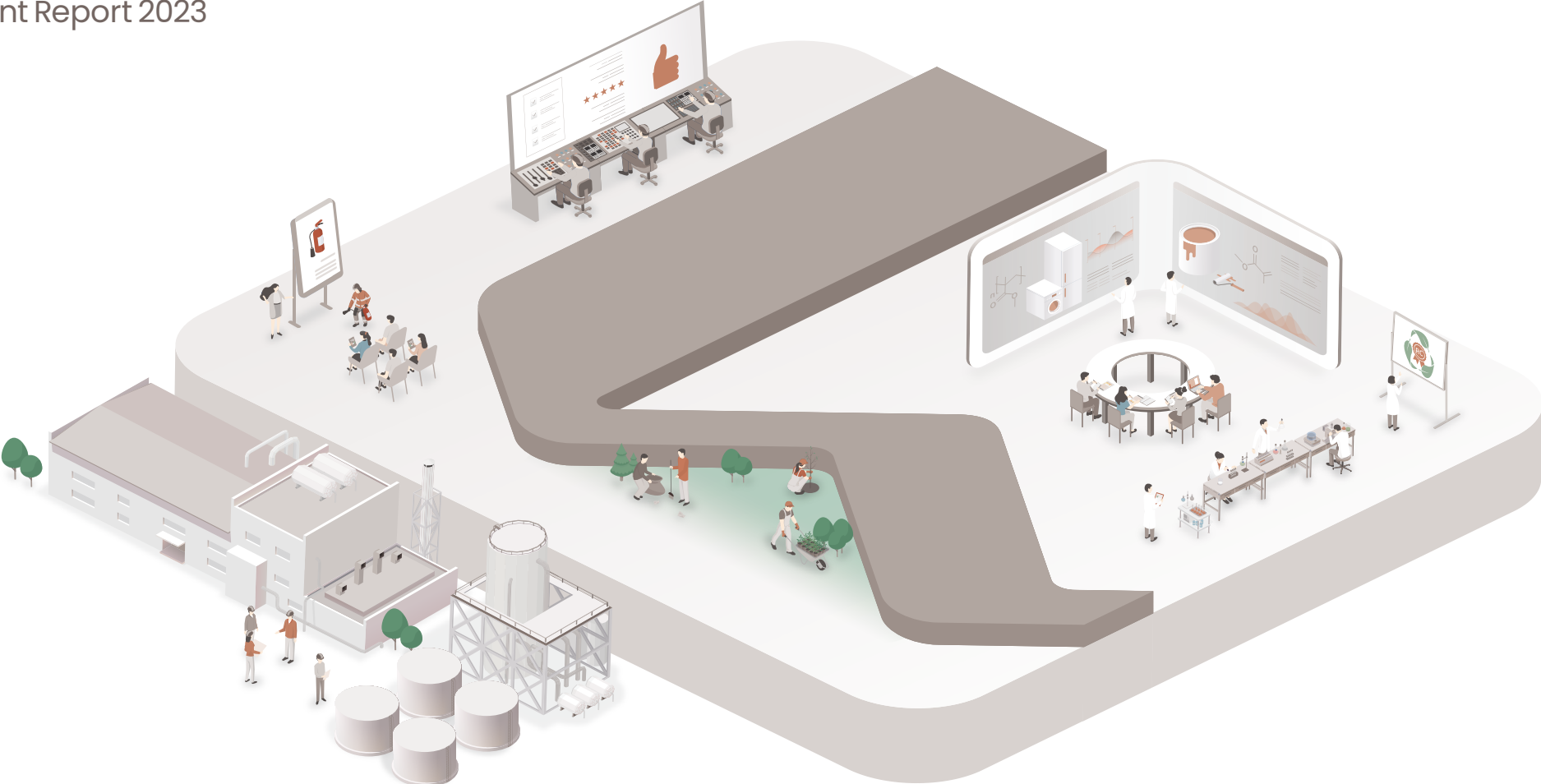


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LX MMA ESG Commitment Report 2023



ABOUT THIS REPORT

Overview

This is the first ESG report issued by LX MMA, and is provided to transparently disclose our sustainable management activities and performance outcomes. Through this report, we hope to shed light on the ESG management efforts underway at LX MMA and their key outcomes, and further reinforce communication.

Period and Scope

This report has been prepared based on our activities and performance outcomes from January 2022 to December 2022. Quantitative data from the past three years have been included to identify trends, and annotations are provided where necessary. The report covers the business sites of LX MMA in Korea; however, separate annotations are provided where required.

Inquiries

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 Telephone: +82-82-2-6930-3861 / +82-2-6930-3094
 Website: <https://www.lxmma.com/>



LX MMA published this report on its website to share and communicate with stakeholders about environmental, social, and governance-related activities and achievements.

CONTENTS

Overview

Letter from CEO	4
Company Overview	5
Our Business	10

Our ESG Approach

Our ESG Approach	22
Special Feature 1. Development of Sustainable Products	26
Special Feature 2. 2050 Net Zero	29
Special Feature 3. Strengthening of Global Competitiveness	30

ESG Management

Minimize Environmental Impact	32
Mutual Trust	39
All Together	46

Appendix

Financial Data	50
Communication Channels	51
Certifications/Awards/Association Memberships	51

INTERACTIVE PDF READER'S GUIDE

LX MMA ESG Commitment Report is published in the form of interactive PDF with the added functions of directing to relevant pages and associated web pages.

01

Overview



- 04 Letter from CEO
- 05 Company Overview
- 10 Our Business

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION
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<https://www.lxmma.com>

LETTER FROM CEO



We live in an age of unprecedented adversity and uncertainty. Despite the gradual recovery from the COVID-19 crisis, sudden changes in the Korean and overseas business environment, including economic slowdown around the world, the reshuffling of global supply chains and fluctuating oil prices, have posed substantial challenges. We appreciate our stakeholders, for the unwavering support and encouragement they have shown LX MMA in such difficult times.

An unprecedented recession is predicted in the future. However, just as LX MMA has achieved sustained growth since our founding, we will continue to turn crisis into opportunity through our competitive and differentiated capabilities. By focusing our competencies toward a thorough preparedness for the future, we are working to reinforce our competitive advantages and develop new future growth drivers.

Until now, sustainable management practices at LX MMA have been based on the LX management

philosophy of “Link to a sustainable future.” Our ESG Vision and Strategic System established in 2022 for the sustainable growth of both society and our business was an extension of these reports, and the first ESG Commitment Report on our ESG management efforts and outcomes in 2022 is now published.

First, we will bolster our competitiveness in existing business areas, and augment our competitive advantage through the aggressive development of new business.

In response to the anticipated rapid changes in the market environment, LX MMA will enforce the feasibility evaluation for ongoing future preparedness tasks and emphasize improvements in our R&D capacities. Innovation and growth will be our areas of focus in continually developing new businesses and markets based on proactive investments in R&D, which will establish our name as a market leader not only in Korea but on the global stage as well.

Second, we will become an environmentally friendly enterprise to realize sustainable progress.

Climate change is causing severe environmental problems around the world. Countries and businesses around the globe share a deep sense of responsibility for environmental conservation. LX MMA recognizes the importance of climate change issues, and is committed to sustainable progress. We have established the 2050 Net Zero Roadmap, and have become a member of the K-RE100 initiative. Through continued commitment to recycled PMMA development and streamlining of production, LX MMA will further internalize environmentally conscious management practices.

Third, we are committed to becoming a “Good Place to Work” based on an organizational culture of mutual respect and safety consciousness.

A “good place to work” is a company in which all members of the organization work happily to the best of their abilities. LX MMA’s organizational culture emphasizes close cooperation by being considerate of colleagues and loyal to the company. “Safety” is the key to ensuring the happiness of our employees, as well as their families. Accordingly, safety is our foremost and most closely managed objective.

LX MMA pledges to continue to proactively anticipate future changes, while heeding the opinions of all our valued stakeholders and providing customers with a competitive edge. We humbly ask for your continued interest and support of LX MMA, on our journey of steadfast growth into the future.

Thank you.

CEO Park, Jong-il

OVERVIEW

- Letter from CEO
 - Company Overview
 - Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



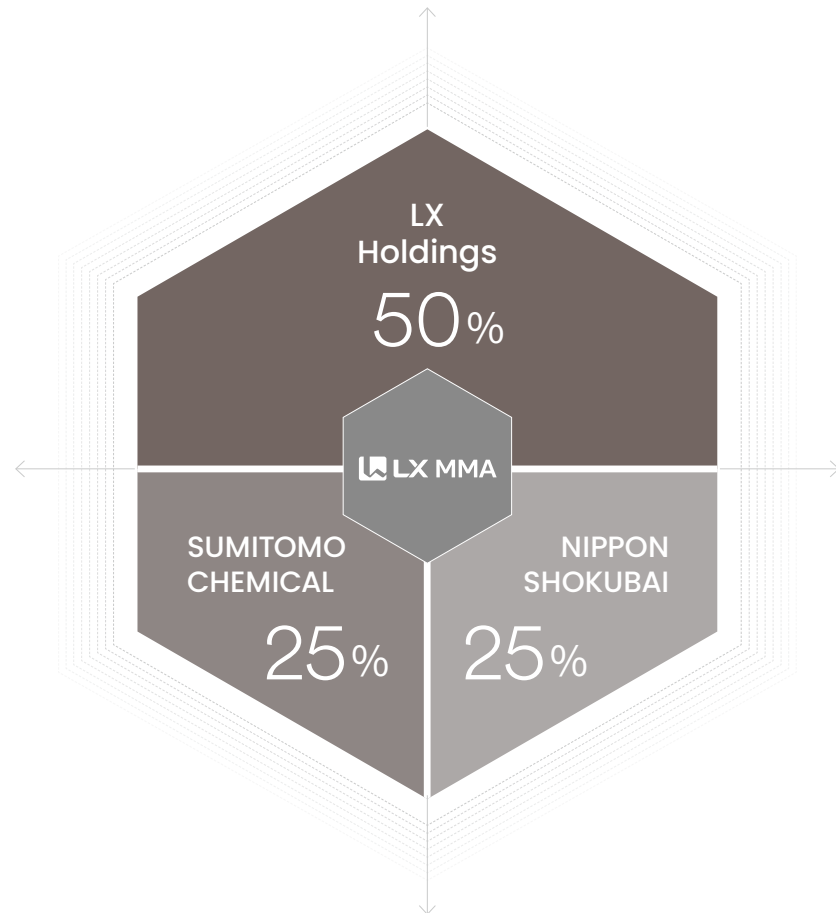
YOUR SOLUTION PARTNER

COMPANY OVERVIEW

About LX MMA

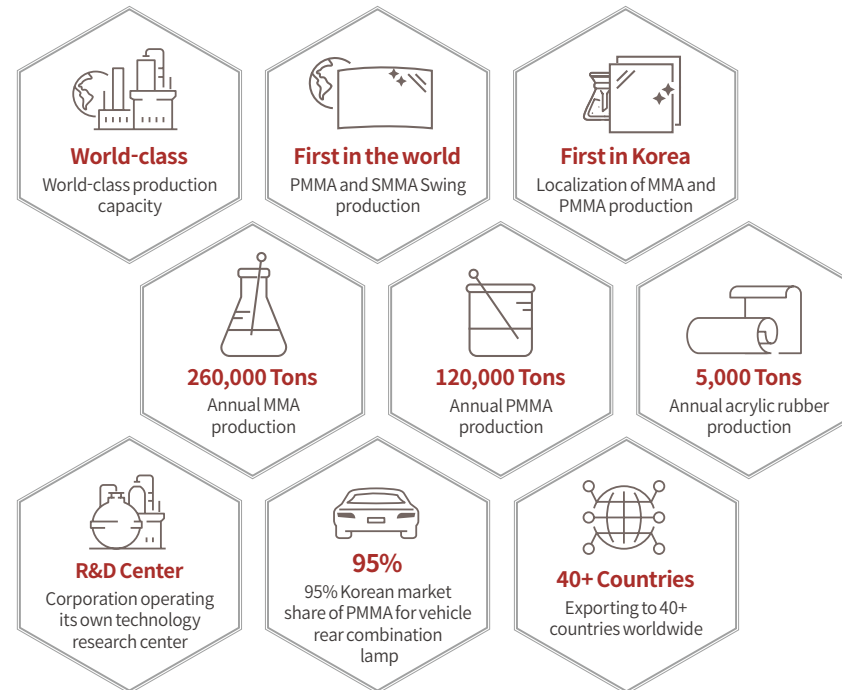
Company Overview

LX MMA was established in 1991 to localize the production of methyl methacrylate (MMA), an important material used across various industries, and whose supply in Korea was previously completely reliant on imports. The company has since helped stabilize the supply of MMA in Korea and improve the global competitive edge of Korean enterprises. Currently, LX MMA produces MMA, PMMA, MAA, BMA, etc.



(As of 2022)

Trade name	LX MMA Corporation	Founded	March 1991
CEO	Park, Jong-il	Number of employees	429
Address	Headquarters: 58, Yeosusandan 4-ro, Yeosu-si, Jeollanam-do, Korea Seoul Office: 98, Huam-ro, Jung-gu, Seoul, Korea Technology Research Institute: 188 Munji-ro, Yuseong-gu, Daejeon, Korea	Business category	Petrochemical product manufacturing



OVERVIEW

Letter from CEO

● Company Overview

Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

COMPANY OVERVIEW

About LX MMA

Key Business Sites in Korea

Seoul Office
98, Huam-ro, Jung-gu, Seoul
Tel: +82-2-6930-3800

Technology Research Center
188, Munji-ro, Yuseong-gu, Daejeon
Tel: +82-42-866-5828

PMMA Plant 1
55, Yeosusandan 2-ro, Yeosu-si, Jeollanam-do
Tel: +82-61-680-1721

PMMA Plant 2
497, Sandan Jungang-ro, Yeosu-si, Jeollanam-do
Tel: +82-61-805-3953

Ulsan (Future)

MMA Plant 1
58, Yeosusandan 4-ro, Yeosu-si, Jeollanam-do
Tel: +82-61-688-2600

MMA Plant 2
495, Sandan Jungang-ro, Yeosu-si, Jeollanam-do
Tel: +82-61-805-3932

MMA Plant 3
499, Sandan Jungang-ro, Yeosu-si, Jeollanam-do
Tel: +82-61-805-3813

Global Network

Overseas Office
Frankfurt, Germany
Tel: +49-152-2136-5501

• France • Germany • Italy • Spain • Türkiye

• USA • Brazil

• Russia • China • Japan • India • Vietnam • Taiwan • Singapore • Thailand • Indonesia

• Overseas Distributors

OVERVIEW

Letter from CEO

● **Company Overview**

Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



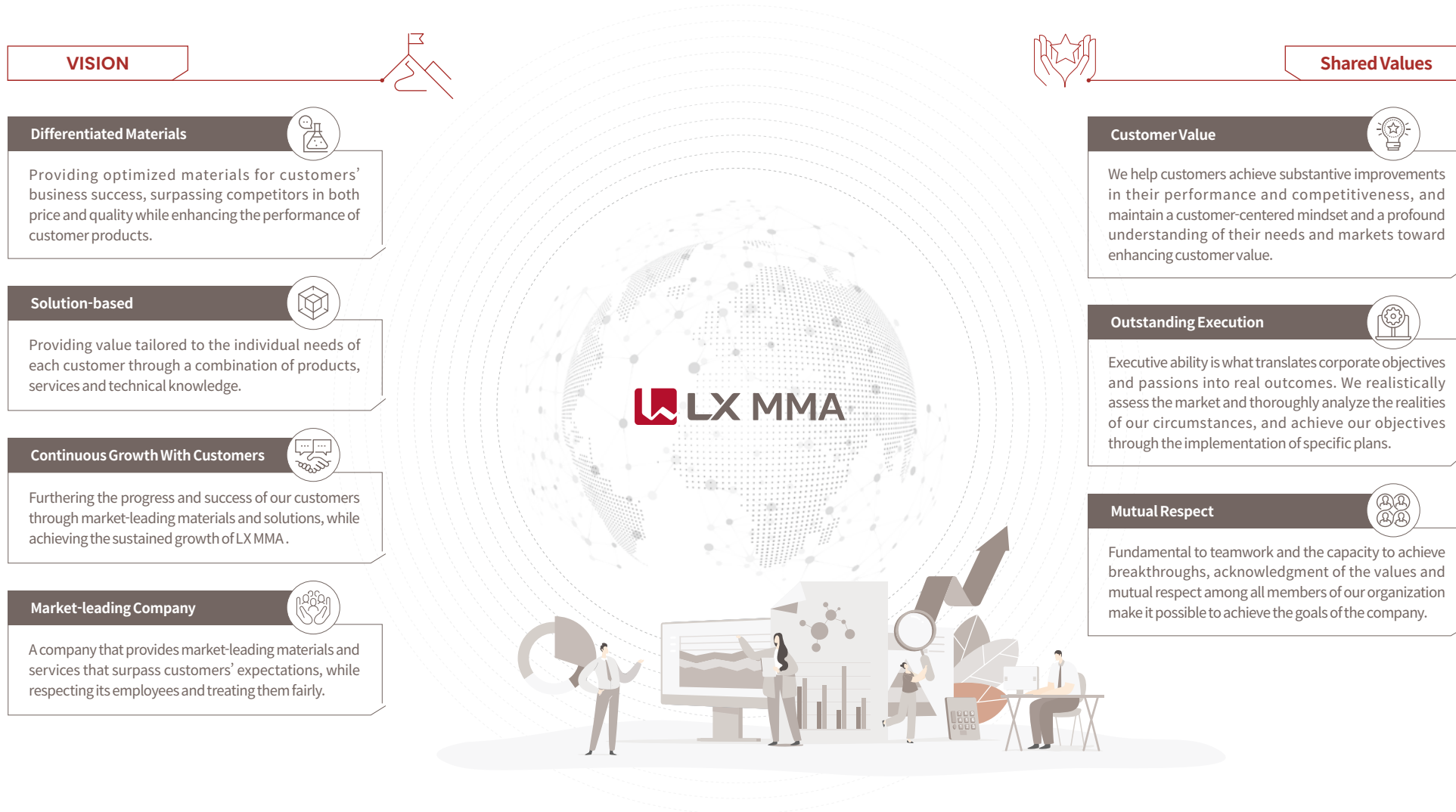
YOUR SOLUTION PARTNER

COMPANY OVERVIEW

About LX MMA

Vision and Shared Values

LX MMA aims to be a marketing-leading enterprise that pursues sustained growth with its customers by providing materials and solutions that are a class above the rest. Our mission is not only to provide products and technologies to customers, but to offer the best possible solutions that customers have ever dreamed of.



