



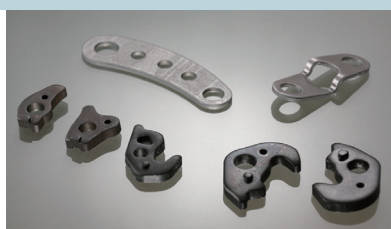
台灣上市公司

新加坡百達精密工業主席 黃亮茫博士 看見傳統產業的醫療應用新出路

前言

出生於新加坡的百達精密工業股份有限公司主席黃亮茫表示，百達是在 1992 年由他與一位日籍友人日高博之（Hisanori Hidaka）先生所共同成立，原本從事自動化設備之設計研發並委託日本廠商代工，主要行銷東南亞。1990 年代當時 Sony 等大廠均在新加坡、馬來西亞等地設廠，由於日高先生具備優秀的設計能力，因所研發製造的自動化設備可大幅提升產品的穩定性，亦可延長模具壽命、增加產業競爭力，故自 1992 年起短短 3 年內，便銷售了 100 多條生產線予客戶，自此為百達奠定良好的基礎。

百達集團不同於一般生產汽車零組件公司，從設備、研發到生產與銷售均採一條龍模式，不但能產品客製化，更能縮短生產時間，為全世界唯二之汽車零組件一條龍企業。近期所佈局的醫療器械和滅菌盒產品，業已取得長庚醫療集團認證，預計今年第三季即可開始銷售，醫療用組織剪及止血鉗亦規劃於第四季開始出貨。從百達積極研發拓展新事業的企圖中，可一窺傳統產業的醫療應用新出路。



Upgrading of Traditional Industries

Patec's Medical Applications are on the go!

Patec Group, a Singapore-based auto components supplier, the company's chief executive officer Michael Wee said it would start to tap the medical instrument market this year, which is seen as another sales catalyst by the company.

“The company is scheduled to start shipping medical instrument sterilization containers in August,” stated Michael Wee. He deeply convinced that sustained growth in medical applications looks promising.

At the same time, Patec is planning to distribute the new products to B. Braun Melsungen AG, a leading medical and pharmaceutical device supplier from Germany, Wee said.



生產線從日本轉移新加坡 百達集團歷經事業低潮

雖然三年內創下銷售了 100 多條生產線的佳績，但卻讓黃主席產生一種居安思危的危機感，他常思索：「接下來該如何突破現境創造另一個事業高峰？」，深覺不可能永遠只靠設計自動化生產線為主，於是自 1993 年起便開始設計沖床機械生產。

雖業績不斷成長，但因當時日本經營成本相當高，導致獲利不如預期，為降低生產成本，故考量將生產基地轉移至其他地區，雖然當時亦曾考慮至台灣設廠，但最終考量新加坡政府能提供更多優惠措施，且黃主席較熟悉新加坡法規等因素，因此在 1997 年成立百達新加坡廠。

此次生產線的轉移，是黃主席經營百達集團遭遇的第一個難題，當時客戶普遍還是對 made in Japan 存有迷思，認為新加坡較無工業基礎，made in Singapore 的品質應該不及日本，特別是日本客戶均抱持一種「新加坡能嗎的存疑！」

為了消弭質疑，黃主席甚至邀請客戶到新加坡廠參觀製造流程，且保證品質一定與之前在日本製造的相同，即便如此，日本客戶依舊堅持舊有思維，認為至少觀望五年才能認可，雖然當時少了日本客戶的訂單，幸好有還有新加坡、馬來西亞等廠商持續支持，讓百達勉強度過了最艱辛的五年。

無心插柳 百達進入汽車 零組件市場

2006 年因有位客戶，其原本的汽車零組件供應商出了問題，無法出貨，遂緊急向他們請求支援，百達在短短一個月內順利幫客戶開模生產，解決了客戶頭痛的問題，在此機緣下，便進入門檻相對較高的汽車零組件市場。

黃主席分析，百達主要銷售生產汽車零組件與沖壓生產線設備，客戶以第一階（tier 1）汽車零配件廠商為主，主要客戶包含佛吉亞（Faurecia）集團、恩坦華（Inteva）、Akebono 等，並順利成為 BMW、福特（Ford）、福斯、TOYOTA 等車廠供應鏈。

