議。

# **The Council**

The Council is HKPC's governing body providing strategic leadership in the fulfilment of the organisation's functions.

The Council comprises no more than 23 Members appointed by the HKSAR Government, of whom no more than five shall be public officers. Among the non-official members (who represent management, labour and professional or academic interests), a Chairman and a Deputy Chairman shall be appointed.

The Chairman, and other Members, of the Council are non-executive in nature. In the year under review, the Council convened three meetings. The attendance records of individual members are available on page 44.

On an annual basis, the Council approves HKPC's Three-Year Forecast, the detailed Programme and Estimates of HKPC, and the Three-year Strategic Plan.

# **Council Members' Responsibility for the Financial Statements**

Council Members acknowledge their responsibilities for ensuring that the preparation of the annual financial statements of HKPC is in accordance with statutory requirements and applicable accounting standards.

The statement of the Auditor of HKPC about their reporting responsibilities on the financial statements of HKPC is set out in the Independent Auditor's Report and Financial Statements.

#### **Council's Committees**

Four Committees have been set up under the auspices of the Council, to look after different aspects of Council business: the Audit Committee, the Finance Committee, the Staffing Committee and the Business Development Committee. All the Committees are accountable to the Council.

The minutes of the Council and Committees (except discussion items containing commercially sensitive or confidential information and the minutes of the Audit Committee) are made available on a non-attributable basis on the HKPC website.

#### **Audit Committee**

The Audit Committee has been established to monitor and make recommendations to enhance HKPC's robust corporate governance in financial reporting, risk management, internal control, appointment and performance of the external auditor, and compliance with relevant laws and regulations. The Committee is authorised by the Council to investigate any activity and resolve any disagreement within its scope of duties. Staff members can directly report to the Chairman of the Audit Committee on cases of malpractice or irregularities.

The Committee is underpinned by a Compliance and Internal Audit Office, which reports functionally to the Audit Committee and administratively to the Executive Director. The Office is committed to assisting the Audit Committee to safeguard and promote sound corporate governance of HKPC.

The Audit Committee is chaired by a Council member and currently has seven members. It met three times during the year in review.



# 主席

黃志光

# 委員會成員

徐晉暉,JP

郭敏宜

潘志威

潘偉賢

楊嘉燕

潘婷婷,JP

畢堅文, MH

截至2022年3月31日

截至2022年3月31日

# Chairman

Mr Patrick Wong Chi-kwong

#### **Members**

Mr Marvin Hsu Tsun-fai, JP

Ms Mandy Kwok Man-yee

Mr Bernard Poon Che-wai

Ir Paul Poon Wai-yin

Ms Karmen Yeung Ka-yin

Ms Rebecca Pun Ting-ting, JP

Mr Mohamed D. Butt, мн

As at 31 March 2022

# 財務委員會

財務委員會負責監督本局的財務表現,確保 資金的運用恰當。委員會審批本局有關採 購、大樓管理、固定資產管理、服務收費率 及投資策略和指引等政策及守則的修改。

委員會提交給理事會審議本局的三年預測、 年度計劃及預算,以及主要開支項目的編配 調動。委員會並就本局的財務政策及對本局 有重大財務影響的事宜向理事會提出意見。

財務委員會由一位理事會成員擔任主席,現 有七位成員。在本年度內,委員會召開了三 次會議。

#### 主席

徐晉暉,JP

# 委員會成員

陳允誠

劉敏儀

潘志威

楊嘉燕

歐錫熊,JP

黄文忠

畢堅文, MH

### **Finance Committee**

The Finance Committee monitors the financial performance of HKPC and ensures that funds made available are properly accounted for. The Committee approves changes to HKPC's policies and practices relating to procurement, building management, fixed asset management, charging levels of HKPC's services and investment strategy and guidelines.

The Committee recommends HKPC's three-year forecast, an annual programme and estimates and the transfer of funds between major heads of expenditure, for consideration by the Council. The Committee also advises the Council on matters relating to HKPC's financial policies and matters that have a significant financial impact on HKPC.

The Finance Committee is chaired by a Council member and currently has seven members. It met three times during the year in review.

#### Chairman

Mr Marvin Hsu Tsun-fai. IP

#### **Members**

Mr Bryant Chan Wan-sing

Ms Vivien Lau Man-yee

Mr Bernard Poon Che-wai

Ms Karmen Yeung Ka-yin Mr Andrew Au Sik-hung, JP

Mr Indiana Wong Man-chung

Mr Mohamed D. Butt, MH

As at 31 March 2022

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# 職員事務委員會

職員事務委員會負責審批總經理級的委任。 委員會監督職員人手情況,並在需要時向理 事會提出意見。委員會主要就人力資源發展 政策向理事會提供意見。委員會還負責監察 員工的服務條款及條件,確保能夠聘請及挽 留人才,並於必要時向理事會提出修改建 議。委員會可作為理事會與員工之間有關服 務條款及條件的溝通渠道,尤其在雙方磋商 後仍無法取得共識時,發揮其協調作用。

職員事務委員會由一位理事會成員擔任主 席,現時共有十位成員。在本年度內,委員 會召開了三次會議。

# **Staffing Committee**

The Staffing Committee approves the appointment of General Managers. The Committee monitors the staffing situation and recommends changes to the Council where appropriate. It advises the Council on human resources development policies. The Committee also monitors HKPC's general terms and conditions of service, to ensure that they are adequate to recruit and retain competent staff, and recommends changes to the Council where necessary. The Committee provides a channel between the Council and staff members for the communication of grievances about general terms and conditions of service, in situations where they cannot be resolved by consultation.

The Staffing Committee is chaired by a Council member and currently has ten members. It met three times during the year in review.