OVERVIEW

- Letter from CEO
- **Company Overview**
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

COMPANY OVERVIEW

About LX MMA

Business Areas

Monomer

MMA, MAA, and BMA are colorless and transparent liquids containing double bond and functional groups within their molecules. They are highly reactive and cause various chemical reactions such as polymerization and esterification. They are supplied as raw materials for various things such as acrylic resins, paints and coatings, and adhesives, and are contributing greatly to the development of related industries.



Polymer

A synthetic resin whose main ingredient is MMA monomer, PMMA is widely used as a part of material in automotive, optical, electrical and electronic products.



Business Sites

LX MMA operates major plants, a technology research center, and a Seoul Office in Korea. Our overseas network includes regions such as East Asia, Southwest Asia, Russia, the Americas, and Oceania and a branch office in Europe.

Business Site	Address
MMA Plant 1	58, Yeosusandan 4-ro, Yeosu-si, Jeollanam-do
MMA Plant 2	58, Yeosusandan 4-ro, Yeosu-si, Jeollanam-do
MMA Plant 3	499, Sandan Jungang-ro, Yeosu-si, Jeollanam-do
PMMA Plant 1	55, Yeosusandan 2-ro, Yeosu-si, Jeollanam-do
PMMA Plant 2	497, Sandan Jungang-ro, Yeosu-si, Jeollanam-do
R&D center	188 Munji-ro, Yuseong-gu, Daejeon
Seoul Office	98, Huam-ro, Jung-gu, Seoul, Korea



OVERVIEW

Letter from CEO

● Company Overview

Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

COMPANY OVERVIEW

Company History

1991 Lucky MMA Co., Ltd is founded as Korea's first MMA manufacturer



1994 Adopted comprehensive information system (logistics/production/finance)
1995 Trade name changed to LG MMA Co., Ltd. Acquired ISO 9002 certification
1996 Acquired ISO 14001 certification
1997 Received the Quality Management Award, National Quality Management Competition

2000 Named Best Safety Management Operator, Yecheon Industrial Complex
2001 Achieved USD 10 million in exports
2002 Achieved USD 30 million in exports
2003 Established MMA plant 2 and started production
 Received SIX SIGMA Innovation Award, National Quality Management Competition
 Acquired ISO/TS 16946 certification

2008 Established MMA plant 3 and started production
 Selected as an Excellent Enterprise for New Labor-Management Culture
2009 Received the Silver Tower Order of Industrial Service Merit, 2009 Trade Day
2011 Became FTA-approved exporter
2016 Commercial production of SMMA and BMA



1990~1999

1993 Established MMA plant 1 and started production



1998 Acquired first-rate enterprise certification in the safety management sector
 Received citation for achieving 5x zero-accident target
 Received Grand Prize on Safety Management Awards in Chemical Engineering Segment
1999 Acquired PMMA business from LG Chem
 Received the Gold Tower Order of Industrial Merit, National Quality Management Competition

2000~

2004 Received Innovation Award, Medium Business Sector, Korea Financial Management Awards
2005 Established PMMA plant 2 and started production



2007 Received the Iron Tower Order of Industrial Service Merit on Taxpayer's Day
 Achieved USD 100 million in exports

2019 Completed revamping of MMA Plant 3



2021 Trade name changed to LX MMA Corp.

OVERVIEW

- Letter from CEO
- **Company Overview**
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS

Key Product Groups



OVERVIEW

- Letter from CEO
- Company Overview
- **Our Business**

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

Monomer

The manufacturing process at LX MMA utilizes the isobutylene gaseous oxidation method (C4 direct oxidation). The isobutylene gaseous oxidation method is a state-of-the-art manufacturing method using C4 residual oil to create high-quality MMA without generating the pollutants as with conventional methods. Key products include MMA, MAA and BMA.

Monomer Production Capacity (Base Year: 2022)

Capacity	MMA	MAA	BMA
	260,000MT/year	50,000MT/year	30,000MT/year

Methyl Methacrylate (MMA)

MMA is used as a raw ingredient for countless chemical products such as acrylic resins, paints and coatings as well as adhesives, and textile sizing agents for outstanding Weather resistance.

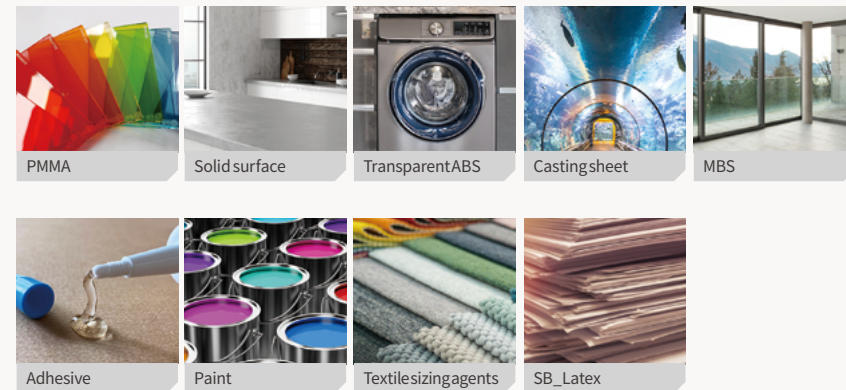
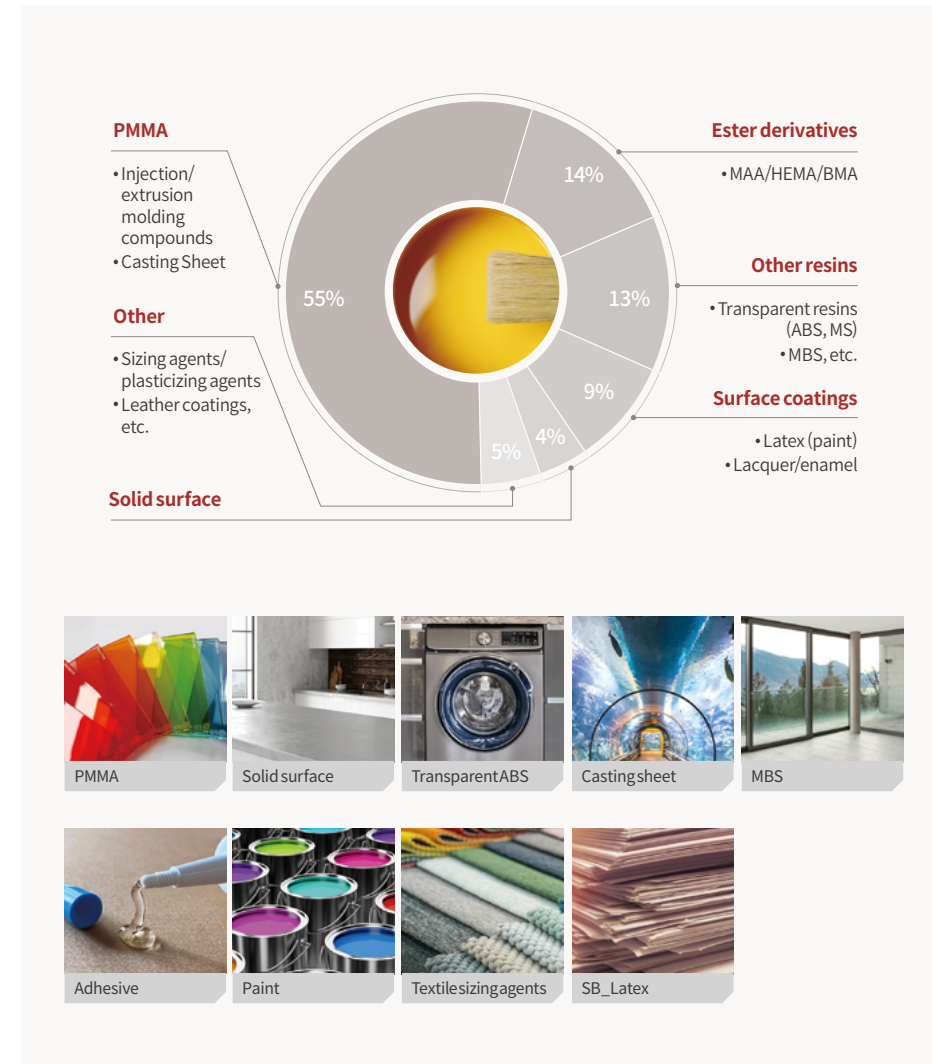
MMA Product Specifications

Item	Unit	Specifications*
Purity	wt%	99.8 Min.
Color (APHA)	-	5 Max.
Moisture	ppm	500 Max.
Free acid (MAA)	ppm	50 Max.
Polymerization inhibitor (Topanol-A)	ppm	5 ± 1

*Applied to all products of MMA, MAA, BMA



MMA Applications



OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

Methacrylic Acid (MAA)

MAA is a colorless and transparent liquid widely used in materials that are part of our daily lives, including NB-Latex, paints, cement plasticizers, textile sizing agents, and adhesives. For paint, one of the main areas in which MAA is applied, we supply MAA to 5 of the world's top 10 paint manufacturers, and supply MAA to all of the world's top 5 NB-Latex manufacturers.

Applications



n-Butyl Methacrylate & i-Butyl Methacrylate (BMA)

BMA is a colorless and transparent liquid that is widely used in paints and coatings, lubricants, paper processing agents, fiber treating agents, and more. We supply BMA to 5 of the world's top 10 paint manufacturers.

Applications



MAA Product Specifications

Item	Unit	Specifications
Purity	wt%	99.5 Min.
Color (APHA)	-	20 Max.
Moisture	ppm	500 Max.
Polymerization inhibitor (MEHQ)	ppm	200 ± 20

BMA Product Specifications

Item	Unit	Specifications	
		n-BMA	i-BMA
Purity	wt%	99.6 Min.	99.0 Min.
Color (APHA)	-	5 Max.	10 Max.
Moisture	ppm	500 Max.	500 Max.
Free acid (as MAA)	ppm	50 Max.	50 Max.
Polymerization inhibitor (MEHQ)	ppm	15 ± 2	10 ± 2

OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



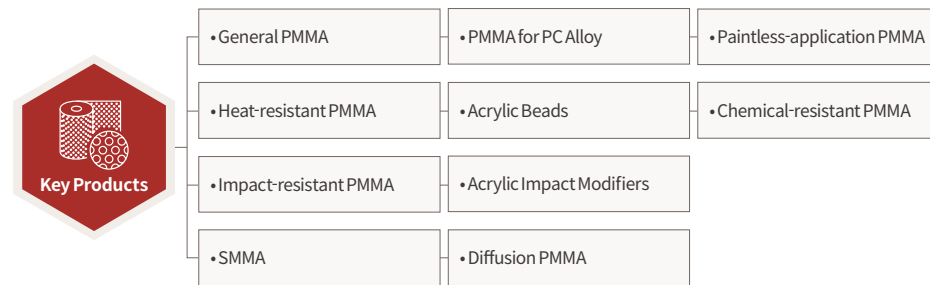
YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

Polymer - CRYSTALUX®

PMMA has the excellent transparency and weather resistance among all plastics, and is known for its excellent scratch resistance due to its high surface hardness. LX MMA manufactures PMMA through stringently managed and innovative processes in compliance with the related standards, and our PMMA is used across a variety of products depending on the characteristics.



Polymer Production Capacity

(As of 2022)

Capacity	PMMA	Impact Modifiers
	120,000MT/year	5,000MT/year

Specifications

Item	Details
Flame Retardancy	UL 94 (HB)
Weather Resistance	AMECA
Hazardous Substances	RoHS (Directive 2002/95/EC) IMDS / REACH
FDA	US FDA regulation / 21CFR177.1010

Paintless-application PMMA

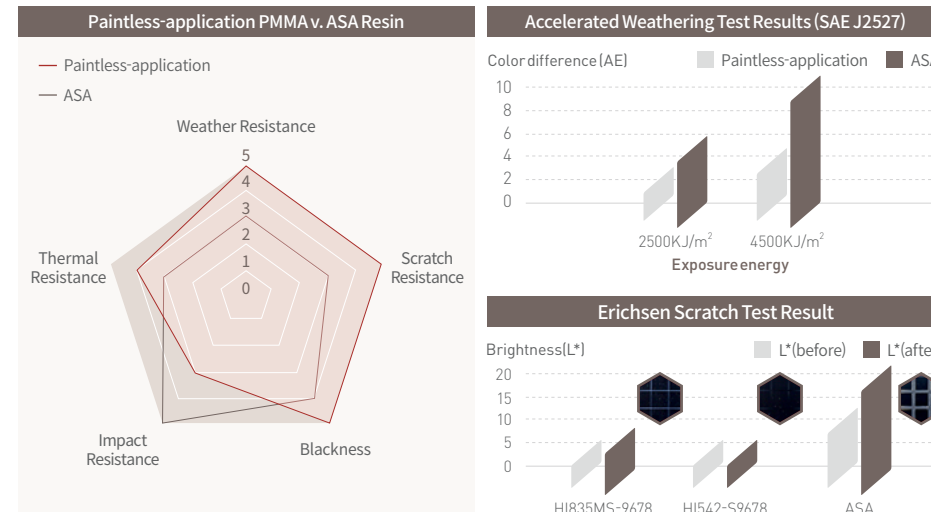
LX MMA PMMA is an active alternative as a superb cost-saving and eco-friendly material usable in final parts without going through the conventional painting process, with outstanding weather resistance, color strength, and surface scratch resistance. Our PMMA has been officially approved and is being used by global automotive OEMs (Hyundai/Kia, Renault), a testament to its reliability.

Applications



Characteristic

Paintless-application PMMA has superb blackness, weather resistance and scratch resistance compared to other materials.



OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS



Product Information

Impact-resistant PMMA

In applications that require durability when breakages may occur due to external impacts during the course of processing, it is necessary to improve the impact strength. As low impact strength, a disadvantage of general PMMA, needs to be overcome for these applications, LX MMA's transparent impact-resistant PMMA uses an acrylic impact modifier to improve its impact resistance while ensuring the weather resistance does not deteriorate. It is applied to areas where greater impact strength is required, such as the exteriors of home appliances, mobile phone screens, various sheets for buildings, and lighting profiles.

Applications



Washing Machine's Front Door



Replace Smartphone Front Glass



TV bezel

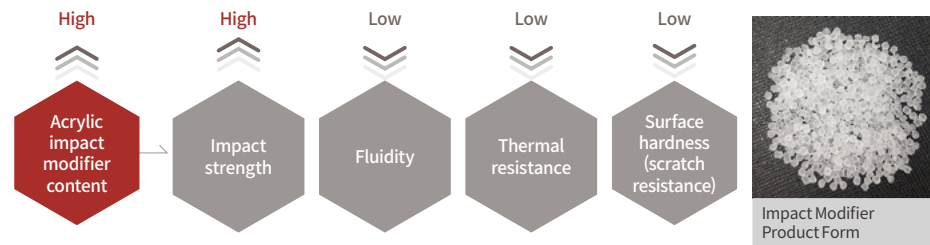


Smartphone's Back Cover

Acrylic Impact Modifier

Impact modifiers have outstanding weathering resistance and are specially engineered to have the same refractive index as PMMA. Acrylic impact modifiers can be compounded with PMMA to improve impact strength while preserving their high transparency and weather resistance.

Variation in Key Material Properties Depending on Impact Modifier Content

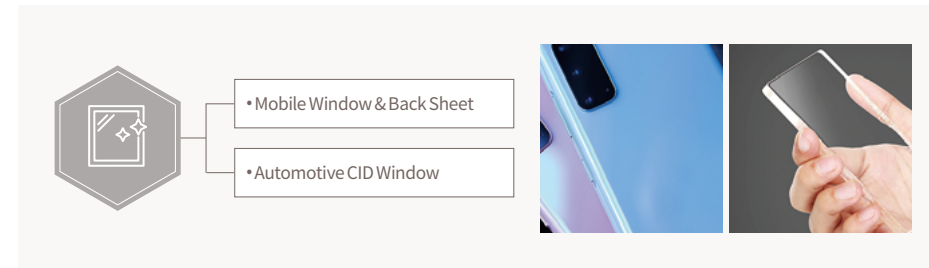


PMMA for Exterior

Glass Look Sheet

PMMA surpasses all other plastics in terms of transparency, surface hardness and scratch resistance, and is suitable for applications in which it is a substitute for glass. Its excellent UV ray blocking performance makes PMMA suitable for a range of functional products.

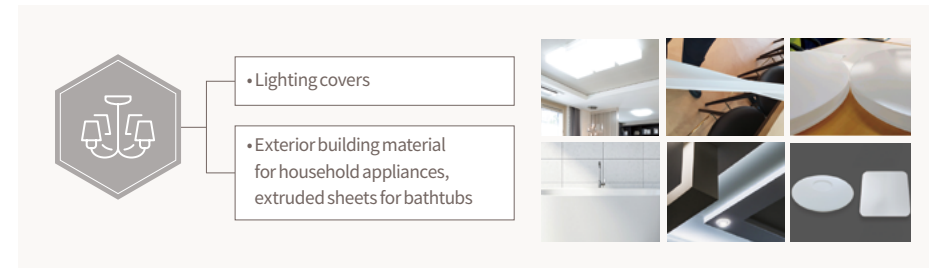
Applications



Matt Frost & SuperMatt

Frost PMMA and Supermatte PMMA use cross-linked acrylic microparticles that provide a sophisticated design with a matte texture and low gloss.

Applications



OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

Functional Resin

Coating Bead

LX MMA uses a variety of unique polymerization technologies to manufacture numerous acrylic resins for coatings. Molecular weight, Tg, and acid values can be adjusted according to customer requirements. Coating beads exhibit outstanding weather resistance and durability, excellent transparency and glossiness, good color expression, and solubility in a variety of solvents, making them appropriate for numerous uses.

Applications

- Road marking
- Concrete coating
- Steel coating
- Heavy duty coating
- Plastic coating
- Surface coating
- Wood coating

Coating Bead Characteristics

- Superb weather resistance and durability
- Excellent transparency and gloss
- Superior color expression
- Solubility in various solvents

Appearance: Solid, Bead polymer (Average Particle Size: 200~300µm)

PMMA for Film

PVC/PMMA Decorative Film

A material that is suitable for various exterior film applications due to its particularly outstanding transparency, rigidity and weather resistance, with no whitening even in parts that are bent.

