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Integrated Report 2021

GAMASOT



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<http://en.donga.co.kr>

This report is available in PDF format which can be downloaded at Dong-A Socio Holdings website.



COVER STORY

Based on the GAMASOT spirit, Dong-A Socio Group is generating economic, social, environmental value and expanding positive impact, just like a cauldron's warmth spreading. The cover of Dong-A Socio Group's Integrated Report 2021 features the warmth of a cauldron using such colors as blue – Dong-A's CI color – and green symbolizing green growth, to embody all Dong-A employees' united efforts to deliver greater reverberations to society through "Jeong-Do management".

Honorary Chairman's Message

Greetings!



I would like to begin this message by expressing my sincere gratitude for your continued interest and support for Dong-A Socio Group.

Every time we put together this annual Integrated Report, I look back on Dong-A Socio Group's history and think about its future we envision. Above all, we need to take on the challenge of building the future even amid a pandemic. To this end, Dong-A Socio Group will develop new businesses related to pharmaceuticals and ramp up activities aimed at strengthening its social responsibility management.

When I founded Dong-A in 1975, I declared the company philosophy that "To fulfill the demands of social justice, we endeavor to fulfill our corporate social responsibility. We also use new sciences and technologies to contribute to the promotion of human health and welfare." As fulfilling social responsibilities is what social responsibility management is all about, we have identified five objects toward which we fulfill our responsibilities as following:

- First, **responsibility toward employees**
- Second, **responsibility toward society**
- Third, **responsibility toward government**
- Fourth, **responsibility toward consumers**
- Fifth, **responsibility toward stakeholders**

Corporations should fulfill their responsibilities toward employees, society, government, and stakeholders by generating income, and their products should embody the value that realizes consumer-centered management. As how companies handle environmental issues for which they are responsible determines their non-financial performance, especially given that environmental management has emerged as key business criteria of late, corporations must grow together with society and ultimately earn trust from stakeholders.

Good news is that Dong-A Socio Holdings, Dong-A ST, and ST Pharm all received an overall A Grade in a 2021 ESG evaluation. Moving forward, Dong-A Socio Group will continue to focus on creating sustainable values through its social responsibility management which centers on humanity and the environment.

In particular, Dong-A Pharmaceutical will be celebrating its 90th anniversary on December 1, 2022, commemorating its origin as a pharmaceutical wholesaler back in 1932. I sincerely thank all employees who have been with the company through thick and thin as well as other stakeholders for the invaluable support you have given Dong-A Socio Group over the years. Looking forward to growing into a centennial company, we will continue to open a wider door to a healthier future.

Thank you.

Shin-Ho Kang
Honorary Chairman, Dong-A Socio Group

姜信浩

CEO's Message

Greetings to all stakeholders supporting Dong-A Socio Group.

In 2021, Dong-A Socio Group exceeded KRW 2 trillion in sales amid the COVID-19 crisis. Hoping 2022 will be a year of Dong-A becoming an ever-lasting company with celebration of its 90th anniversary, we will comply with all management policies related to safety and health and do our best to protect the health of employees and local communities. I hereby present to you Dong-A Socio Group's 2021 business results in the founding principles of integrity, sincerity and consideration for others.

"Integrity" that shows a virtuous way of life

To fulfill its responsibilities toward employees and consumers, Dong-A Socio Group announced Jeong-Do management in 2018 and has since been building a transparent organization and a healthy corporate culture. In 2020, we launched "Dong-A Socio Group Social responsibility Council (DSC)" consisting of CEOs of the Group affiliates and joined the UN Global Compact (UNGC). And in 2021, we became a member of the 2021 Business Integrity Society (BIS), an anti-corruption project hosted by the UNGC and Korea Sustainability Investing Forum, reaffirming our resolve to build a fair and transparent society.

"Sincerity" that embraces responsibility

To fulfill its responsibilities toward investors, Dong-A Socio Holdings has been implementing shareholder-friendly management. For the purpose of enhancing business competitiveness and improving shareholder trust, we plan to set aside a minimum 30% of consolidated profit, excluding non-recurring income and loss, as a shareholder return for three years from 2021 to 2023. To this end, we will increase interim and final dividends as a way to demonstrate to shareholders the stability of our cash flows and use retained earnings for purchase and disposition of treasury shares.



"Consideration" that encourages sharing in daily life

Dong-A Pharmaceutical and Yongma Logis jointly signed an MOU with the Korean Pharmaceutical Association for "safe and healthy journey together" to fulfill their responsibilities towards the environment by collecting pharmaceutical wastes. Pharmaceutical wastes in Korea were estimated to be 4,690 tons in 2018 and the figure is expected to increase to 6,700 tons by 2025 as Korea becomes a super-ageing society, which makes collecting and processing pharmaceutical wastes in an eco-friendly manner all the more urgent. In addition, Dong-A Socio Group carried out "D-Style Walking", a non-face-to-face walkathon, to conduct an environmental campaign that encourages sharing in everyday life. As a result, we were able to deliver to the Korea Childhood Leukemia Foundation KRW 100 million funds raised through the campaign as well as donations from professional golfers sponsored by Dong-A.

I believe fulfilling social responsibilities equals fulfilling responsibilities toward the nation and citizens within a larger framework. Dong-A Socio Group will continue to promote growth together with, and fulfill our social responsibilities toward all stakeholders.

Thank you.

Jae Hun Jung
CEO & Vice-President, Dong-A Socio Holdings

이재훈

GAMASOT

We are creating a sustainable tomorrow for all through responsible and respectable management with a sense of purpose.



Guiding principle

The GAMASOT spirit of care guides Dong-A Group through the path of responsible management

Dong-A Socio Group's social responsibility management is not a response to social trends or demands, as evident in that the Dong-A creed, established in 1975, continues to be practiced by all Dong-A people. In addition, our social responsibility management is at the global standard. True to the creed, "We fulfill corporate social responsibilities according to social justice and produce outstanding drugs to contribute to improved health and welfare of humankind", Dong-A Socio Group adopted Jeong-Do management in 2018 in accordance with ISO 26000, an international standard providing guidelines on anti-corruption. We then started conducting human rights, environmental, compliance, and consumer-centric management based on a combination of global standards and our unique methodologies and practical indexes, as well as making steady social contributions. Identifying employees, society, government, stakeholders, and customers as the targets of our social responsibility management, and based on happiness of employees, we are developing drugs that improve the health and welfare of humankind for society, fulfilling corporate responsibility and duties for government, creating sustainable income sources for stakeholders, and producing quality products and services for customers. Contributing to a healthier and happier future for all, we are building a virtuous cycle of corporate management activities and social contributions sustaining each other.



The GAMASOT spirit of Joong-Hee Kang, the founder of Dong-A Socio Group, who valued and cared for all people, underlies our founding principles of "integrity" as in behaving oneself right, "sincerity" with full responsibilities, and "consideration", then it led to our unique "Jeong-Do management". Jeong-Do management has firmly taken root as the bedrock of our corporate culture, setting directions for our social responsibility management.





ESG rating improvements and awards showing Jeong-Do management is on the right path to sustainable future

Unlike when emphasis was placed only on financial performance in corporate management, a new era is emerging in which new value arises from non-financial factors such as ESG¹⁾. As ESG factors make up a new investment paradigm, investors have begun using the ESG performance of corporations as a key criterion in evaluating corporate value. Dong-A Socio Group continues to receive awards and certifications in diverse ESG areas, which proves that the Group is building international-standard systems and capabilities through Jeong-Do management.

In the 2021 Listed Company ESG Evaluation²⁾ conducted by the Korea Corporate Governance Service (KCGS), Dong-A Socio Holdings received an overall ESG grade of A, one grade higher than in the previous year. The Group's two other listed companies, Dong-A ST and ST Pharm, also recorded an overall A. Particularly noteworthy is that only 10 out of the 194 companies that earned an overall grade of A or higher are pharmaceutical/bio companies, three of which are Dong-A Socio Group affiliates. In addition, in the 2021 MSCI ESG evaluation³⁾, Dong-A Socio Holdings received a BBB grade, and Dong-A ST and ST Pharm earned BBB and CCC grade, respectively. These achievements are testament to the efforts each of the Group affiliates established solid social responsibility management systems in accordance with the Jeong-Do management guidelines, as well as to create ESG values, with ESG-dedicated organization performing central roles.

With ESG management emerging as an essential strategy for sustainable business growth, many companies are busy following the footsteps of ESG leaders. Realigning its time-tested social responsibility management based on the GAMASOT spirit with ESG factors, Dong-A Socio Group is calmly yet proactively improving responding to the trends.

Dong-A Socio Holding's ESG Evaluation by KCGS



Dong-A Socio Holding's MSCI ESG Ratings

- Received the Platinum Award at the LACP Spotlight Awards**
 Dong-A Socio Group's Integrated Report 2020, "GAMASOT" won the Platinum Award for the second consecutive year by earning top scores in first impression, content, design, creativity, and suitability categories, among six evaluation categories, as a result of competing with around 500 entries, including annual reports, integrated reports, and sustainability reports published all across the globe.
- Dong-A Socio Holdings Chosen for "2021 Outstanding Corporation of Disclosure of Corporate Governance Report"**
 Dong-A Socio Holdings was chosen by the Korea Exchange as "2021 Outstanding Corporation of Disclosure of Corporate Governance Report"⁴⁾, receiving recognition for maintaining governance independence and transparency by separating management and the BOD and for establishing institutional mechanisms that can exercise impact on corporate management based on reasonable judgments.
- Dong-A ST Received the Korea Fair Trade Commission Chairperson Commendation as a Certified Company for Excellence in Consumer Centered Management in 2021** Gaining recognition for efforts to improve consumer rights and interests, Dong-A ST received the Korea Fair Trade Commission Chairperson Commendation. Its efforts include preventing errors in filling prescriptions by making package design changes from the customer perspective and promoting safe drug-taking by consumers, improving drug side-effect damage relief programs as the president of the pharmaceuticals sector of the Organization of Consumer Affairs Professionals in Business, and promoting customer service standardization from the consumer perspective.
- ST Pharm Chosen as Excellent Labor-Management Culture Company in 2021** Receiving recognition for efforts to create a win-win workplace based on labor-management relations of trust and harmony, ST Pharm was chosen as the 2021 Excellent Labor-Management Culture Company. It also received the Presidential Award, the top award, among 112 outstanding companies chosen from 2019 to 2021.
- STgen Bio Chosen as Family-Friendly Certified Company⁵⁾**
 STgen Bio (formerly DM Bio) received a new certification in the large company category in December 2021, gaining recognition for its efforts to run various programs and welfare systems that are aimed at a harmonious balance between work and family life and a family-friendly corporate culture.

¹⁾ Stands for Environmental, Social, and Governance. As a key management index for determining and evaluating a company's sustainability, it has recently emerged as a major management strategy.

²⁾ Since 2011, KCGS has been performing an annual ESG evaluation that includes social responsibility and environmental management to assess the level of sustainability management of listed companies in Korea. It discloses evaluation grades (categorized into seven: S, A+, A, B+, B, C, D) for the four categories of 'overall, environmental, social, and governance'. In 2021, KCGS evaluated 950 listed companies and disclosed the evaluation grades of 765 companies.

³⁾ MSCI (Morgan Stanley Capital International) evaluates the ESG management performance of listed companies of the world by industry every year and discloses evaluation grades (categorized into seven: AAA, AA, A, BBB, BB, B, CCC) in the area of ESG.

⁴⁾ Since 2019, the Korea Exchange has been choosing and rewarding listed companies that faithfully and transparently disclose their governance status in accordance with the Governance Guidelines presented by the Korea Exchange as an outstanding corporation of disclosure of corporate governance report.

⁵⁾ System in which the Ministry of Gender Equality and Family certifies companies that serve as a good model for supporting childbirth and child-nurturing and establishing a flexible work system and a family-friendly work culture. A total of 1,856 companies received newly or re-certified in 2021.

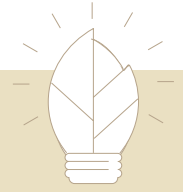


Enhancing Jeong-Do management through the adoption of global standards for social responsibility management as a code of conduct

Dong-A Socio Group advances Jeong-Do management by building sustainable management systems that meet international standards. In March 2020, we launched the Dong-A socio group social responsibility Council (DSC), which consists of the CEOs of 13 Group affiliates, including unlisted companies. Through its biannual meetings, the Group's top decision-making body deliberates and makes decisions on matters related to social responsibility management. DSC also handles agendas related to the Group's major ESG issues and responses, such as managing supplier risks to build a win-win supply chain and transparent disclosures of information, including matters related to ESG governance such as creation, operation, activity, strategy of performance of social responsibility management organizations that fit its corporate characteristics.

In addition to group-level systems, each Group affiliate has in place social responsibility management systems that fit its characteristics and situations. In 2020, Dong-A ST and Dong-A Pharmaceutical created a "Social Value Committee" each; and in 2021, seven Group affiliates¹⁾ established governance arrangements of executing social responsibility management. In addition, we formed an "ESG Planning Division" consisting of Jeong-Do Management Team, HR Strategy Team, Corporate Culture Innovation Team of Dong-A Socio Holdings; ESG Operation Team of Dong-A ST; and CSR Team and CP Team of Dong-A Pharmaceutical, thereby embarking on an ESG journey of joining the irresistible global trend. The ESG Planning Division held a total of 17 meetings – six regular and 11 working-level employee meetings – in 2021, sharing the latest status of the social responsibility management of the Group affiliates and agendas of the Group DSC and BOD. In 2022, we will share major ESG-related execution tasks of Group affiliates and devise the ESG Planning Division's annual execution plans.

¹⁾ CHAMMED, Dong-A Otsuka, Yongma Logis, Soo Seok, DONGCHEONSU, ABEN E&C, DA Information



Dong-A Socio Holdings

Building Global-Level Anti-Bribery Management Systems

Dong-A Socio Holdings has established an anti-bribery management system (ABMS) to international standards, and based on the ABMS, is completing its unique Jeong-Do management. In 2018, we received the ISO 37001 certification, an international ABMS standard, after which we completed two follow-up management examinations. In November 2021, we received a third-party certification renewal evaluation from the British Standards Institution (BSI). Results of the renewal evaluation have confirmed that Dong-A Socio Holdings had been setting and implementing policies, goals, regulations and guidelines, all in line with strategic direction and internal purposes. Areas that were identified as strengths include top management's and employees' strong will to operate and improve the ABMS, the training system of enhancing employee awareness of the importance of an anti-bribery culture, internal communications based on the Jeong-Do Management manual, and cost controls applied to persons subject to the Improper Solicitation and Graft Act. Areas for improvement were identified as well, including the due diligence of business partners and measures to prevent gift giving/receiving and other similar actions from recurring. We plan to devise improvement measures and implement them as part of ABMS operations in 2022.

Dong-A Socio Holdings is focusing on spreading the ABMS to all its affiliates. As part of the effort, an education session was conducted in 2021 at the Korea Compliance Initiative (KCI) for 56 internal auditors of Dong-A Socio Holdings (5 persons), Dong-A ST (5 persons), Dong-A Pharmaceutical (2 persons), Yongma Logis (15 persons), ST Pharm (16 persons), and STgen Bio (13 persons), offering them education on ISO 37001 requirements and on auditors' roles and capabilities. We plan to continually provide new internal auditors with training in accordance with the Group's five-year ABMS establishment plan, and communicate with Group affiliates' risk management departments on anti-bribery activity and thereby spread the anti-bribery culture.

Dong-A ST

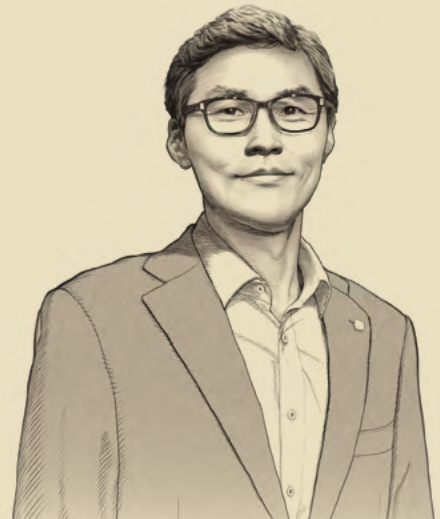
Internalizing Ethical Management and Compliance

Dong-A ST, the Group's first affiliate to be ISO 37001 certified in July 2018, renewed the certification in May 2021. The company transparently discloses its fair-trade principles and communicates with various stakeholders through the CP website of business partners. In 2021, it took part in the production of the Korea Pharmaceutical and Bio-Pharma Manufacturers Association (KPBMA) CP Guidebook, and in the ethical management conference and the production of the ethical management report of the bio pharmaceutical industry. For its contribution to enhancing the transparency in the domestic distribution of pharmaceuticals, Dong-A ST was awarded the Minister of Health and Welfare Commendation in December 2021. As such, Dong-A ST is contributing to the spread of ethical management in the pharmaceutical industry.

Yongma Logis

Declaring Human Rights Management

Yongma Logis held a "Human Rights Management Declaration" ceremony in November 2021, reaffirming its resolve to fulfill social responsibilities as a local community member and emphasizing the importance of human rights management and Jeong-Do management. At the online ceremony, all Yongma Logis executives and department heads took an oath to honor the Human Rights Management Charter, and all participants signed a written pledge to practice human rights management in their line of duty. The Human Rights Management Charter includes prevention of human rights violations, protection of victims' rights, and promotion of a culture of respecting human rights.



Jeong-Do Management Department Head
Yongsang Park

Q1

With regards to the direction for creating social values, what is the most significant change made since the establishment of DSC?

Dong-A Socio Group has developed and been implementing activities aimed at creating shared value (CSV), exploring ways to realize social values along with value investing for the future. The directionality of social value creation, which has started with the launch of DCS, has taken a more concrete shape, extending to the execution aspect on a governance level. Also significant was that we have communicated with various stakeholders based on the transparency and sincerity of an integrated report published summarizing the activities of employees and their outcomes.

Q2

What was mainly discussed at the 2021 DSC?

At the 4th DSC held in January 2021, 2020 ESG evaluation results were reviewed and the Group's common indexes introduced in the environmental sector. At the 5th DSC, held in June, matters were shared related to publishing the Integrated Report 2020, unlisted Group affiliates practicing social responsibility management, and managing ESG issues. We also shared some aspects of social responsibility management, such as Dong-A ST's Cheonan Campus photovoltaic power generation plan and Dong-A Socio Holdings' plan to go paperless, as part of our effort to create an environment in which we all grow together.

Q3

What are future plans?

With DSC performing central roles, we will maintain and enhance activities that have been proven effective and spread them throughout Group operations. By doing so, we will proactively conduct social responsibility management so that Jeong-Do management does not end up a mere slogan but becomes a catalyst for Dong-A Socio Group where all affiliates develop and grow together.



Joining global solidarity and cooperation for healthier and happier tomorrow

Nobody can be free from the effects of climate change, poverty, inequality and other challenges facing mankind. All people must combine their strengths for the survival and sustainable development of mankind. The COVID-19 pandemic reminded us once again of the importance of global solidarity and cooperation in resolving issues threatening the common interests of mankind.

Dong-A Socio Holdings is proactively joining the efforts of the international community to create a sustainable future. We joined the United Nations Global Compact (UNGC) in September 2020, pledging to internalize The Ten principles of the UNGC in the areas of Human Rights, Labour, Environment and Anti-Corruption, as well as to take part in improving the sustainability and corporate citizenry of the Group. In November 2021, we completed the "Ban Ki Moon ESG Academy" organized by the UNGC. The two-month training helped us become aware of, and understand, ESG trends in Korea and abroad and gain insights on planning and realizing ESG objectives.

Dong-A Socio Holdings is also participating in the UNGC's "SDG Ambition" program in a bid to fulfill its social responsibilities and realize sustainable development. Participated by staff of 11 companies and organizations, the program was held from November 2021 to April 2022, aimed at helping accelerate member companies' achievement of the UN SDGs¹⁾. We also are participating in the regular meetings of the human rights and anti-corruption working groups of UNGC member companies. At the "BIS Summit" held in March 2021, we made known our plans to join the international effort to build a fair society and a corporate environment of transparency and integrity.



¹⁾ UN Sustainable Development Goals. 17 goals that humankind should ultimately achieve from 2016 to 2030 that were set by the UN for sustainable development of the international community.

Change is a constant, but there still exist values we must always uphold. Our belief, "All products that we make and offer should contribute to the people's health", which enabled Dong-A's beginning in 1932 and is a value that we have been upholding for the past 90 years. Accordingly, Dong-A Socio Group focuses on new drug development, practicing its mission, "Continuous challenge to pursue health and happiness for humanity".

Dong-A Socio Group's key business and growth engine is development of biopharmaceuticals and innovative new drugs based on its global R&D capabilities. To enhance R&D competitiveness, Dong-A has established a bio-pharmaceutical research complex, leading peers in preparing for the future of pharmaceuticals business. In addition to actively recruiting global talent in diverse fields, we continue to innovate and change in several areas, including establishing of a global-level infrastructure and a corporate culture. Business gain is not the only reason why we focus on innovative drug R&D. Dong-A Socio Group's social contribution centers on new drug development for humankind. With its mission to enhance the health and happiness of all people, we embrace the challenge of developing innovative new drugs and thus grow into a global healthcare player that is loved and trusted by people across the globe.



Sustainable future

Accelerating R&D and technological innovation to achieve sustainable growth

DONG-A R&D AT A GLANCE

5

New in-house developed drugs

The largest size in Korea
(Stillen, Zydena, Motilitone, Sivextro, Suganon)

Dong-A Pharmaceutical

Selected to Lead 3D Printing Tech-based Custom Drug Development

In May 2021, Dong-A Pharmaceutical was chosen by the Ministry of Trade, Industry and Energy to lead the 3D printing technology-based custom drug development project, one of the Ministry's bioindustry technology development projects. The project is the first case in Korea of applying the 3D printing technology, which is used mainly in the medical equipment and bio fields, to manufacturing orally administered pharmaceuticals. The company expects to secure source technology of 3D printing by participating in the national project known as a "challenge track" project with a level of impact high enough to overcome the limits of traditional pharmaceutical production. Dong-A Pharmaceutical also hopes to improve product efficiency and significantly reduce the disposal of expired pharmaceuticals by producing pharmaceuticals tailored to customer needs and market demands. It plans to inject project funds totaling KRW 5.5 billion, including KRW 4 billion in government grants, in the next five years, and is increasing cooperation with professional 3D printing organizations with the goal of entering a phase I clinical trial by 2025.

