



지구환경을 맑게하는

그린에너지 소재 글로벌 기업



Company profile



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2. History
3. Business Field and Market Forecast
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1. Company Overview

Profile Snap Shot

CEO	Jaehong Hur
Headquarter & Plant	Headquarter Woram-dong, Dalseo-gu, Daegu Plant Waegwan, Gyeongsangbuk-do R&D Center Hosan-dong, Dalseo-gu, Daegu
Date of Establishment	2000.07.27
Core Businesses	Cathode Material for Secondary Battery (NCM(Main product) / LCO / LMO)
Capital	11.2Million \$ ('17.4Q) (\$1=W1,100)
Number of Employee	453 People ('17.4Q)
Related Company	Seronics (29.43%) JH Chemical(64.21%) L&F Wuxi (62.17%)

L&F (주)엘앤에프



L&F LIGHT & FUTURE



SERONICS

JH
Chemical



2. History

Rapidly growth with Cathode for LIB



(12,066 Sqm)

headquarter & Daegu Plant



New Plant at Daegu



(7,768 Sqm)

Waegwan Plant



(16,528 Sqm x 2)

JH Chemical- Gimcheon

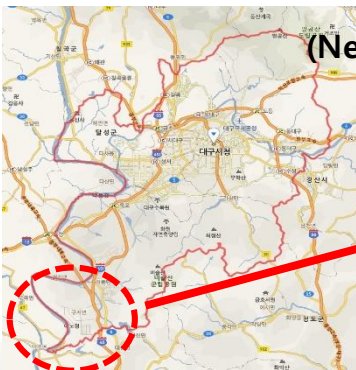


광미래신재료유한공사



(3,305 Sqm)

R&D Center



(New Site in Daegu)



L&F History

- 2000.07 Establishment L&F Co., Ltd. - (TFT-LCD BLU Business)
- 2003.01 Registered Stock Market (KOSDAQ)
- 2005.08 Established L&F Material Co., Ltd(Making Cathode materials for LIB)
- 2006.08 Mass produce Cathode Material
- 2008.05 Established 2nd plant for Cathode of Secondary battery @Daegu Plant
- 2011.01 Established JH Chemical Co., Ltd. - Precursor
- 2016.02 M&A with L&F Material Co., Ltd.

L&F Certification

- 2001.11 Designated as venture company for New technology
- 2002.12 Selected as a specialized company in Material (by Govern.)
- 2003.12 Selected as technical innovation mid-size firm (INNO-BIZ)
- 2006.06 Awarded ISO 14001 (environment management system)
- 2009.11 Selected as Hidden Champion company in Korea (by EIB of Korea)
- 2010.02 Awarded ISO/TS 16949
- 2011.12 Awarded Green-technology certificate
- 2014.05 Selected as World Class 300 Company

L&F Prize

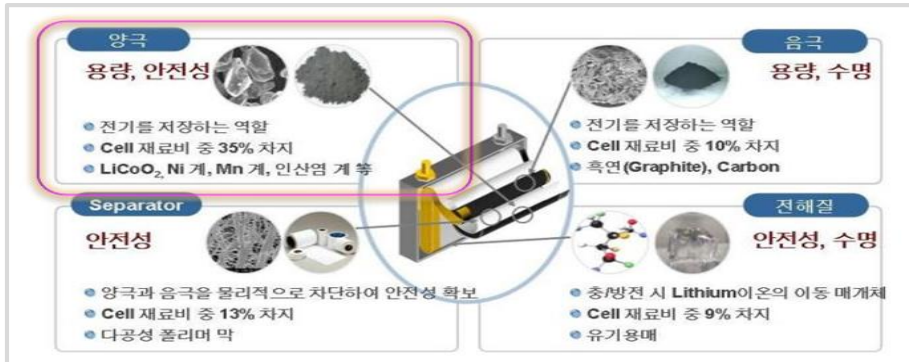
- 2004.11 Awarded a 50 million US\$ export tower on the 41st of Trade.
- 2007.05 Selected as a Excellent company by Daegu Gov.
- 2008.03 Awarded a Bronze Medal on the 35th of Commerce & Industry
- 2012.11 Awarded accompanied growth Company
- 2014.12 Awarded 200 million US\$ export tower on the 51th Day of Trade
- 2015.07 Awarded Presidential citation on the day of Strong Midsize Business

