



Leading with **Science**
for **Sustainability**

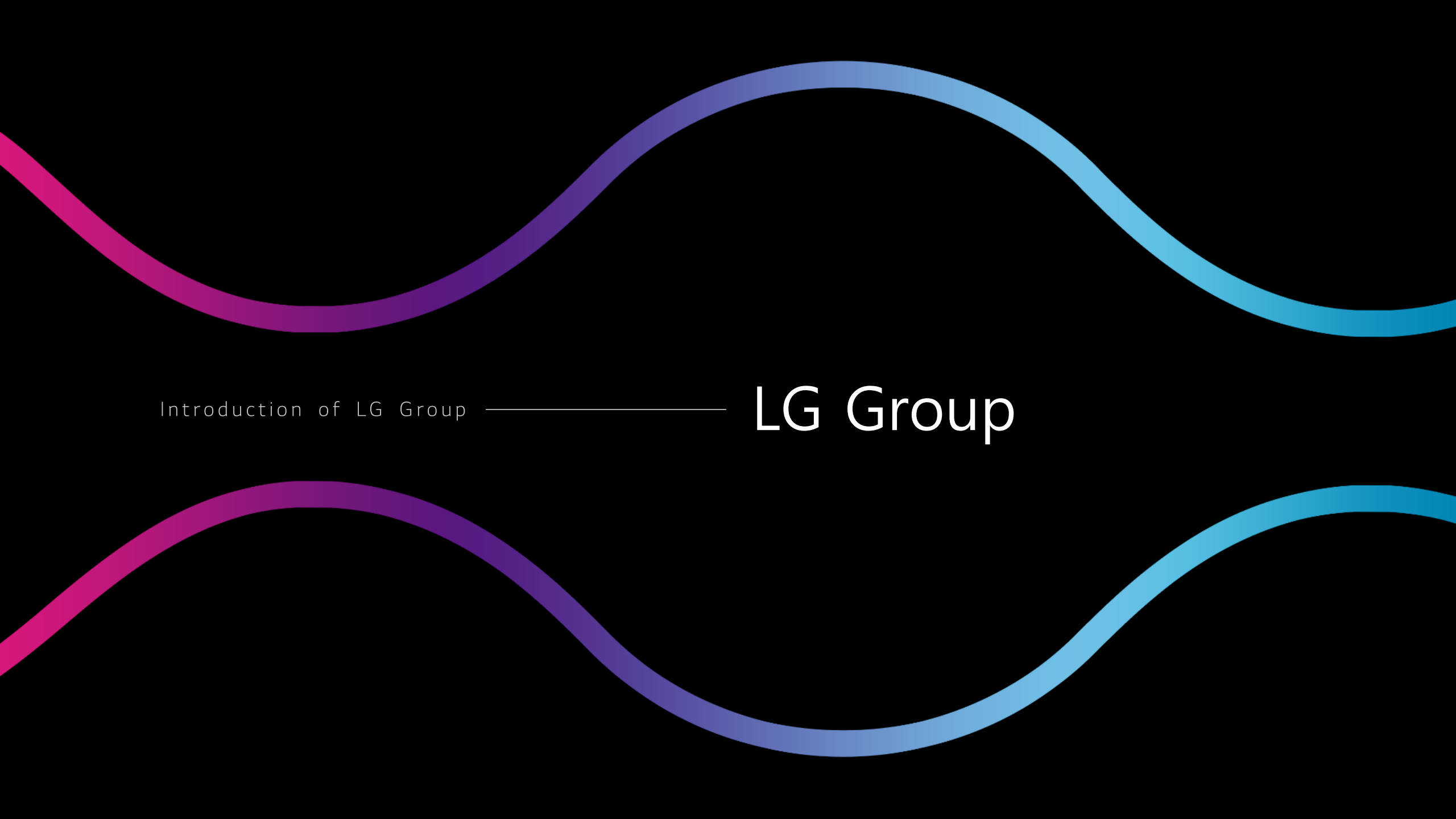
LG Chem

*We***Connect***Science*

Contents

Introduction of LG Chem

- 01 — Introduction of LG Group
- 02 — Introduction of LG Chem
- 03 — Business of LG Chem



Introduction of LG Group

LG Group

LG Group | History

1947



Established as
Lucky Chemical
Industrial Co.
(now LG Chem)

1958



Established as
Goldstar Co.
(now LG Electronics)

1987



Completed
'Lucky Gold Star Tower'

1995



Established as a New
Corporate Identity
(Lucky Goldstar → LG)

1996



Established as
LG Telecom
(now LG U+)

2003



Established as
LG Corp.

2017



LG Group's 70th
Anniversary

2021



LG Group spined-off
LX Group

Chemicals



LG Chem
LG Energy Solution
LG Household & Healthcare
etc.



Affiliates

63

*Overseas Corporations 290(Approx.)

Electronics



LG Electronics
LG Display
LG Innotek
etc.



Workforce(Worldwide)

270,000 (Approx.)