Applications

- External decorative films for buildings
- Retroreflective films for roads
- Interior films for automobiles

PET/PMMA Multilayer Film

Its dichroic properties (reflecting certain wavelengths of light and transmitting others) allow for its use as a Rainbow Film that blocks visible light, and as heat insulation film that blocks infrared light.

Applications

- Rainbow Film: Building interiors, packaging materials, PVC and paper lamination, mobile phone back covers, and fashion materials.
- Heat insulation film: Automobiles and building windows.

OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

PMMA Application

Automotive

PMMA is typically used for rear combination lamp in the automotive sector, due to its outstanding weather resistance, color strength, scratch resistance, transparency and gloss. Paintless-application PMMA can be used as an external component without the conventional painting process, and is usually used as an exterior building material (Pillars, Side Mirrors and Others).

Applications



- 1 Registration Plate Cover
- 2 Emblem
- 3 Center High Mounted Stop Lamp
- 4 Interior Door & Map Lamp
- 5 Rear Combination Lamp
- 6 Cluster Cover Window
- 7 Car Audio Window
- 8 Pillar garnish
- 9 Side Mirror Repeat Lamp
- 10 Head Lamp Light Guide Pipe & Aspherical Lens

Grade Line-up

Optical (Transparent)		General	IH830, IH830C	• Lighting (AMECA Certified)
		High Flow	IH830A, IH830HF	
		Impact Strength	HI835MS	
		LED Aspherical Lens	IH830L	
		Thermal Resistance	IH830XT, IH830HT	
		Chemical Resistance	IH830CA, IH830SR	
High Gloss (Opaque) PMMA		General	IH830-9678 IH830HF-9678	• Pillar • Spoiler Garnish
		High Impact	HI835MS-9678 HI542-S9678	
High Gloss (Opaque) PMMA/ASA		High Impact Strength	HI753-S9678	• Radiator Grille • Pillar • Spoiler Garnish
			HI781-S9678	

Products Formally Registered With AMECA*



Plastics for optical lenses and optical lenses and reflex reflectors



Diffusing plastic

* Automotive Manufacturers Equipment Compliance Agency, Inc.

OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

Architectural Decoration Material

Exterior



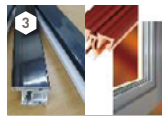
Canopy
Clearance,
Good weather resistance



Facade
Good weather resistance,
Anti-whitening surface



Roof Tile
High gloss, Low gloss, Good weather
resistance, Easy coloring



Window Frame
High gloss, Low gloss, Good weather
resistance, Easy coloring



Roof Spout
High gloss, Good weather resistance

Interior



Solid Surface
Good durability,
Processability



Furniture Sheet, Edge Band
Clearance, High surface
hardness, High gloss,
High impact



Bathtub and Sanitary basin
Good chemical resistance,
High surface hardness,
High gloss, Low gloss,
Mattsurface



Lighting Fixture
High transmittance
& haze

Optical/ Extrusion PMMA

- 1 Scratch resistance
- 2 High Transparency
- 3 Thermal resistance

Supermatt PMMA

- 1 Non-gloss surface
- 2 Scratch resistance
- 3 Slip prevention
- 4 Eggshell texture

PMMA for Whitening-free Film

- 1 Whitening-free
- 2 Excellent weather resistance
- 3 Outstanding optical characteristics

ID, LF Series

- 1 Maximize the Efficiency of Lighting Fixture
- 2 Optical Stability
- 3 Light Diffusivity
- 4 Weather resistance

Impact-Resistant PMMA

- 1 High transparency
- 2 Impact resistance
- 3 Scratch resistance
- 4 Chemical resistance (detergent resistance)

PMMA for Dichroic Film

- 1 PET/PMMA multi-layer stretching film processability
- 2 Scratch resistance
- 3 Optical Properties

Co-Extrusion (Capstock) PMMA

- 1 High impact
- 2 Weather resistance
- 3 Co-extrusion processability

UV-Blocking PMMA

- 1 Outstanding impact resistance
- 2 Scratch resistance
- 3 Weather resistance
- 4 UV blocking

Adhesion-Improved PMMA

- 1 High transparency
- 2 Impact resistance
- 3 Scratch resistance
- 4 Hard coating Adhesion

PMMA for Film

- 1 Outstanding optical characteristics
- 2 Impact resistance
- 3 Weather resistance
- 4 Elongation property

OVERVIEW

- Letter from CEO
- Company Overview
- Our Business

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



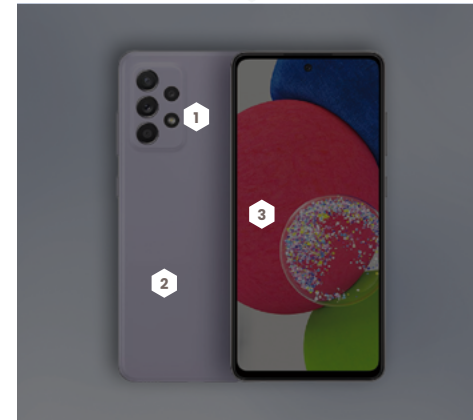
YOUR SOLUTION PARTNER

OUR BUSINESS

Product Information

Applications

Home Appliances



- 1 Light Guide Plate/LED Chip Lens
- 2 TV Back Cover
- 3 TV Bezel

- 1 Washing Machine Door
- 2 Washing Machine Display Cover
- 3 Washing Machine Front Sheet

- 1 Light Guide, Cover
- 2 Front Supermatt Sheet
- 3 Front Glass Look Sheet

- 1 Flash Lens
- 2 Glass Look Sheet
- 3 Front Window

Optical/ extrusion PMMA	<ul style="list-style-type: none"> • Scratch resistance • Outstanding optical characteristics • High thermal resistance
Optical Injection PMMA	<ul style="list-style-type: none"> • Scratch resistance • High Transparency • High fluidity
Impact-resistant PMMA	<ul style="list-style-type: none"> • Impact resistance • Scratch resistance

Impact-resistant PMMA	<ul style="list-style-type: none"> • High transparency • Impact resistance • Scratch resistance • Chemical resistance(detergent resistance)
Injection PMMA	<ul style="list-style-type: none"> • High transparency, scratch resistance • Weather resistance and clear light transmittance
Supermatt PMMA	<ul style="list-style-type: none"> • Differentiated design • Eco-friendly material without coating • Co-extrusion processability and weather resistance

ID Series	<ul style="list-style-type: none"> • Optical stability • Light diffusion property • Weather resistance
Supermatt and metallic PMMA	<ul style="list-style-type: none"> • Differentiated design • Eco-friendly material without coating • Overcoming the brittleness and heavy disadvantages of glass • Weather resistance

Optical/ injection PMMA	<ul style="list-style-type: none"> • High transparency • Scratch resistance • Weather resistance
Impact-resistant PMMA	<ul style="list-style-type: none"> • Scratch resistance • Impact resistance • High Transparency
PC Alloy PMMA	<ul style="list-style-type: none"> • Compatibility with PC (transparent) • Improve Surface Hardness of PC
UV-Blocking PMMA	<ul style="list-style-type: none"> • Impact resistance • Scratch resistance • Weather resistance • UV blocking

OVERVIEW

- Letter from CEO
- Company Overview
- **Our Business**

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



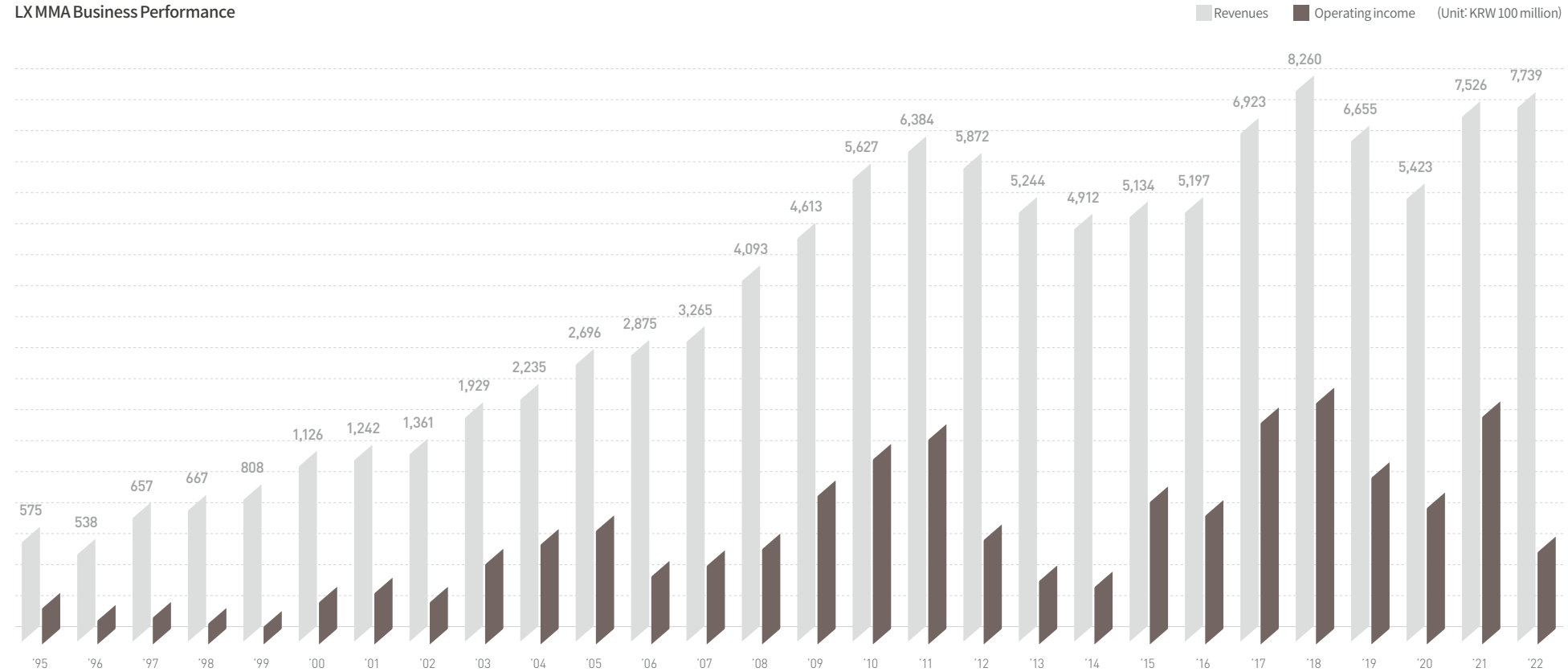
YOUR SOLUTION PARTNER

<https://www.lxmma.com>

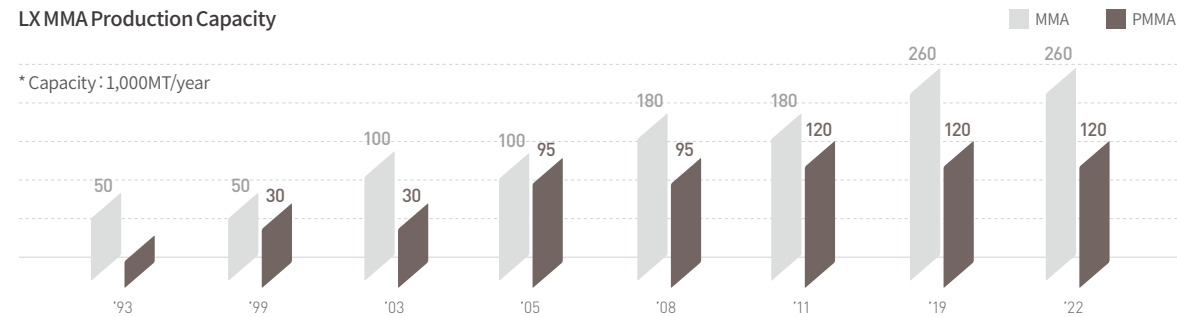
OUR BUSINESS

Business Performance

LX MMA Business Performance



LX MMA Production Capacity



* Capacity : 1,000MT/year



OVERVIEW

- Letter from CEO
- Company Overview
- **Our Business**

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

02

Our ESG Approach



- 21 Our ESG Approach
- 25 Special Feature 1. Development of Sustainable Products
- 28 Special Feature 2. 2050 Net Zero
- 29 Special Feature 3. Strengthening of Global Competitiveness

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

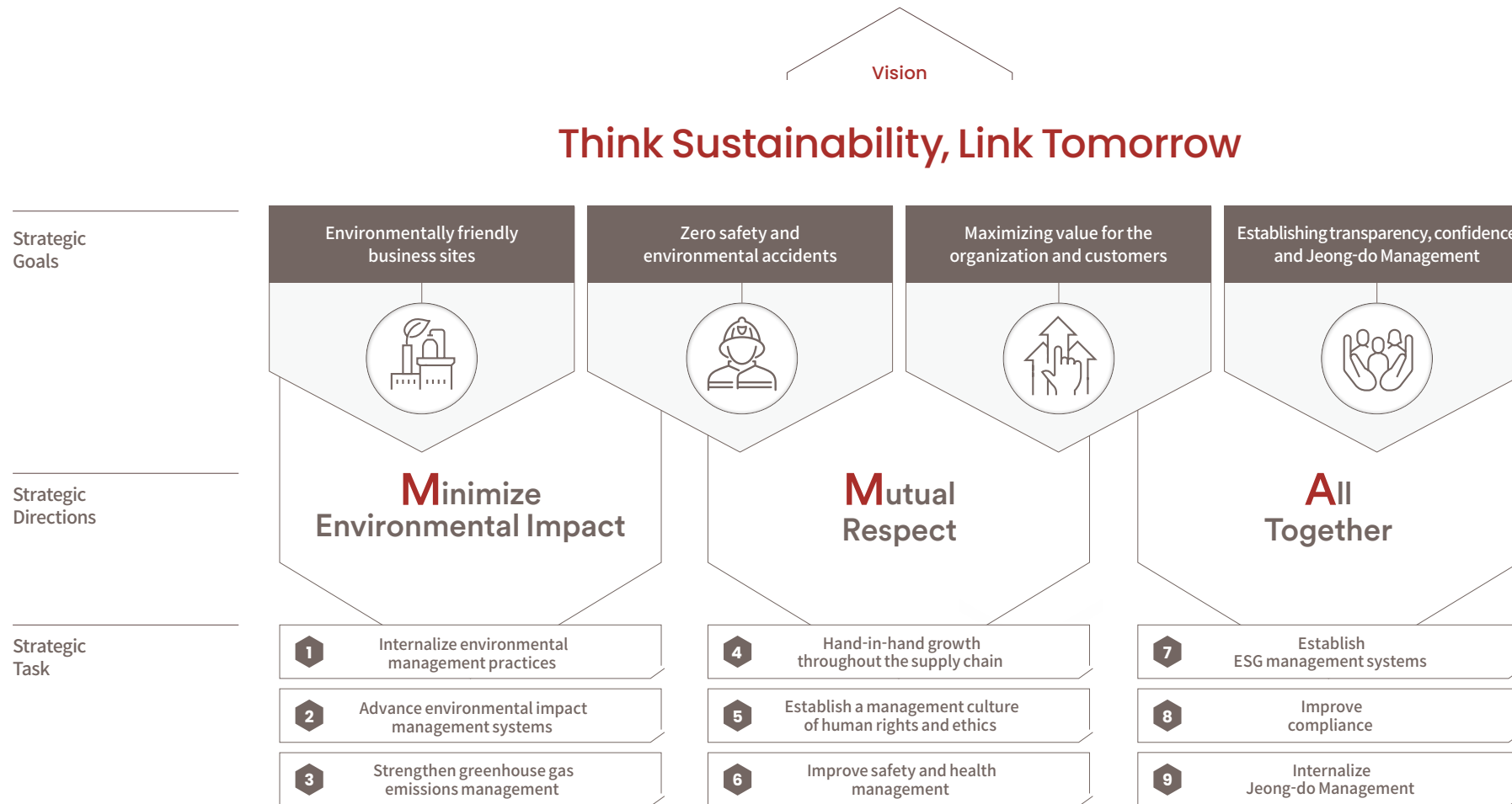
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OUR ESG APPROACH

ESG Management System

ESG Strategy System

LX MMA has established an ESG Vision of “Think Sustainability, Link Tomorrow” based on the “Link to Sustainable Future” management philosophy of the LX Group. Our ESG vision is a statement of LX MMA’s commitment to a better future through sustainable management. We are serious about being a responsible enterprise conscious of the environment and society, through our four Strategic Goals: “Environmentally friendly business sites,” “Zero safety and environmental accidents,” “Maximizing value for the organization and customers” and “Establishing transparency, confidence and Jeong-do Management.”



OVERVIEW

OUR ESG APPROACH

- **Our ESG Approach**
 - Special Feature 1. Development of Sustainable Products
 - Special Feature 2. 2050 Net Zero
 - Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



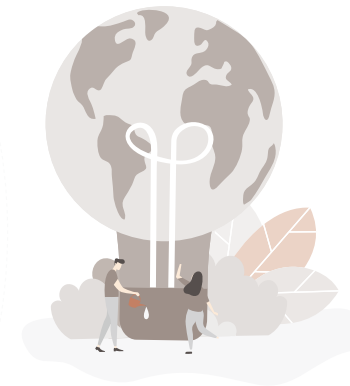
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OUR ESG APPROACH

UN SDGs Commitment

UN SDGs Activities

LX MMA deeply identifies with the UN Sustainable Development Goals (SDGs), and is engaged in a host of voluntary activities to contribute toward accomplishing these goals. The UN SDGs are common goals set for humanity, to be achieved by the international community by 2030. The SDGs are comprised of 17 main goals and 169 sub-targets. LX MMA is serious about contributing to sustainable development. We plan to continually increase our use of renewable energy and achieve net neutrality (net zero) by 2050.



