WAH LEE INDUSTRIAL CORP.
華立企業股份有限公司
Material Pioneer, Technology Navigator

INVESTOR MEETING
法說簡報

September 2013
2013年9月

TSE Ticker : 3010 TT
http://www.wahlee.com

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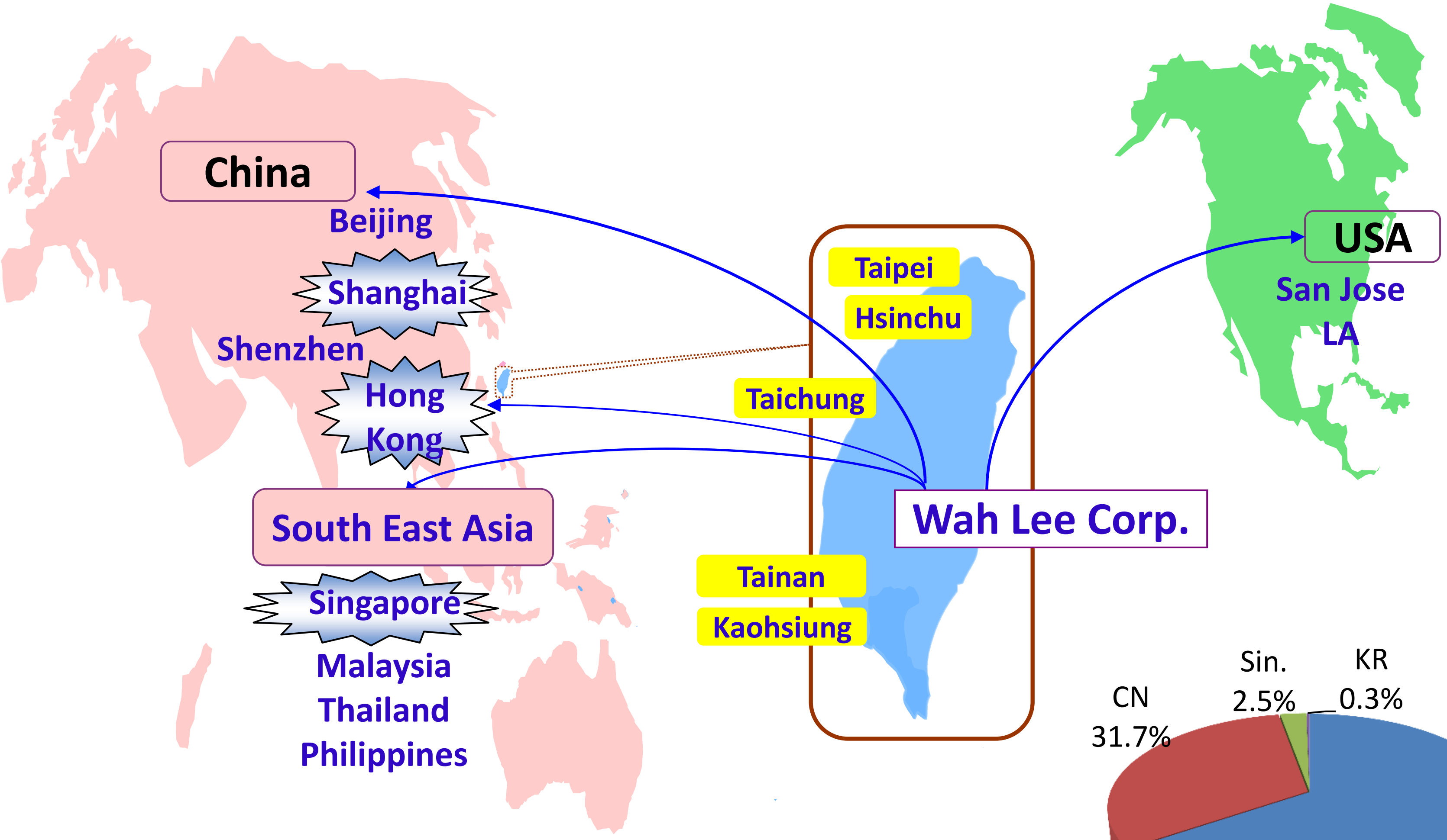
  合併2012年營運報告

Company Profile 公司簡介

- Inception : 10/1/1968
  成立日期
- Listing: 9/22/2002 on TSE(台灣證券交易所)
  掛牌日期
- Capital: NT$ 2,313,901,380
  實收資本額
- Market Cap: ~USD$340 million
  市值
- Core Business: Leading HI-TECH solutions integrator and raw materials provider for :
  主要業務
  - **Computer / Communication**
  - **Semiconductor**
  - **PCB /Mother Board**
  - **FPD**
  - **Green Energy/Optoelectronics**

Sales Offices 國際行銷據點



China

Beijing

Shanghai

Shenzhen

Hong Kong

South East Asia

Singapore

Malaysia

Thailand

Philippines

Taipei

Hsinchu

Taichung

Tainan

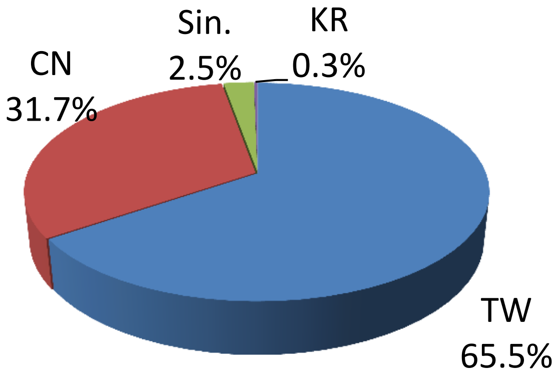
Kaohsiung

Wah Lee Corp.

USA

San Jose

LA

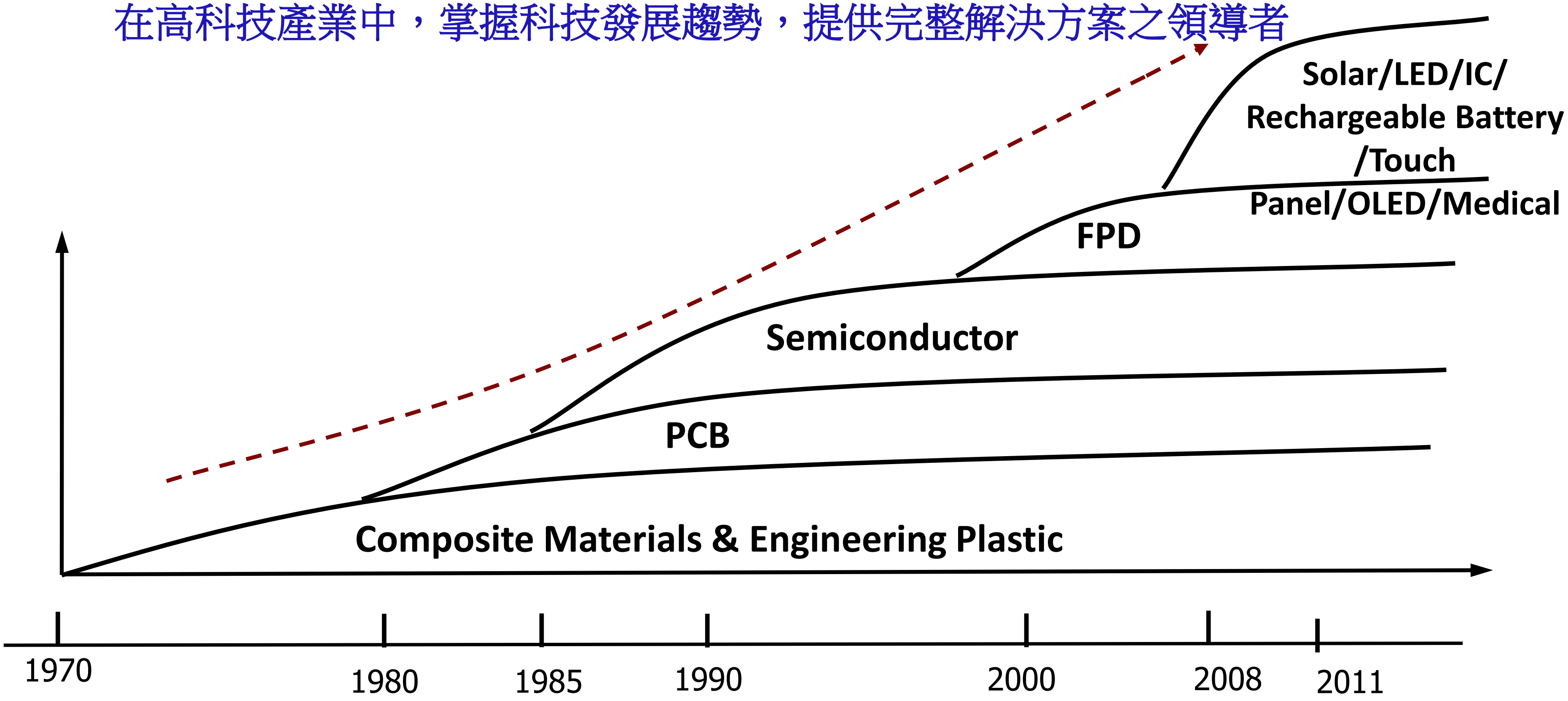


Wah Lee Subsidiaries

Wah Lee's Core Competence 華立核心競爭力

I. **Leader in foreseeing technology developments and solutions provider of upstream raw materials & equipment in high-tech industries**

