香港工商業獎

2018

HONG KONG AWARDS FOR INDUSTRIES

Smart Productivity 睿智生產力

嘉豐金屬製品廠有限公司
KA FUNG METAL MANUFACTORY COMPANY LTD.

Pedorthic Technology Limited 足科鞋形有限公司

JMA

Shing Hing Plastic Manufacturing Ltd. 成興塑膠製品有限公司

WING KING TONG Printing Ltd.

Amazing

TOYS

DHL

Gammon

TenPao

HKPC

About HKPC

Productivity is the effective use of innovation and resources to increase the value-added content of products and services. It is the true source of competitive advantage that creates long term economic viability and a better standard of living for all.

The Hong Kong Productivity Council (HKPC) is a multi-disciplinary organisation established by statute in 1967. HKPC's mission is to promote productivity excellence through the provision of integrated support across the value chain of Hong Kong firms, in order to enhance international competitiveness.

HKPC is governed by a Council comprising a Chairman and 22 members representing managerial, labour, academic and professional interests, as well as related government departments. The operation of HKPC is supported by fee income from its services and government subventions.

HKPC's headquarters at HKPC Building in Kowloon Tong features various advanced manufacturing and testing facilities as well as exhibition and training venues. HKPC also operates two wholly owned subsidiaries in Dongguan and Shenzhen to serve Hong Kong manufacturers in the Pearl River Delta.

HKPC and its subsidiaries' consulting and technical professionals provide a multitude of services in technology transfer, consultancy, training and other support services in the areas of manufacturing technology, information technology, environmental technology and management systems. These services are designed to help industry move up the value chain.

關於香港生產力促進局

生產力是有效運用創意和資源，讓產品和服務增值，是競爭優勢的根源，可帶來長遠的經濟效益，提高生活水平。

香港生產力促進局(生產力局)於1967年依法成立，擁有多元化的專業技術知識，致力透過跨價值鏈的綜合支援，提升香港企業卓越生產力，從而增強國際競爭優勢。

生產力局的工作由理事會管轄，成員包括一名主席及22名委員，來自資方、勞方、學術界、專業團體和有關的政府部門。生產力局的經費部份來自政府資助，其餘來自服務收費。

生產力局的九龍塘生產力大樓，設有先進的製造及測試設施、展覽廳及一系列培訓設施，為工商各界提供廣泛的服務，涵蓋生產科技、資訊科技、環境科技和管理系統等範疇。生產力局在東莞及深圳設有兩家全資附屬公司，服務珠三角的香港廠商。

生產力局及附屬公司的專業顧問和技術人員，致力為工商各界提供技術轉移、顧問、培訓和各項支援服務，協助工業界發展高增值業務。

2018 Hong Kong Awards for Industries: Smart Productivity

Message from Mr Willy Lin, GBS, JP

Chairman, Hong Kong Productivity Council

二〇一八香港工商業獎：睿智生產力

香港生產力促進局主席

林宣武先生 GBS, JP

獻辭

The "Smart Productivity" award category of the Hong Kong Awards for Industries aims to recognising the achievements of local organisations in their continuous efforts to attain high-value productivity. As the organiser of this award category, the Hong Kong Productivity Council (HKPC), encourages organisations to deploy effective use of creativity and resources, to increase the added value of products and services, as a way to strengthen their competitiveness in the modern business environment.

This year's participating organisations came from a wide-range of industry background, including manufacturing and service industries, which they all demonstrated outstanding performances. We are pleased to note that the winners are dedicated to setting impressive productivity standard in multiple aspects, including the application of automation and data technologies, smart manufacturing and digital transformation. These projects now become the driving forces for them to sharpen their unique competitive edges in today's complex new economic digital era.

On behalf of HKPC, I would like to take this opportunity to express my gratitude to the Judging Panel for their passion and contribution. A hearty congratulations to all the winners, and wish you all even greater success in the future.

「香港工商業獎：睿智生產力」獎項，表揚香港機構在持續追求高生產力所作的貢獻。作為獎項的主辦機構，香港生產力促進局(生產力局)致力鼓勵各行各業的機構有效運用創意和資源，將產品和服務增值，加強他們在當今營商環境的競爭力。

本年度的參賽機構來自多個行業，涵蓋製造業及服務業，在比賽的過程中表現優秀。在評審過程中，我們喜見獲獎企業致力從不同層面提升生產力，包括自動化和數據技術的應用、智能製造及數碼轉型，助得獎企業在現今瞬息萬變的新經濟時代中，維持獨特的競爭優勢。

謹代表生產力局向評審委員會致謝，並祝賀各得獎機構迭創輝煌！

The Hong Kong Awards for Industries: Smart Productivity recognises Hong Kong companies or organisations that have attained a competitive advantage through well-planned and well-executed productivity programmes. Award winners have to demonstrate outstanding productivity improvement on a continual basis. The award criteria are not meant to be prescriptive. They are to be used to evaluate entrants' achievements in matching efforts in value creation and resources optimisation with continual improvement.

「香港工商業獎：睿智生產力」旨在表揚能訂立優秀生產力提升計劃、成功切實執行，並取得競爭優勢的香港公司或機構。公司或機構若能證明其生產力取得持續大幅提升，即具獲獎資格。獎項的評審準則包含多方面因素，以評核參選者在創造價值及善用資源兩方面所作的努力，及是否獲得相應的成果，令生產力不斷提升。

JUDGING CRITERIA
評審準則

15% Management Strategy 管理層的策略

How does the senior management initiate the productivity improvement programmes to deal with today's VUCA (Volatility, Uncertainty, Complexity, Ambiguity) business environment, and support the running of the programmes on a continuous basis?

管理高層如何推動提升生產力的項目以應對現今瞬息萬變、複雜難料及不明朗的商業環境，及對這些項目持續運作的支持？

30% Planning and Execution 規劃與執行

How do the management and operation teams plan, implement, review, and measure the productivity improvement programmes and respond to the changing business environment during the implementation stage? How do they select and adopt the latest technologies and innovative practices to increase the expected improvement results during the planning and implementation stage?

管理團隊與運作團隊怎樣去計劃、推行、檢討及衡量這些提升生產力的項目，及回應推行期間所面對環境上的轉變？在計劃及推行階段，怎樣去選取及應用最新科技和創新做法以增加預計可以提升的生產力？

25% Measurable Achievements 可量度的成就

What are the measurable productivity achievements with the implementation of the productivity improvement programmes?

這些提升生產力的項目所帶來可量度的成效，其具體數據是什麼？

20% Competitiveness Enhancement 提升競爭力

How do the productivity improvement programmes create value, culture, changes and resources optimisation in the company or organisation for enhancing its overall market competitiveness?

這些提升生產力的項目怎樣在公司或機構內創造價值、文化、改變與資源善用，以強化其整體市場競爭力？

10% Impact to the Industry 對行業的影響

How do the productivity improvement programmes set an example to other industry stakeholders or even transform the industry practices in realizing productivity enhancement as a whole?

這些提升生產力的項目怎樣在同儕中作出帶頭作用，甚而改變整個行業習慣，以實現提升生產力？

2018 Hong Kong Awards for Industries: Smart Productivity Grand Award
二〇一八香港工商業獎：睿智生產力大獎

Jing Mei Automotive Limited
精美汽車工業有限公司

2018 Hong Kong Awards for Industries: Smart Productivity Award
二〇一八香港工商業獎：睿智生產力獎

Ka Fung Metal Manufactory Company Limited
嘉豐金屬製品廠有限公司

Pedorthic Technology Limited
足科矯形有限公司

Shing Hing Plastic Manufacturing Limited
成興塑膠製品有限公司

Wing King Tong Printing Limited
永經堂印刷有限公司

Yick Shun Electronic Toys Manufactory Limited
億順電子玩具製造廠有限公司

2018 Hong Kong Awards for Industries: Smart Productivity Certificate of Merit
二〇一八香港工商業獎：睿智生產力優異證書

Amazing Product Development Limited
成美產品有限公司

DHL Express Hong Kong
DHL Express香港

Gammon Construction Limited
金門建築有限公司

Ten Pao Group Holdings Limited
天寶集團控股有限公司

2018 Hong Kong Awards for Industries: Customer Service, Innovation and Creativity, Smart Productivity, Technological Achievement and Upgrading and Transformation Final Judging Panel