# 主席

劉敏儀

# 委員會成員

鄭浩維

郭敏官

梁頌恩,MH

譚金蓮

陳祖恒

唐智強,GBS

黃志光

何錦標,」P

黄文忠

畢堅文,MH

# **Chairlady**

Ms Vivien Lau Man-yee

#### **Members**

Mr Brian Cheng Ho-wai

Ms Mandy Kwok Man-yee

Ms Juan Leung Chung-yan, мн

Ms Jenny Tam Kam-lin

Hon Sunny Tan

Mr Donald Tong Chi-keung, GBS

Mr Patrick Wong Chi-kwong

Mr Raymond Ho Kam-biu, JP

Mr Indiana Wong Man-chung

Mr Mohamed D. Butt, MH

截至 2022 年 3 月 31 日 As at 31 March 2022

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# 業務發展委員會

業務發展委員會就生產力局在工業轉型下應 擔當的角色向理事會建議業務發展方向。委 員會檢討生產力局的業務情況,為生產力局 探討新的業務發展機會,以及提交本局的三 年策略計劃給理事會審批。此外,委員會亦 監督生產力局附屬公司的表現。

業務發展委員會由一位理事會成員擔任主席,現時共有七位成員。在本年度內,委員會召開了三次會議。

# 主席

干健安, BBS, JP

# 委員會成員

陳允誠

陳婉珊, MH

陳偉聰

潘偉賢

譚嘉因, MH, JP

黃文忠

畢堅文,MH

截至2022年3月31日

# 內部監控及風險管理

理事會非常重視維持高水準的企業管治、提 高本身的透明度,並向公眾問責,而外部和 內部審計系統正可實踐此宗旨。

# 外部審計

理事會委任香港立信德豪會計師事務所有限公司為外聘核數師,為本局財務報告進行審計。

除了審查財務報告之外,外聘核數師在加強生產力局的內部監控方面也發揮重要作用。如有需要,外聘核數師會在審計程序開始前,在管理層避席下與審計委員會討論審計的性質和範疇,以及查詢任何事項。外聘核數師致管理層的所有管理建議書以及生產力局管理層的所有回應,均交由審計委員會審閱。

### 內部審計及風險管理

合規及內部審計辦公室由生產力局理事會審 計委員會督導,協助處理生產力局的風險管 理工作。

辦公室致力向營運團隊在尋找及評估潛在的 營運風險方面提出建議,並提出相應的內部 監控措施,以符合企業管治的要求。辦公室 也制定和執行生產力局的審計政策和策略, 以保障其資產,確保符合有關法律、法規,

# **Business Development Committee**

The Business Development Committee advises the Council on the business development of HKPC having regard to HKPC's role in the changing industrial environment. It reviews the business activities of HKPC, explores new business opportunities and recommends the three-year strategic plan of HKPC to the Council. The Committee also monitors the performance of HKPC's subsidiary companies.

The Business Development Committee is chaired by a Council member and currently has seven members. It met three times during the year in review.

#### Chairman

Mr Emil Yu Chen-on, BBS, JP

#### **Members**

Mr Bryant Chan Wan-sing
Ms Clara Chan Yuen-shan, MH
Mr Ricky Chan Wai-chung
Ir Paul Poon Wai-yin
Prof Tam Kar-yan, MH, JP
Mr Indiana Wong Man-chung
Mr Mohamed D. Butt, MH

As at 31 March 2022

# **Internal Control and Risk Management**

The Council considers it is highly important to maintain a high standard of corporate governance and enhance the organisation's transparency and accountability to the public. The external and internal audit systems are instrumental in this regard.

# **External Audit**

The Council has appointed BDO Limited as the external auditor, to conduct an audit of its financial statements.

The external auditor plays an important role in reviewing the financial statements as well as strengthening the internal controls of HKPC. Before an audit commences, the external auditor discusses the nature and scope of the audit with the Audit Committee, if necessary, together with any matters the external auditor may wish to discuss in the absence of management. Any management letter from the external auditor and HKPC management's response will be reviewed by the Audit Committee.

# **Internal Audit and Risk Management**

The Council's Compliance and Internal Audit Office ("CIA") is directed by the Audit Committee of the Council, to assist the management team with the Council's risk management function.

CIA proactively advises operation teams to identify any area of risk in HKPC operations, and proposes appropriate internal control measures in line with the mandates for corporate governance. CIA also formulates and executes an overall audit policy and strategy for the Council to safeguard its assets, ensure compliance with relevant laws and regulations, promote operational efficiency and effectiveness, and ensure the accuracy and reliability of its records.

提高營運效率及效益,務求令文件紀錄準確 可靠。

該辦公室直接向審計委員會匯報,並須在每次 審計委員會會議上,就生產力局不同運作的監 管和合規情況,向委員會報告其審計結果。

在本年度,合規及內部審計辦公室審核了生產力局的運作,涉及生產力局的不同範疇。 有關的年度審計工作計劃,已經過審計委員會審批。

## 內部監控

為確保內部監控制度持之有效,管理層在本 年報期內執行了以下工作:

- 檢討內部監控制度的成效,並透過檢視內 部審計報告的內容,向理事會報告審查結 果和建議;
- 制定年度計劃和預算時,審視各部門的資源;
- 經常審視業務、外部環境和重大風險,作 為制定年度計劃和預算的重要部份;以及
- 連同審計委員會主席會見外聘核數師,並報告於審計委員會會議上所討論的各項監控弱點,以及財務報告的效益和符合規章的情況。

# 透明度

根據《香港生產力促進局條例》的規定,生產力局的年報連同財務報告及核數師報告,均須每年呈交立法會。為提高透明度,生產力局最高兩級管理人員的薪酬,詳列於獨立核數師報告及財務報告的第41頁第20點。

各理事會及委員會成員的出席紀錄詳列於第 44頁。

理事會採用「兩層式」利益申報制度,各成員 必須在上任時及之後,每年申報所擁有的獨 資或合資的公司,或出任董事的公司。成員 如意識到未來的議題中,有任何事項可能涉 及利益衝突,必須在該議題正式商議前盡快 向主席(或理事會)披露。

為進一步加強企業管治,生產力局已參照廉 政公署《公共機構成員行為守則範本》最新版 本制定理事會成員的行為守則,目的是確保 成員在履行職務時明白及遵守生產力局的價 值及行為準則,以保障持份者的利益。

行為守則為成員提供一套基本準則,以供判斷行為是否恰當,並在遇到常見情況時(例如接受利益、款待及可預見的利益衝突等),

The Office reports directly to the Audit Committee. At every Audit Committee meeting, the Office reports to the Committee its findings on the auditing of control sufficiency and the compliance situation for different HKPC operations.