ST Pharm

Developing Korea's First LNP encapsulated COVID-19 mRNA Vaccine

ST Pharm has secured 5'-capping and lipid nanoparticle (LNP) technologies, which are essential for developing mRNA-based vaccines and therapeutics. 5'-capping technology is especially developed based on oligonucleotide synthesis and purification know-hows and in-house capabilities, and the domestic patent is granted and PCT patent is filed. In particular, ST Pharm is extensively using the LNP technology, the key delivery system of mRNA, for developing cancer vaccines and therapeutics. In fact, it has developed Korea's first mRNA-LNP COVID-19 vaccine candidate (STP2104), and its investigational new drug (IND) application for phase I clinical trial was submitted to the Ministry of Food and Drug Safety in December 2021.

In preparation to post COVID-19, ST Pharm has been carrying out diverse projects. In June 2021, San Diego based biotech company, "Levatio Therapeutics" was established to develop vaccines and therapeutics for cancer, autoimmune diseases and CAR-NKT cell therapy using conventional mRNAs and circular RNAs. Also, in August 2021, Atlanta based biotech company, "Vernagen" was established for developing mRNA vaccines against infectious diseases.

ST Pharm is also in preparation for commercial scale production. The manufacturing facilities and systems required for mass production of mRNA-LNP bulk drug substance are already in place and the capacity expansion is currently under review. This is to increase its annual production volume of 3.5 million doses of mRNA drug substance by 10 folds by 2022. In addition to this, ST Pharm is the first company to apply microfluidics for LNP mass production facilities in Korea and this is currently under development.



Dong-A ST

Developing New Drugs through Investment and Innovation

Dong-A ST focuses on securing base technology for new drug development while also striving to rapidly develop new blockbuster drugs using a two-prong approach of "first-in-class" and "best-in-class". In the first-in-class approach, we focus on cancer drug research with the Drug Discovery Research Laboratories of the Research Center performing central roles. We are conducting an exploration-phase joint research on cancer drugs with Astrazeneca. The cancer drug project we are conducting jointly with the Daegu-Gyeongbuk Medical Cluster is currently in a pre-clinical phase. The project aims to enter a phase I clinical trial in the first half of 2023.

Proteolysis-targeting chimera (PROTAC) is the base technology on which Dong-A ST plans to focus in the mid- to long run. PROTAC technology is an effective endogenous protein degradation tool developed in recent years that can ubiquitinate the target proteins through the ubiquitin-proteasome system to achieve an effect on tumor growth. In June 2021, we signed a technology transfer agreement with the Korea Research Institute of Chemical Technology, the owner of a PROTAC technology, and are currently in the phase of drawing leads. In addition, by using the synthesis and optimization capabilities of the Dong-A ST Research Center, we plan to continue discovering PROTAC projects and thus strengthening the pipeline of cancer drugs.

In the best-in-class approach to new drug development, we are accelerating the development of various incrementally modified as well as combination drugs to expand the portfolio of diabetes treatments led by Suganon, Dong-A ST's leading blockbuster product. We expect to launch several products in the next two to three years. We also plan to speed up the development of atopy treatments and targeted drugs for lung cancer, conduct a clinical trial, and launch them in Korea.

Dong-A ST completed the construction of the Biologics Research Laboratories in Incheon in March 2021, and staffed it with researchers in May. Performing a pivotal role in bio-pharmaceuticals R&D, the research center is expected to lead the expansion of Dong-A Socio Group's future business. Dong-A ST already has succeeded in developing and licensing out DMB-3115 (psoriasis treatment), which is in a phase III global clinical trial, and built a research infrastructure capable of developing bio-pharmaceuticals on a global scale. It is currently expediting its research of new bio frontiers, such as exosomes and fusion proteins.



AI-based R&D has been active throughout industry of late, and the pharmaceuticals industry is no exception. To proactively respond to such a robust industry trend, Dong-A ST in September 2021 signed a joint R&D agreement on new drug development for central nervous system diseases with CIMPLRX, a company specializing in AI-based new drug development. Per the agreement, Dong-A ST will identify the target and the mode of action (MoA) of the treatment of degenerative brain disorder that has been developing in-house, by utilizing the explainable AI platform developed by CIMPLRX. We anticipate that the combining of Dong-A ST's new drug development capabilities and CIMPLRX's distinctive AI platforms will lead to synergy and considerably raise the effectiveness of our new drug R&D.

427 persons

R&D personnel

Dong-A ST
305 persons
 (Ph.D. 55 persons,
 Master's 158 persons,
 Others 92 persons)

Dong-A Pharmaceutical
32 persons
 (Ph.D. 7 persons,
 Master's 22 persons,
 Others 3 persons)

ST Pharm
90 persons
 (Ph.D. 6 persons,
 Master's 72 persons,
 Others 12 persons)

STgen Bio

Signing an MOU with Protium Science for CDMO Business Collaboration

STgen Bio, Dong-A Socio Group's contract manufacturing organization (CMO) affiliate specializing in biopharmaceuticals, has joined hands with Protium Science, a biopharmaceutical contract development organization (CDO), to build an integrated end-to-end service system from R&D to production. Through the MOU, the two companies plan to maximize synergies and build a new platform by fully demonstrating their capabilities in the areas of their respective expertise. Such integrated services, once completed, are expected to enable rapid development and production of the pipelines of renowned domestic bio ventures conducting biopharmaceutical research in diverse areas, and to thus contribute a great deal to expanding business capabilities and to creating opportunities for STgen Bio. With this platform, the company will double its efforts to provide patients with diverse quality drugs and enhance the status of Korea as a biopharmaceutical powerhouse.

First-in-class

R&D strategy

- Expand from development of generics and fast followers to development of first-in-class innovative new drugs
- Focus new drug discovery capabilities on markets with high unmet needs, such as biosimilars and immunotherapy
- Form a taskforce team in the Group for COVID-19 mRNA vaccine development, secure an mRNA vaccine platform, and move forward with new drug development



Reducing carbon footprints for a sustainable Earth and opening the door to a better tomorrow

As unprecedented weather conditions become more common, making the entire global community feel anxious and desperate. The COVID-19 pandemic, which has terrified us for over two years, generated a massive amount of medical and plastic wastes. The sights of endless landfills shown on the news are enough to stoke a fear that another crisis of an unprecedented magnitude is a just matter of time. It is said that if the Earth's surface temperature rise 2°C from pre-industrial levels¹⁾, a natural disaster will occur and pose an existential threat to mankind. Over the last decade¹⁾, the Earth's surface temperature already has risen 1.09°C, and is expected to go up by at least 1.5°C in the next 20 years²⁾.

Faced with climate crises, the international community is working together to reach "net zero" by cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere. In October 2020, Korea made known its goal to become net zero by 2050 and embarked on a long journey of creating a low-carbon society, and companies are preparing their operations for the national transition to a low-carbon economy. Dong-A Socio Group is also participating in this movement, using resources and producing products more responsibly, with a firm focus on the environment. In particular, as the prolonged pandemic has induced the growing problem of plastic wastes, we are striving to eliminate the use of plastic disposables in the workplace and adopting eco-friendly packaging materials. In addition, we are conducting various environmental campaigns to enhance stakeholder awareness of climate changes for dealing with climate change issues takes a greater number of people with keener interest and participation.

¹⁾ Pre-industrial levels: Year 1850–1900, 10 years: Year 2011–2020

²⁾ Source: 6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC)

³⁾ Campaign that aims to raise people's awareness of the importance of resource circulation and recycling, promote conservation practices and ultimately create a more sustainable environment

Dong-A Socio Holdings

Continuously changing to reduce carbon emissions

2021 marked the second year of the "Plastic Zero" campaign. Dong-A Socio Holdings has set five tasks as campaign agendas – make a habit of using multi-use cups, separate and dispose of trash by type, minimize packaging materials in daily life, avoid disposable items, and practice zero waste. Also, by holding discussions with businesses specializing in sanitizing recycled cups and doing other things related to eliminating the use of disposables in the workplace, we are making continued efforts to spread the plastic zero policy.



Dong-A Socio Group

100

KRW million



Amount that was donated to an environmental group aimed at protecting the Earth's environment in accordance with the cumulative number of steps that were gathered with participation of 1,524 employees

Healthy steps toward reducing carbon footprints

Dong-A Socio Group employees are taking healthy steps toward reducing their carbon footprints. In April 2021, Dong-A Socio Group commenced "D-Style Walking" to help employees support environmental conservation through participation. D-Style Walking is a non-face-to-face campaign aimed at sponsoring environmental protection activities of employees of all Group affiliates with donations calculated based on the number of steps employees take during the campaign. The campaign lasted through June with the goal of generating a total of 100 million steps. Thanks to the participation of 1,524 employees, we collected around 307.7 million steps, 307% more than the goal. Accordingly, KRW 100 million was donated to the Korea Federation for Environmental Movements to be used for constructing a recycling station as part of the "Earth Recovery Resource Circulation Campaign"³⁾.

Towards a zero carbon footprint

The Earth is getting warmer. The effects of global warming are increasingly common and serious across the world. Unless all of us make concerted efforts toward carbon neutrality, unless the current conditions do not improve, it may become a real struggle for humankind to survive in the near future. From small yet eco-friendly steps we take in daily life to low-carbon management practices aimed at reducing carbon footprints throughout production, distribution, use, and disposal, Dong-A Socio Group is making changes, small and big, to slow the rising global temperature and open the door to a sustainable tomorrow.

Dong-A Pharmaceutical


100 %

After replacing the plastic bags which had been supplied to pharmacies for decades to promote our flag-ship product Bacchus with paper bags in 2020, we also replaced the paper bags with ones with a handle in July 2021, thus reducing recycling expenses by KRW 60 million.


Zero

After replacing the coal tar dye-free mouthwash container with a transparent container in 2019, we then in February 2021 applied an in-mold label to Children's mouthwash product, thus making the container easy to separate and dispose of.

Earth Pack



Non-timber, eco-friendly paper, made of sugar cane and 100% biodegradable, is used as the container for MiNiMAX, children's active nutrition food product packaged in a 3R (reduce, reuse, recycle) concept.

Earth Day

On the April 22, 2021, Earth Day, we launched the MiNiMAX "green survival" eco-bag made of Tyvek which is recyclable and energy-efficient thanks to its short manufacturing process.

"Value consumption", which expresses a life of value in the context of consumption, has become mainstream of late. An eco-friendly package is a point of contact between corporate ESG management and the thoughtful consumption of customers.



In particular, eco-friendly packages for children are expected to lead to a consumption of greater value in the growth phase of children. In this sense, if some of good memories children have shaped by their experiences with MiNiMAX, wouldn't this help them become more conscious of the environment?

Brand Manager, Dong-A Pharmaceutical
Gyeong-mi Lee

Scaling our green impacts



GREEN PACKAGING

Dong-A Otsuka & DONGCHEONSU



Adopting product containers that are easy to recycle

In 2021, on the 50th anniversary of the launch of Oran-C, Dong-A Otsuka became the industry's first to unveil a bio-PET product. Unlike plastic PET, made of petrochemical materials, the company's bio-PET is 30% made of a raw material extracted from the sugar cane and 100% recyclable, and generates 20% less CO₂ compared to plastic PET during production.

DONGCHEONSU signed an MOU with the Ministry of Environment in 2020 on collecting transparent PET bottles of its own and has since been improving the collection rate. In 2021, it launched a label-free mineral water product that has removed individual labels and has instead printed labeling items on bundled packaging in line with the enforcement of a system of separately disposing transparent PET bottles to enhance easiness in resource-recycling. The label-free mineral water product, whose production began in April 2021, recorded sales of around 38 million bottles in 2021 and had an effect of reducing 29.3 tons of plastic wastes. As of the end of 2021, 66.7% of its leading mineral water product was produced label-free, and DONGCHEONSU aims to make all its mineral water products label-free in 2022.

Climate change cannot be effectively dealt with through participation of specific countries or some companies alone. Which was the limitation of the Kyoto Protocol requiring 37 advanced countries to reduce their GHG emissions. For this reason, at the 2015 Conference of Parties (COP)¹⁾ held in Paris, the "Paris Agreement" was adopted in which all parties agreed to reduce their GHG emissions. Dong-A Socio Group joins global efforts to keep the average global temperature a level well below 2°C above pre-industrial levels and to limit the increase to 1.5°C.

Dong-A Pharmaceutical has been making diverse ESG management efforts with a focus on eco-friendliness. Such efforts were particularly focused on using eco-friendly packing materials. In 2018, the company signed a voluntary agreement to improve the quality/structure of packing materials with the Ministry of Environment and Korean Packaging Recycling Business and has since been improving the effectiveness of packing materials it uses. As of the end of 2021, it has completed improving packing materials for 160, or 89.4% of 179 targeted products.

Dong-A Otsuka, which produces a wide variety of consumer beverages, has adopted the industry's first eco-friendly "Blue Label" as a way to facilitate eco-friendly value consumption among consumers. In addition, it holds a Blue Label Campaign every year informing consumers of recycling disposables, while its adoption of the O-Hot Pack system²⁾ in production has reduced the weight of PET bottles containing its beverage products. Yongma Logis is developing into a "good-will" logistics company, and Dong-A ST is building "Forests of Peace" where Nature and humankind can live in harmony. All affiliates of Dong-A Group are using their capabilities in their respective areas, and gathering the strengths and wisdom of all employees to create new environmental values and further expand their green impact.

¹⁾ Annual gathering of member countries of the 'United Nations Framework Convention on Climate Change (UNFCCC)' held the UN to discuss climate change
²⁾ System producing and injecting PET in one process, unlike the conventional method of purchasing and injecting PET in separate processes. It minimizes exposure of PET to the atmosphere and thereby prevents environmental contaminations.

Dong-A Pharmaceutical

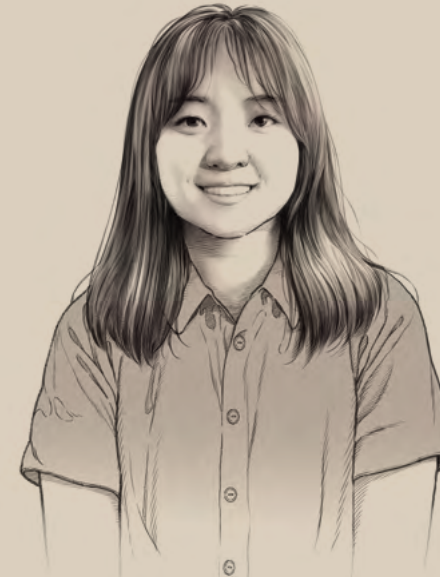
Green transition of online channels

In the non-face-to-face era, with rising online shopping trends, concerns are growing over the environmental impact, which in turn fuels consumer preferences for packing materials that are easy to either recycle or dispose of. In response, Dong-A Pharmaceutical has started packing with paper and paper tapes all products sold through “:Dmall”, a Dong-A Pharmaceuticals products-exclusive online mall. Packaging products only with paper materials not only makes the disposal of the package materials easy but also eliminates the trouble of removing sticky plastic tapes from the packages. Also, the superb absorbability of paper packing materials the company uses reduces the use of the materials, and the paper tapes are ideal for food products as they are free of an offensive smell common among plastic tapes, which generates positive feedback from consumers. On the back of positive responses, the company has expanded the use of eco-friendly packaging materials to items being sold through third-party malls, further contributing to reducing packaging wastes.

I applied because it looked fun. Once chosen, I decided to do my best in collecting the PET bottles. My friends and company colleagues also collected and send them to me... I thoroughly cleaned, dried and put them in the box, then realized that I forgot to remove the labels. I took the bottles out of the box and removed the labels one by one, during which I learned things about the disposal-by-separation system of which I was not aware.

What I received in return for sending the PET bottles were a card pocket made from the PET bottles and a marbling karabiner made from the caps. It was a valuable experience and I am also happy to receive meaningful goods. I will continue to look forward to and root for POCARI SWEAT's eco-friendly activities.

Participant, BLUE UP project
Inyoung Yang

GREEN
CAMPAIGN

Dong-A Otsuka

Upcycling that upgrades eco-friendly trends

Since its 2013 adoption of a separation guideline, called “Blue Label”, to make label removals easy for recycling product containers, Dong-A Otsuka has been conducting the “Blue Label Campaign” to help raise consumer awareness of eco-friendly products and share information on how to recycle PET bottles. “BLUE UP”, a successor to the Blue Label Campaign, was launched in 2021 offering consumers an opportunity to experience resource circulation. Of 7,554 respondents, 900 were randomly chosen and provided with a BLUE UP kit box. For a month, the selected participants correctly separated and disposed of POCARI SWEAT labels, caps, and PET bottles compressed in their respective BLUE UP kit box and then returned their kits using the QR code on the top of the box. A total of 9,480 PET bottles were collected weighing 312 kg, and the collected PET bottles were reborn as picnic cooler bags, card pockets, picnic mats, and others through collaboration with an upcycling¹⁾ brand and returned to the participants.

The BLUE UP Project generated a great deal of interest, attracting social media views nearing 2.38 million. 71% of project participants were of the 2030 generation, of which 44.9% stated their identification with the project's conservation purposes as a main reason for their participation of the project. The participants had a first-hand experience of resource circulation as the POCARI SWEAT PET bottles they collected and disposed of came back as upcycled goods, which has reaffirmed the eco-friendly brand image of POCARI SWEAT among the participants. As the millennials and generation Z make up the core consumer segment of major Dong-A Otsuka products, the company plans to put its marketing focus on the generation's values of placing importance on the environment and social justice and thus expand their tendency to “meaning out”²⁾ through consumption as well as consumer contact points.



¹⁾ A combination of “upgrade” and “recycling”. Rather than simply recycling discarded products, it adds design to create new value and makes the item into a new product.

²⁾ Expressing one's beliefs or values through consumption, etc.



Open communication

Actively reflecting employee opinions through open communication, and building a happy corporate culture where all employees respect one another

To create a great workplace where employees are happy based on the creed, “Health and happiness of a community begins with happiness of its members”, Dong-A Socio Group has been building a distinctive and sustainable cultural identity by embracing the opinions of as many employees as possible. In particular, we are conducting detailed and practical corporate culture projects at the Group level that will expedite the implementation of core values – pursue innovation, lead change, trust others, thrive together. Continuing organizational culture campaigns in 2021, such as the D-Style HERO, Do Don't 1010, Haebahaeba, and Leabahaeba, we sought to expand the realm of our corporate culture and to create a work environment that encourages employees to improve their way of working and to unlock their full potential.

Since July 2021, all affiliates of Dong-A Socio Group have been allowing their employees to decide what to wear depending on TPO (Time, Place, and Occasion), as part of the Group-wide effort to create a flexible and efficient work environment. The adoption of a flexible dress code has generated so big a cheer among employees that employee satisfaction levels reached 90%¹⁾. Our plans for 2022 include encouraging job groups to launch their own vlogs and holding a styling event as a way to accelerate the establishment of a creative and autonomous corporate culture.

In addition, various systems and diverse efforts were applied to improving work efficiencies and facilitating a work-life balance. Dong-A Socio Holdings, Dong-A ST, and Dong-A Pharmaceutical operate PC-OFF and flexible work systems to raise employee engagement and to allow for self-development and after-work leisure. We always explore all avenues of working smarter and better, including metaverse, remote work, collaboration tools and digital technologies that enable physical barrier-free communications.

In 2022, we plan to move forward with structuring happiness management and management of organizational cultural changes, both of which are based on employee participation. To become a company of happy employees by listening and reflecting their opinions, we will build a framework, establish organization diagnosis systems for follow-up measures, timely conduct the pulse survey and thus reflect employee opinions, identify issues, and implement improvement tasks.

¹⁾ 1,043 employees responded from among 1,174 participating employees

“D-Style HERO” recommendation & compliment project

This campaign encourages employees to anonymously nominate and send messages of compliment and cheer to, individuals or teams who they know are changing teams, organizations, the company, and customers for the better by proactively practicing the core values and “D-Style” – today’s action guidelines for tomorrow. Since its 2017 launch, a cumulative total of 19,593 recommendation have been made, and in 2021, nine D-Style HERO persons and one team have been rewarded based on their annual recommendations. In 2021 in particular, we boosted the campaign by linking it with other corporate culture campaigns, such as Do Don’t 1010 and Haebahaeba, and we will continue to build a positive corporate culture by spreading the culture of sharing cheers.



“Leabahaeba”, a leadership project

“Leabahaeba” means that the company changes when its leaders change, and aims at practicing leadership in daily life. Through the Leabahaeba project, Dong-A Socio Group finalized eight unique leadership style through an employee vote and collection of employee opinions based on an organizational diagnosis. In 2021, we distributed posters and leadership mirrors¹⁾ to each group leader, operated the project webpage with increased user accessibility, and implemented diverse leadership missions found in daily life, thus facilitating everyday leadership practice. In 2022, we plan to build a “Leadership One-Cycle” system that is connected to leadership diagnosis and training, and will contribute to enhance leadership capabilities among employees through production of diverse content.

¹⁾ Desk-top mirror to encourage leaders to reflect on their leadership and to practice Dong-A’s leadership and Leabahaeba missions. “Leaders are the mirror of the organization” is printed on the mirror.

“Haebahaeba (MCMC)”, project to change the way of working

Commenced in 2019, “Haebahaeba” means “Meeting Culture Makes a Company (MCMC)” and aims to change the way of working, thereby improving work efficiency and performance. In 2021, we informed employees of the rules of non-face-to-face meetings necessitated by the break-out of COVID-19 and produced eight videos of diverse meeting scenarios, beginning with “Haebahaeba by CEO”, a teaser video of top management’s strong will to improve the meeting culture. Meeting rules that were seemingly hard to understand are now delivered in a fun, friendly way, as it is a production of efforts to improve the meeting culture based on employee opinions. Our 2022 plans for the campaign are to improve the office meeting environment, to conduct a self-diagnosis by executives using the checklist for meetings, and to carry out the pulse survey in hopes of realizing “Dong-A’s meeting culture that results in conclusions”.

“Do Don’t 1010”, a happy corporate culture project

Launched in 2018, “Do Don’t 1010” is a Dong-A employee’s pledge to create a happy company. 10 things to embrace (Do 10) and 10 things to discard (Don’t 10) have been developed and implemented based on employee participation from the very begging of the project, including the Group-wide employee surveys and votes. In 2021, the campaign focused on vacations and leaves, analyzing the Group affiliates’ vacation status and changes, in addition to sharing information on cases of male employees’ parental leaves. Through these efforts, we promoted changes in employees’ perception of work-life balance (WLB) and the establishment of an environment that facilitates a WLB. We will create a healthier, happier workplace in 2022 by producing a campaign song and increasing employee participations.