在高科技產業中，掌握科技發展趨勢，提供完整解決方案之領導者

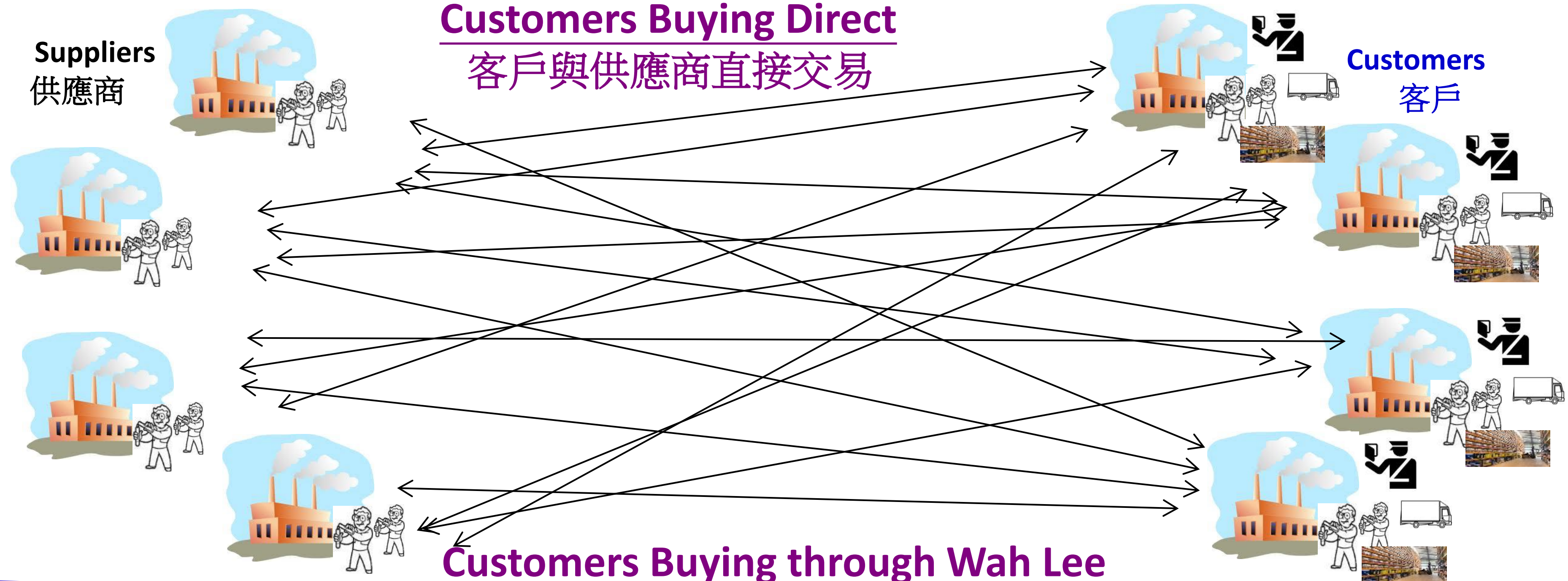


II. **Developing Next Generation Technologies:**

投資開發下一代明星產業，如先進顯示技術, 固態照明, 太陽能發電, 電動車等

- **Advanced displays (3D, flexible, transparent…)**
- **Solid state lighting, advanced solar, electrical vehicle related systems…**

Wah Lee's Value Proposition 華立附加價值



Customers Buying Direct
客戶與供應商直接交易

Suppliers
供應商

Customers
客戶

Customers Buying through Wah Lee
華立在供應鏈中提供關鍵附加價值: 一次購足

Suppliers 供應商

Customers 客戶

FAE engineers 工程師

Warehouse
倉儲系統

Customs Handling進口報關服務

Logistics全方位物流

每季合併營收

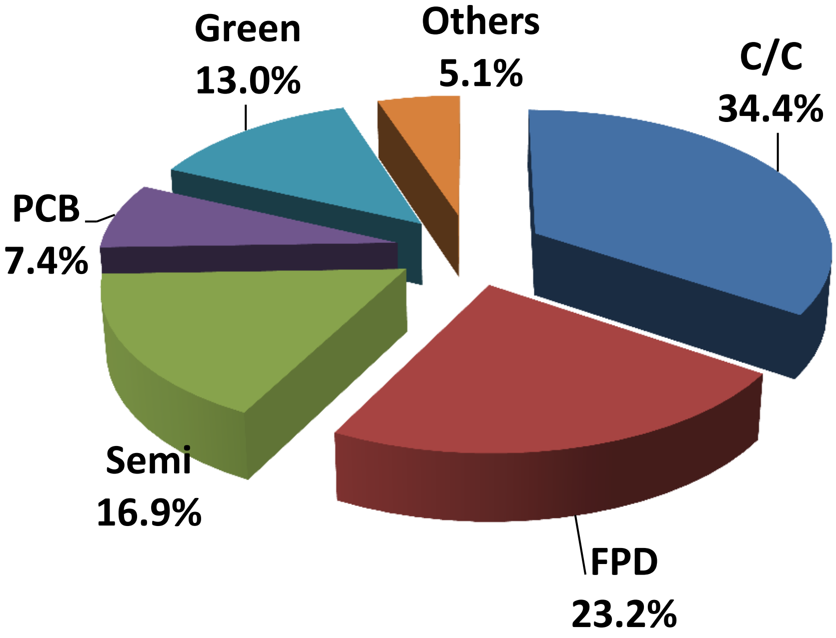
Quarterly Consolidated Sales Breakdown

2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013Q2
7,732,183	8,285,087	7,705,533	7,822,470	7,625,467	8,737,837

Industry Sales Breakdown 營收產業別資訊

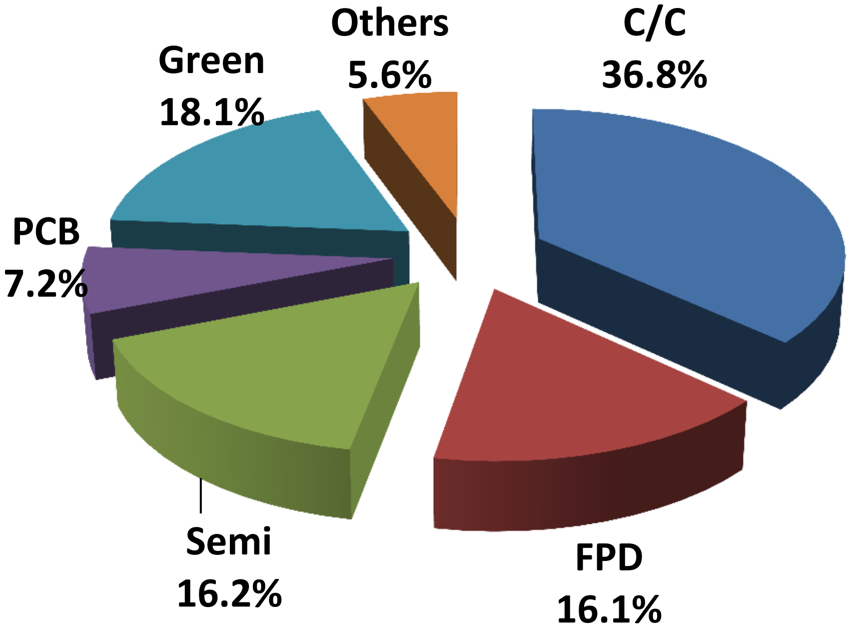
2013/ 01-06

Sales NT$16.4 Billion



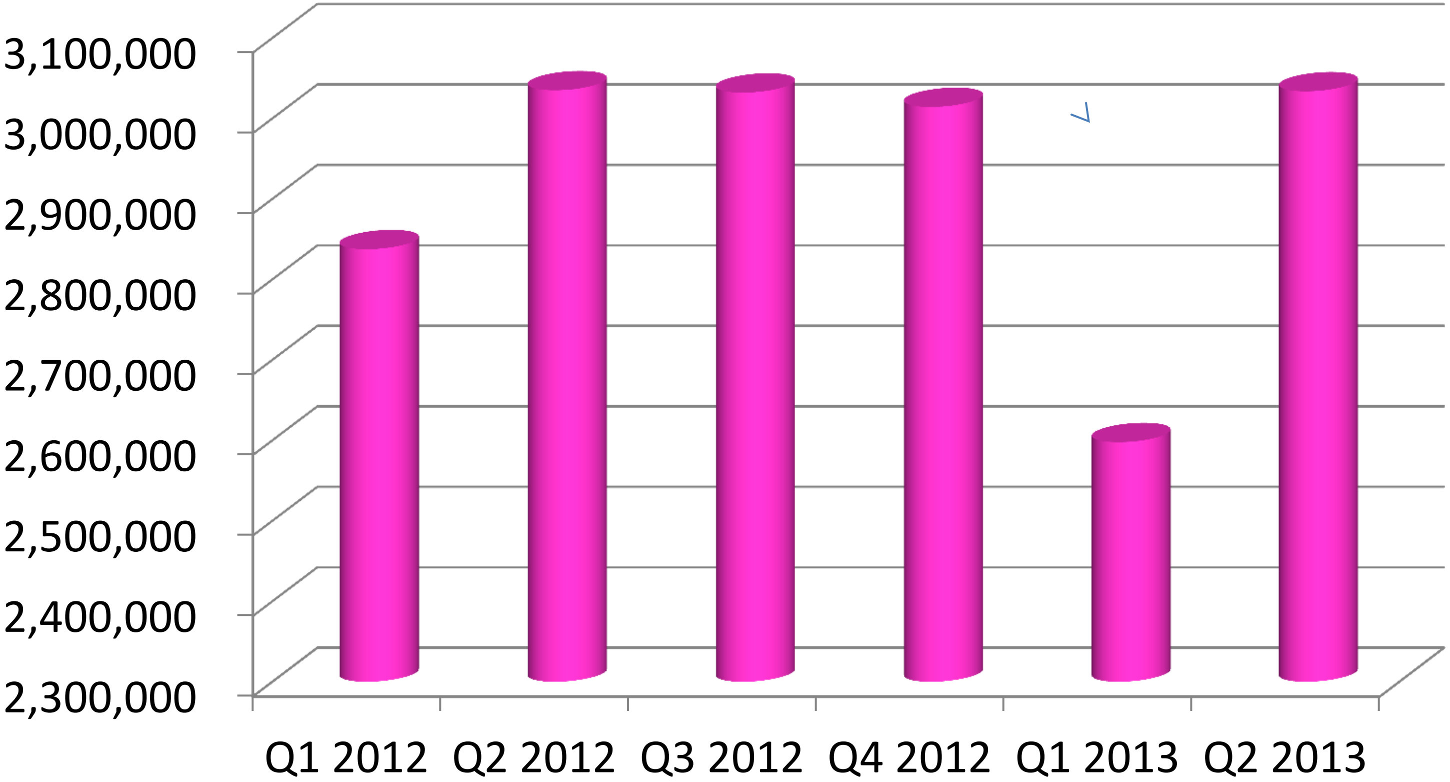
2012/ 01-06

Sales NT$16.0 Billion



資通訊用高機能塑膠
Computer Communication Engineering Plastic

千元
In thousands



2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013Q2
2,837,549	3,055,019	3,032,201	3014,343	2,597,776	3,033,766