3 GOOD HEALTH AND WELL-BEING

Goal 3. Good health and well-being

- Make the workplace safe
- Operate systems and programs for occupational safety and health of employees

8 DECENT WORK AND ECONOMIC GROWTH

Goal 8. Decent work and economic growth

- Continuously achieve high levels of economic productivity through innovation
- Hire and retain talent, and provide support for capacity-building

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Goal 12. Responsible consumption and production

- Life Cycle Assessment (LCA) based product development and environmental impact management

7 AFFORDABLE AND CLEAN ENERGY

Goal 7. Affordable and clean energy

- Improve energy efficiency and expand renewable energy
- Reduce energy use

13 CLIMATE ACTION

Goal 13. Climate action

- Establish 2050 Net Zero Roadmap
- Increase action to reduce greenhouse gas emissions

OVERVIEW

OUR ESG APPROACH

- **Our ESG Approach**
 - Special Feature 1. Development of Sustainable Products
 - Special Feature 2. 2050 Net Zero
 - Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

OUR ESG APPROACH

Materiality Assessment

Materiality Assessment Process

ESG issues at LX MMA are subject to materiality assessment to ensure that issues are managed systematically and an effective management strategy is established. In keeping with the spread and advancement of a sustainable management culture, LX MMA has adopted ESG management practices throughout our business. To this end, we have employed a double materiality assessment methodology that gives consideration to external factors affecting corporate finances and the impact of our business activities on society and the environment. Issues scoring the highest in our double materiality assessment are established as core issues, and our activities and outcomes relating to these core issues are disclosed transparently.

Materiality Assessment Process

1 Identifying ESG issues

Based on Korean and global ESG initiatives and evaluation metrics and requirements under global guidelines, and reflecting applicable industry-specific standards and the results of industry-wide benchmarking and media analysis, we have identified 22 issues in three areas.

Analysis of ESG performance indicators and trends, Industry-wide benchmarking and media to form a pool of

A total of 22 environmental, social and governance issues



2 Assessment of Materiality

For a more in-depth analysis of the ESG issues associated with LX MMA business activities, a double materiality assessment methodology was established in 2022. This comprehensive methodology takes into consideration the internal diagnostics, trend analyses, media analyses, benchmarking results, and questionnaire surveys.

Financial Materiality

- Internal analysis of ESG management at LX MMA
- Analysis of ESG megatrends
- ESG disclosure initiatives and evaluations (SASB, TCFD, KCGS, K-ESG)
- Stakeholder questionnaire surveys



Impact Materiality

- Industry benchmarking
- Media analysis
- ESG global guidelines and initiatives (GRI Standards, UNGC, UN SDGs)
- Stakeholder questionnaire surveys

3 Selection of Key issues

Through analysis that addresses financial, environmental and social impacts, material Issues which require a priority response in ESG management practices at LX MMA were identified and selected.

Selection of 10 material issues



OVERVIEW

OUR ESG APPROACH

- **Our ESG Approach**
 - Special Feature 1. Development of Sustainable Products
 - Special Feature 2. 2050 Net Zero
 - Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

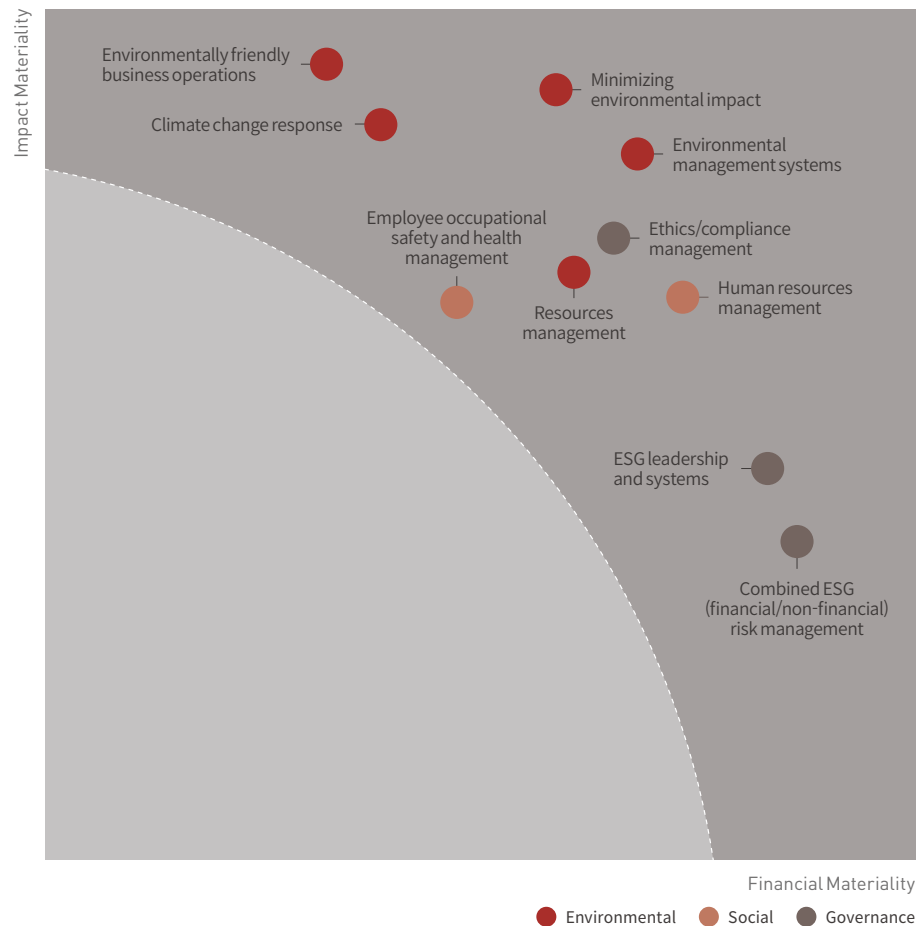
OUR ESG APPROACH

Materiality Assessment

Materiality Assessment Results

The present report covers ESG management activities and outcomes at LX MMA, centering on the 10 core issues identified and selected through the materiality assessment. LX MMA will continue to manage all pertinent issues based on their financial and impact materiality.

LX MMA Materiality Assessment Results



Main Core Issues

Core Issue	Page of Report
Minimizing environmental impact	p35
Environmental management systems	p32-34
Environmentally friendly business operations	p26-28
Ethics/compliance management	p46,47
Climate change response	p29,38
Human resources management	p42,43
Resources management	p36,37
Combined ESG (financial/non-financial) risk management	p48
Employee occupational safety and health management	p39-41
ESG leadership and systems	p22



OVERVIEW

OUR ESG APPROACH

- **Our ESG Approach**
 - Special Feature 1. Development of Sustainable Products
 - Special Feature 2. 2050 Net Zero
 - Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



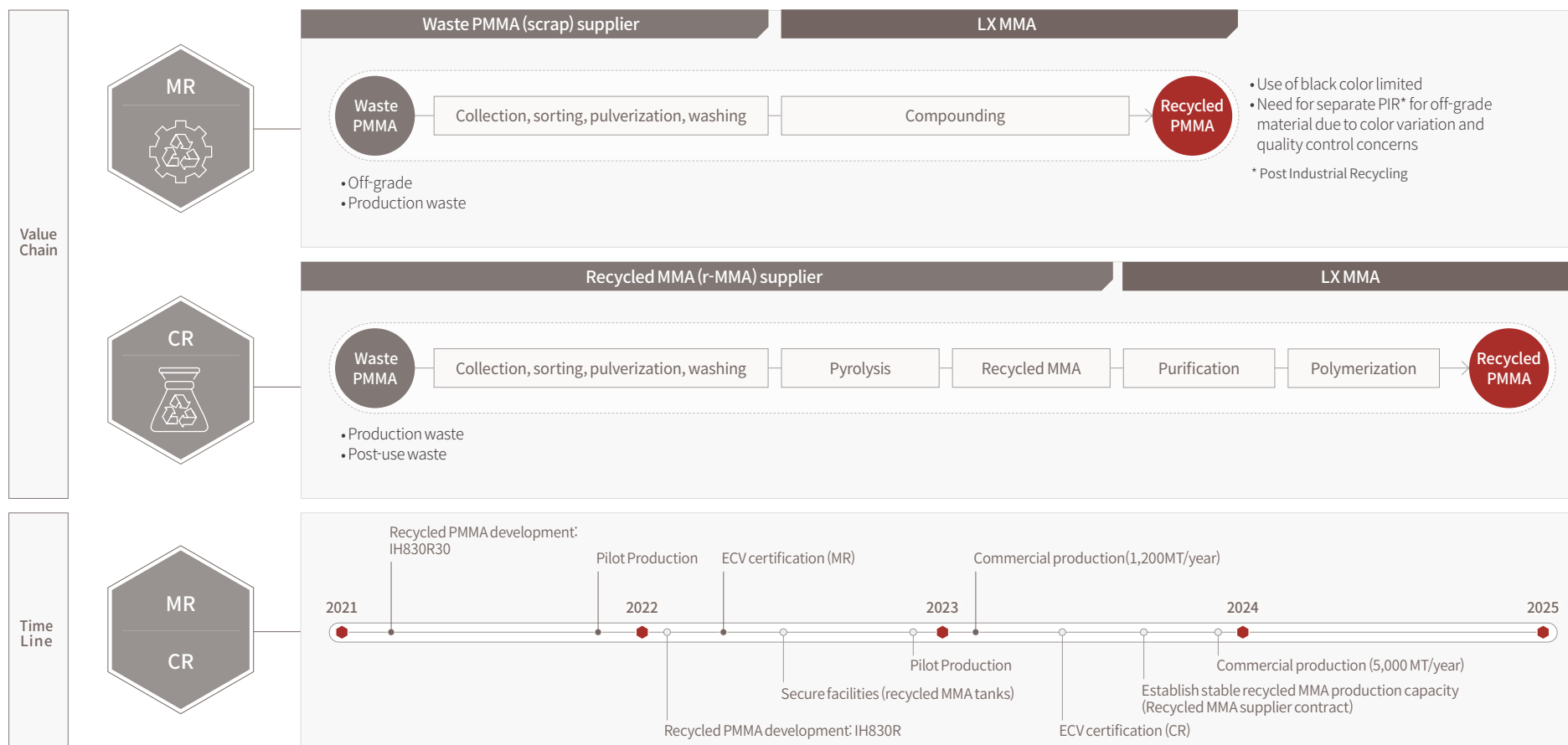
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Special Feature 1. Development of Sustainable Products

Recycled MMA/PMMA

The LX MMA ESG ecosystem will be built upon our r-MMA/PMMA recycling business model. Ongoing efforts are focusing on securing stable recycled MMA production capacity, with the aim of commencing commercial production in 2023.

Recycled MMA/PMMA Value Chain and Development Plans



※ MR: Mechanical Recycle, CR: Chemical Recycle

OVERVIEW

OUR ESG APPROACH

Our ESG Approach

● **Special Feature 1. Development of Sustainable Products**

Special Feature 2. 2050 Net Zero

Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

Special Feature 1. Development of Sustainable Products

Sustainable Products

LX MMA strives to develop sustainable products that consider customer convenience, social value and environmental impact.



Sustainability and Eco friendly

LX MMA has successfully developed PMMA products for paintless applications. These products take advantage of the excellent material properties of PMMA, such as its high surface strength and weathering resistance, to allow for use as-is without the need for painting. No coating process means that paintless-application PMMA is eco-friendly, helps save maintenance/management costs, and is recyclable.

We are serious about reducing our environmental impact and minimizing waste, and continue to explore various ways of using packaging containing recycled materials.



Eco-friendly Materials

PMMA Recycle



Health and Hygiene

COVID-19 has increased the social interest in health and hygiene, which has brought about an increased need for deodorizing/anti-bacterial/disinfectant functionalities.

LX MMA's antibacterial PMMA is resistant to E. Coli and Staphylococcus, making it ideal for touch panels and partitions that come into frequent contact with the body.

Unlike other plastic resins, PMMA is transmissive to UV-C light and can be used in home appliances with a disinfecting functionality.



Energy Shift

PMMA was conventionally used in automotive rear combination lamp covers and instrument panels.

With the growth of the EV sector and the need for lighter, more power-efficient mobility, PMMA is expanding its area of use into interior/exterior building materials and front grilles, as well as side mirror covers.

PMMA is around 50% lighter relative to glass, and is increasingly being used as a glass substitute transparent material.



OVERVIEW

OUR ESG APPROACH

Our ESG Approach

● **Special Feature 1. Development of Sustainable Products**

Special Feature 2. 2050 Net Zero

Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

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Special Feature 1. Development of Sustainable Products

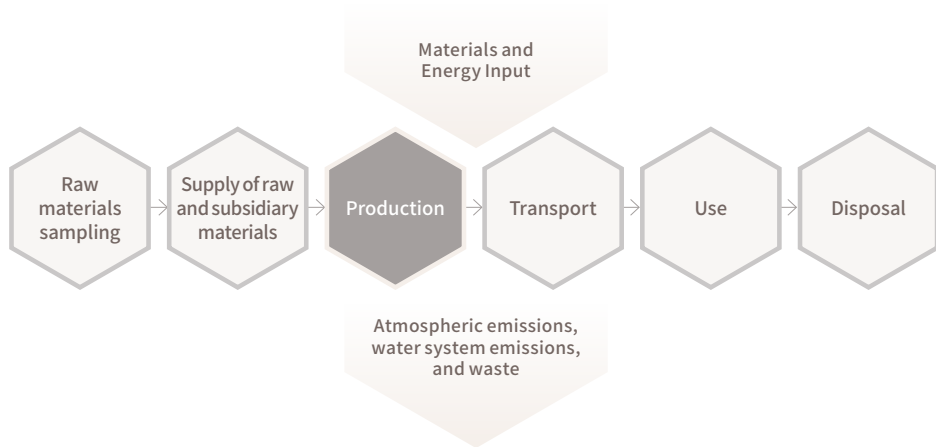
LCA

Life Cycle Assessment(LCA)

LCA is a method of assessing the environmental impact of all industrial activities, including products, manufacturing processes and services. Starting with resolving the problem of solid waste in 1988, the LCA technique has become a valuable tool in analyzing environmental issues.

The International Standards Organization (ISO) has established the standardized processes subject to LCA as well as LCA considerations and requirements under ISO14040, and the standard is now being widely used for qualitative assessment of environmental impact.

LCA Concept



LCA-based Product Impact Assessment

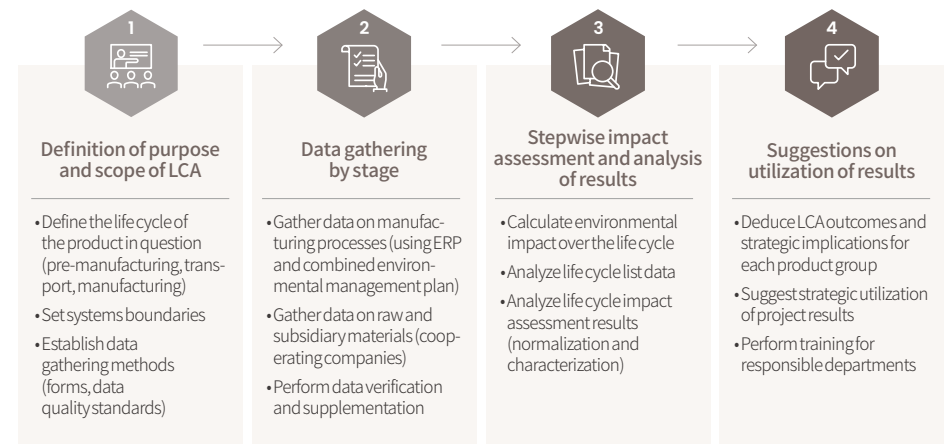
LX MMA employs global standard LCA techniques to accurately analyze and manage our environmental impact across the entire product life cycle. Through LCA, we provide customers and stakeholders with quantitative environmental data at each stage of the product life cycle, for all our products including MAA, MMA, BMA and PMMA.

At LX MMA, LCA is conducted in four steps. In Step 1, the boundaries of the products and systems subject to LCA are determined, and data gathering methods are established. Step 2 involves the gathering of data on resource and energy inputs throughout the life cycle of the products in question, as well as data on emissions. Step 3 is a life cycle impact analysis determining the environmental impact of the product inputs and outputs quantified in Step 2. Step 4 is an analysis of the entire product life cycle.

Our LCA results identify the points for product improvement from an environmental perspective and allow us to establish improvement strategies to make our products more competitive and better meet market and customer requirements. When customers and stakeholders request environmental information, we are able to promptly deliver the information they need through our LCA system, increasing the level of reliability and confidence in our products. LCA results are also used in external agency certifications.

As an environmentally responsible enterprise, we will continue to practice LCA for the transparent disclosure of the environmental impact of our products and the ongoing reduction of adverse effects, while maintaining outstanding communication with our stakeholders and improving the sustainability and competitiveness of our products.

