

現任

中華民國運輸品質保證協會執行長
台北市航空貨運承攬商業同業公會理事長
台北市報關商業同業公會常務理事
世界航空貨運組織臺灣首席代表
亞太航空貨運承攬聯合會副會長

曾任

民用航空局技訓所講師
外貿協會培訓中心講師
淡江文理學院講師
華視教學部講師
金融研訓院講師
美國德州聖安東尼奧大學客座副教授
經濟部技術處「示範性資訊應用開發計畫」
「全球運籌資訊後勤支援系統計畫」主持人



現任

美亞捷運機構董事長兼執行長
西鐵捷運股份有限公司董事長
台結企業股份有限公司常務董事
全球聯運股份有限公司常務董事

萬德企業股份有限公司董事長兼執行長
美國美亞捷運股份有限公司董事長
台飛聯運股份有限公司常務董事
彥洋股份有限公司常務董事兼執行長

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航空產業經營環境演變及挑戰

Air Logistics Environment Development & Challenge



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The Association of Air Forwarding & Logistics WEB 航空產業經營環境演變及挑戰 3

報告大綱

▶	壹、航空產業經營環境演變
	貳、經營市場與環境演變
	參、貿易便捷化、航空保安與關務服務
	肆、人力資源缺口與產學合作核心價值
	伍、航空貨運之未來
	陸、結論

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The Association of Air Forwarding & Logistics WEB 壹、航空產業經營環境演變 4

The timeline illustrates the evolution of the air freight and logistics industry through several key periods and milestones:

- 1964-1966:** Air Supply (Civil Air Transport, Air Asia, Air America & Southern Air transport)
- 1967-1968:** AIR VIETNAM
- 1969-1989:** General Travel Service (Passenger & Cargo)
- 1990-2000:** Shulman Transport Enterprise, Transpac Air
- 2001-2005:** Shulman Air Freight & Mantraco Ltd
- 2006-2007:** WACO Air & Sea Logistics Multi-model transport service
- 2008:** Physical & Virtual Logistics/Distribution

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The Association of Air Forwarding & Logistics
WEB
壹、航空產業經營環境演變
5




航空自由市場演變
Changing Nature of Air Marketplace

動態供應鏈要素
Supply Chain Components of Movement

Pre-1980
Open Sky
1980-1995
Facilitation
1996-today

Physical Transportation 實體移動	Evolution of Logistics 運籌拓展	Supply Chain Management 供應鏈
Regulated market 市場管制	Deregulated market 開放市場	Global market 全球市場
Cost-based pricing 成本依據定價	Price-based costing 定價依據成本	Financial reengineering 財務再造
Low cost of capital 資本成本低	Awareness of high inventory cost	Total cost of sales 銷售總體成本
Inventory carried to support EOQ and sales 存貨高低影響執運品質與銷售	JIT pushed carrying cost back to suppliers 及時推集供應商存貨成本	Total inventory pipeline reduced 總體存貨過程減低

Inflation & Deregulation
通膨與鬆綁
Globalization & Reengineering
全球化&再造



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商用策略、技術、顧客關係與未來
Business Strategy, Technology, customer relationships, and beyond


Level of Business Change
商業進化變動層次

Redefine Industry
企業重新定位
Create Best Practices
創造最佳運作
Model Best Practice
先導最佳運作
Efficiency
效能

Streamline
現代化流程
Business Engineering
企業再造
Business Invention
企業創新

Single Function
客機導向
Core Processes
客貨並重
Supply Chain
共享航班
Extended Value Chain

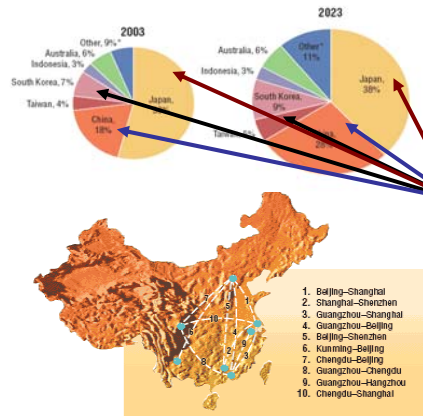
市場與營運改變
知識經濟商貿



商業必須自我評定他們的現有的表現和決定如何提供其顧客增值基礎
Businesses must evaluate their existing sites and determine how to offer increased value to their customers

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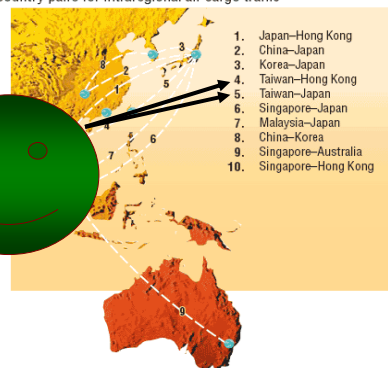
Asian Economic Power Distribution Is Shifting
Share of regional GDP



Asia Pacific Region

The Top 10 Country Pairs Constitute One-Half of the Intra-Asian Market

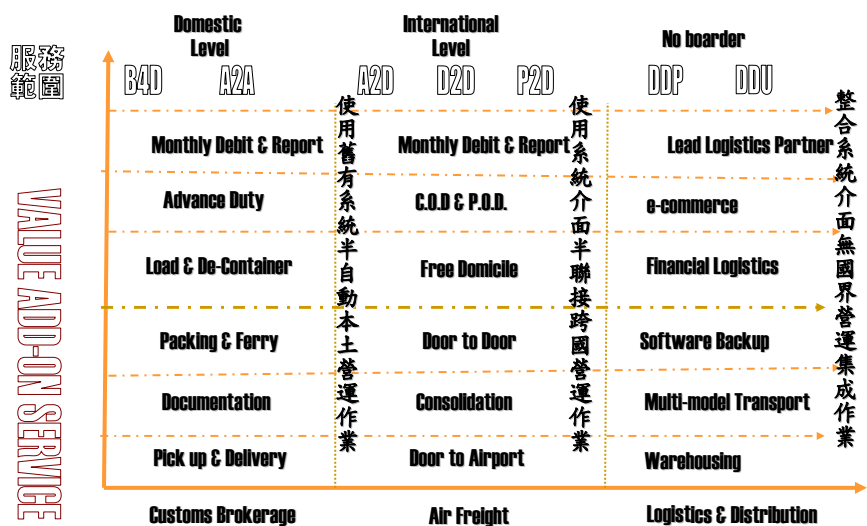
Top country pairs for intraregional air cargo traffic