3. Business Field and Market Forecast

Business Field

Product overview

Cathode Material for Secondary LIB



Application & Market



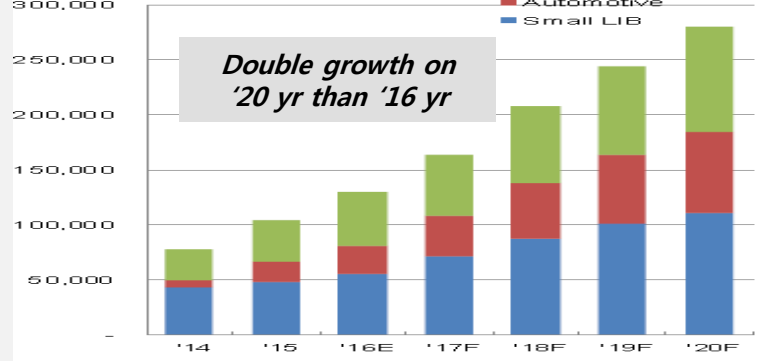
Major Customers



Market Forecast

Worldwide forecast of Secondary LIB Market

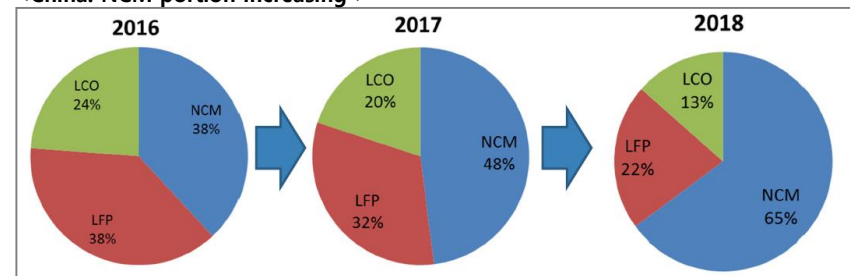
(Unit: MWh/CY)



Sector	'16	'20	Rate
Small LIB	55,055	110,937	201.5%
Automotive	25,531	73,299	287.1%
China Tier-2	49,508	96,276	194.5%
Total	130,093	280,513	215.6%