Telecommunications & services

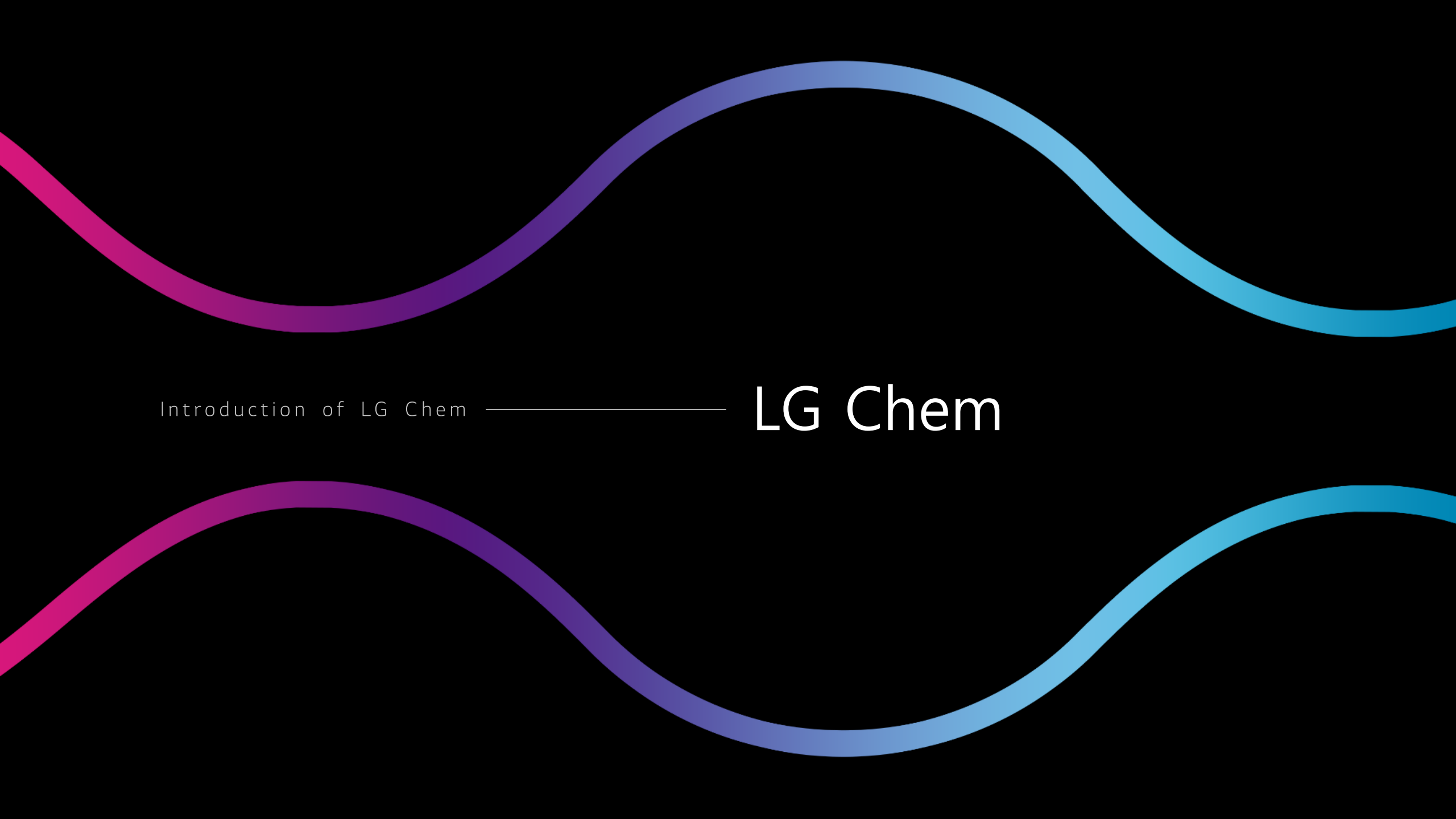


LG U+
LG CNS
LG Sports
etc.



Annual Revenue

KRW 202trn (Approx.)

The background features two large, horizontal, wavy lines. The top wave starts with a pink segment on the left, transitions into a purple segment, and ends with a light blue segment on the right. The bottom wave follows a similar color gradient from pink to purple to light blue. The text is centered between these two waves.

Introduction of LG Chem

————— **LG Chem**

Since its founding, LG Chem is vigorously moving forward towards a sustainable future



1947 - 1999

- 1947** Established as Lucky Chemical Industrial Corporation
- 1969** Listed on Korea Stock Exchange
- 1974** Renamed as Lucky Corporation
- 1976** Completed construction of Yeosu PVC Resin Plant
- 1979** Opened Daedeok Central R&D Center
- 1991** Developed the world's first 4th-generation cephalosporin antibiotics
- 1995** Renamed as LG Chem, Ltd.
Completed construction of Tianjin PVC plant in China








2000 - 2009

- 2001** Spinned off business entities (LGCI, LG Chem, LG Household & Healthcare)
- 2003** Acquired Hyundai Petrochemicals
Factive became first Korean new drug to receive U.S. FDA approval
- 2004** Developed the world's first nanotechnology-applied new EP material
- 2005** Established LG Chem (China) Investment Co., Ltd.
Established a sales subsidiary in Europe (in Germany)
- 2007** Merged with LG Petrochemicals Co., Ltd
- 2008** Developed Korea's first metallocene-based elastomer
- 2009** Spinned off Industrial Materials Business (now LX Hausys)

2010 - 2023

- 2016** Acquired Dongbu Farm Hannong (Farm Hannong)
- 2017** Merged with LG Life Sciences Co., Ltd.
- 2020** Spinned-off battery business (now LG Energy Solution)
- 2021** Launched LETZero of Eco-friendly Materials brand
Acquired separator business
- 2022** Established a separator joint venture LG-Toray (in Hungary)
Established a Cathode Material joint venture LG-HY BCM (in Gumi)
- 2023** Acquired AVEO Oncology
Started construction of Cathode Material Plant (in Tennessee)
- 2024** Completed construction of Asia's first supercritical pyrolysis plant
Established a HVO joint venture LG-ENI BioRefining(in Daesan)

Top 10 Strongest* Chemicals Brands 2024

1		—	
2		—	
3		▲	
4		▼	
5		—	
6		▲	
7		▼	
8		▲	
9		▲	
10		—	

* Source: Brand Finance Group, U.K.

Brand value of
chemical companies

“Global No.2”

* Strongest Brand : A metric indicating the influence and status of the brand itself,
excluding financial performance

Prospering In the pandemic **TOP 100**

* Source: Financial Times, 2020



To achieve our vision, “**We Connect Science to Life for a Better Future,**”
LG Chem will become **Top Global Science Company** that leads with **Science for Sustainability.**

We Connect Science to life for a Better Future



Leading with Science for Sustainability.

