

LIFESTYLE INNOVATOR

2020 KOLON INDUSTRIES SUSTAINABILITY REPORT

ABOUT THIS REPORT

This report is the eighth Sustainability Report published by KOLON INDUSTRIES, which introduces its company-wide sustainability management strategy and focuses on the five core strategies, major activities, and performances to realize the strategy to enhance the understanding of its stakeholders.

Reporting Standards

This report complies with the Core option of the Global Reporting Initiative (GRI) Standards 100-400. It is reflecting the ten principles of the UN Global Compact and the main agenda of ISO 26000. For the financial performance, KOLON INDUSTRIES reports its financial data based on the Korean International Financial Reporting Standards (K-IFRS).

Reporting Period

This report covers KOLON INDUSTRIES' major sustainability activities and performances of the headquarters as well as domestic and overseas sites from 1 January 2020 to 31 December 2020. In addition, we partially included activities and performances until the first half that have significant impacts on our business. For the quantitative performance, data of the recent 3 years is reported so that the yearly development can be analyzed.

Reporting Boundary

KOLON INDUSTRIES consists of a manufacturing organization that provides industrial materials, film/electronic materials, and chemical industries, and FnC organization which runs the fashion industry. This report covers the head office of the manufacturing organization and its eight domestic business sites (Gumi, Gyeongsan, Gimcheon 1, 2, Ulsan, Yeosu, Daesan, Incheon) and for some cases, data from overseas business sites of the manufacturing organization and FnC organization are included.

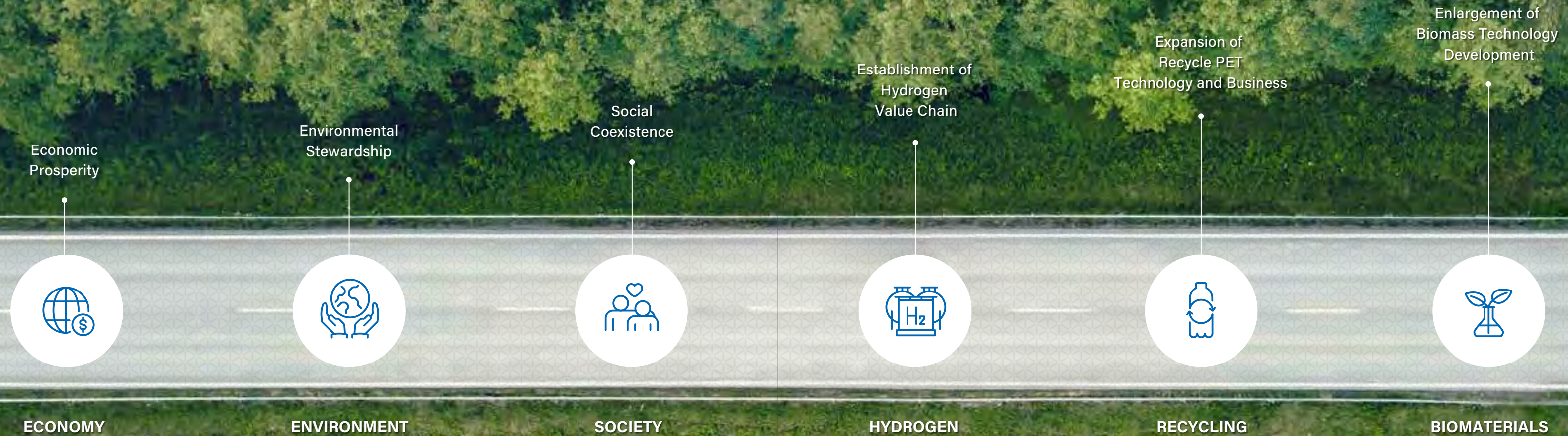
Third Party Assurance

In order to secure the credibility and fairness of the writing process and contents of the report, a third-party assurance was conducted by an external, independent specialized agency and the results are available on p. 72-73 of this report.

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LIFESTYLE INNOVATOR



As a LifeStyle Innovator who changes the lives of customers by providing differentiated products and innovative services, KOLON INDUSTRIES is paving the way towards a better world for humankind by pioneering future businesses such as hydrogen, recycling, and bio business based on sustainability management that balances economic prosperity, environmental stewardship, and social coexistence.



COVER STORY

The cover symbolizes the challenging way towards a better world for humankind that KOLON INDUSTR is opening together as a LifeStyle Innovator.



CEO MESSAGE

**“We Will Become a ‘LifeStyle Innovator’
that Creates a Sustainable World”**

Hee-Goo Jang
CEO and President of KOLON INDUSTRIES

Greetings. This is Hee-Goo Jang, CEO of KOLON INDUSTRIES.

Starting as Korea's first nylon producer in 1957, KOLON INDUSTRIES has grown together with the people by changing the lives of customers through innovative products at every corner of history. KOLON INDUSTRIES, which has expanded in both domestic and overseas markets through advanced technology and differentiated products, is preparing for a new future in the face of a global pandemic and expanding its status as a true global leader contributing to the happiness of mankind through company-wide ESG management.

The past year was impacted by various social problems such as the collapse of the public health system, deepening social disparities, and climate change, along with an economic crisis that no one expected due to the COVID-19 pandemic. As a member of society, KOLON INDUSTRIES emphasized these crises and carried out various activities to fulfill its corporate social responsibility. For neighbors suffering from a shortage of face masks, we provided two million MB (melt-blown) filters, a key subsidiary material for face masks, free of charge. We also have actively participated in overcoming COVID-19 by donating Onnuri gift vouchers for local small business owners and supporting the construction of a modular neighborhood negative-pressure treatment center in Mungyeong, Gyeongsangbuk-do. In addition, KOLON INDUSTRIES' social contribution goes beyond the traditional social contribution method and aims of “Creating Shared Value” (CSV) in the four aspects of Eco-life, Future-life, Culture-life, and Share-life, and is linked with group companies. Through this, we are striving to improve the lives of the people and further realize the UN Sustainable Development Goals (SDGs).

Amid the ongoing COVID-19 crisis, KOLON INDUSTRIES will take 2021 as a turning point in promoting sustainability management, and will practice the following sustainability management through the unique method of KOLON INDUSTRIES.

Firstly, through the new ESG management policy and practice, we will become a company trusted by shareholders, customers, business partners, and employees.

In 2021, KOLON INDUSTRIES established the ESG management policy under the direction of the CEO and selected 16 key tasks based on the five core strategies for sustainability covering the environment, society, and governance to establish a systematic sustainability management system. In particular, in order to actively participate in the national carbon-neutral goal, we established a carbon-neutral road map including an environmental management agenda up to 2047 with the goal of 'achieving 2040 Net Zero for a sustainable future,' an environmental management vision, and is carrying out various environmental management activities to strengthen the goal by establishing our position as a global eco-friendly company.

Secondly, we will realize more sincere sustainability management in business, such as building a resource circulation Value-Chain.

The need for eco-friendliness and resource recycling along with societal awareness is increasing day by day. KOLON INDUSTRIES strives to take the lead in protecting and sustaining the environment by creating a value chain for a 'sustainable environment.' To this end, we will take the lead in creating a healthy hydrogen ecosystem by expanding our business to the water electrolysis field through fuel cell technology, which is the foundation of the hydrogen industry, based on the membrane design and manufacturing-related technical capabilities accumulated over the past 32 years. In addition, in a situation where the problem of plastic waste has recently been pointed out as a cause of environmental pollution, we are developing biodegradable plastic products and producing eco-friendly PET (polyester) by recycling waste plastics on the basis of cooperation with the local community. We will continue to take the lead in creating a clean environment.

Thirdly, we will put more effort into the basics of sustainability management.

All employees of KOLON INDUSTRIES have made ceaseless efforts to establish a culture of compliance, human rights, fair trade, and ethical management. We will take preemptive measures to minimize the impact of unforeseen circumstances on the company such as cybersecurity and infectious diseases. We will lay the foundation for a sustainable company by creating a flexible and creative organizational culture based on diversity and inclusiveness within the organization, fair performance management, and systematic human resource development. Furthermore, as a member of the One&Only Committee, which is the new management system of the KOLON Group, we will take the lead in advancing corporate governance and establishing transparent management.

KOLON INDUSTRIES will become a “LifeStyle Innovator” that creates a sustainable world. All employees of KOLON INDUSTRIES will do their utmost to take each step toward a sustainable future with a strong sense of mission. We ask for your warm encouragement and interest in the challenges of KOLON INDUSTRIES.

Thank you.

COMPANY OVERVIEW

Company Profile

KOLON INDUSTRIES, INC. was separated from the manufacturing department of KOLON Corporation, which was founded in 1957 as the first nylon producer in Korea in the name of Korea Nylon, after splitting off in 2010. KOLON INDUSTRIES is leading the market by becoming a LifeStyle Innovator in various industries ranges from industrial materials, film / electronic materials, chemicals to fashion.

Company Name	KOLON INDUSTRIES, INC
Representative	Hee-Goo, Jang
Date of Foundation	5 January 2010
Main Businesses	Industrial materials, film/electronic materials, chemicals, and fashion
Location of Headquarters	110 Magokdong-ro, Ganseo-gu, Seoul (Magok-dong)
Number of Employees	3,784 Employees <small>(As of 31 December 2020)</small>

Management Philosophy and Vision System

Vision



Innovate the lifestyle of our customers by providing products and services that improve the quality of life

Core Values

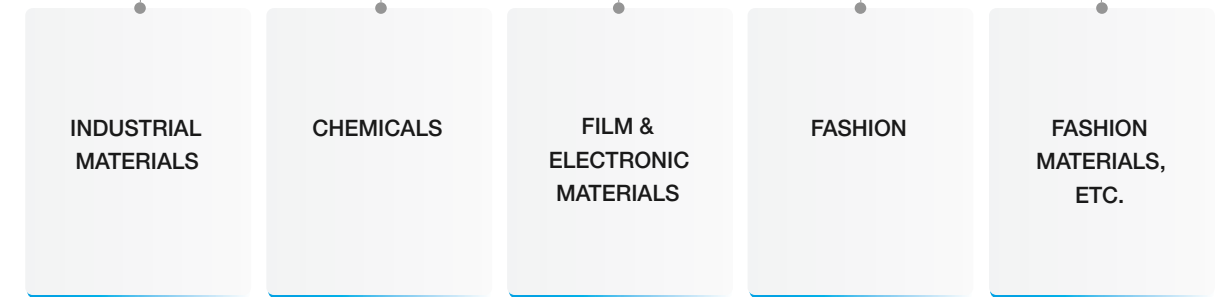


- First Choice of Customers
- Uniqueness
- Individual Excellence

Company Name



Five Business Groups



Business Divisions & Main Subsidiaries

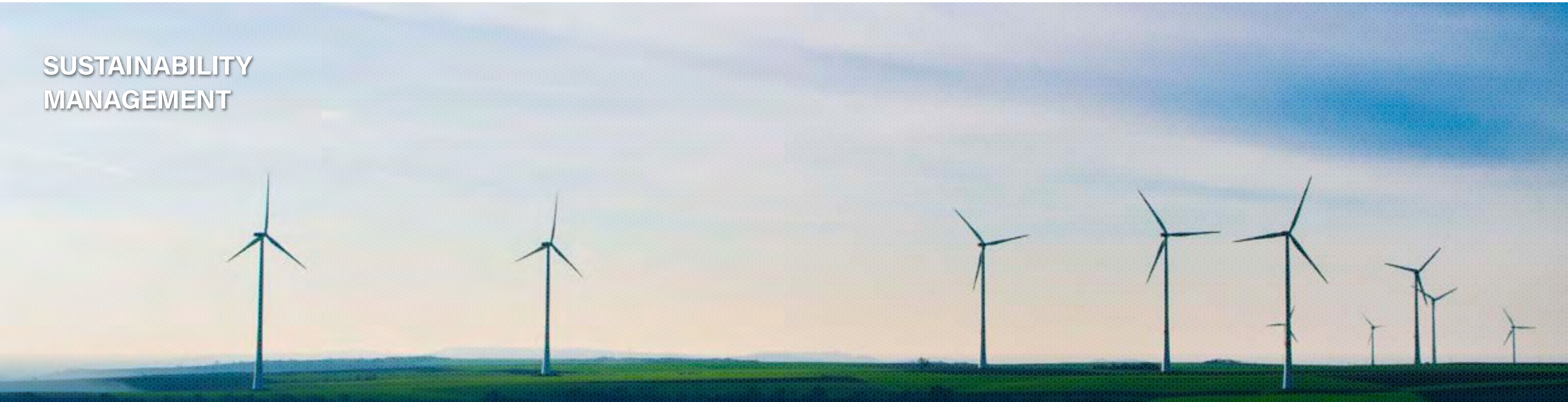
- INDUSTRIAL MATERIALS**
 - KOLON INDUSTRIES (Industrial Materials Division)
 - KOLON GLOTECH
 - KOLON PLASTICS
 - KOLON DACC COMPOSITE
 - Attometal Tech Korea
- CHEMICALS**
 - KOLON INDUSTRIES (Chemical Division)
 - CATECH
- FILM & ELECTRONIC MATERIALS**
 - KOLON INDUSTRIES (Film/Electronic Materials Division)
 - KF&T
- FASHION**
 - KOLON INDUSTRIES (Fashion Division)
 - SWEATMEAL
 - Purple IO
- FASHION MATERIALS, ETC.**
 - KOLON INDUSTRIES (Others)
 - KOLON MATERIALS
 - GREEN NARAE
 - KOLON INVESTMENT
 - KOLON ECONERGY

Major Business Sites

HEAD OFFICES Magok, Samsung	DOMESTIC SITES Gumi, Gyeongsan, Gimcheon (2 sites), Ulsan, Yeosu, Daesan, Incheon	OVERSEAS SITES (Manufacturing) China (3 sites), Vietnam (2 sites), Mexico (1 site), Indonesia (1 site)	OVERSEAS SITES (Sales) & BRANCHES U.S.A., Germany, Tokyo, Osaka
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(As of 31 December 2020)

SUSTAINABILITY MANAGEMENT



Sustainability Management System

In 2021, KOLON INDUSTRIES established the 'ESG Management Policy' under the CEO's name, which contains the will to promote sustainability management, and is promoting company-wide sustainability management. Based on the five core sustainability strategies across overall ESG management, we are realizing systematic sustainability management by selecting and implementing 16 priority tasks.

ESG Management Policy

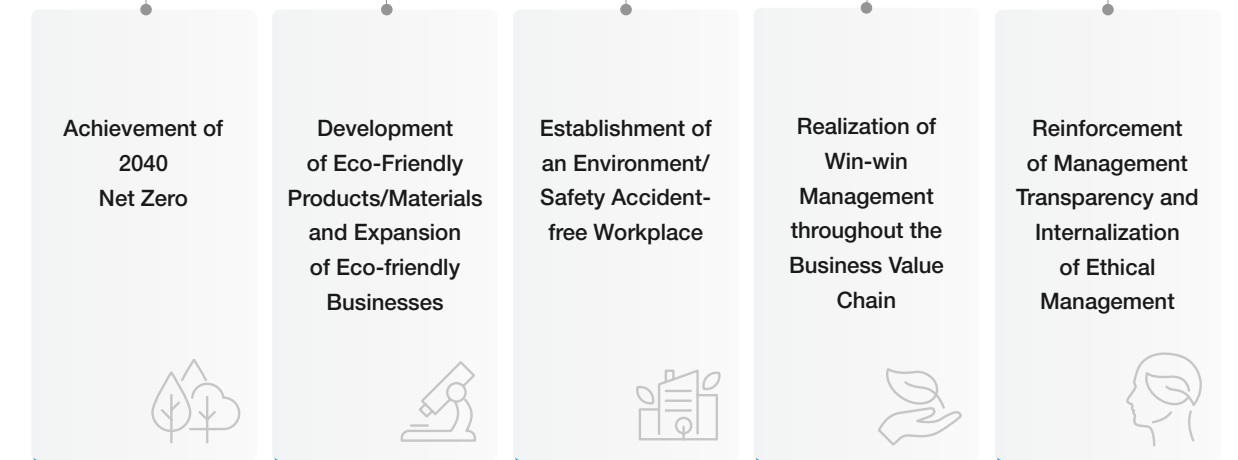
KOLON INDUSTRIES participates in the challenge of humankind toward a sustainable future with a strong sense of mission and internalizes ESG (environment, society, and governance) to practice reliable sustainability management.

- 1 We pursue eco-friendly management by responding to climate crisis including greenhouse gas issues and establishing a clean production via through thorough management of hazardous chemicals.
- 2 We expand the eco-friendly material business through R&D innovation to lay the groundwork for future sustainable growth businesses.
- 3 We make a company we want to work for by observing human rights management principles, and create a safe workplace through an accident-free management system.
- 4 We contribute to social development by continuously communicating with customers, partners, and local communities.
- 5 We seek to maximize stakeholder value by securing soundness and transparency of the governance structure.
- 6 We establish an ethical management system through good governance and anti-corruption standards.

Strategy System



Five Core Strategies



16 Priority Tasks

- | | | | | |
|--|--|--|--|--|
| <ul style="list-style-type: none"> · Activation of the circular economy - Improvement of energy efficiency and conversion to new and renewable energy - Recycling materials · Carbon footprint management · Participate in global initiatives | <ul style="list-style-type: none"> · Expansion of hydrogen fuel cell business · Expand recycle PET products · Development of Bio-based products | <ul style="list-style-type: none"> · Improvement of hazardous pollutant treatment · Internalization of the major disaster prevention system · ESH information management system establishment | <ul style="list-style-type: none"> · Establishment of supply chain ESG partnerships · Fair trade with suppliers · Labor-management and human rights-oriented culture · Diversification of social contribution programs | <ul style="list-style-type: none"> · Establishment of sustainable governance · Enhancement of anti-corruption/compliance systems · Improvement of information protection system |
|--|--|--|--|--|

Sustainability Issues

KOLON INDUSTRIES conducts an annual materiality analysis to identify major sustainability management issues that affect corporate management and to understand the interests and expectations of various stakeholders. We select major sustainability management issues every year based on the Global Reporting Initiative (GRI) Standards 100-400, an international sustainability reporting guideline, and reflect them in our management activities.

STEP 1 Identifying Sustainability Issues

Identification of Sustainability Issues through Internal and External Environment Analysis

KOLON INDUSTRIES created the sustainability management issue pool (includes total of 350 issues) through the benchmarking of global guidelines, review on the peer companies, and review on the internal management data. As a result, we identified total of 28 sustainability issues that have high relevance to managerial activities.



STEP 2 Prioritizing Sustainability Issues

Internal and External Stakeholders Survey Analysis

From 9 to 13 August 2020, online and offline surveys of sustainability issues were conducted on employees and external stakeholders to collect opinions and analyze influences.

Business Impact Analysis

To analyze the impact of sustainability issues on the business perspective, the strategic linkages between individual issues and businesses and financial impacts of individual issues were comprehensively evaluated.

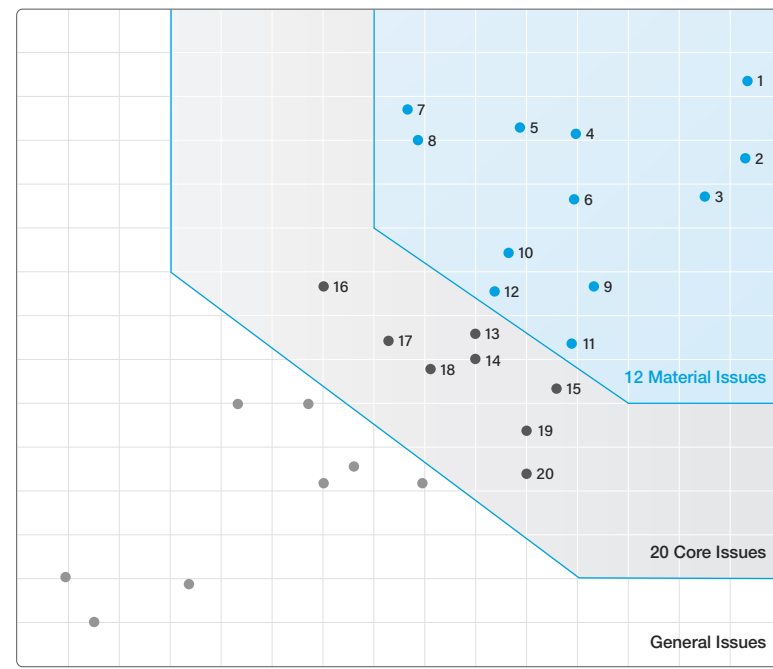
STEP 3 Validating Material Issues

Material Sustainability Issue Analysis

KOLON INDUSTRIES thoroughly reviewed whether the issues identified have an important influence on the company. Comprehensively considering the validity of issues and their connection to management strategies, we subdivided issues into three categories: 12 material sustainability issues, 20 core issues, and general issues. In planning this report, we focused mainly on the 12 material sustainability issues that have the highest importance. Also, we endeavored to guarantee our stakeholders' right to know by including material and general issues.

Materiality Analysis Matrix

Impacts on stakeholders' decision and evaluation



Rank	Sustainability Issues
1	Creating sustainable economic performance
2	Securing safety and health management and accident prevention
3	Fostering new growth businesses and expanding the market
4	Strengthening the sustainability management (ESG) system
5	Technology innovation and digital transformation
6	Developing eco-friendly products and technologies
7	Product innovation and circular economy realization
8	Responding to climate change and realizing carbon neutrality
9	Fair performance evaluation and compensation
10	Managing chemicals and hazardous substances
11	Realizing customer satisfaction and creating customer value
12	Promoting ethical and compliance management and preventing corruption
13	Enhancing employee competitiveness and executive power
14	Protecting human rights and preventing violations
15	Securing soundness and transparency of governance
16	Managing supply chain sustainability
17	Energy Management and reduction
18	Complying with fair trade and establishing fair competition
19	Strengthening financial soundness and profitability
20	Work-life balance and organizational culture

Stakeholder Engagement

When a company promotes sustainability management, the activities to collect opinions from various stakeholders who exchange influences with management activities and reflect them actively in management activities are very important. KOLON INDUSTRIES defines stakeholders who are directly or indirectly affected by business activities as the 7 major stakeholders and is actively collecting opinions by operating various communication channels. Based on opinions and information collected through on/offline communication channels for each stakeholder group, sustainability management goals and strategies are established and reflected throughout business activities. In addition, we are realizing the creation of shared value by fairly distributing the economic performance generated through business activities to stakeholders.

Stakeholder Communication Channels

Stakeholder Group	Key Issues & Expectations	Communication Channels
Shareholders and Investors	<ul style="list-style-type: none"> Transparent management activities Creation of economic performance Stable governance 	<ul style="list-style-type: none"> General meeting of shareholders Performance announcement Management briefing session Disclosure of financial information Credit rating
Customers	<ul style="list-style-type: none"> Improvement of product quality Product safety Realization of customer satisfaction 	<ul style="list-style-type: none"> Receive customer opinions Customer satisfaction Product liability monitoring
Government and Media	<ul style="list-style-type: none"> Compliance with environmental and safety-related laws Compliance with tax obligations Transparent information disclosure 	<ul style="list-style-type: none"> Policy briefing session Press release
Associations	<ul style="list-style-type: none"> Sharing information on domestic and international regulations, listening to opinions, and establishing joint response plans 	<ul style="list-style-type: none"> Industry and industry-related associations
NGOs and Local Communities	<ul style="list-style-type: none"> Product safety Community investment activities Recruitment of local talent 	<ul style="list-style-type: none"> Employee Volunteer Group Local talent recruitment briefing session (temporarily suspended due to COVID-19)
Suppliers	<ul style="list-style-type: none"> Communication with suppliers Win-win growth Win-win management 	<ul style="list-style-type: none"> Newsletter Win-win Growth Promotion Committee
Employees	<ul style="list-style-type: none"> Guaranteed employee safety and health Reinforcement of employee competency Fair performance compensation 	<ul style="list-style-type: none"> Labor-Management Council Newsletter Intranet Company Magazine Occupational Safety, Health and Environment Committee Employee survey

Distribution of Stakeholder Values

(As of 2020)

Shareholders and Investors 87.59 KRW billion Cash dividends and interest expenses	Government 107.30 KRW billion Corporate tax payment	Local Communities 4.99 KRW billion Donation expenditure	Suppliers 741.70 KRW billion Procurement expenditure	Employees 265.41 KRW billion Total annual salary
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KOLON INDUSTRIES VALUE CREATION

KOLON INDUSTRIES, which has revolutionized people's lives, is creating a better tomorrow through sustainable value creation for corporate growth and human prosperity based on the differentiated competitiveness of the four business divisions.

We will expand our status as a true global leader contributing to the happiness of humankind by preparing for a new future through advanced technology and differentiated products.



INDUSTRIAL MATERIALS

Focusing on nurturing new growth businesses such as 5G communication infrastructure and 'Aramid,' a core component of electric vehicles



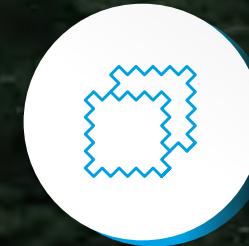
FILM & ELECTRONIC MATERIALS

Addressing new customer needs with a focus on high-quality and high-value-added products essential for high-tech industries



CHEMICALS

Expanding the market continuously around the world based on stable product quality



FASHION

Upgrading the fashion industry through digital transformation-centered process improvement and online business reinforcement



INDUSTRIAL MATERIALS

KOLON INDUSTRIES' industrial materials business is engaged in producing and marketing various industrial materials, such as tire cords, airbag fabrics and cushions, technical yarn, polyester spunbond, artificial leather (CHAMUDE®), aramid, and hydrogen fuel cell membrane. We are in the midst of a new growth phase along with a surge in demand for aramid, a core component of electric vehicles.

Business Overview

The automotive parts and materials industry has industrial characteristics that are significantly affected by the vehicle industry. Due to the nature of the industry, the proportion of exports of major products is high, which is highly correlated with global economic fluctuations. However, we are configuring a stable business portfolio based on the diversification of export regions and a strong domestic market.

As the vehicle industry continues to grow, the automotive parts and materials industry is also growing. In particular, as safety regulations are being tightened around the world, the automotive parts and materials industry is showing a growth rate exceeding that of vehicles. As the number of autonomous driving vehicles increases in the future, safety concerns will increase, and accordingly, the demand and installation rate for safety parts are expected to further increase.

Market Outlook

The automotive parts and materials industry in China is rapidly growing into one of the three major markets along with North America and Europe, which are the centers of the vehicle industry. In addition, markets such as South America and India are expected to grow significantly in the future. Demand for CHAMUDE® is expected to increase due to the rising trend in premium automotive interior materials and the diversification of demand markets for premium goods. Spunbond Nonwoven Fabrics are under threat from the expansion of overseas competitors and the improvement of the quality of low-priced Chinese products, but are continuously growing their market share based on stable quality and supply. The fuel cell membranes business is expected to grow rapidly in line with the government's plan to accelerate the development of renewable energy vehicles and the government's plan to revitalize the hydrogen economy, particularly China's government-led eco-friendly vehicle policy.

Future Strategy

KOLON INDUSTRIES is striving to develop new items with USP based on a stable business portfolio at home and abroad, and is continuously promoting business cooperation through cross functional communication with other affiliates. In particular, we are intensively nurturing 'aramid,' a high-strength fiber, as our core growth business in line with the growing global demand for 5G communication infrastructure and the spread of electric vehicles. Aramid fiber has high strength and excellent tensile strength for its light weight, so it serves as a reinforcing material for internally supporting optical cables for 5G. Its demand as the key material for premium ultra-high performance (UHP) tires on electric vehicles is expected to show an explosive increase.



FILM & ELECTRONIC MATERIALS

KOLON INDUSTRIES' film and electronic materials business is engaged in producing and marketing base film, such as PET film and nylon film, as well as PET post-processing film, such as optical materials for LCD and DFR, vapor deposition film for food packaging, and colorless and transparent polyimide (CPI®) film. We will grow into a company that address new customer needs, focusing on high-quality and high-value-added products necessary for high-tech industries.

Business Overview

The film market is largely divided into industrial and packaging markets, and in the industry, materials for LCD BLU, materials for protecting polarizers and materials for solar backsheets have been recently in the spotlight. The packaging is used for food packaging and domestic and foreign packaging material manufacturers are the main customers. China's LCD material industry is showing growth and is supplementing the domestic LCD market, which is shrinking due to the expansion of the OLED market.

KOLON INDUSTRIES' film and electronic materials business is equipped with the world's leading PET production facilities ranked 14th globally. Based on 30 years of production experience, it is recognized as a high-quality product by customers.

Market Outlook

According to PCI, a PET film-related market research institute, the global market total amounted to 5.4 million tons in 2019, and is expected to show a growth of 5.6% in CAGR until 2021 to reach approximately 6.7 million tons in 2022. As such, PET films and nylon films are products that show steady and stable growth and are expected to be used as major materials in many new industries in the future due to their excellent mechanical properties and processability. In the LCD material industry, products with low technological barriers are being absorbed more quickly into the Chinese market, causing the domestic market to shrink. On the other hand, in the PCB market, demand for high value-added products such as mobile/vehicles is expected to grow. We are competing with overseas global companies with high-level technology and quick customer response, and are expanding our localization in China to target the Chinese market and expand our global business.