LCA Steps



OVERVIEW

OUR ESG APPROACH

Our ESG Approach

● **Special Feature 1. Development of Sustainable Products**

Special Feature 2. 2050 Net Zero

Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



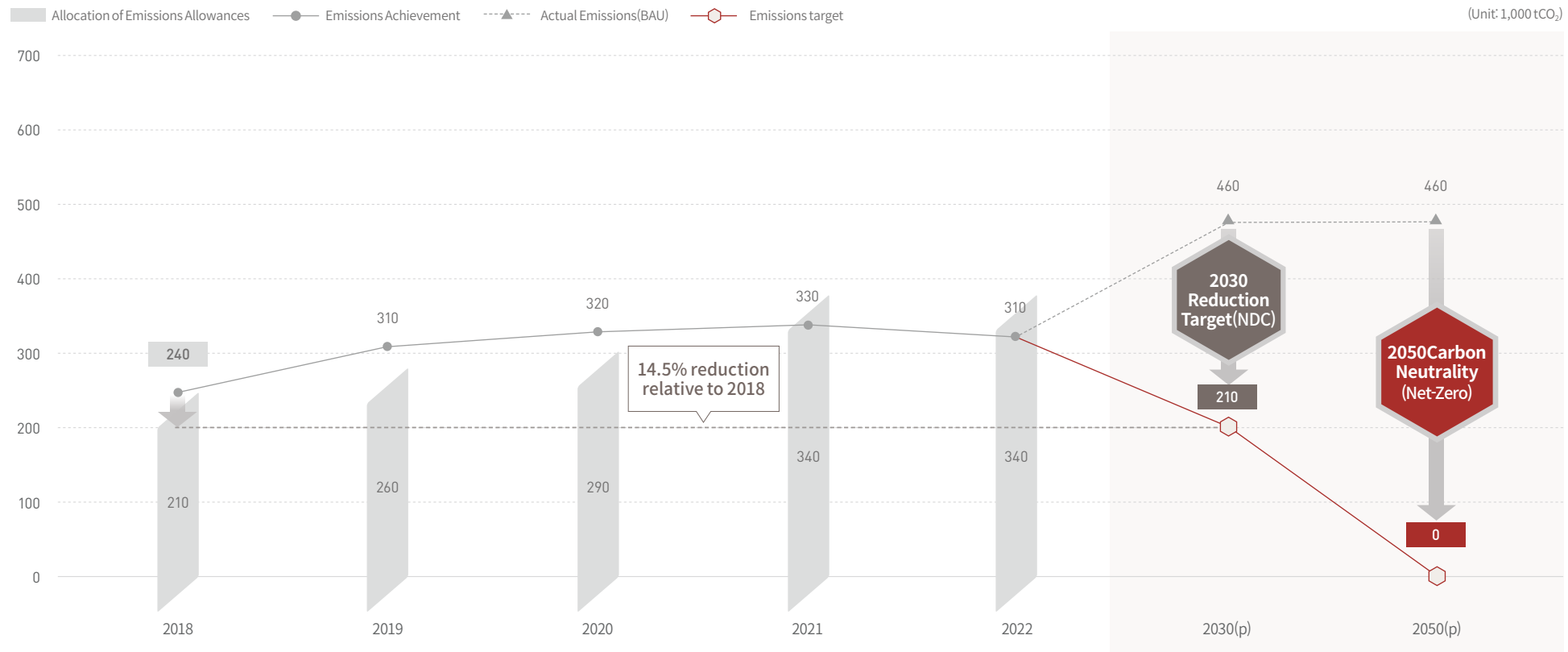
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Special Feature 2. 2050 NET ZERO

Net Zero Roadmap

In accordance with the national greenhouse gas emissions reduction target for 2030 (industrial sector), LX MMA has reduced emissions by 14.5% relative to 2018 levels. We have established and are implementing a medium- to long-term roadmap with the aim of achieving Net Zero by 2050. In the short term, we are engaged in a variety of activities to improve energy efficiency and streamline processes to reduce emissions. In the medium-to-long term, we will adopt and advance Carbon Capture, Utilization and Storage (CCUS) technologies and new and renewable energy to reduce our greenhouse gas (carbon) footprint and ultimately achieve our target of Net Zero.

Greenhouse Gas Emissions / Reduction Targets



※Factors that change emissions performance: 80,000 tons of M3R MMA in May 2019 and 100,000 tons of M2 MTBE in June 2021

※Factors that change the emission outlook (~50 years): Reflecting the expansion of one MMA plant (80,000 tons), and reflecting the expansion of one PMMA plant (20,000 tons)

OVERVIEW

OUR ESG APPROACH

Our ESG Approach

Special Feature 1. Development of Sustainable Products

● **Special Feature 2. 2050 Net Zero**

Special Feature 3. Strengthening of Global Competitiveness

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

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Special Feature 3. Strengthening of Global Competitiveness

Corporate Competitiveness

Performance and Competitiveness of LX MMA

Since the company was founded in March 1991, LX MMA has completed MMA Plants 1 and 2 with an annual production capacity of 100,000 tons, PMMA Plant 1 with an annual production capacity of 50,000 tons, and PMMA Plant 2 with a bulk polymerization capability that gives the company an additional 40,000 tons annual production capacity, all in the Yeosu National Industrial Complex. Sustaining joint R&D with our joint venture partners to promptly bring high-quality products and services to market, LX MMA is a leader in creating customer value and realizing a management philosophy of respect for humanity.

After the completion of MMA Plant 3 in 2008, PMMA Plant 2 was expanded in 2010 and PMMA Plant 1 expanded in 2011 to give LX MMA a total annual PMMA production capacity of 123,000 tons, with MMA Plant 3 retrofitted in 2019 to boost MMA production by 80,000 tons per year for a total of 260,000 tons. This growth cemented our position as Korea's No. 1 supplier of MMA and a major player in the global MMA market.

Currently, LX MMA is continuing to improve its production processes to achieve zero product defects and claims. Customer services and work processes are being enhanced to ensure world-class quality and firm competitiveness. We are committed to providing customers with real value through market-leading materials and solutions, growing sustainably hand-in-hand with our customers as a global chemicals company.

R&D to Improve Technological Competitiveness

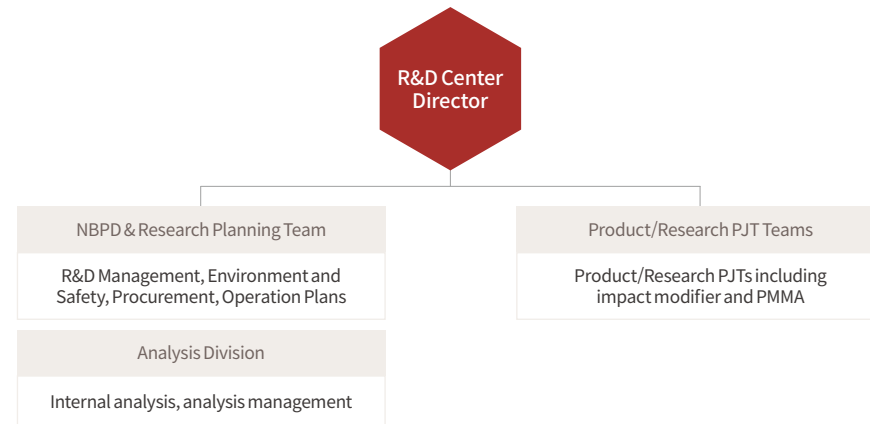
The LX MMA Technology Research Institute was founded in 2002 with the mission of furthering our technological competitiveness through materials and solutions development toward sustained corporate growth. Continuous bulk polymerization technology was developed for commercial production of LCD light guide panels and acrylic polarization panels. The institute has also developed the suspension polymerization process technology which has enabled the commercialization of coating/adhesive beads. The emulsion process technology developed by the Institute has enabled the commercial production of impact modifier and PMMA for whitening-free films. The Institute has developed and secured a host of future growth-driving high added-value PMMA materials as well, including paintless materials for automotive exteriors, metal substitute materials and non-glossy materials for furniture and home appliance outdoor interiors.



R&D Organization

LX MMA operates a proprietary Technology Research Center, with R&D organizations tasked with product development and performance enhancements.

To enhance the capacities of our R&D personnel, we provide special lectures administered by a pool of expert instructors, including university professors. An internal training program in R&D theory and practice forms part of our continuous improvement of the R&D competencies of our researchers.



2022 R&D Performance Outcomes

LX MMA intends to further accelerate the pace of R&D by reinforcing our R&D capacities, bringing more innovative products to market and establishing a more robust foundation for future growth.

The Institute's development of suspension beads for coating and adhesion enabled the commercialization of resins for gravure bonding/adhesives/coating agents, and since 2020, its main area of focus has been the development of eco-friendly acrylic coating resins. Emulsion process technology developed by the Institute was used to add impact modifier processes in 2020, followed by successful mass production of rubber for PMMA for whitening-free films in 2021. Paintless-application PMMA for vehicle pillars has been commercialized by developing non-paint exterior automotive and metal replacement materials, and the mass production of facesheet materials for agricultural machinery and commercial vehicles is ongoing. The Institute has successfully commercialized matte films for home appliances and interiors, and we have been mass-producing supermatte materials for LG Electronics household appliances since 2021.

The LX MMA Technology Research Center achieved 8,200 tons in new product sales in 2022, with KRW 2,400,000,000 in R&D production per person and an impressive count of 20 patent applications filed. This impressive sustained R&D output is contributing substantially to improving our corporate competitiveness.

OVERVIEW

OUR ESG APPROACH

Our ESG Approach

Special Feature 1. Development of Sustainable Products

Special Feature 2. 2050 Net Zero

● **Special Feature 3. Strengthening of Global Competitiveness**

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

03

ESG Management



- 31 Minimize Environmental Impact
- 38 Mutual Trust
- 45 All Together

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

MINIMIZE ENVIRONMENTAL IMPACT

Environmental Management

Vision of Safety and Environment

LX MMA has established and is implementing a sustainable progress plan to develop eco-friendly production systems and realize our management philosophy of creating customer value and practicing respect for humanity. Under our environmental and safety vision, we have implemented a strict safety and environmental management system toward realizing our goals of “Zero Environment and Safety Accidents” and “Accident-free Green Production Facilities.”



HSE* Code of Conduct

All employees at LX MMA understand that sustainability in terms of health, safety, and the environment are critical elements of our competitiveness. With clearly defined goals and a more-than-capable executive, LX MMA has established and is enforcing an “HSE Code of Conduct” to guarantee sustained improvement in our HSE performance. The HSE Code of Conduct is disclosed on our website for transparency.

HSE Code of Conduct

- ❶ We maintain compliance with all laws and regulations, and establish and operate HSE regulations that lead the industry, both in Korea and abroad.
- ❷ We pursue continuous innovation across all production processes to provide environmentally friendly products and services.
- ❸ We create safe and comfortable work environments, and establish an organizational culture of strict compliance with the basic principles.
- ❹ We actively support HSE improvements of local communities and vendors, based on our sense of social responsibility.
- ❺ We transparently disclose information, and faithfully communicate with our stakeholders.
- ❻ We strive to maintain cleanliness and environmental improvements, to protect the Earth’s environment.

* Health, Safety & Environment

The LX MMA Environmental Philosophy

Corporate social responsibility is important to LX MMA, and we practice sound environmental management based on our unique environmental philosophy. In keeping with our promise to be more than a materials manufacturer, LX MMA will fulfill our obligation to be socially responsible and reinforce our environmental management systems to assist the progress of local communities and improve the quality of life of community members.

The LX MMA Environmental Philosophy

The times demand that the chemical industry do more than just manufacture chemicals. Companies are held to a high standard of corporate social responsibility and are expected to contribute to making the human condition more plentiful, conserving the Earth’s environment, and furthering the progress of local communities.

Labor-management cooperation and HSE management are core values in LX MMA, and in our voluntary environmental management system. These core values have had a marked impact on our management practices: 6-Sigma innovation activities have been adopted in our company-wide HSE efforts, introducing eco-friendly processes throughout the product life cycle from development and production to distribution, use and disposal.

Based on our environmental management system, we have introduced the Life Cycle Assessment (LCA) techniques and new environmentally friendly technologies. Aggressive investment and innovation are key to our efforts to fundamentally reduce pollutant emissions.

To combat global warming related to greenhouse gas emissions, we are party to a number of voluntary energy conventions including Responsible Care. This initiative to reduce chemical emissions and sustain HSE improvement activities ensures sustainable management practices at LX MMA.

Social responsibility at LX MMA is an obligation for each member of the organization. This means ensuring health, safety and livable environments for all of our employees and members of local communities, as a sound base for our market leadership and sustainable hand-in-hand growth with our customers through our unique materials and solutions.



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

Mutual Trust

All Together

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

MINIMIZE ENVIRONMENTAL IMPACT

Environmental Management

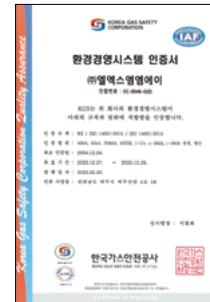
Environmental Management Systems

Environmental Management Certification

The self-developed environmental management systems and work processes at LX MMA have been established in accordance with the ISO-14001 international standard to minimize the environmental impact of our production activities. Our systems and processes have been certified as compliant by the Korea Gas Safety Corporation, an accredited certification body.

To ensure the effective operation of our environmental management systems, experienced and qualified auditors carry out internal audits annually at each of our business sites. Any nonconformities discovered in an audit are reported to the CEO of the business site, and the departments concerned are required to take prompt corrective action.

Moreover, to further improve the objective reliability and effectiveness of our environmental management systems, each of our business sites is audited once per year by an accredited certification agency.



ISO 14001 Certificate

Environmental Impact Assessment

All new business initiatives, the establishment and expansion of business sites, and process changes at LX MMA must go through a prior assessment involving our environmental impact assessment system. Matters relating to environmental licenses and permits, safety of facilities and environmental impacts are controlled in order to fundamentally eliminate the environmental impact created by our business.

Environmental Risk Management

All environmental risks are assessed and managed at LX MMA business sites. This not only includes mandatory matters relating to our activities, products and services, but also risks brought to light from internal and external stakeholder requirements and other issues, in pursuit of the continuous improvement of our environmental performance.

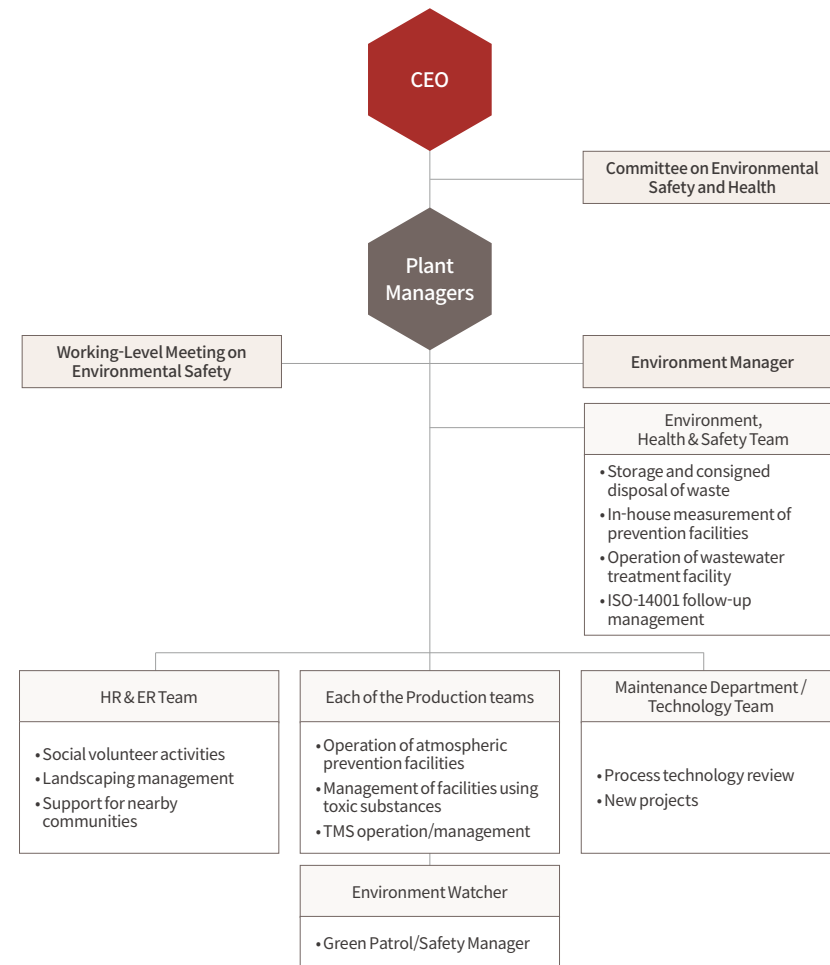
Risks and opportunities which may impact our environment and safety objectives are assessed for probability, severity and level of hazard. Results of risk assessment are reflected in departmental training plans and shared throughout the organization.

Our response to environmental risks is proactive: Matters for which improvement plans have been established are reflected when establishing investment and Environmental Safety and Health (HSE) plans for the present year.

Environmental Management Governance

LX MMA has a company-wide HSE organization working to realize our goal of green, zero-accident plants. Environment, Health & Safety team is installed under the authority of the respective plant managers that report directly under the CEO to ensure the systematic implementation of working-level HSE-related affairs.

LX MMA Environmental Management Organization



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

Mutual Trust

All Together

APPENDIX

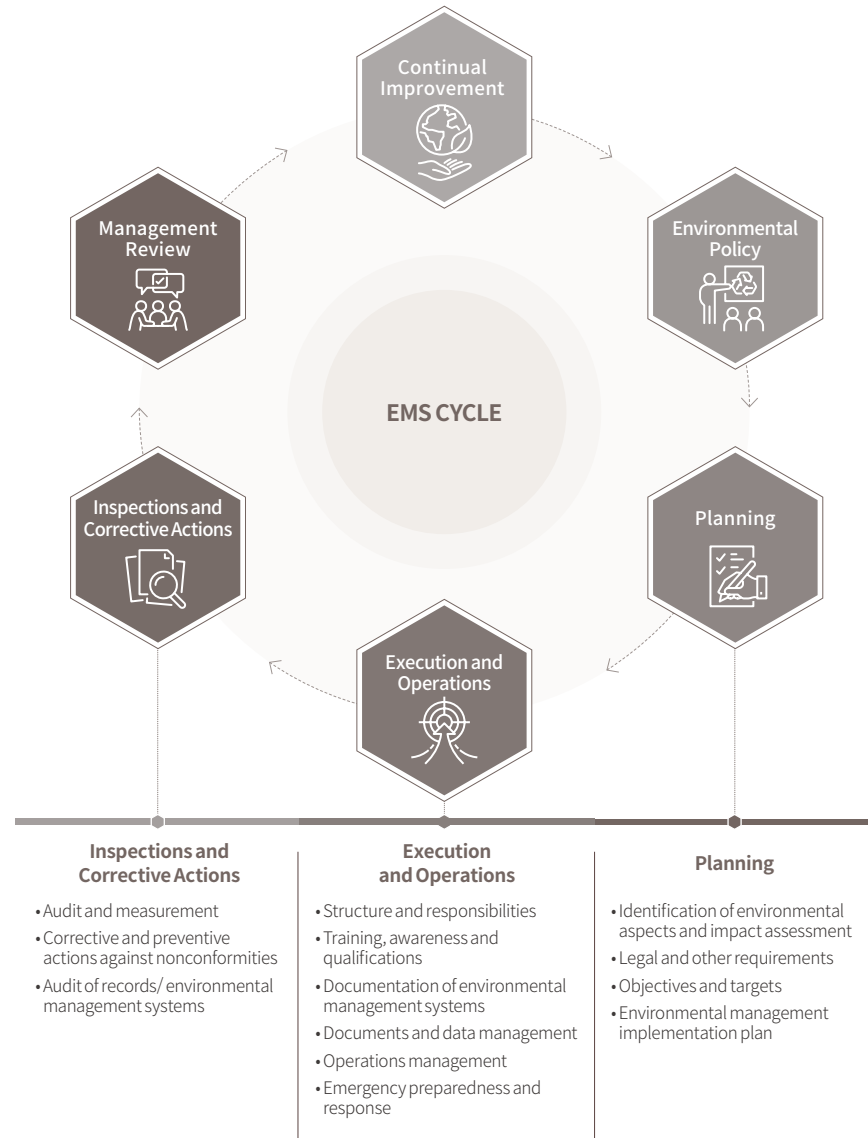


YOUR SOLUTION PARTNER

MINIMIZE ENVIRONMENTAL IMPACT

Environmental Management

Environment Management System (EMS) Cycle Activities



Responsible Care (RC)

As an expression of our commitment to sustainable management, LX MMA practices Responsible Care(RC), a self-initiated program for responsible HSE management in the chemicals industry. We fulfill our corporate social responsibility through the stringent control of any hazardous and dangerous substances used by or manufactured on company premises, the prevention of environmental pollution and safety accidents, ensuring the health and safety of community residents and employees, and keeping the environment around our business sites safe and clean.

