



**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 2014**

**2014年9月**

**TSE Ticker : 3010 TT**

**<http://www.wahlee.com>**

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合併2013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\$450 million

市值

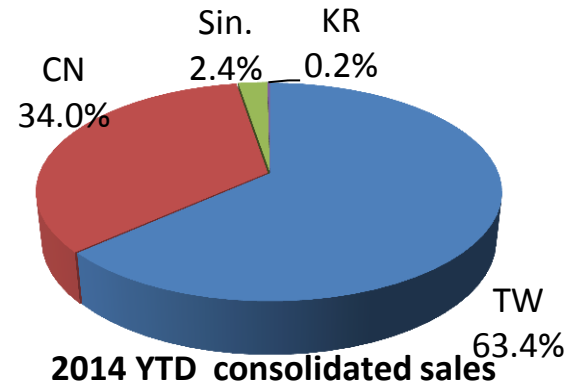
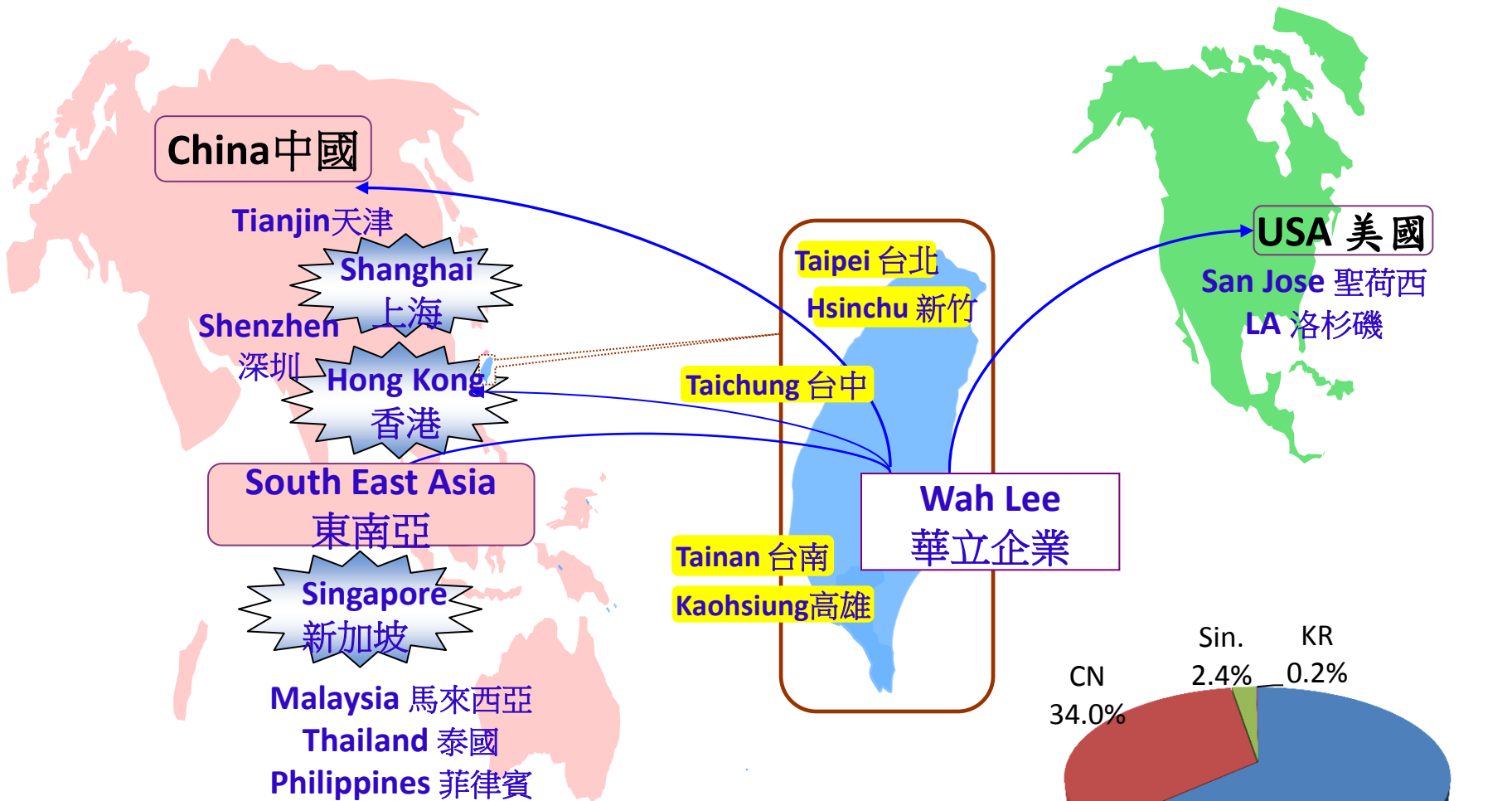
**Core Business:** Leading HI-TECH solutions integrator and raw

主要業務

materials provider for :

- Computer & Communication 資通訊
- Semiconductor 半導體
- FPD 平面顯示器
- Green Energy/Optoelectronics 綠能/光電