Future Strategy

In order to produce and supply high-quality and cost-effective materials required by high-tech industries such as displays, KOLON INDUSTRIES has marketing capabilities to quickly grasp market changes and the highest level of R&D and production technology. Based on such accumulated competitiveness, we plan to pioneer the market by addressing customer needs. In addition, through continuous technology development, research and investment, we are establishing ourselves as a major supplier in the high-tech industrial materials market, and we will create better products through bold R&D investments.



CHEMICALS

KOLON INDUSTRIES' chemicals business is engaged in manufacturing and marketing hydrocarbon resins as well as batch production and marketing of phenolic and epoxy resins, and has a high competitive edge in both the domestic and overseas markets. We are continuously expanding our market around the world based on stable product quality.

Business Overview

The chemical materials industry is affected by the overall economic situation as it has a variety of uses across the industry. Phenolic resins and epoxy resins are supplied for vehicles (paints, tires, etc.), ships (paints), electronic materials, and composite materials. We also supply not only urethane, urea, epoxy, and various types of composite materials used as waterproofing materials for buildings and interior flooring, but also flooring materials for sport stadiums such as athletics tracks, basketball courts, and roller-skating rinks. Urethane is also used in waterproof/windproof clothing and mountaineering products.

KOLON INDUSTRIES' chemicals business has the advantage of maintaining a stable supply compared to competitors with high-quality products through the stable sourcing of raw materials, thus maintaining steady transactions with leading global customers. Phenolic resins have excellent heat and chemical resistance, dimensional stability, electrical insulation, and mechanical strength. Among the phenolic resin manufacturers, the company has the largest production capacity in Korea and the second largest in all of Asia.

Market Outlook

In the case of phenolic resins, competition is fierce due to the decrease in the sales of marine paints and tires due to the downturn in the shipbuilding industry and the domestic vehicle industry, the reduction of phenolic resins for general use such as castings, and the import of phenolic resins and finished products from China, but composite materials and eco-friendly paints are continuing to grow. For epoxy resins, most customers operate factories in Northeast Asia such as China and Japan, and they are in fierce competition with multinational companies and Japanese/Taiwan-based companies. The operation rate of Chinese-based customers has decreased considerably due to the trade war between the US and China, and we are overcoming this situation by increasing the proportion of other regions such as Southeast Asia. Also, we are increasing our market share through an integrated production system for phenolic resins and epoxy resins. In the case of urethane waterproofing and flooring materials, the market share is reduced due to the downturn of the construction market and the advent of low-cost substitutes. Nevertheless, we are trying to expand our business by diversifying our business (PU for vehicles, etc.) and responding to the demand for eco-friendly products (heavy metal free).

Future Strategy

By maximizing synergy between businesses, KOLON INDUSTRIES plans to strengthen its fundamental competitiveness and continuously expand its global market. In particular, we are concentrating on the development of new uses and new products and reinforcing the strategic sector by reorganizing our business portfolio, while continuing to expand our business areas in all directions and related industries. In addition, we will continue to provide opportunities for market expansion by diversifying strategic markets, while preoccupying new opportunities by discovering eco-friendly businesses.



FASHION

KOLON INDUSTRIES' fashion business, which has been playing a pioneering role in the development of the Korean fashion industry, is customer-centered in accordance with the changing world and customer needs, and maintains a leading position in the domestic fashion industry by promoting digital transformation to improve internal processes and strengthening its online business.

Business Overview

The fashion industry refers to all industries related to fashion products, and unlike the manufacturing industry, it is a complex industry that reflects the emotions and desires of consumers in design and commercializes them to complete various images and high-sensitivity marketing strategies.

Key competitive factors in the fashion industry include product planning capabilities such as brand value, design, and quality. In addition, distribution competitiveness such as securing a central business district, development of new distribution channels, and price competitiveness through global sourcing are included. Most fashion companies are operating through outsourcing systems with domestic and foreign partners except for core competencies in overall product planning such as materials, designs, and patterns. Therefore, the entry barriers in the market are low, the needs of consumers are diverse and there are significant changes in the market, so competition is very fierce.

Market Outlook

The overall market growth of the domestic fashion industry has recently slowed down considerably due to an increase in cross-border shopping, long-term domestic economic depression, and contraction in consumer sentiment due to the impact of the COVID-19 pandemic. The year 2021 saw a highly volatile market situation, frequently alternating between a contraction in consumer sentiment due to a prolonged pandemic caused by COVID-19 and a recovery in consumer sentiment following the easing of the pandemic situation. Such situation is expected to continue until the end of the COVID-19 pandemic. In the long run, it is expected that the consumer sentiment will considerably recover after the end of the COVID-19 pandemic. The fashion market is becoming more segmented due to the transition to working 52-hour a week, lifestyle changes due to the transition to an aging society, diversification of distribution channels to mobile, etc., pursuit of reasonable consumption culture, and polarization in the market. Moreover, an opportunity to create a new fashion business sector is expected to emerge.

Future Strategy

In order to respond flexibly to changes in the environment of the fashion industry, which is sensitive to economic changes and trends, and to enhance the competitiveness and value of brands, which are at the core of future corporate value, the 'Brand Management House' is used to reorganize existing brands and launch and foster new brands. In addition, efforts are being made to discover and attract new external brands to secure new growth engines. In addition, in order to preemptively respond to various environmental risks, we are continuously developing products that undergo a process that minimizes the generation of wastewater, air pollutants, and chemicals that may occur during product manufacturing and distribution stages and plan to increase the proportion of such products.

SUSTAINABILITY VALUES

As a LifeStyle Innovator, KOLON INDUSTRIES has changed the world by introducing innovative products. Now, we start a new challenge, paying attention to the role and potential of companies for sustainable value improvement.

KOLON INDUSTRIES is maximizing corporate, environmental, and social values through the six sustainability management agendas, and is doing its best to improve the quality of life for humankind.



TECHNOLOGY INNOVATION
FOR CUSTOMERS



ECO-FRIENDLY
OPERATIONS



SAFE AND
HEALTHY SITES



TALENT CULTIVATION &
HUMAN RIGHTS



LOCAL COMMUNITY
ENGAGEMENT



SUSTAINABLE SUPPLY
CHAIN

Technology Innovation for Customers

Technology innovation is the foundation for securing future competitiveness of a company and providing customers with new experiences and changes in their lives. Based on a mid to long-term mega-trend analysis, KOLON INDUSTRIES strengthens the foundation for business creation through continuous R&D investment while providing innovative solutions to improve the future sustainability of humankind and companies.

Issue Boundary

Customers Employees Suppliers

Major Performances

101.02 KRW billion R&D Investment in 2020

273 Persons R&D Personnel in 2020

1 Best Company for MPE (Materials, Parts, Equipment) in 2021

<http://www.kolonindustries.com/RnD/rnd01.asp>

Technology Innovation System

Technology Innovation Vision and Strategy

The world is changing rapidly, showing the rise of green economy, resource depletion, energy shortage, environmental pollution, changes in the social structure due to aging, digitalization, and the spread of artificial intelligence technology. A company that takes a preemptive response to internal and external changes and secures future competitiveness through technology innovation can open the future of humankind. As such, the KOLON Group established an ESG-oriented mid-to-long-term R&D strategy for environmental and social technological innovation under the vision of 'innovating customer life by providing products and services that improve the quality of life.' We are promoting technology innovation centered around the four major business sectors of green energy, sustainability, smart mobility, and life innovation.

KOLON INDUSTRIES, as the group's future growth engine, aims to 'Provide a Technology Platform as the Core of Company-wide Technological Competitiveness' and performs R&D with group companies in five areas: green/energy materials, high-performance industrial materials, film/electronics/display materials, mobility materials, and chemicals. In order to lay the foundation for future growth, KOLON INDUSTRIES is expanding its scope of technological innovation with new business fields such as aramid, tire cords, hydrogen fuel membranes, and films using biodegradable and waste plastic raw materials that focus on high added-value and eco-friendliness beyond the chemical fiber field.

KOLON INDUSTRIES R&D Fields

Vision	LIFESTYLE INNOVATOR			
Group	Group's Growth through Creative Group and Global Network Synergies and Ideas			
Technology Innovation field	Green Energy Next-generation secondary battery materials and technologies related to hydrogen production and storage	Sustainability Building a sustainable plastic ecosystem	Smart Mobility Materials and parts related to vehicles of the future	Life Innovation New materials related to healthcare and beauty
	<ul style="list-style-type: none"> Next-generation secondary battery materials: ASS battery, active materials Materials for hydrogen economy: Hydrogen production, hydrogen storage, hydrogen utilization 	<ul style="list-style-type: none"> Sustainable Plastics Circular Economy (SPE): Biomass polymers 	<ul style="list-style-type: none"> Composite materials: Towpreg, lightweight material Inorganic materials: Amorphous, soft magnetic materials/parts 	<ul style="list-style-type: none"> Healthcare: Development of genetic treatment Beauty: Microbial-based high value-added material, bioconversion




Technology Innovation Organization

KOLON INDUSTRIES' technological innovation has become the cradle of the Future Technology Institute, which was newly launched in 2018, and promotes R&D for new technology development for future food preparation and synergy creation among affiliates through KOLON INDUSTRIES' unique convergence of future technology. To this end, starting with the renewable energy sector centered around the sustainable plastics circular economy (SPE: Spontaneous Polymer Economy), we are discovering new items including the bio sector for future value creation, carrying out R&D to secure a sustainable growth engine, and strengthening basic capabilities while building a global network. Based on creative and challenging research culture, KOLON INDUSTRIES' R&D Division is striving to strengthen the competitiveness of its current business through material development and applied technology and to build an R&D network to lay the foundation for new businesses in the future. In particular, we are strengthening our technology and capabilities to produce results in a timely manner for R&D of KOLON INDUSTRIES, which contributes to the continuous growth of the business, and implementing various "Next Item" research tasks to discover food for the future.

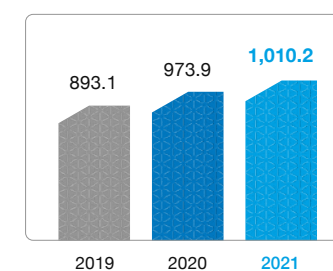
Future Competitiveness through Technology Innovation

Recently, along with the global spread of ESG management, eco-friendly and high-efficiency businesses such as carbon emission reduction and resource circulation are establishing themselves as mainstream trends. In particular, as environmental regulations are being tightened domestically and overseas, such as by making it mandatory for European countries to recycle more than 50% of plastic packaging waste by 2025, a preemptive response is required. Since the early 2000s, KOLON INDUSTRIES has been systematically preparing for the development of related core materials and expanding the base of the hydrogen economy, looking ahead to the future of the hydrogen industry in Korea, and has been developing various technological innovations such as eco-friendly high-tech materials and recycled plastics. KOLON INDUSTRIES plans to build a value chain for the overall hydrogen economy and concentrate its capabilities to become a 'Hydrogen Solution Provider' based on the One&Only competitive edge in material technology.

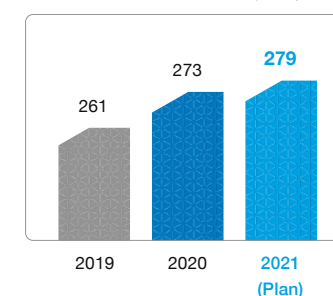
Future Technology Innovation Performances

Category	Technology Innovation Performances	
Hydrogen		Possessing core material and component technologies such as moisture control device for hydrogen fuel cell that generates electricity for hydrogen mobility, electrolyte membrane (PEM), and membrane electrode assembly (MEA)
Recycled Plastic		Succeeded in the development of long fiber non-woven fabrics such as spunbond, film, and CHAMUDE using post-consumer recycled (PCR) plastic raw materials for the first time in Korea
Eco-friendly High-tech Material		Succeeded in joint development of 'PBAT' (Polybutylene Adipate-co-Terephthalate), an eco-friendly biodegradable plastic that naturally decomposes in soil within six months when landfilled

R&D Investments (Unit: KRW 100 million)



R&D Personnel (Unit: person)



KOLON industries' Technology innovation field

R&D, the Core of Continuous Business Growth

Green & Energy Materials	High Performance Industrial Materials	Film, Electronic & Display Materials	Automotive Materials	Chemicals
<ul style="list-style-type: none"> Membrane materials Humidifier for fuel cell and reinforced composite electrolyte membrane Eco-friendly materials 	<ul style="list-style-type: none"> General special industrial materials Industrial materials and reinforcement materials for construction and civil engineering Composite materials for aviation and national defense 	<ul style="list-style-type: none"> General film and processing film High functional film for electricity and electronics Film type photoresists and core materials Substrate materials for flexible display and transparent electrodes Materials and parts for FPD panels 	<ul style="list-style-type: none"> High rigidity, eco-friendly car interior materials Composite filters for vehicles High-functional textile materials and new materials for vehicles Advanced high-performance tire cords Next-generation high-tech safety airbags 	<ul style="list-style-type: none"> Hydrocarbon resins Phenolic resins PET resins Epoxy resins

Green Energy



Hydrogen Fuel Cell Technology Research

Due to the rapid speed of global warming, various environmental and social problems are arising, such as the increased frequency and intensity of extreme weather events like storms, floods, and abnormally high temperatures, progression of global urbanization and industrialization, energy shortage, resource depletion, increased water consumption, and food shortage. As a result, the demand for environmentally friendly and sustainable energy is increasing and the supply of high-efficiency energy that can reduce resources is expanding, leading to increased importance of green energy technology related to next-generation secondary battery materials and hydrogen production.

Hydrogen Fuel Cell Technology

One of the areas currently under the spotlight in KOLON INDUSTRIES' future business strategy is the hydrogen industry. KOLON INDUSTRIES is focusing on technological innovation to provide an integrated solution for core materials in the future hydrogen market. The sales volume in the hydrogen industry is expected to grow considerably from around KRW 30 billion in 2021 to more than KRW 1 trillion by 2030. The field that is attracting the most attention in the hydrogen industry is the core component technology of hydrogen fuel cells that generate electricity in hydrogen mobility. KOLON INDUSTRIES is creating business by discovering new hydrogen technology throughout the hydrogen value chain based on its differentiated competitiveness in the key parts, moisture control device, membrane electrode assembly (MEA), and polymer electrolyte membrane (PEM). In addition, we are solidifying our position as a hydrogen solution provider by participating in the Korea H2 Business Summit, a collaborative group for fostering the domestic hydrogen industry and leading the global hydrogen economy in September 2021 to build a hydrogen ecosystem.

Competitiveness in Hydrogen Fuel Cell

Category	Overview	Technological Competitiveness
Membrane Humidifier	An essential component that maintains constant internal humidity to generate electricity in a hydrogen fuel cell	First place in global market shares. Managing the water and temperature of the electricity generator (stack) and reducing the hydrogen concentration in exhaust gas.
Polymer Electrolyte Membrane (PEM)	A key part of the four major components of a hydrogen fuel cell where selective permeation allows only hydrogen ions to pass through	The PEM facility can be used for the production of redox flow batteries for ESS and separators applied to water electrolysis technology for eco-friendly hydrogen production, so scalability can be expected.
Membrane Electrode Assembly (MEA)	A core component that combines a polymer electrolyte membrane (PEM) and an electrode, where chemical reaction that generates electricity in hydrogen fuel cell membranes takes place	Expansion of MEA facilities to enable full-scale mass production from 2022 Fulfilling sufficient conditions to occupy a strategic position in the market expansion period. As Korea's only company that produces both PEM and MEA, we secured a favorable position in the market expansion period by expanding MEA facilities.

Next-generation Secondary Battery Materials

Lithium-ion batteries are widely used today because of their low emission of harmful substances in comparison to lead storage batteries. The capacity of lithium-ion batteries does not diminish from repeated charging and discharging have high energy density. However, there are concerns about safety, such as a risk of fire, due to the use of flammable electrolytes, and disadvantages exist, such as an unstable supply of raw materials for lithium, a core material, and increasing prices. KOLON INDUSTRIES is conducting R&D on an all-solid-state battery that maximizes safety by changing the electrolyte from liquid to solid while conducting R&D for the application of new types of active materials by reducing the weight, expanding flexibility and improving the energy density through the application of various materials.

Green Hydrogen Technology

Hydrogen energy is moving into the spotlight as a next-generation energy source that is far superior to conventional fossil fuels in terms of efficiency, environmental performance, and safety. The energy density of hydrogen per mass is three times that of natural gas and four times that of gasoline and the power generation efficiency of hydrogen fuel cells stands at 47%, which is higher than thermal power (35%) and solar power (17%). It has the advantage that there is nearly no environmental burden as only a small amount of water and nitrogen oxides are emitted. Nevertheless, the reality is that Korea's hydrogen infrastructure and production, storage, and transportation technology lags behind major advanced countries. KOLON INDUSTRIES is concentrating on the production and transportation of green hydrogen for hydrogen production based on renewable energy such as solar and wind power and the development of parts and materials to utilize green hydrogen.



Solid Electrolytes for Secondary Batteries

Sustainability



PCR PET Film



Biodegradable Plastic PBAT



PEF Flexible Film

Smart Mobility



Towpreg

Plastic has brought convenience to humankind by means of the advancement of civilization through the petrochemical industry, but only 9% of the world's plastic is being recycled. The rest does not decompose naturally and pollutes the land, rivers and even the sea, causing fear of 'microplastics,' which is emerging as a social issue. KOLON INDUSTRIES uses eco-friendly raw materials and ingredients for its production, while striving to build a sustainable plastic ecosystem through upcycling at the post-consumption disposal stage.

Diversification of Eco-friendly Materials using Recycled Plastics

KOLON INDUSTRIES commercialized spunbond, a long-fiber nonwoven fabric, for the first time in Korea by using PCR (Post-Consumer Recycled) PET raw material recycled from waste bottled water. By 2025, we plan to convert more than 20% of our total sales to eco-friendly products. In addition, we are pioneering the eco-friendly material market by developing recycled plastic film for the first time in Korea. In addition, CHAMUDE, an artificial leather brand, obtained RCS eco-friendly certification in January and is being sold as an interior material for vehicles in earnest.

Development of Biodegradable Plastic 'PBAT'

Biodegradable resins are also drawing attention during the trend of eco-friendliness. Biodegradable resins completely decompose into water and carbon dioxide within six months to one year under certain conditions by the action of microorganisms and various chemical companies are spurring the development of eco-friendly materials. To enter into and preoccupy the related market, KOLON INDUSTRIES entered into a strategic partnership with SK Geocentric (formerly SK Global Chemical) in April 2021 and plans to advance into the market in earnest through joint development of the biodegradable plastic PBAT, short for polybutylene adipate-co-terephthalate. PBAT is an eco-friendly, high-tech material that rapidly decomposes in nature by oxygen, heat, light and enzyme reactions, and more than 90% of products are decomposed within six months when landfilled after use. It can contribute to an eco-friendly plastic ecosystem in that it can replace plastic products such as agricultural plastic, disposable plastic bags, fishing nets and waste plastics that cannot be recycled due to contaminants. We plan to expand the PBAT production volume to 50,000 tons annually by 2024 and preemptively respond to the eco-friendly plastic material market.

Diversification of Bioplastics Development

Bioplastics have been in the limelight recently as a next-generation eco-friendly technology that produces plastics from natural products instead of petroleum. Future Technology Institute is developing polyethylene furanoate (PEF), a new bioplastic made from 100% natural products. PEF generates less than half of the carbon dioxide compared to conventional plastics, has excellent heat resistance and is easy to block oxygen and moisture, so it is expected to be used for various purposes. In addition, we are securing various natural product conversion technologies for the application of new plastic materials and promoting the development of biodegradable plastics that decompose in the natural environment after use.

Smart mobility is a new form of transportation that combines the technology of the fourth industrial revolution with the existing transportation means and is expected to bring forth transformation to the life of humankind in terms of convenience, automation, personalization, and expansion. Smart mobility is developing in the direction of improving driving convenience and safety through the active integration of ICT technology. Therefore, in order to realize autonomous driving based on ICT technology and maximize efficiency, the development of cutting-edge parts should come first.

Composite Material Development

Composite materials refer to materials that have properties that cannot be obtained with a single material by mixing materials with different physical properties. Towpreg, developed by KOLON INDUSTRIES, is a composite material made by mixing epoxy resin with yarn-shaped carbon fiber that is lightweight and has excellent strength. Used together with plastic liners to manufacture fuel tanks for hydrogen cars, it can replace traditional metal materials to reduce the weight of smart mobility and improve fuel economy. KOLON has set physical property goals for the development of vehicle fuel tanks and to achieve these goals, we strive to secure optimal quality by developing the technology for the creation of epoxy resins and tank manufacturing.



Soft Magnetic Component Chip Inductor

Inorganic Material Development

KOLON INDUSTRIES is pioneering the era of smart mobility by developing high-strength alloy materials that are stronger and easier to transmit radio waves. KOLON INDUSTRIES is developing an amorphous alloy, which is solid metal with a liquid internal structure and has higher strength, corrosion resistance and radio wave transmission compared to general metals. Processing various mechanical components extend the lifetime and excellent electrical properties enable high efficiency and the compact size of electrical components. In particular, when the amorphous and soft magnetic materials/parts developed by KOLON INDUSTRIES are applied to the electric components of mobility devices such as electric vehicles, they are highly useful as next-generation materials by increasing the energy efficiency.

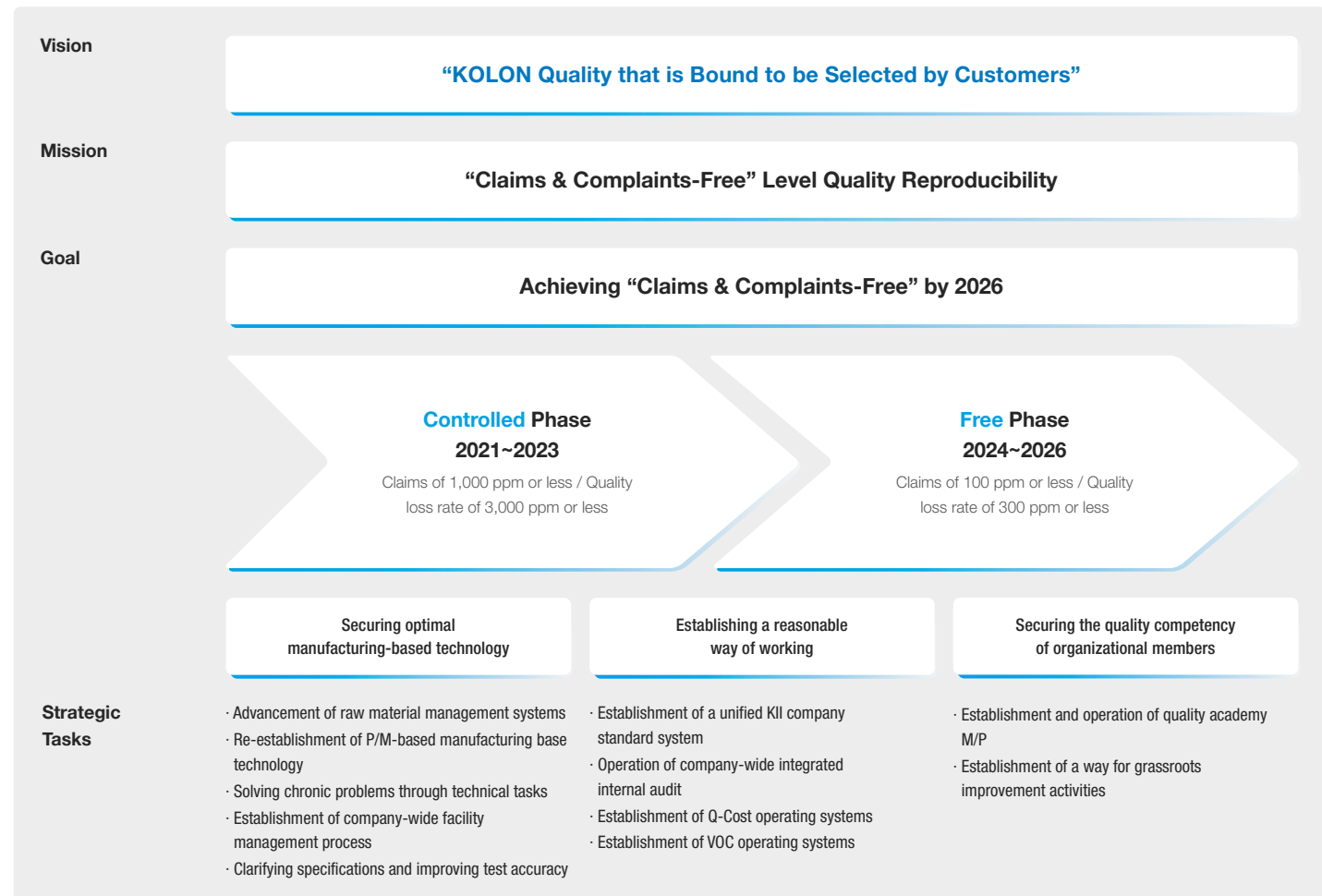
Customer Satisfaction System

Customer-centric Quality Management

KOLON INDUSTRIES has been dynamically changing the lives of customers through innovative products and services. KOLON INDUSTRIES has established "KOLON, Beloved by Customers," as one of the core values of the three major groups as the ultimate goal of quality management and is constantly striving to provide customers with the products and services they need quickly and flexibly from the customer's point of view.

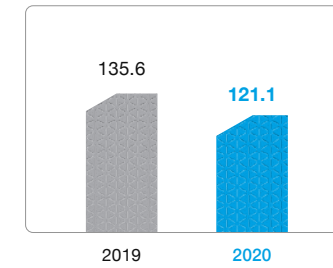
To realize customer satisfaction through continuous quality improvement and product reliability, we are conducting quality innovation activities unique to KOLON INDUSTRIES including the quality management system (ISO 9001/IATF 16949) as well as Goal Driven Innovation (GDI) unique to KOLON INDUSTRIES. GDI is a quality innovation activity that inspects the company-wide management system and on-site quality management level that discovers tasks and is becoming the basis for KOLON INDUSTRIES' technology system and fostering talented individuals. We will continue to strive for quality innovation with the goal of securing quality reproducibility at a Claim & Complaint (C&C)-Free level by 2026 by utilizing objective quality indicators.

Mid-to-Long-term Strategy and Roadmap for Quality Management

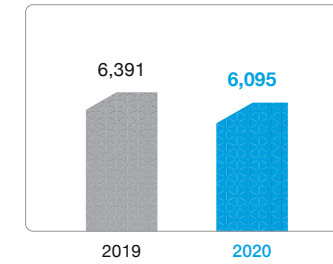


*Quality loss rate: internal and external loss costs ÷ sales

Quality Loss Costs (Unit: KRW 100 million)



Quality Loss Rate (Unit: ppm)



Quality Management Innovation

Customer satisfaction begins with thorough quality control and quality management innovation. Since 2019, KOLON INDUSTRIES has carried out company-wide quality control activities, led by the Quality Management Committee (Chairman: CEO), and has been striving to optimize the manufacturing and process conditions throughout the business and secure consistent quality products through quality reproducibility evaluation. In 2020, we reorganized the company-wide quality index and made efforts to minimize losses due to quality through full-scale quality index management. As a result, the amount of quality loss was significantly reduced from KRW 13.56 billion in 2019 to KRW 12.11 billion. In 2021, we have been striving to improve the product quality by continuously monitoring objective quality indicators such as establishing a mid-to-long-term strategy and roadmap for quality management and setting the 2021 target based on the quality loss rate of 4,749 ppm and claims of 2,356 ppm.

Customer Service Innovation

Goal Driven Innovation (GDI) is a quality innovation program unique to KOLON INDUSTRIES and consists of a series of procedures and activities that efficiently and effectively develop and utilize cutting-edge technology at the level required by customers based on scientific theory. KOLON INDUSTRIES conducts a series of activities to check the company-wide management system and on-site quality management level each year and operates a talent fostering system based on duty and competency to build the capacity of technical personnel that performs GDI activities. In 2020, we standardized the technology innovation system management regulations and technical task management regulations to check and coordinate the level and completeness of technology secured through GDI quality innovation activities. With the participation of a total of 107 executives and employees in the technical personnel fostering program, various activities were carried out, such as producing five graduates of GDI Level 1, which is an internal expert course. Moving forward, in order to strengthen the capacity of technical personnel that checks and manages quality, we will install the qualification evaluation education program in the GDI technical personnel fostering program through the quality academy to empower our quality innovation ability.