LG Chem | Sustainability Roadmap

Through the implementation of our sustainability strategy,
we will **secure future growth engines and enhance ESG competitiveness.**

LG Chem Innovative Sustainability



* LG Chem's top priority

Towards Top Global Science Company

Carbon-neutral growth by 2030, Net-Zero by 2050



Acceleration of low-carbon transition

Expansion of eco-friendly product portfolio

Transition to renewable energy

Offset carbon emissions



Enhancement of competitive edge in low-carbon products

Introduction of new processes and expanded use of eco-friendly raw materials and fuels

Establishment of Scope 3 management standards and implementation system for low-carbon strategy in the supply chain



Implementation of Net-Zero through partnerships

Demonstration of global leadership to combat Net-Zero

Development of innovative technologies and a circular economy through cross-industry collaboration

Towards Top Global Science Company

Strengthening of Growth Engine Business



Sustainable business centered around eco-friendly materials

Develop eco-friendly bio materials

Establish circular economy
of waste plastics

Foster renewable energy material business



Towards World's Top Comprehensive Battery Materials Company

Produce first-rate cathode
materials in the world

Expansion of higher value-added
battery materials business

Reinforce R&D for
next-gen battery materials



World-class innovative drug development

Enhancement in the quality
of new drug pipeline

Develop global clinical trials
and growth business

Bolster investment in R&D
for new drug development

Towards Top Global Science Company

World-class Science company with strong R&D capability



Fostering high-value & Eco-friendly technologies

High-value innovative
in differentiation technology

HVO & Chemical Recycling
technology

CO2 capture/utilization technology



Improve battery performance and safety Develop next-gen battery materials

Cost innovation /
high-capacity cathode material

Safety material for suppressing and
preventing thermal runaway

Development of next-generation materials
(Dry Electrode, materials
for all-solid-state batteries)



Establish leadership in cancer, diabetes, autoimmune diseases, metabolic diseases

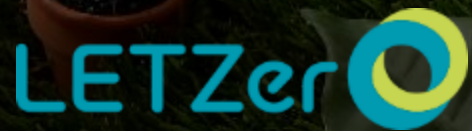
Acceleration of global clinical
Development for major new drugs

Multi-modality strategy :
synthetic, bio, cellular therapeutics

* Various approach to drugs

LG Chem

Eco-friendly Materials Brand



Eco-friendly Materials Brand LETZero

A compound word of "Let" and "Zero," which means "to turn harmful substances to the environment and the net increase in carbon emissions into zero."

LETZero Product Line



Recycle

Produce the PCR materials by mechanical and chemical recycling enables the recycled waste plastics



PCR (Post Consumer Recycled)

ABS, PC, PC/ABS, PE, PP, PVC, Plasticizers



Circular Balanced

Applicable to most materials
Produced by LG Chem



Bio Material

Reduce fossil fuel consumption and carbon emission by incorporating raw materials in the manufacturing process



Bio-Based

PA, PLA



Bio-Circular Balanced

Applicable to most materials
Produced by LG Chem



Compostable

Decompose into carbon dioxide, water and biomass through the composting process



Representative Materials

COMPOSTFUL™
PLH

LETZero Co-Marketing



BCB (Bio-Circular Balanced)

Descent Shoe Insole with BCB materials



PCR (Post Consumer Recycled)

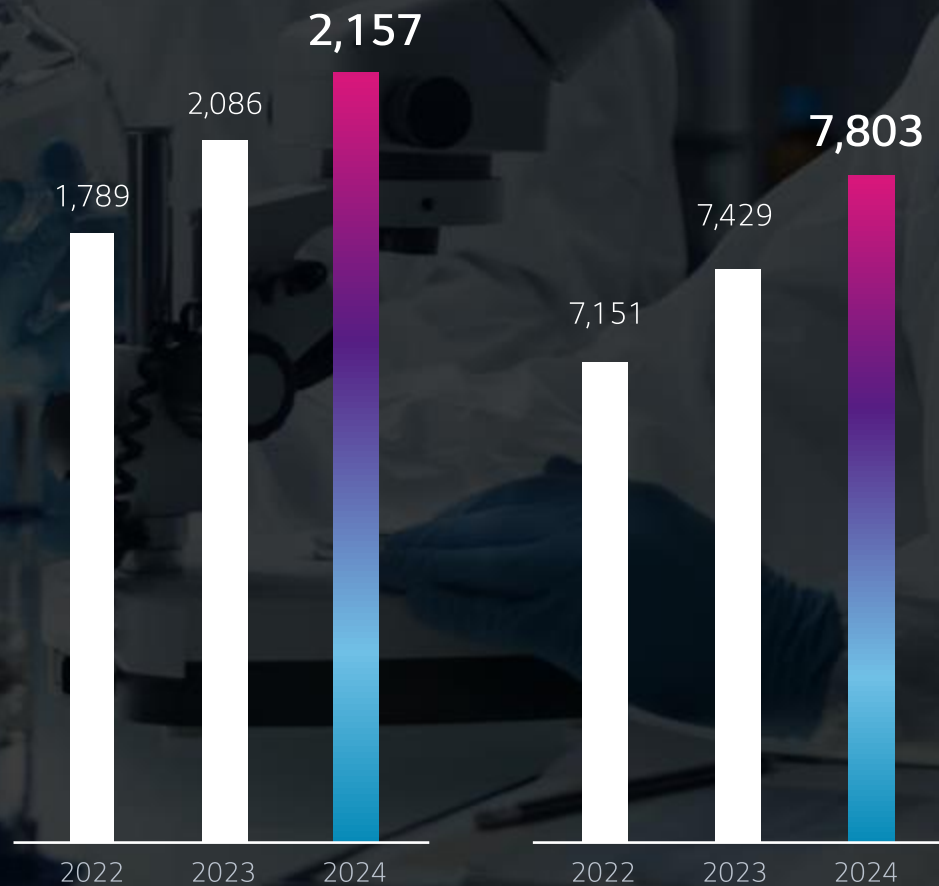
Electric Vehicle Chargers with PCR materials