# Sales Offices 國際行銷據點

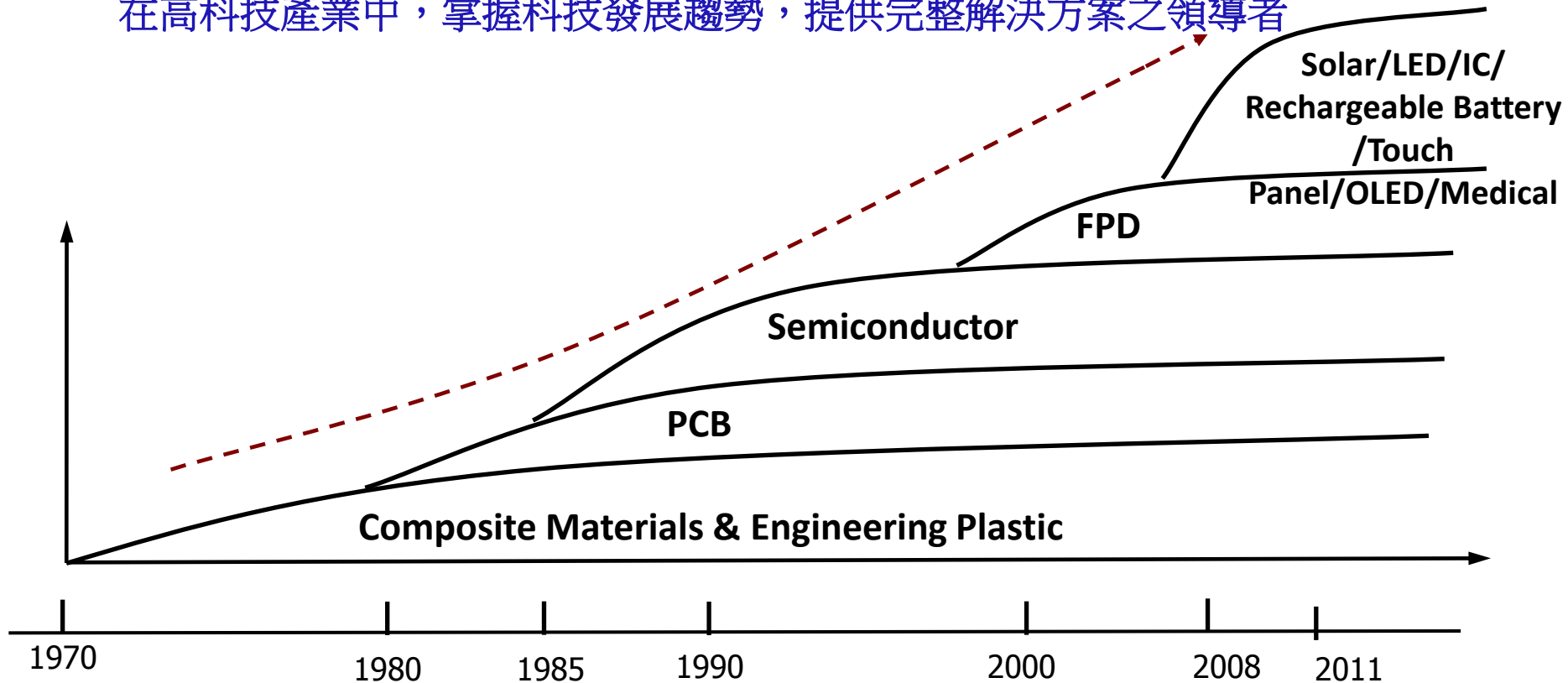


Wah Lee Subsidiaries

# 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:

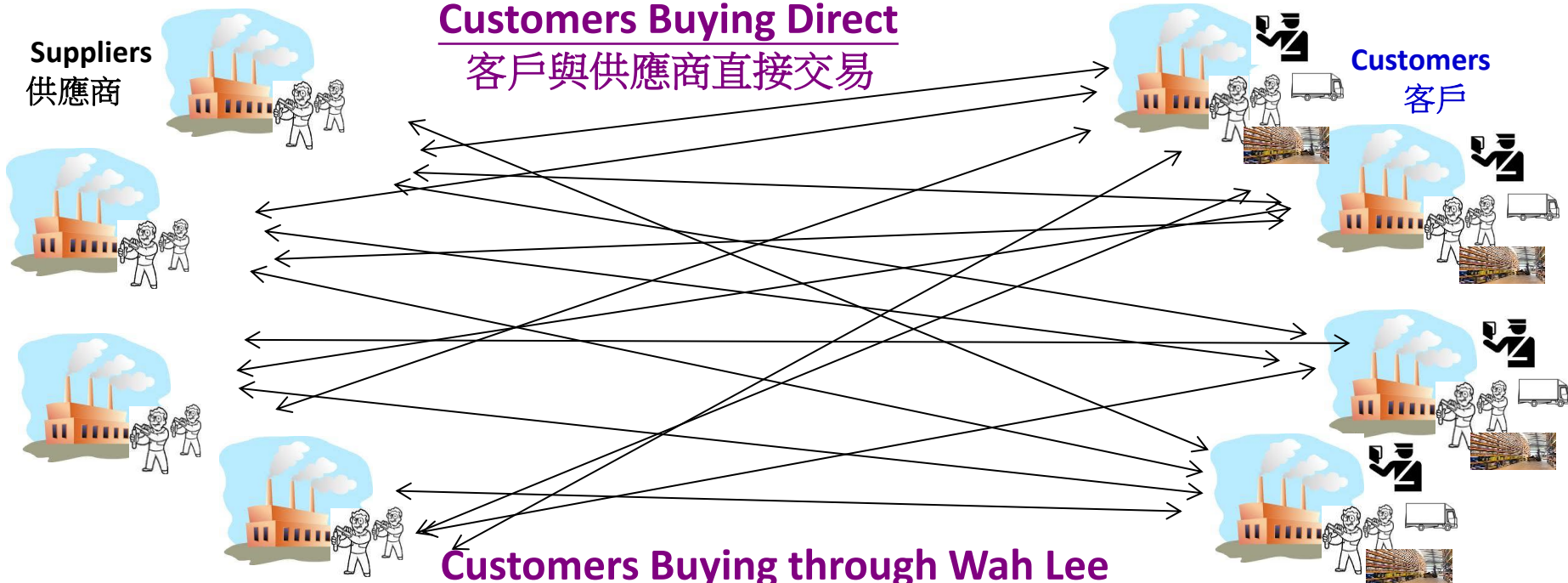
投資開發下一代明星產業，如先進顯示技術，固態照明，太陽能發電，電動車等

- 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



## Customers Buying through Wah Lee

華立在供應鏈中提供關鍵附加價值: 一次購足

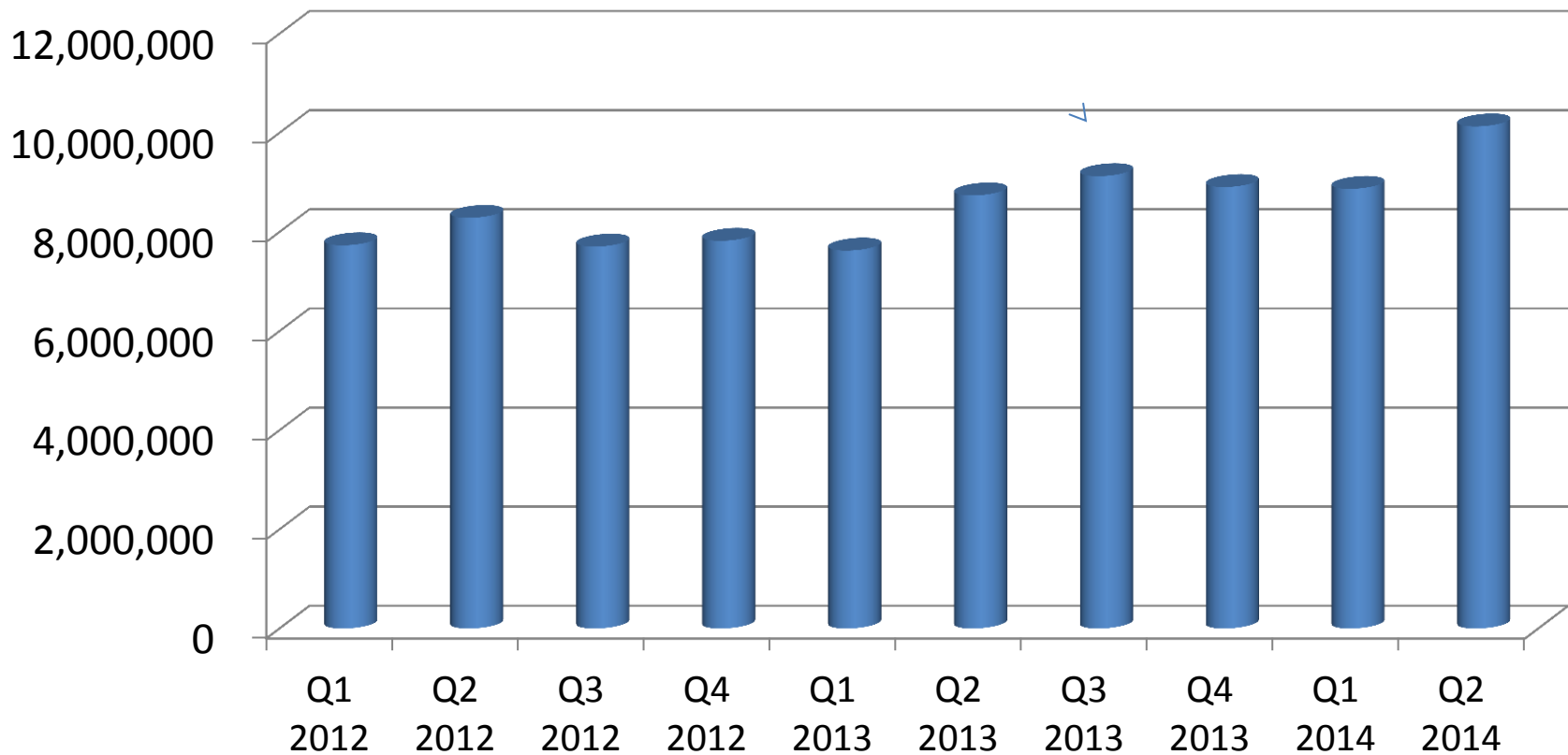


# Quarterly Consolidated Sales 季合併營收資訊

## 季合併營收

### Quarterly Consolidated Sales

千元  
In thousands

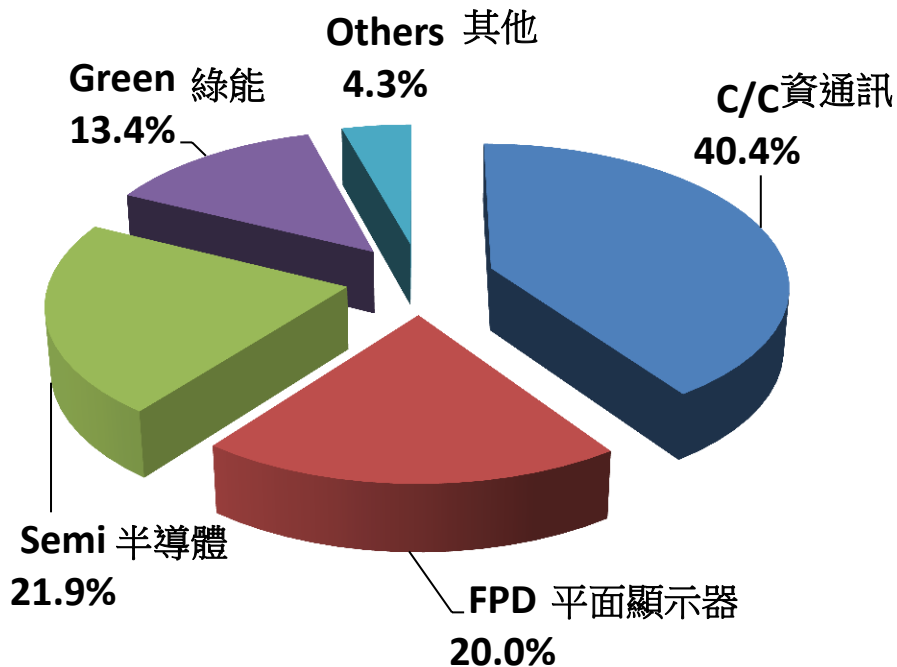


2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2
7,732,183	8,285,087	7,705,533	7,822,470	7,625,467	8,737,837	9,127,265	8,907,828	8,870,920	10,130,115