“:D-nnovation”, an innovation campaign

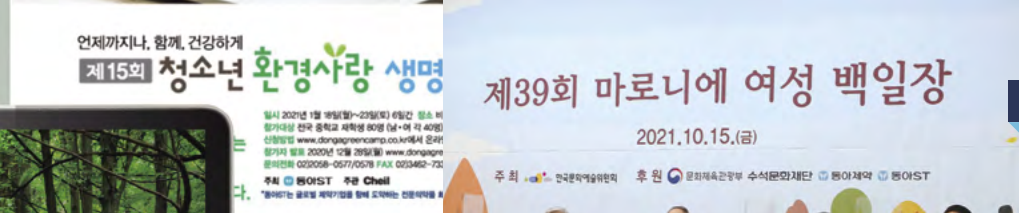
This corporate culture innovation campaign of Dong-A ST started with a question – should the CEO or a specific department solely be responsible for changing and innovating the organization? In 2021, a second year of the campaign, we adopted “:Delete!, :Delight” as a campaign slogan and held a contest to see who has a best idea of eliminating or simplifying unnecessary procedures for the sake of simple, efficient work environment. Thanks to an active participation of junior-level employees, from identifying target procedures to planning detailed remedial measures, the contest was able not only to draw a wide range of realistic ideas but also to enhance the thoroughness of measures to be implemented. As the :D-nnovation campaign continues to expand in scope and in employee participation going forward, we expect it to perform a pivotal role in embedding an innovation DNA in Dong-A ST.



T Together we can

Believing in getting stronger by working together, we realize the value of "together" and thrive together

Dong-A Socio Group has adopted "thrive together", one of its core values, as a corporate social responsibility (CSR) creed, based on which it conducts a wide array of social contribution projects centered mostly on the subject of health, the environment, people and society. Such corporate efforts, bolstered with a voluntary participation of employees, contribute to making healthy and happy lives of all members of society and clean environment for future generations. Amid growing anxieties and uncertainties over continued threats of COVID-19 in 2021, Dong-A further solidified its core CSR values of "continuity, business capabilities, and sincerity", and by bringing together all Group affiliates and their employees based on the GAMASOT spirit of caring for others, sought to realize value of "together".



SOCIAL CONTRIBUTIONS WITH CONTINUITY

Dong-A ST

Class for Youth on Caring for the Environment and Life

Since 2004, Dong-A ST had been conducting a summer camp program helping youths become aware of the preciousness of the environment and life as well as practice their love of the environment. The program has been held online since 2020 due to COVID-19 pandemic, and the 16th Class for Youth on Caring for the Environment and Life that was held in 2021 was attended by 80 middle school students from across the nation during which they learned about what actions should be taken to fight against environmental issues and the climate crisis. The focus of the camp in 2022 will be on ways to promote bio-diversity and protect the environment. In addition, the company launched "WATER STONE", an eco-friendliness app, last December to expand the program onto an online platform. Through the app, we provide content for middle school students interested in ecosystems and develop "Green Leaders"¹⁾ through a quarterly leadership program.

Dong-A Socio Group

Marronnier Women's Composition Contest

Marronnier Women's Composition Contest is Korea's oldest of its kind, which dates back to 1983. Open to all aspiring woman writers, the annual contest promotes creative writing among women, with an eye toward expanding Korea's female literary base. The 2021 contest, hosted by Arts Council Korea and sponsored by the Ministry of Culture, Sports and Tourism, Dong-A ST, Dong-A Pharmaceutical, and Sooseok Cultural Foundation, was held online again in consideration of COVID-19 circumstances. Dong-A will continue to support women writers' movements, and thus enhance the true meaning and value of literature and, at the same time, contribute to the vitalization of women's literature.

¹⁾ Selecting leaders among WATER STONE subscribers who take the lead in environmental protection by creating educational contents, participating in online challenges, etc.

SPREADING HAPPINESS BY LEVERAGING BUSINESS CAPABILITIES

Dong-A Pharmaceutical

SAVE 2 SAVE

“SAVE 2 SAVE” is a new concept CSR campaign that seeks to raise children’s awareness of the symbiosis of man and nature as well as to generate social values by promoting the oral health of future generations and protecting endangered animals.

In February 2021, Dong-A Pharmaceutical introduces a redesigned container for Garglin-For-Kids, a mouthwash, featuring an in-mold label designed to make preparing the containers for recycling easy even by children’s standards. To publicize the importance of protecting endangered animals, we put on the container label such nine endangered animal characters as the Asian black bear and the Eurasian eagle-owl, which are created in collaboration with Sungsil Graphics. In March, we signed the “SAVE 2 SAVE” campaign MOU with Seoul Grand Park and the National Nature Trust on protecting endangered animals and setting aside a part of Garglin proceeds as funds for protecting endangered animals. Accordingly, in October 2021, Dong-A Pharmaceutical donated a portion of Garglin proceeds to the National Nature Trust to be used for endangered animal preservation/protection programs at the Seoul Grand Park.

Dong-A Pharmaceutical carried out various social contribution activities in connection with the SAVE 2 SAVE campaign. For the animals at Seoul Grand Park, many employees volunteered their time, planting trees, building flower gardens, painting old walls and murals, and making animal toys. In December 2021, we created a children’s story about the nine endangered animals depicted on the Garglin labels. The story, available at NAVER’s Audio Clip for easy access, is written by Young Choi, the first-place winner in the children’s literature category at the 38th Marronnier Women’s Composition Contest.

Protecting to protect! Going forward, Dong-A Pharmaceutical will continue to leverage the business knowhow it has gained over the years to protect values worthy of protection, including the health of humanity and the Earth environment.



I am happy and proud to put my talent to help a campaign better protect what needs to be protected at all costs. While writing about the endangered animals of “SAVE 2 SAVE”, I was reminded of how precious the environment is and how serious the climate crisis is.

It gives me a sense of relief to communicate this story to our future generations before it becomes too late. I will continue to root for Dong-A caring for things that really matter!

Writer
Young Choi

Stronger, smarter and happier, together.



Presented by Dong-A Pharmaceutical

The transparent PET bottle features a label that even children can easily detach from the bottle in preparing the bottle for recycling, sending a clear message to children that environmental protection can be fun and easy.



Collaboration with Sungsil Graphics

The Garglin labels were created in collaboration with design studio Sungsil Graphics. Which has been taking the lead in illustrating the plight of endangered animals. The labels raise the importance of protecting endangered animals.



Written by Marronnier Composition Contest Winner

Using her unique perspective as a writer of children’s stories, she weaves each animal’s characteristics into the fabric of the story in such a way that children can easily understand and take a keen interest in the plight of endangered animals.



Dong-A Pharmaceutical & Yongma Logis

Healthy and Safe Journey Together

Dong-A has joined hands with the Korean Pharmaceutical Association to collect pharmaceutical waste from people’s home and safely discard it, thus helping improve citizens’ health and protect the environment. In October 2021, Dong-A Pharmaceutical, Yongma Logis, and the Korean Pharmaceutical Association signed an MOU for “Healthy and Safe Journey Together”, pledging their respective strengths to collecting pharmaceutical waste. Accordingly, Dong-A Pharmaceutical provides collection boxes and relevant supplies in a regular consultation with local governments and pharmaceutical associations and assists a smooth execution of a pharmaceutical waste collection program. Yongma Logis coordinates with local governments and pharmaceutical associations to collect pharmaceutical waste from pharmacies and deliver the waste to local incineration plants. The Korean Pharmaceutical Association encourages pharmacies across the nation to participate in the program through regional pharmaceutical associations and leverages its nation-wide network to ensure that pharmaceutical wastes get collected seamlessly through pharmacies.

Pharmaceuticals, properly administered, help people enjoy healthy lives, but thoughtlessly discarded, can harm the environment. As a healthcare specialist, Dong-A will expand the scope of its role as a companion of health and safety so that pharmaceutical goods can be properly used and safely discarded.



SAVE2SAVE – children's story about endangered animals

Dong-A Otsuka

Sports X ESG

Dong-A Otsuka's contribution to developing the sports industry and generating values that promote public interests led to its receipt of a prestigious award. In November 2021, Dong-A Otsuka received the Korea Sports Promotion Foundation Chairman Award at the "5th K-Sponomics Awards¹⁾", a nationwide recognition that a beverage company also can contribute to enhancing the global competitiveness of Korea's sports industry through ESG activity.

¹⁾ Award program hosted by the Korean Sports Economy, Korea Sport Industry Association, and Korean Alliance for Health, Physical Education, Recreation and Dance, aimed at strengthening the global competitiveness of the Korean sports industry by converging sports and relevant areas. Sponomics is a compound word of sports and economic.



We have been supporting not only top sports teams and athletes and other media-genic subjects but also new sports and not-so-popular sports events such as those organized for youths and the disabled.

I am very happy to see Dong-A Otsuka's years-long efforts get duly recognized. ESG is emerging as an essential factor in the sports industry as well, which is why we will continue to support sustainable development of the sports industry by engaging in more diverse activities.

General Manager, Communication Team, Dong-A Otsuka
JAE HYUN JU

SHARING ACTIVITIES THAT EMBODY SINCERITY



Dong-A ST

Happy Family, Healthy Society 112 Campaign

Dong-A ST and the Korean Pharmaceutical Association joined hands to warn the public of the seriousness of domestic violence and to provide a safety net to people in need of help. Dong-A ST signed an MOU with the Korean Pharmaceutical Association in March 2021 and launched "Happy Family, Healthy Society 112 Campaign" with the goal of creating happy families and a healthy society by promoting an understanding of why and how domestic violence, including child and senior abuses, is a social issue that hurts our societies as well as a crime, and by suggesting preemptive measures.

Reports of child and senior abuses are increasing every year, reaching 41,389 and 16,071²⁾, in 2019 and 2020 respectively. The number of domestic violence reports the Korean National Police Agency received in 2020 reached 222,046²⁾. Considering that these reports were made mostly by victims themselves or acquaintances, it is very likely that many cases went unreported. In helping stem the worsening social problem, Dong-A ST and the Korean Pharmaceutical Association are seeking active involvements from drug stores and pharmacists, as they are in a position to know of such victims in their respective locales better than anyone else. We have distributed campaign information materials to some 23,000 pharmacies and 80,000 pharmacists²⁾ across the nation. Also distributed are paper bags in which the stores sell their drugs, containing a message urging people to call 112 and report a possible domestic violence upon seeing some of the signs detailed on the bag. Through the campaign, we hope to create a social environment that encourages people to report signs of abuse or violence and expect to see pharmacies and pharmacists become a conduit leading to such an environment.

²⁾ Source: Ministry of Health and Welfare, Korean National Police Agency

Dong-A Socio Group

Employee participation and donations

As the COVID-19 persisted in 2021, the economy became paralyzed, and thus resulted in an increase in patients who were unable to receive medical services. In response, Dong-A Socio Group actively helped warm-hearted employees come together and conduct such voluntary activities for cancer patients as easing the financial hardship of the patients' loved ones and comforting the physical and emotional pains of all.

In December 2021, Dong-A Socio Group and Dong-A Pharmaceutical donated KRW 130 million to the Korea Childhood Leukemia Foundation to be used for children with blood cancer. The donation consisted of KRW 100 million raised through employee walk-a-tone "D-Style Walking", and the rest from professional golfers - Sang-hyun Park sponsored by Dong-A Pharmaceutical as well as Jeongwoo Ham and Dongmin Lee sponsored by Dong-A Otsuka. Dong-A Pharmaceutical, a sponsor to the Korea Medical Assistance Foundation since 2020, made a sizable donation to the Korea Childhood Leukemia Foundation in 2021 as in 2018. Dong-A ST also has also been sponsoring the Korea Medical Assistance Foundation since 2014, supplying basic medical supplies to low-income communities and increasing the quality of health care for the needy. In May 2021, it signed an MOU with the foundation on helping low-income cancer patients with medication expenses and provided KRW 200 million.



I have been familiar with the diverse social contributions my sponsor Dong-A Pharmaceutical has made over the years, and as a father of two, I have been waiting for an opportunity to help children having difficulty receiving proper treatments. I hope my best wishes for children with cancer and their families help them stride forward with their dreams and hopes.

Professional Golfer
Sang-hyun Park

Dong-A Socio Holdings & Dong-A Pharmaceutical







One Tempo Warmer

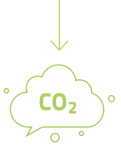





Since mass media drew public attention to low-income-family teenage girls having difficulty buying feminine pads, companies are increasingly helping resolve the issue. But the issue still persists, which, unresolved, will pose a big threat to the preservation of human rights of the youth in the most sensitive of their life phases and will lead to other social issues.

Dong-A Socio Holdings and Dong-A Pharmaceutical have been carrying out a "One Tempo Warmer" campaign with GFOUNDATION, an international development cooperation NGO, since May 2020. Proceeds of "Tempo Natural Pure Cotton Pad" are collected to be used for supplying sanitary pads to needy teenage girls. Since the 2020 launch of the campaign, a total of some 800 teenagers living in isolated regions have received feminine pads. Also, in August 2021, Dong-A Socio Holdings and Dong-A Pharmaceutical signed an MOU with Sangju City in Gyeongsangbuk-do Province and Dongdaemun-Gu of Seoul City, respectively, on providing famine pads, and supplied one year's worth of Tempo Natural Pure Cotton Pad to 150 youths in the former and 122 youths in the latter locales.



Key Figures

PROFIT ¹⁾	1,691.4 KRW billion	706.3 KRW billion	985.0 KRW billion
	 Total assets	 Total liabilities	 Total shareholders' equity
	881.9 KRW billion	61.6 KRW billion	7.0 %
	 Sales	 Operating profit	 Operating profit margin

PLANET ¹⁾	140,236 tCO ₂ eq	3,041 TJ	1,845,892 tons
	 Greenhouse gas emissions	 Energy consumption	 Water consumption
	714,398 tons	68,811 tons	9.8 %
	 Wastewater discharge	 Volume of waste generated	 Waste recycling rate

PEOPLE ¹⁾	5,513 persons	5,239 persons	274 persons
	 No. of employees	 No. of full-time employees	 No. of part-time employees
	1,073 persons	19.5 %	9.0 years
	 No. of female employees	 Percentage of female employees	 Average length of service
	17.2 hours/person	14.4 hours/person	3.2 KRW billion
	 Job training hours per employee ²⁾	 Safety training hours per employee	 CSR expenditures
	43.3 %		
	 Employee participation rate in CSR		

¹⁾ Including Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, STgen Bio, CHAMMED, Dong-A Otsuka, Yongma Logis, Soo Seok, Korea Sinto, DONGCHEONSU, ABEN E&C, DA Information
²⁾ Sum of training hours offered at the Group affiliates and the HR Development Center of the Group

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Group Overview

GROUP MISSION

Continuous Challenge to Pursue Health and Happiness for Humanity

GROUP VISION

To Be a Global Healthcare Player by Establishing Distinctive Competencies in Each Business Area

DONG-A SOCIO HOLDINGS VISION SLOGAN

Group Values Connector

Based on the mission, "Continuous challenge to pursue health and happiness for humanity", Dong-A Socio Group operates business in diverse fields, including pharmaceuticals, medical devices, food & beverage, and logistics. While continually identifying new growth drivers through biopharmaceutical and innovative new drug development, Dong-A Socio Group is pursuing phased business expansion by moving beyond the previous focus on pharmaceutical drugs to include medical services and digital healthcare.

Group Organization & Business Area



Supply Chain Management

Group affiliates in the fields of pharmaceuticals and food & beverage, such as Dong-A ST, Dong-A Pharmaceutical, ST Pharm, STgen Bio, and Dong-A Otsuka, have business partnership with some 950 suppliers for procurement of raw materials, while Yongma Logis and ABEN E&C do their businesses with some 220 suppliers. Going forward, we will classify suppliers into 1st-, 2nd-, and 3rd-tier suppliers based on supplier analysis, and thus advance our supply chain management.

¹⁾ ENT: Ear, Nose and Throat
²⁾ H&B: Health and Beauty
³⁾ SCM: Supply Chain Management
⁴⁾ CTSP: Construction Total Service Provider

Group Affiliates



Dong-A Socio Holdings



Achieved sales of KRW 57.8 billion, operating profit of KRW 31.4 billion

57.8
KRW billion



Received the Platinum Award at the 2021 LACP Spotlight Awards for 2 years in a row

2
consecutive years



Received the overall A Grade in the ESG Evaluation by KCGS

A



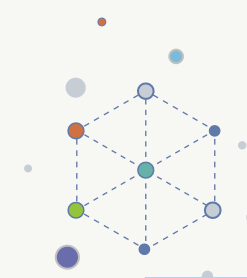
Named "Outstanding Corporation on Governance Report Disclosure for 2021" by the Korea Exchange

Dong-A Socio Holdings is a holding company that establishes the Group's overall vision and strategic goals and its main business is Group affiliate management and business management services. Its major income sources are dividends, brand royalties, income from business management services, and licensing-out income. In 2021, it recorded sales of KRW 57.8 billion, a year-on-year increase of KRW 3.3 billion, and an operating profit of KRW 31.4 billion, an increase of KRW 14 billion (based on separate financial statements). Dividends and service revenue rose over the previous year, including a one-time revenue that was generated with the sale of a biotech research center to Dong-A ST. In terms of income, commissions paid rose from 2020, but the sell-off of the research center led to a decrease in R&D and personnel expenses, resulting in a decline in overall costs.

Dong-A Socio Holdings operates an organization that is dedicated to environmental management to continually manage and improve environmental issues that may arise during the process of management activities and to minimize environmental pollution. In February 2021, it created the ESG Planning HQ to more systematically respond to environmental issues, such as carbon neutrality and resource circulation, at the Group level. In addition, it established and announced a mid- to long-term shareholder return policy to enhance shareholder value, and expanded BOD authority and roles to include social responsibility, internal trading, and the environment. It provides social responsibility management training programs to the BOD to strengthen social responsibility management, and reports the annual social responsibility management status to the board. In May, it promised KRW 1.5 billion to the "ESG Venture Investment Association" that is managed by D3Jubilee Partners, an impact venture capital, and makes investments in venture companies that have their main business objective defined as resolving social issues that are specified in the UN Sustainable Development Goals (SDGs).



Market Outlook & Future Strategy



In a period where the effects of the COVID-19 pandemic continue and preparations are being made for the post-COVID-19 era, there is a need to strengthen corporate resilience to respond to uncertainty. Also, it is important to constantly monitor the sharply-changing management environment and to frequently reflect diagnosis results in management strategies. As a holding company, Dong-A Socio Holdings seeks to innovate internal processes at the Group level, thereby improving corporate fundamentals and overcoming the limitations of current businesses. In addition, we will make continuous efforts to enhance the corporate value of Dong-A Socio Group by building a virtuous cycle in which new growth drivers and investment funds are secured through M&As and equity investments for more active business expansion, and in turn use them to make another investment for new value creation.



Dong-A ST



Achieved sales of KRW 590.1 billion

590.1
KRW billion



R&D investment of KRW 82.3 billion

82.3
KRW billion



Received the overall A Grade in the ESG Evaluation by KCGS

A



Received the Fair Trade Commission Chairperson Commendation for being an "outstanding company of consumer-centered management"

In 2021, Dong-A ST recorded sales of KRW 590.1 billion and an operating profit of KRW 15.5 billion (based on separate financial statements). In domestic ETC business, it achieved year-on-year growth of 7.0% on the back of prominent growth of key items, with such major items as Motilitone, Suganon, and Growthropin's combined sales exceeding KRW 100 billion. In the area of exports, sales slightly declined over the previous year due to sluggish exports of Bacchus to Cambodia as a result of the prolonged COVID-19 pandemic. However, Dong-A ST recorded growth of 12.7% in the diagnostics business, thanks to increased sales of infection management products and generation of equipment sales in relation to automated systems in hospital laboratories. In the area of R&D, the company took over a biotech research center from Dong-A Socio Holdings in early 2021 and relocated it to Songdo, at which point it began to fully focus on the biosimilar business. As a result, it signed a global licensing-out agreement (contract amount of USD 10 million and milestones by phase of USD 95 million) for DMB-3115 (Stelara biosimilar), one of its key pipelines.

Dong-A ST is making continued efforts to build and operate safe, eco-friendly plants. In 2021, the company solidified environmental/safety management systems by receiving ISO 14001 (environmental management system) and ISO 45001 (safety and health management system) recertifications for the Cheonan Campus and Dalseong Campus. It also received ISO 37001 (anti-bribery management system) recertification, and formed a dedicated organization for personal information protection as part of focused efforts to practice systematic social responsibility management. To strengthen BOD independence, it has in place the Audit Committee consist only of outside directors, and operates the Committee for Recommending Candidates for Outside Directors and Evaluation & Compensation Committee under the board. Thanks to such efforts to strengthen social responsibility management, Dong-A ST received an overall A Grade in a 2021 ESG evaluation conducted by Korea Corporate Governance Service and was chosen as an "outstanding company of consumer-centered management".

Market Outlook & Future Strategy



In R&D, Dong-A ST will strengthen its pipeline and expand open innovation with a focus on the therapeutic area in the mid- to long-term future, while also striving to enhance R&D capabilities by building an AI-based R&D platform. It will implement a two-track strategy of expanding its in-house original drug-centered portfolio while developing incrementally modified drugs based on distinctive base technologies. In the area of marketing, the company will fully establish digital marketing, led by "MEDIFLIX", a medical knowledge-sharing platform opened in 2021, and continue efforts to improve cost and quality competitiveness. In line with the opening of the new Songdo Plant in March 2022, the company will carry out the approval process by product. Over the mid- to long-term future, it plans to improve productivity through item rearrangement and line organization at each plant.

Dong-A Pharmaceutical



Achieved sales of KRW 437.4 billion, operating profit of KRW 54 billion

437.4
KRW billion



Bacchus D/F ranked No. 1 in tonic market share¹⁾

74 %

¹⁾ Based on 2021 IQVIA



"MiNiMAX", a health functional food product for children, won the Finalist in the package category of IDEA 2021



Received the Seoul Special City Mayor Award on the 22nd Social Welfare Day

Dong-A Pharmaceutical's main businesses consist of Bacchus, pharmacy-based healthcare, general distribution-based consumer healthcare, and derma, and it provides total healthcare solutions. In 2021, it recorded sales of KRW 437.4 billion, a year-on-year increase of 5.44%, and an operating profit of KRW 54 billion, a rise of 7.9%, on the back of increased sales of key products, including Bacchus, Benachio, and Tempo (based on separate financial statements).