- 一、2023年汎亞前十航線市佔百分之五十市場
- 二、台灣在台港與台日市佔百分之二十五市場

資料來源：The Boeing World Air Cargo Forecast Team

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加值服務運籌全球

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商貿既競爭與又合作形態
 歐盟單一行政文件、貨幣與分享
 成為市場脫離政治影響成功案列

需求與供應角色區隔

「歐洲共同體」
 (European Communities-EC)
 簡稱「歐體」

北美自由貿易協定
 North American Free Trade-NAFTA

東南亞國協
 ASEAN

南美共同市場
 MERCOSUR

東南非共同市場
 COMESA

PROJECTS & HEAVYLIFTS

航空公司去國家化

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共享航班運輸集成

既競爭又合作環境形成

Simplification
 精簡化
 Process of Eliminating all unnecessary
 Element and Duplication in Formalities,
 Processes and Procedures

Harmonization
 調和化
 Alignment of National Procedures,
 Operations & Documents with International conventions,
 Standards and Practices

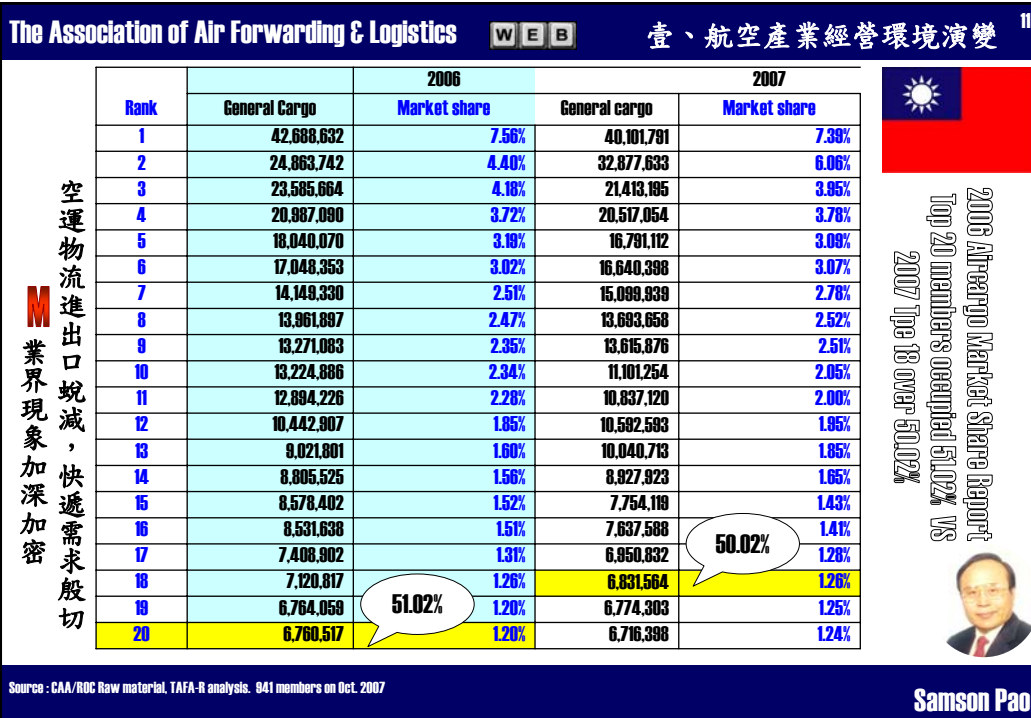
Standardization
 標準化
 Process of Developing Internationally
 Agreed Formats for Practices and Procedures,
 Documents and Information

Co-share & Co-loading

IATA RESOLUTION 800,803 807,808,815

EUROPEAN AIRCARGO SYSTEM - IATA/IATA

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Physical Air Cargo Terminal Performance 2007

Cargo Terminal		Import	Export	Transit	Express Imp	Express Exp	Year-total
TACT	A00 華儲	187,106,996	204,906,540	161,458,892	16,792,783	11,084,767	581,349,978
ECT	B00 永儲	34,996,897	135,711,747	4,397,069	5,378,068	2,527,552	183,011,333
GFT	C01 遠雄園區	77,686,042	142,216,669	12,588,213	16,881,686	11,249,295	260,621,905
Evergreen	D00 榮儲	117,252,387	59,376,171	196,360,655	13,474,739	21,130,976	407,594,928
FedEx	F00 聯邦	0	0	0	14,670,623	26,787,162	41,457,785
UPS	U00 優比速	0	0	2,186,945	4,215,214	15,493,083	21,905,242
TACT(K.H)	華儲高雄	10,276,477	21,553,142	1,273,702			33,103,321
Year 2007 Total		427,318,799	563,764,269	378,275,476	71,413,113	88,272,835	1,529,044,492
Year 2006 Total		444,506,790	605,282,971	384,599,384	64,795,630	80,893,451	1,580,103,324
成長率	Ratio	-3.87%	-6.86%		10.21%	9.12%	-3.23%

市場供需改變探討：

首因政府影響，政治運作失利，導引台灣在國際公約被排除世界商貿接軌，政治必須與商貿脫勾為再造關鍵因素與主要趨勢。台灣政治及法律環境的變遷使缺口加深，全球運輸脫離需求要件，無法滿意決策提供者選擇改變，策略性中間通路商儲存設施及包裝必須缺口填補。



Source : CAA/ROC Raw material, TAFA-R analysis. 941 members on Oct. 2007

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直接間接空運大陸位居第一，前二十出口貿易需求提供者，亞太共十一個國家與地區。