GDI Technical Personnel Fostering System

Qualification Criteria	GDI Level 1	GDI Level 2	GDI Level 3	Introductory Level
Roles of Technical Personnel	GDI expert 1 Technical task manager 2 Verification of technical materials and data 3 In-house consultant	Task manager 1 Technical task planning 2 Resolving customer VOC 3 Managing technical task schedule and performance	Task performance 1 Problem solving using statistical techniques 2 Deriving outcome by GDI stage	Mindset 1 Laying the foundation for field use
Abilities Required	· Ability to verify technical data through statistical techniques · Performing the role of in-house instructor	· Understanding and applying GDI process · Applying advanced statistical techniques	· Understanding GDI methodology · Utilizing statistical techniques	· Understanding GDI concepts · Understanding statistical techniques

Customer Information Protection System

Information Security Policy

With the rapid development of information and communication technology, security threats related to personal information are becoming increasingly sophisticated, and information security is emerging as an important sustainability issue directly related to corporate reliability. Since the establishment of company-wide security management regulations in 2003, KOLON INDUSTRIES has continuously strengthened its information security policies, including introducing document security solutions and revising trade secret protection regulations. and strengthening the organization and response procedures. KOLON INDUSTRIES is implementing protective measures to meet the essential security requirements stipulated by the National Core Technology Designation in the Industrial Technology Protection Act. Our efforts were recognized externally by receiving an institutional commendation from the Minister of Trade, Industry and Energy on the 10th Industrial Technology Protection Day.

KOLON INDUSTRIES has established a security management system so that we can identify information flows in the process of conducting business while discovering and managing points where information security risks may occur. Through security monitoring and inspection, we discover risks in advance and proactively prevent them. An organization responsible for security has conducted security activities such as responding to internal information leakage and intrusion incidents to protect our trade secrets. The group's regular information security council plays a role in medium-to-long-term risk management and security activities. We plan to conduct a mandatory security review for new projects to identify security risks and take a preemptive response in 2021 and to strengthen the management system through security monitoring and regular/regular audits in 2022.

Information Security System

The FnC Division of KOLON INDUSTRIES acquired ISMS-P (Personal Information & Information Security Management System) certification, a nationally recognized information protection and personal information management system certification in 2020, and has established and is operating an information protection management system based on national standards. To protect information leakage from inside and counteract external hacking attacks, we have operated various security solutions. We have also responded to security accidents by developing our risk detecting system through managing and analyzing integrated security logs collected from each security solution. In addition, we have also made a liability insurance contract in order to fulfill our obligation for damages arising from information leakage incidents following the domestic law, the Information and Communications Network Act.

In 2020, as telecommuting increases due to the spread of COVID-19, we introduced E-DLP, a new security solution, followed by two-factor authentication (2FA: 2-factor authentication) to strengthen VPN login security, we also established an integrated file server for shared data operated by each team to centrally manage data, and built a backup system that can recover data even when data is deleted or infected with ransomware to strengthen the security system and improve business continuity. Based on the company's document management regulations, the company sets and manages the classification and retention period of documents, and manages the revision and storage of important documents through the document management system, while tracking and managing the entire life-cycle of documents. In 2021, we plan to further strengthen document security through document classification and retention period management, and to improve document management system usage so that all employees can check it.

Information Protection Response Process



Information Protection Measures

KOLON INDUSTRIES is striving to protect not only the company's trade secrets, but also information such as national core technologies and is constantly making efforts to strengthen security by removing security vulnerabilities by conducting a security review before the IT system is introduced into the company, and by regularly checking and taking measures. KOLON INDUSTRIES also has a regular monitoring system to enable real-time detection and prompt response in case of an external breach in cooperation with KOLON Group's cyber security control center. In addition, only personnel authorized by the firewall and IPS (Intrusion Prevention System) can access the internal network within their authority, and monitoring is possible at all times. Essential security solution management policies such as media control, network access control, and vaccine are operated for personal PCs, and DLP, document encryption, and print security are operated to prevent leakage of internal information. In order to respond to security threats in production sites, we are expanding our vaccine solutions exclusively for production and laboratory equipment, and when introducing production-related business systems, we conduct a security review to prevent security threats in advance. Vulnerabilities are checked and improved through security checks on production sites annually.

Information Protection Measures

Technical Protection Measures

- **Document security system:** using a system that is easy for security management by identifying document grade and document preservation period
- **Information leakage and threat monitoring system:** monitoring information leakage and threats through scenario detection and identifying trends by category through comprehensive situation judgment
- **Access control:** controlling access from network to information system through network firewall, cloud security group setting, and access port control
- **Encryption:** applying SSL communication section encryption for communication, applying SHA256 one-way encryption for password, applying AES256 two-way encryption for unique identification information and financial information
- Introduction of two-factor authentication (2FA)

Administrative Protection Measures

- **Access record management:** identifying abnormal activities by monitoring information system access and the records of use on a monthly basis
- AEO (Authorized Economic Operator) safety management
- **PC security:** making it mandatory for all employees to implement AD and install media control, and allowing IT development personnel who can access the system DB to access whit the internet network blocked through logical network separation
- **Account authority management:** Granting the information system through account application and approval, and suspending unnecessary account authority every month
- **Vulnerability check:** Diagnosing weaknesses of information system through annual risk assessment and formulating improvement plans
- **Simulated hacking:** improving technical shortcomings of the system or homepage through annual simulated hacking

Information Protection Process

KOLON INDUSTRIES analyzes the entire life cycle from the collection stage to the destruction stage of personal information and applies optimal technical and administrative protection measures at each stage to prevent personal information leakage in advance. KOLON INDUSTRIES has applied security management regulations to all tasks that handle personal information such as recruitment, website usage, access to head office, and asked for consent to collect and use personal information through related systems including 'Personal Information Collection and Usage Agreement'. It provides information on personal information items to be collected, purpose, retention period, and the details of provision to the third party in addition to the right to refuse consent. We request confidentiality pledges according to the characteristics of business and stakeholders, and receive inquiries related to personal information protection arising from using products or services by specifying the person in charge of personal information protection. We plan to analyze the relationship with other systems to check for possible problems when personal information is destroyed and to notify the parties concerned about the destruction of personal information, thereby enhancing the trust of stakeholders in the information security management system.

Document Protection Process

We have operated a DRM and document management system to manage grades and set retention periods for document when creating, processing, and storing document. The documents exceeding the set period are informed to be discarded. In addition, we have operated an external mail approval system to detect the leakage of document through e-mail and block them to prevent any leakage. In order to prevent security accidents, we are also conducting activities such as managing security log records and monitoring at all times, checking the status of workplace security, and conducting mock training for malicious emails. In addition, we restrict and regularly monitor the use of software or PC peripherals that are judged to be misused as a data leak path, and we check and manage suspicious cases through forensics.

Information Security Training

In order to strengthen information protection, KOLON INDUSTRIES is spreading a culture in which domestic and foreign executives and subcontractors participate in information protection activities with a sense of responsibility throughout the value chain. Once a year, we conduct on/offline information security education for all executives and employees on awareness of trade secret leaks, company security regulations, and personal information protection, thereby continuously improving the level of awareness of employees' security. In addition, we conduct mock training to respond to malicious emails every quarter, and for those caught during training, we conduct online training and online tests to prevent email security incidents, prevent recurrence, and familiarize yourself with email security rules.

For newly hired, existing, and retiring employees, it is compulsory to sign the information protection agreement regardless of experience, so that they have a higher awareness of information security. When jointly carrying out a project with a supplier or an external company, we require an information protection pledge from external personnel. For retiring employees, we conduct a computerized audit of retirees to manage the risk of trade secret leakage efficiently. Personal information consignment management training and personal information protection training have also been conducted once a year to ensure customer personal information stability, compliance with legal obligations and prevention of infringement accidents.

Status of Information Security Training

Category	Unit	2018	2019	2020	
Corporate-wide Security Training	Employee to complete	Person	1,863	1,835	1,917
	Employee completed	Person	1,502	1,536	1,105
	Ratio	%	80.62	83.71	57.64
New and Experienced Worker Security Training	Employee to complete	Person	64	91	94
	Employee completed	Person	64	91	94
	Ratio	%	100	100	100

*FnC Division excluded

Completion Rate of Information Security Training for New and Experienced Workers

100%

Eco-Friendly Operations

Due to rapid climate change and prolonged COVID-19, the importance of the environment is being highlighted and international cooperation to respond to this is becoming visible. As a responsible corporate citizen, KOLON INDUSTRIES operates environmental management systems and processes intending to be carbon neutral, thereby minimizing negative impacts on the environment and improving operational efficiency.

Issue Boundary

Customers Employees Suppliers Local Communities

Major Performances

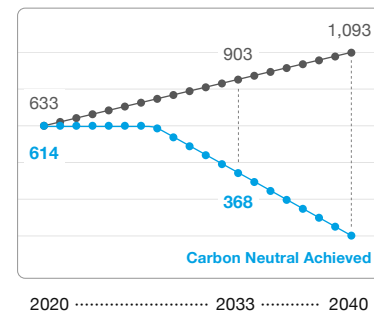
- 82.4% ISO 14001 Certification Rate of Overall Sites
- 87,016kWh Renewable Energy Generation in 2020
- 0case Number of Chemical Leakage Incident in 2020

www.kolonindustries.com/Company/company03_01.asp

Environmental Management System

Carbon Neutral Roadmap

- BAU (Unit: 1,000 tCO₂e)
- Estimated Emissions (Unit: 1,000 tCO₂e)



Environmental Management Goal and Roadmap

Aiming to achieve '2040 Net Zero for a Sustainable Future', an environmental management vision, KOLON INDUSTRIES is conducting various environmental management activities to strengthen its status as a global eco-friendly company, based on its carbon-neutral roadmap including an environmental management agenda by 2047. Carbon Neutral is a concept that minimizes GHG emissions and makes actual emissions "0" by absorbing and removing residual GHGs. KOLON INDUSTRIES' carbon neutral roadmap aims to achieve complete carbon neutrality beyond the reduction target according to the government's emission trading system. We are preparing to declare SBTi (Science Based Target initiative) with the goal of achieving RE100 in 2033, domestic Net Zero in 2040, and global Net Zero in 2047.

According to KOLON INDUSTRIES' 2040 carbon-neutral strategy, there are three ways to reduce GHG emissions: (i) expanding the share of renewable energy, (ii) Advancement of energy and GHG reduction technology and (iii) Introduction of carbon capture/storage/utilization (CCUS) technology. First, we plan to accelerate the conversion of our energy portfolio, centered on solar and hydrogen, to increase the proportion of renewable energy. In addition, we will boldly invest in REC to achieve RE100 along with carbon neutrality. Secondly, we will actively introduce intelligent ICT technology for a strategy to advance energy and GHG reduction technologies to realize optimized energy input to the process, and realize the highest energy efficiency and minimum GHG emissions. Finally, we will completely process carbon dioxide emitted inevitably from manufacturing industries such as the petrochemical industry through CCUS technology by introducing leading technology based on continuous monitoring.

Carbon Neutral Roadmap

Vision Achieving 2040 Net Zero for a Sustainable Future

Goal

- Year 2033 Achieving RE100**
Achieving 100% of the share of renewable energy in the electric power sector at domestic business sites by 2033
- Year 2040 Domestic Net Zero**
Achieving zero net carbon emissions from domestic business sites by 2040
- Year 2047 Global Net Zero**
Transition to decarbonization business and build a 100% carbon-neutral ecosystem by 2047

Environmental Management Strategy

As a chemical material/parts manufacturer that has a large environmental impact, KOLON INDUSTRIES strictly complies with local and national environmental regulations at all domestic and overseas business sites. We have set environmental goals that exceed legal standards for air, water quality, soil, and noise required by each business site, and are achieving this through relentless reduction activities and bold facility investment.

The 'Act on the Integrated Management of Environmental Pollution Facilities' is a law that mandates transparent and complete disclosure of information on nine polluting sources, including air and water quality. In order to respond effectively to this act, we have established a company-wide task force and are managing them thoroughly by dividing them into 1-2 stages for each business site. In the first phase, which will be carried out by the end of 2021, we are intensively improving our Ulsan, Gimcheon 2, Yeosu, and Daesan business sites. For the second phase by the end of 2024, we plan to expand the business to the Gumi, Gyeongsan, and Gimcheon 1 sites.

Environmental Policy and Regulations

KOLON INDUSTRIES, which has established environmental management as its top priority, strives to ensure that not only customers, but also our employees, and even the local community, can enjoy a healthy and clean environment. For realizing this, each business site establishes and operates an environmental management policy based on the production process, the surrounding local environment, and product characteristics. Environmental regulations cover environmental management and the operation of all relevant activities, based on which KOLON INDUSTRIES has complied with all related obligations as well as removed risks.

Environmental Regulations

Regulations	Purpose & Scope	Operation & Process
Energy and Greenhouse Gas	In order to promote reasonable energy consumption and establish the operating procedures for the GHG target management system, the scope of application, responsibilities, and work procedures are defined and implemented.	For efficient GHG emission reduction, we have established business processes, company-wide greenhouse gas target management, and reduction performance management in the regulations and are actively implementing them.
Water Quality Management	Each and every business site of KOLON INDUSTRIES has taken action to abide by all regulations and laws regarding water quality, such as water environment conservation law (Water Quality and Aquatic Ecosystem Conservation Act).	We have defined roles and responsibilities for the installation, modification and operation of facilities for wastewater discharge waste and water pollution prevention facilities as well as specified a procedure, legal and our own standards for the management of the facilities.
Local Contamination	Each and every business site of KOLON INDUSTRIES has taken all the measures to comply with the environmental protection law for each type of pollution and all other relevant laws for sustainable preservation of local environments such as soil, odor, noise level, and air.	We have specified roles and duties for the installation, modification and operation of management facilities for each type of contamination while having drawn up legal and our own guidelines for the management.
Waste Management	All of our business sites have implemented entire activities to be in line with Wastes Control Act and all other related laws as well as to reduce waste and dispose of waste without harming the environment.	We have set roles and responsibilities for waste discharge and disposal while having come up with legal and our own guidelines for the management.
Environmental Impact Assessment	We have set and conducted the environmental impact assessment while having defined salient environmental impacts and followed the detailed management so that our business sites can minimize the impact on the environment.	We have defined responsibilities and the scope of authority as well as formulated a work procedure, criteria for the assessment and checklists.

ISO 14001 Certification Rate of Domestic Sites

90.0%

ISO 14001 Certification Rate of Overseas Sites

71.4%

ISO 14001 Certification Rate of Overall Sites

82.4%

Environmental Management System

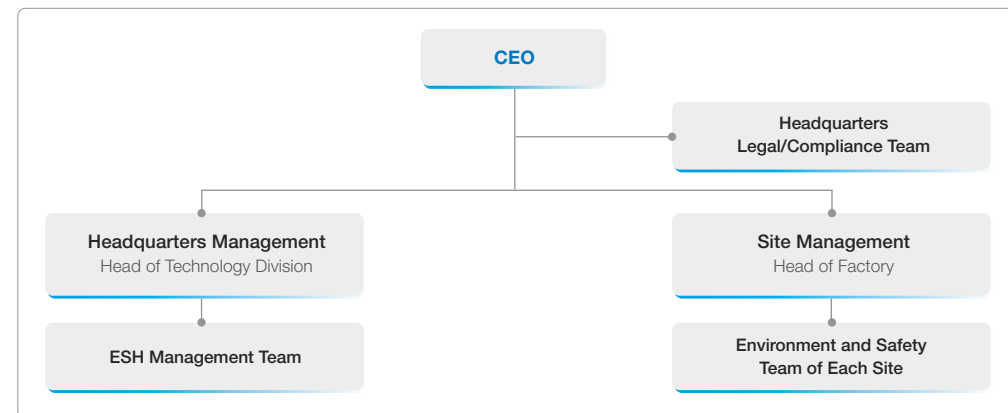
For efficient environmental management and performance management, KOLON INDUSTRIES is operating by applying the ISO 14001 standard, an environmental management system established by the International Organization for Standardization. We have been certified 90% for all domestic manufacturing sites (Gumi, Gyeongsan, Gimcheon 1, 2, Ulsan, Yeosu, Daesan, Incheon), and some of our overseas business sites achieved the certification. A total of 82.4% of the business sites have been certified in total.

Environmental Management Organization

KOLON INDUSTRIES has put in place a system to check environmental impact we have as well as whether to be in line with environmental policies and relevant laws at home and abroad. To make this system properly function, we have appointed the head of Technology Division as the general director of environmental management and have ESH Management Team fully in charge of this. In 2020, a special budget of KRW 2.8 billion was prepared for the management of GHG and emission permits, and the ESH Management Team managed carbon management activities such as GHG reduction activities and purchase of emission rights.

*Due to the reduced emissions within COVID-19, the budget for purchasing emission permits in 2020 was not implemented.

Company-wide Environmental Safety Committee



GHG and Energy Management

KOLON INDUSTRIES has established a company-wide GHG inventory based on the 'Basic Act on Carbon Neutrality and Green Growth for Response to the Climate Crisis' and is striving to efficiently reduce GHGs and energy. KOLON INDUSTRIES also collects relevant GHG and activity data based on the six GHGs defined by the IPCC guidelines, an international standard, and continuously monitors GHG emission facilities, and the collected data is verified by an external professional organization every year to ensure reliability. In addition, overseas business sites regularly update their greenhouse gas inventory every year and collect data as much as possible in accordance with the GHG protocol of the respective country.

Carbon labeling at the global supply chain level is also an important issue. According to the GHG protocol in Korea, it is not necessary to track GHGs that fall under Scope 3, but KOLON INDUSTRIES is running a campaign to secure various Scope 3 emission information such as logistics, transportation, and commuting. In addition, KOLON INDUSTRIES transparently discloses information through various channels such as the Greenhouse Gas Information Center of the Ministry of Environment, the Environmental Information Disclosure System, and the Financial Supervisory Service's Data Analysis, Retrieval and Transfer System (DART).

Domestic GHG Emissions

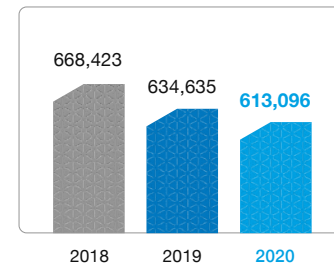
Category	Unit	2018	2019	2020
GHG Emissions (Scope 1)	tCO ₂ eq	141,629	131,110	136,576
GHG Emissions (Scope 2)	tCO ₂ eq	526,802	503,532	476,527
Total GHG Emissions (Scope 1&2)	tCO ₂ eq	668,423	634,635	613,096
Total GHG Emissions (Scope 3)	tCO ₂ eq	-	4,014	3,682,047

Domestic Energy Consumption

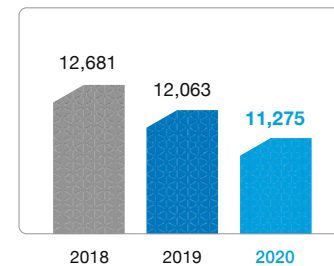
Category	Unit	2018	2019	2020
Fuel	TJ	2,373	2,115	1,907
Electricity	TJ	7,508	7,164	6,554
Steam	TJ	2,809	2,791	2,821
Total Energy Consumption	TJ	12,681	12,063	11,275
Total Energy Consumption	MWh	3,522,502	3,350,836	3,131,944
Non-renewable Energy Sales	TJ	22.8	21.8	10.7

Climate Change Response

Trends in Domestic GHG Emissions Unit: tCO₂eq, Scope 1&2



Trends in Domestic Energy Consumption Unit: TJ



GHG Reduction Leadership

KOLON INDUSTRIES has drawn up our own roadmap for the reduction of GHG emissions in accordance with the 2030 GHG Reduction Roadmap formulated by the government. We have met the reduction rate for GHG emissions, which is annually more than 5% on average, in line with the government adopting an emission trading system in 2015 for GHG mitigation. We came up with the response strategy such as the purchase of carbon credit and reported to CEO for constant mitigation and stable securing of carbon credit. The potential amount of GHG emissions reduced is predicted on the basis of science, and we are trying to use it for lack of amount needed when the expected emissions exceed the emissions allocated by the government. These efforts have enabled us to cut back on the annual emissions by 5% on average. Some of our action plans are permitted by the government, so we have received additional allowances for emissions. As the global demand for carbon neutrality is increasing, we have strengthened carbon neutral education and awareness activities for all employees. In 2021, a total of 7 briefing sessions on carbon neutral, CDP, SBTi, and TCFD were held online/offline. On top of that, we have participated in Carbon Disclosure Project (CDP) to set the strategy for climate action based on more quantified data since 2016.

GHG Reduction Activities

Operation sites have implemented a wide range of activities for GHG emission mitigation as well as energy saving. Energy saving activities are largely divided into process efficiency improvement activities (waste heat recovery, refrigeration efficiency improvement, Off gas recovery fuel input) and operation method optimization activities (optimizing operation of pneumatic chamber facilities, changing fuel feed conditions, and steam reductions by optimizing dimerization operation). The annual economic effect of these activities is estimated at approximately KRW 1.1 billion. In line with the international demand for GHG reduction, KOLON INDUSTRIES has put its efforts into overseas business sites. Yet, we have built inventory systems for GHG emissions in our overseas business sites. We continue to efficiently manage and mitigate GHG emissions in all of our overseas business sites, thereby contributing to GHG reduction.



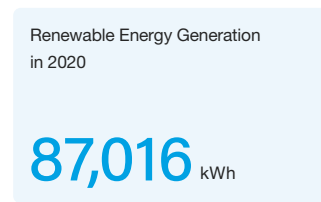
Major GHG Reduction Activities

Process Efficiency Improvement	Operation Method Optimization
<ul style="list-style-type: none"> Improving steam loss through steam trap diagnosis and remediation Reducing refrigeration power cost by adjusting the differential pressure set point of the refrigerator Separating membrane surface sludge removal in wastewater treatment plant process Reducing electricity consumption by changing the construction method Investing in high-efficiency refrigerators Additional power savings with adjustable Magna Coupling spacing 	<ul style="list-style-type: none"> Preventing excessive power consumption by compressor load operation Adopting Motor inverter Optimizing operation of pneumatic chamber facilities Changing fuel feed conditions Reducing steams by optimizing dimerization operation

Renewable Energy Expansion

KOLON INDUSTRIES has invested in a wide range of facilities such as photovoltaic generating facilities to boost the use of renewable energy. In particular, we installed a photovoltaic generating facility in the parking lot of Gumi Plant in 2011. The facility annually generates a total of 92,343kWh* on average. In 2021, according to the carbon-neutral roadmap, we conducted a solar power generation potential evaluation project for all domestic business sites, and based on this, we plan to expand investment in solar power generation for each business site.

*Average power generation in 2012~2020



Solar Power Plant

Carbon Neutral Program

The Carbon Neutral Program, a part of the government's response to climate change, has been implemented since 2008. The program encourages individuals and corporations to reduce their GHG emissions in their daily lives. KOLON INDUSTRIES has taken part in this program since 2015 when the emission trading system was first adopted while having carried out a campaign for carbon offset to save energy in our daily lives. As part of the campaign, we are working on substituting lights of regional business sites with high-efficiency LED lights as well as installing detecting sensors with lights for brightness control, which contributes to the prevention of unnecessary waste of electricity. We have also joined Voluntary Agreements for Energy Efficiency Target, operated by the government. Through the program, we have signed an agreement with the government, set a mitigation target for saving on energy intensity and implemented activities for it.

Site Environment Management

Investment in Environment & Safety in 2020

5.41 KRW billion

Site Environment Management System

In order to minimize negative environmental impacts that may occur through business operation, KOLON INDUSTRIES has enacted environmental management regulations for the environmental management and operation of each business site, and is promoting environmental management based on them. KOLON INDUSTRIES classifies and manages the environmental impact of its business sites into six environmental factors: air, water quality, soil, noise and vibration, chemicals, and waste. To preserve the environment and comply with laws, detailed management standards and procedures are established and operated as guidelines.

Compliance with Environmental Laws and Investment

Category	Unit	2018	2019	2020
Number of Violations	Case	0	2	2
Amount of Penalty	KRW	0	0	0
Investment in Environment & Safety	KRW 100 million	60.0	89.5	54.1

Air Pollution Management

KOLON INDUSTRIES has adopted regulations on air management in our whole business and all of our products for the removal and reduction of air pollutants. We have set a clear standard for air pollution along with regulations stipulating those necessary actions should be taken and causes for the pollution should be figured out if the pollution level surpasses the standard. In addition, we have put an emergency response process in place. Regenerative Thermal Oxidizer (RTO) has been installed to prevent greenhouse gas emissions containing Volatile Organic Compounds (VOCs). But one of RTO's disadvantages is the possible excess consumption of fuels if the recovery of waste heat is not made in direct-fired system. To complement it, we make VOCs pass through heat storage material to oxidize gases. This method enables the heat quantity created by VOCs combustion to be used for warming, allowing the removal of organic bad smell and heat of combustion as a heat storage material for heat exchange without discharge. By doing so, we have earned two benefits; the prevention of air pollution and energy saving.

KOLON INDUSTRIES has currently equipped with two RTOs in Gumi Plant, two RTOs in Gimcheon 1 Plant, one RTO in Gimcheon 2 Plant. Besides, low NOx burners have been installed for fine dust reduction, while optical cameras have been placed in flare stacks for more thorough management of fugitive emission facilities. In 2020, we have replaced equipment to meet the emissions allowed in all our business sites. On top of that, efforts have been made in response to regulations on reducing fine dust caused by air pollution, such as ultrafine particles and global air pollution.

Air Pollutant Emissions

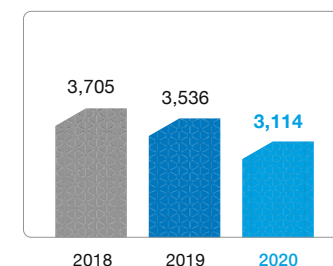
Category	Unit	2018	2019	2020
NOx	Ton	131.57	65.87	76.37
SOx	Ton	27.23	28.66	10.51
PM	Ton	21.23	30.21	21.47

Water Pollution Management

The chemical industry has industrial characteristics that generate wastewater along with the use of a large amount of water. All our business activities and products are under the influence of regulations on water quality management and bad odor management which stipulate the responsibilities and procedures for the prevention of water quality contamination and odor occurrence. KOLON INDUSTRIES has set clear standards for pollution measurement and put regulations in place. If the pollution level surpasses the level allowed, causes of it shall be identified and necessary measures will be taken. In 2020, we invested KRW 1.35 billion in replacement membrane for wastewater treatment plant in our Gumi plant, which not only improved wastewater treatment performance but also improved ease of management and product lifespan as less sludge was deposited on the membrane surface.

Especially, Gimcheon 2 Plant has the wastewater disposal facility equipped with the most advanced technology among eight sites in Korea. One of its representative state-of-the-art technologies in water quality management is Quick Bio-Reactor (QBR). QBR is a biological wastewater treatment facility with one-tenth of volumetric loading compared to Activated Sludge Process. It uses specific bacteria to dispose of high-density heavily contaminated wastewater which is extremely difficult to treat biologically without pre-treatment process. These characteristics of QBR have many advantages; smaller area for installation curtailed cost for operation and reduced load on organic matter treatment are improving overall odor reduction and manageability without secondary pollution. In addition, we have reduced water and energy use and chemical treatment cost through the closed cooling water system. As part of efforts to prevent microbial contamination in cooling water and pipe corrosion within the system for industrial cooling water, we have

Trends in Wastewater Discharged (Unit: 1,000 ton)



complemented the existing chemical treatment method of cooling water. Chemically treated cooling water has also been legally managed to prevent any problems. Each business site has also conducted a water quality contamination test by independent external institutions to figure out the performance and areas of improvement of the investments in facilities and activities for alleviating water quality pollution. We have inspected the PH level, nitrate nitrogen, chlorine ion, lead, and phenol to decide whether they are suitable or not. Decisions are made following the regulation on water quality management and we figure out causes while taking action when improper discharge occurs.

Water Pollutant and Wastewater Discharged

Category	Unit	2018	2019	2020
Chemical Oxygen Demand (COD)	Ton	141	110	96
Biological Oxygen Demand (BOD)	Ton	47.26	56.75	22.68
Suspended Solid (SS)	Ton	57.86	44.99	41.74
Total Phosphorous (T-P)	Ton	1.95	5.59	4.89
Total Nitrogen (T-N)	Ton	36.59	33.16	33.08
Wastewater Discharged	Ton	3,704,560	3,535,682	3,114,380
Wastewater Recycled	Ton	1,960,800	1,872,773	1,741,655

Water Consumption

Category	Unit	2018	2019	2020
Underground Water	Ton	294,784	215,495	187,578
Industrial Water	Ton	3,540,285	3,641,562	3,986,024
Municipal Water	Ton	320,544	335,632	378,114
Surface Water	Ton	585,170	667,432	621,310
Rainwater Intake or Storage	Ton	680	0	0
Total Water Consumption	Ton	4,741,463	4,860,121	5,173,026
Water Reused	Ton	2,060,594	1,940,156	1,783,676

Soil Pollution Management

KOLON INDUSTRIES has established soil, odor, and noise management regulations, given responsibility and authority to the relevant organization, and manages to ensure that the pollution measurement and permissible standards are not exceeded. KOLON INDUSTRIES has also established a soil pollution level test for each business site and the test inspects the level of benzene, toluene, ethylbenzene, xylene, and total petroleum hydrocarbons (TPH).