二〇一八香港工商業獎：顧客服務、創意、睿智生產力、科技成就、升級轉型組別最終評審委員會

1 2 3 4 5 6

1 **Mr Emil Yu**
General Committee Member,
Hong Kong General Chamber of Commerce
于健安先生
香港總商會理事

2 **Ms Clara Chan**
Ex-officio Advisor,
Hong Kong Young Industrialists Council
陳婉珊女士
香港青年工業家協會當然顧問

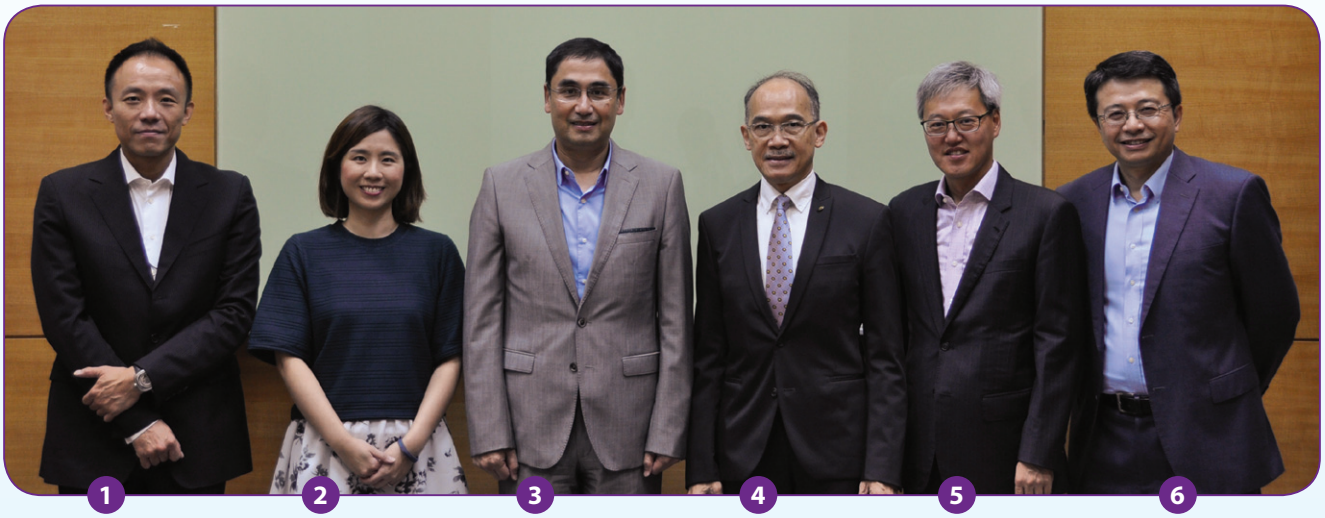
3 **Prof Way Kuo**
Chairman of the Final Judging Panel
President ,
City University of Hong Kong
郭位教授
最終評審委員會主席
香港城市大學校長

4 **Mr Mohamed D. Butt**
Executive Director,
Hong Kong Productivity Council
畢堅文先生
香港生產力促進局總裁

5 **Mr Peter Luk**
Associate Director,
Hong Kong Science and Technology Parks Corporation
陸彥鳴先生
香港科技園公司副總監

6 **Ms Katherine Yu**
Senior Manager, Communications & Public Relations,
Hong Kong Retail Management Association
余家恩女士
香港零售管理協會高級傳訊及公關經理

2018 Hong Kong Awards for Industries: Smart Productivity Judging Panel
二〇一八香港工商業獎：睿智生產力組別評審委員會



1 **Mr Howard Cheng**
Chief Operating Officer,
Hong Kong Cyberport Management Company Limited
鄭希穎先生
香港數碼港管理有限公司營運總監

2 **Ms Belinda Wong**
Former Assistant Director - General (Industries Support),
Trade and Industry Department
王婉蓉女士
工業貿易署前助理署長 (工商業支援部)

3 **Mr Mohamed D. Butt**
Executive Director,
Hong Kong Productivity Council
畢堅文先生
香港生產力促進局總裁

4 **Mr Jimmy Kwok**
Chairman,
Federation of Hong Kong Industries
郭振華先生
香港工業總會主席

5 **Mr Marvin Hsu**
Second Vice President,
The Chinese Manufacturers' Association of Hong Kong
徐晉暉先生
香港中華廠商聯合會第二副會長

6 **Mr John Li**
Director of Membership,
Hong Kong Computer Society
利旭華先生
香港電腦學會會員事務總監

2018 Hong Kong Awards for Industries: Smart Productivity Assessor
二〇一八香港工商業獎：睿智生產力組別評審員

1 **Mr Simon Leung**
Vice President,
The Hong Kong General Chamber of Small and Medium Business
梁牧群先生
香港中小型企業總商會副會長

2 **Mr Teddy Chui**
Deputy Chairman,
Hong Kong Federation of Innovative Technologies and Manufacturing Industries
崔建昌先生
香港創新科技及製造業聯合總會常務副主席

3 **Ir Dr Lui Sun Wing**
Former Vice-President,
Hong Kong Polytechnic University
呂新榮博士
香港理工大學原副校長

4 **Ms Rossana Ho**
President,
Project Management Institute Hong Kong Chapter
何蕭素嫻女士
項目管理專業協會(香港)會長

5 **Mr Edmund Lee**
Chairman,
Hong Kong Digital Analytics Association
李志雄先生
香港數碼分析協會主席

Jing Mei Automotive Limited
精美汽車工業有限公司

JMA's Production Plant
精美生產廠房

High precision and Smart injection workshop
高精度智能注塑車間

Smart transportation system
智能運輸系統

JMA supplies high quality electroplated plastic automotive parts
精美提供高質量塑膠電鍍汽車零部件

Business Nature
業務範圍

Jing Mei Automotive Limited (hereafter called JMA) was established in 1998. Their major business is the electroplating of plastic automobile parts. Through the application of advanced plastic surface treatment technology and production facilities, JMA provides global automobile manufacturers with excellent products, including interior and exterior door handles, front grilles, side-view mirror covers, emblems, nameplate and other decorative items.

精美汽車工業有限公司(下稱精美)於1998年成立，主要生產塑膠汽車電鍍零部件。透過其先進的塑料表面處理技術和生產設備，精美為全球各大汽車製造商提供優質的產品，包括內外門把手、前格柵、側視鏡鏡罩、車標、車身字標及其他裝飾部件等。

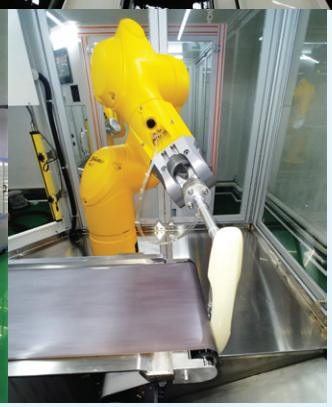
Achievements in Smart Productivity
睿智生產力成就

Building a Smart Surface Finishing Factory

The purpose of this improvement program is to build a Smart Surface Finishing Factory using Industry 4.0 concept. In this Smart Surface Finishing Factory, all production processes are connected to the network and various digital platforms for achieving the highest productivity. Every injection molding machine is equipped with one or two six-axis robots. The factory is fully automated, with stable quality product output and maximum energy conservation. According to the production schedule, the electroplating production line can automatically adjust the production parameters. Real time data, such as voltage and temperature, are captured for continual monitoring, and the defective products will be identified automatically. Robots work simultaneously and synchronously with the conveying system, including conveyor belt and automatic guided vehicle, and deliver the material/product to different product processes.

Upon the completion of this project, the production capacity was increased by 84%, production value per capita was increased by 20%, defective rate was reduced by 13%, and manpower was reduced by 30%. All of the production parameters were automatically saved and retrieved, and power consumption was lowered by 50%.

Multi-function smart buffing workshop
多功能智能研磨車間



Multi-function surface treatment system
多功能表面處理系統

Smart buffing device
智能研磨裝置

Smart Buffing System

Another main business of JMA is the manufacturing of automotive door handles, which is currently facing some challenges: the improvement of quality specifications, the market with fierce price competition, the need to complete a large demand in a short period of time, and the need for rapid response services. In order to stay competitive in the market, JMA set forward-looking solutions to tackle the market needs, create maximum benefits for the customers and bring opportunities to the company. The original "functional buffing" process relies on traditional polishing tools, coupled with many skilled workers, could no longer meet the growing demand from customers. Therefore, the improvement team carried out research & development work, and finally developed a Smart Buffing System. The goal is to develop stable, high-quality and high efficient equipment that provides sufficient capacity to produce inner ring door handles.