To encourage responsible adherence to RC, all members of the organization were briefed on RC at our monthly general meeting and urged to faithfully take part. Externally, LX MMA plays a central role in the Korea Responsible Care Council (KRCC) to ensure that RC firmly takes root in the chemicals industry, guaranteeing its sustained progress.

Practices for Internalization of Environmental Management

To firmly establish environmental management practices, the executives at LX MMA conduct regular Environmental Safety and Health(HSE) management evaluations. In the HSE evaluation of December 2022, we inspected the current state in terms of the necessary improvements determined in the previous management review, and identified the internal and external issues associated with our environmental management systems. We reviewed our HSE policy and the degree of accomplishment and outcomes of our HSE objectives, removing any associated hazards and risks. Our environmental management systems are being improved in an ongoing manner to allow for their efficient operation.

LX MMA has appointed representatives for safety, environment, health, and chemical substances. The representatives perform a review of environmental management-related laws and regulations every six months as part of our preemptive response measures against rapidly changing environmental regulations and issues. The results of each legal review are reported to executive management and continually monitored to progressively manage our environmental issues.

In addition, the LX MMA organization regularly participates in environmental protection activities and HSE training. LX MMA employees engage in clean-up operations in and around Yeosu plant twice a year to enhance environmental protection awareness, and HSE training on environment-related laws and regulations and environmental accident prevention is administered regularly to ensure that environmental management practices are internalized throughout the organization.

Environmental Training in 2022
Attendees: All personnel at Yeosu plant



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

- Mutual Trust
- All Together

APPENDIX



YOUR SOLUTION PARTNER

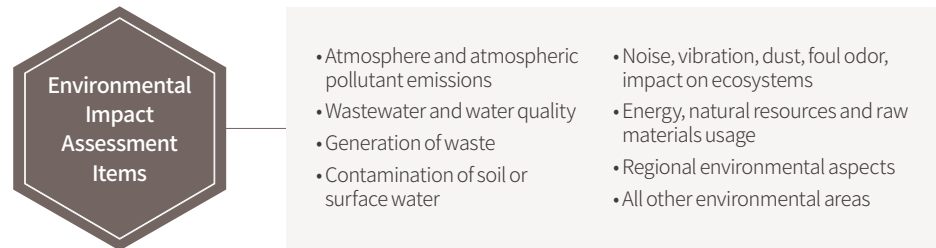
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MINIMIZE ENVIRONMENTAL IMPACT

Minimizing Environmental Impact

Environmental Impact Assessment

Environmental impact assessment is carried out annually at LX MMA. The aim of an environmental impact assessment is to identify the direct and indirect impacts of production and service activities across our business sites, to be aware of adverse impacts, and to make improvements accordingly. When processes are changed, the changes are subject to an environmental impact assessment(EIA). Any newly introduced chemical substances and newly installed processes are subject to an EIA as well. We are committed to strict control over any adverse environmental impacts our business activities may have.



Company-wide HSE Risk Assessment

HSE risks are assessed and managed on a company-wide basis at LX MMA. This includes not only mandatory matters relating to our activities, products and services, but also risks brought to light following internal and external stakeholder requirements and other issues, and this is continuously improving our HSE performance.

In addition, we proactively identify and respond to potential issues such as increased Korean and international HSE regulations, fluctuations in global oil prices, and long-term strikes by transport trade unions. Opportunities to achieve stable business performance are also consistently sought.

Risks are assessed according to a quantitative scale at LX MMA. Key risks scored at 9 points or higher are closely managed under improvement plans.

Management of Hazardous Chemical Substances

LX MMA handles a total of 14 hazardous chemical substances including Methanol(MeOH). These are managed under a stringent hazardous chemical substances management policy.

Hazardous chemical substances used in the processes are closely managed using a Hazardous Chemical Substances Management Ledger in addition to safe handling facilities and inspection sheets. Before purchasing new raw materials, Korean and international regulations are reviewed to ensure compliance with chemical substance-related laws. For newly manufactured or imported raw materials, we monitor the legal requirements for prior submission of a Material Safety Data Sheet(MSDS) for the import/manufacture and eligibility for approval of partial non-disclosure. In 2021, LX MMA completed registration of a total of seven chemical substances imported and manufactured in volumes at or exceeding 1,000 tons.

We administer regular training and supervision at our plants to prevent accidents involving hazardous chemical substances, and enforce strict hazardous chemical substances management at all business sites through weekly inspections of related facilities for proper management and operation.

Our Impact on Local Communities

We are making a conscious effort to minimize the negative impact of our plant operations on local communities and environments. Based on our established noise, odor and soil contamination management policies, our impact is constantly monitored and controlled.

To this end, a dedicated Environment, Health & Safety Team has been created and is tasked with impact control and responding to any complaints or potential complaints relating to noise, odor or soil contamination. Established processes ensure that inspections are carried out and countermeasures are devised and implemented promptly upon the occurrence of a complaint or a potential complaint. In addition to regular inspections, spot checks are carried out to guarantee an immediate response to problems and risks.



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

Mutual Trust

All Together

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

MINIMIZE ENVIRONMENTAL IMPACT

Minimizing Environmental Impact

Waste Management

LX MMA's Waste Management Policy mandates the appropriate treatment and management of the various waste generated at our plants. This helps us to control various waste-related problems and contribute to environmental conservation. The LX MMA Waste Management Policy requires the monitoring of all processes related to waste storage, transport, treatment and disposal. The aim of the policy is not only to properly dispose of waste but also to minimize waste generation and maximize reuse and recycling. Through our efforts, we have consistently reduced our waste emissions and final disposal rates* while increasing recycling rates.

External contact with all waste generated by LX MMA is strictly controlled, and all waste is incinerated, landfilled, or recycled by our waste disposal contractors according to lawful procedures. Proper disposal of waste is important to us. All waste storage sites are assigned a managing officer and kept under lock and key, monitored by CCTV systems. Any violations are closely managed through the issuance of an Environmental Non-Conformity Report(ENCR). Storage sites for empty drums and wood waste were newly installed in 2021 for the purpose of preventing environmental pollution.

LX MMA will continue to explore additional waste-to-resource applications to consistently reduce our waste generation, while promoting resources circulation by improving waste-generating processes and excluding waste materials as incinerated fuel.

* Total percentage of waste landfilled during the life cycle

Waste Generation and Recycling Rates

Classification		Unit	2020	2021	2022
General Waste	Incinerated	Tons	4,393	3,216	2,250
	Landfilled		364	332	291
	Recycled		1,151	1,376	1,660
Hazardous waste	Incinerated	Tons	763	585	667
	Landfilled		-	-	-
	Recycled		589	315	672
Total Waste Generation			7,260	5,824	5,540
Total Waste Recycled			1,739	1,691	2,332

Waste Oil Purification and Reuse Processes



Water Resources Management

The Juam Dam in Suncheon is the water supply for LX MMA operations. Through the company-wide 6-Sigma activities, five or more water usage reduction objectives are enforced toward the efficient management of our water resources. Efforts to conserve water and increase water recycling have helped to consistently increase our water recycling rate over the past three years, including process condensate recycling.

Waste and Wastewater Management

Classification		Unit	2020	2021	2022
Water Withdrawal			2,679,335	2,705,988	2,621,023
Water Recycled		Tons	96,584	106,686	112,503
Wastewater Discharge			439,413	433,622	362,772

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

- Mutual Trust
- All Together

APPENDIX



YOUR SOLUTION PARTNER

MINIMIZE ENVIRONMENTAL IMPACT

Minimizing Environmental Impact

Management of Water Pollutants

Wastewater discharge control and water pollution prevention facilities are installed at all LX MMA plants, and are closely managed to prevent water pollution and protect the environment.

The wastewater we generate is treated or disposed of depending on the level of contamination. Our proprietary water treatment facilities are consigned to a specialized water treatment contractor so that any issues that arise can be responded to immediately.

We establish annual water quality control and wastewater discharge targets, and monitor the discharge of water pollutants to keep emissions within target levels. Objectives and targets to consistently reduce wastewater discharge have been established and are being implemented. A managing officer is assigned to the wastewater discharge facilities at each plant to ensure that processed wastewater is not discharged as general wastewater.

Training and awareness-raising activities are carried out regularly to make sure wastewater discharge facilities, water pollution prevention facilities and water quality measuring processes are operated and carried out appropriately. Our proactive management of wastewater-related risk also involves the ongoing improvement of the risk management capacity of all members of the organization, and emergency response measures to handle any leaks or other wastewater-related accidents.

Water Pollutant Emissions

Classification	Unit	2020	2021	2022
Chemical Oxygen Demand (COD)*	Tons	23	32	35
Biological Oxygen Demand (BOD)		5	6	35
Total Nitrogen (T-N)		4	3	2
Total Phosphorus (T-P)		1	1	1
Suspended Solids (SS)		13	13	7
Total		46	54	80

* COD changed to TOC from 2022

Management of Air Pollutants

LX MMA enforces stringent controls on gaseous and particulate air pollutants as defined in the Clean Air Conservation Act. air pollutant emissions control and prevention facilities are installed at all our plants and managed regularly to minimize the damage caused by atmospheric pollution.

Tele-monitoring systems(TMS) are installed at key discharge points for air pollutants to monitor emissions in real time and keep our emissions within the limits allowed by the laws and regulations. Annual air pollution reduction objectives and targets are established and pursued to minimize our impact on the environment.

Improvements to the wastewater incineration furnace operation method in 2021 helped reduce nitrogen oxide(NOx) emissions, and in 2022, waste oil recovered from our wastewater incineration furnace input was sold externally, which substantially reduced our sulfur oxide(SOx) emissions. In 2023, back-end dust collectors will be installed on our wastewater incineration furnaces to also reduce dust emissions.

Atmospheric Pollutant Emissions

Classification	Unit	2020	2021	2022
Dust (PM)	Tons	6	6	6
Nitrogen oxides (NOx)		47	42	36
Sulfur oxides (SOx)		39	34	30
Total		91	82	72



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

Mutual Trust

All Together

APPENDIX



YOUR SOLUTION PARTNER

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MINIMIZE ENVIRONMENTAL IMPACT

Climate Change Response Measures

Greenhouse Gas Emissions Control

As a party to the United Nations Framework Convention on Climate Change, Korea has enacted and is enforcing the Act on the Allocation and Trading of Greenhouse Gas Emission Permits. LX MMA participates in the greenhouse gas emission trading scheme, faithfully carrying out its emissions control obligations as prescribed by the law. Direct and indirect greenhouse gas (GHG) emissions are managed on a company-wide basis (Scopes 1 and 2). GHG emissions and energy usage at key business sites including the Seoul Office, MMA and PMMA plants in Yeosu, and Technology Research Center in Daejeon are measured, and GHG emission facilities are closely managed. GHG emissions data are aggregated on a monthly basis and subject to third-party verification.

Greenhouse Gas Reduction Activities

Under the LX MMA's 2050 Net Zero Roadmap, we have implemented a host of GHG* emissions reduction activities and technologies. Aged equipment in our plants has been replaced with high-efficiency equipment, and all lighting has been replaced with highly efficient LED lighting to reduce GHG emissions. As a result of such efforts, we were able to sell some of the emissions permits allocated to us in 2021. Life Cycle Assessments (LCA) are carried out to determine total carbon emissions for each product group and to identify means for further reduction. Future LX MMA efforts toward GHG emissions reduction will include LCA-based product development, use of biofuels and the increased use of renewable energy, contributing to attaining the 2030 Nationally Determined Contributions (NDC). We are committed to leadership in creating a sustainable society for future generations.

* Greenhouse Gas

GHG Reduction Target

Classification	Reduction target
Scope 1	Review of the means to reduce wastewater reintroduced into processes and incinerated, recycling incineration wastewater generated by processes / Review of the means to reduce steam generation through recovery of condensates.
Scope 2	Ongoing reductions in steam usage through process innovation and the optimization of operations. Ongoing reductions in electrical power usage through the introduction of new high-efficiency equipment.

GHG Reduction Outcomes

Classification	Reduction outcomes
MMA1	Optimization of operations to reduce steam usage by 2,800 tons/year (75 t CO ₂ /year)
MMA2	Reduction of steam usage by establishing condensate recovery system (108 t CO ₂ /year)
MMA3	Cooling water pump electricity usage savings through ESCO project (783 t CO ₂ /year) Reduction in electrical power usage via replacement of cooling tower fan (83 t CO ₂ /year)

Energy Usage Objectives and Outcomes

LX MMA recognizes that curbing corporate energy use and boosting efficiency are most important to climate change response and reducing the environmental impact. Energy use reduction is included among our company-wide environment and safety performance indicators, and our energy savings performance is continually evaluated and monitored by the responsible departments and executives. Additional company-wide efforts to reduce energy usage include regular energy diagnostics and reviews of team-level energy savings plans.

Energy Saving Efforts

Operations at LX MMA are regularly reviewed to reduce our steam generation. Big data is employed to improve operational efficiency and achieve continual energy savings. New energy-saving equipment such as RPM-limiting equipment for rotating devices will be introduced to other plants with reference to the case of MMA3 improvements, and we will continue to examine the adoption of other energy efficiency-boosting equipment as well.

Energy Saving Targets and Outcomes

Classification	2022 savings target	Actual 2022 savings
Electric power	1,900 MWh	1,920 MWh
Steam	17,600 tons/year	7,000 tons/year achieved

Increased Use of Renewable Energy

LX MMA intends to play an active role in achieving the national target of reducing net national GHG emissions to zero by 2050 (Net Zero). Specifically, we are examining our role in the Korean RE-100 scheme in detail.

Other climate actions under consideration include running a number of polymer plants on environmentally friendly electricity, and the adoption of Post Consumer Recycled (PCR) materials in our manufacturing processes. PCR involves collecting and decomposing the products used by consumers into raw materials for reuse in manufacturing processes.

LX MMA plans to gradually expand its renewable energy use in the future by converting the power used in manufacturing PMMA, a major product, to 100% renewable energy by 2030, and expanding green premium and REC purchases.

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

● **Minimize Environmental Impact**

Mutual Trust

All Together

APPENDIX



YOUR SOLUTION PARTNER

MUTUAL RESPECT

Occupational Health and Safety (OH&S) Management

Occupational Health and Safety (OH&S) Management Systems

LX MMA has acquired the ISO 45001 International Standard certification for occupational health and safety management systems, based on which we enforce systematic OH&S management. The Environment, Health & Safety Team is the organization with general responsibility and supervisory authority over HSE at LX MMA, and is tasked with the efficient and effective operation and management of our HSE management system.

The Environment, Health & Safety Team continually monitors OH&S trends and reflects the latest trends in our management policies, while administering OH&S training to members of our organization and subcontractors to elevate OH&S awareness at our business sites.

The OH&S Representative of each business site is responsible for regularly monitoring and managing the OH&S accomplishment rate of the organization based on our HSE Management Policy, and for enforcing safety management in the field.



ISO 45001 Certificate

Health, Safety and Environment (HSE) Policy

LX MMA enforces a HSE policy that is an example to the industry, both in Korea and abroad. HSE is our highest-priority consideration across all areas of business, and continued improvements to HSE performance give our enterprise a differentiated competitive advantage.

Health, Safety and Environment (HSE) Policy

LX MMA understands that HSE competency is a core element of our competitive advantage. LX MMA is committed to faithfully carrying out the following, based on clearly defined objectives and strong executory capacity, toward the continual improvement of HSE outcomes.

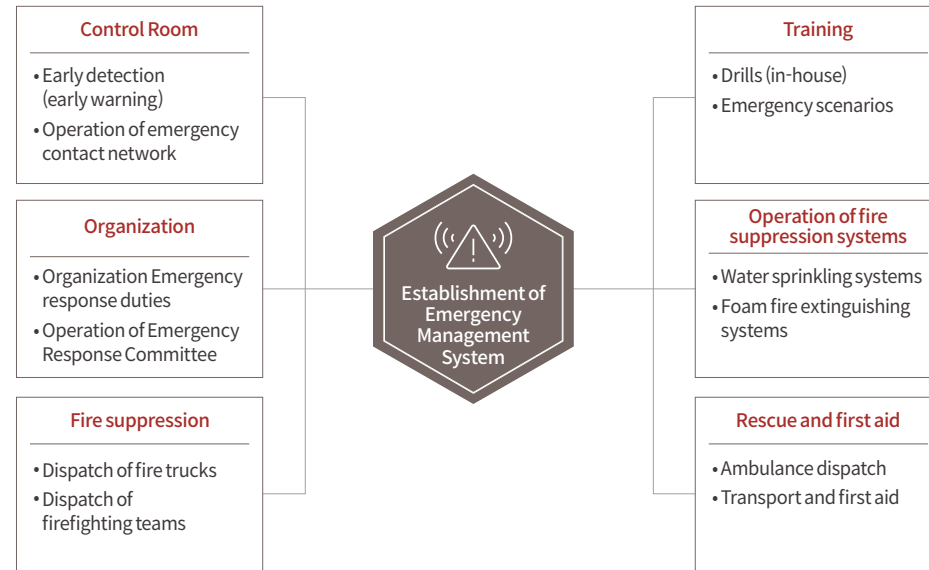
- 1 We maintain compliance with all laws and regulations, and establish and operate HSE regulations that lead the industry both in Korea and abroad.
- 2 We pursue continuous innovation across all production processes to provide environmentally friendly products and services.
- 3 We create safe and comfortable work environments, and establish an organizational culture of strict compliance with the basic principles.
- 4 We are conscious of our social responsibility, and actively support HSE improvements of local communities and vendors.
- 5 We transparently disclose information, and faithfully communicate with stakeholders.

We give priority consideration to HSE in all business activities, in compliance with the present policy.