銷售設備至工業大國—德國 百達新里程碑

黃主席分享，曾有位德國買主對該公司的設備頗有興趣，在 email 往來時，洋洋灑灑在 A4 紙上列了密密麻麻共五頁的問題。當此買主來新加坡洽商時，黃主席便與購買百達最多設備的新加坡客戶商量，讓德國買主前往其工廠參觀，藉由該新加坡客戶的使用經驗及製作成品，完整的回答德國買主的疑惑。這讓客戶間彼此溝通的策略果然奏效，並回答了德國買主眾多疑問。「但他們還是對我們沖壓設備的噪音能這麼小深感興趣」，因為同業所產生的噪音至少接近 80 分貝，而百達卻只有 60 分貝以下，黃主席笑稱「這就是獨家技術所在」。

因深獲德國買主的肯定，讓百達能順利打進德國市場，將第一台設備賣到全世界最難行銷的工業大國，不啻是該集團新的里程碑。

持續全球布局 百達產品 良率逼近百分百

近年來百達持續布局東南亞、歐洲和中國大陸市場，去年中國大陸約占百達整體營收比重約 68%、印尼占比 20%、匈牙利占 6%、新加坡占比 6%。

黃主席指出，公司研發的設備能滿足金屬冷成型行業不斷提高的技術需求，光學座標磨、光學曲線磨等高端設備，亦能生產垂直度和平整度要求嚴苛的產品，因其精實的生產管理，故產品出廠良率近乎 100%，並善用全球採購布局大幅降低成本，確保競爭優勢。



Surgical Scissors and Hemostatic Forceps Will be the Growth Drivers

In addition, Patec is set to begin shipping its surgical scissors and hemostatic forceps in the fourth quarter of this year, he said. On one hand, all the surgical scissors and hemostatic forceps will be bar-coded.

How doctor or hospital benefit from bar-coded instruments?

First of all, more than 50 instruments are used for an eye surgery at average. It becomes easier for medical personnel to track devices with scanner rather than in a customary way. Before and after a surgery medical nurse scan instruments which were used and control sterilization process.

Secondly, machine readability of barcodes saves the time needed for medical personnel to prepare instruments before and after each manipulation. They need to spend twice as less time to properly prepare for a surgery.

Most important of all, safety requirements for medical devices exploitation call for a strict control over the instruments which are subject to sterilization after each surgical manipulation. An option of scanning instruments within a hospital enhances a patient's safety and adds a good trust credit to clinic's reputation.

For cost efficiency, providers receive support bonus in terms of more analysis options and easy documentation within inventory management. Costs become transparent throughout a life cycle of each instrument, especially for high-priced items. You know the life cycle of each instrument – how many surgeries and sterilizations were performed. Sometimes it happens that the time to change an instrument has come and you don't know it until you look for the history of the instrument.

There are also benefits in terms of easy documentation. It helps medical staff register instruments when buying so that they know how many instruments left and how many are to be disposed of. In other words, it would be much easier for the operating room management that focuses on maximizing operational efficiency at the facility.



汽機車沖壓件產品 仍佔九成營收

去年生產汽機車沖壓件產品，佔百達營收比重仍有九成左右，黃主席表示，受惠於中國實施小車購置稅減半激勵，年底中國汽車銷售量暢旺，再加上公司因福斯大眾集團推升 MQB 平台，對品質良好的供應商採購量增加，供貨滲透率提升，估算去年光大陸汽車廠零組件訂單年增兩成，且今年仍有機會維持一成以上的增長幅度。

成功研發均熱片沖壓機 成為英特爾唯一供應商

百達近年亦運用原有精密沖壓之技術優勢，跨足非汽車零件領域，針對英特爾（Intel）22 核心 Xeon 系統伺服器處理器，開發生產專用均熱片的沖壓機、Type-C 連接器接頭等產品。

黃主席清楚記得，其中開發生產英特爾專用均熱片時，曾因研發同仁壓力過大，導致失眠而離職，此後黃主席遂改以團隊方式進行研發，經過一年多的努力，終於成為英特爾該項設備之唯一供應商。

加入德國 VW 集團全球零件供應平台 跨足新領域

百達透過此平台及本身精沖和深抽技術，持續發展引擎穩定器、醫療器械、Nissin 煞車系統供應、醫療器械滅菌盒及自主開發專用設備等。煞車系統供應部分，預期今年可開始供應泰國 Nissin Brake，切入 Honda CRV 煞車片原廠委託製造（OEM）供應商。