In the year under review, CIA reported the audit results of the operations spanning various aspects of HKPC. The annual audit job plan was reviewed and agreed by the Audit Committee in advance.

# **Internal Control**

To ensure an effective system of internal control is in place, HKPC management performed the following duties during the reporting period:

- Reviewed the effectiveness of the internal control system and reported to the Council through a review of the findings and recommendations, as set out in the reports of the internal audit;
- Reviewed the resources for all divisions during the annual Programme and Estimates exercise;
- Conducted frequent reviews of the business, external environment and major risks as part of the annual Programme and Estimates exercise; and
- Met with external auditor and the Audit Committee Chairman to report on any control weaknesses and the effectiveness of financial reporting and compliance, as discussed during the meeting of the Audit Committee.

# **Transparency**

In accordance with the requirements of the HKPC Ordinance, HKPC's Annual Report, with the financial statements and the auditor's report, is tabled at the Legislative Council each year. To enhance transparency, the annual emoluments of all senior executives in the top two tiers of HKPC management are disclosed under Note 20 to the financial statements on page 41 of the full audited financial statements.

The attendance of Members in Council and Committees is enlisted in detail on page 44.

The Council adopted a two-tier reporting system for declarations of interest by Council Members, who are required to disclose upon the first appointment and annually thereafter, any proprietorships, partnerships or directorships of companies. Members are also required, as soon as practicable after they have become aware of it, to disclose to the Chairman (or the Council) their interest in any matter under consideration by the Council prior to the discussion.

To further enhance governance, a Code of Conduct based on the latest version of the Independent Commission Against Corruption's "Sample of Code of Conduct for Members of Public Bodies" applies to all Council Members. The objective of the Code is to communicate HKPC's values and standards of behaviour to which Members should adhere in the discharge of their duties, so as to protect the stakeholders' interests.

It also provides a framework for determining appropriate actions and making appropriate decisions for situations which Members have commonly encountered, such as advantages and entertainment offered, conflict of interest foreseen, etc. Specifically, the Code of Conduct covers six major categories: Prevention of Bribery,

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作出適當決策。守則涵蓋防止賄賂、接受利益、處理利益衝突、公職人員行為失當、保 密資料及舉報涉嫌違規行為及刑事罪行等六個主要範疇。 Acceptance of Advantages, Managing Conflict of Interest, Misconduct in Public Office, Confidentiality of Information, and Reporting Suspected Irregularities and Criminal Offences.

### 舉報

理事會推行了舉報政策,為公眾提供舉報渠道和指引。若有人懷疑生產力局或任何員工出現違規、行為失當或舞弊的情況,可通過書信或專用電郵地址(whistleblowing@hkpc.org)直接向審計委員會主席舉報,只有獲得審計委員會主席指定的授權者,才可查閱有關電子郵件或書信。在本政策下作出恰當舉報之舉報人會被保護免於遭受不公平解僱、迫害或不當的紀律處分。

審計委員會主席會檢視有關投訴,並決定處理方法,例如提名合適的專員或成立特別委員會,獨立調查事件。

# 工作安全及保安管理

生產力局非常重視職業安全及機構保安,致力為員工及持份者提供安全健康的工作環境。

2022年2月,生產力局繼續獲得ISO45001的認證。與此同時,為持續優化職業安全及健康系統,生產力局不斷建立及檢視各項安全措施以配合營運的最新發展。此外,生產力局因應2019冠狀病毒病疫情狀況,進一步加強各項衛生防疫措施,讓員工可安心工作。

# 人才發展與關愛員工

生產力局致力成為一個學習型機構,培養人才,發揮員工的高績效潛力。

生產力局提供多元化的培訓計劃,並為不同 崗位的員工開拓專業發展的機會。例如,我 們提供香港工程師學會認可的Scheme "A"工 程畢業生培訓計劃,透過全面的在職培訓, 協助員工取得專業工程師資格。我們的專業 培訓能力亦獲國際認可,同時取得澳洲會計 師公會認證為「認可僱主合作夥伴」,以及英 國特許公認會計師公會「專業培訓認可僱主」 認證。兩項認證證明生產力局提供的內部培 訓及人才發展課程達國際級水平。

生產力局致力栽培年青一代,年內舉辦夏季和 冬季實習計劃,為本地及海外大專生締造職場 實戰及學習機會,協助他們日後投身創科行業

### Whistleblowing

The Council has a whistleblowing policy to provide the wider public with reporting channels and guidance on whistleblowing. Persons who have legitimate concerns regarding any irregularity, misconduct or malpractice by the Council or any staff member may raise the matter directly through mail or a dedicated email address (whistleblowing@hkpc.org) to the Audit Committee Chairman. Only persons who are designated by the Audit Committee Chairman will have access to such emails or correspondence. Whistleblowers making appropriate complaints under this policy is assured of protection against unfair dismissal, victimisation or unwarranted disciplinary action.

The Audit Committee Chairman reviews each complaint and decides how it should be addressed. This may involve nominating an appropriate investigating officer or establishing a special committee to conduct an independent investigation into the matter.

# **Safety and Security Governance**

Safety and security remain the priorities of the Council. HKPC is committed to providing and preserving an inherently safe and healthy work environment for all staff and stakeholders.

In February 2022, HKPC was continuously awarded the ISO45001 certification. To persistently enhance the occupational safety and health (OSH) system, HKPC kept formulating and reviewing the safety measures to cope with the latest development in operations. In addition, HKPC further strengthened hygiene standards and anti-pandemic measures in light of the COVID-19 pandemic situation.