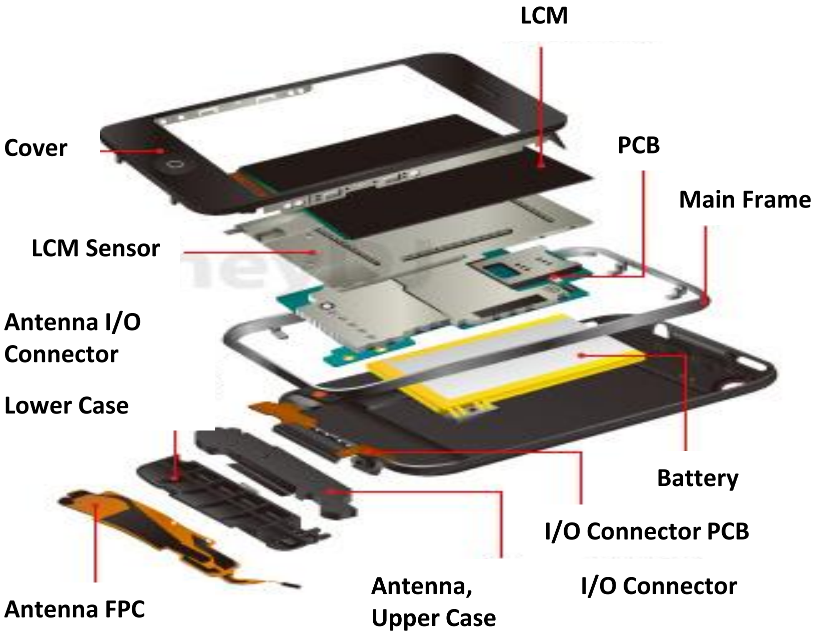
Products in C/C 資訊通訊產品

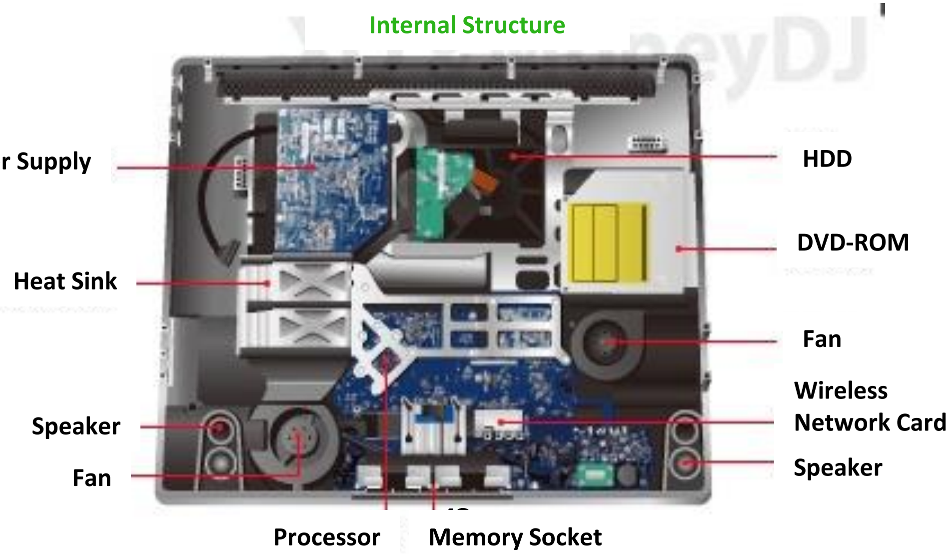
I. High Performance Engineering Plastics

1. Case : Carbon Fiber、TORAY CFRP、PA
2. Lens : OKP4、ARTON、Hard Coated Sheet
3. Insulating Strip、Battery Label :
   PET FILM、PC FILM、PBT FILM
4. Speaker : PET FILM
5. Charge Station : Phenolic Mounding
   Compound
6. Connector : LCP、PA9T
7. Reflector : PA9T
8. Transformer /PFC: Phenolic
   Mounding Compound
9. Inverter Bobbin : LCP

II. Others

1. Hik@xy Thermal Interface Materials
2. Camera Module Auto-focus Actuator





高機能工程塑膠近期開發應用領域-電腦機殼
Recent developments in Engineering Plastic- Computer Casing

電腦機殼
Computer
Casing

高機能工程塑膠近期開發應用領域-家電，醫療
Recent Developments in Engineering Plastics Consumer Electrics, Medical Industry

Coffee machine parts

Slow Juicer parts

醫療 Medical：Glasses frame

高機能工程塑膠近期開發應用領域-食品包裝材
Recent Development in Engineering Plastic – Food Packaging

食品包裝材 Food Packaging

多層瓶 Multilayer Bottle

藥品包裝 Pharmaceutical Packaging

杯類/盤類
Cups/Plates

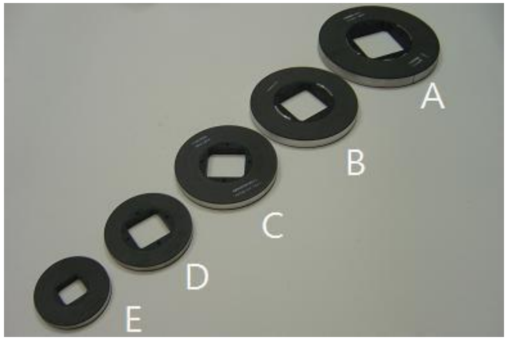
軟性包裝
Soft Packaging

軟管
Tubes

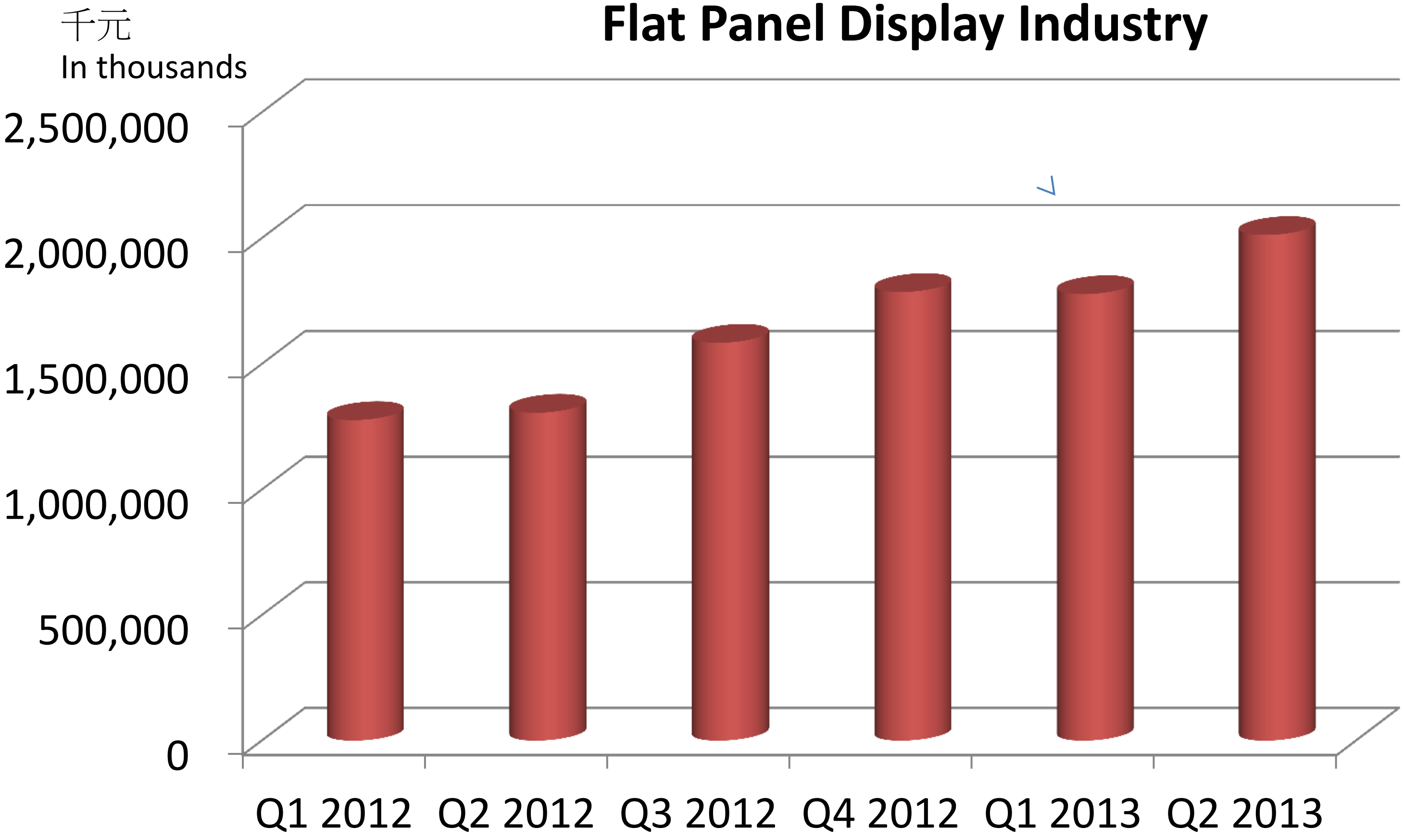
複合膜
Compound Films

高機能工程塑膠長期開發應用領域- 汽車產業
Long Term Development Focus for Engineering Plastic- Auto Industry