Noise and Vibration Management

KOLON INDUSTRIES has measured the noise level of working environments to check processes creating noise. We designated four business sites creating noise levels exceeding 90db as excess processes. For hearing protection of workers in the four working sites, we have carried out many activities, including education on the prevention of noise-induced diseases, hearing management programs, noise map management, noise management bulletin board, the provision of hearing protective gear, and the monitor of provision status. Meanwhile, we input oil into rotary machines, attach covers to high-speed rotating parts, and install double doors in lounges for noise reduction to alleviate the stress level caused by noise for both our workers and local residents.

Chemical and Waste Management

In order to carry out perfect hazardous chemical and waste management in all product production stages, from raw material warehousing to production and product release, KOLON INDUSTRIES has put in place regulation on chemical substance management, Guideline on Raw Materials and Packaged Items Management, Guideline on Hazard Assessment and Guideline on Waste Management, and applied them into the entire stages from treatment, storage, transport to disposal. Hazardous substance transport is regulated by Regulation on Toxic Substance Transportation, Regulation on Control of Nonconforming Products and Guideline on Harmful Substance Packaging. Inspection of checklist for safety management is also conducted when the substance is either loaded or unloaded. In terms of disposal, we have put our focus on the reduction of waste and the prevention of leakage. In particular, we focus on safety management, waste reduction, and leakage prevention when loading and unloading hazardous materials. In addition, standardized regulations and manuals for all domestic business sites are translated and distributed in English, Chinese, Vietnamese, Spanish, etc. so that they can be applied equally to overseas business sites, and are updated regularly.

REACH	
Background	REACH is a regulation concerning chemical substance management. REACH requires chemical substances manufactured or imported into the EU in quantities of 1 ton or more per year to be registered, assessed, and evaluated. The regulation also applies to mixtures and finished goods containing chemicals.
KOLON Industries Management Approach	Accordingly, KOLON INDUSTRIES started registering all chemicals used for exports in the European Chemicals Agency (ECHA) in 2010 and completed the registration in 2018. In addition, we provide MSDS by testing 219 types of Substances of Very High Concern (SVHC) and issuing a non-contained certificate for our products. The prior notification was completed in 2020 for Turkey REACH, which came into effect in 2019, and UK REACH advance notification was completed in accordance with Brexit in 2021. In addition, we check information and collect documents through the purchase portal to determine whether chemical substances from suppliers are registered, purchase from companies that have passed the review, and renew every two years to update the latest information.
Management of Material Safety Data Sheet (MSDS)	
Background	MSDS is a document required when chemical products or products containing chemicals are exported, used, delivered, or stored. The document lists comprehensive information from the name of the chemical product, the way to work safely with the chemical product, the potential hazards of the material, the way to respond when it explodes or starts a fire, the physical and chemical properties, carcinogenicity to the impact on the environment.
KOLON Industries Management Approach	MSDS contains the hazards of the product, warning signs based on the classification of its hazards, the preventive and responsive ways, and the way to store and dispose of KOLON INDUSTRIES has put MSDS in place in each business site for the sake of our employees and provided education on target chemical substances, the hazard of them, how to safely handle, how to properly use protection devices, what to do if accidents or emergency situations occur, and how to understand warning signs according to GHS). MSDS is also provided for our customers when they purchase products. Revisions are also offered to make sure that our customers are safe with the products.
Compliance with the Management Guidelines on Harmful Chemical Substances	
Background	KOLON INDUSTRIES has followed our management guidelines when importing, using, storing, and disposing of all harmful chemical substances. Our guidelines comply with legitimate management criteria, aiming to protect handlers from any form of damages and prevent property loss and environmental pollution. Each business site strictly sticks to the guidelines.
KOLON Industries Management Approach	KOLON INDUSTRIES established MSDS for all chemicals and products containing chemical substances, put them in business sites, attached labels with a warning sign on them and provided education to prevent occupational diseases and accidents for the sake of workers. In addition, the head of the relevant department of workers handling chemicals is instructing and inspecting the wearing of appropriate personal protective equipment. We list the necessary protective equipment according to process characteristics and chemicals used, and replace them periodically to ensure sufficient function and performance. Chemical storage and storage facilities are labeled according to the 'MSDS management guidelines', and harmful risk factors are continuously removed at work sites, and education is provided to prevent occupational diseases and accidents in advance. Chemical handling departments also prepare a management ledger and conducts inspections at least once a week in accordance with the 'Disaster Prevention Equipment Box Checklist'.

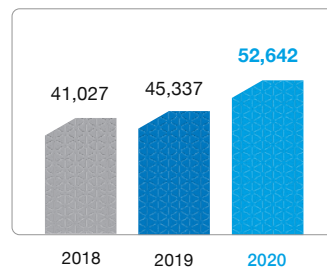
Status of Hazardous Chemicals Management

Category	Unit	2018	2019	2020
Toxic Chemicals Consumption	Ton	243,136	240,559	375,108
Number of Chemical Leakage Incident	Case	0	0	0
Chemical Substance Leaked	Ton	0	0	0

Waste Discharged

Category	Unit	2018	2019	2020
General Waste	Ton	26,590	28,860	30,027
Hazard Waste	Ton	25,692	25,689	28,672
Construction Waste	Ton	1,282	409	381
Waste Recycled	Ton	41,027	45,337	52,642

Trend in Waste Recycled (Unit: ton)



Safety and Healthy Sites

Creating a safe working environment where employees can work with confidence is the top priority in corporate management pursued by KOLON INDUSTRIES. In line with the introduction of the Severe Accident Punishment Act, KOLON INDUSTRIES formed a company-wide task force organization to become an accident-free workplace, and is practicing safety and health management based on ISO 45001 certification, an international safety and health system.

Issue Boundary

 Employees
 Suppliers

Major Performances

100% Completion Rate of Safety and Health Training for Employees and Suppliers in 2020

133 Times Emergency Response Drills in 2020

1,765 Cases Chemical Substances Reviews in 2020

http://www.kolonindustries.com/Company/company04_01.asp

Safety and Health Management System

http://www.kolonindustries.com/MalgumBoard/Index.asp?BoardMode=View&Seq=28&page_no=1&BoardCode=notice

Safety and Health Management Policy

Providing a safe and healthy work environment is a prerequisite and essential element for a company to conduct a sustainable business. KOLON INDUSTRIES established and announced the 'Sustainability Management Policy' in January 2020, expressing the CEO's will to practice safety and health management. In addition, each business site systematically manages safety and health management as well as emergency countermeasures including safety health management structure, education and training, workplace safety health management, accident investigation management, and risk assessment based on the company-wide 'safety health management regulation'.

As the safety of workers in suppliers has become a social issue, we have stipulated safety and health of suppliers in our workplace safety and health management item and made 'Safety Health Management Guidance for Suppliers' in each business site. For reference, KOLON INDUSTRIES is managing ESH compliance risks by establishing 'Regulation for Management of Environment Safety Law' and swiftly reflecting international agreements and clients' requests on our internal policies.

Our Safety and Health Management Policy

Integrated Management System Sustainability Management Policy

- Putting safety and health first and minimizing life loss and damages through promoting an accident-free movement securing process
- Securing process safety by achieving and maintaining PSM grade 'P' on the foundation of Process Safety Management (PSM)
- Realizing customer satisfaction with the highest competitiveness through consistently improving quality and building product reliability
- Disclosing relevant information when requested by stakeholders to ensure transparency

Regulation on Safety and Health Management Safety and Health Management in Workplace

- Dangerous machinery and equipment
- Safety and health rules for workers
- Handling of hazardous substances
- Safety and health signs
- Safety and health monitoring and inspection
- Approving a procedure for safety-related work
- Change management
- Safety and health of suppliers
- Health checkup of workers
- Working environment for workers
- Protective gear
- Other necessary matters

Safety and Health Management Organization

The Severe Accident Punishment Act, enacted in January 2021, is changing the paradigm of safety management in Korea. The Severe Accident Punishment Act was introduced to fundamentally prevent serious accidents by voluntarily strengthening safety and health measures and increasing safety investment by companies. With the enactment of the Act, KOLON INDUSTRIES formed a company-wide task force and strengthened the company-wide promotion system to go beyond safety and health management and become a truly accident-free workplace. The head of the Technology Division plays the role of the head of the TF, and the TF organization is led by the head of ESH Management Team, Legal/Compliance Team, Human Resources Management Team, Management & Accounting Team (Finance) at headquarter as well as the head of the Environment and Safety Team at sites. The TF holds regular meetings once a month and receives advice from external legal advisors and diagnostic experts from the Ministry of Employment and Labor. As a control tower for company-wide safety and health management, the TF organization plans to establish an optimal strategy that reflects the CEO's safety and health management philosophy and will to practice.

KOLON INDUSTRIES operates a labor-management joint Occupational Safety and Health Committee at the head office and business sites in line with the relevant laws, corporate-wide safety and health management regulations, and collective agreement regulations. The committee is comprised of the equal number of people from labor union and the management respectively, which is nine from each. Its role is to manage entire workers' health and working environment and bring up prevention measures against occupational accidents while establishing or amending safety and health regulations. The representative of workers collects opinions from employees of KOLON INDUSTRIES and suppliers and strives to apply their voices in making decisions that apply to all employees including executives.

Site Safety and Health Management

KOLON INDUSTRIES conducts regular risk assessments to understand the operational status of safety management for each business site and to preemptively prevent accidents. When implementing a new business or relocating a business site, additional irregular risk assessments are conducted to identify and respond to safety and health risks at the site in advance. In the Gumi site, as part of these industrial accident prevention activities, joint labor-management inspections are conducted on Safety Day every month to discover areas for improvement, and take action by establishing a plan for the identified problems. We are estimating the likelihood and severity of injuries and diseases by finding harmful and risk factors in building material, machinery, equipment, facilities, raw materials, and processes dealing with them and formulating measures to minimize those risks.

In addition, we have also conducted joint inspections, visiting guidance, and regular checks on our working environments in accordance with 'Safety and Health Management Guidance for Suppliers' and monitored whether hazardous chemicals and noise exposure in their work process do not exceed standards. We have implemented these reviews and improvement actions under the deliberation and resolution of the Occupational Safety and Health Committee. Protective gear like safety glasses, earplugs, and safety hats are given to all on-site workers including workers from suppliers without exception. Equipment deemed inadequate from our regular monthly inspections is immediately replaced. Earplugs in particular are essential protective gear to prevent noise and stress, so we conduct separate adhesion tests for the sake of the safety of our workers including those from suppliers.

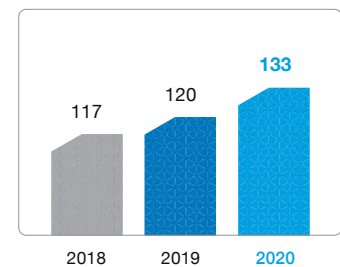
Emergency Response System

KOLON INDUSTRIES responds to emergencies by dividing them into operational emergencies and natural disasters. Operational emergencies include fire and explosion accidents, chemical leaks and environmental pollution accidents, utility supply interruptions, and the effects of emergencies in nearby areas. Natural disasters include typhoons, heavy rains, and earthquakes. We have established emergency action plans including missions, procedures, and actions for each emergency type. The emergency action plan includes evacuation procedures, internal and external contact and communication system, guidelines for wearing protective gear, emergency aftermath procedures including removing pollutants, public relations plan for neighboring workplaces and residents, and a cooperation system with external organizations.

In the event of an emergency, we follow the emergency control organization chart with only essential personnel to minimize human and material damage. The personnel in the emergency control organization chart performs tasks such as saving lives in case of any human damage, preventing or removing environmental pollutants, predicting any harm to adjacent areas, and giving evacuation orders. KOLON INDUSTRIES has carried out emergency response training for each scenario on the assumption of various emergency situations such as process emergency response, emergency rescue in confined space, and chemical leakage during transportation. The identified items to be improved during training are redressed when establishing the next emergency action plan so that we can swiftly respond to an actual emergency. In 2020, a total of 133 emergency response drills were conducted at all domestic business sites.

Safety and Health Management Enhancement

Status of Emergency Response Drills (Unit: times)



Chemical Substances Reviews in 2020

1,765 Cases

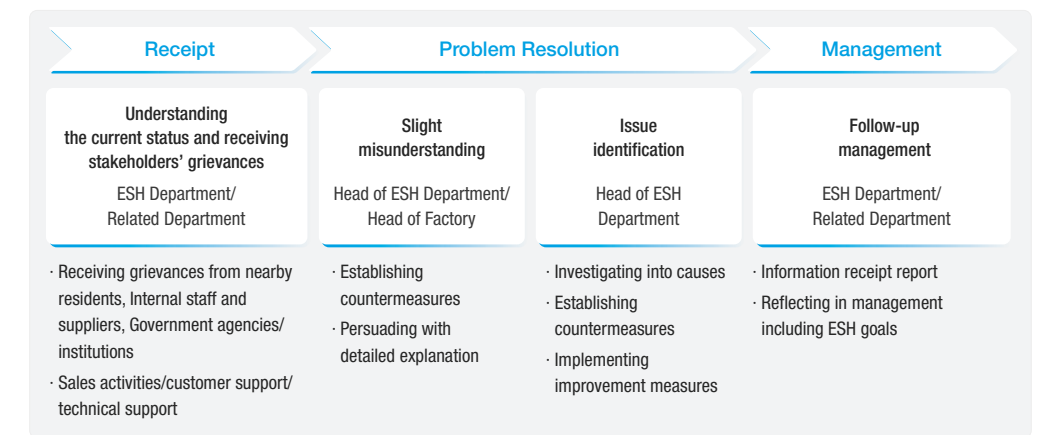
Chemical Substance Safety Management

In order to preserve a clean and healthy global environment, all chemicals handled are databased and thoroughly managed based on the IT system. In particular, in the case of using new chemicals, the Environment and Safety Team at the workplace and the ESH Management Team at the headquarters double-review the use of hazardous chemicals according to the 'Preliminary Review Manual for Chemical Substance', while limiting the use of hazardous chemicals as much as possible. Even when chemical substances are unavoidably used, we manage them so that they can be used only for the specified purpose. In addition, we conduct a preliminary review in case of changes in suppliers and changes in ingredients/content to completely control the risks associated with the use of chemical substances. KOLON INDUSTRIES' chemical substance database is a very useful system for judging the stability and suitability of chemical substances, by adopting SAP's 'SERC DB' which contains regulatory information on 250,000 types of chemical substances in 57 countries around the world. In 2020, a total of 1,765 chemical substances were reviewed, and a total of 6,460 materials were reviewed since 2016, when the system was introduced. We will continue to perfectly manage all chemical substances to supply and produce products that can be used safely and safely by customers as well as employees.

Provision of Safety Information and Feedback Process

KOLON INDUSTRIES has a process to provide accurate information on products and chemicals for the protection of customers' safety. When selling products, we provide Material Safety Data Sheets (MSDS) to customers and appropriate information on the entire product life cycle including transportation, use, and disposal. In addition, the communication process allows customers or other stakeholders to ask questions about product safety at any time and provide timely answers. Besides, we have also stipulated a procedure to gather feedback from internal and external stakeholders on safety and health and respond to them in the 'Communication Management Regulations'. Environment and Safety Department heads of each business site receive complaints from stakeholders through documents, phone calls, and visits. And then, if necessary, we take corrective actions such as the investigation into causes and the establishment of countermeasures. We also established an emergency action plan according to the 'Emergency Management Regulations' in preparation for emergency situations such as serious defects in products.

Communication Management Process



"Response to the COVID-19 Outbreaks"

Since the recognition of the possibility of the spread of the COVID-19 virus in January 2020, KOLON INDUSTRIES has been working to build a safe workplace through immediate and systematic company-wide response. We strive to keep our business running by installing an emergency response TF, establishing a response process in case of emergency at the headquarters and each site, disseminating action tips for each situation to all employees, and expanding the scale of telecommuting to 30-50%.

COVID-19 Response Activities

<p>Establishment of Response Organization and Planning</p> <ul style="list-style-type: none"> Install an emergency response TF against COVID-19 Establish response process in case of emergency 	<p>Reinforcement of Workplace Quarantine</p> <ul style="list-style-type: none"> Quarantine training for employees Temperature measurement when entering the workplace Frequent disinfection of common areas and provision of sanitary products Restrictions on domestic business trips, face-to-face meetings, banquets, events, and overseas business trips 	<p>Implementation of Medical Assistance and Emergency Evacuation</p> <ul style="list-style-type: none"> Conducted in-house epidemiological investigation in case of self-isolation Support for COVID-19 test costs Subscribe to repatriation insurance for overseas employees 	<p>Introduction of Flexible Working Scheme</p> <ul style="list-style-type: none"> Expand the scale of telecommuting by 30-50% Encourage new vaccine leave and use of family care leave Spread of selective working system Replace video conferencing such as domestic/overseas business trips and face-to-face meetings
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Safety and Health Management Activities

Safety Training Hours Per Person in 2020

22.14 Hours

Safety and Health Training

KOLON INDUSTRIES has provided various education programs to raise employees' awareness of safety and health and develop the necessary safety/health knowledge and capabilities for work. Once a month, we conduct an education program for all regarding the Chemicals Control Act, the Occupational Safety and Health Act, the ways to manage hazardous and dangerous working environments, and health improvement. Along with that, each department uses the results of risk assessment for training people in charge while operating tailored education programs considering special characteristics of work and in-depth training programs for managers.

We have also provided safety and health education, including information on hazardous and dangerous matters as well as safety rules and emergency action plans for workers from suppliers. In an effort to help employees better understand and learn about educational content, we have held company-wide ESH quiz contests and given financial incentives. These continuous efforts will make workers familiarize themselves with safety/health knowledge and improve their capabilities, ultimately leading to the prevention of safety accidents.

Status of Safety and Health Training

Category		Unit	2018	2019	2020
Employees Completed Health/Safety Training	Training Completed	Person	4,242	4,383	3,736
	Training Targets	Person	4,242	4,383	3,736
	Ratio	%	100	100	100
Resident Suppliers Completed Health/Safety Training	Training Completed	Person	1,736	1,660	1,761
	Training Targets	Person	1,736	1,660	1,761
	Ratio	%	100	100	100
Safety Training Hours Per Person		Hour	26.43	25.62	22.14

*Recalculation on a company-wide basis

Safety and Health Supports in the Value Chain

KOLON INDUSTRIES has been participating in the win-win growth program of the Korea Occupational Safety and Health Agency to strengthen the capabilities of our suppliers in disaster prevention activities. Leading support activities to improve the level of safety and health management of suppliers, we acquired excellent evaluation results including an A grade for Gumi and Gimcheon 1 site. We also promoted zero-accident movement in Gumi plant and 28 suppliers while sending Environment and Safety newsletter to all employees, making strenuous efforts to permeate safety and health through all of our business sites.

Safety Accident Analysis and Prevention of Recurrence

In order to predict and prevent safety accidents in advance, KOLON INDUSTRIES has been conducting special management by selecting an accident prevention theme since 2020. By changing the main theme every year, such as burns in 2020, cuts in 2021, and fractures in 2022, we are pursuing a complete reduction of accidents in major severe accidents. We are intensively diagnosing and improving facilities and tasks related to each theme. As a result of these diversified efforts, safety accidents have been continuously decreasing over the past three years.

Safety Management Indicators

Category	Unit	2018	2019	2020
Total Work Hours	Hour	5,262,781	5,225,957*	5,493,609
Total Number of Labor Losses	Case	10	4	2
LTIFR**	-	1.90	0.77	0.36
Number of Days Lost Due to Injury	Day	1,528	726	95
LTISR***	-	0.29	0.14	0.02
Occupational Diseases Occurred	Case	0	0	0

* Corrected due to incorrect data entry in 2019

** LTIFR: (total number of labor losses × 1,000,000)/total work hours

*** LTISR: (days lost due to injury × 1,000)/total work hours

Talent Cultivation & Human Rights

Employees are the subject that makes innovation possible, the driving force of corporate activities, and the most valuable asset. KOLON INDUSTRIES is developing talented people into core talents who create new values through the best competitiveness, by fairly selecting talented and talented talents, and nurturing them as innovative talents through systematic talent development and performance compensation.

Issue Boundary



Employees

Major Performances

62.5%

Ratio of Regional Talents Recruitment in 2020

30.0 Hours

Education Hour Per Person in 2020

1,049 KRW million

Total Education Expenditures in 2020

<http://www.kolonindustries.com/Recruit/people01.asp>

Talent Management System

Ideal Employee of KOLON INDUSTRIES

In a rapidly changing internal and external business environment, such as technological advances, market diversification, and customer needs, KOLON INDUSTRIES is a company that provides differentiated products and services to customers by nurturing and developing talented people who are the driving force for corporate growth and development. "People who realize the One & Only Way", the ideal employee of KOLON INDUSTRIES, contains the core values that each KOLON employee should consider the most important. 3 Ways are what KOLON should ultimately achieve as a decision-making standard for KOLON employees, and 9 Practices contains specific plans for KOLON employees to realize the One & Only Way in all their daily lives.



First Choice of Customers

Uniqueness

Individual Excellence

- Inspired by customers
- Above expectation
- Contribute to customers' success

- Trend leader
- Facilitate open collaboration
- Initiate new challenges

- Reach higher standards
- Systematic action plan
- Try my very best

Fair Recruitment

KOLON INDUSTRIES is recruiting talented people who are suitable for their talents through a fair and transparent hiring process. We forbid any form of discrimination such as race, gender, and religion. When hiring, we conduct blind interviews, excluding information irrelevant to the job, such as gender or academic background. In 2020, we enhanced the regulation concerning the anti-corruption management system in the HR regulations, minimizing corruption risks in recruitment. On top of that, to prevent unfair hiring and human rights violations that may occur in the course of interview process, we have intensified the education toward interviewers. In order to overcome the COVID-19 situation, video interviews are actively used during interview screening, and online competency tests are conducted when selecting new employees, which is used as a basis for selecting excellent talents.

In 2020, the manufacturing sector selected 62.5% of the 232 new hires as local talents, and national merit recipients and veterans are treated favorably in our recruitment to benefit the socially disadvantaged. Besides, with an objective of preventing imbalance of information created by educational background or the region of job seekers in advance, we disclose the recruitment process through the website.

Ratio of Regional Talents Recruitment in 2020

62.5%

Status of New Recruitment

Category		단위	2018	2019	2020
Domestic	Male	Person	199	218	231
	Female	Person	72	99	104
	Total	Person	271	317	335
Overseas	Male	Person	1,617	2,176	735
	Female	Person	1,149	1,912	675
	Total	Person	2,766	4,088	1,410
Ratio of Female Talents	Manufacturing	%	9.7	10.7	15.1
	FnC	%	63.5	64.5	67.0
Ratio of Regional Talents (manufacturing)		%	48.9	70.0	62.5

* Recalculation on a company-wide basis

Human Resources Development System

Reinforcement of Innovative Talent Capabilities

In order to successfully promote domestic and overseas businesses that are continuously expanding, it is essential to systematically nurture outstanding talents with differentiated capabilities into innovative talents. KOLON INDUSTRIES has established and is operating a company-wide human resource development promotion system to simultaneously improve the organizational and individual capabilities of employees by hierarchy. We have provided a variety of educational programs systematically tailored to the position and level of employees by setting the annual education plan based on satisfaction survey regarding educational programs, the results of the appliance to the field, the analysis of employees' needs, and the research on HR trend.

Goals of Innovative Talent Development

Improvement of Organizational Capabilities



KOLON INDUSTRIES has established a unique award for executives and team leaders, and established a leadership training system accordingly, providing a variety of programs, including promotions, to enhance leadership competency at each stage.

Through this, we are supporting growth as a leader suitable for the company and fulfilling the role.

Improvement of Individual Capabilities



KOLON INDUSTRIES provides a variety of training courses aimed at improving the knowledge and skills required for each job and the job performance skills required to perform specific roles.

In particular, by actively nurturing and utilizing in-house instructors, we are operating various job courses that can be immediately applied to the field.

Improvement of Organizational Capabilities

In order to respond promptly to the rapidly changing business environment, the cultivation and role of competent leaders are becoming more and more important. In order to strategically nurture capable leaders who can successfully lead businesses and organizations, KOLON INDUSTRIES establishes expected roles and necessary competencies according to the four-step leadership line: executive, team leader/chief, senior, and junior rank has been built and operated. In particular, we continuously strengthen organizational capabilities by deriving the leadership capabilities of executives and team leaders who have a high impact on the business in detail, nurturing leaders with the relevant leadership capabilities, and operating a leadership program to promote the effective performance of leaders.

The leadership training of KOLON INDUSTRIES is largely operated so that it can cultivate a balance between work management for creating performances and people management for vitalizing communication within the organization and coaching/nurturing juniors. For executives, management courses and coaching courses are in place to fulfill their roles as managers. In addition, the program for team leaders (seniors) who are responsible for on-site performance at the forefront provides training programs focusing on their role as a team leader, leading the team's performance, and leading the growth of team members. In particular, through diagnosis, we provide support to continuously check and develop one's leadership competency level. Middle managers who lead the work are also provided with training on cross-linked followership according to their necessary competencies, and new employees are supported to settle down and grow stably within the organization by increasing their immersion and self-direction in their work. In addition, in line with the characteristics of the manufacturing industry, we are operating a field manager course for field managers and part heads to strengthen communication-based leadership at the production site.

Improvement of Individual Capabilities

Based on the firm belief that the competency of each employee is directly related to the competitiveness of the company, we are operating various training programs to improve individual competency. Various in-house job training courses are provided to improve the job professionalism of beginner workers, and job performance capabilities are enhanced through strategic thinking courses, in-house MBA courses, and degree courses. In addition, we support domestic and overseas graduate schools of science and engineering and domestic MBA programs only for key personnel, while continuously strengthening the company's technological and management capabilities. In addition, we support on-site training courses such as seminars by experts and in-house special lectures, centered on each headquarters and department.

Individual Capability Improvement Programs

Job Competency Improvement Program



11 in-house job courses are being operated to improve job competency by job groups, such as production/technology, R&D, and sales. By actively nurturing and utilizing in-house instructors, we design training programs that can be applied immediately in the field to support the growth of job experts.

Job Skill Improvement Program



A strategic thinking process is being operated to enable customer-oriented thinking and work from a comprehensive mid-to-long-term perspective Through on/off blended in-house MBA courses for middle managers, we are enhancing our overall management knowledge and strengthening our decision-making and problem-solving capabilities from a company-wide perspective. In addition, the smart learning platform provides an educational environment that enables learning that reflects individual educational needs anytime, anywhere, even in non-face-to-face situations.

Status of Education Investments

Category		Unit	2018	2019	2020
Education Hour Per Person	Manufacturing	Hour	51.0	40.0	30.0
Education Expenditure for Employees	Manufacturing	KRW million	1,921	1,971	1,049
Ratio of Employees Completed Environmental Education	Manufacturing	%	96.4	99.9	100
	FnC	%	-	-	-
Ratio of Employees Completed Job Training	Manufacturing	%	41.1	40.1	46.2
	FnC	%	100	100	100
Ratio of Employees Completed Ethics Training	Manufacturing	%	49.2	9.1	51.6
	FnC	%	100	100	100
Ratio of Employees Completed Human Rights Education	Manufacturing	%	100	100	100
	FnC	%	100	100	100
Ratio of Employees Completed Sustainable Supply Chain Management Training	Manufacturing	%	100	100	100
	FnC	%	-	-	-

Advancement of Evaluation System

KOLON INDUSTRIES operates the MBO (Management by Objectives), an individual goal management system for all employees every year, and based on the results of regular evaluation, fair compensation such as salary increases, position promotions, and rewards is given to encourage performance improvement. In particular, we are operating an evaluation system centered on coaching and training so that the entire evaluation process can be linked with the improvement of employee performance. To this end, a balanced evaluation of achievements and competencies is possible by adding competency diagnosis to individual evaluation, which used to be evaluated based on achievements, and dualizing evaluation factors.

In terms of the evaluation method, we have improved to enable more accurate evaluation by switching from the relative evaluation method, which sets the compulsory distribution ratio in the six-step evaluation grade unit, to the absolute evaluation method, which abolished the forced distribution ratio. In addition, the fairness and transparency of the evaluation process have been enhanced by establishing an "Open Session," a process to discuss the evaluation grade in the process of calculating the evaluation grade. In particular, we tried to enhance the connection between work and the evaluation process by strengthening the communication function and supporting performance management at all times so that the evaluator and the evaluatee can communicate with each other smoothly throughout the entire evaluation process. In addition, through evaluation monitoring, objective and fair evaluations are made, and evaluation of the subject's satisfaction is conducted periodically to verify and reinforce the evaluation capabilities of evaluators.