In 2021, with the Social Value Committee performing central roles, Dong-A Pharmaceutical generated ESG value by carrying out diverse activities for local communities. In October 2021, it signed an MOU for "Healthy and Safe Journey Together" with the Korean Pharmaceutical Association and conducted a program to support pharmaceutical waste collection box, thereby contributing to protecting the environment and promoting the health of citizens. In July 2021, the company completed organizational restructuring of the Information Protection Committee to make all corporate management activities consumer-centered and to protect personal information in operating online sales channels, including :Dmall and FATION Mall. It also announced a CEO message on information protection. In July, it announced its safety and health management policy, whose top-priority value is safety and health, and built a relevant management system. In November, it created the Safety and Health Team under direct control of the CEO and is making concentrated efforts for industrial and citizen disaster prevention.

Dong-A Pharmaceutical's ESG management activities are receiving recognition and earning excellent grades at various awards. The eco-friendly 3R (Reduce, Reuse, Recycle) concept package of MiNiMAX made the achievement of receiving all of the world's top three design awards – the iF, Red Dot Design, and IDEA. In addition, it received the Seoul Special City Mayor Award on the 22nd Social Welfare Day in September 2021, in recognition of such CSR activities as the Sharing Bazaar and contributing to increased welfare of Dongdaemun-gu, where its headquarters is located. In January 2022, the Icheon/Cheonan Plants all received ISO 14001 and ISO 45001 certifications, thus proving that their environmental, safety, and health management systems reach global level. Dong-A Pharmaceutical plans to receive the certifications for its new Dangjin Plant in 2022.

Market Outlook & Future Strategy



In 2022, Dong-A Pharmaceutical will strive to enhance competitiveness and maintain growth momentum. To this end, it will focus on increasing brand value and profitability; strengthening development and marketing of OTC products; reinforcing marketing channels of the derma brand and developing a global sales network, and completing the construction of the Dangjin Plant and rearranging plants. Its focus starting from 2023 include B2B open innovation-based R&D expansion, strengthening of the Bacchus brand and new business expansion, and enhancement of online platform sales/marketing efficiency. It will also generate outcomes with substance by enhancing its competitive edge by securing distinctive production technologies and carrying out the custody business, and actively respond to market changes and consumer needs to achieve healthy growth of the company and a wider society.





ST Pharm



Achieved sales of KRW 139.1 billion, turned into a profit



Developed an mRNA-based COVID-19 vaccine, commenced a clinical process



Received the overall A Grade in the ESG Evaluation by KCGS



Received the Presidential Award at the "2021 Labor-Management Culture Awards" organized by the Ministry of Employment and Labor

139.1
KRW billion

mRNA

A

ST Pharm is moving forward with talent/technology/management innovation based on its new vision statement, "the innovative company saving lives". In 2021, ST Pharm achieved performance growth across all business areas, including small molecule drugs, generics as well as CRO and other business areas, reaching sales of KRW 139.1 billion, a year-on-year increase of KRW 30.1 billion, and an operating profit of KRW 4.5 billion, a rise of KRW 17.6 billion, thus successfully turning into a profit (based on separate financial statements).

ST Pharm is implementing a distinctive new drug development strategy called "Open Innovation Virtual R&D". Based on K-mRNA Consortium in 2021, it developed an mRNA based COVID-19 vaccine and submitted a phase I clinical trial investigational new drug (IND) application for candidate "STP2104" and commenced the clinical trial. ST Pharm has also invested in total KRW 56.2 billion for the expansion of oligonucleotide manufacturing plant, which is a preparation made for commercial scale production in 2022. ST Pharm expanded mRNA-dedicated GMP production facilities in Banwol Campus and completed pilot production in May 2021, and is looking into capacity expansion to large scale that produces an annual 35 million to 100 million doses.

ST Pharm considers the local economy development and hence it plans to secure jobs by minimizing the employment of non-regular workers, switching non-regular positions to regular positions, and hiring local talent. As a result of making efforts to create a win-win workplace based on labor-management relations of trust and harmony, ST Pharm has received the Presidential Award from "2021 Labor-Management Culture Awards".



STgen Bio



Achieved sales of KRW 40.3 billion, a YoY increase of 153%



Local talent accounted for 57% of newly hired employees in 2021



Chosen as the "2021 Family-Friendly Certified Company" by the Ministry of Gender Equality and Family

40.3
KRW billion

57%

STgen Bio (formerly known as DM Bio before March 1, 2022) is primarily engaged in the CMO service, ranging from pre-clinical study, clinical trial, to commercial production of antibodies and recombinant proteins, as its main business. As a Group affiliate in charge of manufacturing and sales of biopharmaceuticals, it built production facilities that satisfy global GMP standards, supplying high quality pharmaceuticals to actively respond to increasing demands for outsourcing and high quality drugs in the global biopharmaceutical market. In 2021, STgen Bio achieved sales of KRW 40.3 billion, a year-on-year increase of 153%, on the back of expansion of the global biosimilar market (based on separate financial statements).

As part of efforts to realize gender equality and create value together with the local community, STgen Bio continues to create many quality jobs for women and local talent. As of the end of 2021, female employees account for around 35% of total employees, and local talent recruitment accounts for 57% of newly hired employees. The company provides tuition and medical expenses support through its Employee Welfare Fund, and has expanded the scope of work group insurance coverage to include employee spouses as part of full-fledged efforts to improve employee welfare. As a result of these efforts, STgen Bio earned a new family-friendly company certification in 2021 with the highest score in the large company category. It operates a wide array of programs to promote harmony between work and family life and to improve the quality of life of employees and their families, thus building a company where all employees are happy.



Market Outlook & Future Strategy



In November 2021, ST Pharm decided to construct the second oligonucleotide building and additional manufacturing facilities in scale of KRW 150 billion, in order to preemptively respond to an increase in supply of oligonucleotides as a result of commercialization of projects and receipt of new orders. Based on this capacity expansion, ST Pharm will secure additional chronic disease project that requires a large amount of API supply and will thus grow into the world's No. 1 contract development and manufacturing organization (CDMO) of oligonucleotide-based therapeutics. In addition, in its new business area of mRNA CDMO, ST Pharm is enhancing CDMO competitiveness by internally developing key platform technologies, including 5' capping, LNP and microfluidics. It plans to develop various mRNA-based vaccines and therapeutics through Levatio and Vernagen, ST Pharm's subsidiary companies based in US.

Market Outlook & Future Strategy



The supply of pharmaceuticals is gaining greater importance due to COVID-19, amid which the quantity entrusted and commissioned to CMO companies is on the rise. According to Evaluate Pharma, a pharmaceutical market research institution, the global bio CMO market is forecasted to grow from USD 11.9 billion in 2019 to USD 25.3 billion by 2025, indicating annual average growth of 13.4%. Against this backdrop, STgen Bio will receive new drug application approval in global markets, including the US and Europe, based on cGMP-level quality and manufacturing management capabilities. It aims to grow into a global biopharmaceutical manufacturing company that supplies quality biopharmaceuticals, thereby developing into a CDMO global player in its truest meaning.

CHAMMED



Achieved sales of KRW 9.53 billion



Sales rose 30% YoY in CIS countries (Kazakhstan, Uzbekistan)



New imaging equipment entered the Indian market



Adopted eco-friendly product packaging materials, including cornstarch buffers, biodegradable vinyl, and cloth

9.53
KRW billion

30 %

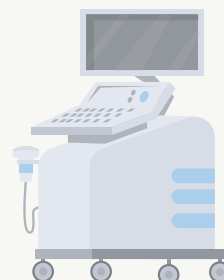
In 2021, CHAMMED recorded sales of KRW 9.53 billion, a year-on-year increase of 1.9% (based on separate financial statements). This is mainly attributable to a steady recovery, starting in the second half of 2021, in purchases made by overseas hospitals which had been sluggish due to COVID-19, resulting in sales of KRW 5.06 billion, a year-on-year increase of 7.2%. In the domestic market, sales decreased by 4% from 2021 to record KRW 4.47 billion, mainly due to a downswing in the opening of new ear-nose-throat (ENT), internal medicine, and pediatric hospitals and difficulties in recovery. In 2021, CHAMMED commenced sales of FX-V1 and CLS-S7 (developed in 2020), which are premium imaging equipment set for surgery and diagnosis, offering a greater level of sharpness and brightness. In 2022, it expects to recover sales as it develops new imaging equipment, makes direct/indirect market entries, and ushers in the post-COVID-19 era.

Electric medical equipment exported to Europe should not include in the overall product package ten major hazardous substances, including lead, more than what is regulated, in accordance with Restriction of the use of certain Hazardous Substances (RoHS) II. In response, CHAMMED documented relevant regulation compliance procedures in 2020. In 2021, the company conducted a hazardous substance inclusion analysis test on initial items to revise and change raw materials that contained hazardous substances. For these items, it created a technical file that complies with RoHS II guidelines and issued a declaration of conformity (DOC) at the end of the year. The company's plan for 2022 is to add RoHS certification for one or more additional items and consecutively apply to all medical equipment that is exported to Europe. In the long term, application will be expanded to include all medical equipment that is produced by CHAMMED.

To help resolving the plastic waste issue that is emerging as a global issue, CHAMMED adopted in 2021 eco-friendly cornstarch buffers, biodegradable vinyl, and cloth packaging materials that can be reused. This is expected to lead to the effect of replacing around 500 rolls of packaging waste bubble wraps every year.



Market Outlook & Future Strategy



International medical equipment certification regulations are becoming stricter, changing from the Medical Device Directive (MDD) to Medical Device Regulation (MDR). Accordingly, a shift to MDR certification needs to be completed by the first quarter of 2024. CHAMMED has been changing its quality management system since the fourth quarter of 2021 to meet MDR and will complete this change by the first half of 2022, after which it will change the technical document of one or more items and apply for certification in 2022. In addition, in response to the global medical equipment Regulatory Affairs (RA), it will secure manufactory qualifications that meet the standards and expand the surgery imaging line. In Korea, it expects a sales increase in the ENT market with the launch of Stroboscope¹⁾, and Flexible videoscope for ENT use. It will develop image quality and carry out sales that target other departments.

¹⁾ A device that observes an object that is rapidly rotating (or vibrating) as if it were in a standstill position by periodically irradiating blinking light

Dong-A Otsuka



Achieved an operating profit of KRW 9.29 billion, turned into a profit



Sales of zero-calorie Narangd Cider grew 90.8% YoY



Created the Safety Management Headquarters, established safety and health management policies



Produced Oran-C bio PET

9.29
KRW billion

90.8 %

In 2021, Dong-A Otsuka recorded sales of KRW 293.9 billion, a year-on-year increase of 9.3%, and an operating profit of KRW 9.29 billion, an increase of KRW 10.55 billion, an outcome of increased sales of major products, including POCARI SWEAT, Narangd Cider, and Oronamin C (based on separate financial statements). As a result of implementing a strategy of expanding channels through live commerce sales and online special agents amid sharp online market growth, Dong-A Otsuka's online channel sales grew 20%. Narangd Cider sales rose 90.8% over the year to record KRW 28.4 billion and contributed to performance improvements, enabled by marketing activities and new seller expansion in response to growth of the zero-calorie carbonated drink market.

Dong-A Otsuka makes continuous efforts to improve sugar content in its product groups to take part in the sugar reduction policy implemented by the Ministry of Food and Drug Safety to contribute to the prevention of such illnesses as obesity and diabetes and to promote a healthy dietary life of citizens. The company made 20% sugar reduction in Demi Soda in 2017, followed by 30% sugar reduction in Oran-C in 2020, thus reducing sugar use of around 500 tons¹⁾ each year.

To take part in the fight against climate change, Dong-A Otsuka launched the Oran-C bio PET that results from 30% application of a raw material extracted from sugar cane in 2021, becoming the first to do so in the domestic flavored carbonated drink market. Bio PETs reduce CO₂ emissions by 20% compared to previous production processes and can be 100% recycled and reused. In addition, the company adopted 21 eco-friendly vehicles for work, and plans to steadily increase the number to 60 by 2022. In an effort to establish a safe, healthy workplace, it created the Safety Management Headquarters in 2021 and increased the scope to partner companies to strengthen safety management, In January 2022, it established safety and health management policies.



¹⁾ When converted to sugar

Market Outlook & Future Strategy



The zero-calorie carbonated drink market is substantially growing amid recent trend changes, including home training and diet. This trend is forecast to continue in the mid- to long-term future. Dong-A Otsuka accordingly plans to expand its zero-calorie carbonated drink line-up, with a focus on Narangd Cider, and is making preparations to launch new health/functional drinks in line with the needs of the market, where importance is placed on health and immunity. In addition, the company will increase restaurant business market sales in response to growth of the delivery market and secure leadership in the online market to create growth drivers. It will continually maintain the market share of POCARI SWEAT and expand such strategic items as Narangd Cider and Oronamin C to achieve sales of KRW 400 billion and an operating profit of KRW 32 billion by 2026.

Yongma Logis



Achieved sales of
KRW 304.9 billion



Pursuing green logistics to
realize sustainable
low-carbon green growth



Signed an MOU on
pharmaceutical waste collection
with Mungyeong City, Dangjin
City, and Korean Pharmaceutical
Association in 2021

304.9
KRW billion

Despite difficult internal and external conditions, including the COVID-19 crisis and aggressive efforts made by competitors, Yongma Logis is solidifying its leadership position in the logistics market that specializes in pharmaceuticals, medical devices, and cosmetics. In 2021, it recorded sales of around KRW 304.9 billion, a year-on-year increase of 10.5%, and an operating profit of KRW 12.8 billion (based on separate financial statements). This is mainly attributable to receipt of orders from large shippers and improvement to the rate of cost to sales by increasing operational efficiency in the area of pharmaceuticals, medical devices, and cosmetics in the existing business of TPL¹⁾, while expanding the scope of sales by continually facilitating the Maintenance, Repair & Operation (MRO), quarantine service, and military logistics business, which are new businesses.

Yongma Logis is pursuing green logistics to realize sustainable low-carbon green growth, and to this end, it established a company-wide carbon emissions information system in 2009 and is managing total emissions, and is striving to reduce logistics costs and carbon emissions through efficient transport vehicle allocation. Since 2017, Yongma Logis has been collecting pharmaceutical wastes by signing an MOU on pharmaceutical waste collection with local governments. In 2021, it additionally signed an MOU on pharmaceutical waste collection with Mungyeong City, Dangjin City, and the Korean Pharmaceutical Association. By appropriately collecting and incinerating pharmaceuticals that remain after administration in homes, Yongma Logis is contributing to the prevention of environmental issues that are caused by pharmaceutical wastes and protection of local residents' health.

To practice transparent management, Yongma Logis operates the Cyber Audit Division that is connected with Dong-A Socio Holdings' Audit Team on its website, and receives reports on unfair work-handling, unreasonable demands and corruption using one's post, sexual harassment and conduct that causes disorder at the workplace, and other unethical conduct. The company strictly protects the confidentiality of the whistleblower's identity and the report content, and does not engage in any disadvantageous action against the whistleblower in this regard.

¹⁾ Third Party Logistics. Logistics of producers and sellers that professionally handled through a third party

Market Outlook & Future Strategy

The logistics industry is quickly expanding into new areas based on cutting-edge technologies, such as AI and unmanned robots, and is expected to continually grow on the back of growth of the online market and distribution companies' entry into the delivery business. The importance of a pharmaceutical cold-chain system emerged as a result of the issue of shipping COVID-19 vaccines in 2021. Also, variability is increasing due to strengthening of relevant regulations, such as the Act on the Penalty of Fatal Accident Companies and Consumer Logistics Service Industry Development Act. In addition to strengthening the fundamentals of its existing businesses, Yongma Logis will enter new business areas, such as making strategic investments in bio logistics, startup, and logistics facility companies to secure a market share in the domestic special biopharmaceutical delivery market, and develop into a cold chain leader in the area of pharmaceutical logistics.



Soo Seok



Achieved sales of
KRW 112.8 billion



Recorded sales of
409 million Bacchus D/F
bottles



Recorded sales of
82 million Panpyrin
bottles



Renewed the FSSC 22000
international food safety
management system
certification

112.8
KRW billion

409
million

82
million

In 2021, Soo Seok's sales decreased by KRW 1.7 billion year-on-year to KRW 112.8 billion (based on separate financial statements). However, there is an increase in one-person households and a continued rise in various small packaging and parcel delivery service transactions, as well as an expansion of the beverage market as a result of average temperature increases in the summer, all of which are expected to have favorable influence on Soo Seok.

Soo Seok is focused on managing and improving environmental impact that may arise in the manufacturing and management process, while minimizing environmental pollution and responding to climate change. Based on "CleanSYS", a remote smokestack monitoring system that the Ministry of Environment and Korea Environment Corporation have been operating since 2003, Soo Seok transmits data in real time every 30 minutes and manages the data. Its glass cullet recycling campaign is based on voluntary participation by employees and contributes to environmental protection while resulting in cost reduction effects. In 2021, 5.2 tons of recycled glass cullet were collected with participation by a total 244 employees.

The company has been implementing a volunteer hour completion system since February 2021, and thus 87.1% of all employees took part in local community development and social contribution activities through the volunteer hour completion system as of December. In January 2021, Soo Seok signed an MOU with the Movement Headquarters for Helping Children with Incurable Disease and provided necessary supplies, in addition to making a visit to carry out volunteer activities. To help overcome shortage in blood supply as a result of the prolonged COVID-19, Soo Seok regularly held the Blood Sharing Event. In December, it donated to Seoul National University Hospital 183 blood donor cards that were collected through employee efforts to help the low-income class and underprivileged who require blood donations.

Market Outlook & Future Strategy

In 2022, Soo Seok will focus its capabilities on strengthening fundamentals through a business overhaul, and achieve operational efficiency through cost structure improvements in response to a rise in raw material prices. The Glass Unit is undergoing consulting for product productivity improvements, and plans to enhance production yield through efficient data management. Also, preparations are being made to adopt an eco-friendly oxygen melting furnace at Dangjin Plant, which is planned for relocation in 2023. The PET Unit seeks to increase productivity through process rearrangement and strengthening of personnel competitiveness, and is working on making products lightweight. The ColorPack Unit will be relocated and integrated into the Dangjin Plant to achieve cost and logistics cost reductions based on production process improvements. By providing immediate feedback to customers, it will improve customer satisfaction and management efficiency.





Korea Sinto



Achieved sales of KRW 27.4 billion, a YoY increase of 34%

27.4
KRW billion



Achieved an operating profit of KRW 300 million, turned into a profit

300
million



Greenhouse gas emissions stood at 6,711 tCO₂e^q

Despite a year-on-year increase of 4.0% in the growth rate of the Korean economy in 2021, the heavy industry, which is an industry related to Korea Sinto, was sluggish owing to a sharp rise in raw material prices due to a global supply chain issue and a drop in production due to a logistics crisis. The prolonged difficulty in semiconductor supply resulted in a drop in automobile production to the lowest level in 17 years, recording only 3.46 million units. As a result, business conditions of automotive parts companies also deteriorated. In the shipbuilding industry, order receipt performance improved as a result of increased orders placed for eco-friendly ships but difficult conditions were created by low-price order placements and surging raw material prices. On the other hand, the steel industry saw an improvement in business performance, an outcome of an increase in the unit sales price and production.

Under these conditions, Korea Sinto achieved sales of KRW 27.4 billion, an increase of around 34% over the previous year, and turned into a profit by recording an operating profit of KRW 300 million in 2021 (based on separate financial statements). In the machine business, the casting and surface treatment area did not reach its target owing to a downswing in investments from business uncertainty, but the maintenance business recorded a performance that is close to the target. The abrasive business surpassed both the sales volume and sales target thanks to an increase in the unit sales price and cost reduction efforts, despite higher raw material prices.

The root industry, which is the foundation of a nation's manufacturing industry, is experiencing difficulties due to the economic downturn and shift to the Fourth Industry. To enhance customer competitiveness, Korea Sinto explored ways to make cost and quality improvements by automating facilities, including self-hardening equipment and automatic molding system, and also suggested impeller improvements and adoption of high-performance SKD-11 parts. It also suggested air pollution-preventing dust collectors and small dust collectors for processes to customers who were giving deep thought to preventing environmental pollution and achieving net zero. It supplied a device to enhance dust collector efficiency, such as second filter and protective wall installation, thus helping customers establish measures to prevent environmental pollution.

Market Outlook & Future Strategy



Automotive parts companies are expected to encounter management difficulties due to continued shortage of semiconductor supply. On the other hand, the steel industry is expecting to make new facility investments, while the shipbuilding industry will likely see performance improvements and increased rates of operation at around the end of the year. In 2022, Korea Sinto's foundry equipment business will continue to supply automatic molding systems and sell self-hardening equipment, while the shot blast machine business will increase sales of wire surface treatment machines and customized machines to steel companies and make a connection to parts sales to forging/casting companies. The maintenance business will continually suggest environmental pollution prevention and work environment improvements to customers. The abrasive business will manage key customers, increase large company bidding and overseas exports, and conduct marketing for new products, including force sensors, WIZNEX¹⁾, and casting surface inspection machines, to build a stable sales structure.

¹⁾ Smart plant system that Korea Sinto is working on. WIZNEX is a compound word of wise and next.

DONGCHEONSU



Achieved sales of KRW 32.2 billion, a YoY increase of 20.6%

32.2
KRW billion



Achieved an operating profit of KRW 2.2 billion, a YoY increase of 28.9%

28.9 %



Voluntary reduction of electric power demand led to annual saving of 3,063 kWh in electric power use



Launched a "Gayasan Cheonnyeonsu" label-free product

In 2021, DONGCHEONSU recorded sales of KRW 32.2 billion, a year-on-year increase of 20.6%, and an operating profit of KRW 2.2 billion, an increase of 28.9%, on the back of the launch of a label-free product of "Gayasan Cheonnyeonsu", its mineral water brand, as well as increased online sales and the launch of a flavored carbonated water product, resulting in increased product sales (based on separate financial statements).