汽車 Auto: PULLEY/WATER PUMP/PISTION/GASKET



平面顯示器產業
Flat Panel Display Industry

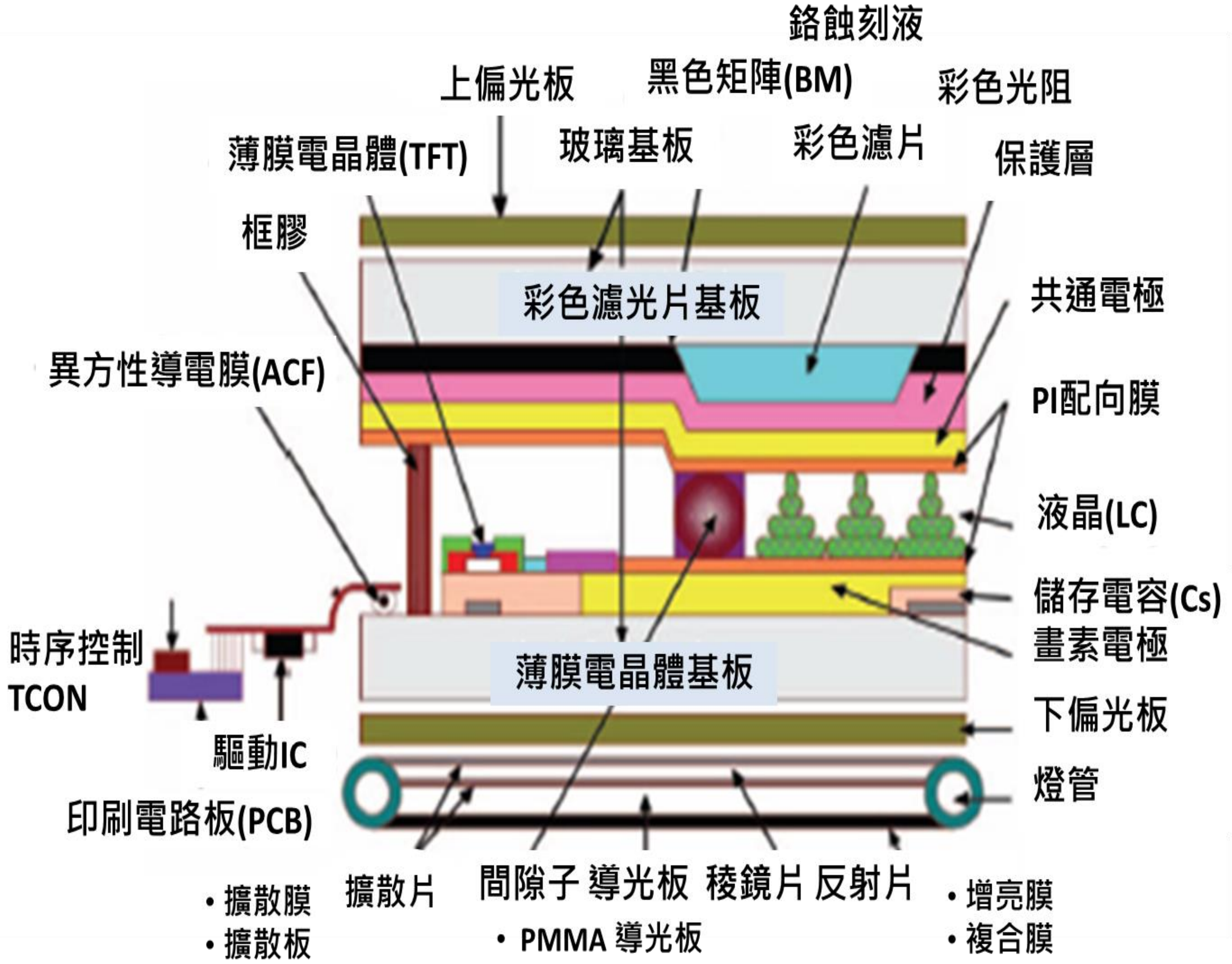


2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013Q2
1,277,309	1,306,531	1,584,445	1,786,398	1,777,895	2,012,892

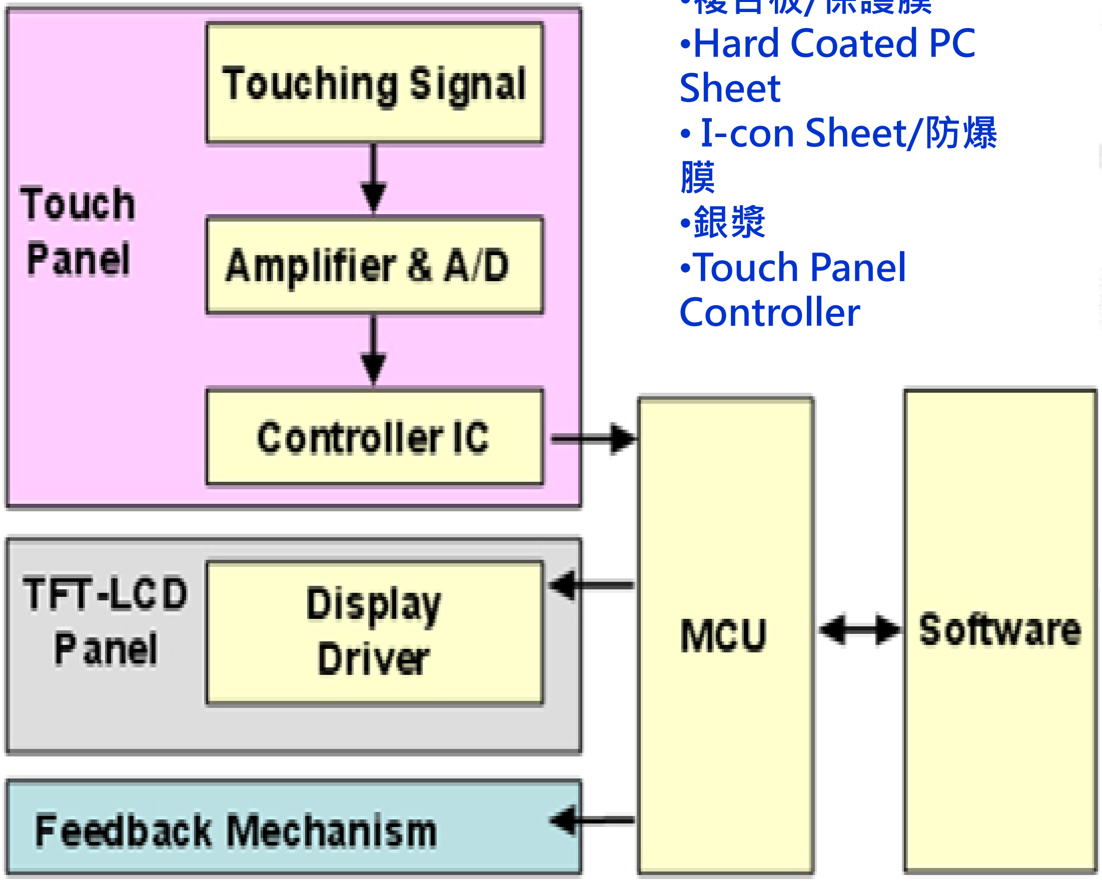
在LCD TV應用中，華立供應超過九成材料
Wah Lee Provides over 90% of Material used in LCD TV

製程設備與耗材
其它製程用化學材
及氣體

- Edge Beam Cleaning : PGME、PGMEA
- Chamber Cleaning : NF3
- 形成 Si 薄膜 : SiH4



在平板與手機應用中，華立提供超過七成材料
Wah Lee Provides over 70% of material used in FPD and Cell Phone