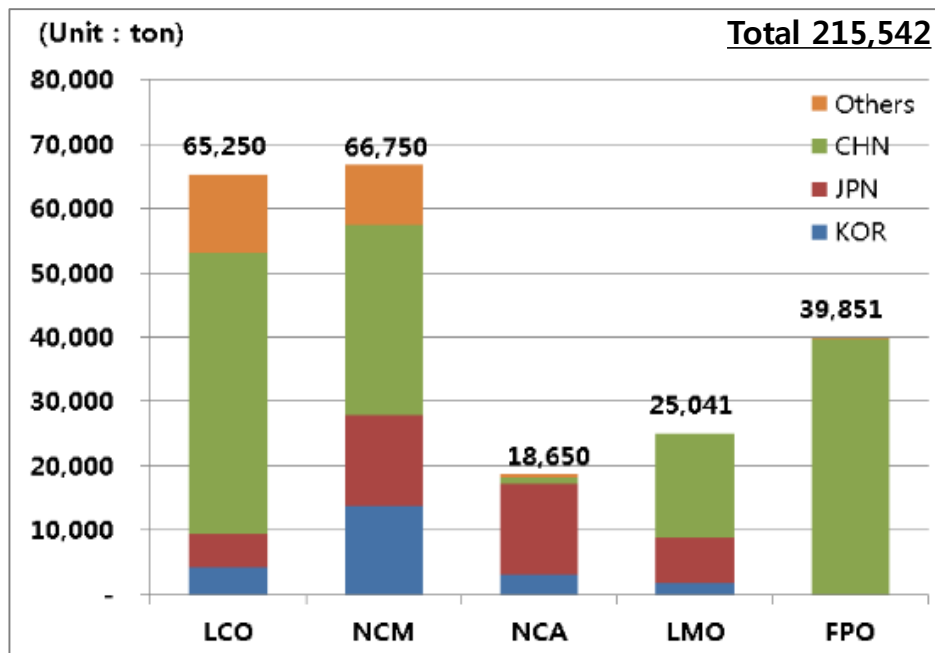
<Source-TSR 2016.08.>

<China: NCM portion increasing >





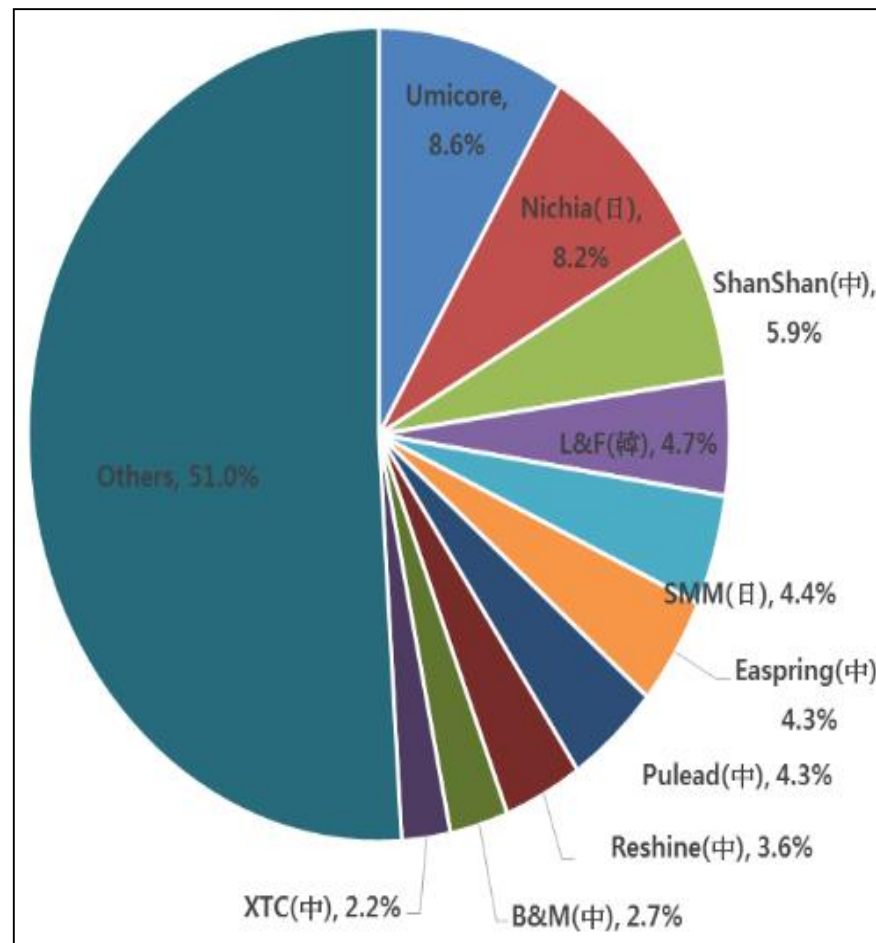
1. Worldwide demand of Cathode material for Secondary LIB