#### **Talent Development and Care for Employees**

HKPC strives to become a learning organisation and cultivate employees to unleash their potential to seek high performance.

HKPC offers a wide range of training programmes, as well as professional development opportunities for employees of different disciplines. For example, we offer Scheme "A" training programme accredited by the Hong Kong Institution of Engineers, which provides employees with all-round exposure through on-the-job training, and helps them acquire the qualifications to become professional engineers. HKPC has also received two international accreditations for talent development: the "Recognised Employer Partner" accreditation from CPA Australia and the "Approved Employer Accreditation – Professional Development" from the United Kingdom's Association of Chartered Certified Accountants. These accreditations are proof that HKPC's internal training and talent development programmes are of international standard.

HKPC is committed to nurturing the young generation. Over the year, summer and winter internship programmes were organised to encourage local and overseas tertiary students to engage in technology research and development after graduation. These

打好基礎,為畢業後的就業之路做好準備,同時冀助香港孕育新一代「InnoTalent」,為本港的創科行業注入新動力。

我們亦舉辦「逆向導師計劃」,讓年輕員工與 管理層進行配搭,由前者擔任「導師」,建立 互惠的夥伴關係。透過相互溝通及接觸,年 輕員工向管理層分享新資訊及創新意念,他 們同時亦從管理層身上學習寶貴的企業管理 和領導技巧,開拓視野,彼此在不同範疇上 切磋砥礪。

生產力局致力倡導員工的投入度,以建立具 創意、活力和積極進取的團隊,促進業務發 展。我們舉辦了一系列以體驗式學習為本的 團隊建立活動,著力提升團隊間的合作精 神,加強員工對生產力局的歸屬感。

生產力局鋭意加強內部溝通,鼓勵員工多交流和合作。管理層於員工大會分享公司的策略性業務方向及政策。另舉行總裁與不同職級員工的圓桌會議,建立一個鼓勵互換意見的溝通平台,孕育創新意念並尋找進步空間。

programmes not only provide hands-on experience and learning opportunities for students to equip themselves for a future career, but also groom the new generation of "InnoTalent" and give impetus to Hong Kong's innovation and technology industry.

The Reverse Mentoring programme was also organised with senior executives pairing with and mentored by younger employees to build a mutually beneficial partnership. Through this, mentors shared with senior executives the new trends and innovative ideas. In return, they learned valuable organisational and leadership skills from their mentees and widened their horizons. The partnership helped grow each other on various fronts.

HKPC promotes a staff engagement culture and aims to build an innovative, energetic and highly motivated workforce for the sake of accelerating business development. We organised a range of team building programmes based on experiential learning to foster collaboration and strengthen employees' sense of belonging to HKPC.

HKPC vows to enhance internal communications, encouraging sharing and collaboration among employees. Town Hall meetings were organised to share with all staff the corporate strategic business direction and policy updates. Roundtables were organised between Executive Director and employees at different grades, building a platform for communicating views, inspiring innovation and pursuing improvement.



Council and Standing Committee Meeting Attendance Record

4/2021 – 3/2022		理事會 Council	職員事務 委員會 SC	業務發展 委員會 BDC	財務 委員會 FC	審計 委員會 AC
林宣武先生,GBS,JP	Mr Willy Lin Sun-mo, GBS, JP	3/3				
黄志光先生	Mr Patrick Wong Chi-kwong	3/3	3/3			3/3
陳允誠先生	Mr Bryant Chan Wan-sing	3/3		3/3	3/3	
陳婉珊女士,MH	Ms Clara Chan Yuen-shan, мн	3/3		2/3		
陳偉聰先生 (由 1/1/2022 )	Mr Ricky Chan Wai-chung (from 1/1/2022)	1/1		1/1		
鄭浩維先生 (由 1/1/2022)	Mr Brian Cheng Ho-wai (from 1/1/2022)	1/1	1/1			
莊子雄先生 (至31/12/2021)	Mr Steve Chuang Tzu-hsiung (till 31/12/2021)	2/2		2/2		2/2
馮英偉先生 , MH (至 31/12/2021)	Mr Wilson Fung Ying-wai, мн (till 31/12/2021)	2/2			2/2	
徐晉暉先生,」P	Mr Marvin Hsu Tsun-fai, JP	3/3			3/3	3/3
郭敏宜女士	Ms Mandy Kwok Man-yee	3/3	3/3			3/3
劉敏儀女士	Ms Vivien Lau Man-yee	3/3	3/3		3/3	
李秀琼女士 (至31/12/2021)	Ms Amy Lee Sau-king (till 31/12/2021)	2/2	2/2			
梁頌恩女士,MH	Ms Juan Leung Chung-yan, мн	3/3	3/3			
李凱先生 (至21/9/2021)	Mr Li Hoi (till 21/9/2021)	0/1	1/1			
潘志威先生 (由 1/1/2022)	Mr Bernard Poon Che-wai (from 1/1/2022)	1/1			1/1	1/1
潘偉賢工程師	Ir Paul Poon Wai-yin	3/3		3/3		3/3
譚金蓮女士 (由 1/1/2022)	Ms Jenny Tam Kam-lin (from 1/1/2022)	1/1	1/1			
譚嘉因教授,MH,JP	Prof Tam Kar-yan, мн, лр	2/3		3/3		
陳祖恒議員	Hon Sunny Tan	3/3	3/3			
唐智強先生,GBS(由1/1/2022)	Mr Donald Tong Chi-keung, GBS (from 1/1/2022)	1/1	1/1			
尤曾家麗女士,GBS,JP(至31/12/2021)	Mrs Carrie Yau Tsang Ka-lai, GBS, JP (till 31/12/2021)	2/2	1/2			
楊嘉燕女士	Ms Karmen Yeung Ka-yin	3/3			3/3	3/3
于健安先生,BBS,JP	Mr Emil Yu Chen-on, BBS, JP	3/3		3/3		
創新及科技局常任秘書長或其 候補委員	Permanent Secretary for Innovation and Technology or his/her alternative members	3/3				
創新科技署署長或其候補委員	Commissioner for Innovation and Technology or his/her alternative members	3/3	3/3	3/3	3/3	3/3
工業貿易署署長或其候補委員	Director-General of Trade and Industry or his/her alternative members	3/3				
政府經濟顧問或其候補委員	Government Economist or his/her alternative members	3/3			3/3	
勞工處副處長或其候補委員	Deputy Commissioner for Labour or his/her alternative members	3/3	3/3			
香港生產力促進局總裁	Executive Director of HKPC		3/3	3/3	3/3	3/3