Major Improvements of Evaluation System

Dualization of Evaluation Factors	<ul style="list-style-type: none"> Improvement in the way that performance evaluation and competency diagnosis are evaluated in a balanced way during the individual evaluation Performance evaluation evaluates the level of achievement of the goal, and competency diagnosis evaluates the level of competitiveness for achieving the goal
Absolute Evaluation Method Applied	<ul style="list-style-type: none"> Introduction of hybrid evaluation system as a transition stage for change to absolute evaluation Introduction of Open Session for evaluation based on consultation/coordination
Reinforcement of Regular Performance Management	<ul style="list-style-type: none"> Reinforce communication to enable training and coaching through evaluation Regular one-on-one interviews between the evaluator and the evaluatee through regular inspections
Enhancement of Evaluation Monitoring	<ul style="list-style-type: none"> Inducement of fair evaluation through evaluation error verification Improve evaluator competency through evaluation and feedback on the entire evaluation process

Status of Regular Evaluation

Category	Unit	2018	2019	2020	
Ratio of Employees Received Regular Evaluation	Domestic	%	88.3	89.2	90.6
	Overseas*	%	99.2	99.4	99.6

* Calculated in the expatriates' basis

Fair Compensation

KOLON INDUSTRIES has established and is operating a performance-oriented fair compensation system based on the results of performance evaluation. We have implemented a cumulative annual salary system for employees above manager level in general/research positions so that employees can receive compensations corresponding to their performance. Under the cumulative annual salary system, an individual's annual salary is defined according to the performance grade in the previous year, and high-performing employees can receive higher salaries than those at higher levels. For general workers and researchers below the managing level as well as workers in general, technical, and special employment positions, the standard annual salary table is applied so that we can reward them fairly without impartial discrimination due to personal factors such as gender and age. In addition to basic salary, incentives are paid to all employees when separate management performance and goals are achieved in accordance with the incentive regulations.

In January 2021, the compensation system was reorganized according to the rank reshuffle, and as the compensation system was reorganized, a briefing session was held for all employees about the reorganized compensation and welfare system, and related materials were posted on the company intranet. The reorganized compensation system is an item that determines an individual's annual salary. In addition to the performance evaluation grade of the previous year, we have added the achievement of organizational performance as well as expanded the scope of possible salary increases to promote work motivation.

Remuneration for Employees

Category	Unit	2018	2019	2020	
Total Yearly Remuneration	Male	KRW thousand	209,762,457	225,872,168	218,929,959
	Female	KRW thousand	41,670,143	44,868,808	46,482,420
	Total	KRW thousand	251,432,600	270,740,976	265,412,379
Average Remuneration Per Person	Male	KRW thousand	73,216	75,618	75,571
	Female	KRW thousand	60,567	62,666	61,161
	Total	KRW thousand	70,766	73,114	72,577
Welfare Benefits	Male	KRW thousand	21,259,592	18,840,787	17,144,992
	Female	KRW thousand	3,614,067	3,642,139	3,813,648
	Total	KRW thousand	24,873,659	22,482,926	20,958,640
Severance Pay	Male	KRW thousand	12,178,677	29,271,126	34,295,585
	Female	KRW thousand	3,194,896	2,897,338	4,985,434
	Total	KRW thousand	15,373,573	32,168,464	39,281,019
Ratio of Wage for New Employee to Legal Minimum Wage	%	203.2	184.8	187.1	

Corporate Culture of Innovation and Communication

Ratio of Employees Eligible for Collective Agreement

58.2%

Reverse Mentoring

Reverse Mentoring is KOLON's unique innovation program, which proposes ideas related to business and organization where executives and millennials come together to interact, understand the mindset and values of generations, and share the latest trends, new knowledge, skills, and opinions of millennials. In 2020, all senior executives met with younger millennials and had a meaningful time to build a vibrant organizational culture. In 2021, reverse mentoring is becoming a big inflection point in improving the organizational culture of KOLON INDUSTRIES, such as discovering ideas for building a smart way fused with digital to improve factory automation and improve the working environment of employees.

Trusted Labor-Management Relations

KOLON INDUSTRIES guarantees free union membership of its employees in accordance with the Labor Relations Act and collective agreements. As of 2020, the ratio of employees participating in union membership is 55.2%, and the ratio of employees eligible for collective agreements is 58.2%. In addition, the name of the existing labor-management council was changed to the 'Win-Win Council' with the promise to build a constructive cooperative relationship and smooth communication between labor and management. The Win-Win Council consists of an equal number of employers and workers, and discusses issues related to workers' safety and welfare every quarter. In addition, we strive to maintain a reliable labor-management relationship by communicating through various channels such as wage and collective bargaining negotiations with the labor union, the Win-Win Council, as well as the Occupational Safety and Health Committee and labor-management joint workshop.

KOLON INDUSTRIES clearly states in the collective agreement that it cannot give disadvantages to members' union activities, and also stipulates 'working conditions', 'matters related to health and safety management of employees', 'education' and 'maternity protection'. It contains the items like working hours, overtime/night/holiday work, holidays, allowances, special leave for celebration or condolence, promotion, wage payment in case of emergency, Occupational Safety and Health Committee, safety education, safety gear provision, health check-ups, outplacement programs, perinatal leave, infertility treatment, and spouse maternity leave. The issues not stipulated in the agreement are covered by the employment rules which cover working conditions, education, safety, maternity protection, and prevention of discrimination and harassment. With the efforts of both labor and the management to forge a cooperative relationship of trust, there has been no dispute under the values of 'Win-win Partnership' and 'Win-win Unity' since 2007.

Status of Collective Agreement

Category	Unit	2018	2019	2020
Number of Labor Union Members	Person	706	740	706
Ratio of Employees Participate to Union Membership	%	53.5	54.7	55.2
Ratio of Employees Eligible for Collective Agreement	%	55.0	56.4	58.2
Ratio of Employees Representing Occupational Safety and Health Committee	%	100	100	100

Expansion of Flexible Work Scheme

KOLON INDUSTRIES is expanding and implementing a flexible working system for all employees to realize a work-life balance. The flexible work scheme is a working system that allows employees to break away from the standardized working hours and adjust their starting and leaving times according to their individual circumstances and characteristics. In 2020, we expanded the optional working hour system to ensure individual work & life balance. The selective work hour scheme is a working system in which employees freely decide the number of working hours per day within the range of total working hours per month.

Operation of Flexible Work Scheme

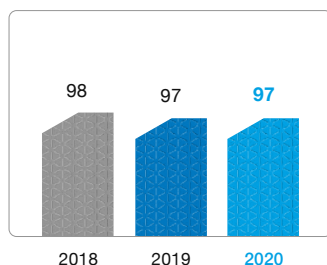
Category	Unit	2018	2019	2020	
Flexible Work Hour Scheme	Male	Person	207	228	278
	Female	Person	9	11	4
Selective Work Hour Scheme	Male	Person	18	5	306
	Female	Person	1	3	207

Pursuit of Work and Life Balance



Consultation for You Service

Ratio of Employees Received Health Checkup (Unit: %)



Health Support

Happy corporate culture starts with healthy employees. KOLON INDUSTRIES conducts health examinations for all employees working within the business site, including workers of suppliers. KOLON INDUSTRIES regularly conducts general and general health examinations once a year for all workers, while special health examinations and pre-and post-deployment health examinations are conducted for workers in charge of workers exposed to harmful factors for the early detection of occupational diseases. In 2021, we expanded the health checkup to the spouses of our employees, and plans are underway to expand the checkup center so that all employees can lead a happy work-life through a healthy life.

Since September 2020, KOLON INDUSTRIES has been operating an employee psychological counseling program through a professional psychological counseling company to heal the minds of employees who are tired from work stress and the ongoing COVID-19 situation. Employees who wish to receive counseling can apply through the dedicated website, app, or call center, and then conduct face-to-face and phone counseling at more than 200 professional counseling centers across the country. The identity and the contents of the consultation is kept strictly confidential, and support is provided to all employees working at the head office and major factories.

Parenting Support

KOLON INDUSTRIES has operated multiple family-friendly programs to create a happy working environment where employees can realize themselves through work-family balance. We care and protect pregnant women through pregnancy celebration gifts, exclusive parking spaces for them as well as the reduction of working hours during pregnancy, which is 4 weeks longer than the legal standard. To prevent a career break due to child-raising, we have operated the Magok KOLON Daycare Center, which is a childcare center in the office building. The reduction of working hours during the childcare period, and the family-care leave system are also parts of our solution. Besides, various systems are set in operation, such as financial support for infertility leave and treatment as well as congratulatory payment when a child enters a school. With such endeavors, we achieved a 100% return rate after parental leave for both males and females for three consecutive years.

Status of Maternity Leave and Parental Leave

Category	Unit	2018	2019	2020
Number of Maternity Leave Users	Male	96	82	73
	Female	55	39	35
Number of Parental Leave Users	Male	3	11	4
	Female	50	35	51
Ratio of Return After Parental Leave	Male	100	100	100
	Female	100	100	100
Ratio of Employees Working More than 12 Months After Return	Male	100	87.5	100
	Female	90.9	90.9	90.0

* Recalculation on a company-wide basis

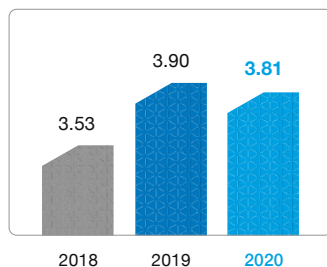
Retirement Support

Various retirement support programs are being operated to help prospective retirees prepare for a second life after retirement. In 2020, we operated retirement and outplacement programs such as life planning, career planning, re-employment, and starting a business to provide practical help to retirees. In November 2021, we plan to conduct the course through a preliminary demand survey for those eligible for education. we are also planning a variety of programs, such as updating educational content and inviting experts to deliver know-how.

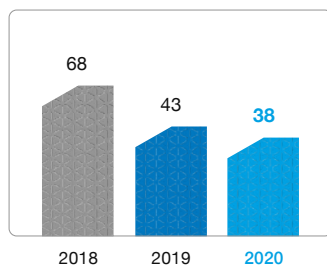
Employee Satisfaction Survey

We measure the level of satisfaction by conducting regular employee satisfaction surveys for all employees every year. KOLON INDUSTRIES is striving to identify the needs of employees through annual trend analysis and improve employee satisfaction through internal improvement. The employee satisfaction level for 2020 is 3.81 points (out of 5).

Employee Satisfaction (5 Points in total) (Unit: Point)



Scope of Employee Satisfaction Survey (Unit: %)



Human Rights Management System

Human Rights Declaration of KOLON INDUSTRIES

http://www.kolonindustries.com/MalgumBoard/Index.asp?BoardMode=View&Seq=25&page_no=1&BoardCode=notice

Human Rights Policy

As a responsible corporate citizen, KOLON INDUSTRIES is fulfilling its social responsibility and role by setting the highest level of responsibility for respecting/protecting human rights in all regions where it operates. At the same time, we strive to prevent human rights violations that may occur throughout the value chain in advance and minimize negative human rights impacts. Based on the human rights policy including the CEO's declaration and nine operating guidelines adopted in 2018, KOLON INDUSTRIES respects and protects the human rights of all stakeholders who are affected by our business activities, including our employees, clients, suppliers, and local communities. We are in line with a variety of international norms in human rights (hereinafter guidelines) embracing the Universal Declaration of Human Rights, UN Global Impact, UN Guiding Principles on Business and Human Rights, OECD Guidelines for Multinational Enterprises, UN Convention on the Rights of the Child, labor-related principles recommended by the International Labor Organization and ratified the government and laws of countries where we are doing our business.

Human Rights Policy of KOLON INDUSTRIES

<p>Human Treatment</p> <p>KOLON INDUSTRIES makes every effort to create a safe working environment free from any form of inhumane treatment and threats, including mental or physical coercion and abusive language so that human rights of employees are fully respected.</p>	<p>Anti-Forced Labor</p> <p>KOLON INDUSTRIES does not restrain mental or physical freedom or force employees to work against their will. We do not require the transfer of identifications issued by the government, passports, or work permits in return for employment.</p>	<p>Working Hours</p> <p>KOLON INDUSTRIES abides by regulations on regular and overtime working hours and holidays and days off stipulated by national and regional laws.</p>
<p>Anti-Discrimination</p> <p>KOLON INDUSTRIES gives all of our employees and applicants fair opportunities in terms of personnel operation, including employment, promotion, reward and disciplinary actions. We do not discriminate against them for the reasons of race, gender, age, place of origin, academic background, marital status, religion, political view, social status and disability.</p>	<p>Environmental Rights Protection</p> <p>KOLON INDUSTRIES sticks to the principle of preventive approaches in order to protect local residents from difficulties caused by harmful substances and noises while providing a means of remedy for affected individuals or groups in areas where we operate business.</p>	<p>Anti-Child Labor</p> <p>KOLON INDUSTRIES is in compliance with national and regional laws of each country on minimum age of employment and imposes the ban on the labor of children under the age of 15 at all sites. When we hire children aged under 18, we make sure that they are not involved in any dangerous or harmful work for the sake of safety in line with labor relations acts and laws.</p>
<p>Wages and Working Conditions</p> <p>KOLON INDUSTRIES follows regulations on wages and working conditions, including minimum wages and overtime pay specified in national and regional laws.</p>	<p>Freedom of Association</p> <p>KOLON INDUSTRIES guarantees the freedom of association and collective agreement in accordance with national and regional laws. We do not give disadvantage to employees for a reason for organizing, joining a labor union, and being involved with a labor union.</p>	<p>Human Rights Protection of Local Residents</p> <p>KOLON INDUSTRIES respects and protects the right to life, the freedom of movement, the right to safety and property ownership of local residents in areas where we operate business.</p>

Human Rights Impact Assessment

KOLON INDUSTRIES, which promotes business worldwide, deeply recognizes that unintentional human rights violations may occur in the course of business operations due to cultural, customary, religious, racial, and institutional differences in the region where it operates. In order to evaluate these human rights-related risks, we introduced a human rights impact assessment to identify potential human rights risks that may arise in business, and make efforts to prevent and mitigate them. The human rights impact assessment analyzed 10 areas followed the Guide to Human Rights Impact Assessment and Management (HRIAM) and the human rights impact assessment from the National Human Rights Commission. The assessment is conducted by an independent external organization including the overall management system including company policies and systems, as well as domestic business sites and headquarters.

Human Rights Risk Identification and Mitigation Process



Results of Human Rights Impact Assessment

Category	Unit	2018	2019	2020
Ratio of Site Conducted Human Rights Impact Assessment	Domestic Site	%	100	100
	Overseas Site	%	0	0

Human Rights Risk Mitigation and Monitoring

As a result of the human rights impact assessment, we were advised to stipulate items such as the ban on workplace bullying, respect for diversity, and the prohibition of child/forced labor in our recruitment rules or HR regulations so that they can be actually applied across entire management system. Following the advice, we added the items in our rules and regulations in 2019. Although we have never had any workers aged under 15 in all our business sites including overseas ones so far, we plan to take measures against any possible child labor as a precaution.

Status of Child Labor

Category	Unit	2018	2019	2020
Number of Workers Aged 18 or Below	Domestic Site	Person	0	0
	Overseas Site	Person	0	0
	Total	Person	0	0

Human Rights Education

As part of our efforts to protect human rights and prevent discrimination, we have provided various human rights education for employees. Legally compulsory educations, including the education on sexual harassment prevention and awareness improvement for the disabled have been implemented annually. In addition to them, we have also offered educations on gender equality, anti-discrimination and workplace harassment prevention to raise the level of satisfaction for learning while enhancing effectiveness. In 2020, 100% of domestic employees completed the human rights education. We plan to continue to conduct human rights education and management for our employees in order to prevent unfair practices such as sexual harassment and harassment in the workplace, forced labor, child labor, and violations of rights in the working environment, which are social issues.

Employee Grievance Process

With our permanent online grievance handling system, KOLON INDUSTRIES is swiftly responding to various human rights violation issues such as sexual harassment, workplace bullying, and power abuse. An informant can report anonymously through the online report channel. The person's identity and all information in relation the report is strictly protected by our 'prohibition of search activities for informant' regulation. Any activities of tracking down will be rigidly reprimanded. The informant and the report's content is strictly confidential, and our reporting system is safely protected with tight security system. In addition, the information is only managed by limited personnel who pledged to comply with a confidentiality agreement. A grievance office consists of two persons from each, labor union and the management, by the Operational Regulation on Labor-Management Council. Grievance officers notify workers of measures taken within 10 days from hearing a grievance.

Respect for Human Diversity

Human diversity in a rapidly changing business environment is emerging as a competency that is directly related to a company's competitiveness. KOLON INDUSTRIES has imposed the ban on any form of discrimination based on gender, age, race, disability, religion, political orientation, and region of origin in a number of our regulations including the Human Rights Management Declaration, Human Rights Policy, Employment Rules, and Personnel Regulations. Taking the perspective of equality in opportunities and outcomes, we have fully respected diversity throughout all of the stages from recruiting, evaluation, compensation to education. In addition, in order to create a happy working environment where women can realize themselves through work-family balance, various family-friendly welfare systems such as reduced working hours during pregnancy and childrearing have been introduced. For employees with disabilities, dedicated parking spaces, restrooms, and Braille guides were installed in the building to enhance convenience. KOLON INDUSTRIES is constantly hiring women, and there is no difference in salaries between men and women under equal conditions. In 2020, the average wage for women compared to the average male base salary for non-managers is 98.3%, and the compensation gap for managerial positions is also gradually narrowing.

Status of Equal Compensation for Male and Female

Category	Unit	2018	2019	2020
Equal Compensation for Male and Female	Management	%	83.8	85.9
	Non-management	%	97.6	96.2

Completion Rate of Human Rights Education for Domestic Employees in 2020

100%

Sustainable Supply Chain

Suppliers are the most important partners to grow together with the company, and strengthening the competitiveness of the value chain is the first step in securing corporate competitiveness. KOLON INDUSTRIES is improving its value chain capabilities by presenting clear sustainability standards to its suppliers through sustainable supply chain management, while realizing win-win growth through extensive financial support, technical support, and educational support.

Issue Boundary

Suppliers

Major Performances

4.1 KRW billion

5 KRW billion

71 Suppliers

Direct Financial Support in 2020

Win-Win Fund Raised in 2020

Beneficiaries of Educational Support in 2020

Supply Chain Management System

Supply Chain Management Policy

In order to prevent risks that may occur within the supply chain in advance and to extend responsible and sustainable management throughout the supply chain, KOLON INDUSTRIES established the 'Supply Code of Conduct' in 2019. The Code of Conduct was established based on global standards and guidelines such as the UN Global Compact, the ILO Convention Standards, and the UN Universal Declaration of Human Rights. Detailed sustainability management standards are presented. It also provides detailed expectations for suppliers in five areas: labor human rights, safety and health, environmental protection, ethical management, and management system. In addition, the Code of Conduct applies to all types of organizations that design, sell, manufacture, or provide all products and services used in the production of KOLON INDUSTRIES products, and all sub-contractors that provide assembly, parts, raw materials, and packaging to the relevant suppliers. must also be required to comply with it.

Supplier Code of Conduct

Supplier Code of Conduct

"The Code of Conduct applies to all types of organizations that design, sell, manufacture, or provide all products and services used in the production of KOLON INDUSTRIES products, and all sub-contractors that provide assembly, parts, raw materials, and packaging to the relevant suppliers. must also be required to comply with it"

<p>Labor Rights</p> <ul style="list-style-type: none"> · Prohibition of forced labor · Prohibition of child labor · Comply with working hours · Wages and benefits · Humane treatment · No discrimination · Freedom of association 	<p>Safety and Health</p> <ul style="list-style-type: none"> · Industrial safety · Emergency preparedness · Prevention of occupational accidents and diseases · Harmful factor management · Facility safety management · Dormitory/sanitary facilities provided · Safety and health training 	<p>Environmental Protection</p> <ul style="list-style-type: none"> · Compliance with environmental laws · Prevention of environmental pollution and reduction of resource/energy use · Chemical management · Waste and wastewater management · Air pollution management · Energy consumption and GHG management 	<p>Ethical Management</p> <ul style="list-style-type: none"> · Integrity and prohibition of unfair profits · Disclosure · Intellectual property protection · Privacy protection · Legal material management 	<p>Management System</p> <ul style="list-style-type: none"> · Declaration of commitment to self compliance · Management duties and responsibilities · Responding to legal and customer requirements · Risk management · Goal management · Education · Employee feedback, participation and grievance handling · Documentation and records
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Policy Implementation

To implement practical observance and practice of the Supplier Code of Conduct, KOLON INDUSTRIES strives to minimize risk throughout our supply chain, by including the pledge to comply with the Supplier Code of Conduct and the pledge to fulfill the integrity contract in the contract since 2020. In case of violation, we stipulate strong sanctions such as cancellation of contract and permanent expulsion may be taken if the request for improvement is not fulfilled.

In addition, we are making efforts to preemptively minimize supply chain risks by requesting a pledge of integrity contract performance from customers and suppliers when signing new contracts. In 2019, we established an integrity contract performance pledge form for suppliers and customers, and from 2020, we have made pledges to prohibit collusion, prohibit unfair profit, and manage human rights risks through the pledge of integrity contract implementation. The pledge also makes it clear that any violation could bring disadvantages to them such as the cancellation of contract or the disqualification from bidding. KOLON INDUSTRIES continues to include more existing and new suppliers to receive the pledge down the road.

Status of Suppliers Pledging for Compliance with Human Rights and Ethics

Category	Unit	2018	2019	2020
Key Suppliers	Supplier	61	69	72
Number of Suppliers Pledging within Key Suppliers	Supplier	-	40	42
Ratio of Suppliers Pledging within Key Suppliers	%	-	57.97	58.33
Ratio of Contracts within Key Suppliers Including Provisions on the Environment and Human Rights	%	-	-	69.01

Key Suppliers: suppliers with annual transaction amount of KRW 1 billion or more in domestic sites

Supplier CSR Assessment

To ensure that the supplier code of conduct is effectively reflected, KOLON INDUSTRIES has added the CSR category in the audit on suppliers which is conducted according to the annual audit plan. The CSR assessment covers four areas including human rights and labor, safety and health and the environment, fair operation, and product stewardship and customers, consisting of 22 indicators. CSR on-site inspection is also conducted if necessary. Suppliers are evaluated on a scale from A to E and the results are reflected in terms of deciding audit frequency and assessing contracts or bids. For those who receive a grade lower than Grade D (Grade C for new suppliers), we recommend them to correct, and for those who receive Grade E or poorly correct the areas of improvement, we terminate transactions under term or suspend signing new contracts with them. In 2021, we plan to conduct a pilot evaluation by adding anti-corruption and CSR evaluation items to the supplier checklist when selecting new companies to strengthen the supply chain risk evaluation, aiming to apply it to overall evaluation in 2022.

Results of Supplier CSR Audit

Category	Unit	2018	2019	2020	
Total Number of Suppliers	Supplier	392	374	375	
Suppliers Newly Registered to 1st-tier Suppliers	Supplier	57	25	16	
Ratio of Suppliers Completed the CSR Audit	%	1.3	7.5	16.0	
Number of Suppliers Advised after the CSR Audit	Supplier	7	14	0	
Number of Suppliers Suspended after the CSR Audit	Supplier	0	0	0	
Number of Suppliers Suspended Temporarily or Permanently	Supplier	36	52	22	
Ratio of Suppliers Received Due Diligence within Key Suppliers	Suppliers Received Due Diligence	Supplier	2	7	4
	Key Suppliers	Supplier	61	69	72
	Ratio	%	3.3	10.1	5.6
Ratio of Suppliers Completed the CSR Audit within Key Suppliers (Checklist, Survey)	Suppliers Assessed	Supplier	2	8	6
	Ratio	%	3.3	11.6	8.3

Win-Win Growth System

Grade of the Win-Win Growth Evaluation in 2020

GOOD

Win-Win Growth Promotion System

For KOLON INDUSTRIES to achieve sustainable growth, it is essential for suppliers to stabilize their business and improve their competitiveness. KOLON INDUSTRIES enhances the competitiveness of its partners through various win-win growth programs such as financial support, technical support, and education support, while contributing greatly to the formation of a developing partnership through close and systematic communication programs that strengthen mutual bonds. In recognition of these efforts, KOLON INDUSTRIES has acquired a good grade in the win-win growth evaluation in the mutual growth index survey conducted by the Win-Win Growth Committee every year.

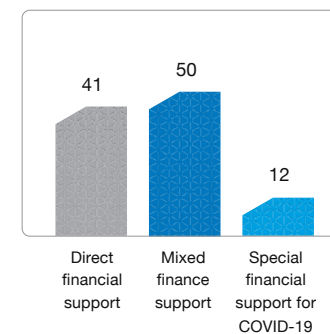
Win-Win Growth System



Financial Support

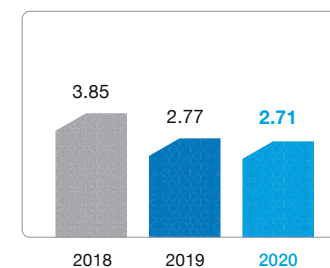
KOLON INDUSTRIES provides practical help to small and medium-sized suppliers with relatively weak financial foundations through systematic financial support, thereby providing a great strength in laying the foundation for self-reliance. Through direct financial support worth KRW 4.1 billion in 2020, subcontract payments were paid early before holidays such as Lunar New Year and Chuseok. In addition, we operated a win-win fund worth KRW 5 billion, of which KRW 2.7 billion was used as a loan to suppliers. In addition, special financial support worth KRW 1.2 billion was used to support construction costs of the Mungyeong modular living negative pressure treatment center to overcome COVID-19.

Financial Support in 2020 (Unit: KRW 100 million)



*A total of KRW 5 billion is raised, of which KRW 2.7 billion is loaned

Ratio of Suppliers Received Advance Payment (Unit: %)



Technical and Educational Support

KOLON INDUSTRIES promotes joint or in-house technology development with suppliers and strives to strengthen mutual competitiveness through joint patent applications. In 2020, three joint R&D activities were carried out with suppliers and four joint patent applications were filed. In addition, we supported a production management system for our suppliers to support computerized management of product warehousing, shipment, and inventory management. In terms of educational support, KOLON INDUSTRIES provides training on four CSR areas (human rights & labor, safety & health & environment, fair operation, and product responsibility & customers. Since May 2018, we have been selected as a joint training center for the National Human Resources Development Consortium, providing a workforce management system including job competency development education and human resource development for workers of suppliers. If there is a demand from business partners, we are able to provide education on greenhouse gas reduction and climate change through customized education. In 2020, educational support was provided to 299 people at 71 suppliers.

Performance of Joint Training Center of the National Human Resources Development Consortium in 2020

71 Suppliers

299 Persons

In order to improve supply chain sustainability, KOLON INDUSTRIES is providing continuous supply chain training to improve the competency of purchasing managers as well as technical and training support for suppliers. On top of that, we have educated employees by sending newsletters by issue to eradicate inappropriate practice of receiving graft or money from stakeholders within the supply chain. The compliance newsletters are sent regularly in order to share domestic regulation amendments, which are important for work, the trend of laws and regulations in and outside Korea, and global supply chain issues.

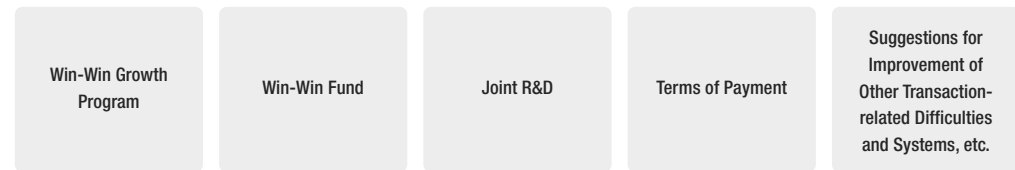
Status of Sustainable Procurement Training

Category		Unit	2018	2019	2020
Ratio of Procurement Staffs Completed Sustainable Procurement Training	Completed	Person	16	16	16
	Targeted	Person	16	16	16
	Ratio	%	100	100	100

Communication Support

KOLON INDUSTRIES is striving to create greater synergy effects by establishing smooth partnerships and consensus with suppliers. For smooth communication with suppliers, regular conversations are held and reflected in the improvement of the supplier management system. In addition, through the online purchasing portal system, we have established a communication channel for suppliers at all times, such as listening to suppliers' opinions and providing grievance counseling. Suppliers also can report any violations, such as misconduct or illegal actions conducted by the employees of KOLON INDUSTRIES through the website. And we have established a direct reporting system between the head of the Dispute Mediation Committee and CEO to resolve any disputes with suppliers in a swift manner.

Communication Support and Grievances Consultation for Suppliers



"Establishing a Sustainable Supply Chain through Conflict Minerals Management"

In the case of conflict minerals, which refer to minerals produced in conflict areas such as Africa, exploitation of civilian labor by guerrillas or rebels during the mining process is a global issue that the international community is regulating. KOLON INDUSTRIES does not use minerals including gold, tin, tantalum and tungsten, coming from dispute areas which could lead to severe human rights infringement or environmental contamination. KOLON INDUSTRIES makes sure to procure minerals mined only in accordance with global standards of the U.S., EU, or OECD. We have also screened the information on suppliers registered on our purchase portal system to ensure that the purchase of conflict minerals is blocked, and stipulated the ban on the use of conflict minerals in the Supplier Code of Conduct.