雨刷連桿、引擎噴嘴、底盤深抽件 新三大成長動能

在匈牙利廠投產的雨刷連桿，目前規劃每月產能 50 萬到 60 萬件，除供應沖壓件之外，亦投入塑膠射出件生產，主要供應日系客戶，今年 4 月起開始出貨供應新的車廠，全年可望成長 80%，營業額可達 2 億；引擎噴嘴則由百達中國大陸廠生產，主要供應歐洲市場；底盤深抽件則於福斯 MQB 平台銷售。此三項新產品訂單，預估可延續長達七年到八年。

擴充大陸無錫、匈牙利新廠 貢獻產能

百達今年持續擴充中國大陸無錫廠，預期今年新廠房利用率可達 80%；此外，匈牙利新廠預估七月到八月完成，預期今年可開始利用。

近年印尼積極布建交通基礎建設，加上人民基本薪資提高，預估將帶動中產階級對汽車需求，因此持續看好今年印尼市場成長力道。



The Turning Point of Patec

Apart from that, one of the biggest challenges that Patec has had ever faced was in the late 1990s, when they transferred their main production line from Japan to Singapore for cost-effectiveness. "Our Japanese customers doubt that whether made in Singapore has the same quality that of made in Japan," said Michael Wee. Hence, Japanese customers adopted a wait - and - see attitude for five years toward the new changes.

Hopefully, although that the company lost their orders from Japan, they still made it through by getting orders from Singapore and Malaysia.

In face, Patec at first also considered to transfer their production line to Taiwan, with the reason that Singapore authorities have more offers so that they decided to go to Singapore in the end. After five years of struggling, Patec proved it those made in Singapore are same with made in Japan and in lower cost.

To tap into the Automotive System Parts Market by Accident

In 2006, one of Patec's customers that suffered from its automotive components supplier unable to ship on time so that urgently asked for help from them. Tooling molding and put it into production within a month, Patec to cut the Gordian Knot and then tap into the comparably higher entry threshold automotive system parts market.

To Penetrate into German Market

Michael Wee said that another milestone of the company is that they sold their machines to Germany. "Selling machines to Germany is a different story, they have the highest standard when talking about fabrication process." Michael Wee added.

Michael Wee recalled that the German potential buyer emailed him like five A4 pages written with inquiries. "When the potential buyer comes to Singapore, I ask one of my loyal local customers to guide him in their factory, showing and answering questions that the German potential buyer may have," said Michael Wee. Such an unconventional approach worked, the German potential buyer has no more question but only curious about what's the key point of noise control of the machine. "That's our know-how." claimed the president.

The company said it expects gross margin to grow further this year from last year's 29.1 percent, as the

medical instruments offer margins of more than 50 percent.

However, the company also plans to launch several new lines of auto parts this year, in a bid to diversify its product portfolio and satisfy global customers' demand. Known for its metal stamping technologies, Patec aims to manufacture some plastic injection molded car components this year, such as wiper linkages and injectors.

Product Diversification of Patec

The company applied its metal-forming technique into the non-automotive business. For instance, designed the punching machine for Intel Xeon system servers' heat spreaders, Type-C, etc.

Michael Wee revealed that when they were working on Intel's case, one of his colleagues had been diagnosed with an insomnia disorder and resigned. Afterward, Michael Wee encouraged his employees to do teamwork in developing this project. Being united is powerful, and finally became the only supplier for the punching machine for Intel Xeon system servers' heat spreaders.

The Ability to go High Volume Production

Patec is able to make 500,000 pieces of wiper linkages and 200,000 units of injectors per month, Michael Wee said.

The company is to allocate nearly US\$3 million for capital expenditure this year, compared with last year's US\$2 million. The budget would mainly be used to conduct research and development of new products and raise production capacity at its China plants by 30 percent this year.

The company's subsidiary in Wuxi, China, has been running at full capacity, Huang said.

Patec Continue Bullish Trend

Last year, the company posted cumulative sales of NT\$2 billion (US\$66.3 million), a 30.5 percent increase from NT\$1.54 billion a year ago. Car components remained the company's main source of revenues last year, constituting 84percent of total sales, company data showed.

In terms of its total revenue, China contributed 68 percent, while Indonesia 20 percent, Hungary six percent, and Singapore six percent, respectively.