In August 2021, DONGCHEONSU signed an MOU on a KRW 40 billion investment with Sangju City in North Gyeongsang Province on building a carbonated-mixed beverage manufacturing plant by June 2023. By building the new Sangju Plant, DONGCHEONSU seeks to diversify its business to include the area of carbonated water and carbonated/mixed beverage, where demand is expected to increase, and to use its know-how and synergy effects with existing businesses to fully establish itself as an innovative company in the field of beverage manufacturing.

DONGCHEONSU made its carbonated water product label lightweight and earned an outstanding recycling grade from the Ministry of Environment in March 2021. In July, along with the launch of a "Gayasan Cheonnyeonsu" label-free product, the company signed an MOU with South Gyeongsang Province on increasing production of label-free mineral water bottles. Lightweight product labels and the label-free product are leading to the effect of reducing around 60 tons of plastic wastes a year. It plans to increase label-free products. As part of energy-saving activities, the Songnisan Plant is reducing electric power use by around 3,063 kWh a year through voluntary reduction of electric power demand. The Hapcheon Plant adopted a ceramic reflector that serves to preserve heat in its production line heater lamp oven in 2021 to result in an annual 17-30% energy use reduction effects.



Market Outlook & Future Strategy



Amid growth of the mineral water and carbonated water market, online-centered price competition is becoming fierce. To enhance cost competitiveness and secure a water source in the mid- to long-term future, DONGCHEONSU plans to acquire approval for spring water development in the industrial complex in Heonsin-dong, Sangju City, North Gyeongsang Province and build a plant by 2023. Aiming for operation in the first quarter of 2023, the Sangju Plant, which is currently under construction, will expand carbonated water and beverage OEM and enter the flavored mineral water market to build a foundation for continued growth and increase added value. Label-free products are garnering attention amid higher awareness of environmental protection and an increasing number of "greensumers" who pursue eco-friendly value consumption. With "Gayasan Cheonnyeonsu" taking the lead, DONGCHEONSU will expand label-free products and lead the "green survival" trend.

ABEN Engineering & Construction



Achieved sales of KRW 81.3 billion, a YoY increase of 70%



Expanded application of eco-friendly construction design and methods



Participated in the "D-Style Walking" campaign for healthy walking donation

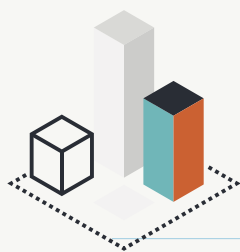
81.3
KRW billion

ABEN Engineering & Construction (ABEN E&C) is a healthcare-specializing comprehensive construction company that has successfully conducted projects related to state-of-the-art industrial facilities, including bio, pharmaceutical (GMP), food (HACCP), and cutting-edge logistics warehouses (GSP). In addition to covering diverse construction areas, including cutting-edge knowledge industry centers, education/research facilities, work/sales facilities, and public facilities, the company offers a wide array of services, including design, maintenance, and asset development, in addition to construction/civil engineering, to generate distinctive spatial value.

In 2021, ABEN E&C operated a sales TFT and established a foundation to increase the percentage of external projects. In addition, it established asset development plans for the Group affiliates and handled construction of Dong-A Pharmaceutical's Dangjin Plant and Dong-A ST's OSD Plant, thus expanding its business. As a result, in 2021 ABEN E&C recorded sales of KRW 81.3 billion, a year-on-year increase of 70%, and an operating profit of KRW 4.54 billion, an increase of KRW 3.3 billion, a record-high performance (based on separate financial statements).

ABEN E&C is striving to be environmentally friendly across all areas, ranging from design to construction. It applies eco-friendly construction methods and materials during design, and constructs buildings in an eco-friendly way in the construction phase, such as by increasing the photovoltaic panel area, installing eco-friendly materials and furniture to minimize hazardous substance emissions, and using recycled concrete for asphalt pavement. In addition, it is striving to expand eco-friendly construction in diverse areas, such as sorting construction wastes for disposal and adopting tire washers and high-pressure sprinklers to minimize city center dust generation.

Market Outlook & Future Strategy



The construction industry is recently undergoing considerable changes, including the emergence of such cutting-edge logistics warehouse systems as cold chain, as IT is integrated into the industry amid the Fourth Industrial Revolution. Based on its GMP, GSP, and HACCP experience at many plants and automated warehouses, ABEN E&C will actively advance into these fields and achieve new growth based on accumulated technologies. The new construction projects that will be executed in 2022 include ST Pharm's Innovation Center and Soo Seok's Dangjin Glass Plant. Also planned is DONGCHEONSU Sangju Plant's construction, maintenance, and interior project. To receive additional orders for projects, ABEN E&C will create a relevant sales organization and systematically run the organization to achieve sales of KRW 64.0 billion and an operating profit of KRW 1.23 billion.

DA Information



Achieved sales of KRW 14.7 billion



Received the Grand Prize in the construction category at the "i-AWARD 2021 WEB AWARD KOREA Finalist"¹⁾ for the ABEN E&C website



Received "Family-Friendly Company" certification from the Ministry of Gender Equality and Family

14.7
KRW billion

DA Information is in charge of development and maintenance of the IT systems of all the Dong-A Socio Group affiliates, and handling GMP system expansion and infrastructure advancements within the Group. Thanks to the efforts made by DA Information, the IT failures of the Group affiliates have been suppressed by more than 90% during the last four years. Furthermore, the company have been working on increasing the efficiency of IT and automating simple and repetitive works by adopting RPA²⁾, resulting in raising the degree of the work efficiency. In addition to those performances, DA Information is making diverse efforts to discover the projects coming from outside of the group affiliate projects, with a focus on Managed Service Provider (MSP) and Computer System Validation (CSV). As the outcomes, we could acquire the new customers, such as WON AND ONE, Hanwha Life and BIONOTE in the year of 2021 in addition to our existing customers of KT, the National Institute of Ecology and HK inno.N. As the results of the aforementioned business expansion and advancement, DA Information achieved the revenue of KRW 14.7 billion in 2021 with an increase of 15.7% from the former year of 2020, and an operating profit of KRW 290 million with an increase of 90 million compared to the year of 2020 according to the separate financial statements.

DA Information is continuously contributing to the social activities through IT. It developed a health management application for Prader-Willi Syndrome patients in 2016, and created the "Share Me" application in 2017 which allows the user to check tuberculosis examination results in real time and donated it to the Korean National Tuberculosis Association. Moreover, it developed "ZARADA", a mobile administration management application for the children prescribed with Growthropin, a human growth hormone, in 2019. The company commenced development of a non-face-to-face meeting solution which is particularly suitable for COVID-19 pandemic circumstances in 2020. It provided the solution to the Group affiliates free of charge in 2021 and the solution is being widely used for meetings and new employee interviews.

¹⁾ Hosted by the Korea Internet Professional Association and organized by the i-AWARD Committee. An evaluation committee consisting of Internet experts in Korea and members conduct evaluations to choose the best Internet services, including website and social media.

²⁾ Robotic Process Automation: Process automation using software robots

Market Outlook & Future Strategy



DA Information aims to strengthen its internal capabilities, faithfully perform IT operation and support the duties within the Group in agile response to the rapid changes in the IT environment in the post-COVID-19 era and the Fourth Industrial Revolution. In addition, it will utilize the internal capabilities accumulated by the former process of building and supporting ERP and the next-generation IT services within the Group, to expand external IT projects and secure the superior positions in GMP-IT and CSV areas in order to achieve expansion of its business areas and building a foundation for independent growth. Furthermore, DA Information will secure the key driver of solution-centered growth to enter the solution market by 2025.



SUSTAINABILITY PERFORMANCE



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OUR SYSTEM

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OUR VALUE

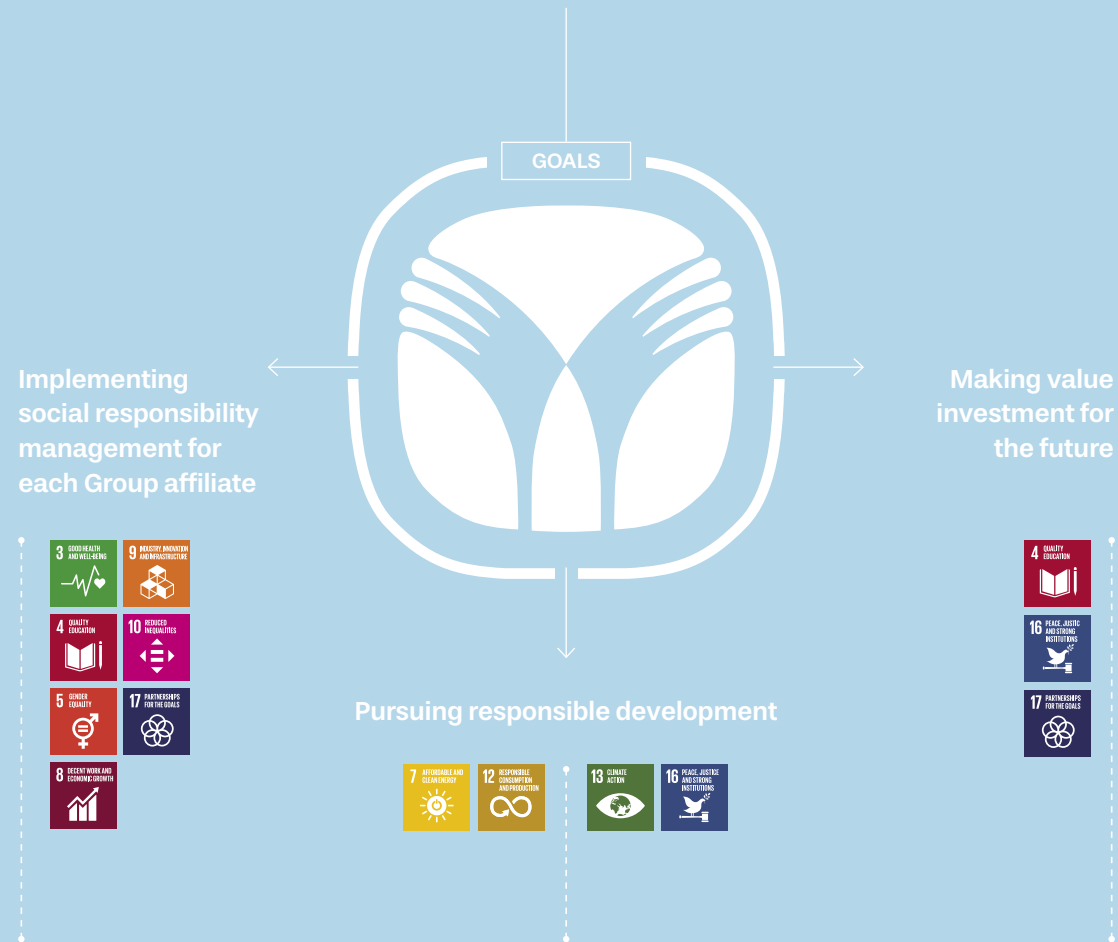
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Social Responsibility Management Strategy System

MISSION

Continuous challenge to pursue health and happiness for humanity

GOALS



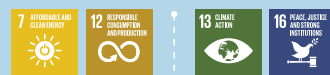
Implementing social responsibility management for each Group affiliate



Making value investment for the future



Pursuing responsible development



Establishment of social responsibility management governance

Operate governance at the affiliate level to implement social responsibility management

Social responsibilities and integrated corporate culture

Improve the organizational culture and hold training to enhance execution capability in social responsibility management

Transparent and ethical business

Implement anti-bribery management based on officially-recognized principles and standards

Management of ESG risks and opportunities

Actively respond to stakeholder requirements by recognizing the flow of the global society and analyzing ESG risks

Exploration of ways to realize social value

Develop and continually implement CSV activities

Establishment of creative and inclusive culture

Strengthen stakeholder communication and nurture leaders by strengthening employee competencies based on the spirit of respecting human rights

CORE STRATEGIES

OUR APPROACH

Social Responsibility Management

With the holding company, Dong-A Socio Holdings, performing central roles, Dong-A Socio Group practices social responsibility management, in which all Group affiliates demonstrate their professional capabilities in the right way, fulfill their responsibilities as corporate citizens, and show respect for life, humans, and the environment.

In addition, with central roles performed by the Dong-A socio group Social responsibility Council (DSC), we explored ways to further develop social responsibility management, while adopting social responsibility management at unlisted Group affiliates and building a win-win supply chain through supplier management.

Our plan for 2022 is to conduct an ISO 26000 diagnosis, a criterion for social responsibility management, to choose mid- to long-term core tasks in consideration of each Group affiliate's characteristics and identify the status of social responsibility management. We will also manage external ESG evaluation grades and continue the Group's mission – Continuous challenge to pursue health and happiness for humanity.

Social Responsibility Management Implementation System

Social Responsibility Management Strategy

Based on the founding principles of integrity, sincerity, and consideration, Dong-A Socio Group has set the promotion of social justice, rather than simply pursuing the generation of profit, as the corporate goal and continues to expand social responsibility management activities for the happiness of members of the company and society. Based on the mission, "Continuous challenge to pursue health and happiness for humanity", we established three goals – implementing the Group's social responsibility management, pursuing responsible development, and making value investment for the future – as key strategies of social responsibility management and are striving to achieve the goals.

In 2021, we established a system to quickly respond to internal and external issues, such as carbon neutrality and workplace safety management with the enforcement of the Act on the Penalty of Fatal Accidents, by creating relevant departments and changing organizations within the Group.

Social Responsibility Management Governance

DSC Dong-A Socio Group launched DSC, consisting of the CEOs of 13 Group affiliates, in March 2020 to implement more systematic social responsibility management. Along with the launch of the Social Value Committee of Dong-A ST and Dong-A Pharmaceutical, we established governance at seven Group affiliates (CHAMMED, Dong-A Otsuka, Yongma Logis, Soo Seok, DONGCHEONSU, ABEN E&C, DA Information).

A regular DSC meeting is held semiannually and examines social responsibility activity strategies and goals, execution outcomes, and major ESG status and response. Dong-A Socio Holdings' Jeong-Do (Fair) Management Team is the DSC Secretariat, and performs roles that support smooth DSC operation, such as identifying domestic and overseas trends, sharing information on the Group's social responsibility management activities and outcomes, and promoting Group affiliate communication.

DSC Organization



Materiality Analysis

Materiality analysis is a process of identifying social responsibility management issues that impact the company and stakeholders. Dong-A Socio Holdings carries out a materiality analysis every year based on results of assessing stakeholders' level of interest and business importance to derive material issues for execution of social responsibility management.

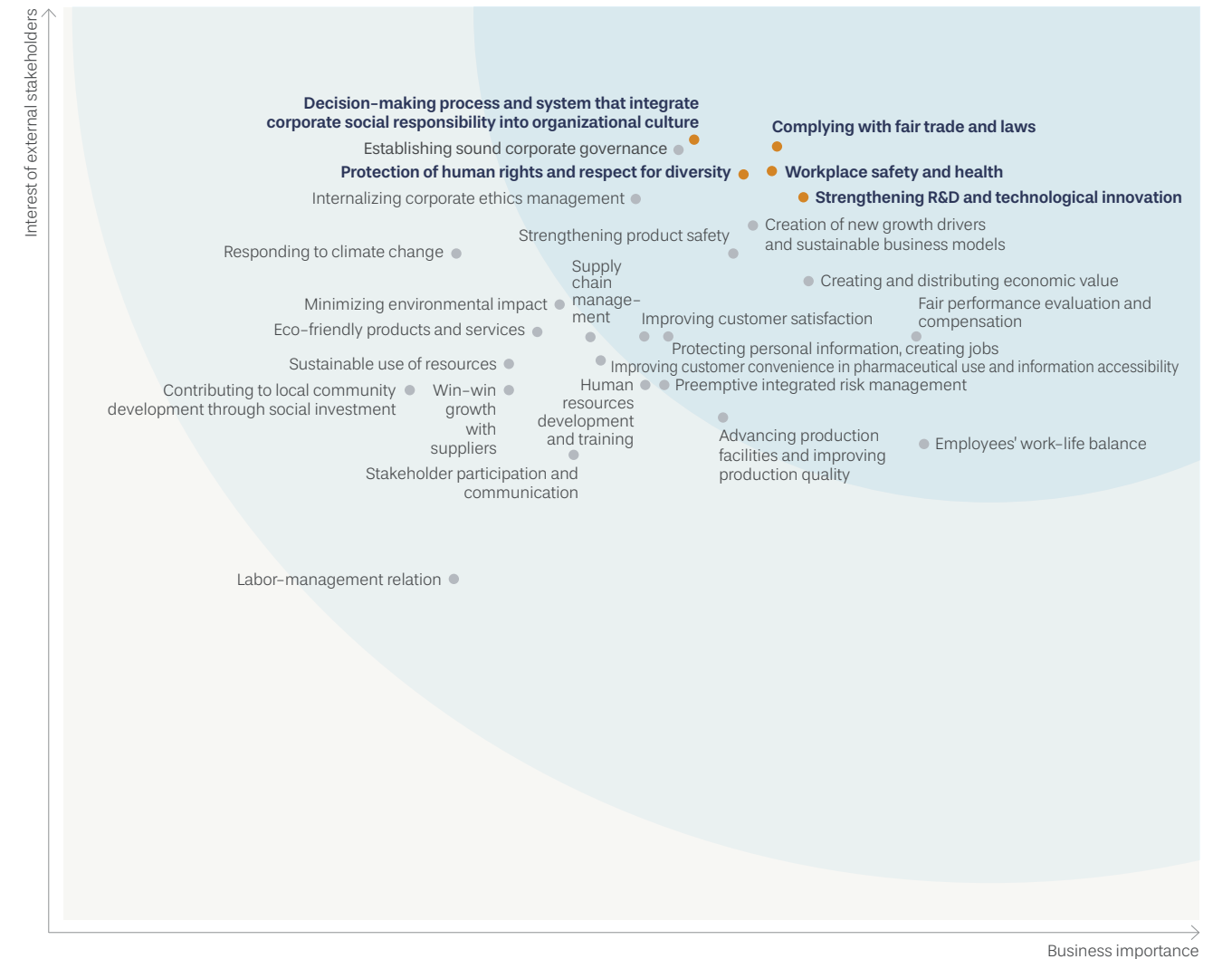
Materiality Analysis Process



¹⁾ Five major issues with the top average value of outside stakeholder and employee materiality analysis results

Materiality Analysis Results

As a result of priority analysis on the 28 social responsibility management issues, five issues were chosen as material issues – complying with fair trade and laws, strengthening R&D and technological innovation, workplace safety and health, protection of human rights and respect for diversity, and decision-making process and system that integrate corporate social responsibility into organizational culture.





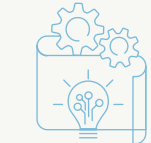









2021 Material Issues

Rank	Issue	Whether included last year	Average ¹⁾	External stakeholders	Employees	GRI Index
1	Complying with fair trade and laws	●	4.56	4.73	4.40	419-2
2	Strengthening R&D and technological innovation	●	4.53	4.64	4.43	-
3	Workplace safety and health	-	4.53	4.68	4.39	403-1-7, 8, 9, 10
4	Protection of human rights and respect for diversity	-	4.52	4.68	4.35	412-2
5	Decision-making process and system that integrate corporate social responsibility into organizational culture	-	4.51	4.73	4.28	102-18

¹⁾ Average value of outside stakeholders and employees materiality analysis survey results

Material Issues of Social Responsibility Management

We examined outside trends, Dong-A Socio Group's activities in response to these trends, as well as major outcomes, regarding the five major issues derived through the materiality analysis – complying with fair trade and laws, strengthening R&D and technological innovation, workplace safety and health, protection of human rights and respect for diversity, and decision-making process and system that integrate corporate social responsibility into organizational culture.