<Refer.: Product portion in LF>

구분	CY14	CY15	CY16	CY17	CY18 F
LCO	69%	57%	37%	30%	23%
NCM	31%	42%	60%	69%	76%
LMO	0%	1%	3%	1%	1%

2. Cathode Material Market Share for Secondary LIB

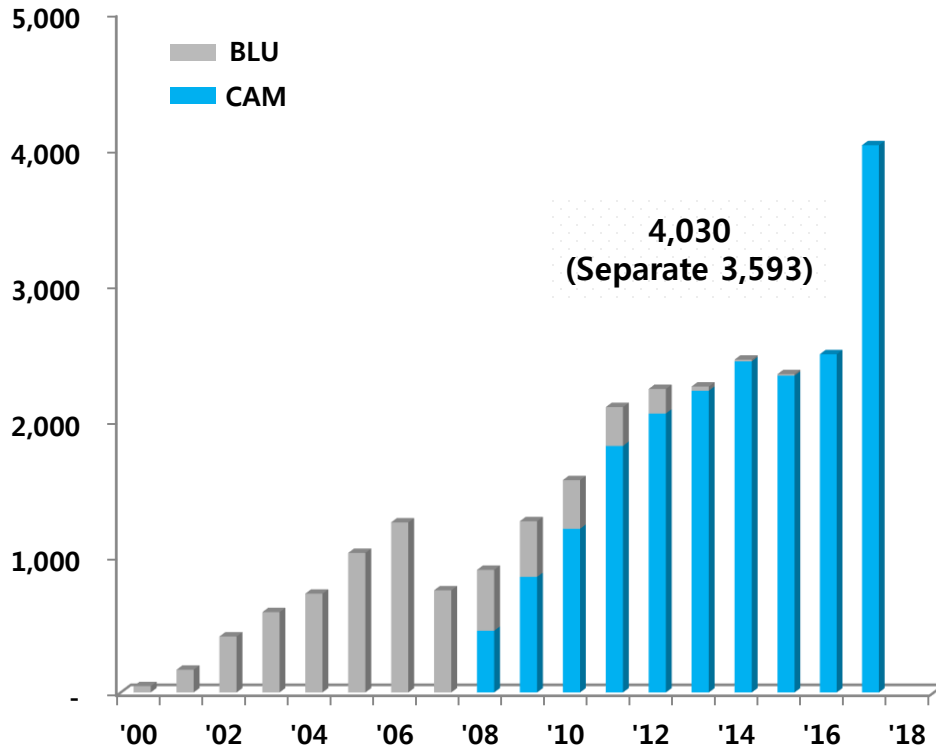


Source: 리튬이온 2차전지 양극재 기술동향 및 시장전망 Sample 자료(SNE Research 2017.02.21)

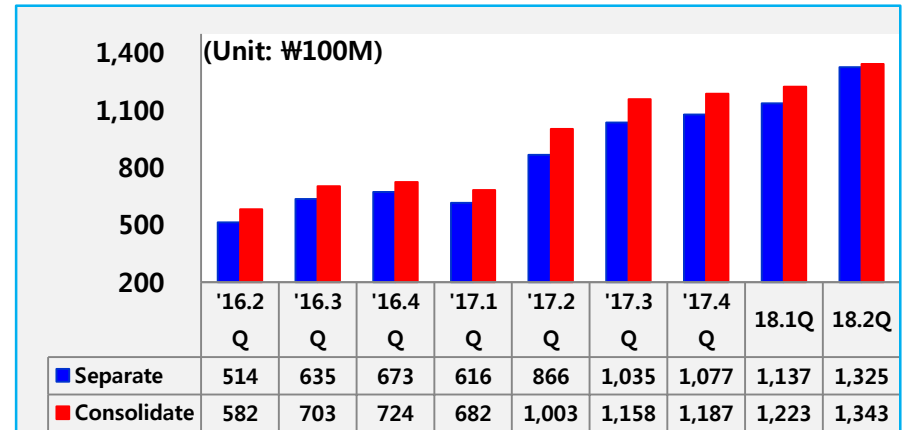
4. Sales (L&F)

Became Green-Energy Material Company after 2008

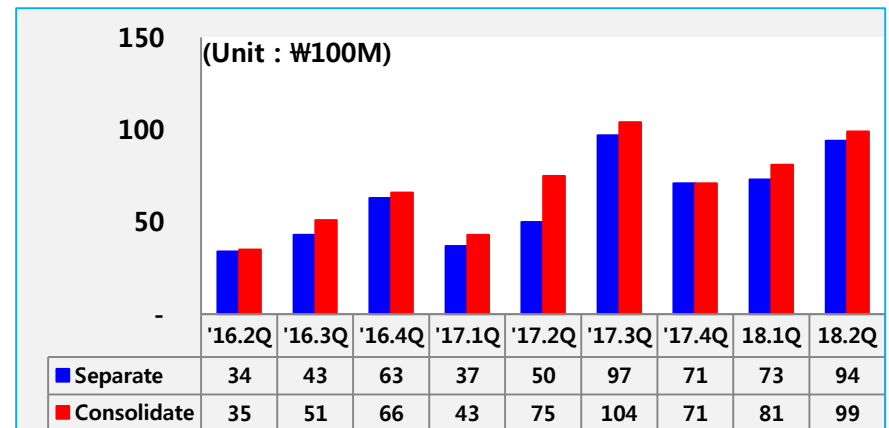
(Unit: ₩100M)