Touch Panel

Touching Signal

Amplifier & A/D

Controller IC

TFT-LCD Panel

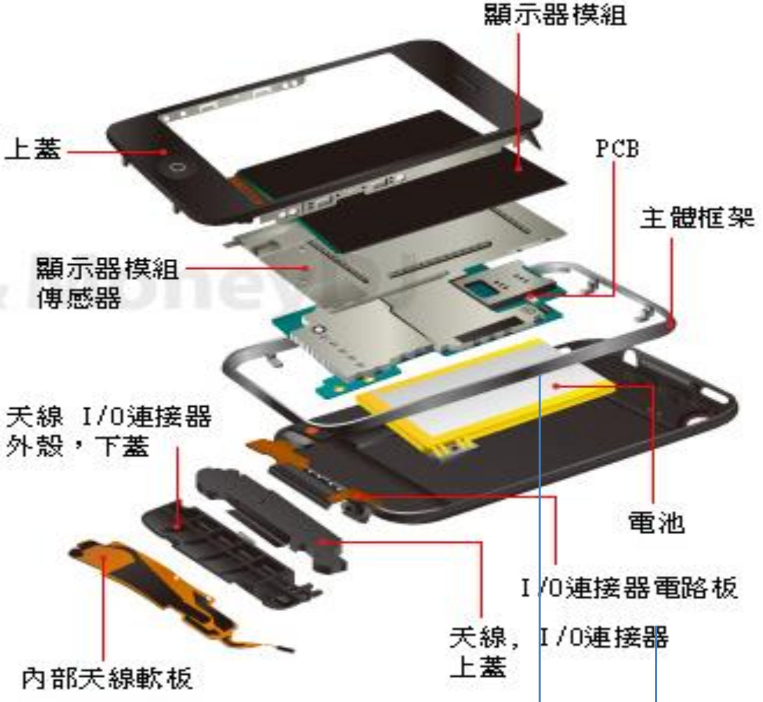
Display Driver

Feedback Mechanism

MCU

Software

- 複合板/保護膜
- Hard Coated PC Sheet
- I-con Sheet/防爆膜
- 銀漿
- Touch Panel Controller

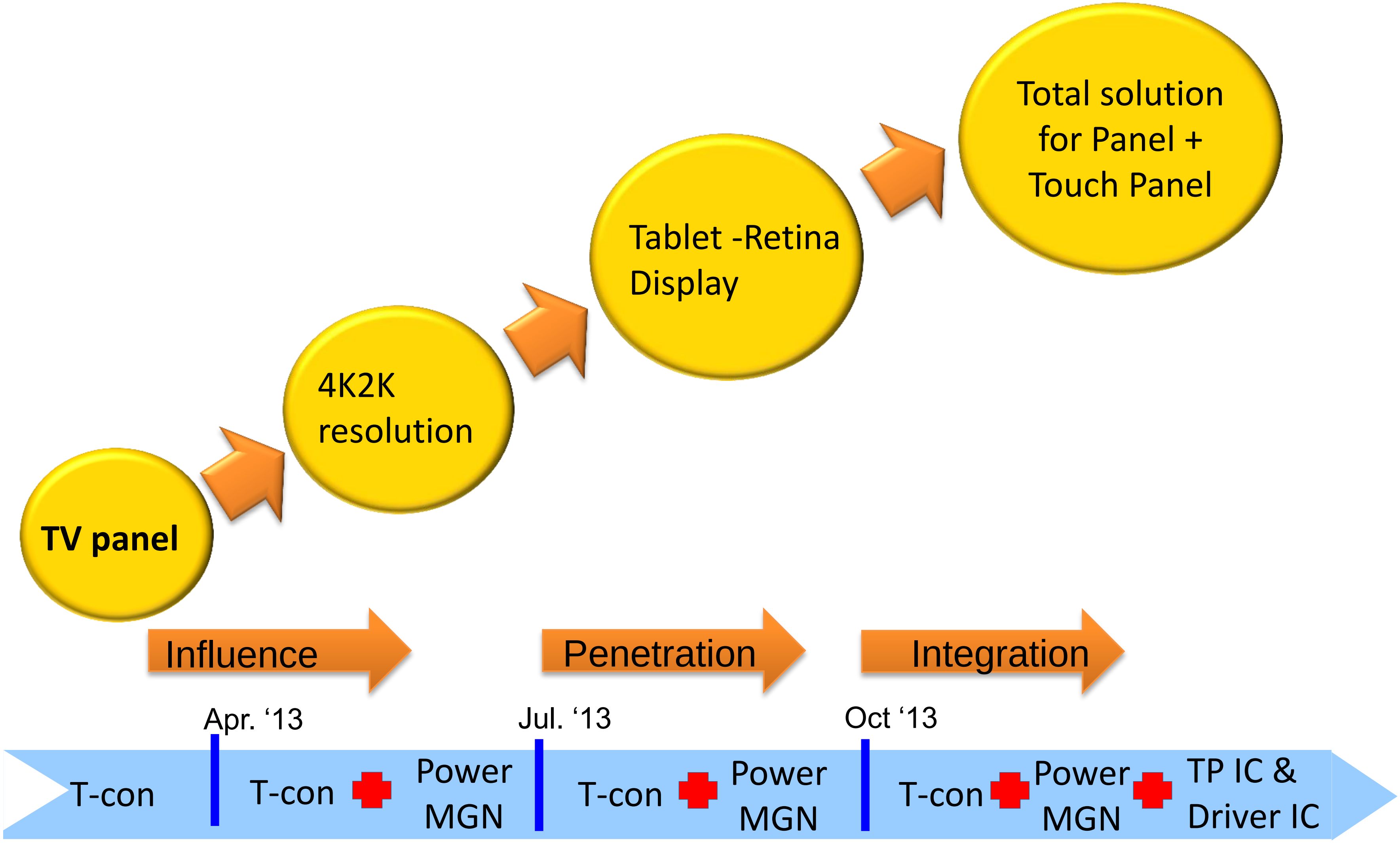


電池材料
Battery Materials

高機能工程塑膠
High performance Engineering Plastics、碳纖材料
Carbon Fiber…

PCB/軟板材料
PCB/FBC Materials

Wah Lee FPD Turnkey Solution 華立FPD成長策略



TV panel

4K2K resolution

Tablet -Retina Display

Total solution for Panel + Touch Panel

Influence

Penetration

Integration

Apr. ‘13

Jul. ‘13

Oct ‘13

T-con

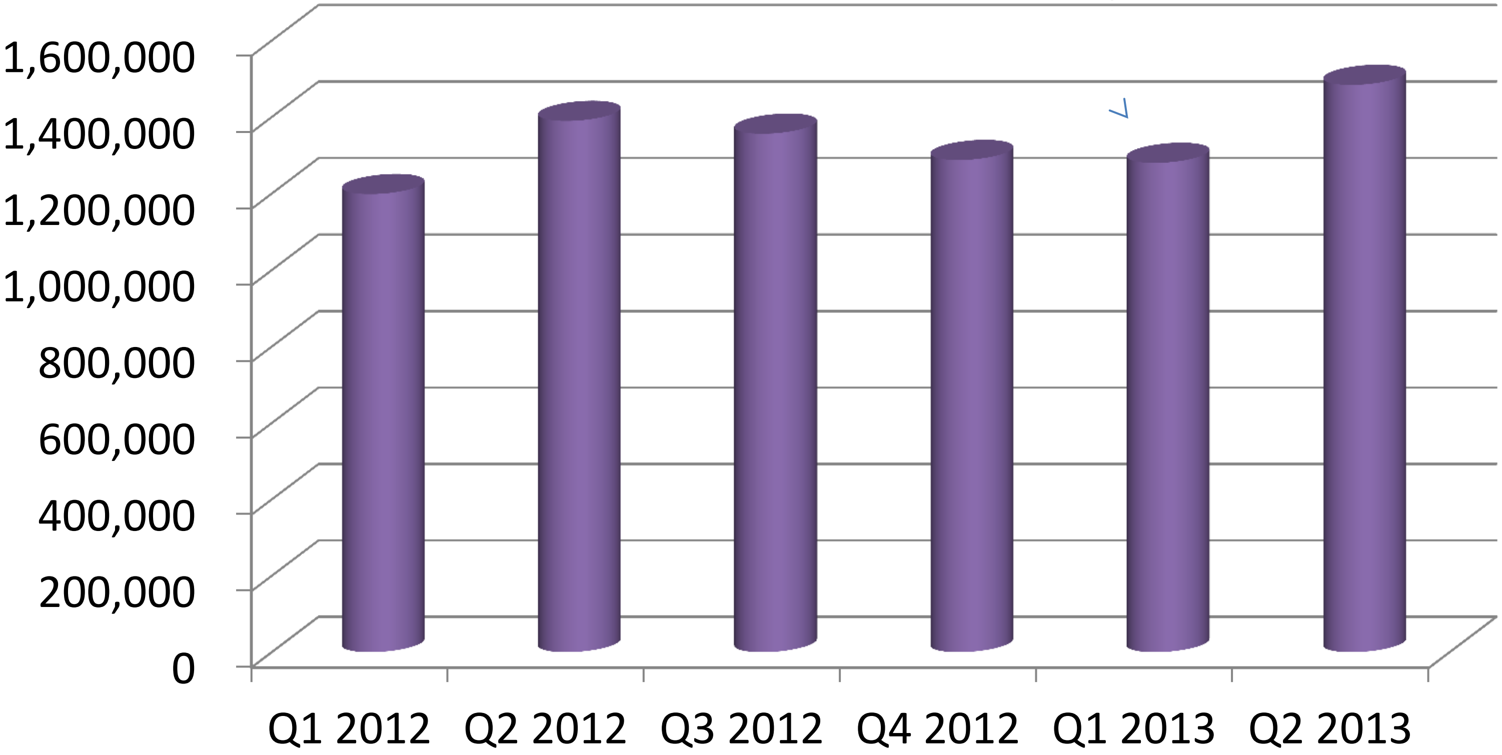
T-con + Power MGN

T-con + Power MGN

T-con + Power MGN + TP IC & Driver IC

千元
In thousands

半導體產業
Semiconductor Industry



2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013Q2
1,198,674	1,389,833	1,356,480	1,287,735	1,280,269	1,484,104

Products in Semiconductor Industry 半導體產品

- Wafer

Heating Process

Dielectrics Deposition

- Precursor/ TEOS、TDMAT、TEB、TMPO
- SiH_4
- NH_3

Photo Lithography

- Photo Resist
- Developer
- Polyimide

Ion Implantation

- B_2H_6
- BCl_3

Etch & PR Stripe

- H_2SO_4、HF、NH_4OH、H_2O_2
- Stripper
- C_4F_6
- NMP

Metallization

- WF_6

Chemical Mechanical Polishing

- Slurry
- Pad
- Post CMP Cleaner

Fabrication Processes and WL Products

IC packaging and testing

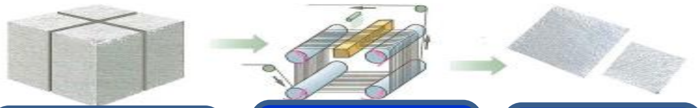
綠能光電產業
Green Energy Industry

千元
In thousands

2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013Q2
1,429,243	1,461,628	682,358	542,194	1,014,297	1,112,908