LG Chem | R&D Status

* Included Subsidiaries

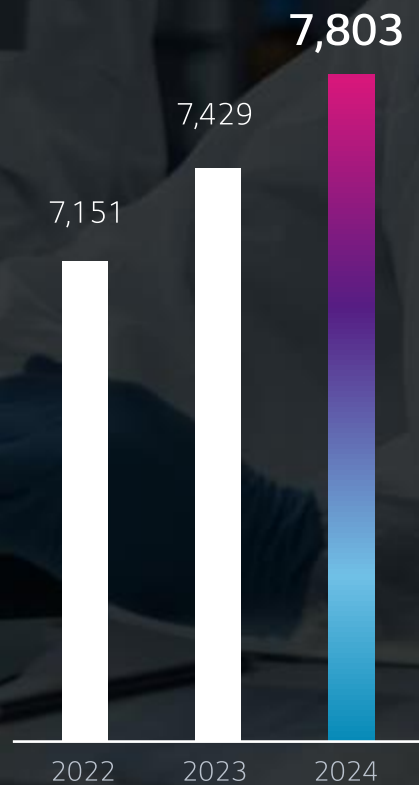
R&D Expense

Unit : Billion KRW



R&D Workforce

Unit : Person

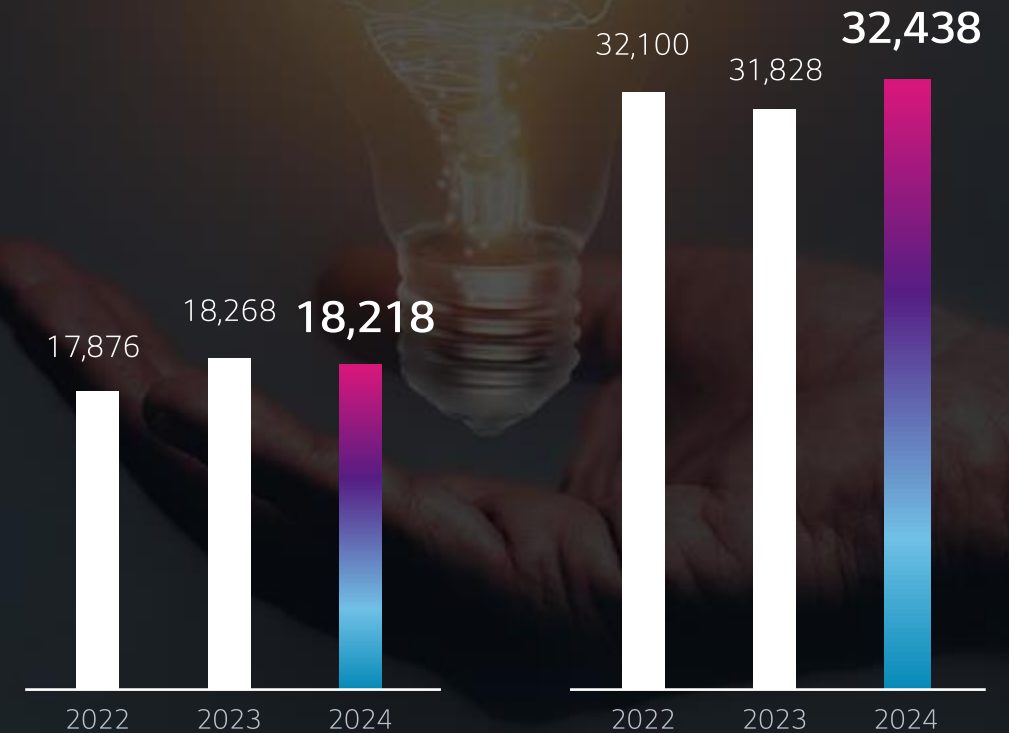


Intellectual Properties (Patents & Trademarks)

Unit : Number of registrations

| Domestic

| Overseas



LG Chem | Financial Results

* Included Subsidiaries



Sales in 2024

KRW **48.9**trn
(Approx.)



Workforce

18,750 (Person)