Issue	Background	Dong-A Socio Group's Response and Major Outcomes in 2021	UN SDGs ¹⁾	
Complying with fair trade and laws		<p>Compliance with fair trade and laws is an important factor for establishing a company's sound trade culture. As a response to dumping and bribery/ solicitation issues, global monopoly regulations and fair trade- and anti-corruption-related laws are becoming stricter. Accordingly violating laws and engaging in unfair trade can result in a company's loss of its reputation and stakeholder trust, not to mention considerable financial damage. Leading companies therefore have built a company-wide compliance management system, take part in global initiatives, and go beyond observing laws to promote sustainable growth.</p>	<ul style="list-style-type: none"> • ST Pharm and STgen Bio built the anti-bribery management system (ABMS). Since 2018, six Group affiliates have completed the adoption of an ABMS (cumulative). • An internal auditor conducts electronic approval system-based ABMS execution status reviews. • The Anti-bribery Audit Committee is held four times (once a quarter) to share information on anti-bribery activities and outcomes, and to disseminate ABMS and support smooth operation. • The CEO reviews activity outcomes of the ABMS and BOD approval is given once a year. 	
Strengthening R&D and technological innovation		<p>Expectations toward medical services are increasing as a result of the aging global population and improvements in economic levels. Also, the prolonged COVID-19 pandemic has led to growth of the size of domestic and overseas pharmaceutical industry markets. The government recently made known its determination to advance the structure of the pharmaceutical industry through "measures on strengthening pharmaceutical industry competitiveness". Accordingly, new drug R&D capabilities, item competitiveness of outstanding pharmaceuticals, and global market competitiveness are quickly emerging as important, key competitive factors of pharmaceutical companies. In addition, as an impact of COVID-19, an increasing number of global pharmaceutical companies are seeking to entrust the manufacturing of vaccines and treatments, leading to a growing need for an MOU with contract development and manufacturing organization (CDMO) companies with R&D capabilities.</p>	<ul style="list-style-type: none"> • Dong-A ST completed construction of a biotech research center in Songdo, Incheon in March 2021. It is expected to lead the expansion of Dong-A Socio Group's future business by performing a pivotal role in biopharmaceutical R&D. • Dong-A Pharmaceutical was chosen by the Ministry of Trade, Industry and Energy in May 2021 to supervise a project on "3D printing technology-based customized pharmaceutical development". It is anticipated to secure 3D printing source technology that can enhance product production efficiency while innovatively reducing pharmaceutical wastes. • ST Pharm became the first in Korea to develop an LNP-mRNA vaccine for COVID-19. Submitted a phase I clinical trial IND to food and drug safety authorities in multiple countries, including Korea, in December 2021. • STgen Bio, signed an MOU on comprehensive cooperation in biopharmaceutical CDMO with PROTIUM SCIENCE, a company specializing in biopharmaceutical CDO, in November 2021. This is anticipated to establish an integrated service system for the entire cycle of pharmaceuticals that ranges from R&D to production. 	 
Workplace safety and health		<p>There is increasing social demand for corporate safety management amid continued serious accidents, such as collapse of construction sites and electric shock and fall of workers, as well as increased social attention to safety. To prevent serious accidents that result from the lack of safety management systems and awareness, the "Serious Accidents Punishment Act" went into effect in January 2022 that strengthens corporate roles and responsibilities regarding safety management. Accordingly, companies are establishing a safety management system, aiming at zero fatal accidents at workplaces, and are striving to establish safe workplaces.</p>	<ul style="list-style-type: none"> • To respond to the Serious Accidents Punishment Act and achieve zero workplace accidents, Dong-A Socio Group affiliates are strengthening the establishment of a prevention-centered safety management system and forming a dedicated organization. • Dong-A Pharmaceutical, Dong-A Otsuka, Yongma Logis, ABEN E&C and others regularly conduct workplace safety inspections to identify hazards beforehand and make improvements. • Dong-A Pharmaceutical, ST Pharm, Soo Seok and others are holding regular meetings and safety inspections and implementing a work approval system to support suppliers' safety management capabilities. 	
Protection of human rights and respect for diversity		<p>Human rights are basic rights that people naturally have as they are born. However, as society steadily becomes complex and various cultures converge, there is discrimination based on race, nationality, religion, and gender and violations of human rights. In response, governments and global organizations are providing guidelines on human rights and diversity, including the Universal Declaration of Human Rights, UN Guiding Principles on Business and Human Rights, UNGC, and OECD Guidelines for Multinational Enterprises, and are supporting corporate implementation of human rights management.</p>	<ul style="list-style-type: none"> • Prohibit all types of discrimination that is based on race, religion, disability, gender, birthplace, political opinions, and individuals' sexual orientation. • Participate in "Target Gender Equality (TGE)", a global program that aims at improving the percentage of female executives at UNGC member companies, and makes efforts to strengthen female leadership. • Provide prevention training that is aimed at preventing incidents, such as sexual harassment prevention training, training to improve perception towards the disabled, and training on preventing workplace harassment, to employees, and makes continued efforts to improve employee perception. • Set in place various grievance handling channels, including the K-Whistle Helpline, Audit Hotline Reporting CLEAN :D, and Grievance Counseling Center, in order to quickly identify and handle employee human rights violations and workplace grievances, and handle them through the Human Respect Committee. 	 
Decision-making process, system that integrate corporate social responsibility into organizational culture		<p>A company's social responsibility management capabilities are becoming an essential factor for sustainable growth as issues that impact corporate management increase in diversity, such as climate change, workplace safety, and human rights management, and demand increases toward responsibilities of companies as members of society. In particular, systematic and strategic social responsibility management is made possible through company-wide participation and cooperation, rather than efforts made by an individual organization or employee. Accordingly, there is a need for companies to build a system that handles integrated review and response to financial factors as well as non-financial factors and to establish an internal decision-making process.</p>	<ul style="list-style-type: none"> • Hold "Dong-A socio group Social responsibility Council (DSC)", consisting of the CEOs of 13 Group affiliates, on a regular basis (biannually) to review social responsibility activity strategies and goals, outcomes, and major ESG status and response. • Formed the "ESG Planning Division" that is participated in by the Jeong-Do (Fair) Management Team, HR Strategy Team, Corporate Culture Innovation Team of Dong-A Socio Holdings; ESG Operation Team of Dong-A ST, and CSR Team and CP Team of Dong-A Pharmaceutical to systematically respond to ESG-related matters within the Group. A total of 17 meetings were held in 2021 to share information on the social responsibility management status of the Group affiliates and DSC and BOD agenda. • In May 2021, the second "CSR Seminar" was held following the first seminar in 2020. Working-level employees from all Group affiliates took part in the seminar and shared information on the ESG management background and risks as well as diverse case studies, in addition to discussing measures to practice social value in business areas. 	

¹⁾ 17 goals set by UN at the United Nations General Assembly held in September 2015, aimed at sustainable development of international community as a blueprint to achieve a more sustainable future by 2030

OUR SYSTEM

Corporate Governance

Shareholders and Ownership Structure

Shareholders

The total number of shares that Dong-A Socio Holdings can issue pursuant to the Articles of Association is 30,000,000 shares (face value per share: KRW 5,000), of which the preferred stock issuance ceiling is 3,000,000 shares. As of the end of December 2021, the total number of issued shares is 6,348,802 shares. All issued shares are common shares, and fair voting rights were given in accordance with the number of shares.

Shareholder Composition

Shareholder name	Type of share	Number of shares	Ownership (%)
Jung-Seok Kang	Common stock	1,865,525	29.38
National Pension Service	Common stock	793,059	12.49
Employee stock ownership plan (ESOP)	Common stock	538,520	8.48
GLAXOGROUPLIMITED	Common stock	409,693	6.45
Otsuka Pharmaceutical Co., Ltd.	Common stock	248,494	3.91
Treasury stocks	Common stock	98,190	1.55
Others	Common stock	2,395,321	37.74
Total		6,348,802	100.00

* As of December 31, 2021

Facilitating AGMs

Dong-A Socio Holdings adopted a system for electronic voting and electronic proxy voting to actively support shareholders in their exercising of voting rights. It publishes reference documents on the Financial Supervisory Service's electronic announcement system, and recommends all shareholders to exercise their voting rights by proxy. In addition, a convocation notice is made four weeks prior to an annual general meeting (AGM) to enable shareholders to review agenda items over a sufficient period.

To facilitate AGMs, financial authorities encourage companies to hold AGMs on different days. Accordingly, Dong-A Socio Holdings set the AGM dates of the Group affiliates on different days, avoiding the dates when many other companies hold theirs, thereby increasing convenience in shareholders' exercise of voting rights.

Shareholder Return Policy

For shareholder value enhancement, Dong-A Socio Holdings announced a mid- to long-term shareholder return policy based on a BOD resolution in March 2021. Accordingly, Dong-A Socio Holdings will use at least 30% of its consolidated profit for the year, excluding non-recurring income and loss, for shareholder return for three years from 2021 to 2023, and pay dividends of at least KRW 30 billion. We plan to provide a stable cash flow to shareholders by actively implementing interim dividends in addition to existing fiscal-year dividends, and use the remaining funds after dividends for purchase and disposition of treasury shares. As a result of implementing the shareholder return policy, we paid out interim dividends for the first time in 2021 that amounted to KRW 3,125 million and fiscal-year dividends of KRW 6,251 million.

Board of Directors

Composition of BOD

The BOD of Dong-A Socio Holdings decides on matters stipulated in laws and Articles of Association, matters delegated by AGMs, and important matters related to basic policies of company management and work execution, and also supervises execution of duties by directors and top management, aiming at representing the interests of shareholders and stakeholders and also achieving corporate growth. Dong-A Socio Holdings has outside directors comprise a majority of the BOD so that the BOD can be run independently from top management as the company's top decision-making body. As of December 2021, there are four outside directors (57%) out of the total seven BOD members and three internal directors (43%).

Independence and Expertise of the BOD

To maintain practical independence of the BOD, from top management and controlling shareholders, and for the BOD to exercise influence on corporate management based on reasonable decisions, Dong-A Socio Holdings has appointed an outside director as the chairman of the BOD, separate from the CEO. Also, the Committee for Recommending Candidates for Outside Directors was formed to appoint outside directors based on a transparent, independent process.

BOD Operation in 2021

Dong-A Socio Holdings' regular BOD meetings are held in February, April, July, and October, while extraordinary meetings are held when there is an emergency agenda item. In 2021, four regular BOD meetings and seven extraordinary BOD meetings were held, and the attendance rate was an average 94% for internal directors and an average 98% for outside directors.

In 2021, the BOD received and reviewed reports on the company's business performance and pending management issues by quarter to supervise the execution of duties by top management. It handled important matters related to the execution of the company's work, including appointing a new CEO and deciding on a mid- to long-term shareholder return policy to enhance shareholder value, to secure the company's management stability and continuity.

In addition, it autonomously created the Related Party Transaction Committee under the BOD and established relevant regulations, and also deliberated/decided on many agenda items to enhance governance transparency, such as improving the BOD evaluation system.

Committees under the BOD

Dong-A Socio Holdings has set a BOD committee system in place to ensure efficient BOD operation, and operates four committees – the Audit Committee, Committee for Recommending Candidates for Outside Directors, Evaluation & Compensation Committee, and Related Party Transaction Committee. Total assets of Dong-A Socio Holdings as of 2021 year-end is less than KRW 2 trillion, which means that we are not obligated to set up an audit committee and a committee for recommending candidates for outside directors pursuant to the Commercial Act. We, however, preemptively adopted both committees to enhance corporate management and accounting transparency and perform practical supervision functions towards top management. In addition, we autonomously created the Related Party Transaction Committee in October 2021 to strengthen internal control of internal trading, thereby further solidifying governance transparency.

Audit Committee Dong-A Socio Holdings operates the Audit Committee that consists only of outside directors to ensure independence and transparency of its audit system. The Audit Committee audits accounting and business from an independent position from top management and controlling shareholders; deliberates and makes decisions on matters delegated by the BOD; and supervises the execution of duties by directors and top management. In addition, it has the right to give consent on appointment and dismissal of an internal audit department manager to ensure internal audit organization independence.

Related Party Transaction Committee The Related Party Transaction Committee was created in October 2021 to enhance governance transparency by establishing a fair trade system and strengthening internal control of internal trading. It performs the role of managing/supervising internal trading with affiliates, largest shareholders, and specially related persons. The Committee secured independence by consisting only of outside directors.

BOD Composition Status

* As of December 31, 2021

Classification	Name	Position	Initial date of appointment	Termination date of appointment	Area of expertise	Major experience
Internal Director	Jae-Hun Jung	CEO & President	Mar. 2021	Mar. 2024	Management	-
	Sang-Hwan Baek	Executive Director of Management	Mar. 2021	Mar. 2024	Management planning	-
	Seung-Hyun Ko	CFO	Mar. 2021	Mar. 2024	Finance & accounting	-
Outside Director	Bong-Soon Cho	Chairman of the BOD	Mar. 2013	Mar. 2022	Organization & HR (Professor)	(Former) Senior Research Engineer at Shinhan Research Institute (Current) Professor at Graduate School of Business, Sogang University
	Kyoung-Bae Kwon	Chairman of the Audit Committee Chairman of the Related Party Transaction Committee	Mar. 2021	Mar. 2024	Accounting and auditing (Accountant)	(Former) Director of Audit Headquarters at Samil PwC (Current) Executive Director at Sejin Accounting Corp.
	Chang-Jin Moon	Chairman of the Committee for Recommending Candidates for Outside Directors	Mar. 2018	Mar. 2024	Health/medical	(Former) Vice Minister of Health and Welfare (Current) Chair Professor at Duksung Women's University
	Dong-Chul Kim	Chairman of the Evaluation & Compensation Committee	Mar. 2018	Mar. 2024	Law (Lawyer)	(Former) Lawyer at Lee Kim & Partners (Current) Managing Partner of Hyun Law

Composition of Committees under the BOD

● Chair ○ Member

Committee	Roles and Functions	Jae-Hun Jung (Internal director)	Bong-Soon Cho (Outside director)	Kyoung-Bae Kwon (Outside director)	Chang-Jin Moon (Outside director)	Dong-Chul Kim (Outside director)
Related Party Transaction Committee	<ul style="list-style-type: none"> Approve internal trading with specially related persons Manage and supervise internal trading execution details Determine and change basic policies regarding internal trading 		○	●	○	○
Audit Committee	<ul style="list-style-type: none"> Supervise directors' work Audit the company and subsidiaries Approve the selection and dismissal of outside auditors Other matters stipulated in the Articles of Association or bylaws in relation to audit work 		○	●		○
Evaluation & Compensation Committee	<ul style="list-style-type: none"> Establish performance evaluation and compensation criteria Evaluate the company and CEO performance Other matters related to the compensation system 		○		○	●
Committee for Recommending Candidates for Outside Directors	<ul style="list-style-type: none"> Examine qualifications of outside director candidates Recommend an outside director candidate as an agenda item submitted to an AGM 	○		○	●	

Evaluation & Compensation Committee The Evaluation & Compensation Committee consists only of outside directors to establish a transparent and fair evaluation and compensation system. It establishes standards on the company's performance evaluation and compensation, and the company annually evaluates employee performance and compensates employees according to the standards.

All members of the Evaluation & Compensation Committee, Audit Committee, and Related Party Transaction Committee are outside directors and at least two-thirds of the members of the Committee for Recommending Candidates for Outside Directors are outside directors to strengthen independence and transparency.

BOD Evaluation and Compensation

Remuneration of Dong-A Socio Holdings' internal directors is divided into base pay and performance-based bonus. Every year, the Evaluation & Compensation Committee differentially raises base pay by putting together the company performance evaluation, individual achievement evaluation, and others, and pays different performance-based bonuses, using 15% of an individual's base pay in the immediately prior business year as the target. Remuneration of outside directors is determined according to the annual remuneration payment process, in consideration of the frequency of BOD meetings, whether an outside director was appointed to a committee under the BOD, hours spent on relevant work, such as reviewing agenda materials, and level of legal responsibilities, and then paid out as a monthly fixed amount. BOD remuneration that was approved for 2021 is KRW 2 billion. Total remuneration that was paid to seven directors as of the end of December 2021 is around KRW 806 million.

BOD Remuneration in 2021

Category	No. of persons	Total remuneration (KRW million)	Average remuneration per person (KRW million)
Registered director	3	576	192
Outside director	1	60	60
Audit Committee member	3	170	57
Total	7	806	

Risk Management

Risk Management System

Risk Management Process

Based on the enterprise risk management (ERM) system, Dong-A Socio Holdings categorized types of opportunities and crises that impact the achievement of goals throughout the organization into five areas of strategy, operation, compliance, external environment, and finance. For risks that were identified and evaluated according to ERM, we established and are implementing countermeasures, and built a process on continually reporting relevant matters to strengthen response capabilities. We chose a risk manager for each of 15 teams and applied the risk management system process of ISO 31000, an international risk management standard.

Risk Management Organization

All 15 teams at Dong-A Socio Holdings systematically identify and constantly respond to various potential risks according to a risk management process, based on support and monitoring from the Audit Office. Also, we are strengthening capabilities so that this can be reflected in strategies to achieve business goals and in the execution of relevant work. Major matters related to the risk management process are reported to top management and the Audit Committee. Operation results for 2021 were reported.

Risk Management Activities

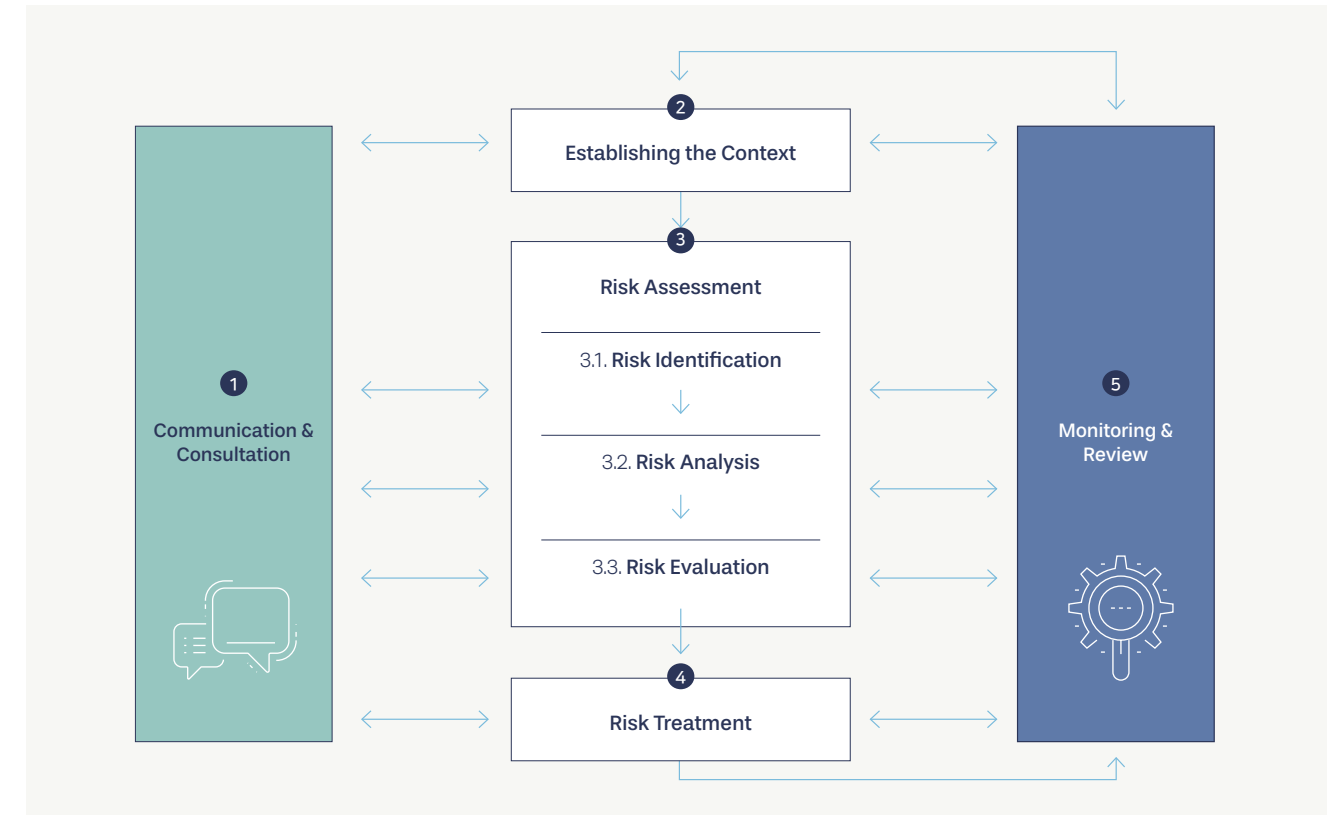
Activities to Prevent Risks

Dong-A Socio Holdings' Audit Office strives to prevent risks that may arise within the Group. In particular, we inspect work and establish a process that leads up to institutional improvements to take preemptive measures before the occurrence of risks. We also share information with the Group affiliates on changing laws, government policies and systems, and make relevant preparations and conduct risk prevention activities. In addition, we disseminate outstanding and inadequate cases to improve the Group's overall work capabilities.

Follow-up Activities to Respond to Risks

As follow-up activities for management and control of identified risks, Dong-A Socio Holdings conducts regular and non-regular audits per unit, including a comprehensive audit, irregular audit, special audit, and correction inspection, under supervision by the Audit Office. By doing so, it checks process and institutional improvement progress about weaknesses of each Group affiliate, and provides support so that systems can be improved and fully established through additional consulting on shortcomings. In addition, the Audit Office performs constant audit functions through the reports that are received through the Audit Hotline Reporting, "CLEAN :D". From among the reports that were received in 2021, the Office conducted a total inspection on major reported matters, such as employee corruption and slackness of work discipline.

Risk Identification and Response System



Risk Management Organization



Key Areas of Risk Prevention in 2021

In 2021, Dong-A Socio Holdings derived 124 financial/non-financial risks and set response measures, with a particular focus on 14 high-risk factors through the establishment of control measures and monitoring. With the enforcement of the Serious Accidents Punishment Act in January 2022, there is an increased need to take preemptive responses and conduct voluntary inspections regarding

workplace safety. Accordingly, Dong-A Socio Holdings is helping the Group affiliates to establish a safety and health management system and implement serious accident prevention activities, such as creating a voluntary serious accident inspection checklist, based on which we seek to build a safe work environment system and advance the culture of safety.

OUR VALUE

INTEGRITY

89.9 %

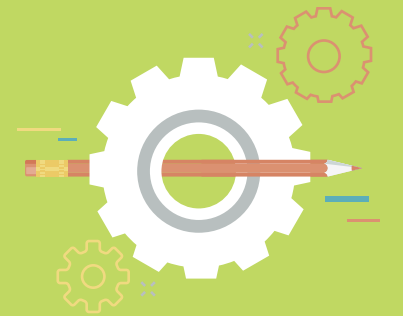
Employee participation rate in anti-corrupt education

94.8 %

Employee participation rate in pledge to Jeong-Do Managementin

* Based on the figures of Dong-A Socio Holdings

Alignment with UN SDGs



Guided by Jeong-Do management as the basis of social responsibility management, Dong-A Socio Holdings practices ethical management and fair trade. In particular, we have established relevant guidelines and systems; formed an organization in charge; established anti-bribery management systems (ABMS); obtained international standard ISO 37001 certification; and made other efforts to strengthen management transparency.

To respond to information security threats that are becoming intelligent and advanced, we established an information protection process and governance system while also having secured information security stability by acquiring ISO 27001 certification, an information security management system standard. Going forward, we will expand the scope of information security system to all Group affiliates, thereby building a foundation to global standards.