The Prohibition of Conflict Minerals

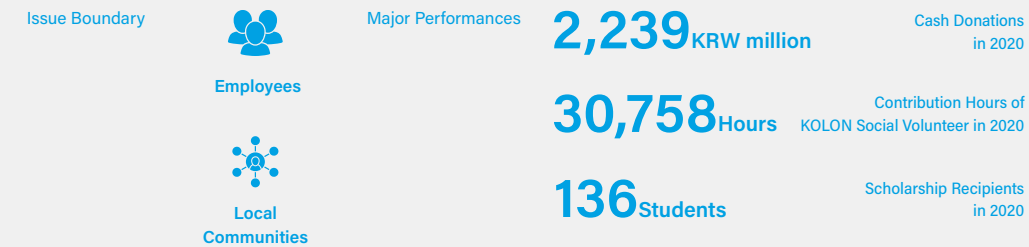
KOLON INDUSTRIES' Supplier Code of Conduct – Article 5. Legal Materials Management

"Suppliers are not allowed to use raw materials including conflict minerals obtained through illegal or unethical methods that bring about severe human rights abuse or environmental pollution. It is a duty for suppliers to manage the use of materials throughout their whole supply chain including the origin of materials and their accounts. And suppliers must submit guarantees and data on the origin and their suppliers of raw materials upon KOLON INDUSTRIES' request."



Local Community Engagement

Local communities are the driving force behind corporate growth, providing a base for business activities and supplying new customers and consumers. As a trusted member of society, KOLON INDUSTRIES faithfully fulfills its social responsibilities for mutual coexistence with the local community, while also making various efforts to identify social needs and solve them.



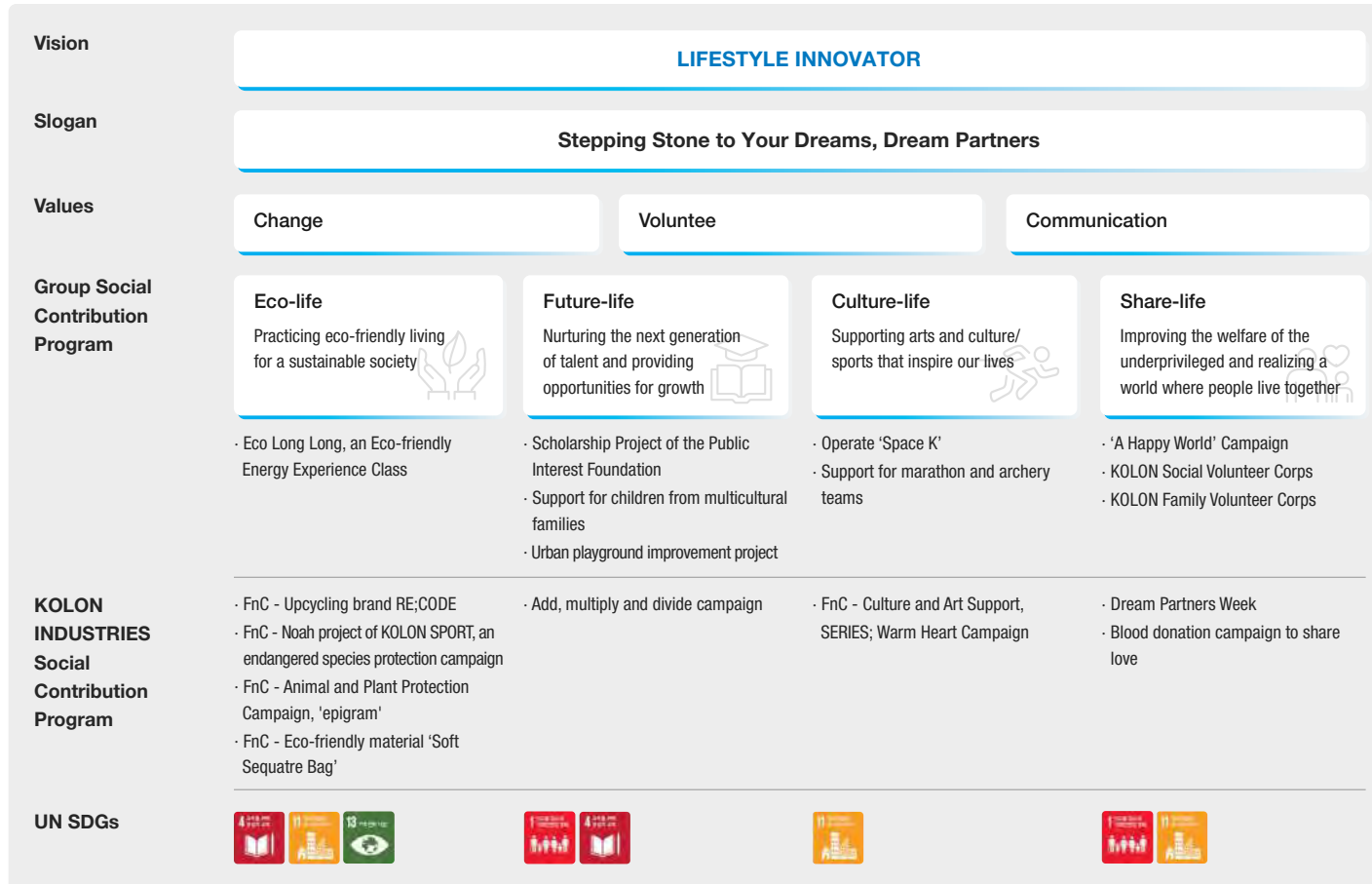
http://www.kolonindustries.com/Company/company03_01.asp

Social Contribution Vision and System

KOLON Group's Social Contribution Site
<https://www.kolon.com/socialContribution/socialContributionMain.do>

KOLON INDUSTRIES, which has grown together with the people, is expanding its business philosophy with the vision of 'Innovating the Life of Customers by Providing Products and Services that Improve the Quality of Life' to social contribution areas. Beyond the traditional social contribution method, KOLON INDUSTRIES is implementing social contribution activities in the dimension of Creating Shared Value (CSV) in four aspects: Eco-life, Future-life, Culture-life, and Share-life. In addition, we are striving to improve the lives of the people and realize the UN Sustainable Development Goals by linking with group companies. KOLON INDUSTRIES discovers and promotes various social contribution programs ranging from environment, culture, sports, social welfare, and win-win management. In order to overcome the COVID-19 crisis together with the public, we are using our accumulated capabilities to support people's stable lives and to create social value across our business.

Social Contribution System



Eco-life

A clean environment is the most valuable asset to be passed on to the next generation. To be reborn as a sustainable company that considers the environment and contributes to society, KOLON INDUSTRIES is conducting environmental cleanup activities centered on the head office and business sites, and is developing various eco-friendly social contribution programs, under the motto of 'Dream and Love with Nature'.

Upcycling Brand RE;CODE

RE;CODE is a representative sustainable fashion brand in Korea launched in 2012 with the slogan of 'This is not just Fashion'. We create new value based on upcycling, which recombines discarded clothing inventory to create new clothes. It also creates new uses by changing the way we think about the stereotypes of fashion. As 'sustainable' fashion continues to be in the spotlight in the current fashion world, RE;CODE is a leading brand in the field and is evaluated as an exemplary case in ethical consumption and corporate CSR activities.



RE;CODE Sweaty Car Seat Two-Way Bag



RE;CODE Airbag Backpack



RE;CODE X KOLON Sports Reverse Products



RE;CODE Slogan

Opening Up the World of Upcycling through the RE;CODE X NIKE Collection

In August 2020, RE;CODE of KOLON INDUSTRIES FnC conducted an upcycling project with Nike. By adding FnC's clothing inventory and fabrics to Nike's inventory, it has been reborn as clothing and accessories such as sweatshirts, cape jumpers, bags, and hats by adding the record's unique design identity of 'disassembly and recombination'. We also conducted online and offline workshops. In the online workshop through Zoom Live, we shared our know-how on upcycling to transform a sweatshirt that is not worn well into a new item, and through the offline workshop, we provided various opportunities for customers to directly experience sustainability. In addition, 5% of the proceeds were donated to 'Save the Children Korea', an international children's relief organization.

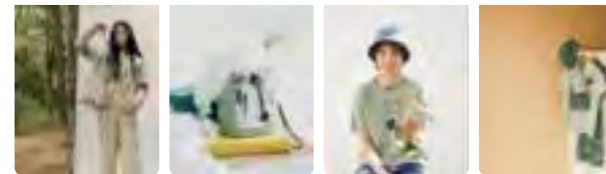


RE;CODE X Nike Collaboration

Noah Project of KOLON SPORT

The Noah Project is a campaign that has been running since 2016 to protect endangered animals and plants in Korea. Each season, one type of plant and animal is selected to launch a capsule collection and a portion of the proceeds are donated. In the 20SS season, we carried out activities to protect the brand's symbol, the pine tree, and in the 20FW season, the white pine tree was designated as a special protected tree, the white pine tree. In particular, in 2020, we applied eco-friendly materials and techniques to all products, and reduced the amount of landfill waste and carbon dioxide emissions by using recycled yarns from organic cotton, waste plastic bottles, and waste nets. We also introduced eco-friendly denim products with ozone washing that can reduce water consumption by up to 99%.

*Ozone Washing: A chemical-free washing method using oxygen and electricity instead of water.



20FW Noah Project

20SS Noah Project

Planting Trees in 'FnC Forest' with the Noah Project

*Restoration forests in areas damaged by forest fires in Gangwon-do

2,000 Trees

Animal and Plant Protection Campaign, epigram

Epigram has been running the Endangered Plants and Plants Campaign since 2017 to inform the specific stories of what kind of existence the animals and plants next to us are and what kind of situation they are in. Clothing is made with graphic or artwork images of animals and plants, and clothing and products made with reusable and eco-friendly materials are introduced at the store. In the meantime, various stories have been told: green sea turtles, euplexaura crassa, sesarma intermedium, Korean finless porpoise, otters losing their nests due to river pollution, leopard cats that are endangered due to roadkill and reckless hunting, native cattle, Natural Monument Korean relic long-horned beetle, black-veined white butterfly, dung beetle, etc. In the 21SS season, we announced about Korean dogs, collaborated with Paw In Hand to promote abandoned dogs, and the proceeds from the product were donated to the World Nature Fund, 'WWF'.

Eco Long Long, Eco-friendly Energy Experience Class

Launched in 2009 by KOLON Group, 'Visiting Energy School, Eco Long Long' is Korea's first visiting energy school. Education is provided three days a week in specially modified vehicles so that children can directly experience the principles of eco-friendly energy, and during vacations, special education is provided to children from underprivileged groups such as rural areas, welfare centers, and after-school schools.

In addition, an eco-friendly energy experience exhibition hall is operated on the first floor of the Magok office building, providing more diverse and in-depth experience education. In 2020, online and offline education was conducted in line with the online school situation due to COVID-19, and a total of 184 education sessions were conducted for students from the upper grades of elementary school to the first grade of middle school, and 32,016 students were provided with eco-friendly energy experience education that can be used in real life. In addition, in commemoration of the 10th anniversary of Eco Long Long, a 10-year report on educational achievements over the past 10 years was produced and distributed to schools at each level.

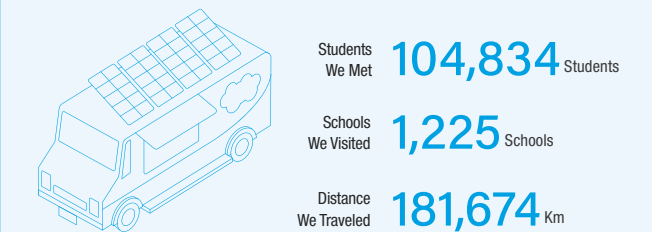


Wind Power Generator Experience of Eco Long Long

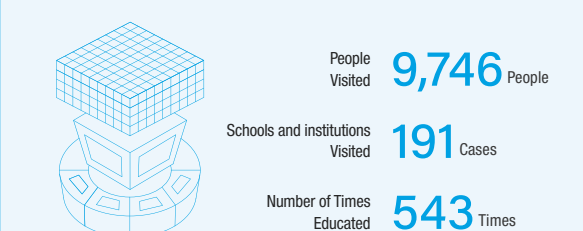
Status of Eco Long Long Activities

* Visiting Energy School and 'Eco Long Long Cube' (as of the end of December 2020)

Eco Long Long



Eco Long Long Cube





Future-life

KOLON INDUSTRIES believes that there should not be any young people who give up their dreams for the future in our time. In order to create a world where everyone is guaranteed equal opportunities and can dream a new dream, KOLON INDUSTRIES provides various programs to foster young talents who will lead the new era and provide opportunities for growth.

Scholarship Program

KOLON Group is carrying out support projects to nurture young talent through the Ohun Cultural Foundation, established in 1981, and the Flower and Little Prince Foundation, established in 2002. The Ohun Cultural Foundation's public interest projects include scholarships, support for educational institutions, and establishment and operation of youth training centers (Boramwon). The Flower and the Little Prince Foundation selects exemplary students who continue to study in difficult family circumstances, provides scholarships, and operates support programs such as KOLON Children's Dream Camp. In 2020, we provided scholarships worth KRW 200 million to a total of 136 students to help them improve their academics and ensure stable entrance to higher schools.

- Ohun Cultural Foundation <http://www.good-news.or.kr>
- Little Prince Foundation <http://www.kolonfoundation.or.kr>

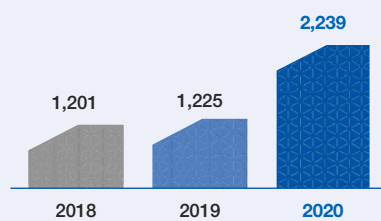
Add, Multiply and Divide Campaign



Heart Dream Pack Production and Delivery

due to the suspension of the operation of the local children's center due to the COVID-19 situation, the 'Add, Multiply and Divide' campaign was conducted. We delivered the Heart Dream Pack to 700 elementary school students from low-income families across the country who were unable to attend local children's centers due to COVID-19 and are living mainly at home. The Heart Dream Pack includes hygiene products such as masks and portable hand sanitizers, as well as 10 items such as psychological support products, snacks, and science kits to support children's health and to enable learning at home through online content. KOLON Group is continuously conducting social contribution activities, such as raising donations through the Donation Angel Gate.

Status of Social Contribution Execution of KOLON INDUSTRIES
(Unit: KRW million, based on cash donations)



Culture-life

Culture, art, and sports have a great power to inspire and revitalize our lives, bringing deep emotion and passion to our lives. KOLON INDUSTRIES is striving to bridge the cultural gap between classes through cultural arts/sports support programs that inspire our lives.

Warm Heart Campaign, Culture and Arts Support Series

Since 2011, the Warm Heart Campaign is a project to support the neglected culture and art industry by selling products in collaboration with artists. In 2020, the 10th anniversary, we expanded the scope of the campaign to the 'Warm Heart Film Fund' to support domestic short films and documentary films. Through a contest, two screenplays were selected and a total of KRW 10 million was supported for production, and production is completed in 2021 and preparations are being made for submission to various film festivals. In the future, the Warm Heart Film Fund plans to support the filming team, help with the submissions to domestic and foreign film festivals, produce making and crew interview videos, and expose them on its own YouTube channel, as well as promote screenings through online movie platforms.



20SS Warm Heart Campaign X Gaeko Collaboration

Culture and Art Sharing Space <Space K Seoul>

'Space K Seoul' is KOLON's culture and art sharing space that started in Gwacheon in 2011. In September 2020, 'Space K Seoul', which was expanded and opened in Magok-dong, Gangseo-gu, is KOLON's differentiated arts and social contribution activities using art. In addition, we are striving to expand the base of contemporary art by providing support and sponsorship to allow artists to continue to create, such as introducing foreign artists that are lesser-known in Korea.



Space K Seoul (Photo=Kyung-Seop Shin)

- Space K Seoul <https://www.spacek.co.kr/index.do>



Share-life

With the spread of information and communication devices such as smartphones and the Internet, the global village is getting closer than ever, but the gap between regions is widening. KOLON INDUSTRIES, through the KOLON Social Volunteer Corps, is making various efforts to resolve the imbalances arising from regional disparities and to realize a world where people live in harmony.

Dream Partners Week

KOLON Group conducts sharing activities with the group through Dream Partners Week, a volunteer week every year. In 2020, volunteer activities were conducted in a non-face-to-face manner to prevent the spread of COVID-19 under the theme of 'Even though the body is far away, but the mind is closer', around 500 employees participated, mainly at business sites across the country. In 2021, we made figure soap and cotton masks through hands-on volunteer activities with employees and their families and delivered them to 1,200 children in 40 local children's centers. This event was held to encourage children to wash their hands by putting their favorite character toy figures in soap and helping prevent COVID-19 with an upcycling mask using company stock fabric.



Dream Partners Week

Blood Donation Campaign to Share Love

KOLON Group expanded its annual blood donation campaign to three times a year to support the blood supply shortage due to the prolonged COVID-19, and conducted sequentially at eight business sites across the country, starting with the KOLON INDUSTRIES Gumi plant, Gwacheon, Magok, Gimcheon, Gyeongsan, Daejeon, etc. The blood donation campaign, one of KOLON's representative social contribution programs, has been held twice a year since 2013, in summer and winter, when blood supply is unstable. In 2020, the number of blood donors plummeted in April, August, and November due to COVID-19, so we expanded the number of employee blood donations to three for emergency blood supply. In 2020, about 550 blood donations were donated by our executives and employees, and a total of 5,000 blood donations have been delivered to the Korea Leukemia Children's Foundation since 2013 and are being used for pediatric cancer patients in need of blood transfusions.



Blood Donation Campaign to Overcome COVID-19

KOLON Volunteer Corps

KOLON Group established the KOLON Social Volunteer Corps in 2012 and integrated social contribution activities carried out by each affiliate to develop systematic and substantial activities. Under the slogan of 'Dream Partners, a Stepping Stone to a Dream,' KOLON Social Volunteer Corps is operating representative programs such as 'Hello Dream'. 'Hello Dream' supports children to grow up with a dream for the future through talent donation and hard work of employees. We are running various programs such as Vision Dream, Hope Dream, and Healthy Dream so that children who cannot realize their dreams due to financial difficulties or health reasons can achieve their dreams.



KOLON Social Volunteer Corps

KOLON Volunteer Corps Activities

Category	Unit	2018	2019	2020
Total Contribution Hours	Hour* Person	8,146	7,159	30,758
Total Number of Active People	Person	2,135	2,168	787
Total Number of Activities Times	Times	241	309	67

- KOLON Volunteer Corps Site <https://dreampartners.kolon.com/>



SOUND
GOVERNANCE



ETHICS &
COMPLIANCE



RISK
MANAGEMENT

SUSTAINABILITY PRINCIPLES

In order to fulfill its responsibilities as a global sustainability management leader, KOLON Industries is preparing for a sustainable tomorrow in the midst of change and innovation. KOLON Industries has established three sustainable management principles that are the basis of corporate operation and is creating a sustainable tomorrow based on these principles.

Sound Governance

KOLON INDUSTRIES has established and is operating a governance policy for the purpose of protecting shareholder value and securing transparency, stability and soundness of the corporate governance to establish a sound corporate governance structure. Based on this, KOLON INDUSTRIES is making various efforts to strengthen the independence, professionalism and diversity of the Board of Directors.

http://www.kolonindustries.com/Service/service01_01.asp

Governance Principles



Corporate Governance Information of KOLON INDUSTRIES
http://www.kolonindustries.com/Service/service01_01.asp

Corporate Governance Report of KOLON INDUSTRIES (31 May 2021)
<https://dart.fss.or.kr/dsaf001/main.do?rcpNo=20210531800192>

Corporate Governance Principles

KOLON INDUSTRIES' corporate governance is based on the establishment of sound governance that values the interests of internal and external stakeholders in a balanced way by protecting shareholder value and securing exemplary governance, under the supervision of an independent board. KOLON INDUSTRIES publishes information on the company's governance structure, major roles and activities of the board of directors, etc. on the company's website, and regularly discloses board-related materials that are obligated to disclose in accordance with laws and regulations through the Data Analysis, Retrieval and Transfer System (DART) of the Financial Supervisory Service. In addition, we are striving to enhance transparency in governance and guarantee shareholders' right to know by disclosing the Corporate Governance Report every year that contains the principles and status of corporate governance.

As part of an effort to help shareholders to exercise their fair voting rights and to promote participation in the general meeting of shareholders, since 2019, KOLON INDUSTRIES has been holding the general meeting of shareholders avoiding the concentrated day of the general meeting of shareholders, and has implemented a voting proxy exercise solicitation system to secure a quorum and allow shareholders to exercise their voting rights easily. In order to provide shareholders with company information in a timely and equitable way, the company publishes IR materials in Korean and English, such as performance briefings, through the company website. To enhance the understanding of domestic and foreign shareholders of the company, we are conducting visiting investment briefing sessions and conference calls on the topics of general shareholders' meeting agenda, business performance, and large-scale investment.

Governance Goals and Characteristics

Governance Goals	Protecting Shareholder Values	Securing Transparency/Stability/Soundness of Governance Structure	
Governance Characteristics	<p>Composition of the Board of Directors centered on outside directors</p> <p>By giving outside directors the actual leadership of the board of directors, the fairness of resolutions is increased and checks and checks are carried out on the in-house management.</p>	<p>Responsible management is realized through the participation of the heads of each division in the board of directors</p> <p>For the realization of professional responsible management, internal directors are formed centered on the top management in each sector, such as management, planning, accounting/finance, manufacturing, and fashion.</p>	<p>Efficient operation of committees within the BOD</p> <p>Performing the deliberation function of the BOD by establishing and operating three BOD committees: the Audit Committee, the Management Committee, and the Outside Director Candidate Recommendation Committee.</p>

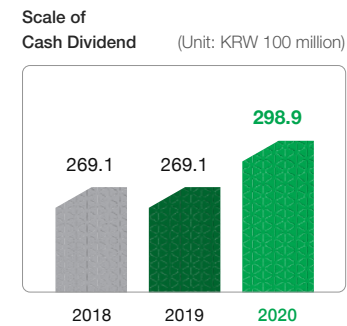
Composition of the Board of Directors

Name	Hee-Goo Jang	Min-Tae Kim	Gwang-Bok Yoon	Gi-Yong Bae	Je-Won Lee	Yong-Taek Hong	Tae-Hee Kim
Position	<ul style="list-style-type: none"> · Chief Executive Officer, President · Chairman of the Board of Directors · Chairman of the Outside Director Candidate Recommendation Committee · Chairman of the Management Committee 	<ul style="list-style-type: none"> · Member of the Management Committee 	<ul style="list-style-type: none"> · Member of the Management Committee 	<ul style="list-style-type: none"> · Chairman of the Audit Committee · Member of the Outside Director Candidate Recommendation Committee 	<ul style="list-style-type: none"> · Member of the Audit Committee 	<ul style="list-style-type: none"> · Member of the Audit Committee 	<ul style="list-style-type: none"> · Member of the Outside Director Candidate Recommendation Committee
Date of Appointment	28 MAR 2018	26 MAR 2019	25 MAR 2020	25 MAR 2020	26 MAR 2019	25 MAR 2020	25 MAR 2016
Area of Expertise	Corporate management	Accounting, financing	Accounting, financing	Accounting, financing	Administration	Materials technology	Law
Main Career	<ul style="list-style-type: none"> · Chief Executive Officer of KOLON Plastics, Inc · Chief Executive Officer of KOLON BASF innoPOM, Inc. 	<ul style="list-style-type: none"> · Head of Ethics Management Division of KOLON Inc. · Head of Management Strategy of KOLON EcoOne · Incumbent Head of Management Support Department of Fashion Organization of KOLON INDUSTRIES, Inc 	<ul style="list-style-type: none"> · Head of Management of KOLON, Inc · Incumbent Head of Management Support Department of Manufacturing Organization of KOLON INDUSTRIES, Inc 	<ul style="list-style-type: none"> · Partner of Deloitte Korea · Deputy President of Deloitte Korea 	<ul style="list-style-type: none"> · Head of Urban Regeneration Office of Seoul Metropolitan Government · Vice Mayor II for Administrative Affairs of Seoul Metropolitan Government · Current visiting urban engineering professor at the University of Seoul 	<ul style="list-style-type: none"> · Senior researcher of Eastman Kodak · Current electronic information engineering professor at the Seoul National University 	<ul style="list-style-type: none"> · Prosecutor of the Seoul High Prosecutors' Office · Outside Director of Daelim Industrial Co., Ltd · Current representative lawyer of Samji Law Firm

(As of 31 December 2020)

Dividend Policy

KOLON INDUSTRIES has a basic principle of actively returning profits generated through the growth to our shareholders. As a representative shareholder return, the dividend can be paid out in two forms; cash dividend and bonus shares in accordance with our Article of Association. In order for investors to predict the size of shareholder return, we make flexible decisions based on business performance as the main basis for judgment at a level that is as close as possible to maximizing shareholder profits. In the future, we are planning a shareholder return with the goal of a dividend payout ratio of 20-40% of real net income (net income minus one-off gains/losses). For stable shareholder return, we plan to operate so that dividends can be decided by considering the amount of dividends from the previous year even if the financial resources for return are insufficient.



Composition of the Board of Directors

Function & Composition of the Board of Directors

As the highest standing decision-making body of the company, the Board of Directors is composed of 3 inside and 4 outside directors to ensure efficient checks and transparent decision-making. The CEO concurrently serves as the Chairman of the Board of Directors to enable rapid decision-making at business sites located around the world. Accordingly, outside directors are composed of more than half of the total number of directors so that the BOD can function independently from the concurrent system. As of December 2020, the ratio of outside directors within the board of directors was 57.14%, exceeding the majority, which is the requirement of the Commercial Act, so that it can exercise a practical check on company management.

Director Appointment Criteria and Procedures

Our outside directors come from various backgrounds, which enables the professional review and supervision of the management. As part of efforts to make our board properly function with its authority, we appoint experts in diverse areas as the directors. As for outside directors, they are experts in various fields including accounting/finance, technology, law and administration, which leads our board to do its job on the basis of expertise. Expertise, a sense of responsibility and compliance come first when we select directors. We don't have specific requirements for race, nationality, religion, gender and where they come from. Going forward, we plan to review the director appointment policies and regulations to strengthen the professionalism and diversity of the Board of Directors and to comply with laws and regulations.

Outside directors are selected by the Outside Director Candidate Recommendation Committee and confirmed as agenda items at the general shareholders' meeting. In order to ensure the independence and autonomy of the outside director, the Outside Director Recommendation Committee excludes the election of outside directors that may impair the independence of management, such as relatives and trade relations with the company's largest and major shareholders. Through discussion, outside directors with the right experience and abilities for company management are selected. In particular, the fairness of the outside director selection process was ensured by appointing two out of three members of the Outside Director Recommendation Committee as outside directors.

Operation of the Board of Directors

Average Attendance Rate of the BoD in 2020

97.14 %

Operation Status of the Board of Directors

KOLON INDUSTRIES has established the Article of Association and Board of Directors Regulations to efficiently operate the board as well as to make authority and responsibility of it clear. The Board of Directors is operated as a regular board meeting held at least once a quarter and a temporary board meeting held as needed. In addition, according to the articles of incorporation, directors who have a special interest in an agenda are systematically blocking the occurrence of conflicts of interest by restricting the exercise of their voting rights. In 2020, 4 regular board meetings and 6 temporary board meetings were held to resolve a total of 26 agendas, including approval of transactions with affiliates. The average attendance rate of KOLON INDUSTRIES' Board of Directors in 2020 is 97.14%.

Operating Status of the Board of Directors

Category	Unit	2018	2019	2020
Board of Directors Convened	Times	13	13	10
Agendas Deliberated or Reported	Case	18	22	26
Average Attendance Rate	Inside Directors	%	62	97
	Outside Directors	%	92	89

Committees on the Board of Directors

To enhance the professionalism and efficiency of the BoD, KOLON INDUSTRIES has established and operated three standing committees within the BOD: the Audit Committee, the Management Committee, and the Outside Director Recommendation Committee. Each committee stipulates that some of the powers of the BOD may be delegated to committees within the BOD within the scope of not violating the laws and the Articles of Incorporation. In addition, according to the articles of incorporation, the board of directors may delegate some of the authority of the board of directors to the representative director.

Operating Status of the Committees in 2020

Committees	Composition	Purpose of Installation	Meetings	Deliberation
Audit Committee	3 Outside Directors	Independence of audit work and implementation of actual audit work	7 Times	14 Cases
Management Committee	3 Inside Directors	Inspection of goals such as management plans and improvement of management efficiency	66 Times	66 Cases
Outside Director Recommendation Committee	1 Inside Director, 2 Outside Directors	Promotion of fairness and independence in the selection of candidates for outside directors	1 Time	1 Case

Board Evaluation

For the long-term growth and development of the company and improvement of corporate governance, we regularly evaluate the overall activities of outside directors based on criteria such as meeting attendance, contribution, professionalism, and independence. The results are used as basic data to improve support for outside director activities and improve the efficiency of the BOD and committees, but are not linked to evaluations when making re-appointment decisions and compensation for outside directors. It is based on the judgment that the determination of remuneration and re-appointment based on the evaluation results of outside directors may impair the independence of outside directors' activities.