Emergency Operations Systems

Petrochemical plants are full of potential fire and explosion hazards, and accidents may easily lead to environmental pollution. As such, an early response to accidents is crucial. LX MMA implements and operates emergency operation systems at all business sites to guarantee an immediate response to occupational accidents, safety accidents, natural disasters and other emergencies while minimizing property damage, human injury and loss of life.

The Control Room provides early detection and warning of emergencies as they arise, and the Emergency Response Committee is responsible for managing emergencies from their declaration to their conclusion. Response scenarios for potential emergencies are used to carry out regular quarterly emergency response drills and maintain an effective emergency response capability among all members of the organization.



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

● Mutual Trust

All Together

APPENDIX



YOUR SOLUTION PARTNER

MUTUAL RESPECT

Occupational Health and Safety (OH&S) Management

Safe/Unsafe Mileage System

Since 2018, LX MMA has operated a Safe/Unsafe Mileage system to boost safety awareness among all members of the organization and guarantee strict compliance with basic OH&S-related procedures. Explosions and serious accidents occurring at other companies are quite often caused by mistakes on the part of workers or unsatisfactory safety measures prior to performing work. The importance of preventive measures cannot be overstated. Accordingly, LX MMA manages OH&S in the field up close, working consistently to remove all risks and hazards.

In 2022, our Yeosu Plant introduced the “Critical Unsafe Mileage” system for environmental and safety indicators. Under the system, accidents, cover-ups, work performed without the issuance of permits to work (PTW), and serious nonconformities are systematically inspected to prevent occupational accidents.

Health and Safety Risk Assessment

The aim of risk assessment at LX MMA is to identify risks and hazards in the field and eliminate potential hazards. Hazards that may lead to accidents are identified in risk assessment targets, which include processes, work, and chemical substances. For each identified hazard, the likelihood of the occurrence of accidents and the severity of the potential accidents is estimated. After estimating the risk of each hazard and determining whether the size of the risk is acceptable, the most effective and feasible improvement plan is established and carried out according to an established order of priority for identified risks.

Implementation of improvement measures is inspected on a semi-annual basis, and necessary measures are taken to prevent occupational injury and accidents.

Operation of Environmental and Safety Indicators

Environmental and safety indicators including Combined Accident Scores and Field Management Activity Scores are used at LX MMA for the evaluation of executives and division heads. This allows for the effective inspection and improvement of environmental and safety management levels across the organization.

Proper leadership is key to improving the safety management and safety awareness of each department. Since 2022, the weight of Combined Accident Scores has been increased in performance evaluations for executives and division heads. To encourage the Occupational Safety and Health Representative of all business sites to implement systematic HSE activities and exercise leadership to improve HSE awareness, the Technology Research Institute has been included in the scope of field management activities. Occupational Safety and Health Representatives are also evaluated on the basis of environment and safety execution points and the ratio of Class D1 confirmed occupational illness cases depending on the position, in order to induce and encourage diligent performance of their OH&S management obligations.

In 2022, “Critical Unsafe Mileage” items were added in response to legislation of the Serious Accidents Punishment Act, and results are reported monthly to the Management Committee. LX MMA is committed to enhancing the HSE competency of all members of the organization and creating healthy and safe workplaces.



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

● **Mutual Trust**

All Together

APPENDIX



YOUR SOLUTION PARTNER

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MUTUAL RESPECT

Occupational Health and Safety (OH&S) Management

A Culture of Safety

Reinforcing the safety competency of employees is important to LX MMA. In addition to administering legally mandated periodic and hierarchical training and training for workers assigned new responsibilities, we provide professional safety training through expert outside lecturers as well as refresher training ahead of scheduled maintenance work.

All employees are required to attend the Safety First / Safety Leadership training, and periodic HSE training is administered to plant employees, covering HSE accidents, HSE trends and revisions to relevant laws and regulations. Our in-house training curricula are optimized to improve safety awareness and consciousness.

The latest trends in HSE including the Serious Accidents Punishment Act are covered in our company magazine MMAGA; TONE and made available to all members of the organization. In 2022, the CEO's Policy Proclamation for Improved Environmental and Safety Awareness was issued as a statement of executive management's safety-first commitment.

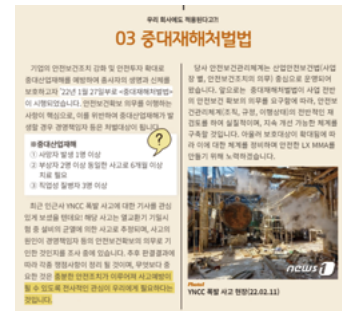
Key Safety Training Topics

2022 Safety Training

22

sessions

- Special PSD training (employees/subcontractors)
- Risk assessment leadership training
- Accident investigation expert course
- Special safety training for high-risk work



Safety accident-related article in company magazine MMAGA; TONE

Employee Health

LX MMA provides employees with health examinations for the prevention and early detection of illness. Special examinations are provided twice annually, in addition to once-a-year general examinations. Employees are notified individually of the examination results and are encouraged to establish and follow individual health management goals. Health examinations, work environment management and GHS MSDS are all managed through computer systems for highly efficient occupational health management. Various health-related data are statistically processed to furnish workers with suitable health services and determine the occupational health policies.

Numerous programs are operated to further the health of members of the LX MMA organization, and these allow us to continually manage health indicators of members of the organization. Under our Hearing Conservation Program, workplace noise level measurement results and employee hearing loss trends are analyzed to identify hazards and administer education and training accordingly. Also, highly effective health improvement programs are being operated at our business sites. With an awareness that prevention is more effective than treatment for musculoskeletal illnesses, our Musculoskeletal Health Program investigates hazards to musculoskeletal health and is comprised of highly practical stretching and exercise programs aimed at preventing illness. LX MMA employees stationed abroad and their families, as well as members of the organization traveling overseas on business, are covered by our comprehensive overseas safety management services. This includes medical consultation, arranging hospital services and appointments, and medical interpretation services to ensure accurate diagnoses and treatment. Medical/security information is provided to employees in advance, and prompt e-mail and mobile updates are provided in the event of medical/security-related incidents. Employee health and convenience is key in our considerations for our safety management services.

Comprehensive Overseas Safety Management Services

Item	Details
Everyday/emergency medical/security consultation and support	<ul style="list-style-type: none"> • Support for everyday/emergency medical consultations and hospital arrangements/bookings/transport • Medical interpretation services for accurate diagnoses and treatment (three-way phone call between patient - local physician - Korean physician) • Guaranteed medical cost coverage for urgent treatment and hospitalization • Emergency medical transportation/evaluation using Air Ambulance • Support in procuring local medical supplies • Counseling on security risks when traveling on business (instructions on response to dangerous situations)
Project support and furnishing of information	<ul style="list-style-type: none"> • General medical/security information furnished for each country • E-mail and mobile alert services for urgent medical/security emergencies in each country
Other support services	<ul style="list-style-type: none"> • Repatriation of remains in the event of death due to accident • Support in security transport in the event of war or riots, security guard or driving support • Support in finding lost articles (including passports)



OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

● **Mutual Trust**

All Together

APPENDIX



YOUR SOLUTION PARTNER

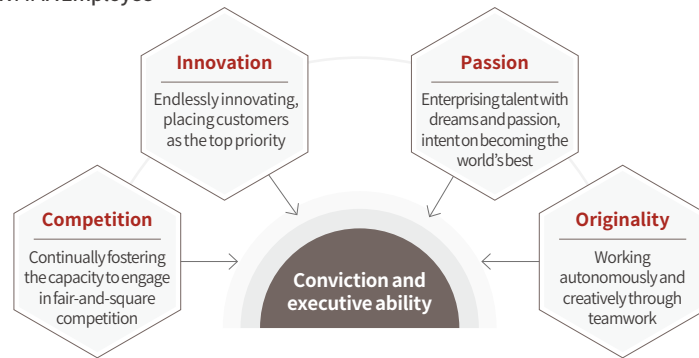
MUTUAL RESPECT

Human Resources

Staff Recruitment

To secure outstanding talents suited to each job function, LX MMA does not discriminate in hiring based on age, gender, religion, region or nationality. We hire talents with conviction and executive ability centering around the capacity to carry out job functions. Based on the belief that people are the source of our corporate competitiveness, we try our best to secure and foster core talent through work competency-based evaluations.

The Ideal LX MMA Employee



Talent Fostering System

LX MMA offers a variety of learning opportunities to enhance the professional capacity of members of the organization. Leadership competency, job competency and global competency training is provided to foster competitive talents and maximize the potential of our future leadership.

Talent Fostering system

Job competency	Leadership	Global competency	General competency
<ul style="list-style-type: none"> • General duties, sales, R&D, production 	<ul style="list-style-type: none"> • On-boarding programs for New leaders • On-boarding programs for newly recruited employees • Young Talent Program (growth support for MZ-generation recruits) • Reverse Mentoring (mentoring between executives and new "MZ-generation" staff) 	<ul style="list-style-type: none"> • Training for employees stationed overseas • Foreign language competency 	<ul style="list-style-type: none"> • Workshops at each grade (general competency-building by employee by level of position: Junior, Senior, Leader)

Leadership Training

Training and 1:1 coaching programs are provided to equip our leaders with the capacities their duties require. In addition, a core talent curriculum is operated to identify and foster competitive talents as future corporate leadership.

The core talent curriculum is operated in two segments (Junior and Senior), and enrollees are trained in a host of areas including strategic communications, marketing, finance/accounting, management strategy, and self-improvement.

Job Training

Career Path Maps have been developed by LX MMA based on the competencies and fostering directions required by each department and job function. This helps us develop talent in a systematic manner to suit the needs of each department, while providing each trainee with a clear growth and talent development vision.

Select members of the organization are provided the opportunity for advanced (specialist) job training, administered externally in connection with professional training courses. Training is subdivided into two types of curricula: a duty-specific competency development curriculum aimed at enhancing working-level capacities, and a general competency-building curriculum providing more general training in support of trainee growth. Subdivision of curricula according to trainee roles and positions makes our training programs more efficient and effective. LX MMA will continue to reinforce job training programs to ensure the sustained growth and betterment of members of the organization.

Global Competency Training

As our overseas business grows, LX MMA is placing an increased emphasis on boosting the global competencies of the organization. In-house language training programs centering on English and Japanese are being provided to help members of the organization develop the foreign language skills their duties require.

Junior Staff Competency-building Programs

Competency-building programs are operated for junior staff with less than three years of experience at the company to help their adjustment to company life and build their job competencies. A questionnaire survey was administered to junior staff to determine their actual needs when developing the programs. Questionnaire results were reflected in program development and instructor matching. The junior staff competency-building programs cover basic work training and knowledge of finances, and are administered regularly twice a year.

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

● **Mutual Trust**

All Together

APPENDIX



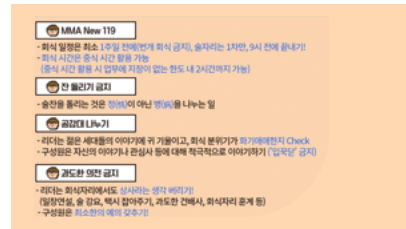
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MUTUAL RESPECT

Human Resources

Activities to Improve Organizational Culture

LX MMA makes a conscious effort to support a sound work-life balance for members of the organization. Employees are urged to take regular monthly leave on the second Friday of each month. Additional leave days are given in summer vacation season between July and August to help employees refresh. In addition to “self-leading day” leave days for leaders, half-day leave on Fridays and special leave for personal occasions are provided to help employees to both recharge and improve their immersion at work. LX MMA is working to establish a sound company dinner culture. Company dinners are meant to be communication and rapport-building events, and as such several ground rules have been laid out for the organization. Departments are encouraged to replace company dinners with luncheons, and to end all company dinners before 9 p.m. We believe that company dinners should be a pleasant and positive experience for all members of the organization.



Company Dinner “Ground Rules”

Labor Union Membership and Activities

LX MMA guarantees the autonomous activity of the labor union. A joint labor-management council meets regularly to exchange opinions on work environments and the state of management of the company, among other topics. As of September 2022, 100% of all eligible personnel are members of the labor union. The labor union and management are in a mutually cooperative relationship of communication, and working toward furthering work conditions and employee welfare. The LX MMA labor-management partnership will continue to be strengthened to firmly establish a culture of sound labor-management relations.

LX MMA Labor Union Membership

Category	Unit	2020	2021	2022*
Employees who are members	Persons	170	180	186
Unionized employees	Persons	171	180	186
Percent unionized	%	99.4	100.0	100.0

* Professional technical staff only(chiefs, interns, staff on probation and vocational trainees excluded)

Employee Communication Channels and Communication-boosting Programs

Members of the LX MMA organization are encouraged to engage in exchanges through a variety of channels. We also make a point of keeping all members of the organization well-informed and aware of management policies and the state of affairs of the company. The company magazine MMAGA; TONE carries various information on changes and goings-on at the company, as well as interviews with key personnel to provide necessary updates on important issues.



Company Magazine MMAGA; TONE

We also operate an Employee Council with representatives from all our major business sites including our Yeosu plants, Seoul office, Technology Research Institute in Daejeon. The Employee Council is the head representative body for office workers at the company, and is charged with bi-directional communication and confidence-building in the organization. Employee opinions are forwarded through the Council to management, and management policies are shared with staff through the body. With an increased presence of women in the workforce, LX MMA has appointed female representatives for each division so that the voices of our female employees can be better heard. LX MMA will continue to operate a variety of communication channels and programs to ensure smooth and unhindered communication within the organization.

Employee Welfare and Benefits

Numerous employee welfare supports and benefits are provided to instill a sense of pride among employees. We believe that employees who feel they are being cared for can better immerse themselves in their work and duties. The company provides access to resorts and condominiums throughout the country where employees can recharge, as well as special housing loans, micro-loans, company residences and dormitories to alleviate financial burden. We value and recognize the contributions and service of long-time employees of the organization so that they take pride in their long-term commitment and work at the company. Other employee benefits include: support for occasions of congratulations or condolences (including marriages and funerals), health examinations and sports/exercise allowances, and support programs for persons retiring from the company. We work to ensure the welfare and stability of employees' lives to ensure the high satisfaction and performance of employees.

Childbirth and Childcare Support Systems

LX MMA is serious about alleviating the childbirth and childcare burden of our employees, and makes accommodations to allow members of the organization to be devoted to both their work and their family. Childbirth present, kindergarten/nursery tuition, congratulatory allowances for university admissions, and educational expenses are readily made available.

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

● **Mutual Trust**

All Together

APPENDIX



YOUR SOLUTION PARTNER

MUTUAL RESPECT

Quality Management

Quality Management Systems

Gaining customer confidence by providing outstanding quality is essential for the sustained growth of any enterprise. LX MMA has acquired and now retains the Quality Management System (ISO 9001) certification, stringently managing quality across all stages of business through a quality system that is on par with global standards. Our International Automotive Task Force (IATF) 16949 certification proves the presence and operation of a quality management system for enhanced product and process quality that meets the requirements of automotive manufacturers in Europe and the United States.

Internal and external audits are carried out at LX MMA to maintain our quality management-related certifications. These audits help to firmly establish the quality management system and effect ongoing improvements. LX MMA successfully retained its ISO 9001 and IATF 16949 quality certifications in 2022, and our PMMA Plant 2 will seek IATF 16949 certification in the near future.



ISO 9001 Certificate

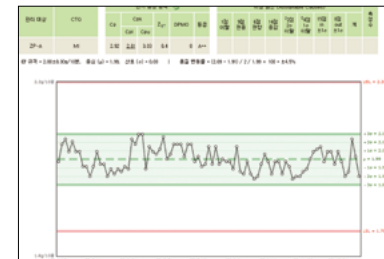
Dedicated Quality Management Organization

The Quality First Team is LX MMA's dedicated quality management department, tasked with enforcing stringent quality controls. Comprised of approximately 20 internal examiners, the Quality First Team oversees quality process improvements, maintaining and updating the quality management system, internal audits, and quality management training. The professionalism of LX MMA's internal auditors is reinforced through annual training and certification examinations, which in turn boosts the company's quality management capacities.

Quality and Safety Management Processes

Release of nonconforming products is strictly controlled through stringent product inspection in three stages: receiving, process, and finished product inspections. The entire organization practices 6-Sigma activities with the goal of achieving zero product defects and claims to further enhance our quality competitiveness.

Hazardous substance testing is carried out on a semi-annual basis, and product safety is verified regularly through the issuance of test reports on heavy metals/odor/volatile organic compounds (VOC) by an accredited external certification agency (SGS). In addition, new regulated substances added to our processes are also tested by an accredited external certification body, and RoHS reports are checked for newly purchased raw and subsidiary materials.



Examples of 6-Sigma Activities



Quality Policy

LX MMA aims to be a leading company in the areas of MMA, MAA, BMA, and PMMA.



All members of the organization shall be familiar with the Quality Policy, and the respective business divisions shall establish and carry out team-level policies and targets to realize the quality policy and objectives, making their best effort toward achieving the quality goals.

CS/TS Systems and Activities to Improve Customer Satisfaction

Promptly responding to customer complaints and requirements, keeping quality issues to a minimum, and maximizing customer satisfaction are crucial to LX MMA. Upon the occurrence of a product-related quality issue, the relevant departments work together to promptly track, manage and aggregate related data. Results are used to provide customer guidance, make improvements, and carry out preventive actions to increase customer satisfaction.

※ CS: Customer Service, TS: Technical Service

Minimize Environmental Impact

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All Together



YOUR SOLUTION PARTNER

MUTUAL RESPECT

Social Contribution

Corporate Social Responsibility Directions

LX MMA is making a conscious effort to fulfill its corporate social responsibility and become a reliable company that is trusted by both customers and society. We are engaged in a host of CSR activities, focusing on environmental conservation activities and support for local communities.

Environmental Conservation Activities

Based on the belief that LX MMA must coexist with nature, we continuously engage in activities to clean up and maintain the environment and ecosystems around our business sites. Through the project “Taking care of one mountain per person,” camellias and silver magnolias on Yeongchwisan Mountain near our production facilities are watered and taken care of every year, by weeding and pruning to help them grow. The healthy trees we plant and maintain are both beneficial to the environment and aesthetically pleasing. We take care of the waters around our establishments as well, with LX MMA employees regularly engaging in clean-ups of the rivers, streams and ocean areas around our plants, keeping the environment clean for us and for the local communities. Working with government offices and neighboring firms, we regularly take part in ecosystem conservation activities as part of our corporate social responsibility commitment. This includes reducing invasive exotic fish populations, protecting wildlife during winter, and feeding migratory bird populations.