# Industry Sales Breakdown 營收產業別資訊

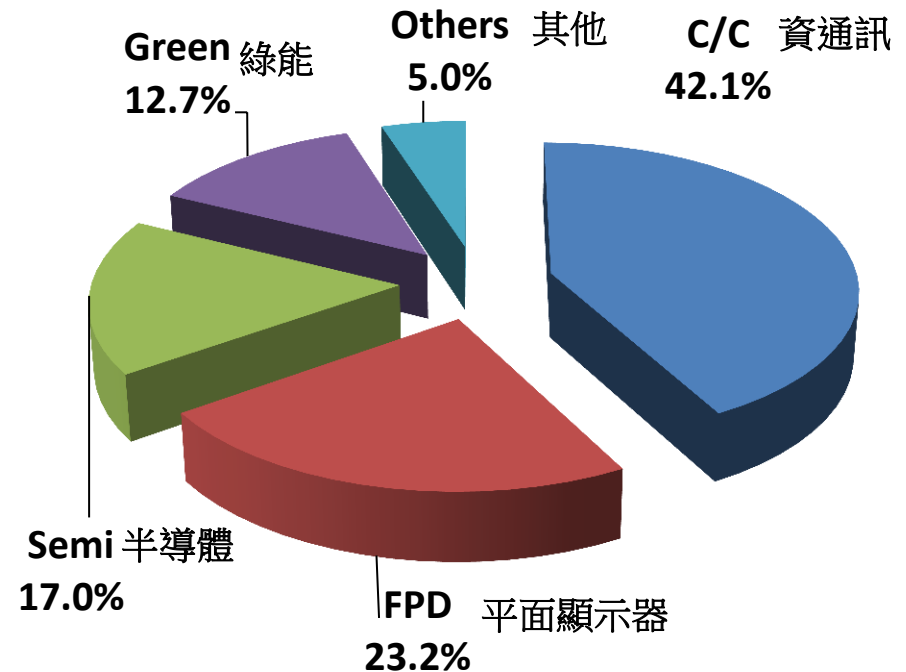
2014/ 01-08

Sales NT\$25.9 Billion  
合併營收 259億元



2013/ 01-08

Sales NT\$22.4 Billion  
合併營收 224億元

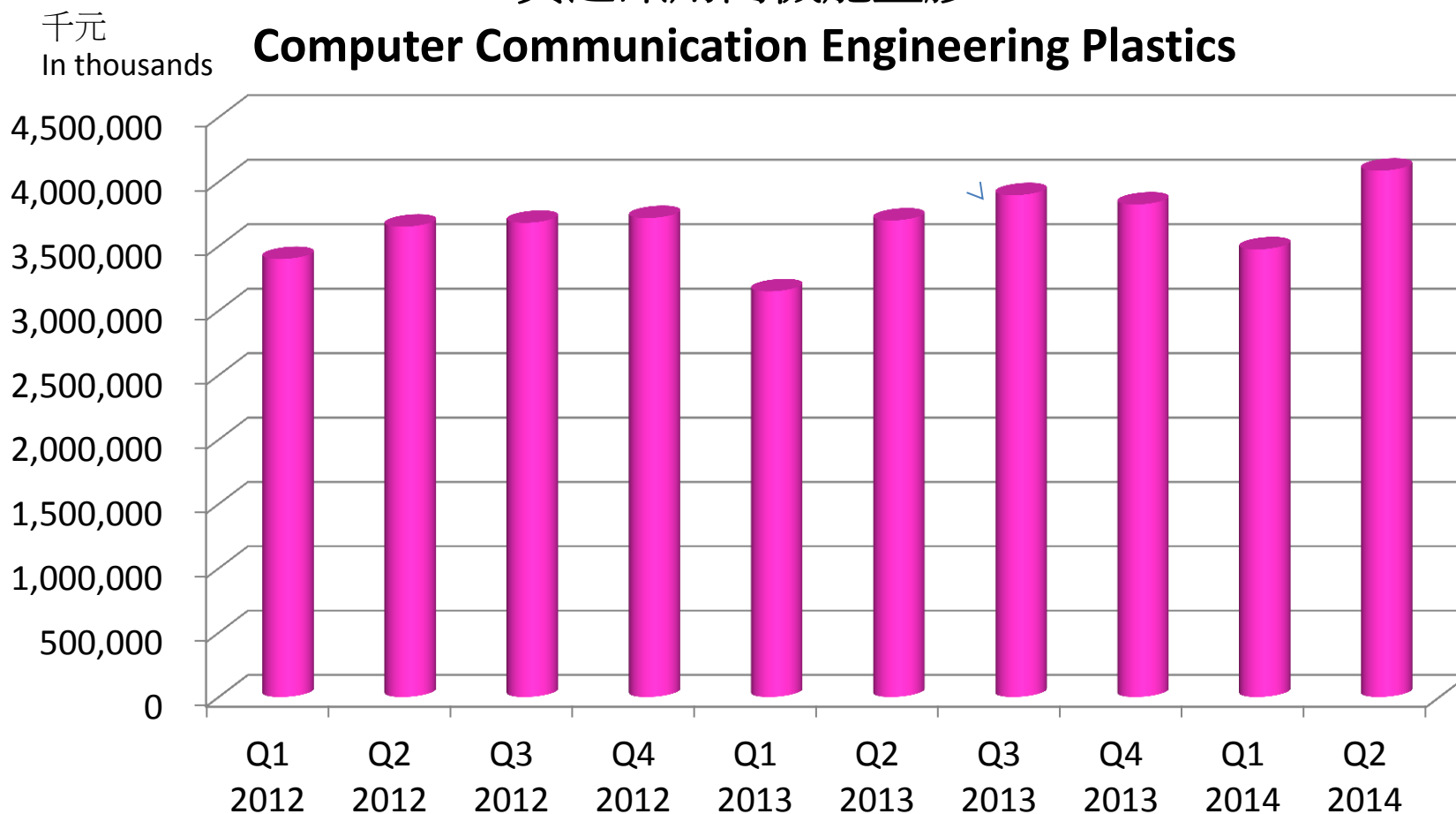




# Industry Sales Breakdown : C/C 資通訊營收

## 資通訊用高機能塑膠

### Computer Communication Engineering Plastics

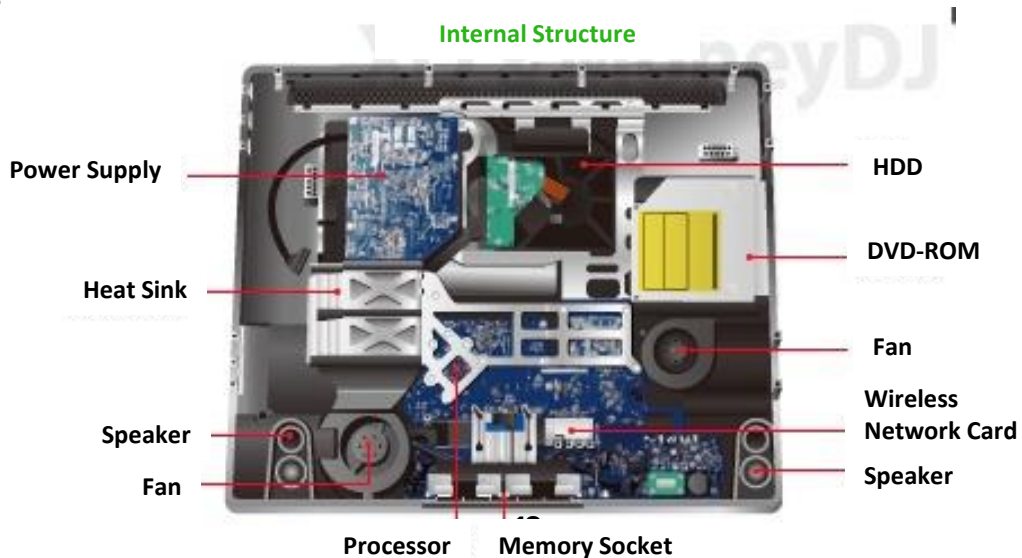
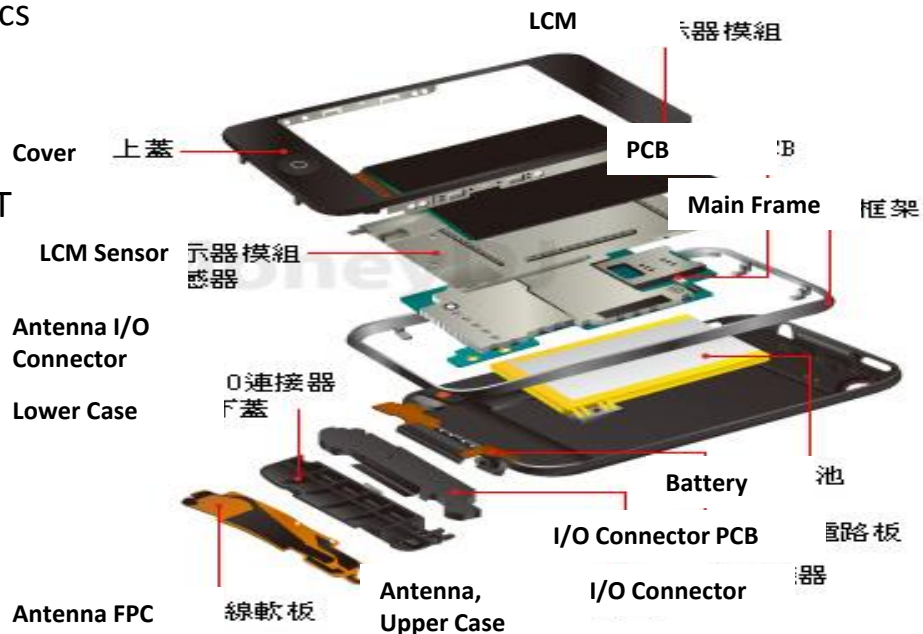


2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014Q2
3,400,729	3,651,344	3,681,425	3,718,072	3,150,057	3,699,583	3,895,425	3,823,343	3,475,523	4,085,745

# Products in C/C 資訊通訊產品

## 高機能工程塑膠 High Performance Engineering Plastics

1. 外殼 Case : 高機能碳纖 Carbon Fiber、TORAY CFRP、PA
2. 鏡頭 Lens: OKP4、ARTON、HARD COATED SHEET
3. 絕緣片 Insulating Strip、電池 Battery Label : PET FILM、PC FILM、PBT FILM
4. 喇叭 Speaker : PET FILM
5. 充電座 Charge Station : 電木粉 Phenolic Moulding Compound
6. Connector 連接器 : LCP、PA9T
7. Reflector 反射片 : PA9T
8. 變壓器 /PFC: 電木粉 Phenolic Moulding Compound
9. Inverter Bobbin : LCP



