



솔루스 첨단소재
Solus Advanced Materials

Solus Advanced Materials Co., Ltd. **2023 4Q Earnings Report**

February 7, 2024

The information herein has been prepared based on unaudited financial statements for your information purposes only and contains preliminary figures which may change depending on the external audit results.

All information about the company's financial performance contained in this material is based on consolidated financial statements in accordance with Korean IFRS.

This material also contains "forecasts" based on predictions, forecasts, plans and expectations for the future, and these "forecasts" may differ significantly from the company's actual performance to be provided in the future due to their uncertain nature.

I. 2023 4Q Earnings Report

II. Summary Financial Statements

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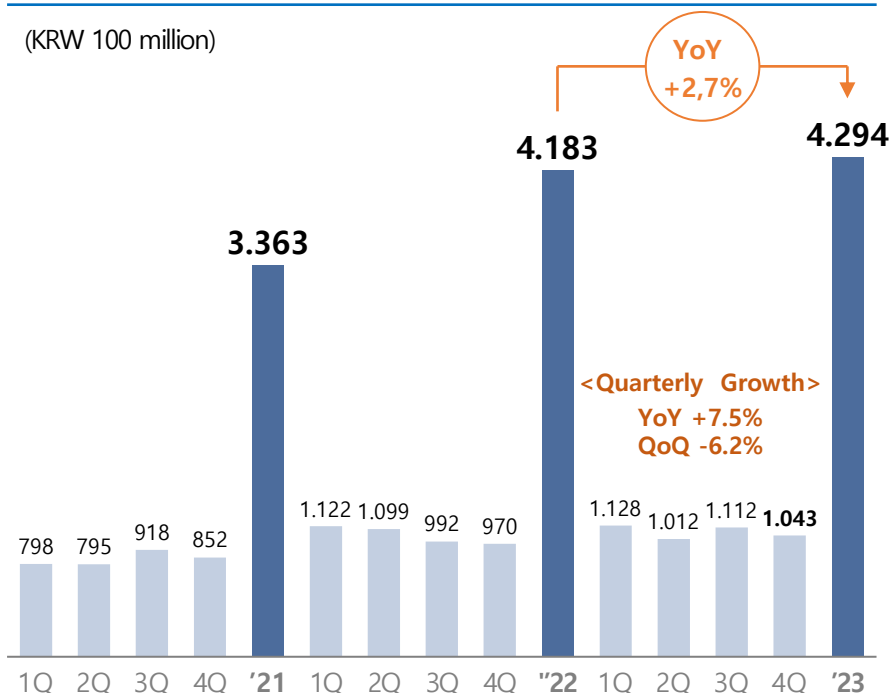
4Q and Full Year 2023 Performance

Investor Relations 2023

- **Full Year 2023:** Due to high interest rates and inflation, consumer sentiment has slumped in the sector of electric vehicle (EV), semiconductor, and display products. Due to a decrease in demand from downstream industries, sales increased by 2.7% to KRW 429.4 billion compared to the same period last year, and EBITDA continued to be in deficit at -KRW 15.2 billion.
- **4Q 2023:** Sales decreased by 6.2% compared to the previous quarter due to lower operation rates of customers in battery foil and copper foil sectors and year-end inventory adjustments due to a decrease in downstream industry demand that continued into the 4th quarter, but EBITDA turned into surplus as battery foil yield stabilized.