 $SC-Staffing\ Committee,\ BDC-Business\ Development\ Committee,\ FC-Finance\ Committee,\ AC-Audit\ Committee$ 



### 總裁 **Executive Director** 總裁辦公室 智慧生活創新科 數碼科 資助計劃科 **Digital Branch Executive Director Office Living Innovation Funding Scheme Branch** (EDO) (LIB) (DTB) (FSB) 數碼轉型部 中小企資助計劃部 企業拓展部 智慧城市部 Digital Transformation SME Funding Division Corporate Development Smart City Division (SCD) Division (CDD) Division (DTD) (SFD) 汽車科技研發中心 財務及採購部 智能製造部 科技資助計劃部 Automotive Platforms and Finance and Procurement **Smart Manufacturing Division Technology Funding Division** Application Systems R&D Centre Division (FPD) (SMD) (TFD) (APAS) 人力資源及物業設施管理部 綠色生活與創新部 機械人及人工智能部 Human Resources and Facility Green Living and Innovation Robotics and Artificial Management Division (HFD) Divsion (GID) Intelligence Division (RAD) 新世代企業及技能發展部 理事會秘書處 內地業務部 InnoPreneur (SME & Startup Council Secretariat (CS) Growth) and FutureSkills Division Mainland Division 合規及內部審計辦公室 商品化及業務發展組 Compliance and Internal Audit Commercialisation and Business Office (CIA)\* Development Unit (CBU) • 數碼工作支援組 Digital Workplace Service Unit (DWS)

截至2022年3月31日 As at 31 March 2022

<sup>\*</sup> 辦公室向審計委員會主席直接滙報 Functionally reports to Audit Committee Chairman



# 畢堅文先生, MH 總裁

畢堅文先生於2017年12月起獲委任為生產力局總裁,領導生產力局利用創新及先進科技,支援本地企業提升生產力及競爭力。

畢先生曾於多間跨國企業擔當領導崗位,累積超過30年的行政領袖經驗、卓越管理及推動團隊不斷優化創新服務的能力。畢先生於基建、製造和消費市場等領域知識深厚,高瞻遠矚,洞悉市場脈搏,以支援香港企業將科研轉化為成果及壯大本地創科人才庫為使命,積極推動香港創科發展。

畢先生曾於通用電氣(GE)任職逾20年,擔任多個業務部門的管理要職,包括GE運輸亞太區總裁兼首席執行官,專責策略制定和業務拓展,並負責管理多個由亞太區私營和公共企業合作的大規模轉型項目。此前,他亦曾任GE照明亞洲區及安防亞太區總裁兼首席執行官。

畢先生畢業於美國明尼蘇達州的威諾納州立 大學,獲工商管理學士學位。此外,他還持 有凱洛格-香港科大行政人員工商管理碩士 (EMBA)學位。

# 張梓昌博士 首席創新總監

張梓昌博士擁有超過三十年管理研發及顧問服務的經驗。他現時在生產力局管理多個科技研發及顧問服務,涵蓋範疇廣泛,包括:智慧生活、汽車科技、5G應用、樂齡科技、綠色生活科技、測試、食品加工及中藥、未來人才技能培訓,以及中小企及初創企業支援服務。

張博士分別是環境保護署的新能源運輸基金 督導委員會的成員、低碳綠色科研基金評審 委員會的成員及香港環境卓越大獎的評審 團。他亦是教育局推廣職業專才教育及資歷 架構督導委員會的成員,以及創新科技署創 新科技基金企業支援計劃的評審委員會成 員。

張博士同時擔任香港電子科技商會榮譽顧問、香港無線科技商會及香港電子業商會的執行委員會委員;香港工業總會創新及科技發展委員會委員,以及香港總商會工業及科技委員會委員。

張博士在加入生產力局前居於澳洲,並在澳

# Mr Mohamed D. Butt, MH Executive Director

Mr Mohamed Butt has been appointed as the Executive Director of HKPC since December 2017, leading HKPC to leverage innovations and advanced technologies to support local enterprises to enhance their productivity and competitiveness.

Mr Butt had assumed leadership roles in a number of multinationals, accumulating more than 30 years of executive experience, excellent management skills, and the ability to drive service excellence and innovations among the team continuously. Mr Butt is deeply knowledgeable in infrastructure, manufacturing, and consumer market development, backed by his profound strategic mindset and rich business insights. Mr Butt strives to promote the development of innovation and technology (I&T) in Hong Kong to assist local enterprises in turning novel research and development ideas into innovative products and enrich the I&T talent pool of the city.

Mr Butt previously worked for General Electric (GE) for over two decades, where he held various senior management positions including President & CEO of GE's Transportation Business in the Asia Pacific region, and was tasked with providing strategic leadership for the expansion of business footprints, spearheading large transformational projects, in collaboration with private and public sectors in the Asia Pacific region. Before such role, he also served as President & CEO of GE Lighting Asia and GE Security Asia respectively.

Mr Butt graduated from Winona State University, Minnesota, US, with a Bachelor of Science degree in Business Administration. He also received his Master in Business Administration from Kellogg School of Management and the Hong Kong University of Science and Technology.