# 高機能工程塑膠近期開發應用領域 1

## Recent developments in Engineering Plastics 1



汽車

Pulley, Water  
Pump, Piston,  
Gasket

照明

LED Cover



家電

Coffee  
Machine &  
Juicer Parts

# 高機能工程塑膠近期開發應用領域 2

## Recent developments in Engineering Plastics 2



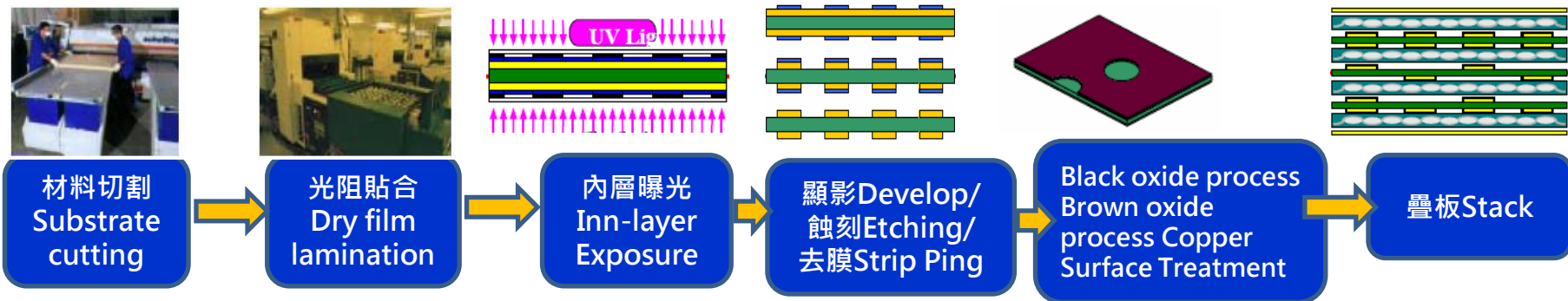
民生消費品  
Glasses  
Frame

醫療輸液  
Medical  
Liquid Bags

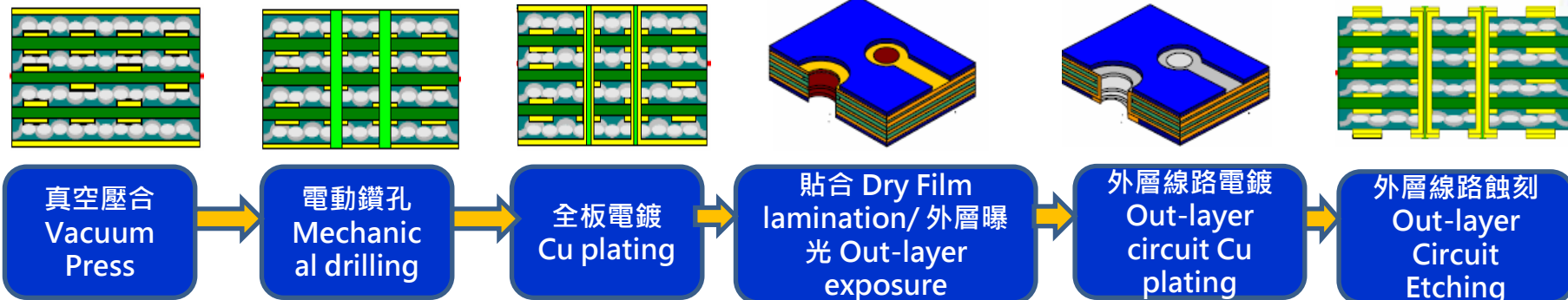


食品包裝  
Food  
Packaging

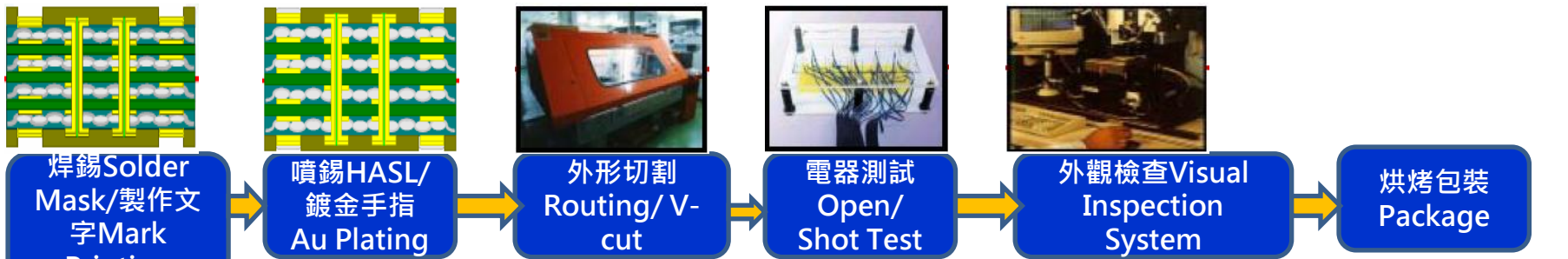
# Products in PCB Industry PCB產業產品



- CCL 銅箔基板
- Dry Film 乾膜
- Lamination Machine 軟板貼合機



- Release Film 離型膜
- Dry Film 乾膜

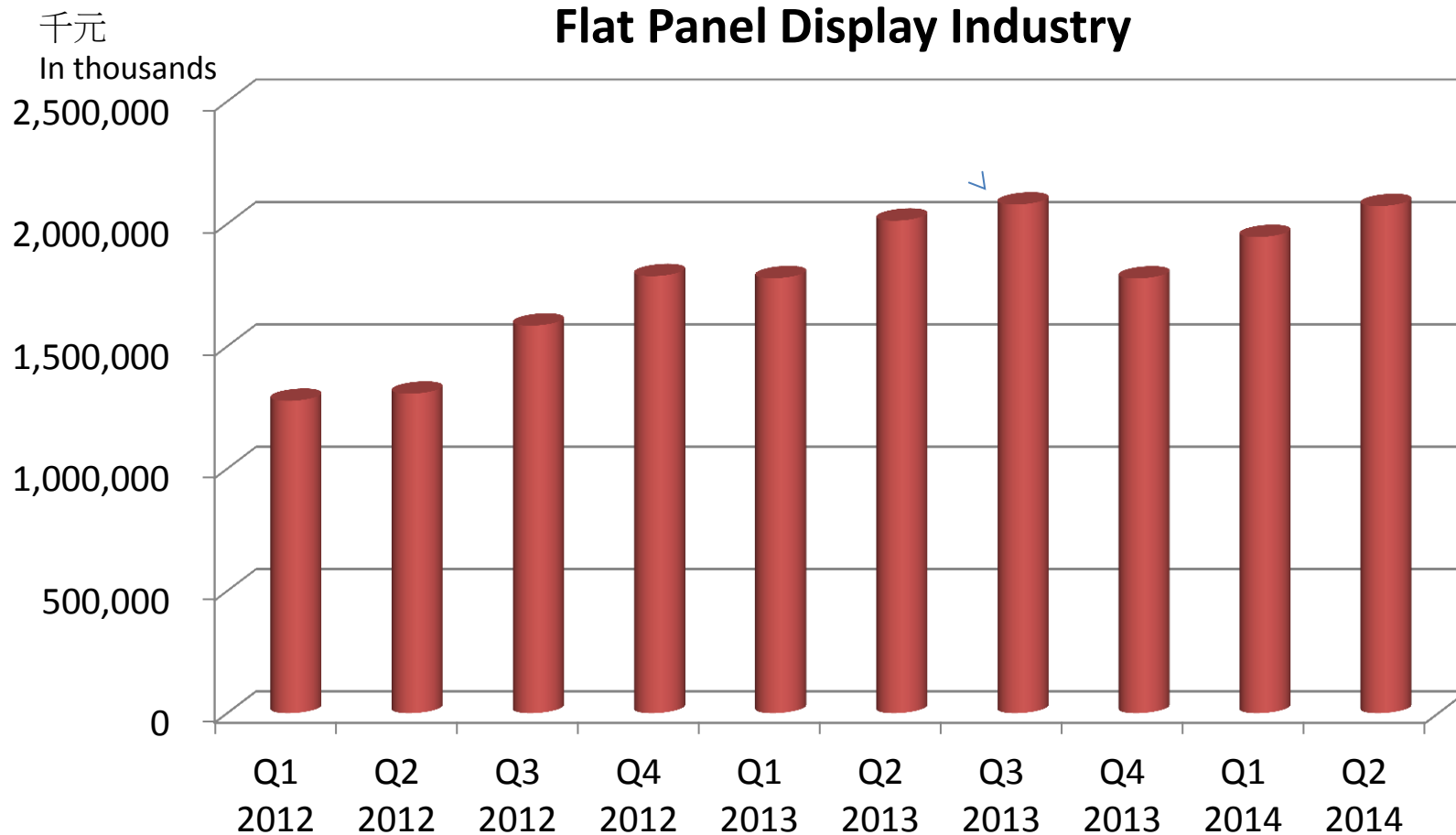


- CNC Router 切割機
- Beveling Machine 磨邊機
- AOI 外觀檢查機
- Screen Visual Inspection 網板檢查機

# Industry Sales Breakdown: FPD 平面顯示器營收

## 平面顯示器產業

### Flat Panel Display Industry



2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2
1,277,309	1,306,531	1,584,445	1,786,398	1,777,895	2,012,892	2,078,850	1,777,002	1,946,111	2,072,488