Domestic 13,920 / Overseas 4,830



Sites of business

65

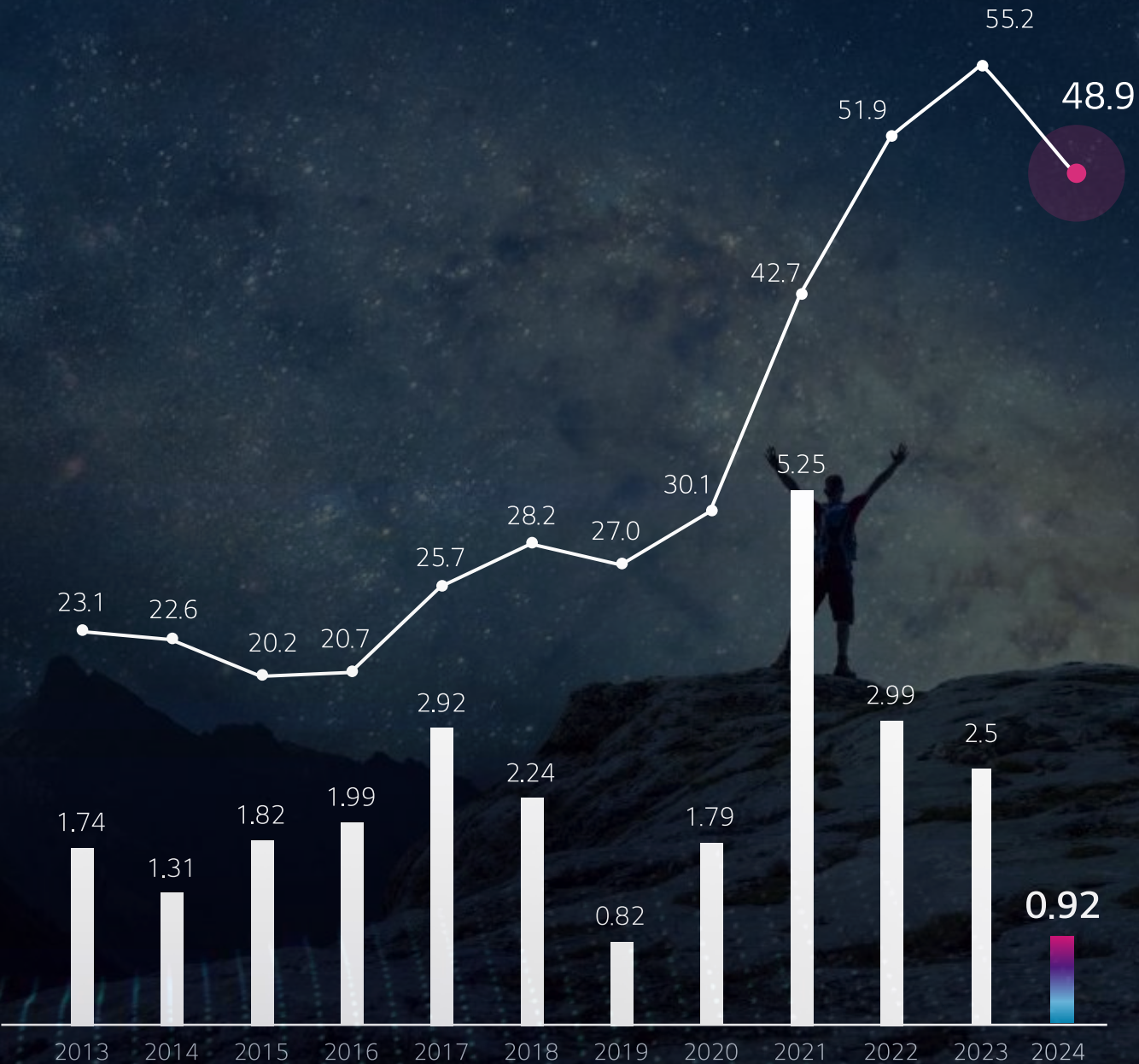
Domestic 17 / Overseas 48

Sales

(Unit : Tillion KRW)

Operating profit

(Unit : Tillion KRW)



LG Chem | Domestic Sites



Headquarter/R&D Campus Magok
(Est.1987/Est.2018)



Leadership Center / CS Center
(Est.1991/Est.2019)



R&D Campus Daejeon
(Est.1979)



Osong Plant (Est.2009)
Bio Similar, Vaccine



Iksan Plant(3)(Est.1991 / Est.1995/Est.2011)
EP, ABS / Pharmaceutical / Cathode Material



Naju Plant (Est.1984)
Octanol, Butanol, Plasticizers



Yeosu Complex (Est.1976)
NCC, PVC, ABS, SAP, PE, AA

Daesan Complex (Est.2005)
NCC, SSBR, PVC



Ochang Plant (Est.2005)
Stripper



Cheongju Complex(2)(Est.1980 / Est.2009)
OLED Material, Cathode Material,
RO membrane / Battery Separator



Gimcheon Plant (Est.2008)
SAP



Onsan Plant(Est.1979)
Fine Chemical



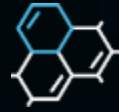
LG Chem | Overseas Sites





Petrochemicals

- Sustainability
- NCC / Polyolefins
- PVC / Plasticizers
- ABS
- Acrylates / SAP
- HPM(High Performance Materials)
- Catalyst



Advanced Materials

- Cathode Materials
- Battery Separator
- Engineering Materials
- Electronic Materials
- Water Solutions



Life Sciences

- Primary Care
- Specialty Care
- Aesthetic
- AVEO Oncology



01

Introduction of LG Chem

Petrochemicals Company



Petrochemicals Company

Establishment (Year)

1976

Sales (₩) *As of 2024

19.1trn (Approx.)

Workforce (Person)

Domestic 6,078 / Overseas 2,270

Business Area

Petrochemical Products

- **2024**
Established of Asia's first supercritical pyrolysis plant and next-generation insulator plant (Dangjin)
Established the CS Center of Ohio in USA
Established the joint venture for eco-friendly fuel HVO (LG-ENI BioRefining)
- **2023**
Launched COMPOSTFUL™ of compostable brand
Established the CS Center of Europe in Germany
- **2022**
Launched Asia's first plant-based eco-friendly ABS
- **2021**
Acquired *ISCC for Korea's first eco-friendly (bio-circular balanced, Chemical Recycle) product. * ISCC (International Sustainability and Carbon Certification)
Launched digital CRM system LG Chem On
- **2019**
Established the largest petrochemical tech center in Korea (Osan CS Center)
- **2015**
Established the CS Center of Hwanam , Guangzhou in China
- **2003 ~ 2010**
Acquired Dow Polycarbonate business(10)
Merged with LG Petrochemicals Co., Ltd.(‘07)
Acquired PVC Business of Hyundai Petrochemicals Co., Ltd.(‘03)
- **1995 ~ 1998**
Established Manufacturing Subsidiary in China / India / Vietnam (PVC, ABS)
- **1976**
Completed construction of Yecheon PVC resin factory
Entry into the petrochemical business

Providing Sustainability Solutions with Eco-Friendly Materials



Bio Material

- Mass-produced world's first bio-circular balanced SAP, launched Asia's first bio-based ABS
- Acquired 50+ ISCC Plus-certified Bio-Circular Balanced(BCB) products
- Stable sourcing of raw materials through internalization of bio-based material production and partnerships
- Obtained international compostability certifications and complies with food contact substance regulations



Recycling

(Establish circular economy of waste plastics)

- Holding a product portfolio of global brands (PCR), Acquired 50+ ISCC Plus-certified Circular-Balanced(CB)products
- Secured a stable pool of raw material supplies through a technology partnership on chemical recycling with MURA
- Established a closed loop through strategic partnerships
- Operation of Asia's first supercritical pyrolysis plant

Production Capacity (As of 1Q, 2025)

Unit : KTA

Ethylene	3,350	HDPE	550	Acrylic Acid	650
Propylene	1,980	LLDPE	600	IPA	205
BD	510	PP	380	NPG	175
BZ	900	LDPE/EVA	460	Synthetic Rubber	365
BPA	505	PVC	1,100	Specialty Resin	310
ABS/SAN	2,380	Plasticizer	175	POE	380
PS	40	Alcohol	145	CNT	3
EPS	90	PC	170	SAP	500
Aerogel	200,000m ²	NAOH	1,000	NBL	555
Chemical Recycle	20	Binder	23		



Sustainable Materials

LG Chem conducts various sustainability businesses centered on eco-friendly materials in the fields of bio, recycling, and energy transition. We also present innovative sustainability solutions to our customers and contribute to the creation of future value through our eco-friendly material brand LETZero, which embodies our determination to achieve net zero carbon emissions and damage to the environment.