國家	Country	2007 Rank	2007 Year-total	2006 Rank	2006 Year-total	Annual Rate
美國	U.S.A	1	98,557,213	1	105,883,379	-8.90%
大陸	China	2	94,572,381	2	95,742,974	-1.22%
日本	Japan	3	66,350,644	3	65,802,969	0.83%
香港	Hong Kong	4	60,854,297	4	57,909,707	5.08%
德國	Germany	5	20,927,460	5	22,352,253	-6.37%
韓國	Korea	6	16,834,531	7	16,827,329	0.04%
新加坡	Singapore	7	16,289,246	6	18,029,954	-9.65%
英國	England	8	15,013,740	8	15,217,461	-1.34%
泰國	Thailand	9	13,503,502	10	12,855,166	5.04%
荷蘭	Holland	10	11,684,330	9	14,888,684	-21.52%
盧森堡	Luxemburg	11	10,070,489	11	11,759,390	-14.36%
馬來西亞	Malaysia	12	9,092,285	12	9,290,830	-2.14%
越南	Vietnam	13	7,099,366	16	6,276,797	13.10%
印度	India	14	6,929,790	18	5,930,952	16.84%
法國	France	15	6,449,967	13	7,377,670	-12.57%
澳洲	Australia	16	6,439,521	14	6,856,744	-6.08%
義大利	Italy	17	5,571,306	17	6,114,506	-8.88%
印尼	Indonesia	18	5,469,996	19	5,504,301	-0.62%
澳門	Macau	19	4,812,706	15	6,458,925	-25.48%
西班牙	Spain	20	4,507,782	23	3,786,931	19.04%

Physical Export Result by Country
依國家別出口統計



Source : CAA/ROC Raw material, TAFA-R analysis. 941 members on Oct. 2007

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The Association of Air Forwarding & Logistics				壹、航空產業經營環境演變			15
名次	國家	Country	Year 2007 Total	Market Share	Year 2006 Total	Market Share	依國家別進口統計 Physical Import Result by Country
1	日本	Japan	103,310,680	24.18%	107,630,745	24.21%	
2	美國	U.S.A	66,243,838	15.50%	66,992,383	15.07%	
3	香港	Hong Kong	63,524,836	14.87%	58,803,304	13.45%	
4	澳門	Macau	28,243,962	6.84%	24,248,032	5.46%	
5	泰國	Thailand	19,385,791	4.66%	23,662,571	5.32%	
6	韓國	Korea	17,063,763	3.98%	16,685,345	3.75%	
7	盧森堡	Luxemburg	14,564,711	3.41%	14,087,038	3.17%	
8	新加坡	Singapore	13,457,513	3.15%	14,484,026	3.26%	
9	菲律賓	Philippines	11,386,291	2.66%	14,051,957	3.16%	
10	德國	Germany	10,073,140	2.36%	10,313,265	2.32%	
11	大陸	China	9,971,188	2.33%	10,444,886	2.35%	
12	印尼	Indonesia	8,367,086	1.96%	9,089,609	2.04%	
13	馬來西亞	Malaysia	8,202,117	1.92%	6,938,708	1.56%	
14	英國	England	4,444,302	1.04%	5,482,223	1.23%	
15	荷蘭	Holland	4,308,858	1.01%	4,732,824	1.06%	
16	挪威	Norway	4,290,500	1.00%	1,694,692	0.38%	
17	比利時	Belgium	3,361,632	0.79%	3,517,182	0.79%	
18	法國	France	2,873,621	0.70%	3,538,489	0.80%	
19	澳洲	Australia	2,650,558	0.62%	2,781,963	0.63%	
20	加拿大	Canada	2,303,635	0.54%	3,465,993	0.78%	
	總計	Total	427,318,799	100.00%	444,506,790	100.00%	

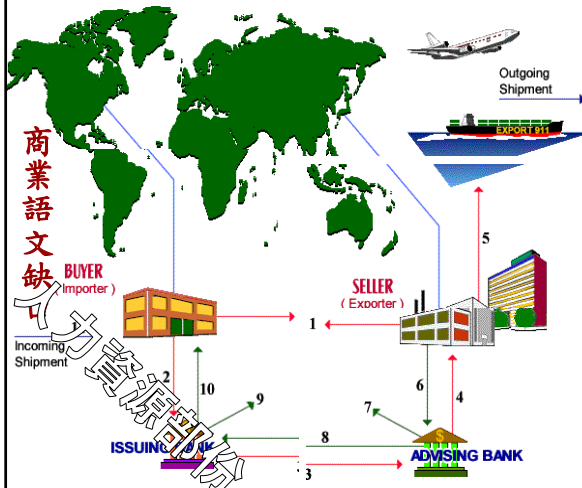
Source : CAA/ROC Raw material, TAFA-R analysis. 941 members on Oct. 2007

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The Association of Air Forwarding & Logistics				航空產業經營環境演變及挑戰			16
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	貳、經營市場與環境演變						
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	肆、人力資源缺口與產學合作核心價值						
	伍、航空貨運之未來						
	陸、結論						

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Summary of Export-Import Procedure



- 1 Seller and Buyer conclude a sales contract, with method of payment usually by letter of credit (documentary credit).
- 2 Buyer applies to his issuing bank, usually in Buyer's country, for letter of credit in favor of Seller (beneficiary).
- 3 Issuing bank requests another bank, usually a correspondent bank in Seller's country, to advise, and usually to confirm, the credit.
- 4 Advising bank, usually in Seller's country, forwards letter of credit to Seller informing about the terms and conditions of credit.
- 5 If credit terms and conditions conform to sales contract, Seller prepares goods and documentation, and arranges delivery of goods to carrier.
- 6 Seller presents documents evidencing the shipment and draft (bill of exchange) to paying, accepting or negotiating bank named in the credit (the advising bank usually), or any bank willing to negotiate under the terms of credit.
- 7 Bank examines the documents and draft for compliance with credit terms. If complied with, bank will pay, accept or negotiate.
- 8 Bank, if other than the issuing bank, sends the documents and draft to the issuing bank.
- 9 Bank examines the documents and draft for compliance with credit terms. If complied with, Seller's draft is honored.
- 10 Documents release to Buyer after payment, or on other terms agreed between the bank and Buyer.
- 11 Buyer surrenders bill of lading to carrier (in case of ocean freight) in exchange for the goods or the delivery order.