Upon the completion of this project, the number of operators was reduced by 85%. Production capacity was increased more than 95%. The quality was increased to 99.7% qualified rate of finished products. There was also an economic benefit of annual saving of $840,000.

建設注塑融合電鍍智能生產車間

為緊隨國際間「工業4.0」的步伐，以及國家政府實現成為製造強國的「中國製造2025」計劃，精美提出建設「注塑融合電鍍智能生產車間」計劃，通過生產流程結合網絡及數位平台，達到整體生產力和競爭力的提升。

精美以智能化、綠色生產、符合人體工學、高品質、高生產效率為導向，重新規劃廠房佈局。在注塑車間引入全電動注塑機，附載六軸機械人，全自動化生產高質量產品。注塑機配有智能控制器，實時收集數據並儲存至伺服器進行分析。而安裝在注塑機上的快速換模磁力模板，大大節省上落模的校準工序及人力勞動需求。

電鍍車間採用人機分離模式，上料線與成品檢查人員及生產線完全隔離，配合設備優化及輔具協助，有效保護車間操作員安全以及減低不必要勞累。生產線內的智能設備能因應排產計劃及需要，自動調節生產參數，並對過程中其他參數進行實時記錄，對異常狀況作出預警。精美並引入AGV、分區定位運輸帶、六軸機械人，建立成智能中央運輸系統，將注塑車間及電鍍車間連結，實現全自動物料及產品搬運，構建成「注塑融合電鍍智能生產車間」。

智能注塑電鍍車間為精美增加了84%的產能，帶動人均產值增加了20%，不良率減少13%，操作人員也減少了30%。由於所有生產參數均經中央系統自動控制及監控，有效降低了能源消耗50%。智能車間更為精美創造了業務發展機會，包括拓闊了電鍍產品系列、能製造更高精度的產品、更佳及全面的產品追溯等。從生產力、品質、環境、交付、服務等多方面將精美推往世界一流水平，贏得客戶及供應商的認同。

智能內圈研磨系統

精美其中一門重要業務是開發及生產汽車門把手，當中的內圈研磨工序，對產品交付及質量至關重要。原有的「功能性研磨」依賴傳統拋光工具及熟練工人來完成，但面對客戶對品質規格要求的提升，以及激烈的競爭環境，精美管理層明白原有工序將難以滿足市場發展的需求，因而提出開發新研磨系統，從產能、勞動人員需求及品質三方面進行改善及提升。

精美成立了技術專案小組負責智能內圈研磨的開發，並策略地引入工業機械人，配合適當的研磨棒、夾具、傳感器等，取代傳統的人手工序。配合AGV運輸系統、車間實時監控系統等，成功開發及建立「智能內圈研磨系統」。

新系統減省了人手需求達85%，並提高產能95%以上。機械人打磨有效解決人手打磨的品質問題，將產品合格率推升至99.7%，同時改善了工場環境，減少操作人員吸入粉塵的風險，為企業節省84萬元生產成本。新系統提升了精美對任何款式的汽車門把手的生產能力，大幅縮短交付周期，維持了精美的競爭能力。

Ka Fung Metal Manufactory Company Limited
嘉豐金屬製品廠有限公司

嘉豐金屬製品廠有限公司
KA FUNG METAL MANUFACTORY COMPANY LTD.

Business Nature
業務範圍

Ka Fung Metal Manufactory Company Limited (hereafter called Ka Fung), established in 2003, is a subsidiary of Ka Shui International Holdings Limited. Ka Fung is a manufacturer of plastic injection parts for household products, 3C (Communication, Computer and Consumer electronics) products and personal care products.

嘉豐金屬製品廠有限公司 (下稱嘉豐) 成立於2003年，為嘉瑞國際控股有限公司旗下的附屬公司之一，主要業務包括生產及銷售含塑膠部件之產品及零部件 (如家居、3C通訊、電腦、消費電子、個人護理等)。

Achievements in Smart Productivity
睿智生產力成就

The first project is the implementation of "**Ka Shui Industry 4.0**", aiming to achieve innovative enterprise operation and smart digital factory. Industry 4.0 is a global trend towards smarter management and digitalisation in the manufacturing industry, which also aligns with the "Made in China 2025" policy perspective. Ka Shui Group is determined to utilise the development opportunities of Industry 4.0. By implementing the Industry 4.0 project to improve smart manufacturing capability, the company is able to response quickly to the customers, generate real-time production data, and digitalise operation for better cost-effectiveness and efficiency in offering high quality products for customers, develop and transform staff management and technical skills towards digitalisation.

The project implementation steps are as follows:
Phase 1: Evaluate the management and technical maturity for Industry 4.0, formulate strategic roadmap and identify Industry 4.0 pilot projects
Phase 2: Tailor-made Industry 4.0 training and assessment of application areas and implement pilot projects
Phase 3: Implement Industry 4.0 smart operation for obtaining Industry 4.0 recognition

Upon completion of this project, Product Lifecycle Management (PLM) has helped the Engineering Department to meet the rapidly changing needs of new product development. Different departments collaborate through an integrated platform to facilitate product development cycle and cost management. It is expected to save about 30% communication time cost among departments.

Pilot projects for IoT and sensor technology are applied on plastic injection molding machines and automated assembly lines to acquire real-time data, including machine data, production data and quality data. Different departments could then track production progress by various dimensions (e.g. product, time). This change is expected to save data record and tracking time cost by about 50%.

The application of QR code in the track and trace system for internal logistics is implemented by applying a unique QR code on each container. The shopfloor and warehouse personnel use barcode scanners and tablets to scan the container QR code for WIP update and In/Out movement between shopfloor and warehouse. The data is saved in the real-time track and trace system. It is expected to save about 40% of data record and tracking time cost.

After the implementation of the above projects, the management can access the real time production information via tablet. The data transparency and traceability is increased and the management can respond to changing customer needs rapidly.

The second project is titled "**Research and Development of the Biocide-Free Germ-Repellent Plastic**". There has been a raising concern on the safety issue of biocide employed in conventional antimicrobial plastic. The leach-out of biocides, such as silver ions, could cause long-term neuron toxicity, ecological pollution, allergy and, most importantly, the formation of "Superbugs". Ka Fung has developed a new "Germ-Repellent" technology which prevents germs from adsorbing and colonising on the surface to avoid cross-transmission of germs. It is proven to be leach-free, non-toxic and will not give rise to drug-resistant "Superbugs". This technology does not require 'leach-out' to achieve the bactericidal effect, so the bacteria performance is consistent with product life. The purpose of this project is to gradually replace existing antimicrobial plastics and to solve a series of safety, health and environmental problems through the implementation of this technology.

Upon completion of this project, Ka Fung received the Gold Medal award at the 2017 Geneva International Invention Exhibition and the 2017 Chinese Invention Exhibition Gold Award. Five products were launched since 2017.

MicrobeFENCE Technology Plastic
斥菌塑料

全面推行「工業4.0」，實現智能創新企業運作及數碼化智能工廠

工業4.0是環球製造業的革命及趨勢，結合了創新的智慧化管理及數碼化生產運作，並與國家政策「中國製造2025」接軌。緊隨嘉瑞集團的步伐，嘉豐全面推行工業4.0項目，透過數碼化及實時產生數據瞭解營運及成本效益，提升智能化製造的水準，快速回應客戶需求及提供高質量產品，並為員工的未來發展及企業傳承，建立數碼化管理及技術的能力。項目分為三個階段推行，包括(1)現場評估、成熟度及差距分析，確定工業4.0先導項目及制定策略路線圖；(2)執行及評估先導項目，推行內部培訓及考核計劃；以及(3)全面實行工業4.0智能運作，成為認可的工業4.0工廠。

項目對嘉豐在成本節省及應對客戶需求的能力帶來顯著改善和成效。工程部門在應用工程產品生命週期管理(PLM)後，可利用數碼解決方案進行項目管理，並能夠在集成平台內與不同部門進行協作和溝通，加強應對客戶在前期開發的快速變化需求的能力，以及促進產品開發週期及成本的管理水平，有效節省協作時間成本約30%；在塑料注塑機和自動化裝配線上實行物聯網和傳感器應用的試驗項目，讓不同部門能通過平台採集機器、生產、質量等實時數據，並隨時按不同維度(如產品、時間等)追蹤歷史數據，有效節省時間成本約50%；內部物流系統在應用二維碼後，車間與倉庫人員在更新在製品數量、發出或接收週轉物料時，只需以條碼槍平板電腦掃瞄週轉容器上的二維碼，即可在系統內實時更新及保存數據，有效節省數據記錄與追蹤時間成本約40%。