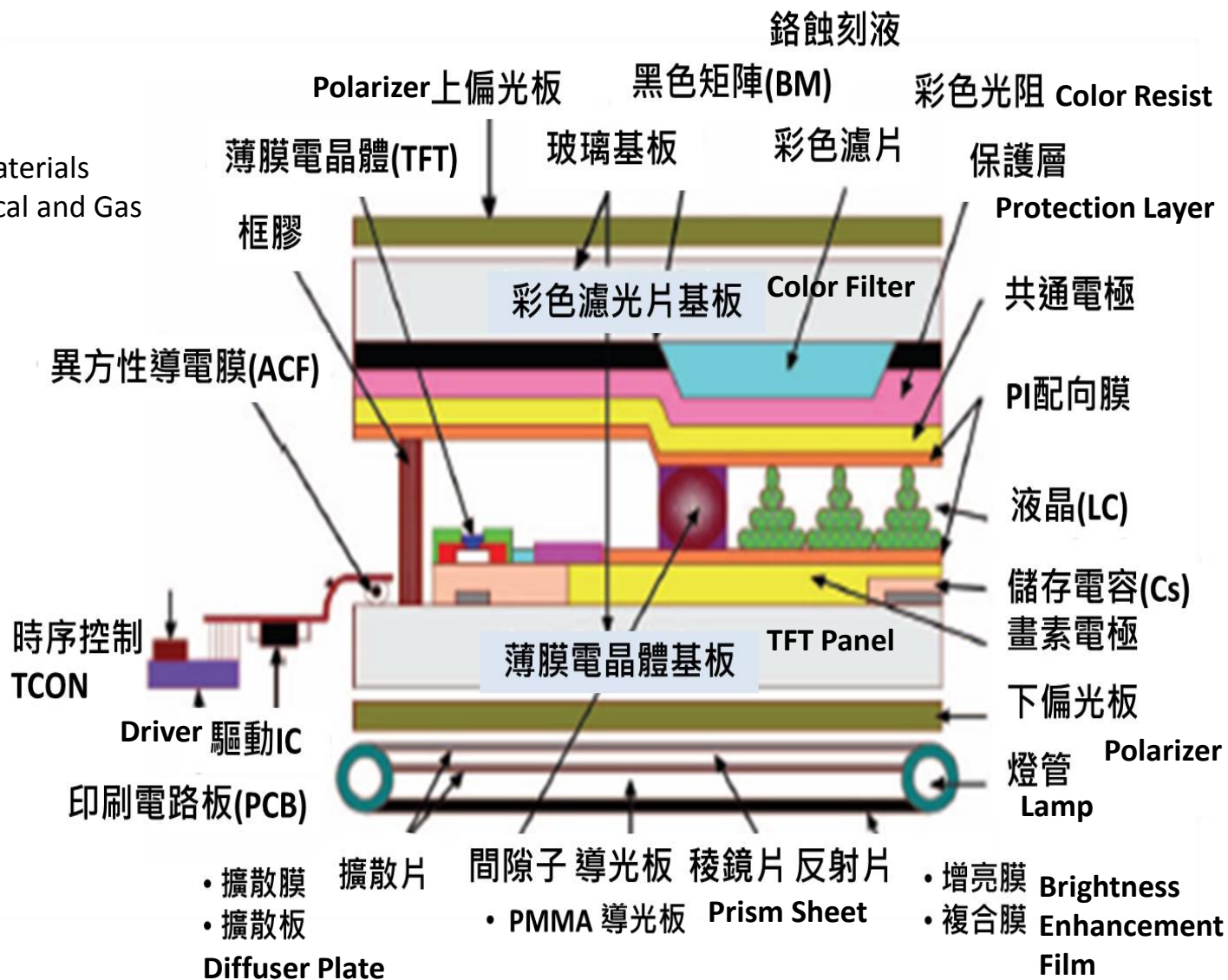


# 在LCD TV應用中，華立供應超過九成材料 Wah Lee Provides over 90% of Material used in LCD TV

Process Equipment & Materials  
Other Processing Chemical and Gas

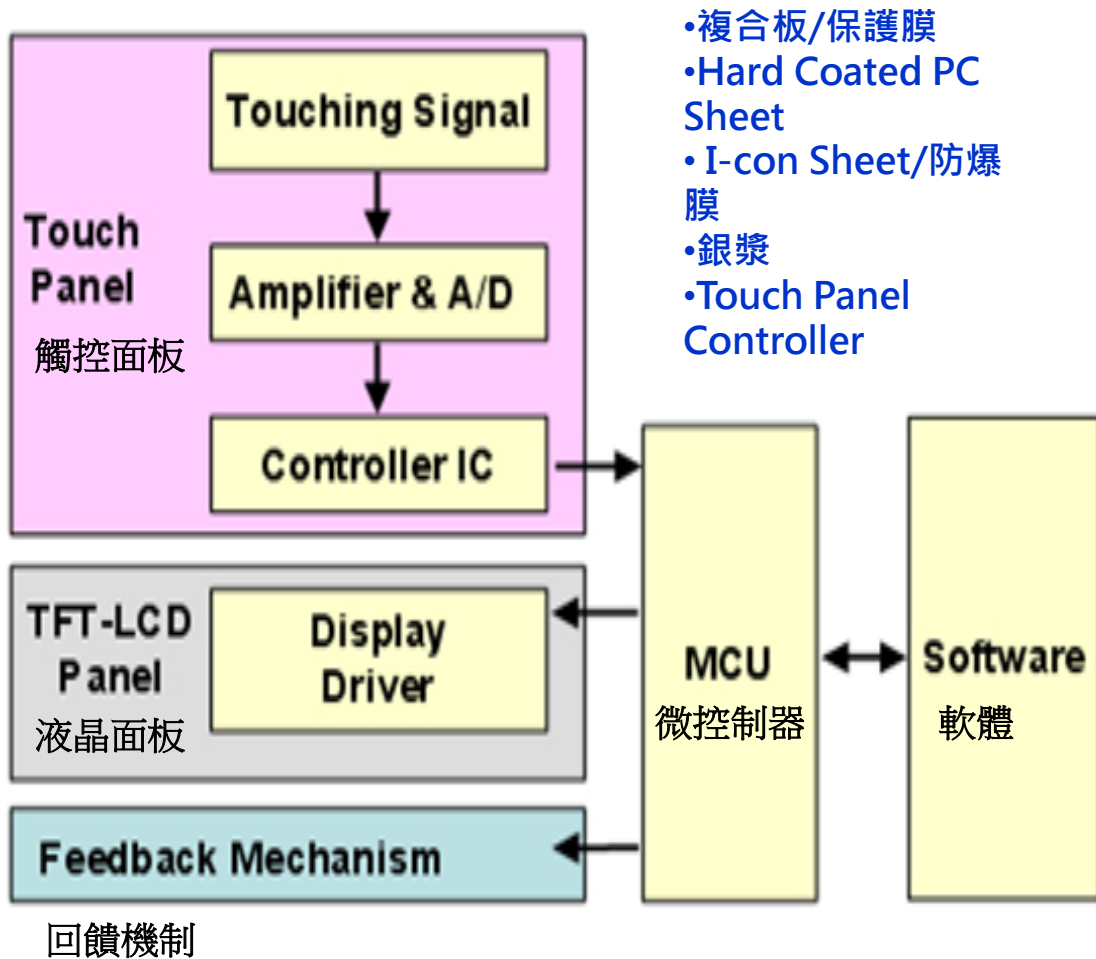
製程設備與耗材  
其它製程用化學材  
及氣體

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



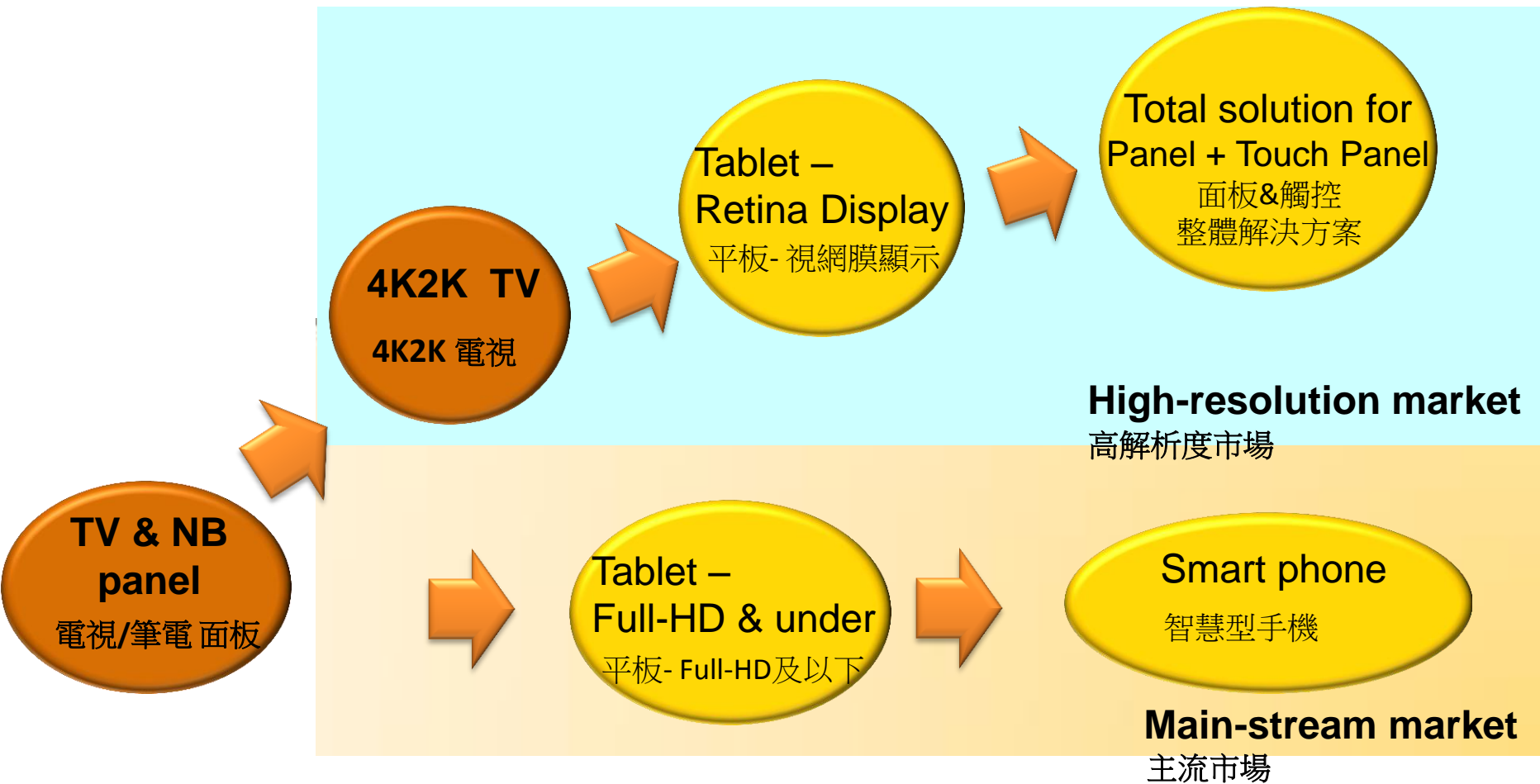
# 在平板與手機應用中，華立提供超過七成材料

## Wah Lee Provides over 70% of material used in FPD and Cell Phone





# FPD Business Development FPD發展計畫



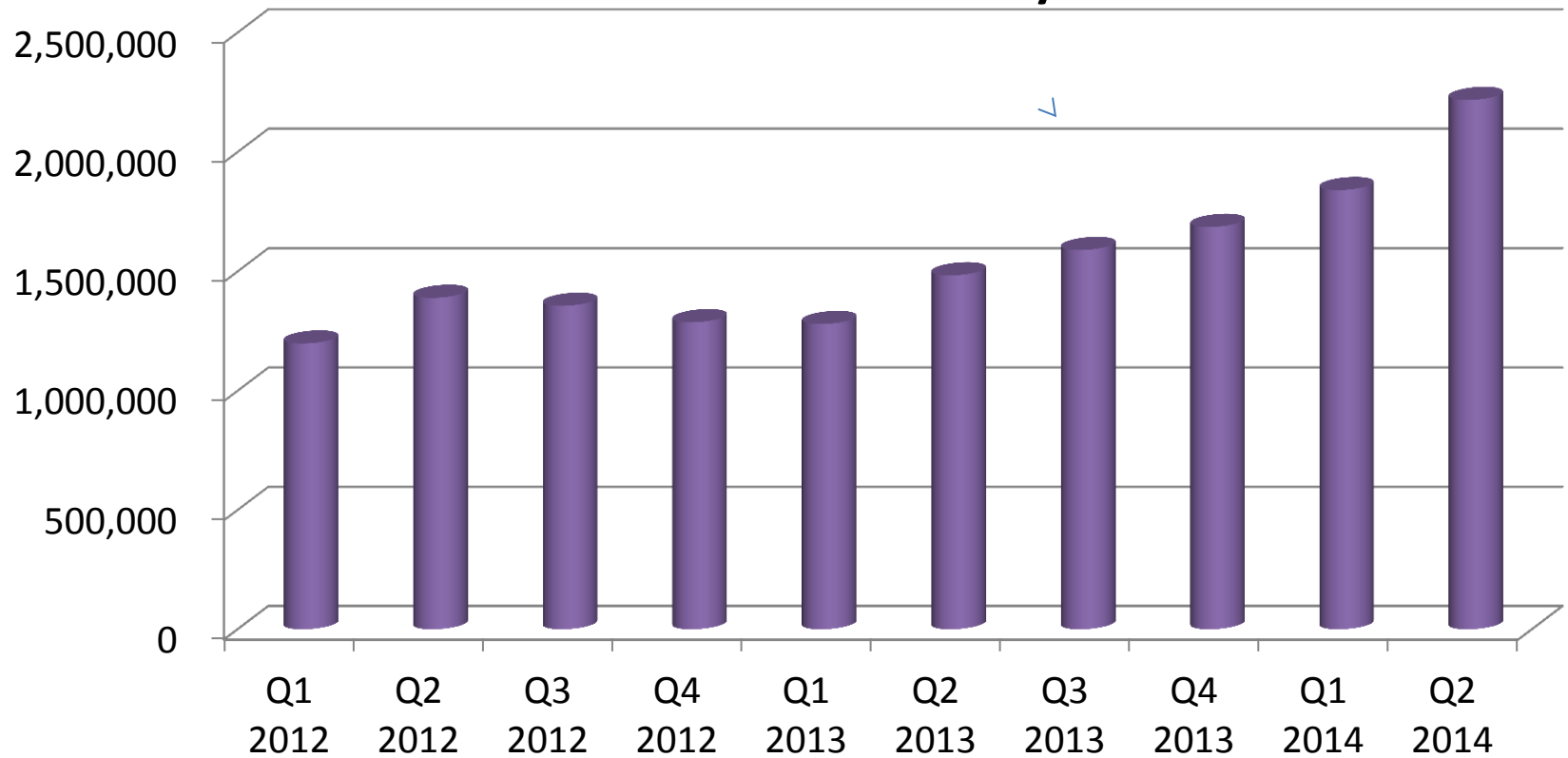
T-con + power mgt. IC  
時序控制+電源管理 IC

Integrated IC (iChip) + power mgt. IC  
整合 IC (iChip) + 電源管理 IC

# Industry Sales Breakdown: Semi 半導體營收

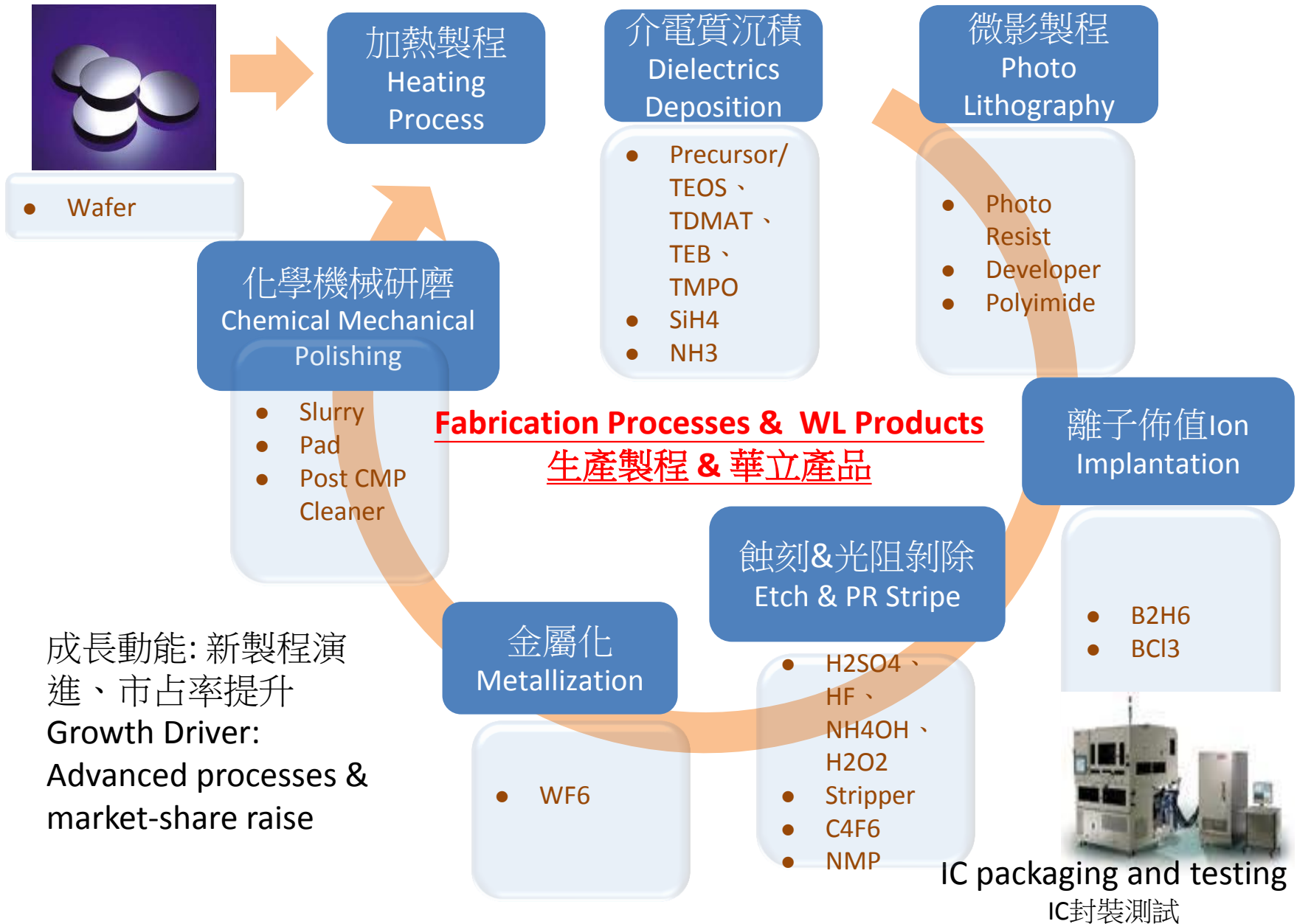
千元  
In thousands

## 半導體產業 Semiconductor Industry



2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2
1,198,674	1,389,833	1,356,480	1,287,735	1,280,269	1,484,104	1,590,222	1,686,773	1,840,960	2,218,220