Solar Supply Chain 太陽能產業鏈

Solar Wafer



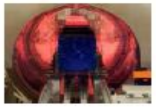
硅碇開方 → 晶片切割 → 晶片

- 多晶矽晶片 Poly silicon wafer
- 鑫單晶晶片 Single silicon wafer

•切割鋼線 Wire

Solar Cell







晶片進料檢測 → 晶片蝕刻清洗 → 磷擴散 → 側邊/背面隔離 → 抗反射層沉積 → 金屬電極網印 → 燒結 → I-V曲線效率量測與分級

- NF3
- IC Chemical
- Texture etchant

- POCL3

- NH3
- SiH4

- 銀漿、鋁漿 Ag Paste, Al Paste
- 銀/鋁漿 Ag/Al Paste

PV Module





電池選用 → 焊接與焊串 → 與EVA、玻璃、Tedlar 組成模組 → 模組封裝 → 鋁框、接線盒組裝 → 效率測試

- Solar Cell

- Solar Glass
- Back sheet
- EVA sheet

- Junction Box 用PPE

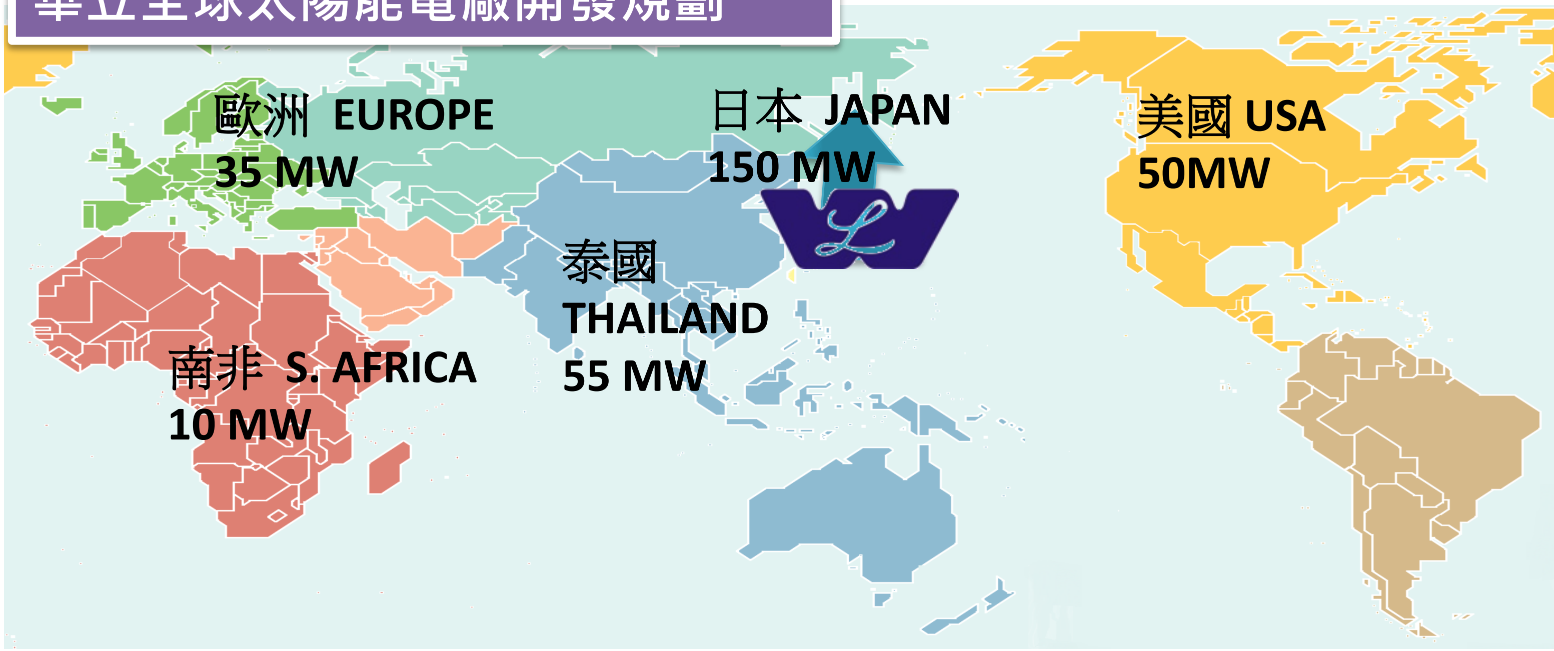
TV System


- 小型太陽能系統 System
- 電廠 Solar Plants

WL's Growth Driver in Solar WL太陽能的成長動能

- 更具彈性的服務模式 Flexible Service Model
  - 除單晶、多晶、銀鋁漿、背板等材料銷售外，進行代工等服務與出海口機會，具備全面產業鏈供應能力 Besides such material sales as silicon wafer/cell/module, Ag/Al paste, back sheet and so on, WL provides a full range of services to the supply chain including OEM and turnkey solutions.
- 海外太陽能電廠營運與開發 Development and Operation of Solar Plants
  - 具備當地市場開發與建置能力 Local market development and EPC (engineering, procurement and construction)
  - 與金融集團合作取得資金槓桿 Cooperation with financial groups for capital leverage

華立全球太陽能電廠開發規劃

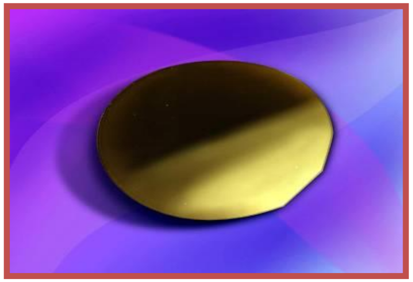


LED Supply Chain　LED產業鏈

1.原始材料合成

2.蒸餾還原形成多晶

3.單晶成長 單晶棒

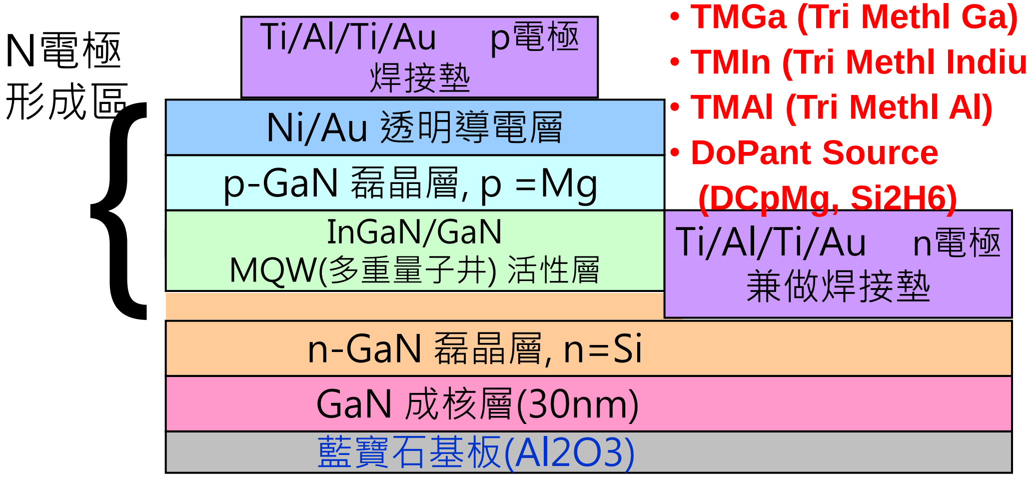


將單晶棒鋸切成片狀晶圓，並加以拋光處理。

- 鑽石切割線、PSS

- AsH3、PH3、SiH4

- NH3 . GaAs
- TMGa (Tri Methl Ga)
- TMIn (Tri Methl Indium)
- TMAl (Tri Methl Al)
- DoPant Source (DCpMg, Si2H6)



4. 晶圓/ 基板

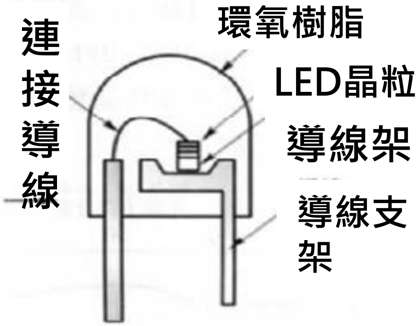
5.磊晶成長

6. 晶片製程(製作電極圖案)

- Du Pont EKC Remover

7. 磊晶晶圓減薄並切割成晶粒

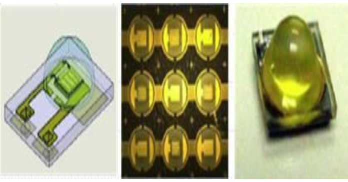
8. 封裝



- PA9T、LCP
- 螢光粉
- 封裝材(矽膠、Hybrid、Epoxy)
- JSR LED Material

9. 元件/ 模組

- EMITTER

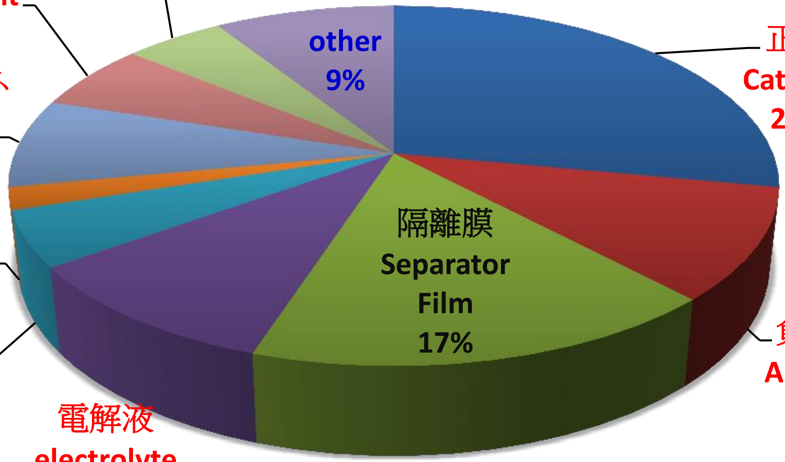


10. 半成品/成品

- 機構件
- 燈源/燈具

Products in Rechargeable Battery 二次電池產品

鋰電池材料成本分析
LiFePO4 Material cost structure



動力電池應用
Power Application

電動機車 E-bike

電動車
Electric Vehicle

充電站 Charging Station

電池模組
Module

3C電池芯
Battery Cell

電動車電池模組
Electric Vehicle Module

平板電池模組
Tablet Battery Cell

3C電池應用
3C Application

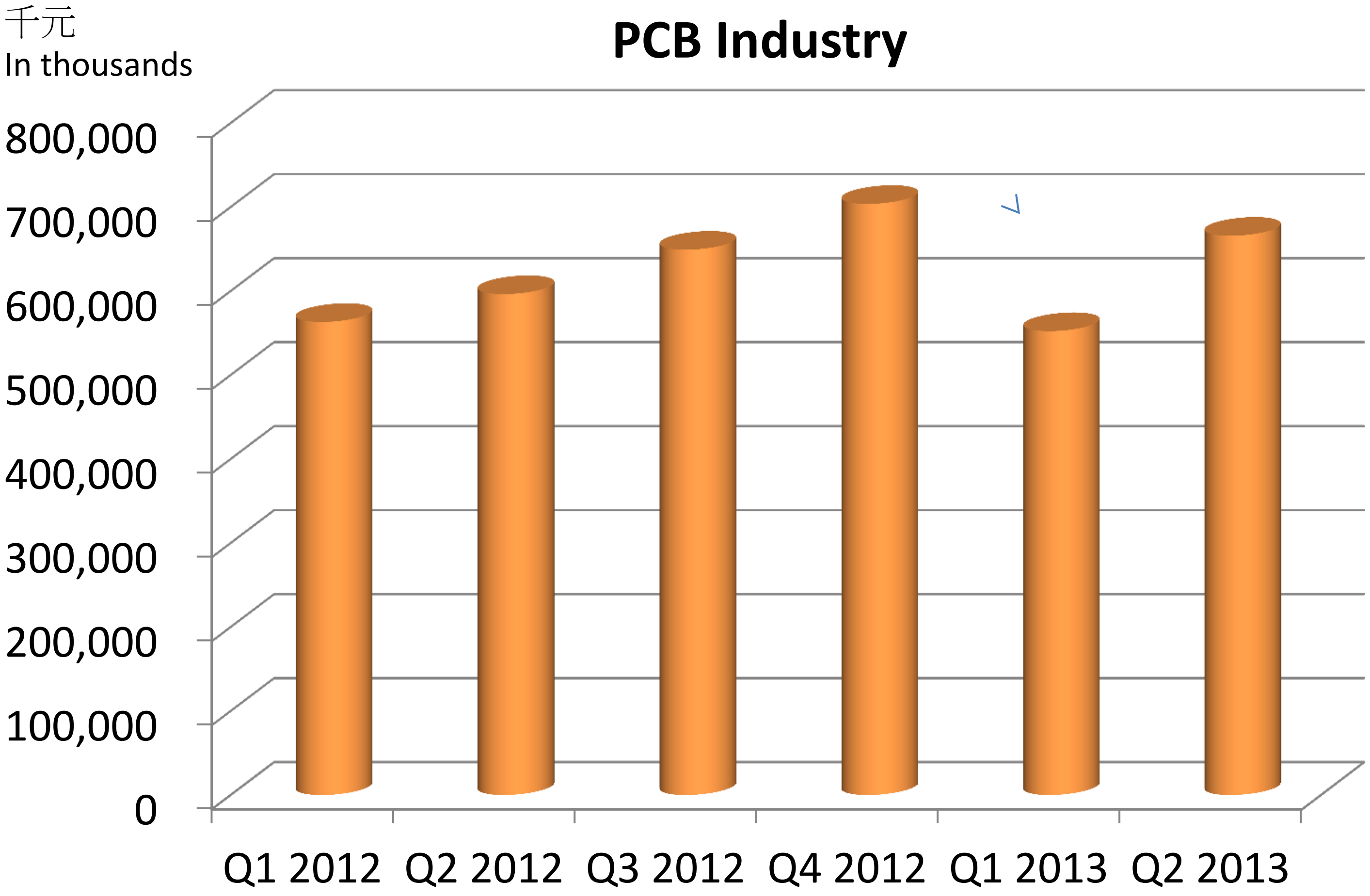
平板 Tablet

智慧型手機
Smart Phone

無線充電電池系統
Wireless Charging System

平板電腦
Tablet PC

PCB產業
PCB Industry

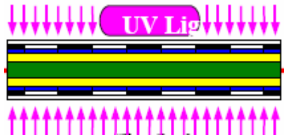


2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013Q2
563,180	596,325	649,224	703,729	552,281	665,817