以上項目成功推行後，工廠管理層可在平板電腦上查詢新產品的開發進度、在製品與生產狀況、生產設備的實時狀態等，大大增加數據透明性和追蹤性，使管理層更易應對現今瞬息萬變的客戶需求。

突破傳統殺菌塑膠的定義，研發一系列斥菌塑膠母粒與產品

傳統抗菌材料是透過混入有毒化學物或重金屬作為殺菌劑，並持續的釋出以殺死細菌。這些有毒的化學品或重金屬有機會積累在人體或釋放到環境中，造成健康及生態問題，甚至催生耐藥性細菌。嘉豐管理層一直關注有關問題及抗菌材料市場的發展，打破傳統抗菌材料的思路，提出「斥菌」技術，在不使用殺菌劑的基礎上，阻止細菌在材料表面上吸附，以保障產品衛生。斥菌技術不含有殺菌劑，所使用的技術亦基於安全性物質，不會導致細菌產生變異及耐藥性，該技術並不需要'析出'以達到斥菌效果，斥菌性能可以同產品壽命保持一致。

項目成功獲得2017年日內瓦發現展金獎及華人發明大獎。2017年年底成功進行產品商業化，向市場推出5款新產品，並已在2018年首季錄得實際銷售。嘉豐計劃以每年3款的速度，在5年內向市場推出15款不同類別的斥菌塑膠。

Ka Shui Group Chairman Mr.Lee & Industry 4.0 Smart Manufacturing Datacenter
嘉瑞集團李遠發主席及工業4.0智能製造數據中心

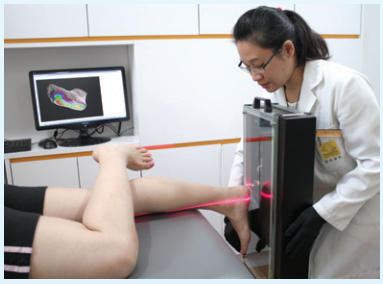
Implementation of "Ka Shui Industry 4.0"
全面推行『工業4.0』

Pedorthic Technology Limited
足科矯形有限公司

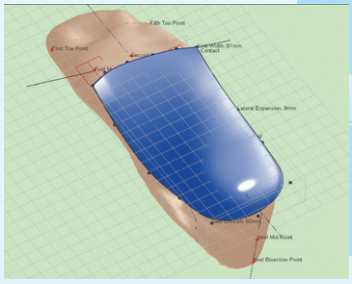
Business Nature
業務範圍

Pedorthic Technology Limited (hereafter called Pedorthic), was established in 1997. Pedorthic aims to provide the most effective, comprehensive and affordable services, in order to improve people's foot biomechanical problems. The Company's services include providing foot assessment, 3D foot and body scanning, manufacturing prescription custom-made foot orthoses and sandal, as well as custom-made spinal braces. Pedorthic's mission is to provide an optimal and one-stop total solution orthotic service to customers.

足科矯形有限公司（下稱足科）成立於1997年，旨在提供最有效、全面且實惠的服務，以解決人們因生物力學引起的各種足部問題。服務包括提供足部評估、3D足部和全身掃描、製作處方訂製矯正鞋墊和拖鞋，以及訂製脊柱矯正支具。公司的使命是為病人提供一站式及全面的解決方案及矯正支具服務。



Pedorthic created and developed its own E-Cast 3D laser foot scanner in the Hong Kong Science Park from 2002, replacing the traditional manual plaster work.
由2002年起，足科在香港科學園研發自家E-Cast 3D激光足部掃描儀器，以取代傳統的石膏模套取方法。



This vertical integration of applying technology in making custom-made foot orthoses in form of insoles and sandals with specific foot corrections was first in Hong Kong created by Pedorthic.
足科全港首創利用垂直整合技術，配合系統加以特定的足部矯正，來設計及製作個人處方矯正鞋墊。

In the past 20 years, Pedorthic keeps upgrading its own prescription orthotic system: from the professional foot assessment, 3D foot scanning, CAD/CAM foot correction software, to fabrication and professional fitting. The mission is to provide the best orthotic solution to people for better quality of life.
在過去20年，足科不斷提升其自家研發的處方矯正鞋墊系統。由專業足部評估、3D足部掃描、電腦系統矯正，以至完成及專業配對，致力改善人們的生活質素。

Achievements in Smart Productivity
睿智生產力成就

Pedorthic created and developed its own Aligner foot screening platform, DynaGait assessment system, E-Cast 3D laser foot scanner, and Pedorthic foot correction CAD/CAM programme and Professional Management Programme in Hong Kong during the incubation period at the Hong Kong Science Park in 2002. This vertical integration of applying technology in making custom-made foot orthoses, in form of insoles and sandals with specific foot corrections, was the "first in Hong Kong". Created by Pedorthic with all its heart, the services provide the most effective solutions to people suffering from over 60 symptoms due to mal-alignment of their feet.

In order to ensure the best quality service, the Company has also provided intensive high quality internal and external training to build up its own professional team. Being the first Asian company accredited by the Prescription Foot Orthotic Laboratory Association in USA, Pedorthic continues to upgrade the complete system persistently. Since 2006, clinical application of the complete system has been implemented in all pedorthic centres. From 2010 onwards, all centres have been equipped with E-Cast 3D laser scanners, upgrading the Company to full automation and also enables the on-line service to the professional clients practicing in private clinics and private hospitals. Furthermore, a few years later, Pedorthic started to explore 3D printing and now manages to speed up the manufacturing of custom-made prescription foot orthoses by 3D printing technology.

Gradually, the Company's mission has been extended to cater for the needs of quality scoliosis braces for growing children, and adult braces for people who suffer from lower back pain due to their loss of sagittal balance. Spine Technology Centre has therefore been created by the Company to fabricate custom-made spinal braces with prescription to provide better 3D alignment for the spine.

The Company has been implementing 3D body scanning technology and spinal 3D corrections CAD programs to custom make spinal braces according to prescriptions, including X-ray, anatomical marking, measurements and clinical data.

In the past 10 years, the Company's operational income is growing steadily. With the implementation of technology, the orthotic service has become more efficient, effective and consistent. It also enables the Company to extend the service of manufacturing custom-made foot and spine orthoses to professional clients within and outside Hong Kong. Their patients' 3D scan files and prescription data can be analysed by the Pedorthic Technology Central Fabrication Lab. The application of smart productivity has therefore allowed Pedorthic to pursue the goal of providing the most effective custom orthotic services to people for better quality of life.

自2002年起，足科已在香港科學園開發了Aligner足部評估設備、DynaGait步態分析系統、E-Cast 3D激光足部掃描儀，以及足部矯正電腦輔助設計(CAD)/製造技術系統(CAM)，取代傳統的人手石膏模套取，製作處方矯正鞋墊和拖鞋。足科在香港更首創利用垂直整合技術，配合CAD/CAM系統加以特定的角度改正，為多達60種由足部偏歪引起的症狀提供最有效的解決方案。

足科為其專業團隊提供密集的高質內外部培訓，確保提供最優質的服務。而作為全亞洲首間受美國處方矯正鞋墊學會(PFOLA)認可的處方矯正鞋墊中心，足科不斷提升系統，並自2006年起在屬下所有中心進行臨床應用。為進一步提升公司的全自動化水平，2010年起所有中心均配置E-Cast 3D激光掃描儀，同時為私人診所和私立醫院的專業客戶提供線上服務。其後更引入3D打印技術製作處方矯正鞋墊，成功加快生產步伐。

為進一步實現及拓展公司使命，滿足因失去矢狀平衡造成腰痛的患者，以及患有脊柱側彎的兒童對優質脊柱支具的需求，足科成立脊科矯形中心，製造處方訂製脊柱支具，為病人提供更佳的脊柱3D排列。

足科從開始製作人體石膏模型，改為應用3D全身掃描技術及改正軟件，將模具調整技術由人手轉變至CAD/CAM，並根據X光片診斷和臨床數據來處方訂製脊柱支具。

在過去10年，足科的營業收入穩步增長。通過技術不斷提升，生產過程變得更為快捷、有效和一致。不論香港或外地的專業治療師，均可簡易而快捷地將患者的3D足部掃描檔案和處方的數據資料，傳送至足科中央製作中心進行分析，為病人訂製處方矯正鞋墊和脊柱矯正支具。

睿智生產力的應用，讓足科得以為病人提供最有效的訂製矯形器服務，達到提升人們生活質素的目標。

Shing Hing Plastic Manufacturing Limited
成興塑膠製品有限公司

Shing Hing Plastic Manufacturing Ltd.
成 興 塑 膠 製 品 有 限 公 司

Business Nature
業務範圍

Shing Hing Plastic Manufacturing Limited (hereafter called Shing Hing), established in 1995, is a plastic animal toys manufacturer. By applying the latest PVC injection techniques, Shing Hing offers all levels of competitive-priced plastic animal products.