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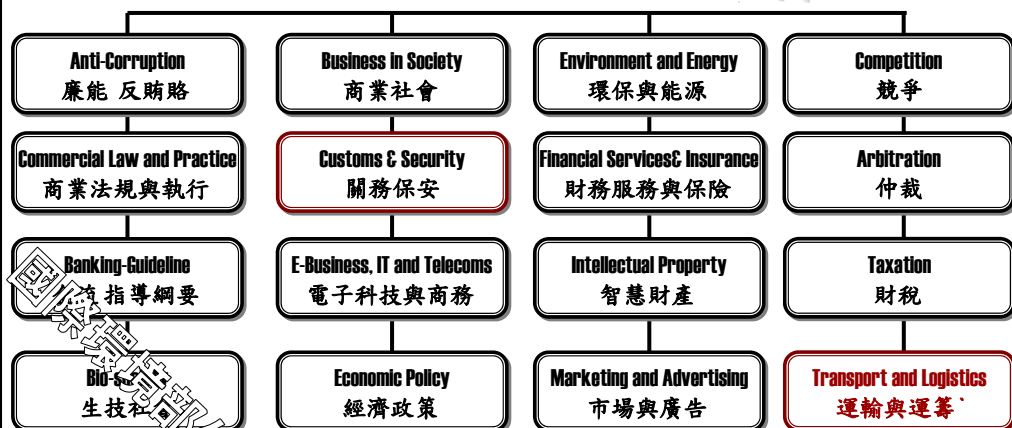


International Chamber of Commerce
The world business organization

國貿相關組織



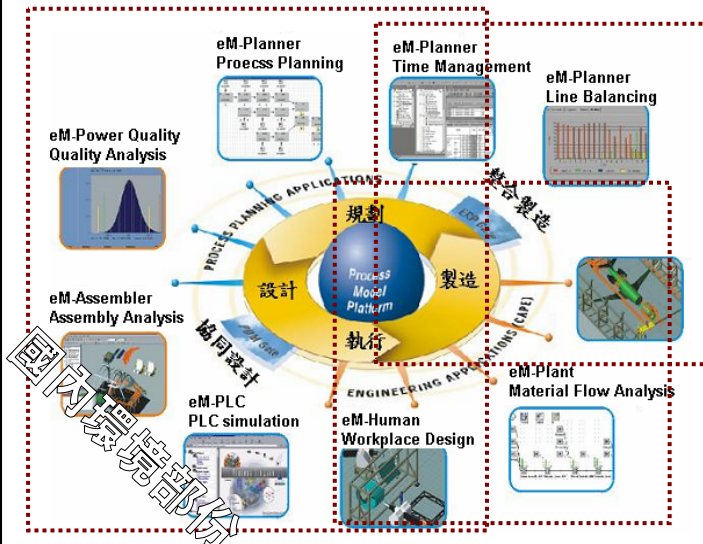
WORLD TRADE ORGANIZATION



依賴岸製造與服務產業，必須面對歐美決策提供者主導市場改變。

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Air Logistics Service User's Requirement



CMS

BOM

GLS

MOT

MC99

MRP

MP4

EMS



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全球化的趨勢已席捲台灣，隨著併購案愈多，人員被精簡的機會越大，更多中產階級將被淘汰當浪潮落下，台灣的財富將被重新分配，貧者越貧，富者越富沒人躲得過。

從1980年到去年，台灣依照個人可支配所得五等份分析，最窮與最富的一群人，其財富的年複合成長率分別為7.03%與7.12%，但中間族群的財富，成長幅度卻僅6.58%。台灣的痛苦指數（失業率加上物價指數），創下20年來新高，達到6.43%。

去年，台灣的名目平均薪資年增率低於消費者物價年增率，這中間的落差代表的是，我們的加薪幅度趕不上物價的漲幅，也就是說，我們的荷包不斷縮水。

2008年，台灣成為老年化國家，65歲以上的老年人口占總人口的6%，超過聯合國標準。這個數據直指，台灣踏入M型社會大門後，就很難回頭。



香港是整合供應鏈通路著眼於貨運站、航空公司等整合一體，快速度、低政府與海關配合，產生高效率運籌競爭優勢



一、全球競賽的挑戰
二、大陸磁吸效應的衝擊
三、優質人力資源



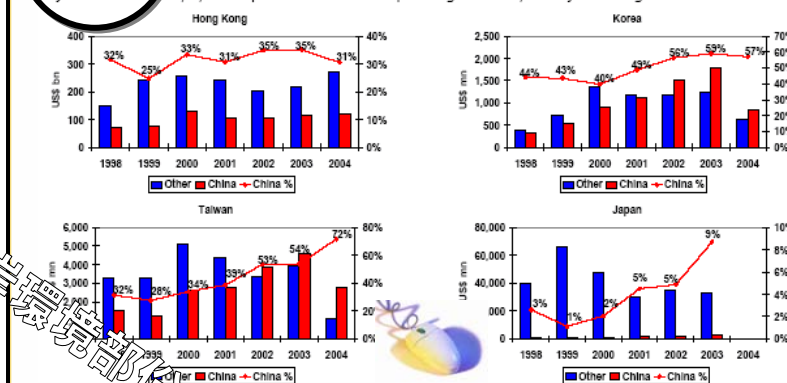
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China Effective

Cross-border relocation of manufacturing companies to China is increasing rapidly, creating shifts in trade flows and new demands for air express

- 11,737 Korean firms now operating in China, mainly in North East and Yangtze River Basin.
- 62,351 Taiwanese firms now operating in China, mainly in South East and Yangtze River Basin.
- Around 13,500 Industrial Foreign Invested Enterprises in Pearl River Delta, with Decision Making Units in HK
- By the end of 2002, 2,609 Japanese firms were operating in China, mainly in Shanghai

World economy and environment change



航空貨運關務人力資源缺口
台商加速投資長珠三角



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資訊來源：Jerry Hsu regional director of DHL Great China, Korea Sept. 2004 in capital of market Germany