# Semiconductor Supply Chain 半導體供應鏈



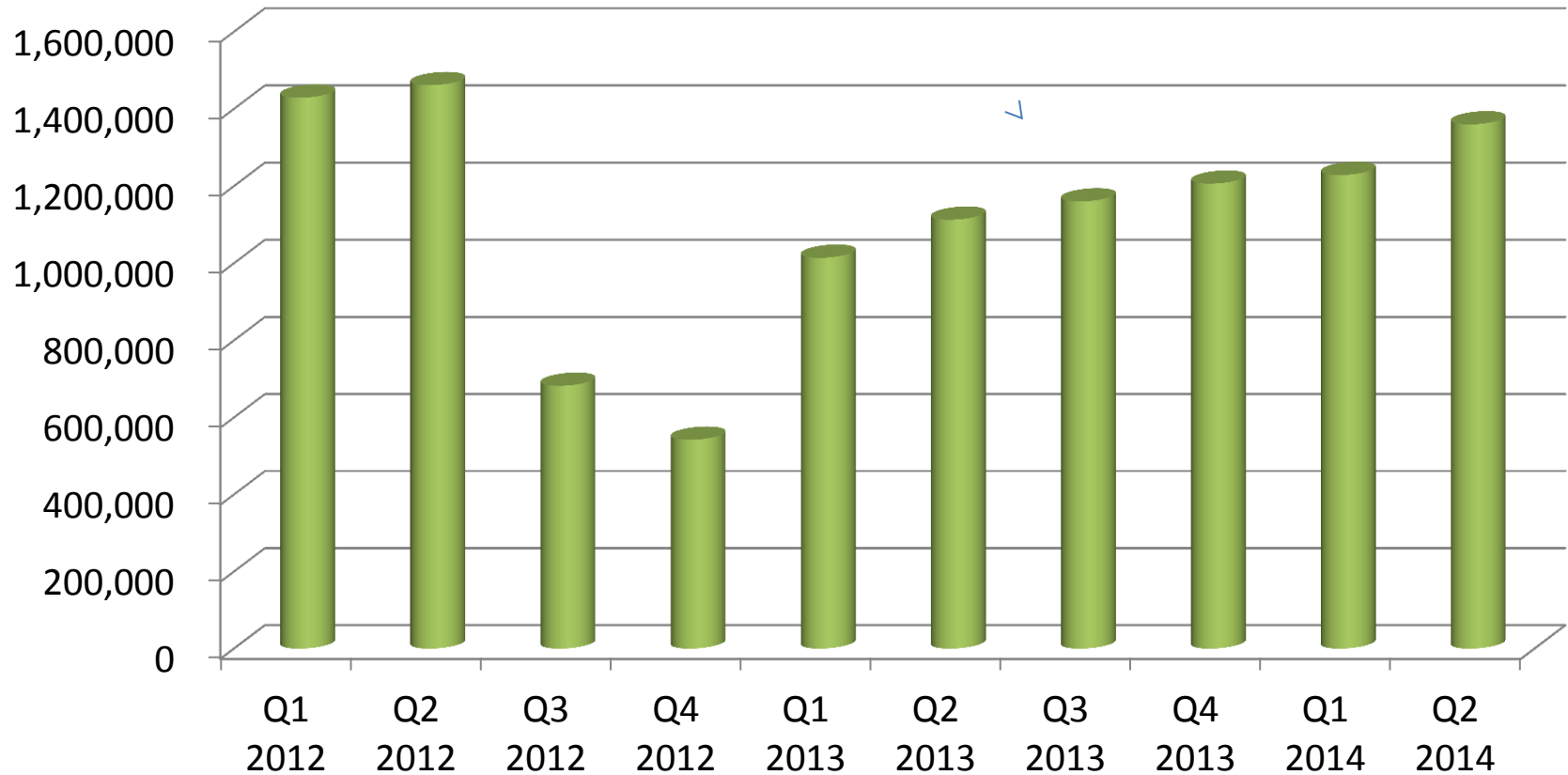
成長動能: 新製程演進、市占率提升  
 Growth Driver:  
 Advanced processes & market-share raise

# Industry Sales Breakdown: Green Energy 綠能營收

## 綠能產業

### Green Energy Industry

千元  
In thousands

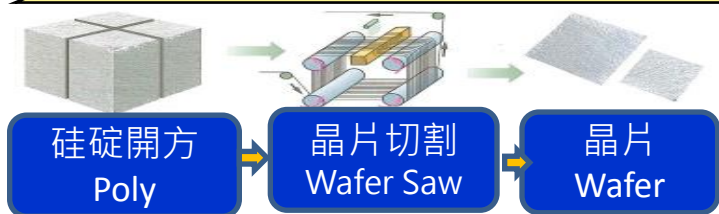


2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1	2014 Q2
1,429,243	1,461,628	682,358	542,194	1,014,297	1,112,908	1,160,422	1,206,350	1,228,753	1,360,005

# Solar Supply Chain

# 太陽能產業鏈

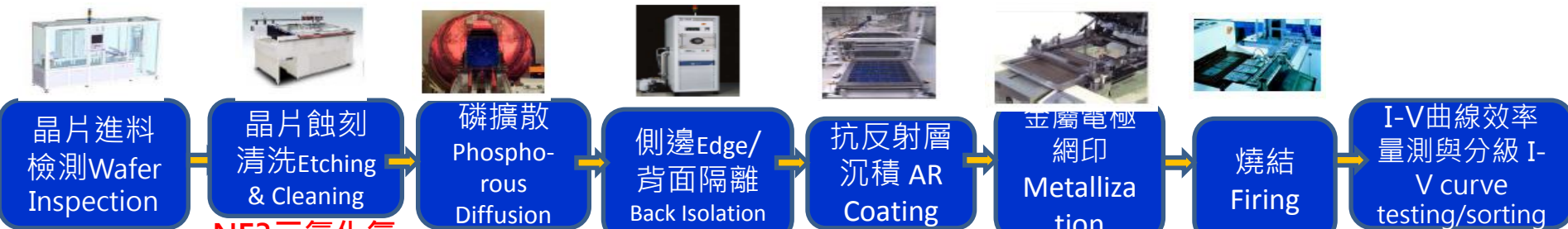
## Solar Wafer 矽晶片



• 切割鋼線 Wire

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

## Solar Cell 電池片



• NF3 三氟化氮

• IC Chemical 化學液

• Texture etchant 蝕刻液

• POCL3

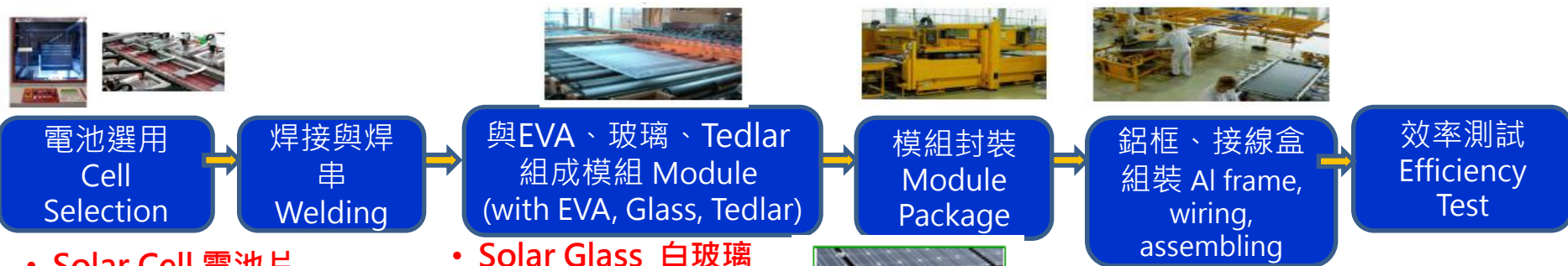
• NH3 氨水

• SiH4 矽甲烷

• 銀漿、鋁漿 Ag Paste, Al Paste

• 銀/鋁漿 Ag/Al Paste

## PV Module 模組



• Solar Cell 電池片

• Solar Glass 白玻璃

• Back sheet 背板

• EVA sheet 材料片

• Junction Box 用 PPE

## PV System 太陽能系統

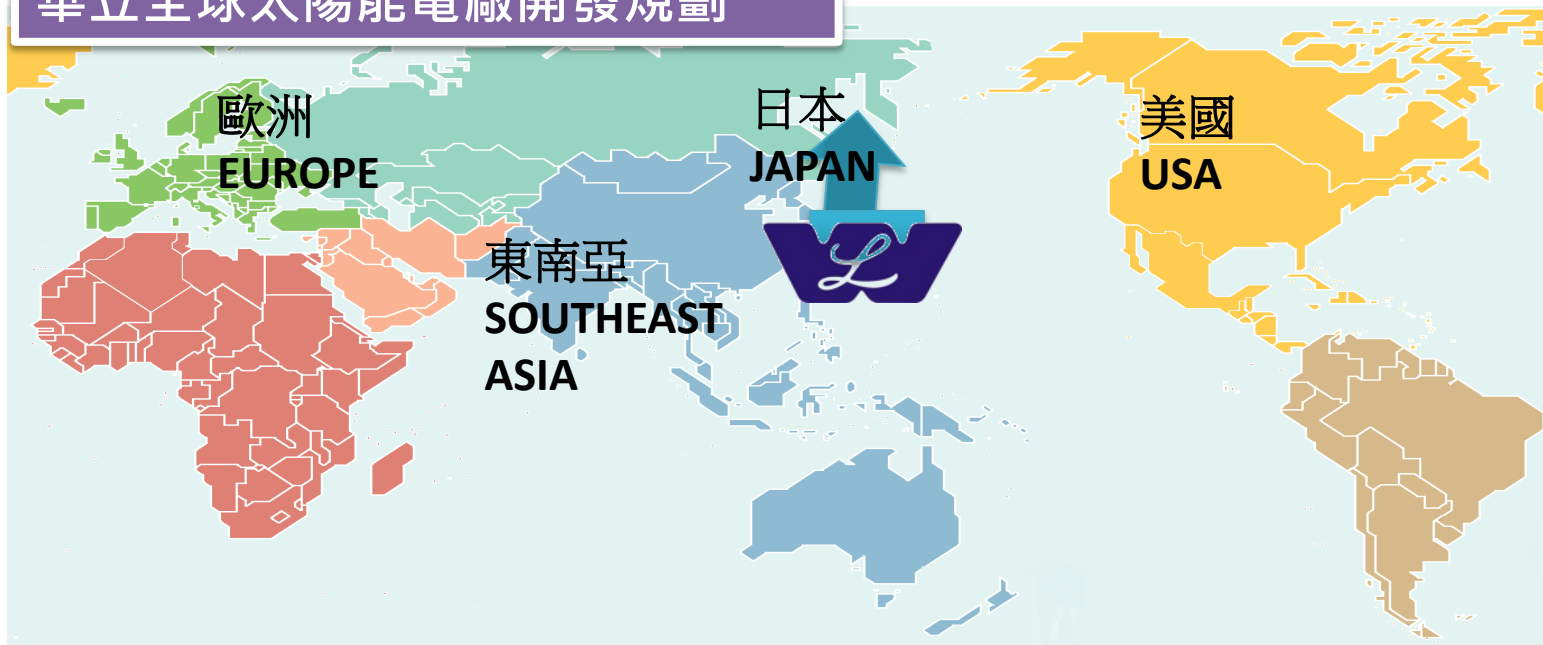
• 小型太陽能系統 System

• 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



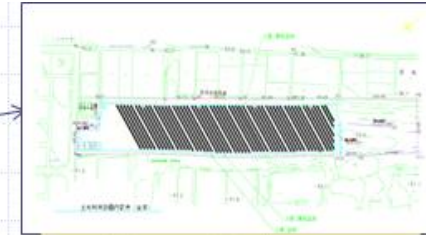


# Solar Plants in Japan 日本太陽能電廠建置

- 搶先把握每度40日圓高收購電價，華立在日本中部地區建置5MW 電廠：Wah Lee established 5 MW solar plants in Japan:
  - 石川縣2MW在2013/08併網售電  
Ishikawa Plant (2MW) started generating electricity sales in Aug. 2013 .
  - 富山縣3MW在2014/02併網售電  
Toyama Plant (3MW) are projected to generate electricity sales in Feb. 2014.
- 尚有超過50MW的日本電廠案正在洽談中，華立將持續擴大太陽能出海口的發展，提升供應鏈整體銷售的獲利 More than 50MW projects are under development.