成興塑膠製品有限公司（下稱成興）成立於1995年，主要業務包括設計及製造塑膠動物玩具。近年透過引入新型PVC注射技術，以及向ODM及OBM轉型發展，為市場提供各類極具價格競爭能力的塑膠動物產品。

Achievements in Smart Productivity
睿智生產力成就

2020+ Shing Hing Intelligent Factory

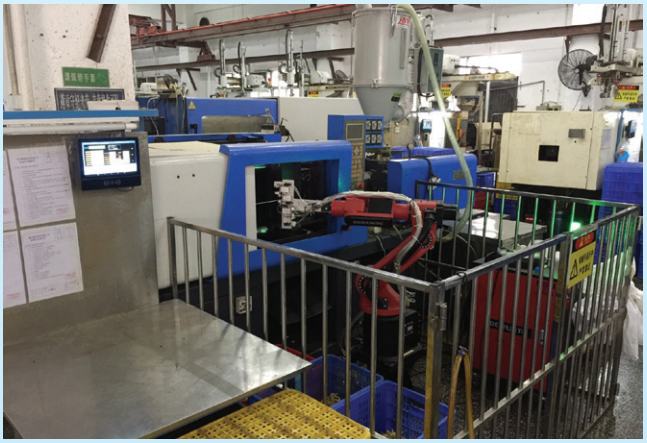
In 2015, Shing Hing cooperated with external consultant to conduct Industrie 4.0 assessment for formulating an Industrie 4.0 migration roadmap, and identifying its pilot rollout projects, enabling technologies and methodology. In 2016, Shing Hing started the implementation and was the first in toys OBM industry to carry out Industrie 4.0 migration covering the full spectrum of Industrie 4.0 applications. An integrated production line from manufacturing plastic compound to finishing final products was built based on the concept of Industrie 4.0. The three main aspects of the rollout include:

1) Vertical Integration – Digitalisation and Connectivity within Shing Hing
2) Horizontal Integration - Digitalisation and Connectivity with global plasticiser supplier
3) Reasonable Automation – Reduction of labour cost and tackling the labour shortage problem in PRC

After the implementation, most of the data are digitalised and collected automatically. Online QCs are using tablets to perform daily quality check. Different quality reports can easily be generated, and immediate corrective actions are taken place with the support of real-time data. Risk mitigation and reduction on raw materials inventory are significantly achieved.

Branding and Licensing Business

In the early 90s, Shing Hing mainly focused on OEM business. Since 2000, Shing Hing had transformed to ODM business, and then to OBM business through developing our own brands –"Wenno"and"Animal World". Shing Hing also initiated the collaboration with the world-renowned brand National Geographic, being its global licensee to manufacture PVC animal figurines, covering the whole business chain from design, manufacturing, distribution, to retailing. Since 2015, Shing Hing has been in compliance with the ISO 14006:2011 Eco Design and Manufacturing Standard for incorporating eco-design elements into the product realization process. Shing Hing implemented mass standardisation on parts for those brands. Thus, Shing Hing enjoyed economy of scale on production.



Automated machine at the production line
生產線上的自動化機械

CEO of Shing Hing, Mr. Calvin Wu as the speaker of seminar
成興行政總裁胡力恆先生獲邀成為研討會演講嘉賓

Upon the completion of the project, a stable increase of net profit was recorded in the past few years. The value of finished goods was increased by more than 150% since 2013, while gross profit ratio had been increasing every year. Wenno was granted the Hong Kong Q-Mark in 2015. Shing Hing had been awarded various prestigious certification such as BSCI, ICTI, ISO 9001 and ISO 14006. And all the products are in compliance with EN71 and ASTM standards or relevant country-specific safety standard where the products are shipped.

2020+ 成興智能工廠

成興管理層一直鼓勵不同的項目和計劃，推動業務發展和提升生產力。2016年自行制定及提出「2020+ 成興智能工廠」，成為行業內OBM企業實施工業4.0的先鋒。在工業4.0的概念和基礎下，成興建立起由塑膠化合物至成品的綜合生產線，並從三方面實現其智能工廠計劃，包括：

(1) 垂直整合：引入ERP、MES、APS及無紙化運作，將日常營運及生產數據全面數碼化
(2) 橫向集成：原材料生產水平數據化，並與全球化工原料增塑劑供應商連接，更準確地控制及預測材料用量及庫存數據
(3) 合適的生產自動化：引入六軸自動化設備、優化及整合模具的設計及生產程序，降低勞動力成本

項目讓成興日常營運更為數碼化，包括可實行數碼化績效管理，對生產狀況進行即時的糾正及預防措施，同時能更有效地進行原材料庫存管理，減低風險。

自主品牌及授權業務

自2000年起，成興通過發展自主品牌"維亮(Wenno)"和"動物世界(Animal World)"，成功向ODM及OBM業務轉型。透過與世界知名品牌「國家地理」合作，成興成為PVC仿真動物玩具的全球授權商，由設計、製造、分銷至零售，涵蓋整個業務鏈。同時，成興利用自身的設計及生產能力，對這些品牌產品組件實施了標準化，從實現規模效益。

雖然歐美市場在過去數年表現不穩，但在有效的品牌管理下，項目的淨利潤、成品價值以及毛利率均有穩定增長，"維亮(Wenno)"更於2015年獲得香港Q嘜優質產品認證。成興同時取得了BSCI、ICTI、ISO 9001和ISO 14006等多項認證，所有產品均符合EN71和ASTM標準或相關分銷國家特定安全標準。

Wenno product & app
「維亮」產品及手機程式

Wing King Tong Printing Limited
永經堂印刷有限公司

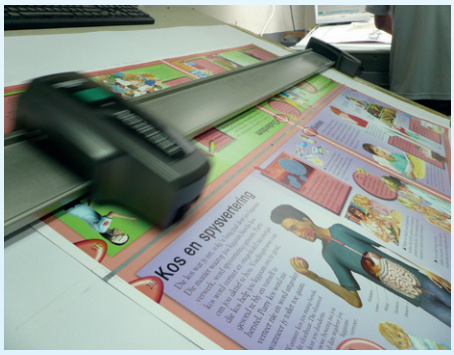
WING KING TONG
Printing Ltd.

Business Nature
業務範圍

Wing King Tong Printing Limited (hereafter called WKT), established in 1987, is a printing factory producing a full range of Original Equipment Manufacturer (OEM) publication products, such as novels, coffee table books, and hand bound children books. In addition to the OEM business, WKT produces Original Design Manufacturer (ODM) commercial production, such as Chinese Almanac, "Agenda" diaries and paper stationery. All products demand a high standard for colour reproduction to meet international standards.

永經堂印刷有限公司(下稱永經堂)成立於1987年，業務包括代工生產各類型彩色印刷品，如精裝書刊、畫冊、說明書、彩盒、筆記本、禮品裝潢產品及禮盒、海報等。同時也經營ODM業務，包括中國通勝、"Agenda"日記簿及其他紙製文具產品。所有產品均需要滿足極高的色彩要求，以符合國際標準和水平。

Wing King Tong Printing Limited
永經堂印刷有限公司



Gray Balance Scanning System
灰平衡掃瞄器系統

10 Colour Printing Machine
10色印刷設備

Achievements in Smart Productivity
睿智生產力成就

New Inspection Optimisation Process Technology (NIOP)
WKT has formulated a technological improvement strategy of transforming its factory into a smart production plant under the aspect of industrial engineering framework. Standardising the work flow to avoid subjective decision on process control, improve the yield and increase the return on investment are the goals of this smart productivity improvement programme. Due to the shortage of technical workforce, skill dependence reduction became the focal point of process management. In 2008, WKT initiated this programme for tackling the process defects through a user-friendly approach, NIOP. This new approach not only improves the productivity, it also reduces the excessive wastage during setup time as part of the technological improvement.