<Recent Quarterly Sales>

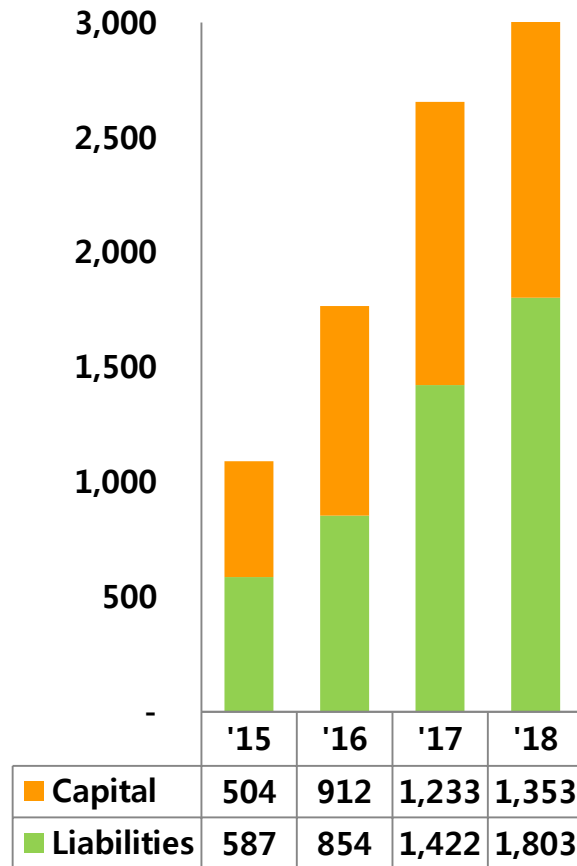


<Recent Quarterly Profit>



5. Financial Statement (L&F)

(Unit:₩100M)



(Unit:₩100M)

Sector		'15	'16	'17	'18.1H	
Assets	Current	Inventories	184	555	845	1,191
		Receivables	111	278	489	581
		Etc.	50	112	275	284
	Total		345	945	1,609	2,056
	Non-Current	Tangible Asset	582	688	965	1,017
		Etc.	164	133	81	83
Total		746	821	1,046	1,100	
Total		1,091	1,766	2,655	3,156	
liabilities	Current		243	601	1,043	1,459
	Non-current		344	253	379	343
	Total		587	854	1,422	1,802
	(Debt)		482	478	893	1,061
Capital		504	912	1,233	1,353	

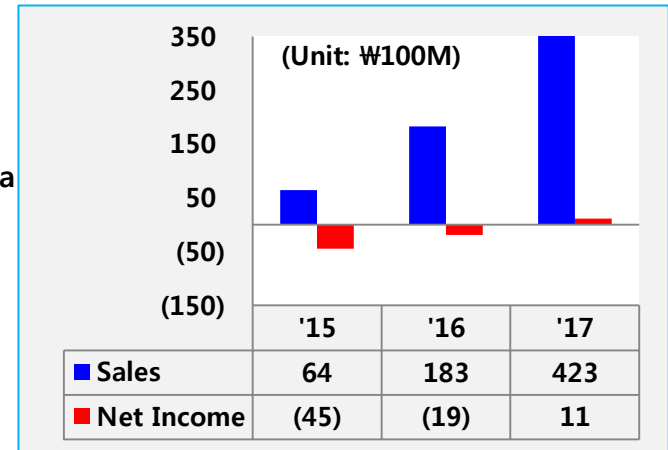
※ The CB, BW are not existed

6. Affiliate

JH Chemical



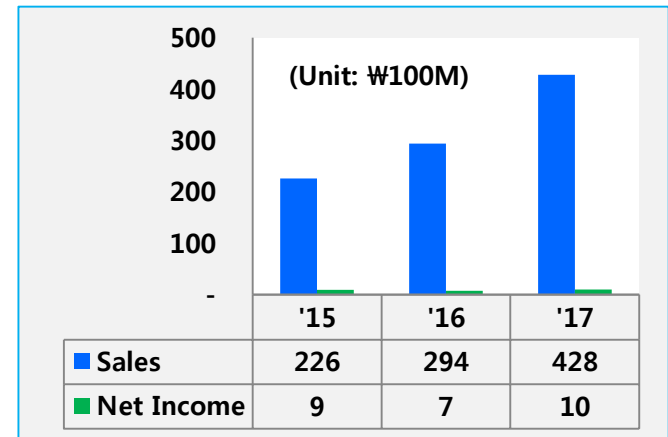
- Establishment : 2011. 01.
- Location : Gimcheon, Gyeongsangbuk-do, Korea
- Main Product: Precursor for Cathode Material
- Main Customer : L&F
- Assets : \$25.3 Million (\$1=W1,100)