The Association of Air Forwarding & Logistics WEB 貳、經營市場與環境演變 23

Air Logistics Service

User's Requirement

CPFR business case partially verified

利益 Benefits

Not verified in Pilot stage
先導策試 Promising results achieved
承諾達成結果

市場環境部份

CPFR benefits

Reduce Capital Invested
先導測試
降低資本投資
先導策試未證實

Decrease Costs
降低作業成本
目標達成可期

Increase Revenue
增加營運收入
重要利益顯現

Optimise Production 最佳生產	Scaling of CPFR required
Reduce Storage Capacity 降低倉容	Scaling of CPFR required
存貨 Inventory	Up to 28%
節約浪費 Wastage	18% - 44% decrease in obsolesces ¹
超時加班 Overtime	Up to 58% reduction in unplanned overtime
運輸成本 Transportation Cost	Up to 33% reduction in Rush Orders
即時能力 Better Availability	Between 2 - 8%
消費者滿意度 Consumer Satisfaction	

European Air Cargo System Revolution

ECR Europe
Efficient Consumer Response

¹ Forrester Research - CPG: Online CPFR Pays, 2005

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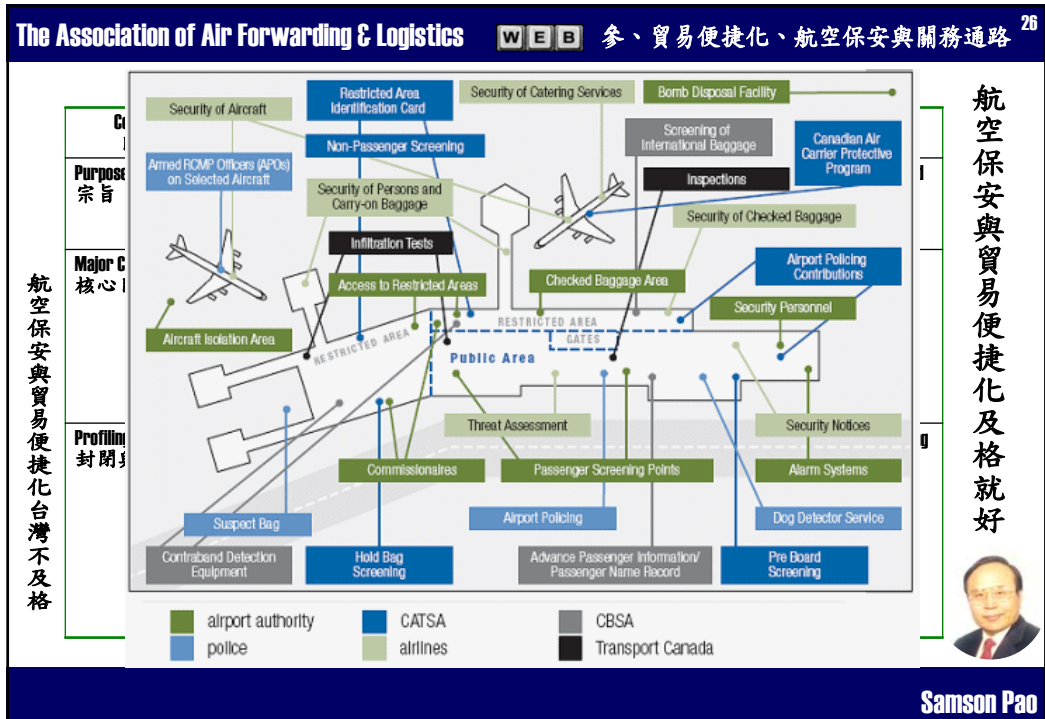
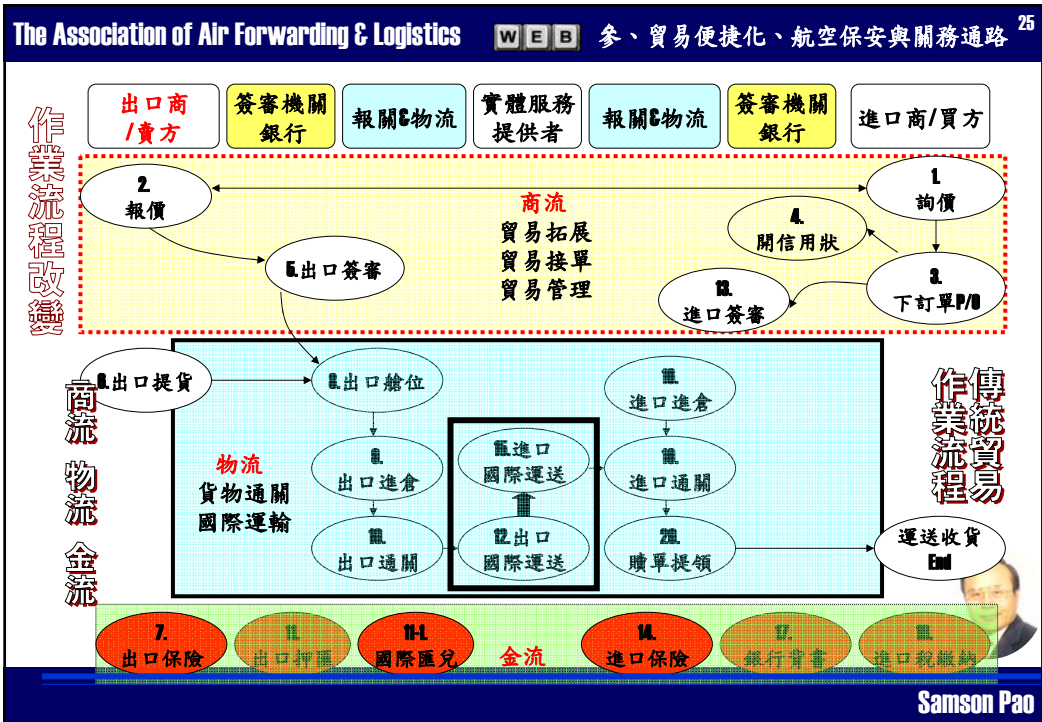
知識經濟商貿市場與營運改變