Sharing With Local Communities

LX MMA has entered into sisterhood relationships with communities around our business sites. We are committed to creating social value by continuously supporting vulnerable neighbors. Under the motto “We Create the World, Together!” the LX MMA Yeosu Plant is fulfilling its role as a corporate citizen through community service activities and support programs for neighbors in need. Since 2006, annual donations have been made to those in need in the form of an “Angel Fund” (a fund voluntarily raised by employees at the Yeosu Plant toward CSR activities) and matching funds raised by the company, and members of the organization have also taken part in a host of volunteer community service activities including the summer Kimchi-making volunteer service and home renovation project called the “Hope House Project.” The company sets aside separate funds for donations to seniors’ centers, rehabilitation and vocational training centers for persons with disabilities, as well as children’s centers at the nearby Yeosu Plant every public holiday. Working in a spirit of sharing and consideration of our neighbors, we play a leading role in creating a society where all live in harmony. Employees including the CEO and CFO at the Seoul Office of LX MMA volunteered at soup kitchens for the homeless in 2022, and are engaged in various support activities for neighbors in need and families without parents. LX MMA will continue to carry out its activities to care for our neighbors and try our best to be a reliable corporation earning the trust of our regional community members.



“Health Giving” summer kimchi-making event (Kimchi-making volunteer service, 2021 – 2023)



Holiday gift boxes delivered to families receiving regular sponsorship



Food distribution volunteer work during the year-end season

Information Security

Dedicated Information Security Organization

LX MMA is operating security activities by minimizing the information security risk and implementing proactive responses to information security accidents and incidents. Information security officers are appointed to establish information security plans, monitor relevant regulatory requirements, and carry out security activities, including security inspections. Each team of the organization has an appointed security representative (team leader) and one security officer. The personnel gather annually in a meeting of the Information Security Committee to share information security activities for the given year. The Committee issues information security-related requirements and requests to each team, and these are communicated to the relevant teams to maintain an effective security management system.

LX MMA plans to further reinforce our company-wide information security management system around our dedicated information security staff. This will include regular inspections of the information security management levels, administering in-house training, and carrying out awareness-raising activities to enhance the information security competencies of all members of the organization.

Information Security Activities

Information security risks are closely managed by LX MMA through a system of information security policies and guidelines. These include our Information Security Guidelines, Information Security Policy, Guidelines on Information Security Organization Operation, Assets Management Guidelines, and Security Incident/Accident Response Guidelines. We understand that awareness and vigilance among members of the organization is the most important factor in information security. All members of the organization are required to sign and submit an Information Security Pledge and renew their consent annually to the handling and furnishing of personal information to third parties.

Physical security at our business sites is another important area of focus. The access control system of the LX MMA Seoul Office permits access only to personnel with prior authorization. All accessing personnel are subject to security scans when leaving company premises to prevent information leaks through laptops and information storage media such as USB thumb drives. Installation of a Mobile Device Management (MDM) application that applies company security policy on smart devices owned by all members of the organization is mandatory, preventing information leaks through any means including photographs.

Computer security is enforced by installing spam mail blockers, anti-virus software, and security solutions on the work PCs used by the organization. Electronic documents are password-protected, and outgoing e-mails are monitored to block information leaks. In addition, our security consulting contractor carries out high-level annual security inspections at our Seoul Office and Yeosu Plant. Through personal information life cycle analyses, inspection of security infrastructure vulnerabilities and simulated hacking attacks, we monitor the information security level of the organization and address any shortcomings. Access to business sites and server rooms is strictly controlled. All policy, technical, and administrative activities to protect the company-wide security environment are being faithfully implemented.

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

● **Mutual Trust**

All Together

APPENDIX



YOUR SOLUTION PARTNER

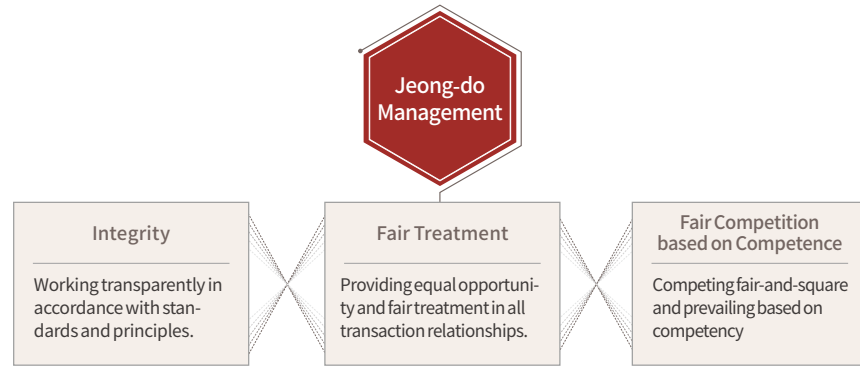
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Jeong-do Management

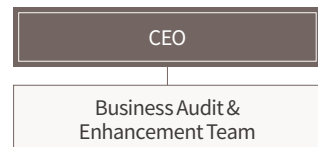
Jeong-do Management

Jeong-do Management is about building competency while practicing ethical management and engaging in fair-and-square competition. LX MMA earns the confidence of its customers, shareholders, partners and local communities, and makes society better through honest and fair business activities. Internalizing the “Jeong-do Management” practices in our organizational culture is an important area of focus for our business activities, guided by a Code of Ethics based on the standards of Integrity, Fair Treatment, and Fair Competition Based on Competence.



Organizational System for Jeong-do Management

In our pursuit of the systematic implementation of Jeong-do Management, LX MMA operates a dedicated organization-the Business Audit & Enhancement Team-under the direct management of the CEO. The team provides training, builds awareness, and investigates whistleblower reports to establish a sound organizational culture and discipline. Audits for Jeong-do Management are carried out on a regular basis to improve the organization’s competitiveness and ability to produce desirable outcomes.



Code of Ethics

LX MMA is committed to fulfilling our corporate social responsibility through transparent management and the fair and reasonable performance of our affairs. To aid all members of the organization in making the proper value judgments and behavioral decisions in the performance of work, we have established and distributed the Code of Ethics and Code of Practice. All employees are asked to comply with the code, helping to establish a culture of Jeong-do Management in all our operations. The LX Code of Ethics and Code of Practice are posted on our website and Intranet for viewing at any time.

LX Code of Ethics



Code of Ethics and Code of Practice

- 1 All employees must understand their roles and responsibilities in the performance of work, and be familiar with the LX Code of Ethics and related regulations. The Code of Ethics shall be complied with at all times, and Jeong-do Management must be practiced.
- 2 Any employees or executives who have violated the Code of Ethics, have witnessed a Code of Ethics violation by a colleague, or are coerced into an ethics violation must promptly report the fact to the Jeong-do Management Team.
- 3 Employees are required to regularly sign and submit the “Jeong-do Management Pledge of Practice” to the company.

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

Mutual Trust

● **All Together**

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

ALL TOGETHER

Jeong-do Management

Internalization of Jeong-do Management

LX MMA administers on- and off-line Jeong-do Management training at regular intervals to raise the ethics consciousness in the organization and internalize a culture of transparency. Awareness-building materials for Jeong-do Management are issued in newsletter form, and as a statement of the executive management's commitment to Jeong-do Management, letters are sent by the CEO to all members of the organization and subcontractors prior to the holiday season to remind them not to give or receive holiday gifts. To avoid infringements due to employees' or executives' unfamiliarity with the Code of Ethics, a separate site for Jeong-do Management is operated on our Intranet, providing a detailed description of the Code of Ethics and its content as well as examples of infringements and violations. The site clearly delineates what is the "right way," or Jeong-do, and what is not. All members of the organization are required to sign and submit a "Jeong-do Management Pledge of Practice" online every year, pledging adherence to the LX Code of Ethics and practices of Jeong-do Management. Subcontractors are held accountable to the same requirement, as Jeong-do Management is an essential prerequisite to sustainable growth.



Jeong-do Management Pledge of Practice

Jeong-do Management training

Classification	Unit	2020	2021	2022
Jeong-do Management training sessions	Sessions	3	3	3

Reporting and Whistleblowing

LX MMA operates a cyber reporting system through which employees can report illegal or unfair business practices or violations of Jeong-do management principles. Any receiving of unfair compensation by an employee or executive from a stakeholder, illegal or unauthorized use of company assets, non-transparent selection of subcontractors and other matters in violation or in potential violation of Jeong-do Management practices may be reported online, by letter mail, or by fax by any member of the organization as well as by outside persons of interest. By providing a highly accessible reporting system, LX MMA hopes to root out illegal and unfair practices and improve unreasonable systems and work processes to establish a sound organizational culture and fair subcontractor relations. Workplace harassment, sexual harassment and other ethics/human rights infringements and violations may be reported through the Intranet. The reporting process also allows in-person reporting or off-line reporting to the Business Audit & Enhancement Team through letter mail. LX MMA will continue to operate a variety of reporting systems to ensure that we hold ourselves accountable to the ethical responsibilities that our social responsibility demands.

Whistleblower Protection System

LX MMA provides strict confidentiality when it comes to whistleblower identity, the content of reports, and information on stakeholders associated with reports. A detailed guide to our whistleblower protections is published on the company website.

We forbid disclosing or implying the identity of whistleblowers without their express consent. Reports filed are processed only by personnel who have signed a confidentiality agreement, ensuring airtight security for our whistleblowing system. If a person is subject to unfair disadvantages for reporting or providing statements related to alleged unethical activity, they will be compensated by the company. Should a person report unfair or illegal practices involving or associated with themselves, disciplinary actions against them may be mitigated.

Items Subject to Protection

Whistleblower protection is premised on the filing of reports on a real-name basis and the submission of accurate evidence. Information relating not only to the whistleblower but also other interested parties will be strictly protected as well. The following information will be protected:

- ① Identity of the whistleblower
- ② Evidence or information gathered in relation to the report by the whistleblower
- ③ Information which may imply the identity of the whistleblower and persons concerned
- ④ Follow-up measures after the results of reporting

Whistleblower Protection Policy

- ① The identity of whistleblowers and the content of their reports are strictly protected as confidential by the Jeong-do Management Division. The internal reporting system is protected by a secure system. Reports are handled only by personnel who have signed a confidentiality pledge.
- ② If a whistleblower has been subject to unfair disadvantages or disciplinary action due to filing his/her report, the whistleblower will be restored to his/her status prior to the report or provided equivalent compensation.
- ③ Persons reporting illegal or unfair acts involving or associated with themselves will be subject to reasonably mitigated action via sufficient extenuating circumstances.








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Risk Management

Various risks arising in the areas of the environment, society and the economy are causing major changes to the business environment. Amid this fast pace of change, LX MMA remains committed to sustainable management. Risks associated with key issues are classified and managed proactively. In addition to key risks in the areas of the environment, OH&S, compliance and finance, we monitor and effectively respond to current and potential risks in all areas of corporate management, including information security, labor-management relations, procurement, compliance and quality.

Risk Response Plan

<p>Environment</p> 	<p>All environmental risks are assessed and managed at LX MMA business sites. This includes not only the mandatory matters related to our activities, products and services, but also risks brought to light by internal and external stakeholder requirements and other issues. Related policies, laws and regulations are monitored regularly to ensure a proactive response. We enforce anticipative climate and environment action through efforts toward Net-Zero and participation in the K-RE100 scheme. Data relating to waste, greenhouse gases and energy is managed and monitored to minimize our environmental impact.</p>
<p>Occupational Health and Safety</p> 	<p>Occupational health and safety is a top management priority at LX MMA. We have implemented systems for accident prevention and emergency operations with the aim of achieving zero safety and health accidents. The LX MMA response to safety accidents is proactive, consisting of safety education and training as well as risk assessment. We operate a health improvement system and related activities to improve and further the health of employees.</p>
<p>Compliance</p> 	<p>To ensure fair and transparent management, we operate the Business Audit & Enhancement Team under the direct authority of the CEO to manage related risks. Training in Jeong-do Management is administered regularly to employees based on our Code of Ethics, and we operate a highly accessible whistleblower/internal reporting system to ensure a prompt solution to ethical issues.</p>
<p>Taxes</p> 	<p>LX MMA maintains compliance with tax codes across all business areas, and faithfully carries out tax filing and payment duties. We monitor and appropriately apply various changes in tax-related systems, and proactively respond to any tax-related issues.</p>
<p>Finance</p> 	<p>LX MMA regularly monitors laws, regulations and markets to manage financial risks such as currency risk, credit risk and liquidity risk, and to proactively respond to changes in highly volatile financial markets.</p>

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

Minimize Environmental Impact

Mutual Trust

● **All Together**

APPENDIX



YOUR SOLUTION PARTNER

<https://www.lxmma.com>

04

Appendix



- 49 Financial Data
- 50 Communication Channels
- 50 Certifications/Awards/Association Memberships

- OVERVIEW
- OUR ESG APPROACH
- ESG MANAGEMENT
- APPENDIX**



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Financial Data

Consolidated Financial Statements

(Unit: KRW)

Classification	32 nd Term (Current)	31 st Term (Previous)
Assets		
Current Assets	352,296,120,020	468,073,892,172
Cash & Cash Equivalents	71,454,567,862	135,975,159,448
Trade Receivables	76,824,459,618	89,889,074,424
Other Receivables	5,019,924,015	95,493,993,785
Other Current Assets	10,258,556,189	4,801,740,415
Inventory Assets	188,738,612,336	141,913,924,100
Non-current Assets	310,656,653,887	284,751,990,071
Other Long-Term Receivables	8,653,046,858	6,677,101,682
Other Non-current Assets	1,960,000,000	-
Deferred Tax Assets	-	4,202,245,092
Tangible Assets	266,612,180,085	250,076,355,126
Intangible Assets and Goodwill	5,558,149,989	6,574,526,015
Right of Use Assets	16,257,446,359	16,301,461,200
Net Defined Benefit Assets	11,615,830,596	920,300,956
Total Assets	662,952,773,907	752,825,882,243
Liabilities		
Current Liabilities	97,573,695,187	140,140,075,843
Accounts Payable	34,734,298,451	33,528,081,651
Other Payables	32,493,450,838	27,695,742,751
Borrowings	9,525,181,220	7,449,104,639
Income Tax Payable	-	32,775,350,340
Current Lease Liabilities	3,716,541,564	2,846,932,224
Other Current Liabilities	17,104,223,114	35,844,864,238
Non-Current Liabilities	14,482,370,689	15,111,359,797
Net Defined Benefit Liabilities	-	-
Long-Term Employee Benefits	2,430,131,559	2,645,717,791
Deferred Tax Liabilities	871,477,893	-
Lease Liabilities	11,180,761,237	12,465,642,006
Total Liabilities	112,056,065,876	155,251,435,640
Capital		
Capital Stock	24,000,000,000	24,000,000,000
Capital Surplus	29,041,064,441	29,041,064,441
Earned Surplus	497,855,643,590	544,533,382,162
Total Capital	550,896,708,031	597,574,446,603
Total Liabilities and Capital	662,952,773,907	752,825,882,243

Consolidated Statement of Comprehensive Income

(Unit: KRW)

Classification	32 nd Term (Current)	31 st Term (Previous)
Revenue	783,193,681,517	736,577,576,363
Cost of Goods Sold	(652,576,354,768)	(517,447,979,774)
Gross Profit	130,617,326,749	219,129,596,589
Selling and Administrative Expenses	(75,939,573,124)	(62,354,162,068)
Operating Income	54,677,753,625	156,775,434,521
Non-operating Income and Expenses	4,035,973,758	5,580,626,388
Other Income	9,701,587,748	4,261,318,911
Other Expenses	(8,978,280,463)	(3,469,574,075)
Financial Profits	9,674,005,135	6,075,630,750
Financial Expenses	(6,361,338,662)	(1,286,749,198)
Net Income Before Income Tax	58,713,727,383	162,356,060,909
Tax Expenses	(9,235,986,654)	(42,422,365,506)
Net Income	49,477,740,729	119,933,695,403
Earnings Per Share		
Basic Earnings Per Share	20,616	49,972

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX

● **Financial Data**

- Communication Channels
- Certifications/Awards/Association Memberships



YOUR SOLUTION PARTNER

Communication Channels

Communication Channels by Group

Classification	Areas of Interest	Communication Channels
Customers	<ul style="list-style-type: none"> Product and service quality Transparent communication Business competitiveness 	<ul style="list-style-type: none"> Product brochures Website - Customer Support
Employees	<ul style="list-style-type: none"> Safety and health improvements Welfare, benefits, and organizational culture Evaluation and rewards Protection of human/labor rights Labor-management relations Opportunities for education and growth 	<ul style="list-style-type: none"> Labor union Cyber Sinmungo(Ethics Hotline) Company magazine Management briefings
Subcontractors	<ul style="list-style-type: none"> Strategic partnerships Fair transactions Hand-in-hand growth Management support Workers' human rights 	<ul style="list-style-type: none"> Cyber Sinmungo (Ethics Hotline)
Local Communities	<ul style="list-style-type: none"> Stimulating local economies Social contribution to local communities Environmental conservation in the community 	<ul style="list-style-type: none"> CSR activities
Government	<ul style="list-style-type: none"> Legal compliance 	<ul style="list-style-type: none"> Government affairs
Academia and Experts	<ul style="list-style-type: none"> Technology development 	<ul style="list-style-type: none"> Joint R&D Technical advisory

Certifications/Awards/Association Memberships

Certifications and Awards

Name of Certification	Valid Until
ISO 14001 (Environmental Management System Certification)	- December 26, 2025
ISO 45001 (Safety and Health Management System Certification)	- May 16, 2024
ISO 9001 (Quality Management System Certification)	- August 2, 2024
IATF 16949 (Automotive Industry Quality Management System Certification)	- October 20, 2024

Association Memberships

Association Memberships
The Polymer Society of Korea
Korea Industrial Trade Association
Korea Petrochemical Industry Association
Jeonnam Enterprises Federation
Yeosu National Industrial Complex Factory Managers' Council
Yeosu Chamber of Commerce and Industry

OVERVIEW

OUR ESG APPROACH

ESG MANAGEMENT

APPENDIX

Financial Data

● **Communication Channels**

● **Certifications/Awards/ Association Memberships**



YOUR SOLUTION PARTNER



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