Board Performance Compensation

The remuneration of registered directors is paid through the approval of the annual general meeting of shareholders in accordance with the company's executive remuneration regulations. Remuneration is limited to other expenses necessary for the company's business such as basic salary and actual expenses, and in the case of outside directors, separate remuneration such as performance pay is not included. The remuneration of outside directors is calculated in consideration of the level of legal responsibility, but is consistent with the level of peer group in consideration of the size of the company and social norms. In addition, the remuneration of outside directors is paid in a fixed amount every month, and the remuneration details for outside directors are disclosed once a year based on the number of employees and the total amount paid through the business report.

Status of Top Management Remuneration in 2020

Category	Person (n)	Remuneration (KRW thousand)	Average (KRW thousand)
Top Management	Inside Directors	3	944,440
Employees and Outside Directors	Outside Directors	4	143,500
	Employees	3,895	265,412,379
	Total	3,899	265,555,879
Ratio of top management's compensation to the average of total employees' compensation (times)			4.62

Ethics & Compliance

KOLON INDUSTRIES is striving to build stakeholder trust through ethical management and fair-trade compliance in all countries where it does business by extending corporate social responsibility to the level of business ethics. KOLON INDUSTRIES is taking the lead in establishing business ethics for not only employees, but also suppliers and business partners.

<https://www.kolon.com/ethic/ethical.do>

Ethics & Compliance Policy

[KOLON Code of Ethics and Ethics Behaviors Guidelines](https://www.kolon.com/ethic/ethical.do)
<https://www.kolon.com/ethic/ethical.do>

Ethics Policy

As a responsible corporate citizen, in order to share the vision of ethical management with all employees and stakeholders and to establish a culture of ethical management, KOLON INDUSTRIES is striving to establish an ethical management system and internalize ethical awareness based on the KOLON Code of Ethics and KOLON Ethics Behaviors Guidelines. In November 2020, in order to actively practice the ethical standards stipulated in the KOLON Code of Ethics, the "KOLON INDUSTRIES Code of Ethics" was established and presented ethical standards for eight major ethical areas. We are striving to spread the ethical culture of our employees by enacting the detailed ethical rules, "Regulations on Ethics Behaviors for Employees" and "Regulations on Protection and Compensation for Reporting".

The Code of Ethics and regulations apply to all executives and employees of KOLON INDUSTRIES, its subsidiaries, sub-subsidiaries and overseas subsidiaries, and we encourage the respect of stakeholders such as suppliers and business partners. In addition, to reflect the rapidly changing industry trends and diverse needs of stakeholders, we regularly review ethical management policies and reflect feedback through communication. KOLON INDUSTRIES plans to raise ethical awareness by continuously expanding detailed ethical regulations and enhancing employees' awareness.

Ethics Policy of KOLON INDUSTRIES



Compliance Policy

In the face of the growing demand for corporate legal compliance and anti-corruption, KOLON INDUSTRIES has strived to establish a compliance system meeting the global standards, while completely revised and distributed the Compliance Guidelines of each area to raise awareness of self-compliance among all executives and employees and to encourage practice. The Compliance Guidelines are designed to be used directly in work, including not only information related to laws in each field, but also step-by-step checklists, FAQs that summarize actual questions, and in-house processes. In 2020, we distributed a Compliance Guideline on major compliance issues such as trade secrets and subcontracting, and revised various standard contracts such as subcontracting and agency.

Ethics & Compliance System

Ethics & Compliance Organization

In order to enhance the effectiveness of ethics and compliance work, KOLON INDUSTRIES established a Legal/Compliance team in addition to the Ethics Management Division in charge of ethical management in 2011 to perform professional tasks. The Ethics Management Division conducts internal audits of the entire company organization, while the Legal/Compliance Team is in charge of identifying domestic and international laws and system trends and preventing violations and various legal risks in advance. In addition, to strengthen the company-wide compliance system, a Chief Compliance Officer (CCO) was appointed, and a company-wide self-compliance system was operated by organizing the Compliance Management Office and a TF in charge of compliance for each business division/business site. Each TF performs tasks related to the Fair-Trade Act and the Subcontract Act, and reports any compliance issues to the Compliance Management Office or Compliance Manager.

Proactive Ethical Risk Identification

Since the establishment of a group-level ethical management organization in 2005, systematic ethical management activities have been carried out. In order to identify potential ethical risks such as corruption and collusion in advance, centered on the Ethics Management Division, we are conducting internal audits at domestic and overseas business sites to respond immediately. Internal audits are conducted on business sites that may cause ethical risks, and 35% of the business sites have undergone internal audits in 2020.

Status of Internal Audit/Assessment Regarding Ethics

Category	Unit	2018	2019	2020
Ratio of Business Sites Undergoing Internal Audit Regarding Ethics	Domestic	%	33.3	44.4
	Overseas	%	0	14.3
Ratio of Business Sites Undergoing Internal Audit/Assessment Regarding Ethics	Site Completed	Site	3	5
	Site Targeted	Site	16	16
	Ratio	%	18.8	31.3

*Data recalculated based on regular/irregular internal audits.

Enhanced Self-compliance System

Since the introduction of the Fair-Trade Compliance Program (CP) in 2012, KOLON INDUSTRIES has been making various efforts such as the CEO's declaration of fair-trade compliance, distribution of voluntary compliance manuals in each field, and sending of compliance newsletters. In particular, since 2014, we have designated and operated the Compliance Day to raise awareness and practice of compliance across the company. In 2020, we acquired ISO 37001 (Anti-Corruption Management System) certification to comply with domestic and foreign anti-corruption laws, such as the Improper Solicitation and Graft Act.

KOLON INDUSTRIES regularly monitors and inspects the status of voluntary compliance by all employees, and strives to spread a culture of compliance through legal advice and employee training. In 2020, we are striving to establish a self-compliance system, by revising standard contracts such as subcontract sector, agency sector, confidentiality contract based on relevant laws and regulations and the status of establishment and revision of standard contracts recommended by the Fair-Trade Commission.

Anti-corruption Due Diligence Program

In order to advance the compliance management system, KOLON INDUSTRIES goes beyond its own anti-corruption activities and conducts certification audits by a third party. Based on the ISO37001 international certification system, we control anti-corruption, such as corruption, through internal audits followed by external audits and certification. We plan to strengthen our anti-corruption management in the future, by reorganizing the company's internal regulations related to anti-corruption, and actively responding to internal and external audits and verification of on-site operability by the internal anti-corruption officer.



Compliance Day Newsletter in 2020

Ethics & Compliance Culture

Ratio of Ethics Training Completion in 2020

51.7%

Ethical Management Education

KOLON INDUSTRIES has developed and provided various systems and training programs to enhance an ethical culture of integrity that employees can experience. To share the group's ethical DNA, we conduct group-level online ethics training every other year for all employees. In addition, we provide ethical training materials for each department and conduct dissemination training for employees who have difficulties in using PCs, such as field workers. In addition, we provide various ethical education contents such as ethical management in fairy tales, compliance management, and ethical management dilemma on a regular basis every year. To spread this throughout the value chain, we are making efforts to advance ethical management by sending out ethical management newsletters not only to our employees but also to our suppliers.

Status of Online Ethics Training Completion

Category	Unit	2018	2019	2020
Employees Completed Ethics Training	Person	1,335	322	1,439
Total Employees	Person	2,717	2,812	2,785
Ratio of Ethics Training Completion	%	49.1	11.5	51.7

*Skilled/field workers are not eligible for online training.

Compliance Education

KOLON INDUSTRIES has bimonthly issued compliance newsletter for all employees to share ways of practicing compliance policy. Compliance newsletter gives a better understanding on compliance, containing the recent trends of home and overseas laws and systems along with examples. In the 2020 compliance letter, we made efforts to prevent compliance risks in advance by sharing information, such as subcontract and agency contract, NDA definition of confidential information, concept and infringement of trade secrets, step-by-step precautions for subcontract transactions, precautions for agency transactions, anti-corruption management, etc. In addition, we are conducting in-house compliance training on trade secret protection, subcontract transactions, and agency transactions.

Status of Compliance Training

(As of 2020)

Category	Key Training Content
Compliance Newsletter	Subcontract and agency contract, NDA definition of confidential information, concept and infringement of trade secrets, step-by-step precautions for subcontract transactions, precautions for agency transactions, anti-corruption management, etc.
Compliance Training	Trade secret protection, subcontract transactions, and agency transactions, etc.

Ethics Report and Action

KOLON INDUSTRIES' ethics reporting program shares the ethical reporting platform on the group's ethical management website. In addition, we guarantee the smooth reporting of the whistleblower through various ethical reporting channels such as our own reporting site (www.인제오픈잇.com), mail, landline, and e-mail. We have complied with the principle of strict security and protection for informants in accordance with the 'Protection and Compensation Regulation for Reports' in case they disclose their names when reporting. Also, any act that exposes or implies identity without the consent of the informant is prohibited by the informant protection principle. If any activity of searching to identify the informant is detected, severe disciplinary action will be taken under the internal disciplinary regulations.

In order to prevent corruption violations in advance, if an inappropriate gift/money is received from a business stakeholder, such as a holiday gift, a procedure has been established and operated to fill out a case receipt report form and report it to the Ethics Management Division. In the case of receipt report, the provider and the contents of the provision must be clearly stated, and the details of receipt and way of handling are also recorded and managed. In order to spread this receipt reporting culture, we are operating a campaign promotion for partner companies and a report center for receiving gifts by the business site.



KOLON Ethics Reporting Platform
<https://www.kolon.com/ethic/ethical.do?type=02>

Risk Management

KOLON INDUSTRIES is striving to efficiently secure business stability by identifying potential risk factors in advance and preventing crises through preemptive financial and non-financial risk management. KOLON INDUSTRIES is also strengthening its competitiveness by conducting systematic long-term strategic risk analysis to discover new opportunities and integrate them into business.

Risk Management System

Risk Management System

KOLON INDUSTRIES strives to prevent potential risk factors that may occur during business operations in advance through company-wide risk management. First, we identify potential risk factors by creating a business environment assessment report and list risks by type, such as internal, external, environmental, and regulatory. In addition, we identify stakeholder requirements for each risk and reflect them in risk assessment by preparing a stakeholder requirement identification form. Risk assessment is carried out quantitatively according to the occurrence and impact of possible risks. Risks determined to have high risk are classified as material risks, and specific management/improvement/strategic plans are established by writing a material risk management plan. For continuous material risk management and improvement, we operate key performance indicators (KPIs) to monitor performance and reflect these in management reviews.

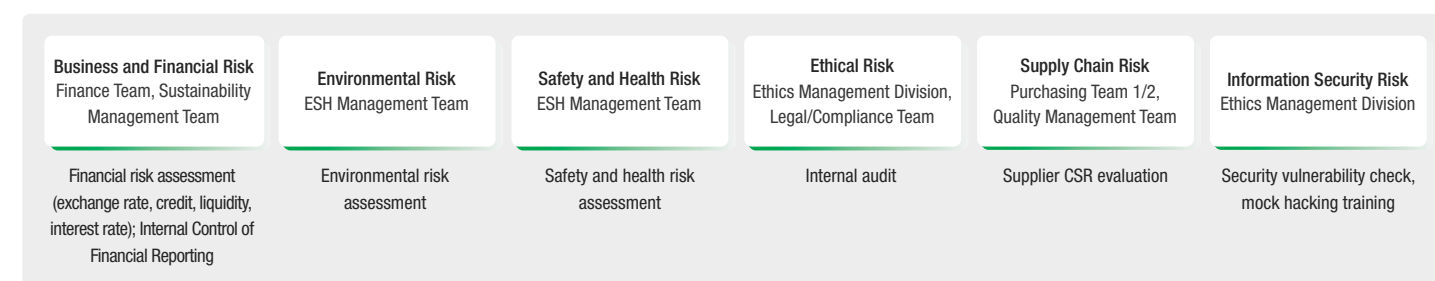
Risk Management System of KOLON INDUSTRIES



Risk Management Organization

KOLON INDUSTRIES is preventing risk factors that threaten continuous management in advance by extending the scope of risk management from the traditional financial area to the non-financial area. Risk management is largely divided into business and financial risks, environment, safety and health, ethics, supply chain, and information security. Based on risk management regulations, while systematic risk responses are developed for each area based on risk management regulations. KOLON INDUSTRIES is continuously improving risk management to appropriately respond to sudden risks such as COVID-19, and is responding to identified risks with company-wide management strategies.

Risk Management Organization and Assessment







Business and Financial Risk

Business and Financial Risk

In order to effectively respond to risks that threaten continuous business operation, KOLON INDUSTRIES sets a strategic direction by comprehensively considering business areas, changes in customer needs, demand forecasts, and changes in the economic/technical/industrial environment, and uses them as a basis for decision-making. In addition, we have established management strategies in line with changes in regulations and policies related to our major businesses including industrial and chemical materials, film/electronic materials, fashion, and fashion materials. KOLON INDUSTRIES analyzes the risks it faces and sets appropriate control measures to establish and operate effective financial management policies, by identifying financial risks such as foreign exchange risk, credit risk, liquidity risk, and interest rate risk.

Business/financial Risk Impacts and Measurements

Foreign Exchange Risk 	Risk Impacts In the event of an external economic crisis, the won-dollar exchange rate is highly volatile and may have a significant impact on business performance changes.
	Risk Measurements To reduce fluctuations of management performances due to foreign exchange rates, KOLON INDUSTRIES has established and implemented a management policy by specified positions including sales, finance, and investment. Besides, we have controlled foreign currency assets and the amount of liabilities by the characteristics of risk exposure and the business of KOLON INDUSTRIES and investor companies. We have also minimized the occurrence of foreign exchange positions by matching the currency of deposit and expenditure.
Credit Risk 	Risk Impacts When a financial institution's credit rating is downgraded, there is a risk of increased financial costs and difficulty in securing funds.
	Risk Measurements KOLON INDUSTRIES takes a preemptive response to credit ratings of financial institutions through regular analysis and review of financial conditions, including financial indicators such as debt ratio.
Liquidity Risk 	Risk Impacts Liquidity risk refers to the possible case that a company cannot fulfill its financial debt obligations.
	Risk Measurements KOLON INDUSTRIES has managed cash flows in daily/weekly/monthly/yearly unit so that we do not face any problems with cash flows in sales/finance/investment due to outside variables. We are actively pursuing to bring asset efficiency and cost reduction and reinforcing volatility management through expanding insurance and collateral.
Interest Rate Risk 	Risk Impacts Interest rate risk refers to the risk that financial expenses will increase in response to interest rate fluctuations.
	Risk Measurements Through monthly financial cost analysis and review, we check whether fixed and variable interest rate borrowings are being operated in a balanced way, and interest rate risk is continuously managed by using interest rate swap contracts.

Internal Control of Financial Reporting

KOLON INDUSTRIES has operated an internal control of financial reporting with the objective of making our accounting more transparent and corporate governance more advanced. The Sustainability Management Team, in charge of internal control of financial reporting, aims to upgrade the internal control of financial reporting and strengthen the financial reporting risk management capabilities by checking the internal accounting management regulations and operation status and internalizing control activities through a practical overhaul. In 2020, design and operation evaluations were conducted according to the annual evaluation plan of the internal control of financial reporting. As a result of the analysis of existing control activities, 3 cases were reclassified as key controls, and 1 case of control activity was divided and evaluated. No significant vulnerabilities or significant deficiencies were found.

In 2021, to internalize internal accounting control activities and establish a foundation for the consolidated internal control of financial reporting, we are conducting investigations and activities that can improve all processes and control activities. We conduct timely monitoring to ensure that there are no actual control activities through regular inspections. In addition, in order to establish a consolidated internal control of financial reporting, we plan to monitor the construction progress of subsidiaries in real-time and actively support them to minimize further improvements.

Non-financial Risk

Environmental Risk

KOLON INDUSTRIES is striving to identify environmental risks in advance through continuous on-site monitoring, centered on the ESH Management Team at the headquarters and the Environment and Safety Team at each business site. In an effort to minimize risks, we have conducted simulation training with specific scenarios such as water or wastewater leakage situations and wastewater leakage due to malfunctioning wastewater processing facilities. Also, we have established detailed management methods, responsibilities and authorities, and a work procedure for environmental risk assessment. Through internal and external verification including the internal assessment on the environmental management system of the head office for a year as well as the update of ISO 14001, we have detected items to improve and properly responded to them.

Environmental Risk Assessment

Category	Unit	2018	2019	2020
Business Sites Assessed	Site	8	8	8
Business Sites Targeted	Site	8	8	8
Ratio	%	100	100	100

*As of Environmental Impact Assessment

Safety and Health Risk

To manage company-wide safety and health risks, we are operating a variety of emergency response training programs, including safety education, fire drills, fire evacuation drills, emergency call drills, and blackout emergency response drills at all worksites. Through diversified emergency response training, we have established a response system in case of an actual emergency to quickly respond to accidents such as natural disasters, fires, and safety. For safety and health risk management, we have formulated Regulation for Management of Environment Safety Law, Risk Assessment Regulation, Emergency Management Regulation and many more. Through these foundations, we have set up a response system against safety and health risk. In compliance with the Registration and Evaluation, etc. of Chemical Substances (K-REACH) and Chemicals Control Act, we have operated KCMS (KOLON Chemical Management System) based on Information Technology.

Safety and Health Risk Assessment Regulations

Measures Establishment	Responsibility Assignment	Result Analysis	Checklist Review
 <ul style="list-style-type: none"> Drawing up countermeasures by systematically analyzing the type and scale of potential risks of new and existing facilities 	 <ul style="list-style-type: none"> Designating a person responsible for risk assessment and stipulating the qualification requirements (safety, machinery, process, etc.) 	 <ul style="list-style-type: none"> Preserving risk assessment in the form of report form and putting details of cause and effect in the report 	 <ul style="list-style-type: none"> Providing checklists according to facility type, safety and health accident type, work impact factors and environment

Ethical Risk

As a responsible corporate citizen, KOLON INDUSTRIES conducts business operations based on business ethics and manages ethical risks such as violations of laws and anti-corruption. Since the introduction of the Fair-Trade Compliance Program (CP) in 2012, various efforts have been made, including the CEO's declaration of fair-trade compliance, distribution of compliance manuals in each field, and sending compliance newsletters. In addition, by sending the CEO's ethical management letter to suppliers on major holidays every year, we are actively working to respond to corruption and bribery risks and to establish a fair and transparent trading culture. In 2020, we carried out various self-compliance activities, such as sending a letter to the compliance manager and rewarding the compliance day, while distributing a compliance guideline for trade secrets and subcontracting divisions. On top of that, our ethics management system includes the operation of the Mutual Growth Secretariat, and the establishment of support system regarding anti-corruption, fair trade, and trade secret protection. We also plan to introduce an anti-corruption management system to further advance our ethics management.



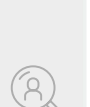

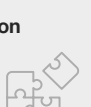
Ethical Risk Related Regulations

Category	Key Contents
Regulations on the prohibition of making illicit requests or accepting bribe	The purpose is to comply with the Improper Solicitation and Graft Act and to make all employees pursue the philosophy of ethics management. It contains the standards and scope of illicit request and bribery, responsible person, and reporting system.
Regulations on fair-trade compliance program operation, praise and punishment, and reward and protection	It stipulates the standards and procedures to comply with laws regarding fair trade. It also contains details of fair-trade compliance including responsible people like compliance manager, the role of secretariat, monitoring process, and education.
Regulation and guidelines on contacting competitors	It defines and gives guidance in regard to laws on monopoly regulations and fair trade along with ethical behavior for employees when contacting competitors. Target of application, action guidance, monitoring process, reporting system, and information handling procedures are included.
Four practices for fair trade	Four actions suggested by the Fair-Trade Commission propose the action items in terms of fair selection and registration of suppliers, contract signing, issuance and preservation of written documents, and the establishment and operation of the internal review committee. In line with this, KOLON INDUSTRIES applies it after revisions to our regulations in regard to the business with contractors including a standard form of contract, responding to relevant risks.

Supply Chain Risk

To identify and respond to risks that may arise in the supply chain in advance, KOLON INDUSTRIES has managed a supply chain in consideration of sustainability in all processes of selecting, operating, and evaluating suppliers. Particularly when we register and assess suppliers, we take into consideration not only the conventional standards such as quality, price, and management performance but also the environment, safety, compliance, human rights, and labor elements. We also let suppliers pledge themselves to compliance with the Code of Conduct for Suppliers and sign integrity agreements and receive written forms so as to build a sustainable management system. Besides, we are preparing for sustainable management risks derived from suppliers through newsletters and training, thereby ultimately expanding the application of compliance and ethics management system to suppliers.

Key Areas of Supplier CSR Assessment

System Level	Law Violations	Labor Status	Compliance	Process Evaluation
 <ul style="list-style-type: none"> Environmental management certifications such as ISO 14001 	 <ul style="list-style-type: none"> Violations against environmental laws or environmental accidents 	 <ul style="list-style-type: none"> Risk assessment regarding the compliance with working hours and workers' treatment 	 <ul style="list-style-type: none"> Internal compliance regulations on bribery-taking, corruption, or embezzlement 	 <ul style="list-style-type: none"> Process of handling requests and complaints from customers

Information Security Risk

KOLON INDUSTRIES handles various types of information such as core technology information, R&D information, customer information, and personal information during business operation, and has established and applied a systematic information security management system to protect it. In terms of responding to external infringement, we are operating a security management system at all times by expanding the protection scope from the office area to processing facilities. In addition, in order to respond to external hacking attacks in real-time, we have regularly conducted simulation training toward employees and simulated hacking as well as carried out inspections to identify vulnerable areas. As a result, the security level and response capabilities are being continuously improved. We have provided both online and offline information security education for employees at least once a year aiming to continuously raise the level of awareness among employees on security. In addition, we conduct mock training to respond to malicious emails on a quarterly basis, and for those caught during training, we conduct online training and online tests to prevent email security incidents, prevent recurrence, and familiarize yourself with email security rules. In particular, the FnC Division receives confidentiality and information protection pledges from business partners that consign personal information, such as call centers and stores. In addition, if it is judged that the personal information risk is high among partner companies, we conduct due diligence and on-site inspection.

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Financial Performance

Condensed Consolidated Financial Statements

Category	Unit	2018	2019	2020
Current assets	KRW million	1,955,216	2,079,126	1,869,994
Non-current assets	KRW million	3,617,644	3,213,977	3,173,694
Total assets	KRW million	5,572,860	5,293,103	5,043,688
Current liabilities	KRW million	2,324,355	2,245,001	2,154,433
Non-current liabilities	KRW million	1,039,971	921,765	597,211
Total liabilities	KRW million	3,364,326	3,166,766	2,751,644
Ownership of the parent company	KRW million	2,096,547	2,015,844	2,179,166
Non-controlling standard	KRW million	111,987	110,492	112,878
Total equity	KRW million	2,208,534	2,126,336	2,292,044

Condensed Consolidated Comprehensive Income Statement

Category	Unit	2018	2019	2020
Sales	KRW million	4,459,802	4,407,190	4,036,085
Cost of sales	KRW million	3,336,547	3,276,089	2,999,242
Gross profit	KRW million	1,123,255	1,131,101	1,036,843
Operating income	KRW million	166,930	172,948	152,442
Income before income tax expense	KRW million	129,904	83,435	309,236
Net income	KRW million	42,925	22,122	205,512
Comprehensive Income	KRW million	(37,539)	(52,301)	192,995

Condensed Consolidated Income Status by Business Division

Category	Unit	2018	2019	2020	
Industrial materials	Net sales	KRW million	1,786,173	1,900,822	1,718,270
	Operating income	KRW million	91,165	80,681	71,343
Chemicals	Net sales	KRW million	900,295	760,196	705,759
	Operating income	KRW million	83,913	74,702	78,984
Film/electric materials	Net sales	KRW million	558,012	592,250	578,679
	Operating income	KRW million	(14,351)	23,189	31,226
Fashion	Net sales	KRW million	1,045,633	972,932	868,018
	Operating income	KRW million	39,947	13,529	(10,710)
Others and fashion materials	Net sales	KRW million	169,688	180,991	165,359
	Operating income	KRW million	(33,742)	(19,152)	(18,401)

Sustainability Management Indicators

Sustainability Management KPIs

Eco-friendly Operations	Unit	2018	2019	2020	Long-term Goal	
General Waste	Ton	26,590	28,860	30,027	20,202 tons by 2030	
Hazard Waste	Ton	25,692	25,689	28,672	17,982 tons by 2030	
Total Water Consumption	Liter	4,741,463,000	4,860,121,000	5,173,026,000	3,402,084,000 liters by 2030	
Total Energy Consumption	MWh	3,522,502	3,350,836	3,131,944	2,345,585 MWh by 2030	
Total GHG Emissions (Scope 1&2)	tCO ₂ eq	668,423	634,635	613,096	444,244 tCO ₂ eq by 2030	
Investment in Environment & Safety	KRW 100 million	60.0	89.5	54.1	KRW 5,070,498,000 by 2030	
ISO 14001 Certification Ratio	%	76.47	76.47	82.35	100% by 2030	
Emergency Drills	Time	117	120	133	132 times by 2030	
Chemical Substance Leakages	Case	0	0	0	0 case by 2030	
Environment Training Ratio on Employees	%	96.4	99.9	100	100% by 2030	
Sustainable Raw Materials Purchased	Ton	-	6,938	10,400	15,000 tons by 2030	
Safe and Healthy Sites	Unit	2018	2019	2020	Long-term Goal	
Ratio of Employees Completed Health/Safety Training	%	100	100	100	100% by 2030	
LTIFR(Lost Time Injury Frequency Rate)*	-	1.90	0.77	0.36	0.25% by 2030	
LTISR(Lost Time Injury Severity Rate)**	-	0.29	0.14	0.02	0.04% by 2030	
Talent Cultivation & Human Rights	Unit	2018	2019	2020	Long-term Goal	
Ratio of Female Employees	Female Workers	%	36.1	36.1	38.1	35% by 2030
	Female Managers	%	11.79	12.29	17.62	15% by 2030
	Female Executives	%	4.8	2.4	4.4	10% by 2030
Ratio of People with Disability	%	1.4	1.4	1.3	Maintain 1.4% constantly	
Education Hours per Employee	Hour	51.0	40.0	30.0	Maintain 50 hours constantly	
Ratio of Sites Conducted Human Rights Impact Assessment	Domestic Site	%	100	100	100	Maintain 100% constantly
	Overseas Site	%	0	0	0	90% by 2030
Number of Workers Aged 18 or Below	Domestic Site	Person	0	0	0	Maintain 0 constantly
	Overseas Site	Person	0	0	0	Maintain 0 constantly
	Total	Person	0	0	0	Maintain 0 constantly
Sustainable Supply Chain	Unit	2018	2019	2020	Long-term Goal	
Ratio of Suppliers Pledging within Key Suppliers	%	-	57.97	58.33	100% by 2030	
Ratio of Contracts within Key Suppliers Including Provisions on the Environment and Human Rights	%	-	-	69.01	35% by 2030	
Ratio of Suppliers Completed CSR Assessment	%	3.3	11.6	8.3	100% by 2030	
Ratio of Procurement Staffs Completed Sustainable Procurement Training	%	100	100	100	100% by 2030	
Ethics & Compliance	Unit	2018	2019	2020	Long-term Goal	
Ratio of Business Sites Undergoing Internal Audit Regarding Corporate Ethics	%	18.8	31.3	31.3	100% by 2022	
Ratio of Ethics Training Completion	%	49.1	11.5	51.7	80% by 2030	
Corporate-wide Security Training	%	80.62	83.71	57.64	85% by 2022	
New and Experienced Worker Security Training	%	100	100	100	Maintain current level	
Number of Information Security Incidents	Case	2***	0	0	Zero Information Security Incident	
Ratio of ISO 37001 Certified Business Sites	%	-	-	5.88	100% by 2030	

*LTIFR: (total number of labor losses * 1,000,000)/total work hours

**LTISR: (days lost due to injury * 1,000)/total work hours

***1 scam incident and 1 ransomware infection occurred at 2 business sites in Vietnam.

Sustainability Management Data

Technology Innovation for Customers					
Status of Intellectual Property Rights Registration		Unit	2018	2019	2020
Domestic Patent	Registered	Case	55	129	122
	Applied	Case	95	123	150
Domestic Trademark	Registered	Case	7	9	6
	Applied	Case	1	15	0
Overseas Patent	Registered	Case	166	172	150
	Applied	Case	71	142	197
Overseas Trademark	Registered	Case	7	25	54
	Applied	Case	1	101	1
Eco-friendly Operations/Safe and Healthy Sites					
ISO Certification		Unit	2018	2019	2020
Overall Sites		Site	17	17	17
ISO 14001	Certified Sites	Site	13	13	14
	Certified Ratio	%	76.47	76.47	82.35
ISO 45001	Certified Sites	Site	7	8	8
	Certified Ratio	%	41.18	47.06	47.06
ISO 37001	Certified Sites	Site	-	-	1
	Certified Ratio	%	-	-	5.88
Production Quantity and Raw Material Consumption		Unit	2018	2019	2020
Production Quantity		Ton	748,876	714,063	641,435
Raw Material Consumption		Ton	910,893	794,514	738,807
Ratio of Employees Completed Health/Safety Training		Unit	2018	2019	2020
Employees Completed Health/Safety Training	Training Completed	Person	4,242	4,383	3,736
	Training Targets	Person	4,242	4,383	3,736
	Ratio	%	100	100	100
Talent Cultivation & Human Rights					
Employees Statistics		Unit	2018	2019	2020
Region	Korea	Person	3,670	3,827	3,784
	Asia	Person	3,722	4,174	3,808
	China	Person	1,824	1,818	1,340
	Others except for China	Person	1,898	2,356	2,468
	America/Europe	Person	301	628	575
Domestic_Regular	Total	Person	7,693	8,629	8,167
	Male	Person	2,865	2,987	2,897
	Female	Person	688	716	760
Domestic_Contract	Total	Person	3,553	3,703	3,657
	Male	Person	64	62	67
	Female	Person	53	62	60
Total	Person	117	124	127	