Ethical Management

Corporate Behavior

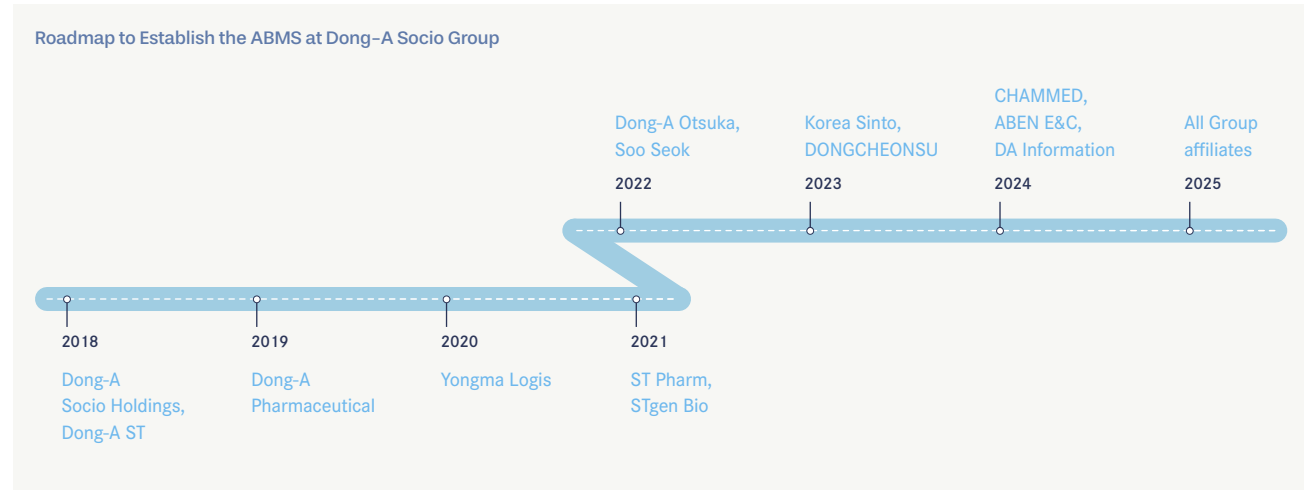
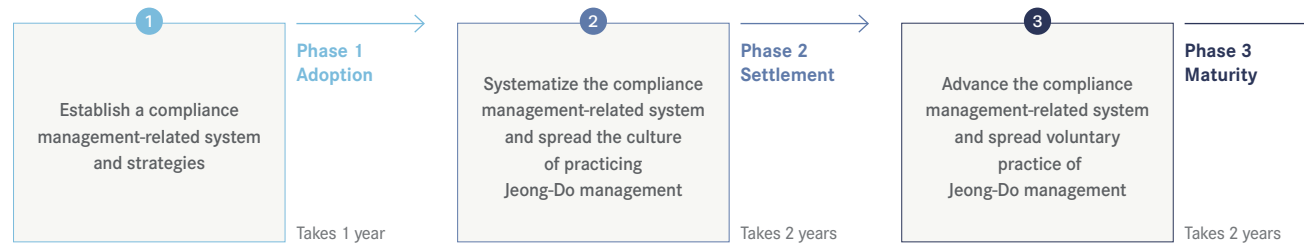
Operation of Anti-Bribery Management Systems

Dong-A Socio Group has established and is applying a three-phased paradigm to ensure systematic operation of anti-bribery management systems (ABMS), and have been establishing ABMS in a phase manner according to a Group affiliate establishment roadmap. In 2021, ST Pharm chose 16 internal auditors, while STgen Bio selected 11 internal auditors and 11 assistant internal auditors to run an ABMS. Yongma Logis was in its second year of ABMS operation, created an eligibility evaluation document on a changed internal auditor, and improved bribery risk identification/analysis/evaluation. In addition, the internal auditors of Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, STgen Bio, and Yongma Logis participated in on/offline training provided by Korea Compliance Initiative on four occasions in 2021 to enhance their capabilities and eligibility. In 2022, we plan to establish ABMS at Dong-A Otsuka and Soo Seok, and complete the establishment of ABMS at all Group affiliates by 2024 and maintain a maturity phase across the Group.

Ethical Management Governance

Anti-bribery Audit Committee Dong-A Socio Holdings holds the Dong-A Socio Holdings Anti-bribery Audit Committee (HAAC) every quarter, and shares anti-bribery related information. Consisting of the Jeong-Do (Fair) Management Team, an organization exclusively in charge of compliance management, and the internal auditor of each team, the Committee was held four times in 2021 and discussed 19 agenda items, spreading ABMS within the organization and ensuring smooth operations. Matters discussed include an outline of control management that can be applied at the company-wide level, confirmation of whether a team's anti-bribery goal was achieved, and identification of bribery risks that can arise during work and prevention measures.

Dong-A Socio Group's ABMS Establishment Paradigm



Internalization of Ethical Management

Ethical Management Training and Pledge

Dong-A Socio Holdings operates ethical management training to inform employees of the importance of ethical management and to internalize ethical management, and also receives a pledge to practice Jeong-Do management. As of December 31, 2021, the employee participation rate in the pledge to Jeong-Do management is 94.8%.

In March 2021, we provided online training based on training material we internally created on the subject, "What we can do for anti-bribery", and a total of 89 employees (participation rate of 92.7%) completed the training. In addition, we conducted an effectiveness evaluation on the training to use the results for developing better training content. We received a positive response of 97.5% and 97.6%, respectively, for training satisfaction level and influence on raising perception of Jeong-Do management. In addition, based on the results of evaluating each department's bribery risk, we chose two departments that required training and provided ABMS training.

Continuous training is offered to employees who handle ethical management work. We provided training on essential ABMS content that can be applied at workplaces to ABMS internal auditors from May to September and offered relevant content, thereby helping internal auditors disseminate the information among employees. Furthermore, ABMS training was provided in April and August to new internal auditors and assistant internal auditors to examine ABMS theory and to share information on ISO 37001 requirements as well as the justification and importance of ABMS.

Jeong-Do Management Survey

Every year, Dong-A Socio Holdings conducts an employee survey to identify the level of Jeong-Do management implementation. We conducted an online anonymous survey consisting of 22 questions related to social responsibility and Jeong-Do management from September 13 through 30, 2021, and 85.4% of employees responded. Survey results indicate that employees' understanding of Jeong-Do management is higher overall. We will conduct the Jeong-Do management survey every year to identify the organization's Jeong-Do management level, and strive to fully establish the Jeong-Do management culture.

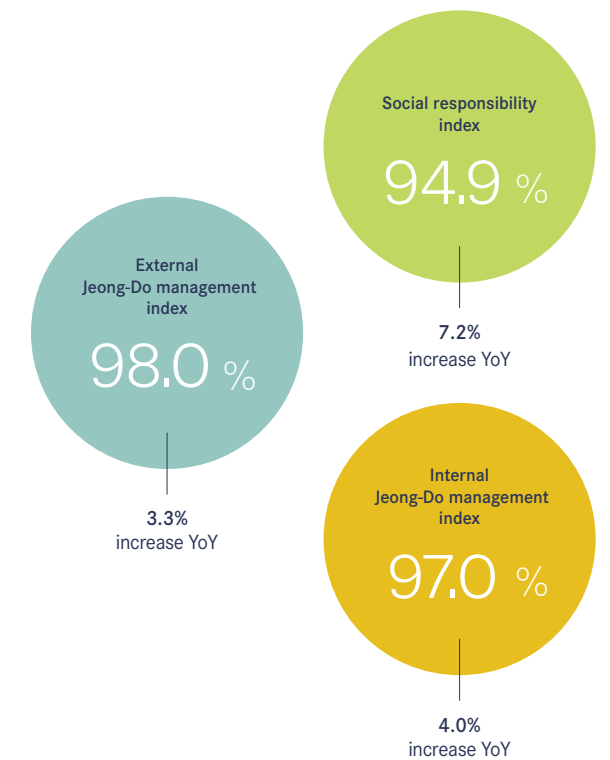
Jeong-Do Management Communication and Information-Sharing

Jeong-Do Management Card News To prevent the occurrence of bribery risks, Dong-A Socio Holdings strives to identify them before occurring and distributes main content in "card news" format to prevent recurrence. We share the information through our Jeong-Do management website that can be accessed by not only employees but also external stakeholders. We made two posts in 2021 – "Undisclosed important information" in the first half of the year and "Bribery that results from performance-oriented views" in the second half of the year.

Questions of Jeong-Do Management Survey



Results of 2021 Jeong-Do Management Survey



Ethical Management Reporting and Monitoring

Reporting System, K-Whistle Helpline Dong-A Socio Group operates the "K-Whistle Helpline", a whistleblowing system that is run by an outsourced company, in order to enable internal/external stakeholders to report unlawful, corrupt, and unethical conduct. Received reports are investigated. For corrupt conduct, factors such as intentionality and gravity are comprehensively considered to refer the matter to the HR Committee and take HR measures. For reported content, prize money is provided after deliberation according to internal regulations, such as the level of public interests and company contribution.

Online Audit Office "CLEAN :D" Dong-A Socio Holdings operates "CLEAN :D", a reporting system with strengthened anonymity, security, and feedback functions, and handles preemptive and follow-up management of relevant risks. CLEAN :D includes the Group's report audit function, enabling any stakeholder to make a report on a Group affiliate employee's unfair or unreasonable act, and such reports are handled closed-door.

Expanding Ethical Management for Business Partners

Regulations on Prohibition of Improper Solicitation and Graft Dong-A Socio Holdings applies the "Improper Solicitation and Graft Act" to stakeholders who are public officials and government employees. For internal/external stakeholders, including business partners and excluding public officials and government employees, the company's regulations on prohibition of improper solicitation and graft are applied. The graft report form that was previously created in writing can now be submitted through an electronic approval system starting in January 2021. Seven reports were made in a year and measures were taken to prevent recurrence. Dong-A Socio Holdings and the Group affiliates post a pop-up information screen regarding prohibition of improper solicitation and graft on their websites and the groupware "D-Portal" on national holidays as part of efforts to fully establish a transparent corporate culture.

Sharing Ethical Management Information with Business Partners

Dong-A Socio Holdings distributes "Ethical Value", an ethical management booklet, to business partners and receives a pledge on anti-bribery policy and ethical business relations. With face-to-face training becoming difficult due to COVID-19, we sent "Dong-A Socio Holdings' Anti-Bribery Culture News", containing our anti-bribery policy and major execution status, to A type business partners and major business partners, including the Group affiliates.

Process of K-Whistle Helpline



News for Anti-corruption Culture



Compliance Management Card News

Information Security

Information Security Management Execution System

Information Security Process

Dong-A Socio Holdings has established an information security process based on four activities – governance, establishment of system, control & monitoring, awareness increase. We carry out the four information security activities with participation by all employees, ranging from managers to executives and working-level staff, according to an annual plan, and promote continuity and internalization.

In accordance with an amendment to the regulation on public notification of information security stipulated in the "Act on the Promotion of Information Security Industry" in December 2021, Group level preparations are being made for public notification of information security in 2022.

Information Security Policy

Dong-A Socio Holdings established an information security policy and 12 lower-level guidelines for different areas, and shares them with everybody related to the company's operations, including employees, partner companies and visitors, and encourages strict compliance. We are continually amending the relevant policy and guidelines in accordance with changing work processes and strengthening regulations.

Against the backdrop of increased telecommuting among employees due to the continued COVID-19 pandemic in 2021, we created the "Worker Security Rules for Remote Work" and "Video Conferencing Security-related Policy" to support efficient telecommuting and compliance with security rules. In addition, we created a cloud security clause in our information system security management guidelines to prevent and quickly respond to security incidents that result from the increased need for cloud platform services and the expansion of such services.

Information Security Overview

Governance	<ul style="list-style-type: none"> Held Information Security Committee meetings twice, and the Dong-A Socio Information Security Committee meeting once Measured an information security effectiveness and conducted management review once
Establishment of System	<ul style="list-style-type: none"> Maintained ISO 27001 certification Established/amended information security policy and guidelines (20 items resulting from remote work, video conference control, etc.) Established information security guidelines for the Group affiliates
Control & Monitoring	<ul style="list-style-type: none"> Diagnosed the level of Dong-A Socio Group's information security management system Conducted a security audit on all departments of Dong-A Socio Holdings Diagnosed vulnerabilities for external service systems
Awareness Increase	<ul style="list-style-type: none"> Provided personal information security and information security trainings to employees 8 times a year Held the corporate-wide Information Security Day 2 times Conducted training to respond to infringement incidents at all Group affiliates (malicious mail mock training)

Information Security Governance

Dong-A Socio Holdings' Information Ethics Team is overseeing management of the internal information security system and performing control tower roles for all Group affiliates. In consideration of the Group's characteristic of having many information resources and much interpersonal exchange, the team disseminates the holding company's commitment towards information security to the entire Group and contributes to improving information security levels. We also appoint a Chief Information Security Officer (CISO), and operate the Dong-A Socio Information Security Committee, which consists of each Group affiliate's CISO, thereby enabling quick decision-making on rapidly-changing operational matters related to information security.

ISO 27001 Certification

Dong-A Socio Holdings has established and operates an information security management system by applying ISO/IEC 27001, an international information security standard, based on the Personal Information Protection Act and Act on Promotion of Information and Communications Network Utilization and Information Protection. As the importance of information security increases, we stay nimble and ready for external changes due to amendments to relevant laws, while amending our own policies and guidelines internally. To verify effectiveness of such measures, we first received the ISO 27001 certification in 2019 and are receiving a follow-up evaluation every year. We passed the follow-up evaluation in 2021 as well.

Internalizing an Information Security Culture

Diagnosis of the Level of the Information Security Management System

There is growing importance of technology and sales information related to various businesses, including pharmaceutical/food and beverage/logistics, as well as internal and external personal data. Against this backdrop, we conducted a diagnosis of the level of the information security management system on 13 Group affiliates in 2021 to prevent leakage of such information, aimed at preventing direct damage to the company's information assets as well as such indirect damage as negative corporate image. The diagnosis was carried out for 25 weeks based on inspection items in five areas – information security management, technology, physical, human resources, and personal information. We thus emphasized the need for information security by performing an evaluation that was centered on the grade of each inspection item and company.

Diagnosis results and improvement points were delivered to each company through the Dong-A Socio Information Security Committee that was held in January 2022. To establish preventive measures for derived vulnerabilities, we established and announced the Information Security Guidelines for the Group Affiliates in February 2022. By doing so, we built a foundation to continually educate/train and support the information security activities of all employees at Group affiliates.

Malicious Email Response Training

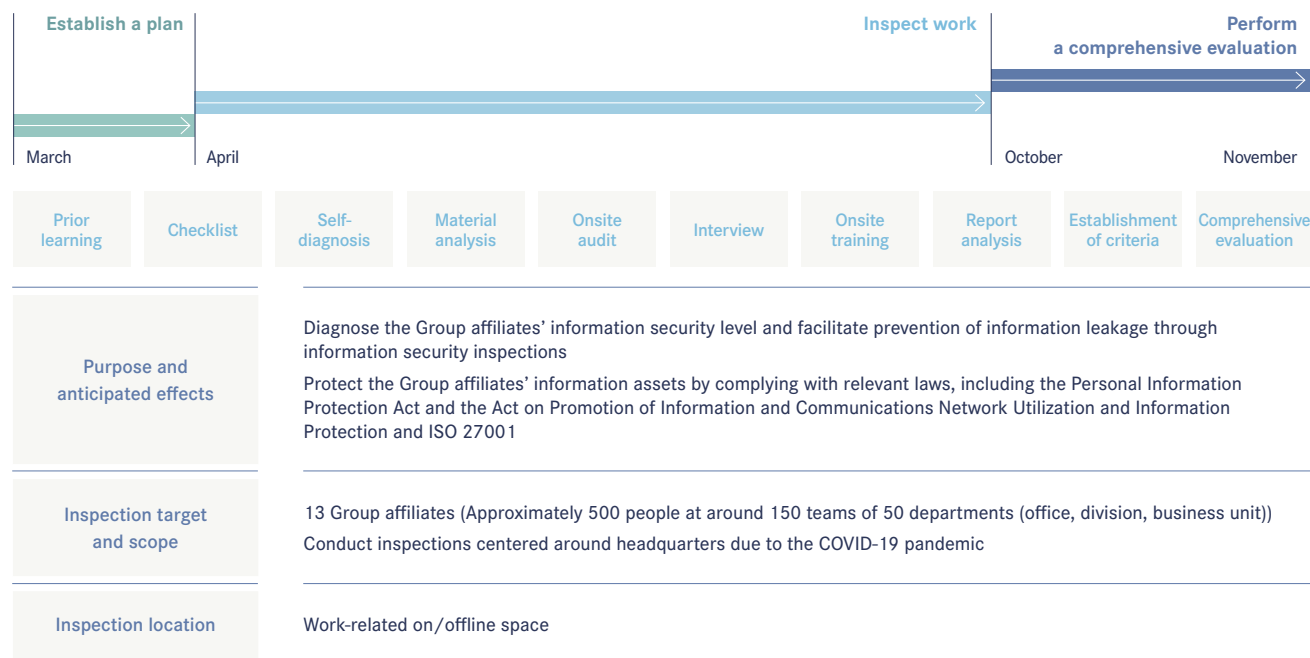
To prevent employees' information security incidents, we chose employees in charge of major work in the Group and provided them with malicious email response training. The results of the training were delivered to each company's CISO. We chose advertising mail similar to real mail and created a scenario using mail content that included malicious code. Through simulations of such events as clicking an email link, downloading an attached file, entering personal information, and executing an attached file, we examined the level of awareness of employees. As such we are striving to prevent incidents from occurring in the first place through training.

Mock Hacking and Inspection of Infrastructure Vulnerability

To respond to cyber threats, we conducted mock cyber hacking of Group and Group affiliate websites, including the "GAMASOT" website, Cyber Audit Office "CLEAN :D", and Dong-A Pharmaceutical website, in November 2021. Immediate measures were taken for discovered vulnerabilities, and continuous improvements are being made for similar cases.

In addition, we are verifying IT system security every year to diagnose vulnerabilities of the overall infrastructure and derive improvement points. We identify vulnerabilities regarding extensive security threats, ranging from networks to security equipment, websites, operating systems, and databases, followed by improvements every year as a way to manage our infrastructure properly.

Overview of Diagnosis of the Level of the Information Security Management System



Information Security Campaign Activities

Dong-A Socio Holdings holds the "Information Security Day" event twice a year to share information on related trends and activity results, thereby raising employee awareness of information security. In addition, "Clean Day" is implemented to destroy and delete unnecessary documents, helping employees spontaneously prevent leakage of confidential information. We also choose an "Information Guardian" from among manager-level employees by department to enable quick execution of information security-related work and independent management of the work environment's information security. To encourage participation in such information security activities, we have been providing Information Guardians with welfare points since 2021.

Information Security Training

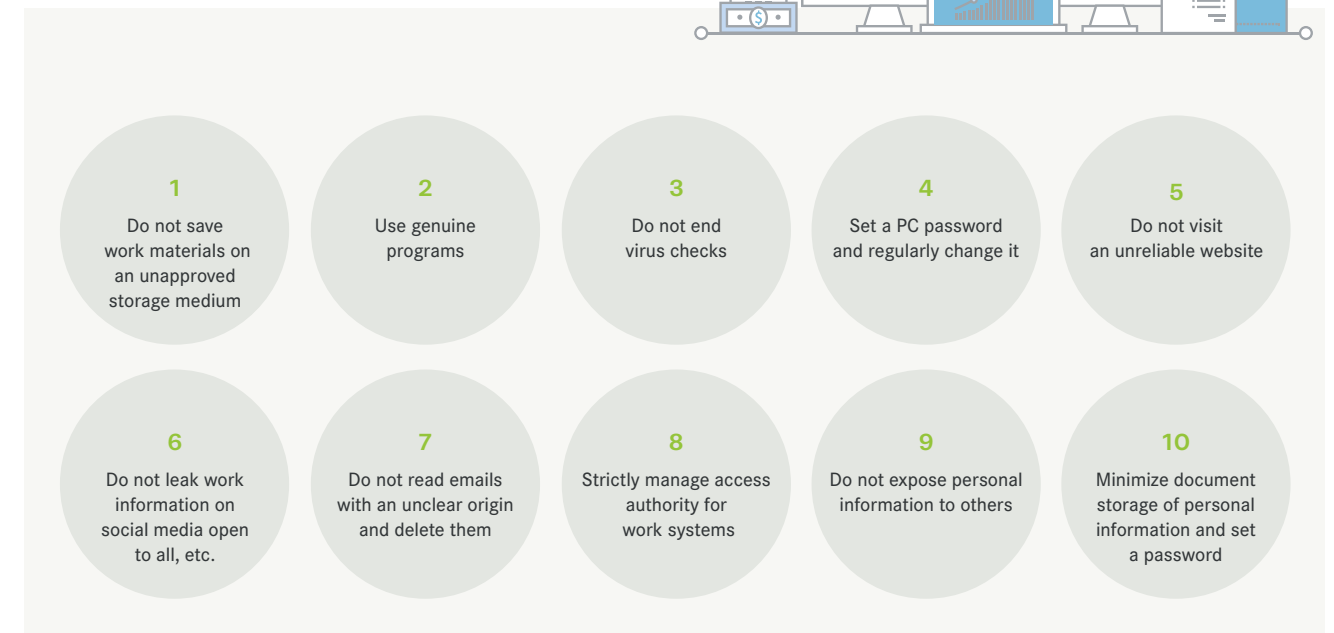
Dong-A Socio Holdings provides employees with information security training at least twice a year to emphasize the importance of information security and improve employee awareness. In 2021, we amended the "Ten Commandments for Information Security" in accordance with the internal environment and enabled employees to more easily take interest in information security. In addition, we encouraged staff in charge of information security and CISO to participate in external workshops and conferences, including the personal information protection fair and workshop "PIS FAIR 2021" and international security conference "ISEC 2021". To secure the eligibility of staff in charge of information security at major Group affiliates, we provided support so that they could become qualified as an ISO 27001 lead auditor.

Expanding Information Security Management to Partner Companies

Even if information security is strengthened internally, there is a risk of information leakage while collaborating with partners, so continuous management is needed. Dong-A Socio Holdings therefore demands partner companies to comply with essential information security policy, and amends policy and provides relevant training. It plans to strengthen the information security risk management system of its partners to prevent security accidents and reduce information security risks.



Ten Commandments for Information Security



HUMANITY

242 persons

No. of people completed the Dong-A Mentoring

17.2 hours/person

Job training hours

202 persons

Nurturing of internal instructors
(YoY increase of 11%)

14.4 hours/person

Industrial safety & health training hours

* Based on the figures of Dong-A Socio Group

Alignment with UN SDGs



In a VUCA environment, talent who endlessly improve their skills, pursue innovation, and communicate with an open mindset are the foundation of a company's sustainable growth. Dong-A Socio Group is providing support to employees so that they can develop their professional capabilities and leadership and achieve growth through self-designed learning based on an advanced human capital development system.

In addition, we practice family-friendly management and operate a wide array of organizational culture programs to raise employees' sense of pride towards the organization and employee engagement, and are building a company where employees are happy. Against the backdrop of continuous serious disasters and stricter safety and health-related regulations, Dong-A Socio Group goes beyond compliance with relevant laws and makes continued efforts to enhance safety management capabilities in diverse aspects by establishing a safety management system and governance and internalizing a safety culture so that employees can work in a safe environment.

Human Capital Development

Talent Pipeline Development

Dong-A Socio Holdings is verifying model people of Dong-A, core values, and job expertise by building a fair and systematic recruitment process. In addition to enhancing interview evaluators' capabilities by strengthening training of the evaluators, we develop and simulate job-centered probing questions, thus putting job skills at the center of recruitment. As part of efforts to realize gender equality, we are nurturing female interviewers and assigning them to interviews, and making other such efforts to continually upgrade our recruitment process. We adopted an AI-based online interview system in 2016 to support balanced judgments on job candidates and strengthen fairness of the recruitment process. In the regular/on-demand recruitments that were held in six areas in 2021, we carried out AI competency inspections and online interviews, thereby increasing time and spatial convenience for applicants.