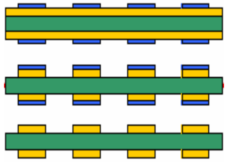
Products in PCB Industry PCB產業產品

Substrate cutting

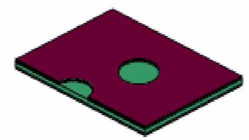
Dry film lamination



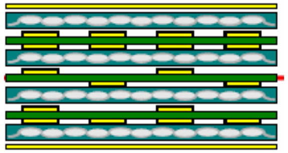
Inn-layer Exposure



Develop/ Etching/ Strip Ping



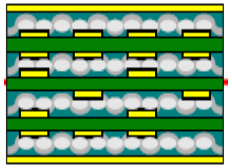
Black oxide process Brown oxide process Copper Surface Treatment



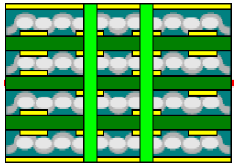
Stack

- CCL

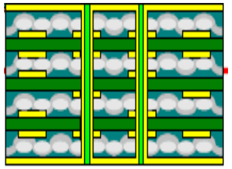
- Dry Film
- Lamination Machine



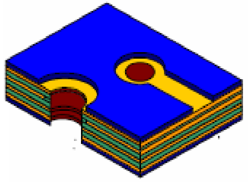
Vacuum Press



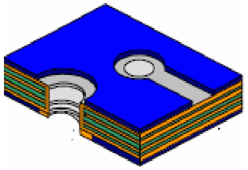
Mechanical drilling



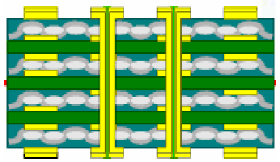
Cu plating



Dry Film lamination /Out-layer exposure



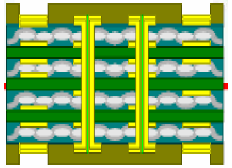
Out-layer circuit Cu plating



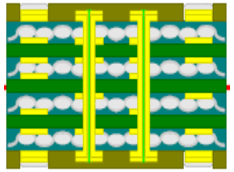
Out-layer Circuit Etching

- Release Film

- Dry Film

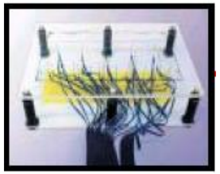


Solder Mask/Mark Printing



HASL/ Au Plating

Routing/ V-cut



Open/ Shot Test

Visual Inspection System

Package

- CNC Router
- Beveling Machine

- AOI
- Screen Visual Inspection

Biotech Roadmap 生化產業發展規劃

	短期 Short Term (within 1 Yr)	中期 Mid Term (within 2 yrs)	長期 Long Term (2 yrs ↑)
製藥 Pharmarceu-tical	日商/賦形劑 Japan/Excipient 台商/添加劑(評估) Taiwan/Additives		
生化 Biomedical	日商/生化原料 Japan/ Biomedical Material (談代理權中)		
醫材 Medical Tools/ Equipment	台商/塑膠原料,膠材(評估代理) – Taiwan/Plastic Material 台商/一,二級醫材 – Medical Related Material 韓商/醫美材(評估代理) –Korea/Cosmetic Materail		
	日商/設備物件 Japan/Equipt (評估代理)	日商/手術器材 Japan/Surgery Tools 日商/醫療服務醫材(大陸Project) China	
保健食品 Dietary Supplements	台商/保健食品 Taiwan 日商/原料,保健食品(評估代理) Japan		

2013Q2 Consolidated Income Statement 合併損益表

Unit: NT$ million	2013Q2 (CPA)	2012Q2 (CPA)	YoY	2013Q2 as % of Full 2012
Net Sales 營收淨額	16,363.3	16,013.4	2%	51.9%
Gross Profit 銷貨毛利	1,445.1	1,439.1	0%	50.6%
Gross Margin 毛利率	8.8%	9.0%	-0.2%	
Op. Expense 營業費用	968.1	971.8	0%	47.8%
Op. Profit 營業利益	477.0	467.4	2%	57.2%
Non-op. Profit 業外收支	294.8	167.5	76%	61.3%
L-T investment income 長投收益	162.4	174.5	-7%	38.9%
Disposal gain 處分利益	14.5	4.0	262%	557.4%
Others 其他	117.9	(10.9)	-1179%	193.5%
Pre-tax Profit 稅前利潤	771.8	634.9	22%	58.7%
Net Income 稅後淨利	579.7	483.1	20%	59.1%
After tax EPS	2.36	2.02	20%	55.7%

* Consolidated entities include: Wah Lee Taiwan and China Subsidiaries (Raycong, Shanghai YiKang), Wah Lee Japan, Wah Lee Tech(Singapore), and Wah Lee Korea.

*上述合併報表主體，包含華立台灣、大陸子公司(華港香港、上海怡康)，華立日本，華立新加坡，及華立韓國。

2013Q2 Long Term Investments 長期投資收益

Unit: NT$ thousand

Long-term Investments 轉投資事業	Product Lines 主要產品線	Holding % 持有比例 %	2013Q2 Earnings Recognized 長投收益
Chang Wah Electromaterials Inc. 長華電材	Semiconductor Packaging and Testing Materials	**28**	**71,921**
Nagase Wah Lee Plastics 長華塑膠	SABIC Engineering Plastics	**40**	**75,005**
Wah Hong Industrial Corp. 華宏新技	Optical Film, High Performance Plastic Compound, Heat Dissipation Solution, VCM Actuactor	**26**	**11,841**
ORC Wah Lee Technology Corp. 華展光電	ORC Exposure Machine and Lamps	**35**	**3,641**
Total			**162,408**

Consolidated Balance Sheet 合併資產負債表

Unit: NT$ million

	2013-06-30 (CPA)		2012-06-30 (CPA)			2013-06-30 (CPA)		2012-06-30 (CPA)	
Cash & Equiv. 現金	2,102	9.8%	2,383	11.9%	S-T Borrowing 短期借款	3,476	16.3%	3,518	17.6%
A/R 應收帳款	9,210	43.1%	8,735	43.7%	A/P 應付帳款	5,000	23.4%	4,751	23.8%
Inventory 存貨	2,786	13.0%	2,592	13.0%	Other C/L 其他流動負債	1,515	7.1%	1,471	7.4%
Other C/A 其他流動資產	1,417	6.6%	1,340	6.7%	Current Liab. 流動負債	9,991	46.7%	9,741	48.8%
Current Assets 流動資產	15,515	72.6%	15,050	75.3%	L-T Liab. 長期負債	1,557	7.3%	1,565	7.8%
					Other Liab. 其他負債	817	3.8%	719	3.6%
					Non-Current Liab. 非流動負債	2,374	11.1%	2,284	11.4%
Financial Asset-Non Current 金融資產-非流動	434	2%	361	1.8%	Total Liab. 總負債	12,365	57.8%	12,025	60.2%
L-T investments 長期投資	3,919	18.3%	3,256	16.3%	Capital 股本	2,314	10.8%	2,314	11.6%
Fixed Assets 固定資產	1,087	5.1%	977	4.9%	Capital Surplus 資本公積	1,264	5.9%	1,211	6.1%
Other Assets 其他資產	424	2.0%	336	1.7%	Retained Earnings 保留盈餘	4,407	20.6%	3,929	19.7%
Non-Current Asset 非流動資產	5,865	27.4%	4,930	24.7%	Other Equities 其他權益	368	1.7%	(7)	0.0%
					Non-Controlling. Interest 非控制權益	662	3.1%	508	2.5%
Total Assets 總資產	21,380	100.0%	19,980	100.0%	Total Equities 總股東權益	9,015	42.2%	7,954	39.8%

* Consolidated entities include: Wah Lee Taiwan and China Subsidiaries (Raycong, Shanghai YiKang), Wah Lee Japan, Wah Lee Tech(Singapore), and Wah Lee Korea.