# Dr Lawrence Cheung Chi-chong Chief Innovation Officer

Dr Lawrence Cheung has over 30 years of experience in managing research and development and consultancy business portfolio. In HKPC, he currently manages broad business functions on technology research and development as well as consultancy services in smart living, automotive, 5G applications, gerontech, green living technology, testing, food processing & Chinese medicine, FutureSkills training as well as SME and Startup support.

He is respectively a Member of Steering Committee of New Energy Transport Fund, Assessment Committee of Green Tech Fund, and Awards Committee on the Hong Kong Awards for Environmental Excellence, all in the Environmental Protection Department; a Member of Steering Committee on Promotion of Vocational and Professional Education and Training (VPET) and Qualifications Framework (QF) in the Education Bureau, and, a Member of the ITF Enterprise Support Scheme (ESS) Assessment Panel in the Innovation and Technology Commission.

He is also an Honorary Advisor of the Hong Kong Electronics and Technologies Association; an executive committee member of respectively the Hong Kong Wireless Technology Industry Association and the Hong Kong Electronic Industries Association; Member of Innovation & Technology Development Committee in Federation of Hong Kong Industries; and Member of Industry & Technology Committee in Hong Kong General Chamber of Commerce.

Prior to joining HKPC, Dr Cheung was living in Australia holding a senior research position in Commonwealth Scientific and Industrial Research Organisation (CSIRO) of

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洲科學與工業研究組織(CSIRO)擔任高級研究職位。他畢業於澳洲蒙納殊大學,獲工程學學士一級榮譽學位和理學士學位,並在蒙納殊大學進行電腦成像研究並取得博士學位。張博士於1996年加入生產力局。

Australia. He obtained Bachelor of Engineering with first class honours and Bachelor of Science degrees from Monash University in Australia. His doctorate degree on Computer Imaging research was also from Monash University. Dr Cheung joined HKPC in 1996.

# 黎少斌先生 首席數碼總監

黎少斌先生於2018年加入生產力局,帶領團隊開拓數碼轉型、智能製造和內地業務的發展,是工業4.0 (i4.0) 和企業4.0 (e4.0) 的應用技術專家;黎先生熟悉數碼市場趨勢,並擁有豐富的本地與海外業務拓展經驗,鋭意透過生產力局的服務協助企業升級轉型。

黎先生加入生產力局前,於跨國公司通用電氣 任職超過20年,在其信息科技部完成管理培訓 計劃,隨後任職內部審計和財務部門,並於大 中華區、澳洲、日本、新加坡、瑞士、美國等 領導不同業務部門,涵蓋航空、金融、醫療、 塑料、電力、交通運輸等專業領域,他亦致致 推動通用電氣公司不同區域以至全球業務的發 展,範疇包括能源儲存、礦業、海事、鐵路、 再生能源、火力發電等。

黎先生持有香港大學電腦工程學學士學位和電 腦科學研究碩士學位。

# 林芷君女士 首席營運總監

林芷君女士於2013年加入生產力局,具有逾27年大型企業財務管理經驗。林女士專責監督生產力局為政府資助計劃處理的秘書處服務,負責領導、整合及交流的工作,並透過資助計劃協助企業升級轉型。她同時積極跟進企業和工業的需要,發展和加強相關業界的資助計劃。

林女士出任現職前,曾帶領生產力局財務及採購部,為該局業務部門及附屬公司提供有效的服務及解決方案,透過簡化程序及數碼化,達至完善的財務及採購運作。她亦擅長與政府部門協作。林女士在加入生產力局前,曾於飛利浦醫療保健任職15年,負責亞太地區業務。

林女士畢業於香港理工大學,擁有會計學士學 位,並在英國曼徹斯特大學取得會計及金融碩 士學位。此外,林女士為香港會計師公會的資 深會員。

# Mr Edmond Lai Shiao-bun Chief Digital Officer

Mr Edmond Lai joined HKPC in 2018 to lead the digital transformation, smart manufacturing and Mainland business of the HKPC. Mr Lai is an expert in Industry 4.0 (i4.0) and Enterprise 4.0 (e4.0) business transformation, as well as digital product development, with experience in local and overseas market development.

Prior to joining HKPC, Mr Lai worked in General Electric (GE) for more than 20 years. He successfully completed the management trainee programme in the information technology department of the multinational company, and then had also served in their internal audit and finance functions. He also spearheaded his expertise across other business units, such as aviation, capital, healthcare, plastics, power, transportation, etc., among various regions including Greater China, Australia, Japan, Singapore, Switzerland, the United States, etc. He also assumed regional and global responsibilities to drive the business growth for various industries, such as energy storage, mining, marine, rail, renewable energy, thermal power generation, etc.

Mr Lai held the Bachelor of Engineering (Computer Engineering) and Master of Philosophy (Computer Science) degrees from the University of Hong Kong.

# Ms Vivian Lin Chief Operating Officer

Ms Vivian Lin joined HKPC in 2013 and has over 27 years of experience in her profession of financial management in large corporations. Ms Lin is responsible for overseeing HKPC's secretariat service for Government funding schemes. She is tasked with leading, integrating, cross-fertilising and leveraging the funding schemes to upgrade and transform the industries as well as proactively pulsing enterprise and industry needs, developing and enhancing the schemes to serve industry-wide business.

Before her present position, Ms Lin has been leading the finance and procurement arm of HKPC to provide effective services and solutions to business divisions and subsidiaries to the Council, achieving operational excellence in finance and procurement through process simplification and digitalisation. She is also experienced in liaising and collaborating with government authorities. Prior to joining HKPC, Ms Lin worked in Philips Healthcare for 15 years with commercial exposure in Asia Pacific region.

Ms Lin graduated from the Hong Kong Polytechnic University with a Bachelor of Arts degree in Accounting and received a Master of Science degree in Accounting and Finance from University of Manchester, UMIST, UK. She is also a Fellow Member of the Hong Kong Institute of Certified Public Accountants (HKICPA).