Sales Trends

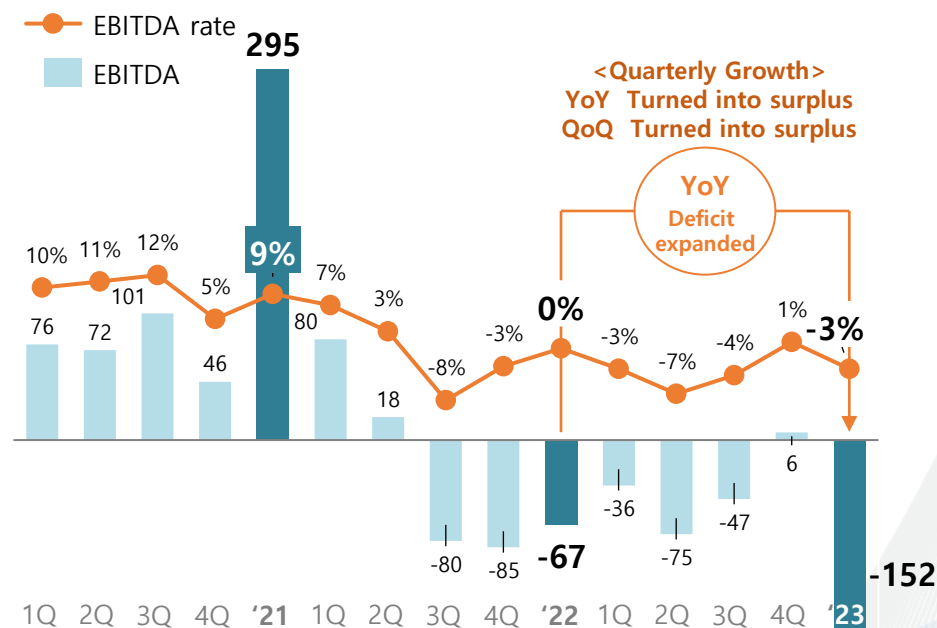
(KRW 100 million)



※ Figures exclude sales and EBITDA of discontinued business (bio)

EBITDA (%) Trends

(KRW 100 million)



4Q 2023 Performance and Plans for 1Q 2024

Investor Relations 2023

4Q 2023 Performance

- **Battery foil:** Sales decreased compared to the previous quarter due to year-end inventory adjustments by customers as a result of the slowed growth of electric vehicles in Europe
- **Copper foil:** Sales decreased compared to the previous quarter due to a slowdown in the global tele communication equipment industry and a decrease in the operating rates of European customers
- **Electronic materials:** Supply to major customers increased due to the year-end peak season for TVs and base effect of smartphone demand

Plans for 1Q 2024

- **Battery foil:** Promoting additional supply contracts with customers and preparing Phase2 mass production in Hungary
- **Copper foil:** Strengthening high-end copper foil sales, including steady sales for data centers and expansion of low loss sales for AI servers
- **Electronic materials:** Efforts to develop products and win orders for the next-gen product of display customers

(KRW 100 million)

Classification	4Q 2023	3Q 2023	QoQ	4Q 2022	YoY
Sales	1,043	1,112	-6.2%	970	+7.5%
Battery foil	369	409	-9.8%	222	+66.2%
Copper foil	384	430	-10.7%	399	-3.8%
Electronic materials	290	273	+6.2%	349	-16.9%

※ Due to the disposal of Solus Biotech (July 4, 2023), 4Q 2022 figures exclude sales from discontinued business (bio). (Including discontinued businesses, sales in the same period last year (4Q 2022) were KRW 109.1 billion)

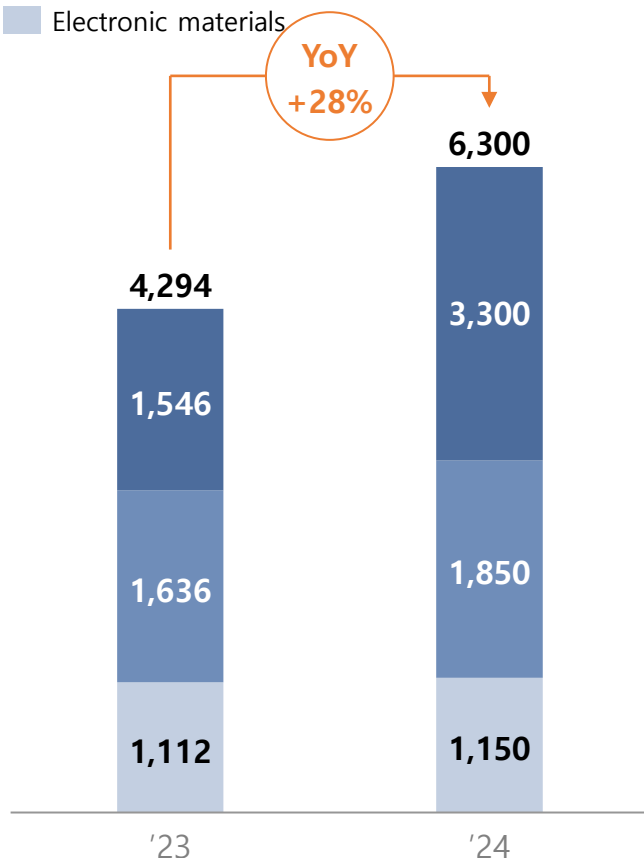
Sales Forecast and Plan for 2024

Investor Relations 2023

Sales Forecast for 2024

(KRW 100 million)