Upon the completion of this project, NIOP has become a quick response user-friendly colour management method by adopting a visual matching technique and Grey Balance theory. The results provide accurate ink balance information for production personnel to make immediate and appropriate corrections concerning imbalance inking conditions during high speed production. It can also solve the labour shortage by the removal of skill dependence process steps. Quick response on colour adjustment in mass production could effectively reduce the setup time and material wastage by turning the time and material towards generating more revenue. Reduction of material and energy saving lead to low carbon footprint manufacturing. Licensing the technology to other players in the industry helps generate additional income. Currently the technology had been licensed to Eastman Kodak, USA.

Prospective Intelligent Control System for Fluid Printing Color Film
In this smart productivity improvement programme, WKT's R&D team developed a new closed loop monitoring approach on controlling printing ink level. The replacement of the reactive colour analysis operation can proactively adjust the ink dosages before the actual production takes place. Through this new approach, it can demonstrate a significant improvement by controlling the dispensing rate to achieve a near perfect colour accuracy. This disruptive technology paves the way for WKT to go for an Industry 4.0 solution which could benefit the industry as a whole.

Upon the completion of this project, there has been an annual saving of approximately HKD 3.6M, which includes savings on setup and labour cost (HKD 1M), inspection cost (HKD 0.7M) and materials cost (HKD 1.9M). And it also open up to potential business opportunities which may amount to HKD 14M.

創新性印刷生產監察質量技術(NIOP)
借鑑工業工程學的生產優化模型，永經堂提出了技術改造方案，策略地轉化傳統製造模式，推動成為智能工廠。印刷工序需要高度的標準化，為避免出現主觀性的生產決定，同時緩解越趨嚴重的人手短缺問題，永經堂研發出以目視對比灰平衡的監控油墨用量技術。此技術有效縮短技術人員在高速生產過程中對色彩管理與油墨控制的時間，舒緩了生產線上的人力需求，同時由於能更有效地管控油墨用量，在節約物料損耗以至碳足跡減排上均有所貢獻。技術成功吸引了美國柯達公司注意，並與永經堂成為合作伙伴，以特許經營方式向全球推廣使用，並期望進一步推廣成印刷行業的國際性標準。

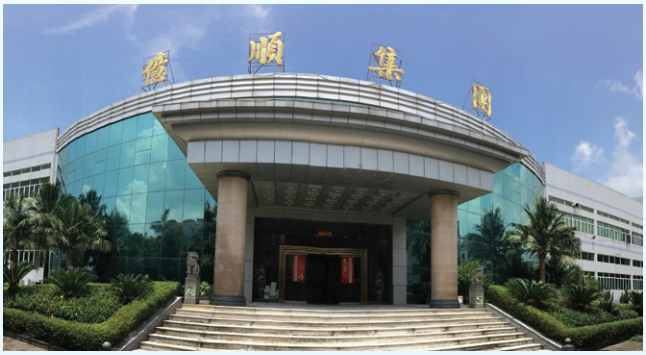
流體印刷色膜智能控制系統
傳統的被動式調色運作，容易造成反應滯後、需要反覆試驗、主觀判斷等問題。永經堂團隊研發出利用閉環式印刷供墨監控，配合自動化色膜監測技術，形成「流體印刷色膜智能控制系統」。原理是在印刷生產時，同步調控供墨量至最佳水平，令色彩能在最小誤差範圍內進行印刷，接近零損耗效果。此突破性技術進一步推動永經堂在工業4.0上的進程，同時在人員、品質檢查、物料等方面每年節省達360萬元，並創造1,400萬的業務商機。

Yick Shun Electronic Toys Manufactory Limited
億順電子玩具製造廠有限公司

Business Nature
業務範圍

Yick Shun Electronic Toys Manufactory Limited (hereafter called Yick Shun), established in 1992, is an electronic plastic toy manufacturer. Their products include baby toys, pre-school toys, remote control toys, educational products, walkie talkie, gifts & premium products and pet toys. Yick Shun has been awarded ICTI and ISO9001:2015 certificates.

億順電子玩具制造有限公司（下稱億順）成立於1992年，是一家電子塑膠玩具製造商，產品包括嬰幼兒及學前玩具、遙控玩具、教學類產品、對講機、禮品贈品、寵物玩具等。億順已通過ICTI及ISO9001:2015質量體系認證，致力為客戶提供高品質產品和研發創新技術。



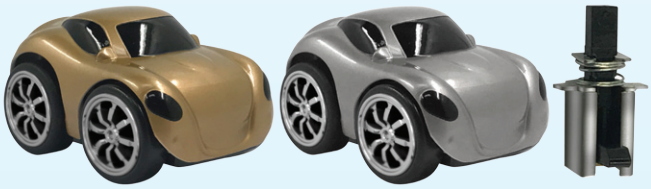
Manufacturing base in Zhong Shan City
位於中山的生產基地

Achievements in Smart Productivity
睿智生產力成就

Innovative Pull-back Toy Car Auto Lock Clutch Design

To resolve the current problem on pull-back toy car, Yick Shun developed a new auto lock clutch mechanism for pull-back toy car. By applying the new auto lock clutch mechanism on pull-back toy car, kinetic energy will be saved during the motion of pulling back the toy car. Then user would press the button on top to release the car. The new design not only encourages new orders, but also simplifies the production process and saves both material & assembly cost.

Upon the completion of this project, there is a saving on material cost for HKD2M, production time saving of 33,300 hours, and sales revenue has reached USD 2.5M (based on the sales forecast of 1,000,000 pcs toy car).



The pull-back toy car & its innovative auto lock clutch component
回力玩具車及其創新自鎖開關組件

Automatic Wheels and Tires Assembly Machine of Toy Cars

By designing a semi-automatic machine to replace the current manual assembly method, the efficiency and accuracy of the wheels and tires assembly work were enhanced, and the labour cost was also reduced. The new process only requires the placement of wheels and tires on the machine, and the machine will automatically assemble the components together.

Upon the completion of this project, there is a production cost saving of HKD 320,000, production time saving of 13,300 hours, and sales revenue has reached USD 6.5M (based on annual output of 500,000 pcs radio-controlled toy car).

Production shopfloor
生產車間

新型自鎖開關組件

為提升回力玩具車的玩樂趣味和體驗，億順研發了一種新型的自鎖開關組件。回力玩具車應用這新型組件後，玩家可在後拉玩具車時同時儲下動能，然後按壓車頂以釋放能量令玩具車前行。新組件取代了傳統的齒輪組件，大幅減省成本及提高生產能力，更引來客戶興趣，相繼增加訂單及開發新車款。項目至今已節省了材料成本約200萬港元，共縮短了生產時間達33,300小時，創造銷售收入達250萬美元。

遙控車輪胎自動裝嵌裝置

億順針對傳統人手裝嵌玩具輪胎的缺點，設計出一套半自動裝置，提升了裝配工序的效率和精準度。以年產量50萬台遙控玩具車計算，新裝置節省了約32萬港元的生產成本，縮短生產時間約13,300小時。新技術更能廣泛應用於其他同類產品之上，創造了銷售收入達650萬美元。

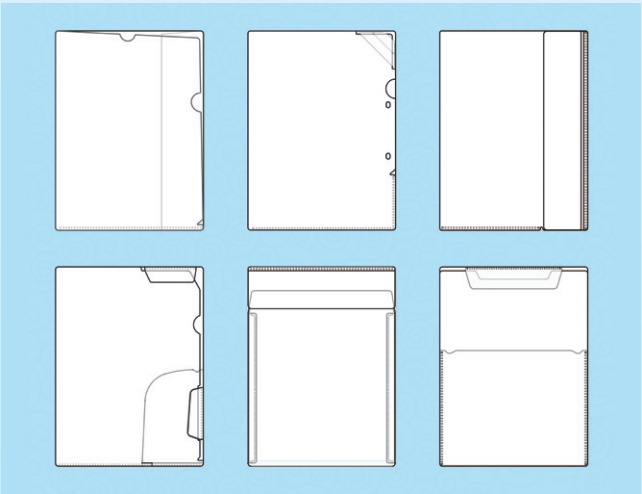
Amazing Product Development Limited
成美產品有限公司

Business Nature
業務範圍

Amazing Product Development Limited (hereafter called Amazing Product), established in 2008, is a plastic folder manufacturer and exporter. It aims to provide high-quality and effective promotional plastic folders to clients.