Compostable(COMPOSTFUL™)
Bio(Bio-Circular balanced, Bio-based)
Recycle(PCR, Circular balanced)
Energy Transition(POE, CNT)



Applications



Mulching film



Compostable bag



Recycle Materials(PCR)



Electronics housing



Solar power film

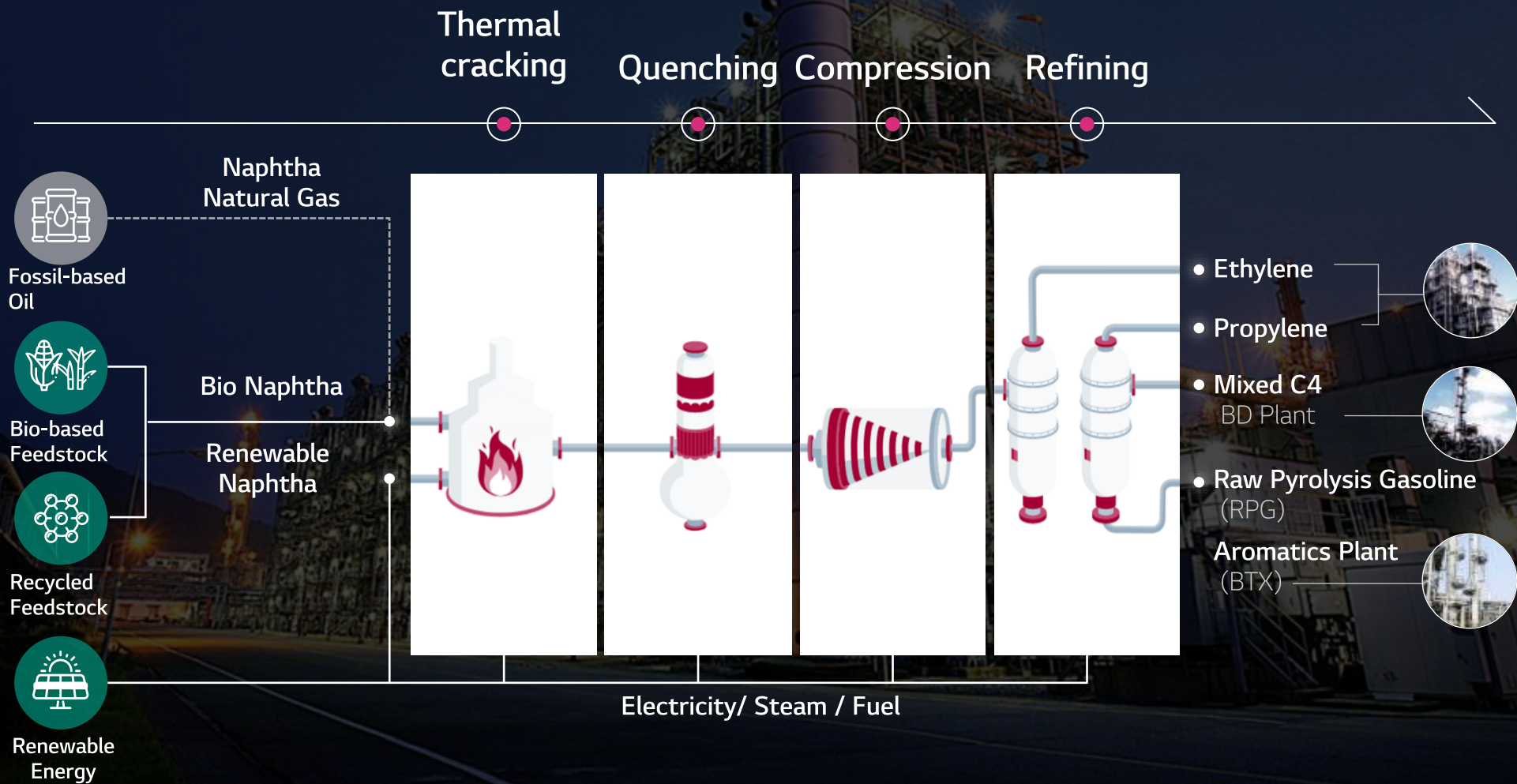


Lithium-ion batteries

Naphtha Cracking Center (NCC)

NCC (Naphtha Cracking Center) is a process for producing base oils for petrochemical products, such as ethylene and propylene. They are supplied as raw materials for various products such as PO, synthetic rubber, and ABS.

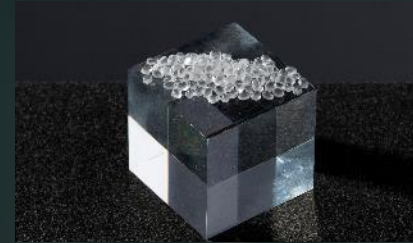
LG Chem discovers and supplies alternative raw materials such as bio-materials and pyrolysis oil from waste plastic to reduce carbon, and develops various technologies for renewable energy and carbon capture for the eco-friendly conversion of our petrochemical plants.



Polyolefin (PO)

PE and PP, which are general-purpose plastics widely used in daily life, are used as main raw materials for product containers, packaging, and medical equipment. LG Chem provides eco-friendly PO material solutions with BCB (Bio Circular Balanced) products utilizing bio-based raw materials. Additionally, discarded products after use are produced into PCR PE and PCR PP through mechanical recycling technology and used for secondary packaging films and containers, or produced into CB (Circular Balanced) products with quality equivalent to new materials through chemical recycling technology.