	2021-22 (Actual) ( 實際 )	2021-22 (Target) (目標)
服務提供 Service Delivery		
綜合服務項目數目 Number of integrated service projects accepted	652 <sup>1</sup>	630
綜合學習課程學員人數 Number of people participated in fee-charging integrated learning courses	15,638	12,000
財務 ( 港幣百萬元 ) Financial Result (HK\$M)		
綜合服務項目收入 Income generated from integrated service projects (\$M)	487.0	451.0
綜合學習課程收入 Income from fee-charging integrated learning course projects (\$M)	37.6	20.0
效益 Effectiveness		
生產力局研討會 / 工作坊 / 會議 / 展覽 / 免費培訓課程及免費考察團參加者人數 Number of people participated in HKPC's seminars, workshops, conferences, exhibitions and non-fee-charging training courses and study missions	26,327	23,000
新研發項目數目 Number of new R&D projects	105 <sup>2</sup>	47
引用生產力局專利新項目數目 Number of new projects using HKPC's patents	<b>70</b> <sup>3</sup>	11
客戶滿意指數 Customer satisfaction index	9.2	8.9
學員滿意指數 Learning participants satisfaction index	9.1	8.6

<sup>1</sup> 其中70個及67個項目亦分別計算在「引用生產力局專利新項目數目」及「新研發項目數目」的主要績效指標內,因為它們符合這兩個主要績效指標的定義。 Of which 70 and 67 projects were also counted respectively under the KPIs of "Number of new projects using HKPC's patents" and "Number of new R&D projects" as they meet the definition of the KPIs.

<sup>2</sup> 其中67個及37個項目亦分別計算在「綜合服務項目數目」及「引用生產力局專利新項目數目」的主要績效指標內,因為它們符合這兩個主要績效指標的定義。 Of which 67 and 37 projects were also counted respectively under the KPIs of "Number of integrated service projects accepted" and "Number of new projects using HKPC's patents" as they meet the definition of the KPIs.

<sup>3</sup> 其中70個及37個項目亦分別計算在「綜合服務項目數目」及「新研發項目數目」的主要績效指標內,因為它們符合這兩個主要績效指標的定義。 Including 70 and 37 projects which were also counted respectively under the KPIs of "Number of integrated service projects accepted" and "Number of new R&D projects" as they meet the definition of the KPIs.

過去三年的主要績效指標作參考之用 Key Performance Indicators in the past 3 years for reference	<b>2020-21</b> (新框架 New Framework)	2019-20	2018-19
服務提供 Service Delivery			
顧問項目數目 Number of consultancy projects	600	/	/
培訓課程學員人數 Number of training course participants	14,556	/	/
顧問項目數目 Number of consultancy projects		639	889
培訓課程學員人數 Number of training course participants		6,065	6,079
展覽 / 考察團 / 會議參加者人數 Number of people attended exhibitions / study missions / conferences		5,790	4,039
財務 (港幣百萬元 ) Financial Result (HK\$M)			
綜合服務項目收入 Income generated from integrated service projects	392.88	/	/
綜合學習課程收入 Income from fee-charging integrated learning course projects	25.16	/	/
顧問項目收入 Income from consultancy projects	/	328.0	340.9
培訓課程收入 Income from training courses	/	10.1	7.6
展覽 / 考察團 / 會議收入 Income from exhibitions / study missions / conferences	/	6.6	6.2
製造支援項目收入 Income from manufacturing support projects	/	27.5	30.0
效益 Effectiveness			
生產力局研討會/工作坊/會議/展覽/免費培訓課程及免費考察團			
參加者人數 Number of people participated in HKPC's seminars / workshops / conferences / exhibitions / non-fee-charging training courses and study missions	34,106	/	/
新研發項目數目 Number of new R&D projects	101	/	/
引用生產力局專利新項目數目 Number of new projects using HKPC's patents	42	/	/
客戶滿意指數 Customer satisfaction index	9.15	/	/
學員滿意指數 Learning participants satisfaction index	8.98	/	/
生產力局活動 / 行業協會交流活動 / 免費研討會參加者人數 Number of people attended events / networking activities for industry associations / free seminars	1	19,945	28,396
客戶滿意指數 Customer satisfaction index	1	9.0	9.1



# 生產力(控股)有限公司及大灣區的獨 資企業

生產力(控股)有限公司於2003年7月28日成立,為粵港澳大灣區港資企業提供橫跨價值鏈的綜合支援,協助企業提升生產力。

為了達成上述目標,生產力(控股)有限公司於2004年在粵港澳大灣區成立了生產力(東莞)諮詢有限公司及生產力(深圳)諮詢有限公司兩家獨資企業。

### 生產力(控股)有限公司

#### 董事局

林宣武(董事局主席)、畢堅文、劉敏儀、潘婷 婷、黃志光、于健安

# 生產力(東莞)諮詢有限公司

黎少斌(執行董事) 高立民(監事)

# 生產力(深圳)諮詢有限公司

黎少斌(執行董事) 高立民(監事)

# 生產力科技(控股)有限公司

生產力科技(控股)有限公司於2004年9月1日成立,以協助生產力局將具有市場潛力的專利、技術及項目成果轉化為商品,及可作為向工商企業提供顧問支援服務的合同簽約方。該公司致力發展新一代以科技為本的技術,為研發成果提供直接有效的商品化渠道,令科研成果化為產品。

年間,生產力科技(控股)有限公司與本地公司 簽署技術授權協議,將生產力局在創新及科技基 金支援下研發的「廚餘全面轉化系統」商品化。 系統目前於香港及內地推廣,為廚餘收集和運輸 提供一個簡單、潔淨和衛生的方案。

### 董事局

林宣武(董事局主席)、畢堅文、潘偉賢、潘婷 婷、黃志光

截至2022年3月31日

# Productivity (Holdings) Limited and Wholly Foreign Owned Enterprises in the GBA

The Productivity (Holdings) Limited was established on 28 July 2003, with the objective of promoting productivity excellence through the provision of integrated support across the value chain of Hong Kong firms operating in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA).