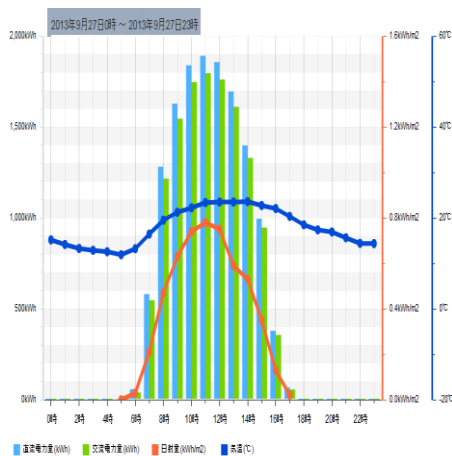
中部地區地圖  
案件1-石川縣內灘町  
案件2-富山縣高岡市



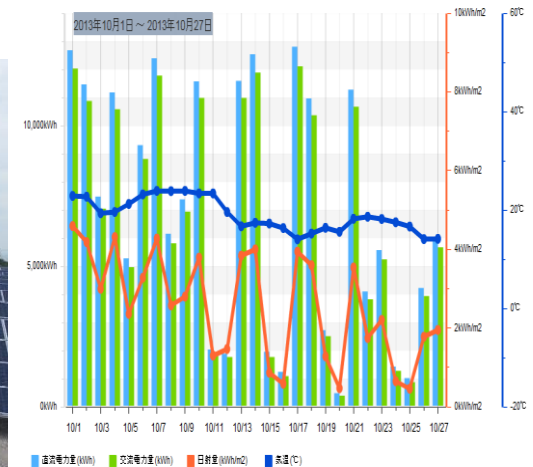
案件1-石川縣內灘町-2MW



案件2-富山縣高岡市-3MW



2013/9/2 Power Statistics



2013/10 Power Statistics

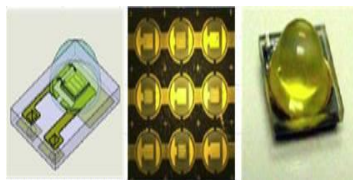
# LED Supply Chain

# LED產業鏈

1. 原始材料合成  
raw materials synthesizing

2. 蒸餾還原形成多晶  
distilling/reductive → poly-crystalline

3. 單晶成長單晶棒  
single crystal → ingot



saw slicing to be wafer, and surface polishing  
將單晶棒鋸切成片狀晶圓，並加以拋光處理。

• 鑽石切割線、PSS

4. 晶圓/基板

wafer/ substrate

• EMITTER

9. 元件/模組

component/module

10. 半成品/成品

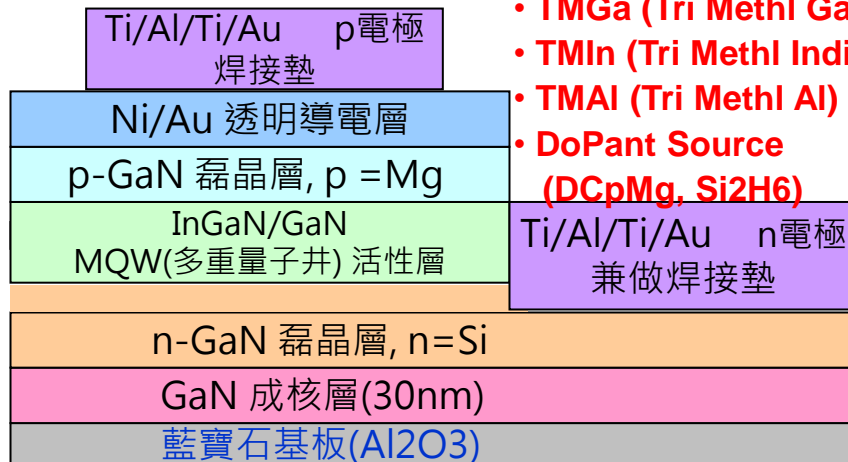
middle goods / products

• 機構件  
• 燈源/燈具



N pole area  
N電極  
形成區

• AsH<sub>3</sub>、PH<sub>3</sub>、SiH<sub>4</sub>



• NH<sub>3</sub> . GaAs  
• TMGa (Tri Methl Ga)  
• TMIIn (Tri Methl Indium)  
• TMAI (Tri Methl Al)  
• DoPant Source (DCpMg, Si<sub>2</sub>H<sub>6</sub>)

5. 磊晶成長

Epitaxy

6. 晶片製程 (製作電極圖案)

electrode patterning process

• Du Pont EKC Remover

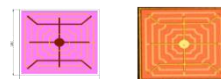
8. 封裝

packaging



7. 磊晶晶圓減薄並切割成晶粒

saw slicing to be chips

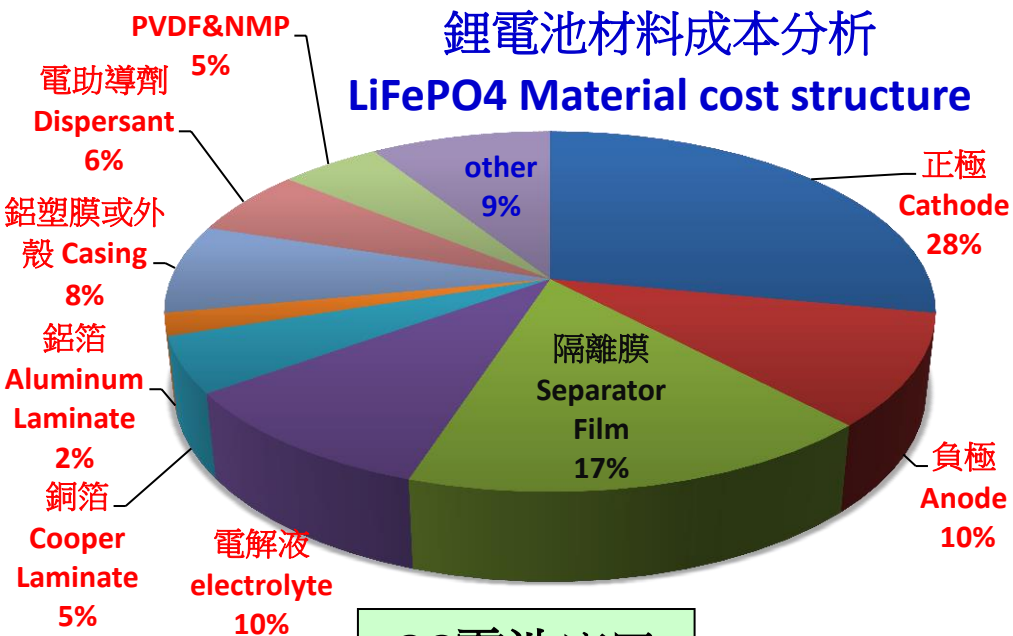


• PA9T、LCP  
• 螢光粉  
• 封裝材(矽膠、Hybrid、Epoxy)  
• JSR LED Material



# 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



電動車  
Electric Vehicle



電動機車 E-bike



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

# Biotech Roadmap 生化產業發展規劃



<b>製藥</b> Pharmaceutical	日商/賦形劑 Japan/Excipient	
<b>生化</b> Biomedical	日商/生化原料 Japan/ Biomedical Material	
	台商/生化原料 Taiwan/ Biomedical Material (談代理權中)	
	台商/飼料用生化原料 Taiwan/ Biotech Material (已投資&取得銷售權)	
<b>醫材</b> Medical Tools/ Equipment	日商/塑膠原料&膠材 Plastic Materials in China	
	台商/一,二級醫材 – Medical Related Material 日商/手術器材 Japan/ Surgery Tools 台商&日商/醫療服務醫材(大陸Project)in China	
<b>保健食品</b> Dietary Supplements	台商/保健食品 Taiwan	
	日商/原料,保健食品(評估代理) Japan	

# 2014Q2 Consolidated Income Statement 合併損益表

Unit: NT\$ million	2014YTD (CPA)	2013YTD (CPA)	YoY	2014YTD as % of Full 2013
Net Sales 營收淨額	19,001.0	16,363.3	16%	55.2%
Gross Profit 銷貨毛利	1,670.2	1,445.1	16%	53.8%
Gross Margin 毛利率	8.8%	8.8%	0.0%	
Op. Expense 營業費用	1,072.9	968.1	11%	51.4%
Op. Profit 營業利益	597.3	477.0	25%	58.6%
Non-op. Profit 業外收支	204.8	294.8	-31%	33.0%
L-T investment income 長投收益	154.6	162.4	-5%	50.7%
Disposal gain 處分利益	92.3	14.9	522%	115.8%
Others 其他	(42.2)	117.5	-136%	-17.9%
Pre-tax Profit 稅前利潤	802.1	771.8	4%	48.9%
Net Income 稅後淨利	580.5	546.5	6%	46.8%
After tax EPS	2.51	2.36	6%	50.1%

\* 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。

# 2014Q2 Long Term Investments 長期投資收益

Unit: NT\$ thousand

<b>Long-term Investments</b> 轉投資事業	<b>Product Lines</b> 主要產品線	<b>Holding %</b> 持有比例 %	<b>2014YTD Earnings Recognized</b> 長投收益
Chang Wah Electromaterials Inc. 長華電材	Semiconductor Packaging and Testing Materials	<b>28</b>	<b>56,413</b>
Nagase Wah Lee Plastics 長華塑膠	SABIC Engineering Plastics	<b>40</b>	<b>54,703</b>
Wah Hong Industrial Corp. 華宏新技	Optical Film, High Performance Plastic Compound, Heat Dissipation Solution, VCM Actuator	<b>26</b>	<b>39,275</b>
ORC Wah Lee Technology Corp. 華展光電	ORC Exposure Machine and Lamps	<b>35</b>	<b>4,245</b>
<b>Total</b>			<b>154,636</b>

# 2014Q2 Consolidated Balance Sheet 合併資產負債表

Unit: NT\$ million

	2014-06-30 (CPA)		2013-06-30 (CPA)			2014-06-30 (CPA)		2013-06-30 (CPA)	
Cash & Equiv. 現金	2,979	12.1%	2,102	9.8%	S-T Borrowing 短期借款	4,220	17.2%	3,476	16.3%
A/R 應收帳款	10,499	42.7%	9,279	43.4%	A/P 應付帳款	6,963	28.4%	5,728	26.8%
Inventory 存貨	3,231	13.2%	2,786	13.0%	Other C/L 其他流動負債	994	4.0%	787	3.7%
Other C/A 其他流動資產	1,230	5.0%	1,348	6.3%	Current Liab. 流動負債	12,178	49.6%	9,991	46.7%
Current Assets 流動資產	17,938	73.0%	15,515	72.6%	L-T Borrowing 長期借款	2,083	8.5%	1,557	7.3%
Financial Asset-Non Current 金融資產-非流動	513	2%	434	2.0%	Other Liab. 其他負債	901	3.7%	817	3.8%
L-T investments 長期投資	3,997	16.3%	3,919	18.3%	Non-Current Liab. 非流動負債	2,984	12.1%	2,374	11.1%
Fixed Assets 固定資產	1,613	6.6%	1,087	5.1%	Total Liab. 總負債	15,162	61.7%	12,365	57.8%
Other Assets 其他資產	501	2.0%	424	2.0%	Capital 股本	2,314	9.4%	2,314	10.8%
Non-Current Asset 非流動資產	6,624	27.0%	5,865	27.4%	Capital Surplus 資本公積	1,260	5.1%	1,264	5.9%
					Retained Earnings 保留盈餘	4,916	20.0%	4,407	20.6%
					Other Equities 其他權益	178	0.7%	368	1.7%
					Non-Controlling. Interest 非控制權益	733	3.0%	662	3.1%
Total Assets 總資產	24,562	100.0%	21,380	100.0%	Total Equities 總股東權益	9,400	38.3%	9,015	42.2%

\* 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。

# Consolidated Financial Indicators 合併財務比率

	2007	2008	2009	2010	2011	2012	2013	2014Q2
Current Ratio 流動比率	144.8%	148.6%	171.7%	162.6%	164.4%	162.2%	158.2%	147.3%
Quick Ratio 速動比率	98.8%	95.6%	132.4%	115.9%	122.2%	130.9%	127.7%	117.9%
Net Debt/Equity 淨負債比率	36.2%	42.3%	9.0%	22.3%	31.0%	20.7%	17.4%	28.8%
A/R days 應收帳款天數	84.8	86.3	102.1	87.9	88.9	95.2	96.2	95.9
Inventory days 存貨天數	53.4	64.8	69.6	47.6	46.2	40.7	35.6	35.3
A/P days 應付帳款天數	57.9	54.2	62.7	61.2	56.8	58.9	62.0	60.8
Cash conversion days 現金週轉天數	80.3	96.9	108.9	74.4	78.2	76.9	69.8	70.4
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	1,444,741	855,991	-549,660
ROE 股東權益報酬率	18.7%	12.0%	12.3%	19.7%	12.7%	12.5%	13.5%	12.9%

\* ROE of 2014Q2 is annualized.