LD, LLD, HD, EVA



Applications



Medical equipment



Ondol pipes



Product containers



Cable insulators



Packaging film



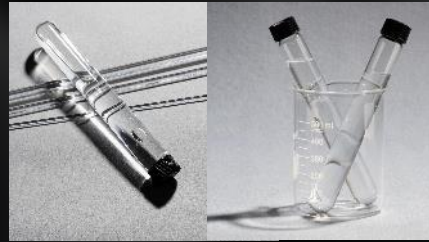
Automotive interior
and exterior parts

PVC/Plasticizers

PVC (Polyvinyl Chloride) is highly durable and has excellent insulation performance, making it suitable for processing with plasticizers to provide flexibility. It is used in various building materials and household products such as flooring, windows, and artificial leather. LG Chem leads the eco-friendly trend with BCB (Bio-Circular Balanced) products using bio-based raw materials, PCR PVC through recycling technology, and recycled plasticizers based on waste PET. Additionally, LG Chem produces caustic soda, which is widely used in advanced industries such as cathode manufacturing, and PC (Polycarbonate), known for its impact resistance and heat resistance, providing solutions for various fields.

PVC, Plasticizers

Caustic soda, Alcohol, PC



Applications



Sashes



Flooring



Pipes



EV Charging cable



Interior Car sheet



Car headlamps

Acrylonitrile Butadiene Styrene (ABS)

Acrylonitrile Butadiene Styrene (ABS) is a highly functional material mainly used in automobiles, home appliances, and IT devices for its excellent heat resistance, shock absorbance, and processability. LG Chem provides differentiated solutions to our customers, from producing chemical industry's very first white-colored PCR ABS and Asia's first eco-friendly BCB(Bio-Circular Balanced)ABS made of plant-based materials.

ABS, PCR-ABS,
SAN, PS, EPS



Applications



Electronics housing



Automotive interior/
exterior materials



Building materials



Toys



Product containers



Recycle materials(PCR)

Acrylates / SAP(Super Absorbent Polymer)

LG Chem is the only manufacturer of acrylic acid, IPA, and NPG in Korea, and produces high-quality products based on proprietary technology. Mainly used in paints, plasticizers, and SAP, Acrylates, Acrylic Acid have a myriad of applications in various fields for its excellent chemical reactions. Additionally, the super absorbent polymer (SAP), used in diapers and hygiene products, has applied plant-based raw materials and obtained the world's first ISCC+ international certification, providing it to customer.

Acrylic Acid/Acrylates,
SAP, IPA, NPG



Applications



Semiconductor cleaning agent



Eco-friendly powder coating



Diapers



Paint



Hand sanitizers



Bathroom appliances

High Performance Materials (HPM)

LG Chem's high-performance materials (HPM) provide various solutions to customers. Synthetic rubber is used as a raw material for tires and golf balls, and NBR latex is used for medical and industrial gloves, recognized for its excellent tensile strength and chemical resistance. MBS is used to enhance adhesion between other resins in impact modifiers and bio-plastic compounds, while SBS is used as a special additive for asphalt modifiers to impart various functions. Aerogel, with its high insulation and durability properties, is used for industrial insulation applications and battery thermal barriers. CNT, with high conductivity and dispersibility, and anode binders, with excellent adhesion and resistance performance, are utilized in lithium-ion batteries.

Rubber, NBL, MBS, SBS
SBS, Aerogel, CNT, Binder



Applications



Tires



Medical Gloves



Petrochemical plant Insulant



Impact modifiers



Asphalt



Lithium-ion batteries

Catalyst

Catalysts are the core technology for various petrochemical processes. We are the Korea's first and world's fourth company to independently develop catalysts for acrylic acid production. Polymer catalysts are used to manufacture metallocene polyolefins and functional chemical materials. We provide tailored solutions to customers with exceptional technology.

Process Catalyst, Polymer Catalyst



Applications



Acrylic acid



CNT



NPG



mPO(PE/PP)



POE



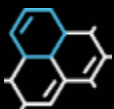
Synthetic rubber



02

Introduction of LG Chem

Advanced Materials Company



Advanced Materials Company

Establishment (year)

1999

Sales (₩)* As of 2024

6.4trn (Approx.)

Workforce (Person)

Domestic 4,030 / Overseas 1,862

Business Area

Battery Materials,
Engineering Materials,
Electronic Materials,
Water Solutions

- **2024** Signed a 25 trillion KRW supply contract for cathode materials with GM and expanded the RO membrane 3rd production line.
- **2023** Started construction of Cathode Material Plant (in Tennessee)
- **2022** Established a cathode material joint venture LG-HY BCM (in Gumi)
Established a separator joint venture LG-Toray (in Hungary)
- **2021** Commercialized battery separators
(Acquired separator business from LG Electronics)
- **2019** Reorganized Advanced Materials Company
(to provide customized solutions in high-performance materials)
- **2018** Established Chinese joint venture for manufacturing
Precursor and cathode material
- **2016** Acquired GS E&M, a renowned cathode manufacturer
- **2006** Commercialization of battery materials (cathode material, electrolyte)
- **2003** Established IT&E Manufacturing Subsidiary in Nanjing, China
- **2000 ~ 2004** Commercialized LCD, OLED, Process materials
- **2000** First to develop PDP fluorescent substance in Korea.

Towards World's Top Comprehensive Battery Materials Company



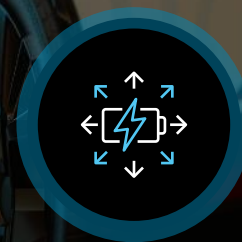
Global Top Tier Cathode Materials

- Develop leadership in high capacity and cost-innovative technology
- Expansion of business sites worldwide
- Strengthening metal competitiveness, including recycling



Capacity building of separator business

- Development of next-generation high-safety separators
- Expand a global production base in Poland (2021) and Hungary (2022)



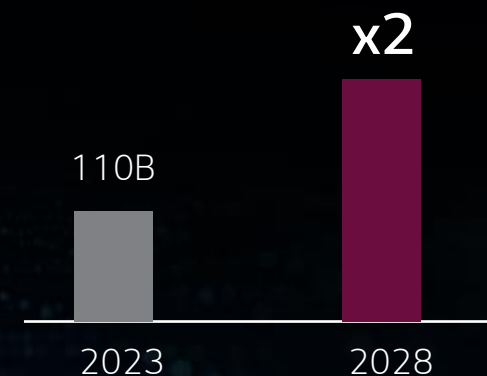
Upgrading the battery Materials portfolio

- Expanding business in higher value-added battery materials



Increased investment in R&D

- Differentiate technology and gain market leadership



Battery Materials

In addition to cathode binders and dispersants, LG Chem is producing over 10 types of battery materials, including cathode materials and separators, which are core materials for secondary batteries.