This objective is achieved through two Wholly Foreign Owned Enterprises (WFOEs) in the GBA - Productivity (Dongguan) Consulting Co. Ltd., and Productivity (Shenzhen) Consulting Co. Ltd. incorporated in 2004.

# **Productivity (Holdings) Limited**

#### **Board of Directors**

Mr Willy Lin (Chairman of the Board), Mr Mohamed D. Butt, Ms Vivien Lau, Ms Rebecca Pun, Mr Patrick Wong and Mr Emil Yu.

# Productivity (Dongguan) Consulting Co. Ltd.

Mr Edmond Lai (Executive Director) Mr Ray Ko (Supervisor)

# Productivity (Shenzhen) Consulting Co. Ltd.

Mr Edmond Lai (Executive Director) Mr Ray Ko (Supervisor)

# HKPC Technology (Holdings) Co. Ltd.

HKPC Technology (Holdings) Co. Ltd. (HKPCT) was established on 1 September 2004 as a vehicle for the commercialisation of HKPC's patents, technologies and project deliverables with market potential as well as an entity entering into contracts on consultancy and support services to enterprises. The Company aims to develop a new technology-based generation through providing a more direct and effective avenue to turn R&D deliverables into products.

During the year, HKPCT entered into a technology licensing agreement with a local company to commercialise the "Food Waste Total Recycling System" developed by HKPC with the funding support of the Innovation and Technology Fund. With this, the system is being promoted in Hong Kong and the Mainland as a simple, clean and hygienic solution to the collection and shipping of food waste.

### **Board of Directors**

Mr Willy Lin (Chairman of the Board), Mr Mohamed D. Butt, Ir Paul Poon, Ms Rebecca Pun and Mr Patrick Wong.

As at 31 March 2022

# 財務報告 Financial Review



香港生產力促進局及其附屬公司截至 2022 年 3月31日止的全年綜合賬目由外聘核數師「香港立信德豪會計師事務所有限公司」審計,並獲發無保留審計意見書。綜合財務狀況表、綜合收支賬目及綜合全面收益表載於後頁。

The consolidated financial statements for the year ended 31 March 2022 of Hong Kong Productivity Council and its subsidiaries have been audited by BDO Limited, which have issued a report with an unmodified audit opinion. Extracts of the Consolidated Statement of Financial Position, Consolidated Income and Expenditure Account, and Consolidated Statement of Comprehensive Income are set out in the following pages.



# Consolidated Statement of Financial Position

2022年3月31日

31 March 2022

		<b>2022</b> <b>港幣千元</b> HK\$'000	2021 港幣千元 HK\$'000
非流動資產	Non-current assets		
物業、廠房和設備	Property, plant and equipment	186,753	197,986
無形資產	Intangible assets	9,492	8,395
使用權資產	Right-of-use assets	861	1,374
		197,106	207,755
流動資產	Current assets		
應收賬款及其他流動資產	Accounts receivable and other current assets	229,706	262,760
可退回税項	Tax refundable	-	2
現金、銀行存款及定期存款	Cash, bank balances and fixed deposits	1,715,170	1,090,658
		1,944,876	1,353,420
流動負債	Current liabilities		
應付賬款及其他流動負債	Accounts payable and other current liabilities	1,544,750	1,017,246
租賃負債	Lease liabilities	461	519
應付税項	Tax payable	162	214
		1,545,373	1,017,979
流動資產淨值	Net current assets	399,503	335,441
總資產減流動負債	Total assets less current liabilities	596,609	543,196
非流動負債	Non-current liabilities		
租賃負債	Lease liabilities	466	926
淨資產	Net assets	596,143	542,270
總資金	Total funds		
生產力局應佔資本資助金及儲備	Capital subvention fund and reserves	594,137	540,557
	attributable to the Council	,	,
非控股股東權益	Non-controlling interests	2,006	1,713
總資金	Total funds	596,143	542,270

# 綜合收支賬目 Consolidated Income and Expenditure Account

截至 2022 年 3 月 31 日止年度 Year ended 31 March 2022

		<b>2022</b> <b>港幣千元</b> HK\$′000	2021 港幣千元 H <b>K\$'000</b>
收入	Income		
經常性活動的政府資助	Government subvention for recurrent activities	235,771	233,460
服務收入	Service income	666,208	565,968
其他收入	Other income	20,648	25,938
		922,627	825,366
支出	Expenditure		
職員薪俸	Staff emoluments	(448,968)	(395,591)
其他支出	Other expenses	(420,621)	(370,705)
除稅前盈餘	Surplus before tax	53,038	59,070
所得税	Income tax expense	(170)	(148)
		52,868	58,922
從資本資助金轉入	Transfer from capital subvention fund	6,925	6,586
年內盈餘	Surplus for the year	59,793	65,508
歸屬於:	Attributable to:		
生產力局	The Council	59,584	65,645
非控股股東權益	Non-controlling interests	209	(137)
		59,793	65,508



截至 2022 年 3 月 31 日止年度 Year ended 31 March 2022

		<b>2022</b> <b>港幣千元</b> HK\$′000	2021 港幣千元 HK\$'000
<b>年內盈餘</b> <b>其他全面收益</b> 可能於其後重新歸類至收支賬目的	Surplus for the year Other comprehensive income Other comprehensive income that may be reclassified to	59,793	65,508
其他全面收益: 換算中華人民共和國業務賬目的匯 兑差異	income and expenditure account in subsequent periods: Exchange differences on translation of financial statements of operations in the People's Republic of China	1,005	1,585
年內其他全面收益(税後)	Other comprehensive income for the year, net of tax	1,005	1,585
年內全面收益額	Total comprehensive income for the year	60,798	67,093
歸屬於:	Attributable to:		
生產力局	The Council	60,505	67,079
非控股股東權益	Non-controlling interests	293	14
		60,798	67,093