成美產品有限公司(下稱成美)成立於2008年，是一家塑膠文件夾製造商及出口商。成美本著以設計為主導，為客戶打造個性化、高品質及極具宣傳效力的塑膠文件夾。

Information Booklet Folder with inner compartments - keep more classified documents
內袋資料冊 - 儲存更多文件，分門別類存檔



Different Designs Folders - satisfy customers need
多樣化設計文件夾．滿足客戶需求

Corner Lock Folder – Documents are not easy to fall out, keep documents more safety
角扣文件夾 — 文件不易跌出，更安全保護文件。

Achievements in Smart Productivity
睿智生產力成就

Plastic folder is a product in the low market price range. Without a sufficient profit incentive, investors and manufacturers have little intention to invest and improve on the products. Amazing Product foresaw the emerging market demand on personalised products, and was determined to re-develop a wide range of new plastic folder series. To reduce production difficulties and cost, the company focused on standardising the design, material use, molds and fixtures of the plastic folder. Upon completion of this project, Amazing Products enriched its plastic folder series with a mix of diversified styles and standardised production, and created an innovative "Standardised Customisation" business model.

The new business model enabled the company to revolutionise the traditional sales and marketing strategy for plastic folder. Amazing Product built its B2C direct sales channel by opening up online shops on Alibaba, zbj.com, jmall360.com. They also established an offline sales network with the cooperation of printing shops. Amazing Product received orders from the education, insurance, advertising sectors; they also successfully improved the profit margin and changed the market prospects for plastic folders.

塑膠文件夾是銷售價格低的產品，缺乏足夠利潤誘因之下，投資者卻步，產品更趨單一，難以提升市場價格，形成一個惡性循環。近年市場吹起一片「個性化」風，對具創意、個性化的產品趨之若鶩，成美看準時機，投入資源，希望為市場帶來新朝氣。

針對市場的個性化需求，成美大量開發新型文件夾系列，包括增加不同款式的結構扣件，改善紙張容易飛出的問題；改良壓邊設計，配合平面設計，提升產品的耐用性和美觀度等。開發過程中針對設計、物料使用、生產模具及夾具等方面進行標準化，從而降低產品的生產成本。一系列的開發工作為成美建立起完整的產品線，同時帶來了多達10項的新專利。成美透過提升質素、自動化彈性生產設備、多達300款產品、運用網絡平台、提供個性化定製等項目提升品牌。成功獲得中國17間國家級博物館文件夾授權產品，以"至專文創"品牌開闢上架故宮博物館、新華書店、機場中信書店等銷售渠道。

成美在「標準化定制」的基礎下，革新了傳統塑膠文件夾製造廠的市場推廣及銷售模式。通過線上銷售平台，包括公司網站、阿里巴巴、豬八戒、集邁網等，開拓了B2C廠銷直送的銷售渠道；另外與不同的實體印刷館，建立起線下銷售網絡。線上線下銷售，結合產品的高定制性，成美取得來自教育、保險、廣告等界別的機構客戶訂單，成功提升塑膠文件夾的利潤水平，改變了市場生態。

DHL Express Hong Kong
DHL Express 香港

Business Nature
業務範圍

DHL is the leading global brand in the logistics industry. Our DHL family of divisions offer an unrivalled portfolio of logistics services ranging from national and international parcel delivery, e-commerce shipping and fulfillment solutions, international express, road, air and ocean transport to industrial supply chain management. With about 360,000 employees in more than 220 countries and territories, DHL connects people and businesses securely and reliably, enabling global trade flows. With specialised solutions for growth markets and industries including technology, life sciences and healthcare, energy, automotive and retail, a proven commitment to corporate responsibility and an unrivalled presence in developing markets, DHL is decisively positioned as "The logistics company for the world".

DHL is part of Deutsche Post DHL Group. The Group generated revenues of more than 60 billion euros in 2017.

DHL 為物流業的全球領導品牌。DHL 的各個分支致力提供無可比擬的物流服務，包括國內與國際郵件服務、電子商務配送方案、國際速遞、海陸空運輸及行業供應鏈管理。憑藉在全球超過 220 個國家及地區的逾 36 萬名員工，DHL 將人和企業安全可靠地聯繫起來，並促進環球貿易往來。DHL 作為「世界頂尖的物流公司」，不僅為科技、生命科學與醫療保健、能源、汽車及零售等增長市場及行業提供專業的解決方案，更積極履行企業責任，於發展中市場扮演不可取替的角色。

DHL 為德國郵政 DHL 集團（Deutsche Post DHL Group）旗下品牌之一，集團於 2017 年的營收超過 600 億歐元。

DHL's Paperless Trade service enhances the efficiency on shipment handling.
DHL 無紙貿易服務提升貨件處理效率。

Achievements in Smart Productivity
睿智生產力成就

DHL On Demand Delivery

With On Demand Delivery, shippers can choose to activate specific delivery options and have DHL Express proactively notify their customers via email or SMS about a shipment's progress. Receivers can then select the delivery option that best suits their requirements via the On Demand Delivery mobile-optimised website. DHL Express couriers will be notified of these delivery preferences in real-time, ensuring shipments are received at the right time and to the convenience of the receiver while reducing the number of unsuccessful delivery attempts due to the recipients' absence.

As consumers are getting more and more reliant on mobile devices, a mobile-friendly digital platform for delivery management like On Demand Delivery is crucial for retailers to accommodate the special needs of their customers. To cater to the demand of local online shoppers who do not want to miss a delivery when away from home, On Demand Delivery enables shipments of any customs value to be sent to alternate addresses or stored temporarily at designated collection points including convenience stores, DHL service points and DHL lockers. Should the customer be on vacation, shipments can be put on hold and delivered at a later specified date. The reliable and speedy delivery which completes the customers' online shopping experience will also help increase the customer satisfaction of cross-border e-tailers.

DHL Express Hong Kong connects local customers to over 220 countries and territories.
DHL Express 香港將本地客戶與全球 220 國家及地區緊密聯繫。

DHL's Paperless Trade service (PLT)

DHL's Paperless Trade service allows shippers to electronically transmit customs documents, eliminating the need to print and physically attach them to the shipments. As well as saving shippers' valuable time when preparing shipments, this service will also help save on paper and printing costs, while also making a positive contribution to the environment.

PLT service enables users to prepare complete and accurate shipment papework, eliminating manual input errors and avoiding delays caused by incorrect shipment information. It also enables earlier receipt of documentation, allowing queries to be resolved more quickly and enhancing the speed and efficiency in customs clearance.

DHL On Demand Delivery 自訂派件服務

DHL Express 的客戶可透過 On Demand Delivery 自訂派件服務啟用指定送件選項，DHL 會以電郵或短訊，主動通知收件人貨件的付運進度，收件人則可透過兼容各種流動裝置的網上平台，選擇所需的速遞安排。有關選項會即時傳送至 DHL Express 速遞員，確保貨件於最適當時間以最便捷的方式送到收件人手上，同時減少因為收件人不在家而未能成功派遞的次數。

流動裝置已成為消費者日常生活一部份，因此零售商需要一個兼容流動裝置的電子平台如 On Demand Delivery 管理速遞貨件，以滿足客戶的個別需要。DHL 明白本地網購人士不想因外出而錯過送件，On Demand Delivery 自訂派件服務可安排貨件速遞至其他地址或暫存於指定取件地點，包括便利店、DHL 速遞中心及 DHL 智取櫃。若客戶正在享受假期，更可以選擇暫停貨件付運及更改派送日期。這項可靠便捷的速遞服務不但能令客戶的網購體驗更為完善，更能協助跨境網絡零售商提升其客戶的滿意度。

DHL 無紙貿易服務

DHL 無紙貿易服務讓寄件人透過電子方式遞交報關文件，不需列印實體文件再貼於貨件上，助寄件人節省準備報關文件的時間。服務更有助減少使用紙張及列印成本和耗材的使用，實踐環保。

透過 DHL 無紙貿易服務，寄件人可以為貨件準備完整和準確的文件報關，減少因為人手輸入錯誤資料所造成的清關延誤。同時，寄件人可提前傳送文件，加速文件審理和清關過程，大大提高效率。

DHL On Demand Delivery offers flexible shipping options to consumers, including shipment collection at DHL Lockers.
DHL On Demand Delivery 自訂派件服務為消費者提供靈活的收件選項，包括於 DHL 智取櫃取件。

Gammon Construction Limited
金門建築有限公司

Business Nature
業務範圍

Headquartered in Hong Kong, Gammon has a reputation for delivering high quality projects throughout China and Southeast Asia, as well as offering innovative solutions and services to our customers. At Gammon, we focus on our customers' needs and how we can best use our abilities and resources to add value for them through innovative and sustainable solutions. We pride ourselves on the imagination, skill and high standards we apply to all of our projects.