- Battery foil
- Copper foil
- Electronic materials



Battery foil: Sales growth target of 113%

- **Increase of capacity by starting the Phase2 mass production in Hungary**
 - Starting the Phase 2 Production in Hungary to increase capacity (38k tons) in 2024
- **Increase of orders by customers' request**
 - Increase of orders by additional contracts with customers and requests for escalated supply volume
- **Increase of supply based on products that meet the customers' needs**
 - Stabilizing yield rate, securing quality stability and increasing supply of high-end battery copper foil

Copper foil: Sales growth target of 13%

- **AI server, network equipment, and semiconductor markets expected to continue growing**
 - Market demand is expected to recover and high-growth applications (AI accelerators, etc.) will increase.
- **Plan to increase supply of high-end copper foil**
 - Promoting supply of low loss, thin and ultra thin foil

Electronic materials business: Sales growth target of 3%

- **The growth of the display market is expected to slow due to the global economic downturn.**
 - Responding to fluctuating demand due to delays in investment in TVs and changes in pricing policies of major customers
- **Establishing a business structure for sustainable growth**
 - Expansion of non light emitting business, customer diversification, continuous introduction of new products, etc.

Battery Copper Foil: Competitiveness That Secures Market Dominance

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Geographical advantage

- **The company has the only local production base in Europe and North America.**
 - No impact on logistics disruption due to local production and supply. Expected benefits of IRA/CRMA
 - Priority among vendors through rapid response to customer needs
 - Securing major global customers for OEMs and battery cells

Product competitiveness

- **The superiority of our high-end products based on the world's first in-house developed battery copper foil**
 - Full-fledged sales of high-end battery copper foil, including 6 μ m, high elongation, and high strength products
 - Rapid supply and excellent quality stability through local production
 - Yield stability secured in Hungary Phase 1

Growth potential

- **Market advantage secured by preoccupying the local market**
 - "Europe's first" production at the end of 2020, with a CAGR of +311% over 3 years from 2021 to 2023
 - Dominating the market in advance with a Canadian production base to respond to the growth of EVs in North America
 - Plan to maximize sales and profitability through stable production and increased manufacturing efficiency

Battery Copper Foil Production Capacity and Future Plans



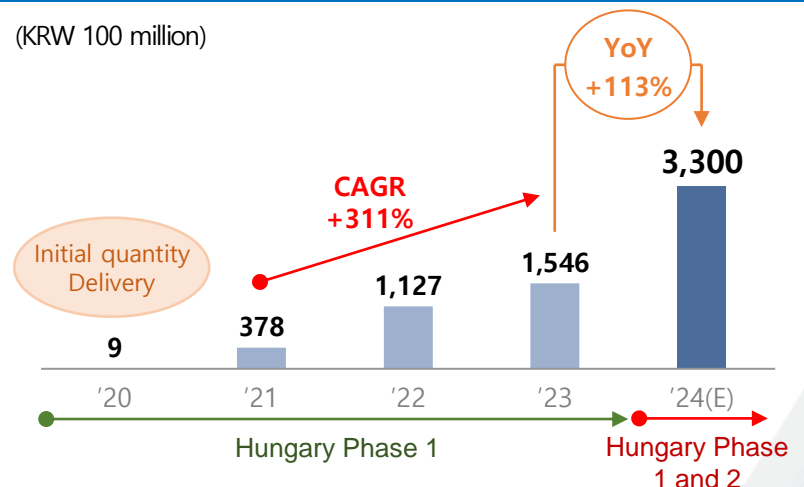
- **Total 100,000 tons planned for Hungary (Europe)**
 - PH1 (15,000 tons): First shipment in November 2020
 - PH2 (23,000 tons): Mass production begins in 2024
 - PH3 (62,000 tons): Expected volume when demand increases



- **63,000 tons per year planned for Canada (North America)**
 - PH1 (25,000 tons): Mass production begins in 2025
 - PH2 (38,000 tons): When demand increases
 - Maximizing manufacturing efficiency by expanding automation