\* 2014 Q2 ROE 經年化處理

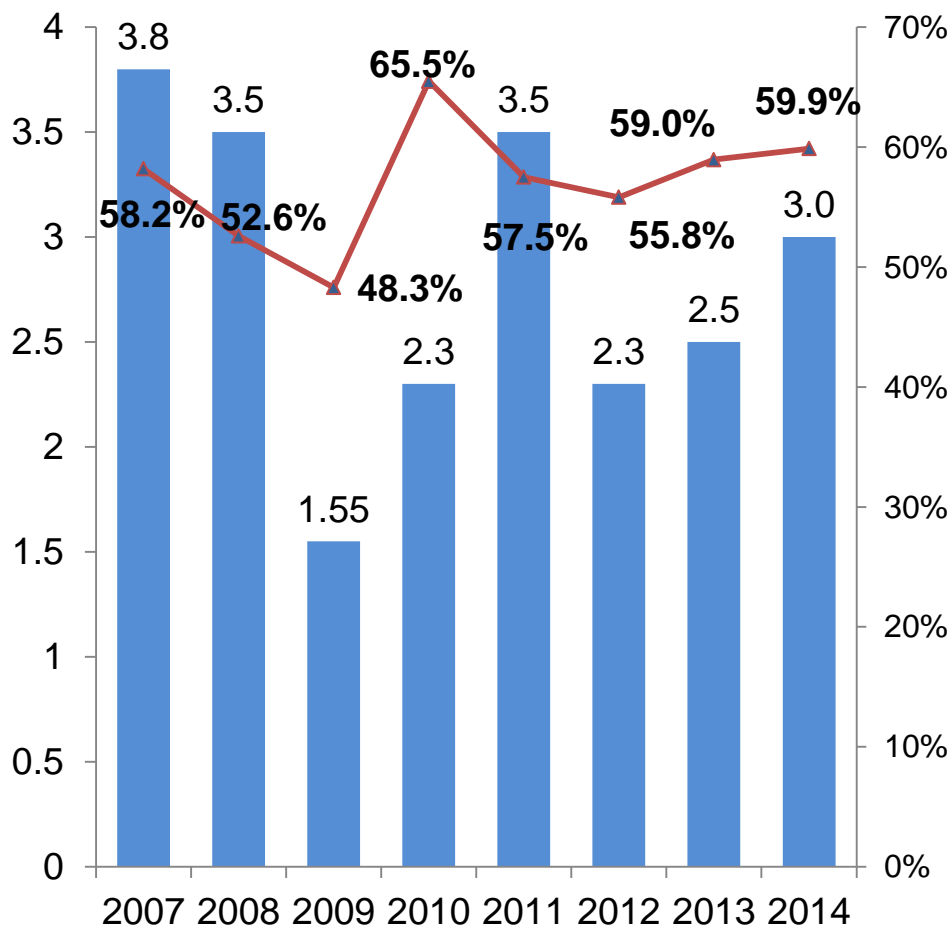
# Shareholder Returns Trend 股東投資報酬

## Dividend Policy 股利政策

## ROE 股東權益報酬率

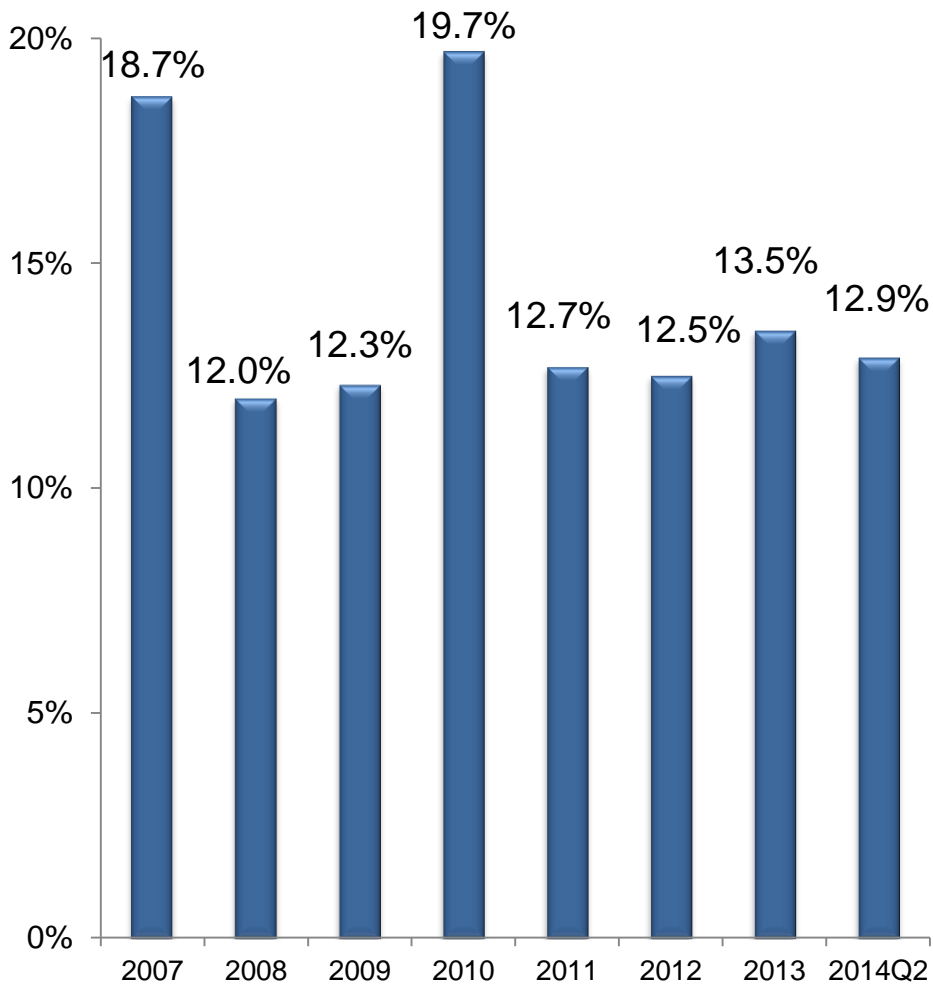
Cash Dividend  
現金股息 (NT\$)

Payout Ratio  
現金股息發放比率



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

\* 上述股利乃分派前一年度之盈餘



\* ROE of 2014Q2 is annualized.

\* 2014 Q2 ROE 經年化處理

# 2013 Consolidated Income Statement 合併損益表

Unit: NT\$ million	2013 (CPA)	2012 (CPA)	YoY
Net Sales 營收淨額	34,398.4	31,545.3	9%
Gross Profit 銷貨毛利	3,104.1	2,857.9	9%
Gross Margin 毛利率	9.0%	9.1%	0.0%
Op. Expense 營業費用	2,085.4	2,014.3	4%
Op. Profit 營業利益	1,018.8	843.6	21%
Non-op. Profit 業外收支	620.0	479.6	29%
L-T investment income 長投收益	304.8	415.7	-27%
Disposal gain 處分利益	79.7	4.1	1845%
Others 其他	235.5	59.8	294%
Pre-tax Profit 稅前利潤	1,638.8	1,323.2	24%
Net Income 稅後淨利	1,159.5	987.8	17%
After tax EPS	5.01	4.27	17%

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# 2013 Long Term Investments 長期投資收益

Unit: NT\$ thousand

<b>Long-term Investments</b> 轉投資事業	<b>Product Lines</b> 主要產品線	<b>Holding %</b> 持有比例 %	<b>2013 Earnings Recognized</b> 長投收益
Chang Wah Electromaterials Inc. 長華電材	Semiconductor Packaging and Testing Materials	<b>28</b>	<b>138,430</b>
Nagase Wah Lee Plastics 長華塑膠	SABIC Engineering Plastics	<b>40</b>	<b>128,508</b>
Wah Hong Industrial Corp. 華宏新技	Optical Film, High Performance Plastic Compound, Heat Dissipation Solution, VCM Actuator	<b>26</b>	<b>23,529</b>
ORC Wah Lee Technology Corp. 華展光電	ORC Exposure Machine and Lamps	<b>35</b>	<b>14,295</b>
<b>Total</b>			<b>304,762</b>

# 2013 Consolidated Balance Sheet 合併資產負債表

Unit: NT\$ million

	2013-12-31 (CPA)		2012-12-31 (CPA)			2013-12-31 (CPA)		2012-12-31 (CPA)	
Cash & Equiv. 現金	3,339	14.4%	1,739	8.5%	S-T Borrowing 短期借款	4,143	17.9%	3,632	17.8%
A/R 應收帳款	9,514	41.1%	8,614	42.3%	A/P 應付帳款	6,386	27.6%	5,470	26.9%
Inventory 存貨	3,081	13.3%	2,650	13.0%	Other C/L 其他流動負債	264	1.1%	191	0.9%
Other C/A 其他流動資產	1,140	4.9%	1,929	9.5%	Current Liab. 流動負債	10,793	46.7%	9,293	45.6%
Current Assets 流動資產	17,074	73.8%	14,931	73.3%	L-T Liab. 長期負債	1,800	7.8%	1,561	7.7%
Financial Asset-Non Current 金融資產-非流動	245	1%	546	2.7%	Other Liab. 其他負債	878	3.8%	764	3.8%
L-T investments 長期投資	4,008	17.3%	3,511	17.2%	Non-Current Liab. 非流動負債	2,678	11.6%	2,326	11.4%
Fixed Assets 固定資產	1,344	5.8%	1,009	5.0%	Total Liab. 總負債	13,471	58.2%	11,618	57.0%
Other Assets 其他資產	456	2.0%	370	1.8%	Capital 股本	2,314	10.0%	2,314	11.4%
Non-Current Asset 非流動資產	6,053	26.2%	5,435	26.7%	Capital Surplus 資本公積	1,260	5.4%	1,246	6.1%
					Retained Earnings 保留盈餘	5,029	21.7%	4,439	21.8%
					Other Equities 其他權益	343	1.5%	174	0.9%
					Non-Controlling. Interest 非控制權益	710	3.1%	575	2.8%
Total Assets 總資產	23,127	100.0%	20,366	100.0%	Total Equities 總股東權益	9,656	41.8%	8,748	43.0%

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