金門建築總部設於香港，業務遍佈中國及東南亞，曾完成多項優質的建築項目，並為客戶提供創新的建築方案及服務。金門建築致力提供優質的服務，一切以客為先。憑藉豐富的經驗及資源，我們為客戶提供創新、可持續發展的建築方案。金門團隊於每個工程項目均能發揮我們引以為傲的創意、展現出色的建造技術和超卓的專業服務。

Customers are using E-Docket and Concrete Management System (CMS)
客戶正在使用混凝土電子送貨單和管理系統

Achievements in Smart Productivity
睿智生產力成就

"E-Docket and Concrete Management System (CMS)"were developed by Gammon, making it the first concrete batching plant in Hong Kong using the Cloud to provide client with real-time order, production and delivery information as well as e-dockets for concrete receiving. Process information including order, production, transportation and compliance tests is then seamlessly connected to the ERP finance management system and the computerised concrete batching plant system through a web-based platform. The e-Docket and CMS implement the paperless production and data traceability, not to mention a boost of 95% productivity improvement in comparison with the adoption of common practice. A reduction of annual expense of HK$500,000 for paper docket, printing equipment and storage space can be achieved by using this system.

"IoT Enabled Concrete Quality Assurance: Temperature" is another project completed by Gammon to improve the productivity of high-quality concrete. The real-time temperature information of raw materials in the silos and ready-mixed concrete in mixer trucks is captured by non-contact smart sensors respectively, and then is uploaded to GPS platform and summarised with vehicle and logistics information. Besides, a concrete temperature model is developed to simulate the ice consumption for low-temperature concrete production based on the temperature

Gammon built a concrete batching plant and provided concrete for the construction of West Kowloon Terminus
金門建築為高鐵西九龍總站項目建造混凝土廠並供應混凝土

of raw materials and the most recent historical data. It can also anticipate the temperature rise of fresh concrete during delivery from concrete batching plant to construction site. This quality assurance project helps to enhance the productivity of low-temperature concrete by 16%. The expense of ice and nonconforming concrete risk are reduced while the resources for on-site quality monitoring are also eliminated.

金門建築研發並應用「混凝土電子送貨單和管理系統」，是香港首家使用雲技術為客戶提供全系統全天候電子訂貨、交付資訊和電子驗收的預拌混凝土供應商。混凝土管理系統利用網絡平台，將企業資源計劃財務系統、電腦生產控制系統和混凝土廠的電子訂貨、運輸、驗收系統相結合。混凝土電子送貨單和管理系統提高了相關工作流程95%的生產力，同時實現了無紙化和數據的可追溯性，每年節約紙張、打印設備和存儲空間等支出達港幣五十萬元。

為提升高品質混凝土的生產力，金門建築亦開展了「物聯網技術在品質保證中的應用：混凝土溫度控制技術」。該技術應用非接觸式智能傳感器採集原材料和預拌混凝土的實時溫度信息，上載至車載全球定位系統並與車輛訊息匯總。金門建築還建立並應用了混凝土溫度模擬模型，根據原材料的溫度以及最新生產的歷史數據實時模擬混凝土生產時所需的合適用冰量，並預估混凝土運送途中的溫度升幅。應用這一技術提高了生產低溫混凝土16%的生產力，大幅減少生產用冰支出，降低混凝土不合格的風險，完全節省了現場混凝土相關質量監控的成本。

A mixer truck equipped with non-contact smart sensor is delivering concrete (Photo by Daryl Chapman)
配置非接觸式智能傳感器的混凝土車正在送貨

Ten Pao Group Holdings Limited
天寶集團控股有限公司

Tenpao
天寶

Business Nature
業務範圍

Ten Pao Group Holdings Limited (hereafter called Ten Pao), established in 1979, is a manufacturer of power solution products. Its switching power supply units are applied in various industry segments, including switched-mode power supply (SMPS) for consumer products (telecommunication equipment, media and entertainment equipment, electrical home appliances, lighting equipment and other products etc), smart chargers and controllers for industrial power tools, and charging equipment for new energy electric vehicles.

天寶集團有控股有限公司（下稱天寶）成立於1979年，主要為客戶提供有競爭力的一站式智慧電源解決方案。其開關電源產品應用於多個行業，包括應用於消費性產品的開關電源產品(SMPS)(如電信設備、媒體及娛樂設備、家庭電器、照明設備及其他產品等)、工業電氣設備內的智能充電器和控制器，以及新能源電動汽車的充電設備。

Achievements in Smart Productivity
睿智生產力成就

Flexible Manufacturing System – Automatic Production Lines

Using smart manufacturing production technology and management model, Ten Pao modified the existing production system into an intelligent, automated, flexible and digitised system. Through the system design and solution to support the core technology of smart production, and the development of customised smart automated production facilities, Ten Pao established flexible smart automated production line, implemented digitalisation and visualisation of production process, improved production efficiency and flexibility, increased the response speed to customer and market, and enhanced the competitive advantage and profitability of the company.

Upon the completion of this project, productivity increased and the number of operators at production line was reduced. It also enhanced management efficiency by using real-time production information to steadily implement on-site management efficiency. The standardisation level was increased by standardising the production model. It also promoted standardisation in product design and ensured product quality consistency.

Manufacturing Execution System – Digitalization

The executions of the programme are:

- Establish real-time data transfer between ERP and MES system
- Collect equipment real-time data - improve the ability of decision-making
- Set up on-line-visualization system - improve on-site management efficiency

Upon the completion of this project, it improved the real-time information exchange between ERP and MES, and the communication between equipment to collect real-time and accurate data. Elements of visualisation and digitalisation were implemented in the system to enhance the management efficiency.

The process is optimized with the followings: 1) Implementation of electronic way of material collection and elimination of manual stock-take. 2) PDA is used to exchange real-time information to enhance efficiency. 3) Warehouse information management system is completed. It can support the future development of smart warehouse which will enhance the efficiency by 20%. 4) The centralised warehouse can also minimise the work of move-in / move-out from warehouse. 5) The JIT materials supply system is implemented and it reduces the number of goods WIP by 10%. 6) Through the introduction of TPM module, the equipment OEE is increased by 5% and the equipment malfunction is reduced by 15%.

智能製造柔性生產線

天寶引入智能製造的生產技術和管理模式，對現有生產線進行智能化、自動化、柔性化、數位化改造。透過系統設計及方法、支援智能生產核心技術，以及研發客制化智能自動生產設備，天寶成功建立柔性智能自動化生產線，實現生產過程數碼化及視覺化。在提高生產效率和靈活性之餘，更加快了對客戶和市場的反應速度，進而增強企業的競爭優勢和贏利能力。

項目成功改善了人均產出水平，並減少了生產線上的操作員數目。同時由於能夠實時提供生產訊息，有效地提升現場管理水平和效率。而標準化生產模型的應用，更促進了產品設計標準化，確保了產品質量的穩定性。

數位化生產管理系統

為推動公司持續向前，天寶展開了多個專案，以建立數位化生產管理系統，實現數位化精益自動化工廠。這些專案包括：

- 實現ERP與MES系統即時資料對接
- 實現設備即時資料採集 — 提升決策力
- 數位化視覺化系統上線應用 — 提高現場管理效率

這些專案成功實現了ERP、MES及設備間的實時訊息交換及通信，有效收集實時和準確的數據，提高了管理效率。除減少對人力資源的需求，專案進一步優化了流程與核心功能，包括實現電子化收料，消除了人工點數及記錄；採用PDA進行即時資料交換，提高效率10%；完成倉庫資訊化管理，為未來實行智能倉儲建立基礎；形成中央庫存機制，物料直接由中央倉庫配送到生產線，減少多次出入庫作業；實施JIT材料供應系統，減少SMT車間在製品數量達10%；引入TPM模塊，成功提升設備OEE達5%，並減少停機時間15%。

Flexible Manufacturing System - Automatic production lines
智能製造柔性生產線

Manufacturing Execution system-Digitalization
數位化生產管理系統

Smart Productivity
睿智生產力

聲明：文字及圖片資料由得獎機構提供。
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