Sales Trends of Battery Copper Foil

(KRW 100 million)



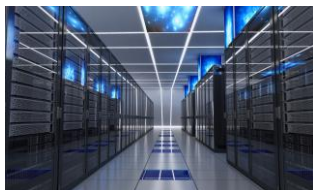
Copper Foil: High-End Product Portfolio

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- **Supplying a variety of high-end copper foils with technology based on over 60 years of manufacturing experience**

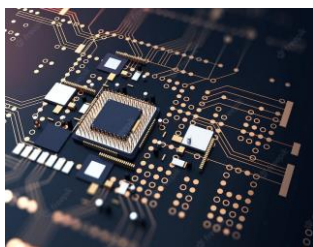
- Enhancing sales mix and profitability with various high-end products

Low Loss and High Frequency



- High-end copper foil for high frequencies with minimal signal loss
- Used in AI, robots, network equipment, etc.
- Existing main products of high-end copper foil. Maintaining high market share with excellent roughness technology

Ultra Thin



- Ultra-thin product for semiconductors under 2 μm . Next-generation microcircuit manufacturing method (MSAP) is applied.
- Applied to various IT fields such as DRAM/CPU/GPU semiconductor chips
- This product breaks the monopoly of existing Japanese manufacturers in the ultra-thin market and contributes to the local production of advanced materials.
- Acquired material/product approval from global semiconductor manufacturers, contributing to miniaturization, integration, and high performance of semiconductors.

Special foil



- High-end copper foil with special surface treatment. Widely applied to high value-added industries such as the aerospace market
- Succeeded in mass production of special aerospace copper foil for the first time in Korea. Currently supplying the special foil to global aircraft manufacturers.
- Special foils made with differentiated technology and with optimized physical properties tailored to special purposes are being supplied to various downstream markets.

Electronic Materials: Establishing a Business Structure for Sustainable Growth

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Expansion of business into non-luminescent materials sector

- Ongoing challenge to introduce high refractive index fillers for existing customers' TVs
- Dominating the TFE and QD business market in advance
- Introduction of DIPM* and continuous development of new markets for non-luminous products

* Direct Inkjet Printing Materials

Customer diversification

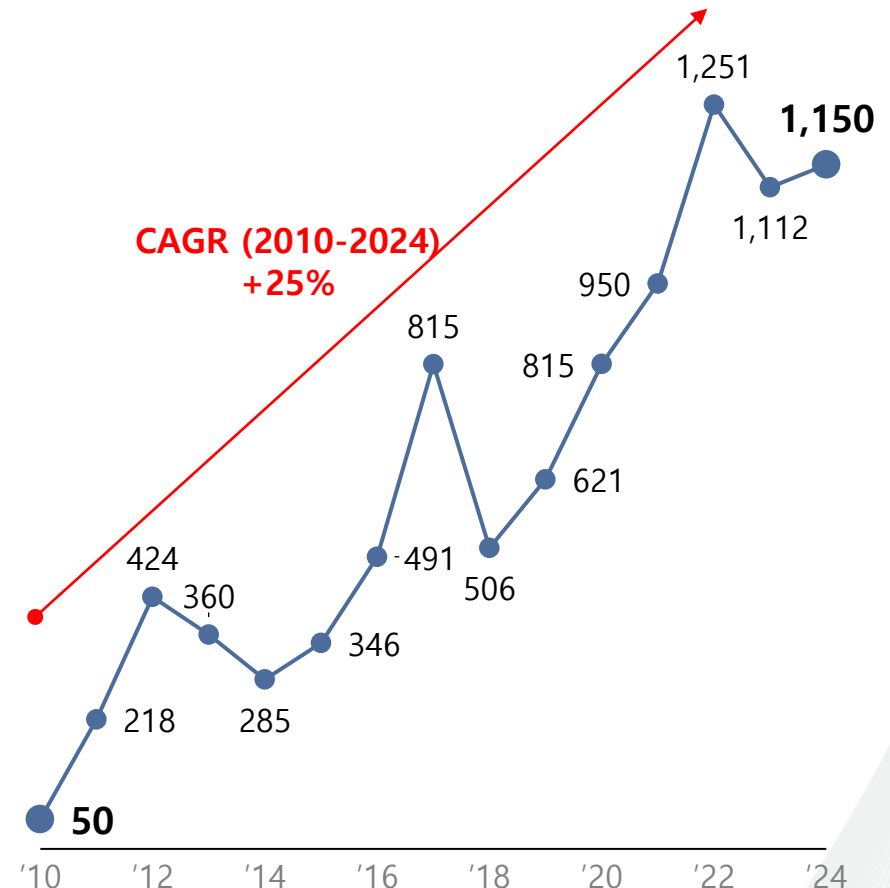
- Diversifying the product line of organic materials
- Introduction of non-luminescent materials to domestic/Chinese customers other than existing customers
- Market diversification by introducing entry-level models to China