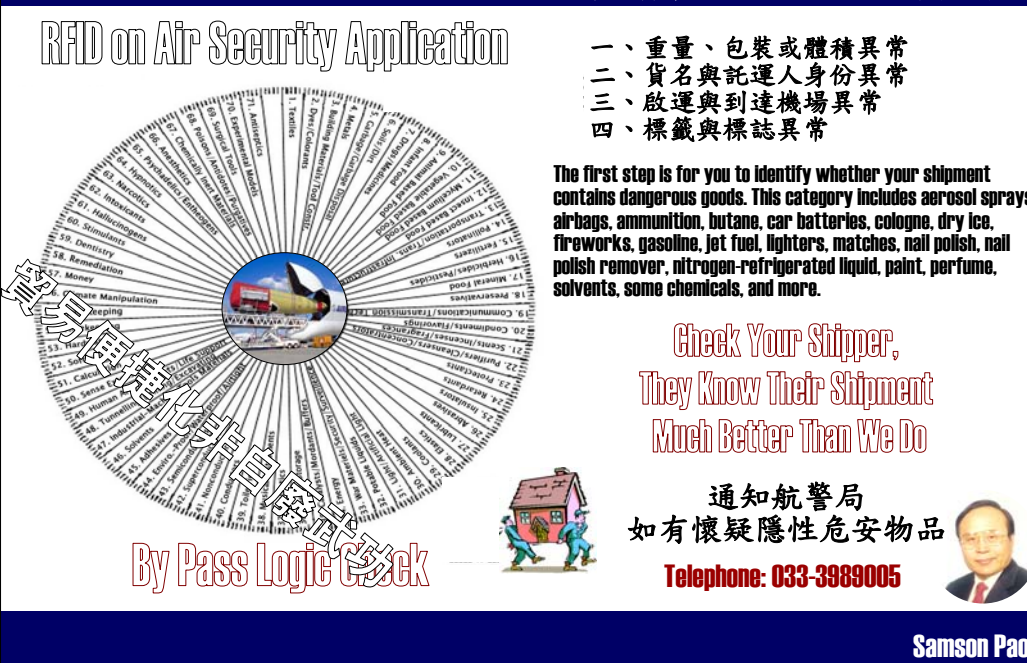
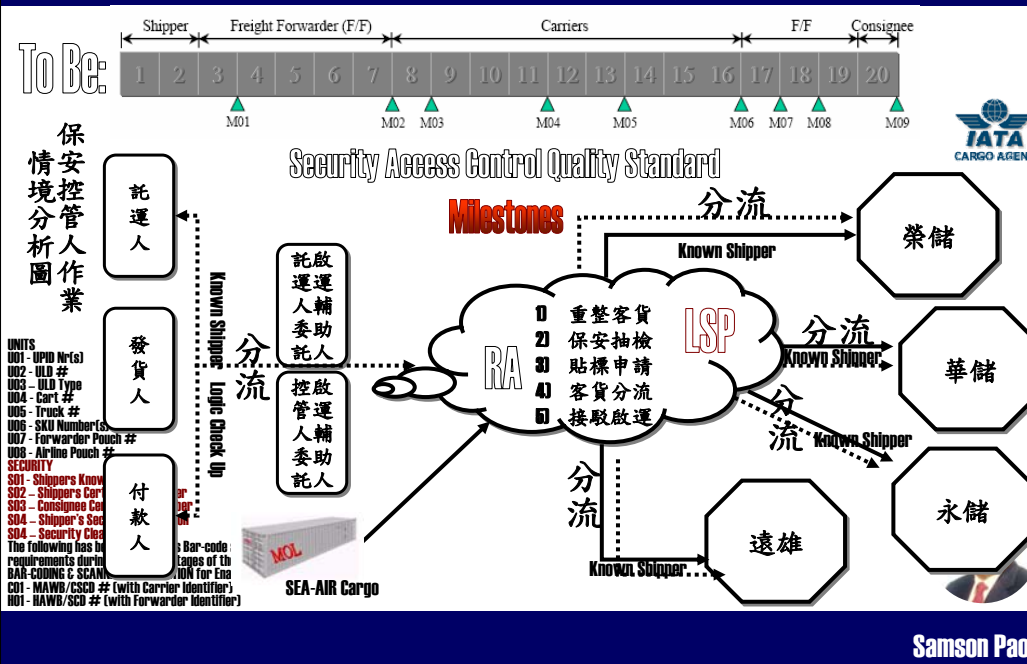
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報告大綱

壹、航空貨運市場回顧
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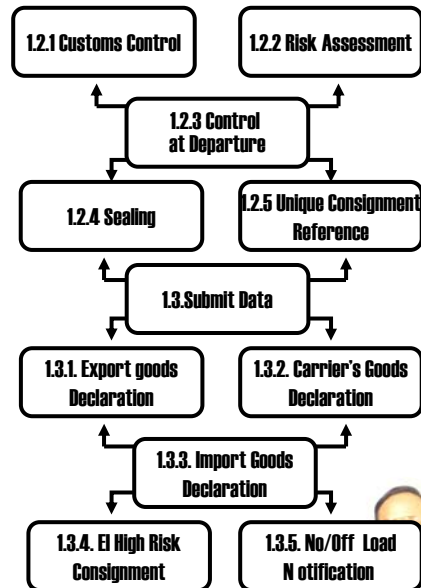
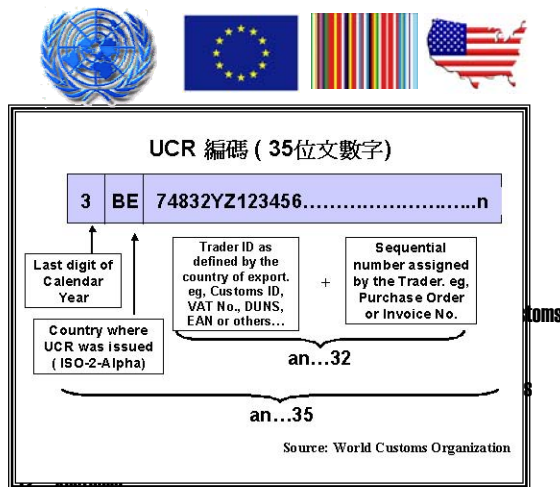
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航空貨運運籌回顧與前瞻