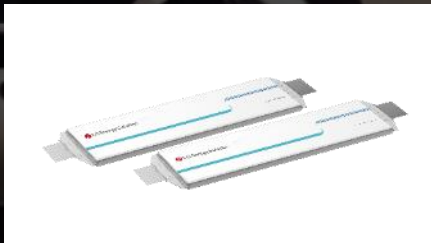
We are also bolstering R&D across a wide range of fields, such as developing new materials for the technological advances in the next-generation batteries.

LG Chem will continue to strive to become the world's No. 1 comprehensive battery materials company with the highest level of safety and competitiveness.

Cathode materials
Separators etc.



Applications



Automotive batteries



Mobility & IT batteries



ESS batteries

Major Customers



Engineering materials

In mega trends such as e-mobility and sustainability, LG Chem is striving to create world no. 1 products by producing high-strength, lightweight automotive materials and eco-friendly PCR materials that are optimized for customer products and processes.

EPC (PC, PBT, PA , etc.)



Applications



Automotive interior and exterior materials



Engine parts



Recycled materials(PCR)

Major Customers



Electronic Materials

LG Chem produces light-emitting materials for OLEDs and semiconductor back-end process materials, which are key materials for IT devices. We are also working to accelerate the growth of our electronic film and adhesive products used in e-mobility.

Display Materials,
Advanced semiconductor,
E-mobility Materials



Applications



OLED Mobile/TV



Board for Semiconductor packages



Automotive interior and exterior parts

Major Customers



Water Solutions

LG Chem's seawater desalination and industrial RO Membrane is a water treatment filter that utilizes our proprietary Thin-Film Nanocomposite (TFN) nanotechnology.

This product is leading the global market with an unrivaled removal efficiency of 99.89%.

SW R/ES/ GR/SR



Applications



Seawater Desalination



Industrial Water



Wastewater Reuse

Major Customers





03

Introduction of LG Chem

Life Sciences Company



Life Sciences Company

Establishment (Year)

1984

Sales (₩) *As of 2024

1.3trn (Approx.)

Workforce (Person)

Domestic 1,916 / Overseas 371

Business Area

Pharmaceuticals, Vaccines, Aesthetic

- **2024** Export of new drug technology for rare obesity treatment (to Rhythm Pharmaceuticals in the USA).
- **2023** Acquired AVEO, a US-based cancer drug company
- **2022** Applied for global Phase III clinical trial for Tigulixostat (new drug for gout) in the US
- **2021** Established LG Jiansheng Life Science in China
Successfully completed Phase II clinical trial for new gout drug in the US
- **2019** Established Life Sciences Innovation Center in Boston, US (Now LG Chem Life science USA, Inc.)
- **2012** Developed 1st Korean diabetes medicine, 'Zemiglo'
- **2003** 1st Korean new chemical entity (NCE) approved by U.S. FDA (Factive)
- **1996** 1st Korean hepatitis B vaccine 'Euvax' approved by WHO PQ
- **1991** Developed World's first 4th generation Cephalosporin
- **1984** Start of pharmaceutical business (Established Pharmaceuticals business division)
- **1961** Acquire of manufacturing license pharmaceuticals products

Toward a World-Class Innovative Drug Developer



**5 or more innovative
new drugs by 2030**

- Enhanced the quality of new drug pipeline
- Invest over USD 250mil in annual R&D
- Strengthening of Open innovation



**Diabetes, metabolic diseases,
cancer, autoimmune diseases**

Expand new drug pipelines



**Accelerate clinical developments
and business growth worldwide**

- New tasks for global clinical development
- Continued growth of AVEO's oncology business in the US

Primary Care

LG Chem has developed Korea's first diabetes drug, Zemiglo, and arthritis drug, Synovian, increasing its competitiveness in Korea as well as overseas, and has expanded its efforts to develop new drugs and to collaborate with other companies through partnerships in the areas of diabetes and cardiovascular, musculoskeletal, and autoimmune diseases.

Representative Products



Diabetes (Zemiglo, Zemimet SR, Zemidapa)



Cardiovascular Disease (Rovatitan)



Musculoskeletal Disease (Hyruan One)



Autoimmune Disease (Eucept)

Specialty Care

LG Chem is the first company in Korea that has successfully developed a growth hormone stimulator, and is also concentrating its R&D capabilities on treatments for special diseases.

LG Chem has been strengthening competitiveness in the global market with its WHO-approved hepatitis B and pentavalent combination (5-in-1) vaccine.

Representative Products



Grow Hormone (Eutropin S pen)



Ovulation Induction (Follitrope)



Pentavalent Combination (Eupenta)



Polio Vaccine (Eupolio)

Aesthetic

YVOIRE, the first hyaluronic acid filler developed with LG Chem's proprietary technology in Korea, is receiving attention for its superior product quality leading to expanding market share.

Representative Products



Y-SOLUTION, Global



YVOIRE, Global



YVOIRE, China



Bellacholine , Domestic

AVEO Oncology



AVEO Oncology, acquired by LG Chem in 2023, is an oncology-focused biopharmaceutical company based in Boston, U.S. Approved by U.S. FDA in 2021, AVEO is expanding its Kidney cancer drug(Fotivda®) sales, and is accelerating pipeline development including Head and Neck cancer drug. Through AVEO Oncology, LG Chem aims to strengthen competitive edge in U.S. market for New drugs and become a global leading Oncology company.

Representative Product



Kidney Cancer Drug FOTIVDA®

Pipeline

Projects	Indications	Stage
FIERCE-HN	Head and Neck Cancer	Phase III
AV-380	Solid Tumor	Phase I
TiNivo-2	Kidney Cancer	Phase III



THANK YOU

*We*ConnectScience



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