Continuous introduction of new products

- Introduction of new models for mobiles/IT/TVs
- Product diversification such as green phosphorescence and ETL
- Development of future technology products to respond in advance to next-generation display technology

Electronic Materials Sales Trends

(KRW 100 million)



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Summary Consolidated Statement of Financial Position

Investor Relations 2023

(KRW 100 million)

Classification	Dec. 2019	Dec. 2020	Dec. 2021	Dec. 2022	Dec. 2023
Current assets	2,306	4,504	3,945	5,080	5,653
Non-current assets	2,636	3,908	6,171	9,530	11,379
Total assets	4,942	8,412	10,116	14,610	17,032
Current liabilities	1,840	1,674	2,926	4,221	5,657
Non-current liabilities	1,696	1,839	1,968	1,208	794
Total liabilities	3,536	3,513	4,894	5,429	6,451
Capital stock	40	40	40	45	45
Total shareholders' equity	1,406	4,899	5,222	9,181	10,581
Debt ratio	251%	72%	94%	59%	61%
[Borrowings]					
Borrowings	1,837	2,484	2,995	3,520	3,746
Cash	946	3,056	1,396	1,628	2,741
Net borrowings	891	-572	1,599	1,893	1,006

※ The current quarter data is based on unaudited financial statements.

Summary Consolidated Comprehensive Income Statement

Investor Relations 2023

(KRW 100 million)

Classification	2019	2020	2021	2022					2023				
				1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total
Sales	700	2,902	3,803	1,236	1,229	1,056	1,091	4,612	1,128	1,011	1,112	1,043	4,294
Battery foil	-	9	378	301	321	283	222	1,127	402	367	409	369	1,546
Copper foil	399	1,655	2,036	518	485	403	399	1,805	452	369	430	384	1,636
Electronic materials	168	815	950	310	295	309	337	1,251	274	275	273	290	1,112
Bio	133	423	440	107	128	61	133	429	-	-	-	-	-
Cost of sales	464	1,934	3,028	1,060	1,063	982	1,053	4,158	1,081	1,047	1,089	903	4,120
Gross profit	236	967	775	176	166	74	38	454	47	-36	24	140	174
SG&A	134	664	725	200	242	270	194	906	237	202	227	242	908
Operating profit	102	304	50	-24	-76	-196	-156	-452	-190	-238	-203	-102	-734
(%)	14.6%	10.5%	1.3%	-2.0%	-6.2%	-18.5%	-14.3%	-9.8%	-16.9%	-23.5%	-18.3%	-9.8%	-17.1%
Gains (losses) on interest	-7	-58	-45	-11	-14	-16	-27	-67	-34	-55	-41	-38	-167
Gain (losses) on foreign currency transactions	-6	-70	81	-3	82	53	-19	113	2	-2	4	-7	-4
Gain (losses) on foreign currency translation	-29	-163	15	29	82	34	-87	58	1	6	97	-112	-7
Net income before corporate tax	69	-23	36	-13	62	-148	-269	-367	-230	-301	2,946	-534	1,881
Corporate tax	24	87	9	32	77	30	-68	71	-16	-43	792	-110	623
Profit (losses) from continuing operations	-	-	27	-44	-15	-179	-200	-438	-213	-258	2,154	-423	1,258
Profit (losses) from discontinued operations	-	-	-25	-	-	-	-34	-34	-1	8	0	1	9
Net income	45	-110	2	-44	-15	-179	-234	-472	-214	-250	2,154	-422	1,267
Net Income of controlling shareholders	45	-110	119	1	47	-84	-78	-113	-110	-132	2,266	-208	1,816

※ The current quarter data is based on unaudited financial statements.