參、貿易便捷化、航空保安與關務服務



14. New Zealand
15. Security Initiatives in International fora
16. Co-operation on supply chain security with China

台北市航空貨運暨報關商業同業公會

The Association of Air Forwarding & Logistics

WEB

肆、航空貨運關務人力資源缺口

30

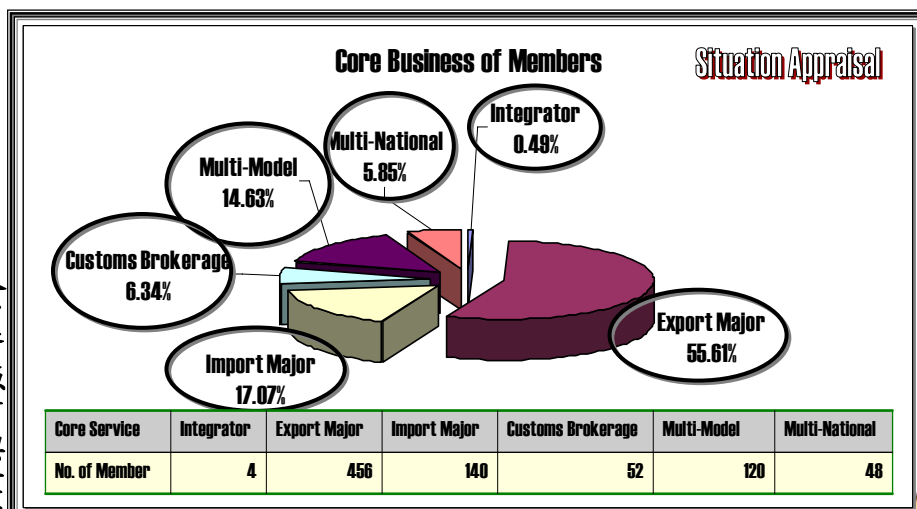
報告大綱

	壹、航空貨運市場回顧
	貳、經營市場與環境演變
	參、貿易便捷化、航空保安與關務服務
▶	肆、人力資源缺口與產學合作核心價值
	伍、航空貨運之未來
	陸、結論



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人力資源質與量缺口



瞭解會員形態與需求

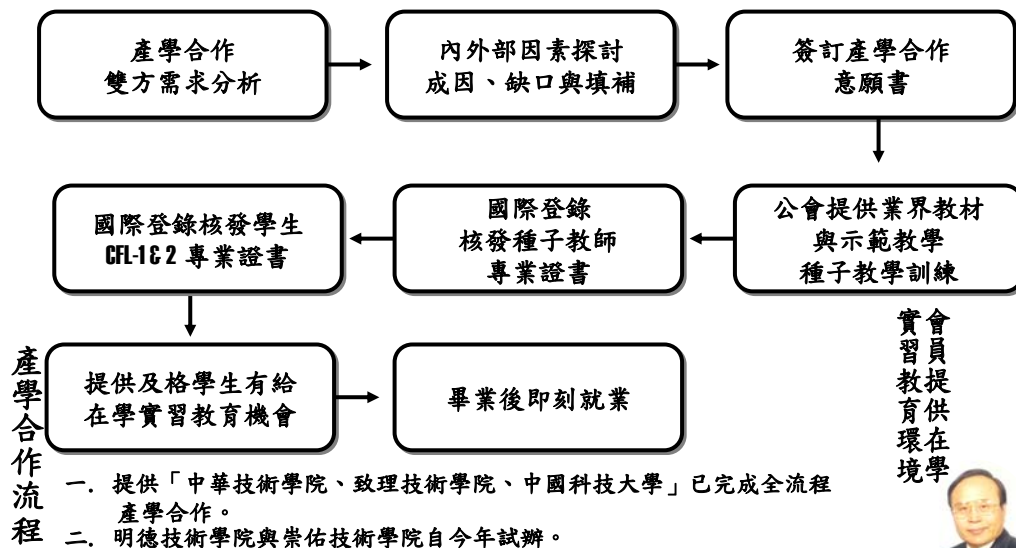
The number of member increased from 624 on 2002 to 820 on Oct. 2004, 941 on 2006, because of the local logistics Service provider Upgrade their service from domestic to international, but most of our member short of service channel in overseas. Plus the knowledge and risky management is not meet the market requirement.



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動態取代靜態需求

Air Logistics Service
User's Requirement

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The Association of Air Forwarding & Logistics WEB 伍、航空貨運之未來 36

壹、全球化經營策略：科技、行銷、製造、物流四因素
貳、貿易障礙逐年瓦解
參、先進與廣泛的通訊技術
肆、高品質與低價格的產品
伍、享受與富有國家相同的生活水準

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通識、專識與智慧支援績效導引

**貿易便捷化
航空保安
損桿效應**

KYOTO 2000
The International Convention on the Simplification and Harmonization of Customs procedures

“The Customs shall apply information technology to support Customs operations...”

“National legislation shall provide for a right of appeal in Customs matters”

“La douane entretient officiellement des relations d'ordre consultatif avec le commerce...”