Sustainability Management Indicators

Sustainability Management Data

		Unit	2018	2019	2020
Domestic_Management	Male	Person	728	803	846
	Female	Person	116	143	181
	Total	Person	844	946	1,027
Ratio of Female Employees	Female Workers	%	36.1	36.1	38.1
	Female Managers	%	11.79	12.29	17.62
	Female Executives	%	4.8	2.4	4.4
Overseas	Male	Person	2,100	2,610	2,269
	Female	Person	1,923	2,192	2,114
	Total	Person	4,023	4,802	4,383
People with Disability	Domestic	Person	38	37	35
	Overseas	Person	50	41	30
	Total	Person	88	78	65
Ratio of People with Disability		%	1.4	1.4	1.3
Veteran5	Domestic	Person	43	44	50
	Overseas	Person	43	44	50
New Recruitment Status by Age		Unit	2018	2019	2020
10s (Over 19)	Domestic	Person	0	0	0
	Overseas	Person	83	316	120
20s	Domestic	Person	169	162	161
	Overseas	Person	1,302	1,958	793
30s	Domestic	Person	78	132	146
	Overseas	Person	1,123	1,257	395
40s	Domestic	Person	18	21	25
	Overseas	Person	479	462	81
50s	Domestic	Person	5	0	3
	Overseas	Person	55	91	19
60s	Domestic	Person	1	2	0
	Overseas	Person	7	4	2
Sustainable Supply Chain					
Eco-Friendly Procurement		Unit	2018	2019	2020
Ratio of Purchasing Green and Eco-Friendly Products		%	26.7	13.1	16.9
Sustainable Materials Purchased		Ton		6,938	10,400
Local Community Engagement					
Social Contribution Investment & Performance		Unit	2018	2019	2020
Social Contribution Expenditure		KRW million	14	10	0
Cash Donations		KRW million	1,201	1,225	2,239
Win-win Funds		KRW million	5,000	5,000	5,000
Total Social Contribution Expenditure		KRW million	1,215	1,235	2,239
Ratio of Social Contribution Expenditure to Operating Profit		%	0.73	0.71	1.47
Volunteering Hours Per Employee		Hour	3.82	4.53	0
Total Volunteering Hours of Employees		Hour	8,146	7,159	30,758

Ethics & Compliance					
Employees' Pledging for Compliance with Code of Ethics		Unit	2018	2019	2020
Ratio of Employees Pledging for Compliance with Code of Ethics	Domestic	%	100	100	100
	Overseas	%	52.5	95	90.4
Disciplinary Action on Violation of Ethics Management		Unit	2018	2019	2020
Bribery-taking/ Embezzlement/ Malfeasance	Case Reported	Case	1	1	0
	Investigations Conducted	Case	1	1	0
	Disciplinary Actions Take	Case	1	1	0
Violation of Approval Regulation	Case Reported	Case	2	0	1
	Investigations Conducted	Case	2	0	1
	Disciplinary Actions Take	Case	2	0	1
Violation of Environment/Safety Accident	Case Reported	Case	1	3	0
	Investigations Conducted	Case	1	3	0
	Disciplinary Actions Take	Case	1	3	0
Hindrance to Harmony Including Sexual Harassment/ Office Bullying	Case Reported	Case	4	0	2
	Investigations Conducted	Case	4	0	2
	Disciplinary Actions Take	Case	4	0	2
Others	Case Reported	Case	0	6	14
	Investigations Conducted	Case	0	6	14
	Disciplinary Actions Take	Case	0	6	14
Response to Corruption and Violation by Stakeholders		Unit	2018	2019	2020
Customers	Report	Case	0	0	0
	Consultation	Case	0	0	0
	Complaint	Case	0	0	0
	Disciplinary Action	Case	0	0	0
Suppliers	Report	Case	0	1	1
	Consultation	Case	0	0	0
	Complaint	Case	0	0	0
	Disciplinary Action	Case	0	0	0
Employees	Report	Case	3	2	1
	Consultation	Case	0	0	0
	Complaint	Case	0	0	0
	Disciplinary Action	Case	0	1	1

Third-Party Verification Statement

To readers of 2020 KOLON INDUSTRIES Sustainability Report

Introduction	Korea Management Registrar (KMR) was commissioned by KOLON INDUSTRIES to conduct an independent assurance of its 2020 Sustainability Report (the "Report"). The preparation of the Report is the sole responsibility of the management of KOLON INDUSTRIES. KMR's responsibility is to issue an assurance statement over the limited scope of data and information specified below.
Scope and Standards	<p>KOLON INDUSTRIES described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the assurance standard SRV100 of KMR's Global Management Committee to provide a limited assurance. We evaluated the adherence to the principles of materiality and understandability and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index specified below.</p> <p>Confirmation that the Report was prepared in accordance with the Core Options of the GRI standards was included in the scope of the assurance. We have reviewed the disclosures below for the confirmation. We also confirmed that the report was prepared in accordance with the TCFD recommendations and SASB.</p> <ul style="list-style-type: none"> ■ GRI Standards Reporting Principles ■ Universal Standards ■ Topic Specific Standards <ul style="list-style-type: none"> · Management approach of Topic Specific Standards · GRI 201: Economic Performance · GRI 205: Anti-Corruption · GRI 301: Materials · GRI 302: Energy · GRI 305: Emissions · GRI 403: Occupational Health and Safety ■ SASB(Sustainability Accounting Standards Board) Sustainability Disclosure Topics & Accounting Metrics ■ TCFD(Task Force on Climate-related Financial Disclosures) <p>As for the reporting boundary, the engagement excludes the data and information of KOLON INDUSTRIES' partners, suppliers and any third parties.</p>
KMR's Approach	<p>To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the assurance engagement:</p> <ul style="list-style-type: none"> ■ Reviewing the overall Report; ■ Reviewing the procedure and methods of materiality assessment; ■ Reviewing the strategies and objectives of sustainable management; ■ Reviewing the activities engaging stakeholders; and ■ Interviewing people in charge of preparing the Report.

Conclusion and Opinion	Based on the document reviews and interviews, we had several discussions with KOLON INDUSTRIES on the revision of the Report. We reviewed the Report's final version in order to make sure that our recommendations for improvement and revision have been reflected. Based on the work performed, nothing has come to our attention to suggest that the Report was not prepared in accordance with the principles described below. We did not find any evidence that the data included in the scope defined above is not properly described.
	<ul style="list-style-type: none"> ■ Materiality The reporting boundaries of the KOLON INDUSTRIES' Report include all of its operating sites. The Report provides detailed long-term sustainability strategies and targets. KOLON INDUSTRIES relies on its own materiality assessment process to decide the materiality of issues identified by stakeholder communication channels. We could not find any material issue or stakeholder group that was not covered in the process. ■ Understandability The Report was prepared in the context of sustainability to provide targets for sustainability issues identified by the materiality assessment and the background of the selection and the management approach. It is our opinion that the metrics are specific and easy to compare. ■ Reliability The Assurance Team identified errors in the data and information provided, which KOLON INDUSTRIES subsequently corrected before issuing the final version of the Report. We believe the data and information included in the Report are accurate and reliable. Nothing has come to our attention to imply that the Report does not provide a fair representation of KOLON INDUSTRIES' responses to material stakeholder issues. <p>We did not find any evidence to suggest that the Report was not prepared in accordance with the Core Options of the GRI standards.</p>
Recommendations	<p>We expect that the KOLON INDUSTRIES' Report can be utilized as a means of communications with stakeholders. The following recommendations are provided for further improvements:</p> <ul style="list-style-type: none"> ■ KOLON INDUSTRIES stands out for responding to the interests of stakeholders by reporting detailed information on the technological innovation system, strategy, organization, and investment expenditures. In addition, efforts to protect customer information, business outlooks by industry divisions, and future business strategies were reported at a glance to ensure transparent communication with stakeholders. It is recommended that sustainability management can be established as an organizational culture by developing and expanding key performance indicators for systematic sustainability management in the future.
Independence	KMR has no other contract with KOLON INDUSTRIES and did not provide any services to KOLON INDUSTRIES that could compromise the independence of our work.

GRI Content Index

GRI Standards	Contents	Page & Remarks	Link to UN SDGs	
UNIVERSAL STANDARDS (GRI 100)				
GRI 102: Organizational Profile	102-1	Name of the organization	4	
	102-2	Activities, brands, products, and services	4-5, 10-15	
	102-3	Location of organization's headquarters	4, Cover	
	102-4	Location of operations	4-5, 69	
	102-5	Nature of ownership and legal form	4	
	102-6	Markets served	4-5	
	102-7	Scale of the reporting organization	4-5, 10-15, 67	
	102-8	Total number of employees by employment contract and gender	38, 69	SDG 8
	102-9	Describe the organization's supply chain	45-48	
	102-10	Significant changes during the reporting period relating to size, structure, or ownership or its supply chain	About this report	
	102-11	Specify precautionary policy and principle	24, 26, 33, 43, 46	
	102-12	Externally developed ESG charters, principles, or other initiatives to which the organization subscribes	26, 33, 43, 46	
	102-13	Memberships in associations	80	
GRI 102: Strategy	102-14	Statement from the most senior decision-maker of the organization	2-3	
	102-15	Provide a description of key impacts, risks, and opportunities.	62-65	
GRI 102: Ethics & Integrity	102-16	Internally developed statements of mission or values, codes of conduct, and principles	59	SDG 16
	102-17	Value, principle, code of conduct, and norm of organization Report the internal and external mechanisms for reporting unethical or unlawful behavior	60-61 61, 71	SDG 16 SDG 16
GRI 102: Governance	102-18	Governance structure of the organization List of committees in charge of economic, social and environmental topics	56-58	
	102-22	Report the composition of the highest governance body and its committees	56-58	SDG 5, 16
	102-23	Report whether the Chair of the highest governance body is also an executive officer	56-57	SDG 16
	102-24	Report the nomination and selection processes for the highest governance body and its committees	57	SDG 5, 16
	102-34	Characteristics of important matters reported to the highest governance structure and the number of reports submitted	58	
	102-38	Report the ratio of the annual total compensation for the highest-paid individual to the median annual total compensation for all employees	58	
GRI 102: Stakeholder Engagement	102-40	List of stakeholder groups engaged by the organization	9	
	102-41	Percentage of employees covered by collective bargaining agreements	41	SDG 8
	102-42	Basis for identification and selection of stakeholders with whom to engage	9	
	102-43	Approaches to stakeholder engagement, including frequency of engagement	9	
	102-44	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded	8-9	
GRI 102: Reporting Practice	102-45	All companies included in the organization's consolidated financial statement	67	
	102-46	Defining report content and topic boundaries	8-9	
	102-47	List all the material aspects and topics identified	8	
	102-48	Explanation of the effect of any re-statements	About this report	
	102-49	Significant changes from previous reporting periods	N/A	
	102-50	Reporting period	About this report	
	102-51	Date of most recent previous report	Dec-20	
GRI 103: Management Approach	102-52	Reporting cycle	Annual	
	102-53	Contact point for questions regarding the report or its contents	Cover	
	102-54	In accordance' option the organization has chosen	74-75	
	102-55	GRI Content Index for the chosen option	74-75	
	102-56	Reference to the External Assurance Report Organization's policy and current practice with regard to seeking external assurance for the report	72-73 72-73	
	103-1	Explanation of the material topic and its Boundary	8, 18, 26, 33, 37,	
	103-2	The management approach and its components	45, 49, 56, 59, 62	
103-3	Evaluation of the management approach			

GRI Standards	Contents	Page & Remarks	Link to UN SDGs	
ECONOMIC PERFORMANCE (GRI 200)				
GRI 201: Economic Performance	201-1	Creation and distribution of economic value	9, 67	SDG 2, 5, 7, 8, 9
	201-2	Financial implications, risks and opportunities due to climate change	26-29	SDG 13
GRI 202: Market Presence	202-1	Ratios of standard entry level wage compared to local minimum wage	40	
	205-1	Operations assessed for risks related to corruption	60, 64, 68	SDG 16
GRI 205: Anti-corruption	205-2	Communication and training on anti-corruption policies and procedures	61	SDG 16
	205-3	Confirmed incidents of corruption and actions taken	71	SDG 16
ENVIRONMENTAL PERFORMANCE (GRI 300)				
GRI 301: Materials	301-1	Materials used by weight or volume	69	
	301-2	Percentage of materials used that are recycled input materials	32	
GRI 302: Energy	302-1	Energy consumption within the organization	28	SDG 7, 8, 12, 13
	302-4	Reduction of energy consumption	29	SDG 7, 8, 12, 13
GRI 303: Water	303-1	Total water withdrawal by source	31	SDG 6
	303-3	Percentage and total volume of water recycled and reused	31	SDG 6, 8, 12
GRI 305: Emissions	305-1	Direct greenhouse gas (GHG) emissions (Scope 1)	28	SDG 3, 12, 13, 14, 15
	305-2	Indirect greenhouse gas (GHG) emissions (Scope 2)	28	SDG 3, 12, 13, 14, 15
	305-3	Other indirect greenhouse gas(GHG) emissions (Scope3)	28	SDG 3, 12, 13, 14, 15
GRI 306: Effluents and Waste	305-5	Reduction of Greenhouse gas(GHG) emissions	29	SDG 13, 14, 15
	305-7	NOx, SOx and other significant air emissions	30	SDG 3, 12, 14, 15
	306-2	Total weight of waste by type and disposal method	32	SDG 3, 6, 12
GRI 307: Environmental Compliance	306-3	Total number and volume of significant spills	32	SDG 3, 6, 12, 14
	307-1	Non-compliance with environmental laws and regulations	30	SDG 8, 16
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	46, 65	
	308-2	Negative environmental impacts in the supply chain and actions taken	46, 65	SDG 15
SOCIAL PERFORMANCE (GRI 400)				
GRI 401: Employment	401-1	Total workforce by employment type, employment contract and region	38, 70	SDG 5, 8
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	41-42	SDG 8
	401-3	Return to work and retention rates after parental leave, by gender	42	SDG 5, 8
GRI 403: Site Safety & Health	403-1	Workers representation in formal joint management-worker health and safety committees	34	SDG 8
	403-2	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and fatalities	36	SDG 3, 8
	403-4	Health and safety topics covered in formal agreements with trade unions	41	
GRI 404: Training & Education	404-1	Average hours of training per year per employee by gender, and by employee category	39	SDG 8
	404-2	Programs for upgrading employee skills and transition assistance programs	42	SDG 8
	404-3	Percentage of employees receiving regular performance and career development reviews	40	SDG 5, 8
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	69-70	SDG 5, 8
	405-2	Ratio of basic salary and remuneration of women to men	69-70	SDG 8, 10
GRI 406: Non-discrimination	406-1	Total number of incidents of discrimination and actions taken	71	
GRI 407: Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	46, 65	SDG 8
GRI 408: Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	43-44, 46, 65	SDG 8, 16
GRI 409: Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	43-44, 46, 65	SDG 8
GRI 412: Human Rights Assessments	412-1	Operations that have been subject to human rights reviews or impact assessments	43-44	
	412-2	Employee training on human rights policies or procedures	44	
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	49-53	
	413-2	Operations with significant actual and potential negative impacts on local communities	49-53	
GRI 414: Supplier and Social Assessment	414-1	New suppliers that were screened using social criteria	46, 65	SDG 5, 8, 16
	414-2	Negative social impacts in the supply chain and actions taken	46, 65	SDG 8, 16
GRI 416: Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	35	
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	23-25	
GRI 419: Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	71	SDG 16

SASB Index

Category	Code	Index	Description	Page
Greenhouse Gas Emissions	RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Aiming to achieve '2040 Net Zero for a Sustainable Future', an environmental management vision, KOLON INDUSTRIES is conducting various environmental management activities to strengthen its status as a global eco-friendly company, based on its carbon-neutral roadmap including an environmental management agenda by 2047. In addition, we are preparing to declare SBTi (Science Based Target initiative) with the goal of achieving RE100 in 2033, domestic Net Zero in 2040, and global Net Zero in 2047.	26–29
Air Quality	RT-CH-120a.1	Air emissions of the following pollutants: (1) NOX (excluding N2O)	NOx emissions in 2020 are 76.37 tons.	30
		Air emissions of the following pollutants: (2) SOX	SOx emissions in 2020 are 10.51 tons.	30
Energy Management	RT-CH-130a.1	(1) Total energy consumed	Total energy consumptions in 2020 are 11,275 TJ.	28
		(2) Percentage renewable energy	The percentage of renewable energy use in 2020 is 0.00278%	29
		(3) Total self-generated energy	The self-generated energy in 2020 is 87,016 kWh.	29
Water Management	RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	In 2020, zero incident of non-compliance with legal regulations and sanctions occurred.	30–31
	RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	All our business activities and products are under the influence of regulations on water quality management and bad odor management which stipulate the responsibilities and procedures for the prevention of water quality contamination and odor occurrence. KOLON INDUSTRIES has set clear standards for pollution measurement and put regulations in place. If the pollution level surpasses the level allowed, causes of it shall be identified and necessary measures will be taken.	30–31
Hazardous Waste Management	RT-CH-150a.1	Amount of hazardous waste generated, percentage recycled	The amount of hazardous waste generated in 2020 is 28,672 tons, which is 54.5% of the recycled amount of 52,642 tons.	32
Community Relations	RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	KOLON INDUSTRIES has a process to provide accurate information on products and chemicals for the protection of customers' safety. When selling products, we provide Material Safety Data Sheets (MSDS) to customers and appropriate information on the entire product life cycle including transportation, use and disposal. In addition, the communication process allows customers or other stakeholders to ask questions about product safety at any time and provide timely answers. Besides, we have also stipulated a procedure to gather feedback from internal and external stakeholders on safety and health and respond to them in the 'Communication Management Regulations'.	32, 35
Workforce Health & Safety	RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	KOLON INDUSTRIES conducts regular risk assessments to understand the operational status of safety management for each business site and to preemptively prevent accidents. When implementing a new business or relocating a business site, additional irregular risk assessments are conducted to identify and respond to safety and health risks at the site in advance.	33–34
Safety & Environmental Stewardship of Chemicals	RT-CH-410b.2	Discussion of strategy to (1) manage chemicals of concern	In order to preserve a clean and healthy global environment, all chemicals handled are databased and thoroughly managed based on the IT system. In particular, in the case of using new chemicals, the environment and safety team at the workplace and the ESH management team at the headquarters double-review the use of hazardous chemicals according to the 'Preliminary Review Manual for Chemical Substance', while limiting the use of hazardous chemicals as much as possible. Even when chemical substances are unavoidably used, we manage them so that they can be used only for the specified purpose.	35
		(2) develop alternatives with reduced human and/or environmental impact	KOLON INDUSTRIES is pioneering the eco-friendly material market by developing recycled plastic film for the first time in Korea. By developing packaging materials using recycled PET, we succeeded in developing post-consumer recycled (PCR) PET film for the first time in Korea.	19–21
Management of the Legal & Regulatory Environment	RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	With an objective of actively complying with environmental and social governmental regulations, we always check the establishment or revisions of relevant domestic and foreign laws and regulations as well as international agreements following our 'Regulation for Management of Environment Safety Law' and promptly reflect them in the internal policies. In addition, we are actively participating in and cooperating with newly proposed policies.	33

As a non-profit organization to revise non-financial reporting standards, the Sustainability Accounting Standard Board or SASB has developed and operated sustainability accounting standards. SASB presents sustainability risk themes highly related to each industry and recommends corporations to consistently report regarding themes to communicate with investors and stakeholders. KOLON INDUSTRIES decided that the chemicals industry is the most relevant as we focus on industrial materials, chemicals, and film/electric material businesses, thereby we report data on the basis of the industry standard.

TCFD Index

Topic	TCFD Recommendation	Page & Remarks
Governance	a) Describe the board's oversight of climate-related risks and opportunities	CDP, CC1.1a, CC1.1b.
	b) Describe management's role in assessing and managing climate-related risks and opportunities	CDP, CC1.2a
Strategy	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	CDP, CC2.2c, CC2.3a, CC2.4a, CC3.1c
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	CDP, CC2.5, CC2.6
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	CDP, CC3.1c, CC3.1d
Risk Management	a) Describe the organization's processes for identifying and assessing climate-related risks	CDP, CC1.2a, CC2.2b
	b) Describe the organization's processes for managing climate-related risks	CDP, CC2.2d
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	CDP, CC2.2
Metrics and Targets	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	CDP, CC11.3
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	CDP, C5.1, C6.1, C6.3, C6.5
	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	CDP, C4

Global Sustainability Management Cooperation

The Ten Principles of UN Global Compact



Since joining the UN Global Compact in 2018, KOLON INDUSTRIES has actively reflected the ten principles of it in the four areas; human rights, labor, environment, and anti-corruption across our overall management. We will continue to secure leadership in global sustainability management by faithfully reflecting the ten principles throughout our sustainability management.

The Ten Principles	
Human Rights	Principle 1. Businesses should support and respect the protection of internationally proclaimed human rights.
	Principle 2. Make sure that they are not complicit in human rights abuses.
Labor	Principle 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
	Principle 4. The elimination of all forms of forced and compulsory labor.
	Principle 5. The effective abolition of child labor.
	Principle 6. The elimination of discrimination in respect of employment and occupation.
Environment	Principle 7. Businesses should support a precautionary approach to environmental challenges.
	Principle 8. Undertake initiatives to promote greater environmental responsibility.
	Principle 9. Encourage the development and diffusion of environmentally friendly technologies.
Anti-corruption	Principle 10. Businesses should work against corruption in all its forms, including extortion and bribery.

Responsible Care Global Chart



As a comprehensive global environmental, safety and health initiative implemented by the global chemical industry, Responsible Care leads the improvement of sustainability throughout the entire product life cycle, from development, manufacturing, sales, distribution, use and disposal of chemical products. As a member of Responsible Care, KOLON INDUSTRIES will continue to practice sustainability management in accordance with the basic policy below and strive to create social value.

Responsible Care Global Chart
1. Designating Responsible Care as one of our management goals, and ensuring all members of the company to participate in the action program
2. Safeguarding the environment, safety, and health first and making efforts to minimize risks that can possibly arise in the process from production, transport, usage, and disposal
3. Actively communicating with and responding to interests in regard to the environment, safety, and health of company members, customers, local communities, and related organizations
4. Inducing safe use, transport, and disposal by thoroughly consulting and providing appropriate information on risks of chemical products for customers
5. Cooperating with government agencies or experts for research and development or troubleshooting in relation to the environment, safety, and health
6. Actively exchanging information on the environment, safety, and health with the international chemical industry while joining necessary global actions
7. Establishing collaborative companies for sharing knowledge and experiences regarding the environment, safety, and health to facilitate Responsible Care activities

The UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) are the UN's global mid-to-long-term development plans that are implemented with 17 goals to solve global economic, environmental and social problems by 2030. KOLON INDUSTRIES actively supports the UN Sustainable Development Goals for a better planet, and is making various efforts to support the achievement of 17 goals and 169 detailed goals.

Focal Implementation Goal	Key Activities
Goal. 1 No Poverty	<ul style="list-style-type: none"> Supporting children outside of school who come from poor household circumstances through 'SUE COMMA YOU' campaign Helping international refugees by delivering a number of items to overseas refugee camps and holding cultural events Giving Support Packages containing hygiene products and psychotherapeutic items with donations from employees to children in vulnerable class
Goal.3 Good Health and Well-being	<ul style="list-style-type: none"> Donating entire proceeds from the sales of signature products in Archivépké to young patients who cannot afford to get treatment or surgery due to poverty Producing filters, the core material of masks, and supplying them to mask manufacturers for free in order to prevent the spread of COVID-19 Conducting a blood donation campaign at the company level as the need for blood was on the increase due to COVID-19 Providing clothes worth about KRW 0.2 billion for public health doctors dispatched to Daegu, the area hit hard by the COVID-19 Delivering masks to customers in Europe so as to alleviate the damage from the virus and prevent infection
Goal. 4 Decent Education	<ul style="list-style-type: none"> Supporting to growing children who are in the blind spot of care due to the shutdown of local children's centers due to the COVID-19 outbreak through the 'Add, Multiply and Divide' campaign Operating a mobile energy school where children can directly experience the principles of eco-friendly energy through KOLON Group's 'Visiting Eco Long Long' Developing support projects for nurturing young talents through the KOLON Group scholarship program
Goal.8 Decent Work and Economic Growth	<ul style="list-style-type: none"> Hiring single moms as upcycling workshop instructors to help them stand on their own through the brand, RECODE Giving out Onnuri gift certificates instead of annual presents to employees on the foundation day in order to lend support to local communities and small business owners suffering from COVID-19
Goal. 11 Sustainable Cities and Communities	<ul style="list-style-type: none"> Proceeding with the RECODE X NIKE collection, which is presented to the public by radically upcycling clothing inventory with related companies such as Nike
Goal.12 Responsible Consumption and Production	<ul style="list-style-type: none"> Pursuing sustainable consumption and production through CSR assessment on suppliers, distributing Responsible Business Alliance, and managing conflict minerals
Goal.13 Climate Action	<ul style="list-style-type: none"> Creating RECODE, the first upcycling brand in the industry and operating 'weDO', the platform for sustainability-seeking brands Establishing a carbon-neutral roadmap including an environmental management agenda by 2047 and conducting carbon reduction activities with the goal of 'Achieving 2040 Net Zero for a Sustainable Future' Achieving 86.7% in terms of the ratio of domestic and overseas business sites obtaining ISO 14001 certification for environmental management Developing materials to contribute to the era of eco-friendly hygiene economy and electric vehicles while continuously working on restructuring business for zero carbon Selling COURONNE eco-bags 100% made of yarn extracted from plastic PET bottles Gradually transforming KOLON Sports stores to eco-friendly ones by making hangers with corn starch extract and reusing mannequins colored with eco-friendly paints
Goal.14 Life below Water	<ul style="list-style-type: none"> Protecting endangered animals and plants in Korea through 'Noah Project.' Carrying out campaigns for protecting honeybees and eagles in 2016, Halla Edelweiss in 2017, seahorses in 2018, butterflies in 2019 and pine trees in 2020 The brand 'epigram' creates clothing with graphic or artwork images of animals and plants, and launches a campaign for endangered animals and plants that introduces clothing and products with reusable and eco-friendly materials to the store
Goal.15 Life on Land	

Major Affiliated Organizations

Name of Organizations	Communication Channel	Year Joined
Anyang Chamber of Commerce	Human Resources Management Team	JUL 1997
ASIA BUSINESS COUNCIL	Human Resources Management Team	JAN 1990
Association of Economic Organizations	Corporate Planning Team	JAN 1990
Fair Competition Federation	Legal/Compliance Team	JUL 2013
Federation of Korean Industries	Corporate Planning Team	JAN 1990
GPRA Meeting (Global Phenolic Resins Association)	Industrial Resin Biz Team 1	NOV 2007
IMI International Management Institute	Human Resources Management Team	JAN 1990
Korea AEO Association	Corporate Planning Team	MAY 2011
Korea Business Archery Association	Archery Team	JAN 2012
Korea Chemicals Management Association	Technology Planning Team	MAR 1997
Korea Economic Research Institute	Corporate Planning Team	JAN 1990
Korea Employers' Federation	Corporate Planning Team	JAN 1990
Korea Exchange Association	Technology Division	JAN 2016
Korea Industrial Technology Association	Technology Division	JAN 1993
Korea Management Association Registrations & Assessments inc.	Organization Development Team	APR 2007
Korea P.E.T. Film Industry Council	Business Planning Team / Business Division 3	JAN 2013
Korea Packing Association	Business Planning Team / Business Division 3	JAN 1993
Korea Personal Improvement Association	WICAN DO	JAN 2013
Korea Petrochemical Industry Association	Human Resources Management Team	APR 1977
Korea Printed Circuit Association (KPCA)	Electronic Material Business Team 2	JAN 2013
Korea Productivity Center	Organization Development Team	APR 2007
Korean Geosynthetics Society	Spunbond Business Team	JAN 2009
Korean Society for Quality Management	Technology Division GDI	APR 2017
Polymer Society of Korea	CPI	JAN 2012
UN Global Compact Korea Association	Sustainability Management Team	NOV 2018
World Plastic Council	Kolon Advanced Research Cluster	FEB 2019

(In alphabetical order)

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