生產醫療器械、滅菌盒 成功跨入醫療新領域

百達最讓人關注的是成功跨入醫療領域！黃主席表示，其所生產的醫療器械，緣自於德國醫療器械廠商邀請，由於傳統醫療器械以「熱鍛」方式生產，需經酸洗過程較不環保，而百達的核心技術為「冷鍛」無需經過酸洗，除了較為環保外，亦可減少工序和降低成本，頗受客戶青睞。相關產品已完成研發，並成為德國貝朗馬來西亞廠供應鏈，並在今年第三季即可進入量產階段。

由於醫療器械毛利預估逾五成，且具有進入門檻高、不易被取代之優勢，看好未來業績成長性，將成為百達營運新支柱。

百達集團於去年底宣布成立生產滅菌盒公司，將生產醫療器械、並可用於放入滅菌設備使用的滅菌盒，黃主席說明，百達生產之不鏽鋼滅菌盒可維持無菌效果達到六個月，減少醫院器械感染風險，對醫院而言可節省相關成本。此產品已獲長庚醫療集團測試、認證，預料今年第3季即可進入供貨階段，對今年營運展開貢獻，成為今年營運新成長動能。

黃主席進一步分析，使用滅菌盒的好處是，過去醫療人員在每次動完手術後，須逐一清點器械數量，但使用滅菌盒不但可以固定每項器械的位置，若有缺少便可一目瞭然，尤其，可利用滅菌盒編號資訊化的追蹤管理，了解每支器械使用狀況，提高管理效率。甚至開刀器械也能以二維條碼（QR code）管理，方便醫院未來進行無人化管理，其開刀器械並可依心臟、腦科、內科等科別分門別類收納，避免遺漏。目前規劃市場為台灣、中國大陸及東協等地區。

黃主席表示，醫療器械和滅菌盒預估今年八月到九月交貨；醫療用組織剪及止血鉗已獲得德國醫療器材大廠 B.Braun 訂單，預計於申請 CE 核准通過後第四季開始出貨。

期待醫療器械與汽車零件業務能成為營運的「雙支柱」，預估 2020 年時兩大事業的營收占比可達各半，降低目前高度倚重汽車零件業務的風險。

每 5 年重新檢視企業目標 締造百達事業新高峰

黃主席依稀記得 15 年前在匈牙利與 IBM 高層開會時，曾問及：「硬碟生命週期預估能有多久？」當時對方回答約 10 到 15 年，如今確實印證硬碟利潤越來越低，這說明企業經營者需具備靈敏的思維與精準的目光，才能掌握未來新趨勢。

他建議企業應每隔 5 年重新檢視營運目標並適時調整，醫療相關產業將是百達未來 15 年的新機會、新亮點，且讓我們拭目以待！



Michael Wee also give credits to its Chinese employees, saying that they are the best workforce.

Patec's largest customer in the sector is France-based Faurecia, a leading auto parts manufacturer and supplier to Volkswagen AG and General Motors Co.

Patec said it will continue improving the quality of its products to maintain its competitive edge. The company is to upgrade its engine stabilizers with the latest cold-forging technology to shorten manufacturing time. As a matter of fact, the company committed to achieving full customer satisfaction through quality assurance of their defect-free products.

The group said it will also tap into the medical instrument business. The company said that its medical instrument branch is to begin production in the third quarter of next year, with a gross margin of up to 50 percent.

To Increase the Medical Instrument Business

"By 2020, we hope to raise the sales contribution from the medical instrument business to 50 percent," Michael Wee said.

The group started with high-precision mechanical

press machine production, but now provides metal-forming engineering solutions and metal-formed components to global automotive and electronics companies.

Patec has manufacturing bases in China, Indonesia and Hungary, shipping products to global customers its Web site shows.

Pursuing Excellence Relentlessly

Today, Patec Group employs more than 1000 staff in two research locations, five production sites, and six service centers worldwide. Patec celebrated its 20th anniversary in 2012 and continues to relentlessly pursue excellence and create value for our customers, suppliers and staff.

Moreover, Patec applied for primary listing on Taiwan Stock Exchange on October 29th, 2014. The highest proportion of Patec's sales revenue comes from the sale of automotive safety system parts, which are used in locks, seats, brake systems and providing exhaust and clutch parts. Its major end customers are Volkswagen, Toyota group, Honda and Yamaha back then.

From an automotive system parts provider defined as the traditional industry to the developer of surgical scissors and hemostatic forceps. Let's wait and see how Patec's going to transform and shine like a star.