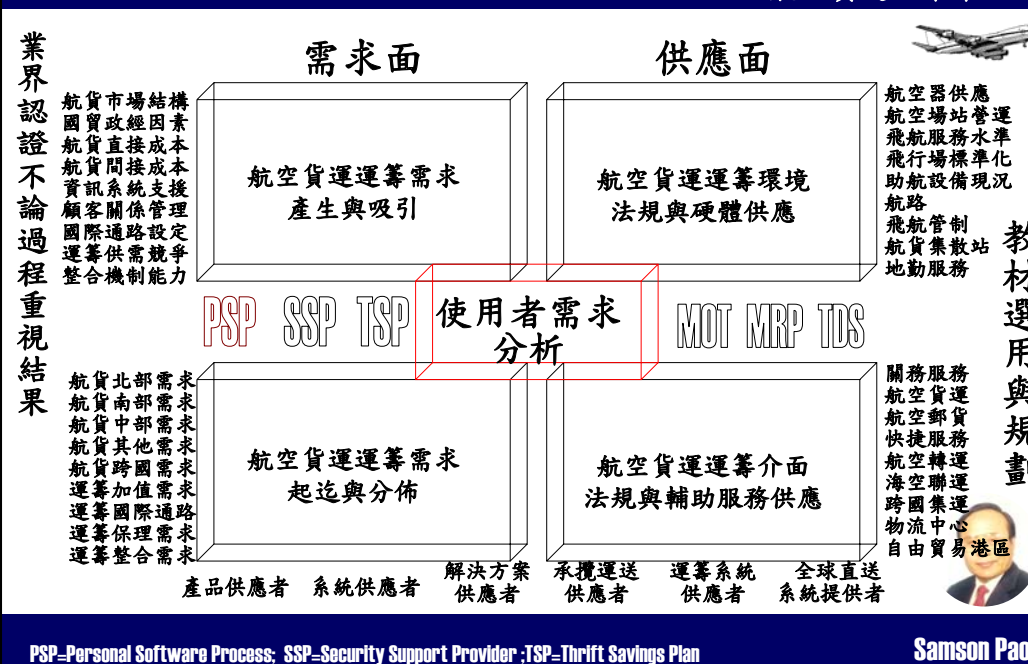
“La législation nationale prévoit un droit de recours en matière douanière”

**決策提供者
強勢領導
長鞭效應**



IATA e-Freight Offer Total Solution - Now Under MIP Process in Taiwan

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陸、結論
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A5 Concept - Pear Delta

A5 Concept - Yantai ISU Delta2

兩岸直航價值創造

S = Drills, National Security Program, Emergency Response Plan, etc.;

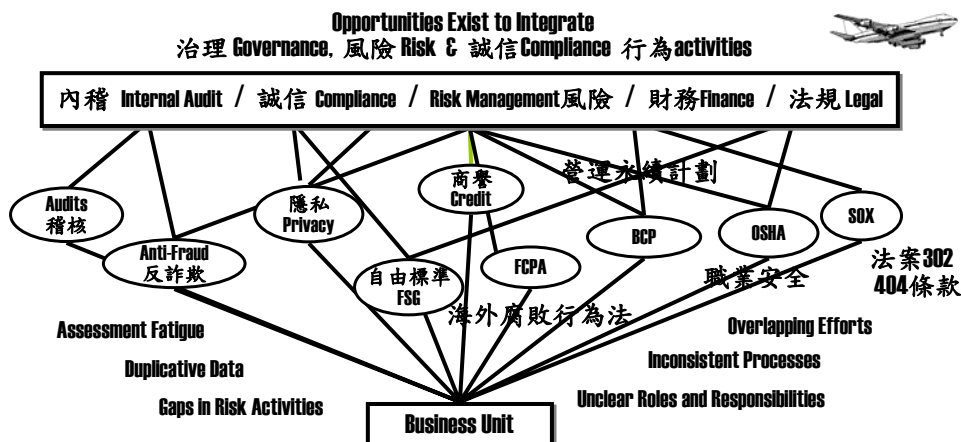
H = Airport Terminal (X-ray machines, EDS, etc.), Aircraft (seats, layouts, etc.);

E = The situation in which the L-H-S should function;

L = Baggage screener, security guards, airline security personnel, etc.

Integrator
GSA & Ground Handling Agent

IATA e freight
Samson Pao



On August 23, 2007, British Airways Plc pleaded guilty and was sentenced to pay a \$300 million criminal fine for conspiring to fix cargo rates for international air shipments, including to and from the United States, and to fix passenger fuel surcharges for long-haul international air transportation, including between the United States and United Kingdom. The same day, Korean Air Lines pleaded guilty and was sentenced to pay a \$300 million criminal fine for conspiring to fix cargo rates charged to customers in the United States and elsewhere for international air shipments and to fix wholesale and passenger fares for flights from the United States to Korea. On January 14, 2008, Qantas Airways Limited pleaded guilty and was sentenced to pay a \$61 million criminal fine for its role in a conspiracy to fix the rates of shipments of cargo to and from the United States and elsewhere. Japan Airlines International Agrees to Plead Guilty and Pay Criminal Fines for Fixing Prices on Cargo Shipments
http://www.usdoj.gov/aip/public/press_releases/2008/232257.htm

關鍵績效指標 (Key Performance Indicator, KPI); 關鍵風險指標 (Key Risk Indicator, KRI) Samson Pao

- 一. 入世後全球市場與競爭擴大，運籌整合與跨國業者挾雄厚資本與政府支援，以投資運籌資訊系統，併購、取代同業與異業集成手段，提供郵件、包裹、運籌與金流服務佔有核心市場《Core Market》與擴大中央領域《Metro Movement》成功價值與利潤創造，本業面臨受委邊際群與離域《Remote Area》市場等值服務與價格之需求。
- 二. 政府雖運用各種財政、貿易、技術輔導等政策工具，直接間接介入輔導產業活動，導引LSP實務活動的複雜度愈來愈高，無力配合。LSU因應市場需求，渴望取得總體解決方案；但LSP必須面臨法規配合國家經濟建設修正流程日益頻繁，由資訊作業系統或網路供應主導以微觀軟、硬體修補缺口或使用多變之視窗工具系統換新，除偏離輸入習慣成本高漲外，病毒風潮已產生LSP信心危機，無法滿足LSP質與價之實質需要。
- 三. 市場核心價值：以人為本、永續發展；基本發展策略：全球接軌、在地行動雖深值人心，渴望止渴但結果業界認為已輪為口號，學急需整合教材，師資自救支援改觀。
- 四. 市場產品的生命週期愈來愈短，顧客的耐性愈來愈低，競爭者卻愈來愈多。
- 五. 面對上述問題，業界的資源更顯有限，異域與異業集成困難度日益增加。



Samson Pao