※ Due to the disposal of Solus Biotech, discontinued business (bio) was excluded from sales from 1Q 2023 and classified as discontinued operating profit (losses).

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Company Overview and Business Introduction

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[Company Overview]

<u>Company Name</u>	Solus Advanced Materials Co., Ltd.
<u>CEO</u>	Daeje Chin & Kwangpyuk Suh
<u>Established</u>	October 1, 2019
<u>Listed</u>	October 18, 2019 (KOSPI)
<u>Total Assets</u>	KRW 1,703.2 billion (end of 2023)
<u>Employees</u>	1,225 (end of 2023)
<u>Headquarters</u>	627 Seodong-ro, Iksan-si, Jeollabuk-do
- <u>Battery foil</u>	Hungary and Canada (development, production and sales)
- <u>Copper foil</u>	Luxembourg (development, production and sales)
- <u>Electronic materials</u>	Seongnam (development and sales), Iksan (production), China (production and sales)

[Business Introduction]



**EV battery
Core materials**



**Electronic circuit boards
for semiconductors,
communication equipment,
smartphones, self-driving
cars, aircraft, etc.
Core materials**



**Electronic devices for
mobile devices and TVs
OLED display
Core materials**



※ Asset size is based on unaudited financial statements.

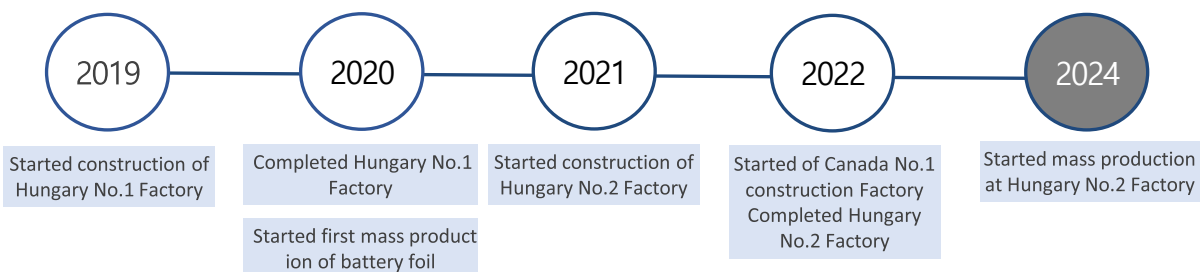
※ Due to the sale of Solus Biotech (July 4, 2023), the number its employees is excluded.

Company History

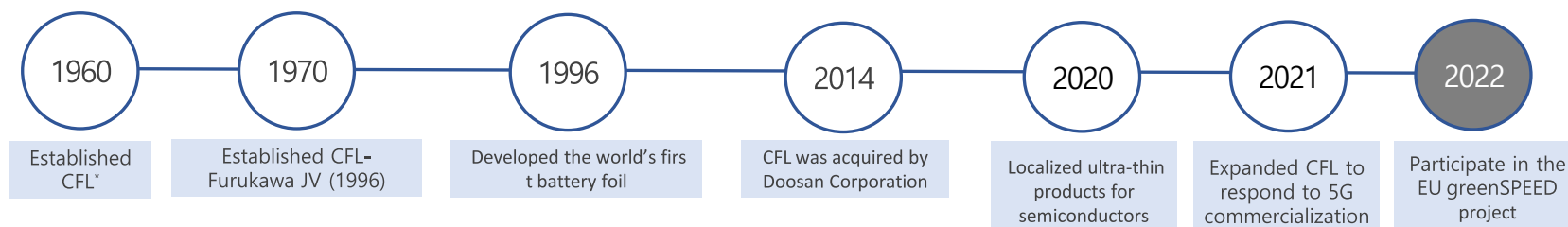
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Based on over 60 years of experience and know-how, we have expanded our business area and grown into the No. 1 global materials company.