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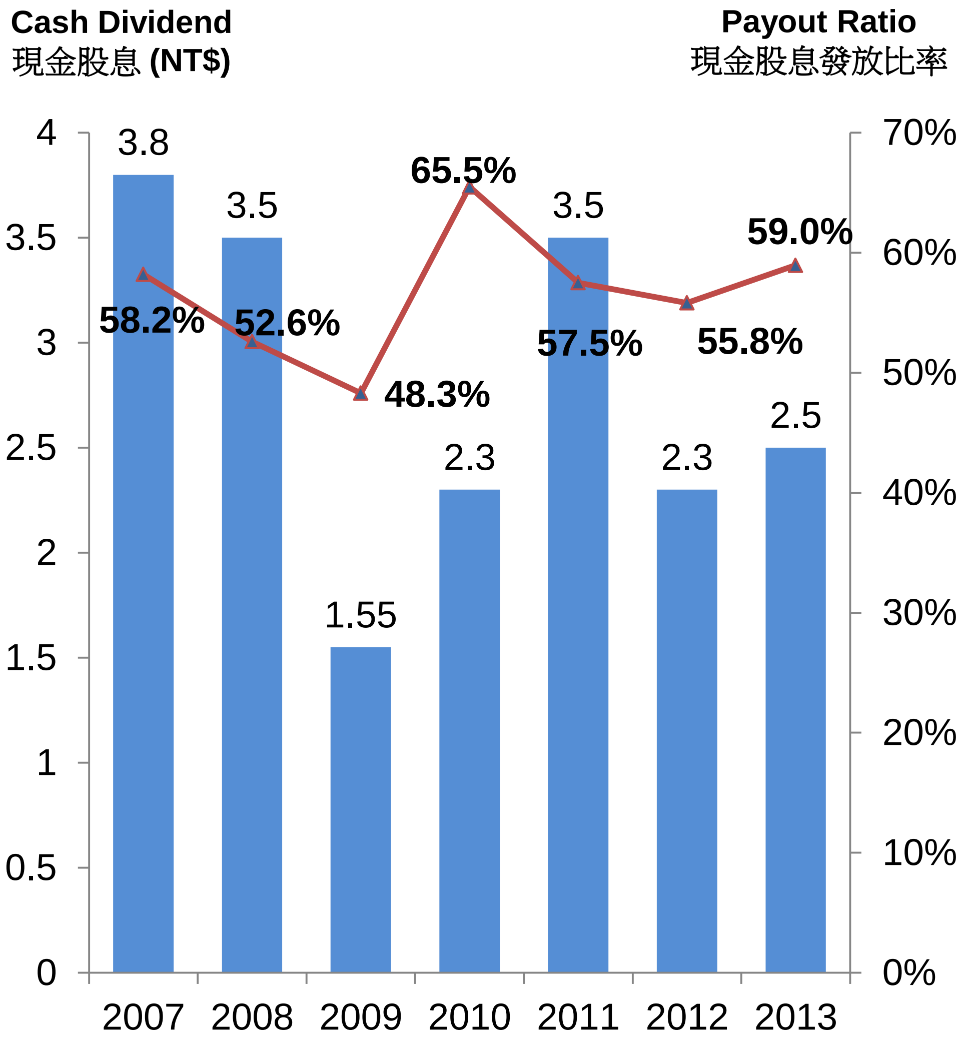
Consolidated Financial Indicators 合併財務比率

	2007	2008	2009	2010	2011	2012	2013Q2
Current Ratio 流動比率	144.8%	148.6%	171.7%	162.6%	164.4%	162.2%	155.3%
Quick Ratio 速動比率	98.8%	95.6%	132.4%	115.9%	122.2%	130.9%	124.4%
Net Debt/Equity 淨負債比率	36.2%	42.3%	9.0%	22.3%	31.0%	20.7%	21.1%
A/R days 應收帳款天數	84.8	86.3	112.7	87.9	88.9	95.2	99.6
Inventory days 存貨天數	53.4	64.8	67.1	47.1	46.2	40.7	35.7
A/P days 應付帳款天數	57.9	54.2	81.5	60.8	56.8	59.0	60.7
Cash conversion days 現金週轉天數	80.3	96.9	98.3	74.1	78.2	76.9	74.6
Operating cash flow (NT$K) 來自營業活動現金流量	243,444	636,700	2,539,747	-389,836	603,661	1,493,739	-6,886
ROE 股東權益報酬率	18.7%	11.9%	12.3%	19.7%	12.0%	12.6%	13.1%

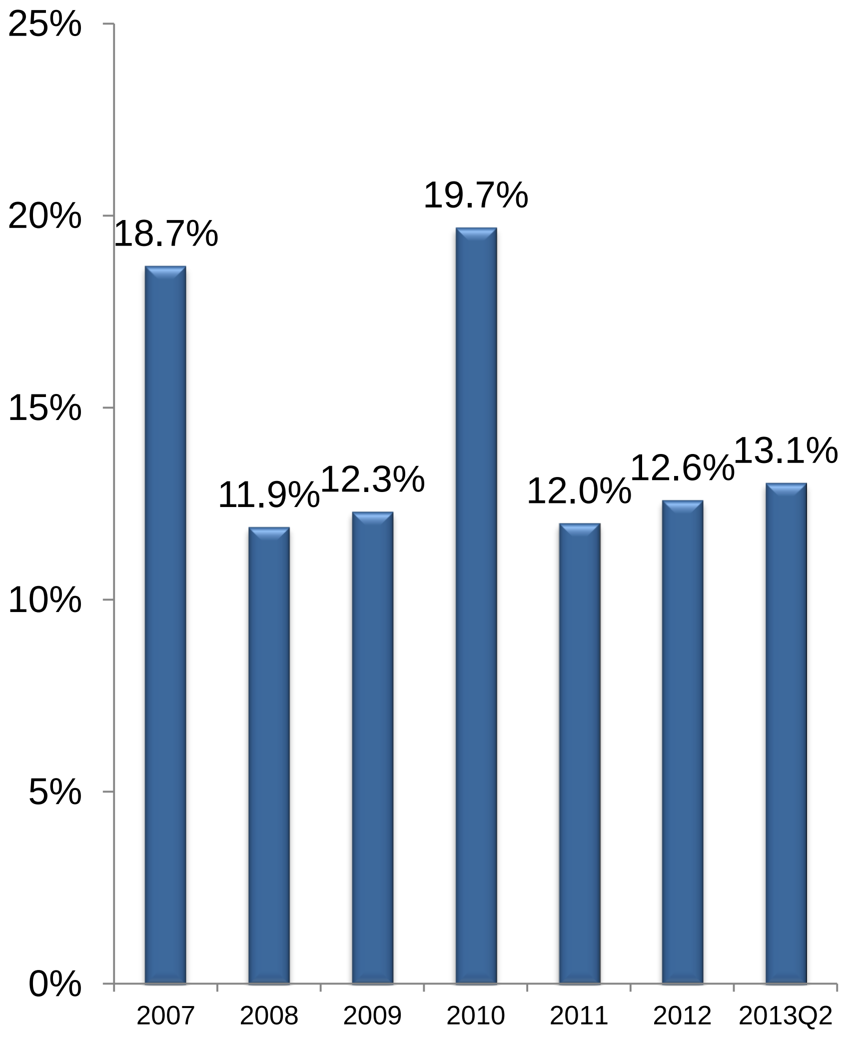
Shareholder Returns Trend 股東投資報酬

Dividend Policy 股利政策



＊ **Dividends are distribution of prior year's earnings.**

ROE 股東權益報酬率



＊ **2013Q2 ROE is annualized.**

2012 Consolidated Income Statement 合併損益表

Unit: NT$ million	2012 (CPA)	2011 (CPA)	*YoY*
Net Sales 營收淨額	31,545.3	31,224.5	*1%*
Gross Profit 銷貨毛利	2,857.9	2,821.8	*1%*
Gross Margin 毛利率	9.1%	9.0%	*0.0%*
Op. Expense 營業費用	2,023.5	1,881.9	*8%*
Op. Profit 營業利益	834.4	939.9	*-11%*
Non-op. Profit 業外收支	481.1	410.5	*17%*
L-T Investment Income 長投收益	417.5	264.3	*58%*
Disposal Gain 處分利益	2.6	37.4	*-93%*
Others 其他	60.9	108.3	*-44%*
Pre-tax Profit 稅前利潤	1,315.5	1,350.3	*-3%*
Net Income 稅後淨利	981.1	952.2	*3%*
After-tax EPS	4.24	4.12	*3%*

* Consolidated entities include: Wah Lee Taiwan and China Subsidiaries (Raycong, Shanghai YiKang), Wah Lee Japan, Wah Lee Tech(Singapore), and Wah Lee Korea.

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2012 Long Term Investments 長期投資收益

Unit: NT$ thousand

Long-term Investments 轉投資事業	**Product Lines 主要產品線**	**Holding % 持有比例 %**	**2012 Earnings Recognized 長投收益**
Chang Wah Electromaterials Inc. 長華電材	Semiconductor Packaging and Testing Materials	**28**	**198,518**
Nagase Wah Lee Plastics 長華塑膠	SABIC Engineering Plastics	**40**	**137,764**
Wah Hong Industrial Corp. 華宏新技	Optical Film, High Performance Plastic Compound, Heat Dissipation Solution, VCM Actuactor	**24**	**71,531**
ORC Wah Lee Technology Corp. 華展光電	ORC Exposure Machine and Lamps	**35**	**9,729**
Total			**417,542**

Consolidated Balance Sheet 合併資產負債表

Unit: NT$ million

	2012-12-31 (CPA)		2011-12-31 (CPA)			2012-12-31 (CPA)		2011-12-31 (CPA)	
Cash & Equiv. 現金	3,420	17.0%	2,471	13.1%	S-T Borrowing 短期借款	3,632	18.1%	3,404	18.0%
A/R 應收帳款	8,596	42.7%	7,910	41.9%	A/P 應付帳款	4,931	24.5%	4,334	22.9%
Inventory 存貨	2,650	13.2%	3,229	17.1%	Other C/L 其他流動負債	687	3.4%	830	4.4%
Other C/A					Current Liab. 流動負債	9,249	46.0%	8,568	45.4%
其他流動資產	337	1.7%	478	2.5%	L-T Liab. 長期負債	1,561	7.8%	1,569	8.3%
Current Assets 流動資產	15,002	74.6%	14,088	74.6%	Other Liab. 其他負債	666	3.3%	644	3.4%
L-T investments 長期投資	3,813	18.9%	3,486	18.5%	Total Liab. 總負債	11,508	57.2%	10,781	57.1%
Fixed Assets 固定資產	947	4.7%	898	4.8%	Capital 股本	2,314	11.5%	2,314	12.2%
Other Assets 其他資產	361	1.8%	418	2.2%	Capital Surplus 資本公積	1,304	6.5%	1,268	6.7%
					Retained Earnings 保留盈餘	4,371	21.7%	3,922	20.8%
					Minority int. & Other Adjust. 少數股權	627	3.1%	605	3.2%
Total Assets 總資產	20,123	100.0%	18,890	100.0%	Total Equities 總股東權益	8,616	42.8%	8,109	42.9%

* Consolidated entities include: Wah Lee Taiwan and China Subsidiaries (Raycong, Shanghai YiKang), Wah Lee Japan, Wah Lee Tech(Singapore), and Wah Lee Korea.

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