L&F Wuxi

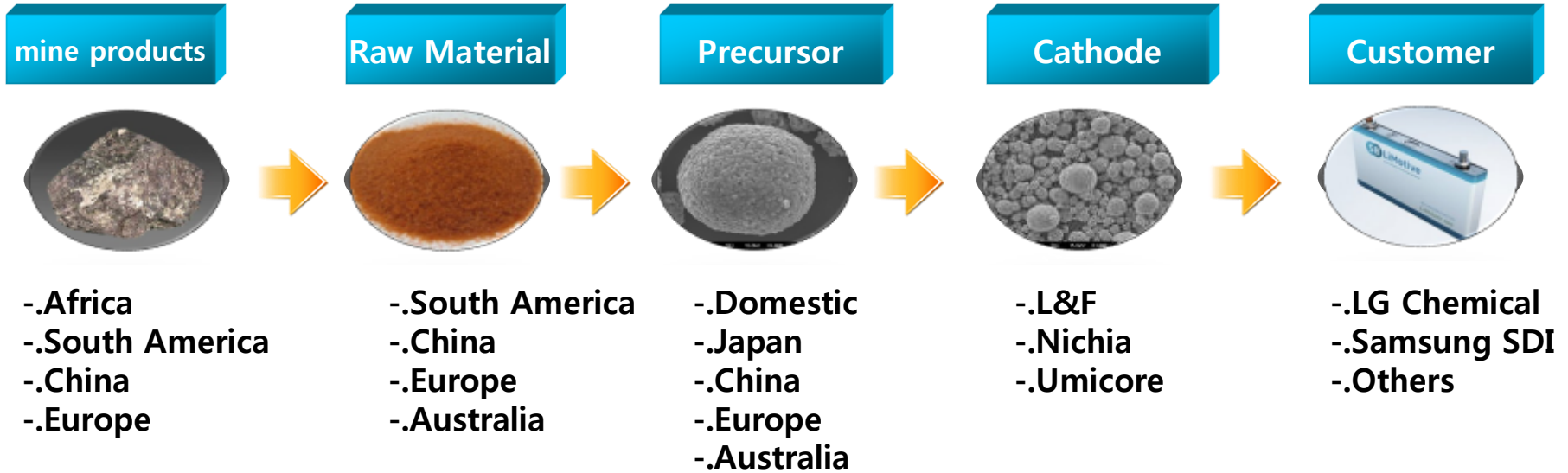


- Establishment : 2004. 11.
- Location : Wuxi, China
- Main Product : Cathode Material for LIB
- Main Customer : LGC etc.
- Assets : \$9.73 Million (\$1=W1,100)

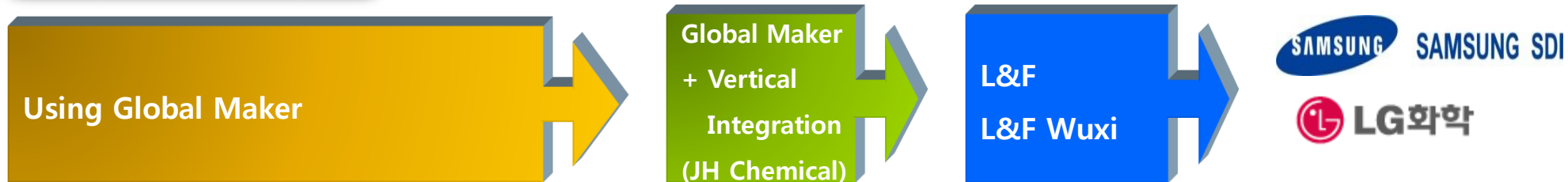


(Appendix 2) Biz chain

Global biz chain



L&F biz chain





지구 환경을 맑게 하는

Green Energy 소재 Global 기업

Thank you