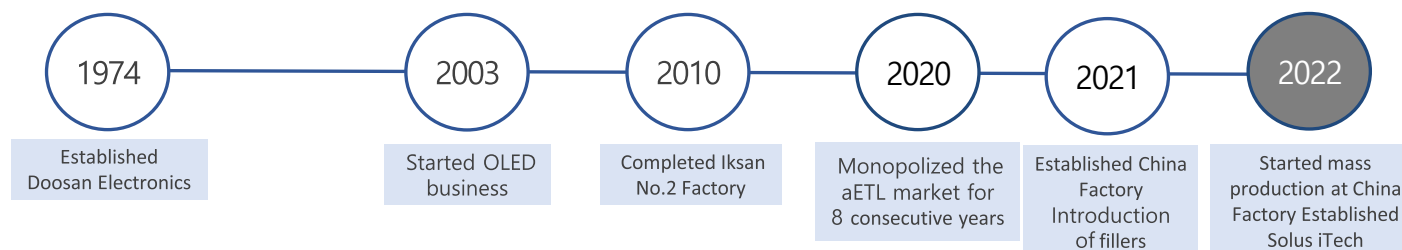
Battery foil



Copper foil



Electronic materials

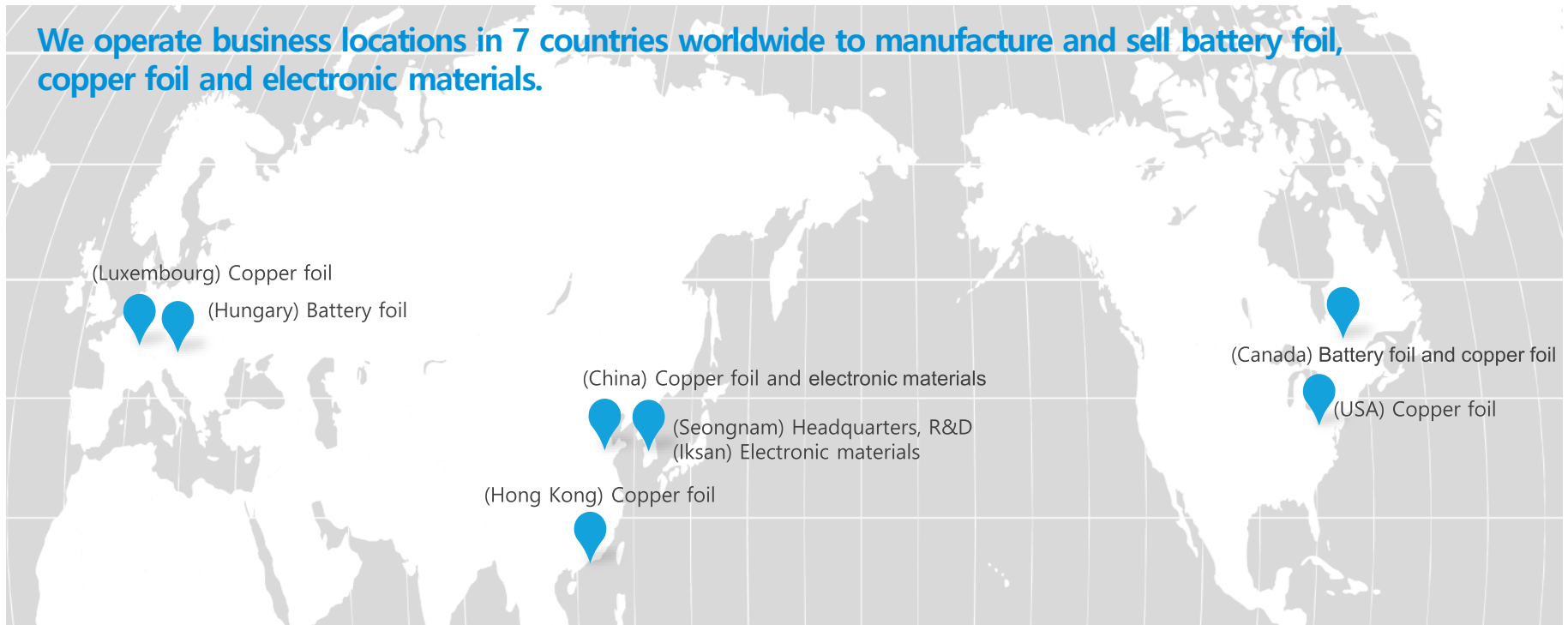


* Circuit Foil Luxembourg

Main Business Locations

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We operate business locations in 7 countries worldwide to manufacture and sell battery foil, copper foil and electronic materials.



Iksan, Korea (Electronic materials)



(Luxembourg) Copper foil



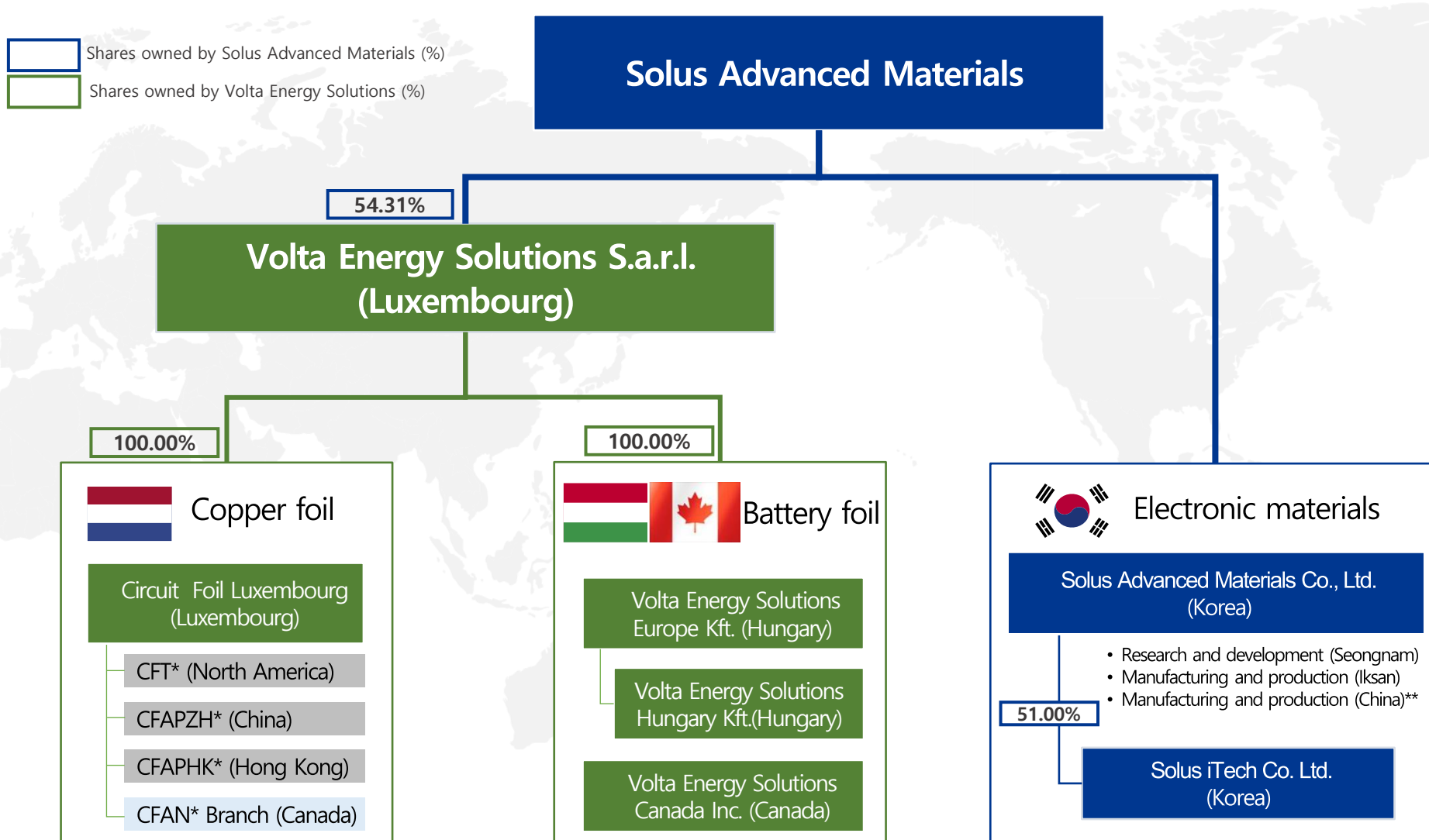
Hungary (Battery foil)



Canada (Battery foil)

Korean and Overseas Subsidiaries

Investor Relations 2023



* CFT(Circuit Foil Trading Inc.) / CFAPZH(Circuit Foil Asia Pacific Zhangjiagang) / CFAPHK(Circuit Foil Asia Pacific Hong Kong) / CFAN(Circuit Foil d' Amérique du Nord)

** Solus Advanced Materials (Changshu) Co., Ltd.

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