Nurturing Human Capital

Strengthening of Self-Designed Learning

Dong-A Socio Group runs diverse training programs to lead the development and growth of distinctive competitiveness of individuals and the organization. In 2021, we held a job description-creating workshop on 153 jobs to strengthen the connection between HR and training and to promote employee-directed learning and growth. We solidified the foundation for building a ONE-HR system by establishing a "Dong-A competency model", the Group's standard competency system categorized into leadership, common, and job competency.

In 2021, Dong-A Socio Holdings adopted the individual development plan (IDP) system based on the Dong-A competency model. Our plan for 2022 is to build an IDP system that enables employees to establish an individual annual training plan and apply for desired training programs, and to expand implementation of the system to include Dong-A ST, Dong-A Pharmaceutical, and STgen Bio.

Nurturing Dong-A-type Leaders

Dong-A Socio Group built a three-step track that consists of competency recognition, development, and verification by role in 2021 as a way to nurture "Dong-A-type leaders" based on the newly-established HR system and model people of Dong-A. An employee recognizes the competencies of next role level through the Basic Course (BC), and goes through self-directed learning through a Development Center (DC) training program, which is followed by verification of secondary level roles through the Assessment Center (AC).

Our plan for 2022 is to provide the BC on 15 occasions and 15 courses of competency development programs that are connected to IDP on 30 occasions. By doing so, we will standardize the Group's leadership competencies upward, and strengthen the competencies that are required by role.

Leadership Training by Position In 2021, leadership training took place on 45 occasions, consisting of ten courses ranging from new employee training to executive training. The cumulative number of trainees reached 807. It was mostly for promoted employees. Leadership training that is in line with the trend was provided through special leadership lectures.

Dong-A Mentoring Course We operate the "Dong-A Mentoring" course that helps new employees quickly adapt to the organization and improve work proficiency. In 2021, the course was held through non-face-to-face channels due to COVID-19 and was participated by a total of 121 mentor-mentee couples or 242 employees.

Facilitative Leader Nurturing Program We operate the "Facilitative Leader Nurturing Program", consisting of three courses – nurturing course, business application tasks, and follow-up course – to promote team communication. A total of 23 employees completed the program in 2021.

Training to Strengthen Professional Job Competencies

DT Academy In 2021, we created the DT (Digital Transformation) Academy by completing a renewal of the previous data analysis and digital healthcare courses. Consisting of the data analysis course and digital healthcare course, the former is a long-term three-month course about data literacy, working-level data analysis, analysis tool, and hackathon, and produced 36 data analysis personnel in 2021. In particular, the completion ceremony was held using metaverse, which was a first in the pharmaceutical industry. The digital healthcare course produced three internal digital healthcare experts through special lectures given by digital healthcare experts in Korea and external training, and also provided dissemination training. We will continue to offer the DT Academy in 2022 to preemptively identify and nurture competencies needed in future markets, and continually nurture professional DT experts.

Performance of Job Training

Classification	Unit	2019	2020	2021 ¹⁾
Job training hours	Hours	49,876	80,118	43,688
Job training hours per person	Hours/Person	17.7	27.8	15.1

* Based on the figures of Dong-A Socio Holding, Dong-A ST, Dong-A Pharmaceutical, and STgen Bio

¹⁾ Job training hours decreased in 2021 because Dong-A ST's MR Training (on/offline) held in 2020 was not offered in 2021

Training to Strengthen Core Job Competency Program of the Group Affiliates We chose common job competencies based on the Group affiliate standard competency system, and established a Core Job Competency Program by series of job and competency level. We offered all courses in a way that employees voluntarily applied for and participated in learning according to their need. In 2021, we formed a total of 36 courses in business administration/finance/accounting, sales/marketing, R&D/global, production, and office work common areas, and a total of 1,283 employees completed the courses across 39 occasions. We plan to adopt nine new common courses in 2022.

Job Certification Program We created a job certification program (general qualifications, internal certification) to secure job expertise, and ran the program as courses that employees can choose to take. General qualifications courses included Accounting Management Level 1, Certified Accounting Manager, Distribution Management Level 2, and Logistics Manager, while internal certification courses included DA_MOS (EXCEL, PPT, WORD) and Python analysis. A total of 22 employees completed the program.

Training to Strengthen Healthcare Competencies Aiming to strengthen competencies in healthcare, which is Dong-A Socio Group's key business area, we created a course for sales/marketing, production, development, and global, and offered job-specialized training. We aim at planning and operating training that is focused on resolving business issues by promptly responding to individual job and onsite needs.

SooSeok Universität

The lifespan of knowledge and technologies is sharply becoming shorter as a result of accelerating pace of DT, leading to the emergence of a lifelong learning era in which various knowledge and technologies need to be continuously learned. Dong-A Socio Group has set in place the SooSeok Academy, a learning management system (LMS), to support employee career development by building a self-directed active learning environment. In 2021, we changed the name to "SooSeok Universität" in line with our goal of upgrading and facilitating LMS at the Group level, and provided around 10,000 online content and internally-produced learning content based on our own cases.

Performance of SooSeok Universität

Classification	Unit	2019	2020	2021
No. of contents completed by employees	Content	17,000	65,752	72,860
Contents	Online	Content	10,000	11,299
	In-house developed (cumulative)	Content	80	190
Expenses	KRW million	89	99	150

In addition, it performed roles as Dong-A Socio Group's educational hub that handles integrated management of Group-level training operation and learning data. In 2022, we will actively use "D-Live", a professional internal space for image content production, and work on developing internal content and training courses.

Nurturing Internal Instructors

We are operating a system to nurture internal instructors with the goal of strengthening corporate competencies by discovering and nurturing internal experts. In 2021, we adopted a prior online seminar course and offered it in parallel with flipped learning¹⁾, thereby maximizing the training effects of the internal instructor-nurturing course. As a result, we nurtured 20 new internal instructors. In 2022, we plan to provide a course for upskilling²⁾ of internal instructors, in addition to nurturing new internal instructors.

Lifecycle Tailored Training

We are planning a lifecycle support program to raise organizational members' productivity and engagement. We are planning a training course that is in line with the lifecycle per age group, based on five major areas of life (finance, family, leisure, health, retirement).

¹⁾ Learning method that flips the typical presentation of content – trainees view online lectures as pre-class homework, then spend in-class time engaged in active learning experiences such as live class or discussions with lecturers

²⁾ Upgrading skill levels so that an employee can do the same work more effectively or can perform more complicated roles

Performance of Nurturing Internal Instructors

Internal Instructors				
Classification	Unit	2019	2020	2021
No. of internal instructors (cumulative)	Person	152	182	202

Internal Instructors' Activities in 2021

Classification	Unit	Value program	Leadership program
Value training	Person	3	25
Classification	Unit	Healthcare program	Common job and certification program
Job training	Person	73	18

Performance Evaluation and Compensation

Dong-A Socio Holdings adopted improvement and challenge/innovation items in evaluation aspects in 2021, aimed at change and innovation, and is applying an absolute evaluation, on a trial basis, to secure evaluation receptiveness. With finalized key strategic tasks as the starting point, HR team connects goals between company or department(top-line) and employees(bottom-line) through bottom-up/top-down approaches and verifies KPIs effectiveness of detailed execution plans through goal sessions. Individual performance is examined during the middle examination period held in the middle of the year, and a final evaluation takes place at the end of the year to agree on the results. We simplified the position system through One-HR TF in 2021 and established a role-centered compensation system that is based on the position system. The system was changed so that an employee can actually feel a change in compensation with a change in his or her role in the organization through verification (Assessment Center) in the event of a position promotion. Also, by increasing the degree of difference in compensation according to the evaluation results, we seek to establish a performance-centered compensation foundation in the mid- to long-term future. In addition, a 360-degree review was adopted to have colleagues assess an individual's strengths/weaknesses to enable early identification of collaboration issues within the organization and to help employees themselves derive improvement opportunities from the perspective of organizational development.

Building a Happy Organizational Culture

"A company where employees are happy" is one of the most important values that Dong-A Socio Group pursues. We therefore implement family-friendly management that guarantees balance between employees' work and personal life and run various welfare programs to increase employees' pride in the organization and work engagement as well as to create a happy workplace.

Family-friendly Management

Dong-A Socio Group established and operates various systems to support a healthy balance between work and personal life, including the flexible work system as well as maternity and childcare leaves. The Group affiliates constantly review the operational direction of the internal welfare system, and Dong-A Socio Holdings discovers and shares information on best practices at Group affiliates. It also performs the role of supporting and coordinating work related to family-friendly company certification. As a result of these efforts, ST Pharm, STgen Bio, and DA Information received family-friendly company certification in 2021.

Welfare Policy

Vacations and Leaves	A prior notice is made on a yearly group leave plan at the beginning or end of the year so that work schedules are identified and adjusted, thus minimizing gaps in work during the leave period. Since leave plans can be known beforehand and all employees can rest during the same period, they are free in using their leaves and can accordingly anticipate a corporate culture where true balance is guaranteed between personal life and work.	Tuition Support	Support is provided to pay college tuition to ease the financial burden from child education. In 2020, the college tuition support range was expanded without limit.
Sabbatical Leaves	Employees are given a ten-day paid sabbatical leave on the occasion of their 10th, 20th and 30th year of service. The purpose of the sabbatical leave is for an employee to find a future direction for performing new duties within the organization with the employee's role change, and for the employee to have the time and opportunity for self-development. Employees are getting sufficient rest and recharging themselves during their sabbatical leave, resulting in increased concentration on work, improved creativity, and enhanced productivity.	Cafeteria-type Welfare Mall	We enhance employee satisfaction through the welfare point system, where employees can choose and use various items and benefit content according to their individual needs. In 2020, a change was made so that welfare points are provided once (KRW 300 thousand) at the beginning of the year after an employee opinion survey, instead of the previous practice of providing welfare points three times a year.
Family Day	To spread a corporate culture where the right balance between work and family life is guaranteed, the Friday of the third week of every month was designated as "Family Day" on which there is a one-hour reduction of work hours.	Camping Voucher	We distributed camping vouchers that can be used across the nation to employees to prevent concentration at recreational facilities on weekends and vacation periods in consideration of COVID-19 and to expand the employee experience of welfare policies.
Gifts for Employees' Children	For Christmas, gifts that embody the hearts of parents are individually sent to homes for employees' children aged 5 to 13. We also send gifts to employees' children who are about to take the national college entrance exam to root for them.	Recreational Facility Support	We provide support to employees in making lodging reservations at corporate resorts and hotels. Also, a lottery-drawing event is held to use a condominium during the vacation season. The Sangju HR Development Center is operated as a summer vacation spot to provide a space for family rest during the summer vacation period. In 2021, we minimized operation of recreational facilities during vacation periods due to COVID-19 and used the budget instead to hold a "home vacation" event that employees could enjoy with their family in their home. A total of 504 employees at Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, and STgen Bio benefited from this event.
Employee Loan Policy	For an employee who needs a loan to pay deposit money for the lease of a house due to an appointment to a location where he/she has no ties, a loan on daily life stability funds is provided from the Employee Welfare Fund.		

Expanding the Flexible Work System Beginning with a pilot operation of the flexible work system in the research department in 2018, Dong-A Socio Holdings is expanding the scope of efforts to build a flexible work environment to include the PC-OFF system and flexible working hours system. As a way of accelerating the full establishment of the flexible work system, we are implementing digital-based changes, including the adoption of mobile office, cloud-based document management system, and transition to electronic approvals that are free from approval document folders. We established a sustainable emergency management system so that normal management activities can continue even under pandemic circumstances. In addition, we are adjusting telecommuting ratios by observing the government's social distancing guidelines and the number of confirmed cases in Korea.

We are also looking into setting up remote offices that can minimize carbon emissions by measuring commuting distance based on employees' average commuting time. As such, we exploring many ways to strike right balance between life and work and to respond to climate change.

Promoting Maternity and Childcare Leave Dong-A Socio Holdings encourages its employees to use their maternity and childcare leave. We created exception rules in 2021 so that there are no promotion-related disadvantages when employees use a leave, including the childcare leave and family care leave. In addition, we are monitoring employee opinions through internal campaigns and organizational assessments. We operate the childbirth congratulations fund system to provide funds when an employee gives birth, and 96 employees of Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, and STgen Bio benefited from this system in 2021.

Human Rights and Diversity

Dong-A Socio Group respects human dignity and values based on a corporate perspective centered on value creation for employees, customers, and shareholders, and contribution to humanity. In particular, we prohibit all types of discrimination that are based on such grounds as race, religion, gender, place of birth, political view, and sexuality, etc. to do our utmost to fully respect all human rights to which employees are entitled. Dong-A Socio Holdings publicly announced its guidelines on preventing and handling sexual harassment/sexual violence in 2017 and guidelines on preventing and handling workplace harassment in 2019, and specified details regarding providing training for prevention, handling harassment when it occurs, and implementing a victim relief process. In addition, we examine human rights violation risk factors, including workplace harassment and sexual harassment, and provide preventive training to all employees and conduct ongoing monitoring.

Attending the TGE Ambassador Forum

Dong-A Socio Holdings attended the "Target Gender Equality (TGE)" program in 2021 as we did in 2020. TGE is a global program that is aimed at improving the ratio of female executives at UNGC member companies, and carries out activities related to global trends of female leadership and method of use of the Women's Empowerment Principles (WEPs)¹⁾ Gender Gap Analysis Tool. Dong-A Socio Holdings will continue taking part in TGE as part of efforts to strengthen female leadership.

Education for the Prevention of Human Rights Abuse

In 2021, we provided sexual harassment prevention training, training aimed at improving employee perception of the disabled, and workplace harassment training to employees. We are continuing efforts to improve employee awareness to reduce the incident occurrence rate through preventive training that is aimed at preventing incidents, rather than managing incidents after they occur.

¹⁾ A global initiative jointly launched by the UNGC and UN Women in 2010 for gender equality and enhanced competitiveness of women

Human Rights Training at the Group Affiliates*



* Reflecting new hires and employee turnover as of 2021

Extent of Grievance Reporting and Escalation Procedures

To quickly identify and handle grievances related to workplace harassment, including employees' human rights violation, sexual harassment, and sexual violence, we operate the K-Whistle Helpline, Audit Hotline Reporting CLEAN :D, and Grievance Counseling Center, and handle grievances through the Human Respect Committee.

Grievance Reporting Through the K-Whistle Helpline, a reporting channel that can be participated in by various stakeholders, including Dong-A Socio Group employees, business partners, and customers, we received 22 reports in 2021, including those on workplace harassment and HR and work-related complaints. After conducting onsite investigations and confirming facts, we completed the processing of 20 cases, excluding two cases that were not relevant.

Human Respect Committee To more quickly and accurately respond to issues related to employee human rights, Dong-A Socio Group established the Human Respect Committee, chaired by the CEO of Dong-A Socio Holdings. Among matters received through the grievance reporting channels, human rights- and diversity-related matters are responsibly handled with participation by a lawyer, the Audit Department Head, and three female members. In 2021, eight cases of workplace harassment and two cases of sexual harassment were received. Main types of human rights violations included work orders and coaching of low-performing employees, unfair work interference and order of an employee who was not delegated the authority, and sexual harassment and molestation during company dinner outings. The Human Respect Committee conducted investigations and deliberations on the ten received cases, and created a written judgment and issued a warning for six cases. For four cases, it made a notice to the respective company that suggested disciplinary action. After an internal disciplinary action deliberation process, a decision was made to take disciplinary action for four cases. Dong-A Socio Group respects and supports international standards and norms that support such values as human rights, labor, environment, and anti-bribery, and will quickly and accurately respond to cases of violation of human dignity based on the zero-tolerance principle.

Win-Win Labor-Management Culture

Dong-A Socio Group is making utmost efforts to further solidify cooperative labor-management relations, centering around the labor union, based on stable labor-management relations and an organizational culture of trust and harmony, based on which it seeks to bolster corporate competitiveness.

Labor Union

On the occasion of the holding company transition in 2013, Dong-A ST created a labor union, and labor and management are working together to achieve the shared goals of employees' job security and enhancement of corporate competitiveness. In addition to fully establishing an advanced labor-management culture based on participation, cooperation, and a spirit of harmony, labor and management made joint efforts to improve employees' quality of life through improvements to worker's rights and interests, job stability, and reduction of labor hours. As a result, since the company's founding in 1932, it has continued its tradition as a zero-dispute business site, without even a single strike. In addition, Dong-A ST formed a Labor-Management Council to raise labor-management understanding and cooperative relations. The Council discusses various measures to promote the company's development and employee welfare.

Labor Union Membership of Dong-A ST

Classification	Unit	2019	2020	2021
No. of persons eligible to join the labor union	Person	356	368	379
No. of employees who joined the labor union	Person	222	229	222
Labor union membership rate	%	62.4	62.2	58.6

* Only production staff of junior employees can join the labor union of Dong-A ST in accordance with the collective agreement. The number of employees who joined the labor union is based on December 31 every year.

Composition of Dong-A ST's Labor-Management Council

Members from management (5 persons)	Members from labor (5 persons)
CEO, Business Management Division Head, Production Division Head, Executive Director of Management & Planning Division, HR Team Manager	Union Head, General Affairs Manager, Organization Manager, Training and PR Manager, Industrial Safety Manager

Dong-A Pharmaceutical leads win-win between labor and management as well as advancement of the labor-management culture based on cooperative labor-management relations, and has been maintaining its zero-dispute business site tradition, without even a single strike, since the establishment of the labor union in 1975. Information on the corporate management status is shared through the Labor-Management Council every quarter and regular discussions, and efforts are made to promote joint interests of labor and management.

Labor Union Membership of Dong-A Pharmaceutical

Classification	Unit	2019	2020	2021
No. of persons eligible to join the labor union	Person	223	242	237
No. of employees who joined the labor union	Person	196	200	226
Labor union membership rate	%	87.9	82.6	95.3

* Only production staff of junior employees can join the labor union of Dong-A Pharmaceutical in accordance with the collective agreement. The number of employees who joined the labor union is based on December 31 every year.

ST Pharm has been continuing cooperative labor-management relations without any labor disputes since it established. In Labor-Management Council that is held every quarter, ST Pharm shares information on company's overall business performance and vision, and builds a foundation for win-win labor-management culture through continuous communication with Labor Union. It is building a sense of trust through diverse cooperation programs that are jointly operated by labor and management, such as the Employee Welfare Fund and sports events. Respect between the labor and management and through continuous communication rather than being in conflict, resulted in win-win and continued growth. ST Pharm was chosen to be the outstanding labor-management culture company in 2021 and also received the Presidential Award from "Labor-Management Culture Awards".

Labor Union Membership of ST Pharm

Classification	Unit	2019	2020	2021
No. of persons eligible to join the labor union	Person	390	419	438
No. of employees who joined the labor union	Person	188	202	194
Labor union membership rate	%	48.2	48.2	44.3

* Only manager and lower-level positions and non-administrative (excluding HR, bookkeeping, etc.) staff can join the labor union of ST Pharm in accordance with the collective agreement. The number of employees who joined the labor union is based on December 31 every year.

Win-Win Cooperation Between Labor and Management

Dong-A ST understands that trust is the key to stable labor-management relations and strives to fully establish a win-win labor-management culture of joint growth. It established constant communication channels between labor and management, including the Labor-Management Council and negotiations. It listens to employees' demands, confirms issues, and derives improvement measures to continually address unreasonable practices and systems, with the goal of improving employee rights and interests and achieving organizational change and innovation. Despite a decrease in time for harmony between labor and management through face-to-face activities, due to the prolonged COVID-19, Dong-A ST operates various systems for balance between work and personal life, thus focusing on enhancing employee health and happiness.

Labor-Management Win-Win Cooperation Programs of Dong-A ST

Program	Overview
Quarterly Labor-Management Council	Establish an arena of harmony to build labor-management relations of win-win and harmony
Workshop to establish a win-win communication system of labor-management (twice a year)	Benchmark advanced labor-management culture and develop measures to facilitate organizational communication
Labor-Management Unity Sports Event	Establish an arena of trust and harmony between labor and management through a sports event

Both labor and management will continue to strive to fully establish an advanced labor-management culture, placing importance on consideration for others, concessions, trust, communication, basics, and principles.

Although Dong-A Pharmaceutical is not required to provide reemployment support services, it participated in a corporate consulting and pilot program through the Korea Labor Foundation in 2021 based on a labor-management agreement. As a result of planning a reemployment support service program to offer practical support to employees after retirement, Dong-A Pharmaceutical was chosen as an outstanding case of corporate consulting by the Ministry of Employment and Labor. Before the change to the HR system in 2021, labor and management identified issues from the change and established measures based on mutual understanding and cooperation, thereby minimizing confusion among employees and leading reasonable system operation. As a result, the company completed simplification of the position system for the HR system change in August 2021, and plans to consecutively change prescribed working hours and adopt a promotion Assessment Center in 2022. Dong-A Pharmaceutical plans to relocate its plant with the completed construction of a new plant in 2022. Labor and management will maintain a win-win labor-management culture by engaging in active cooperation to address financial losses that can be incurred to employees as they move to a location where they have no ties and to help them realize balance between personal and work life.

The ST Pharm Labor Union entrusted the company with the right to make wage decisions in 2020, and a wage freeze was finalized based on an agreement between labor and management. It internally and externally demonstrated its commitment in overcoming its business crisis of operating profit deficit through a win-win labor-management culture. This resulted in labor-management harmony in 2021 in the form of operational turnaround. In addition, ST Pharm adopted policies that encourage long-term continuous service, such as the selective welfare system and expansion of continuous service awards. Its plan for 2022 is to improve work satisfaction levels by improving convenience facilities at all business sites, including rest areas and meeting rooms.

Workplace Safety & Health

Prevention-Centered Safety & Health Management

The "Serious Accidents Punishment Act (SAPA)" became effective from January 27, 2022. SAPA aims to prevent fatal accidents that continue to occur due to the lack of safety management systems and awareness by strengthening the roles and responsibilities of business owners and chief executives. To preemptively respond to stricter regulations and establish a safe workplace, Dong-A Socio Group expanded the scope of application of the safety and health management system to include not only its employees but also suppliers (subcontract, service, commission).

Dong-A ST is gathering its competencies to build accident-free business sites. In January 2022, it created the Safety Management Team, an organization exclusively in charge of fatal accidents, strengthened field inspection rounds by business site, and is implementing industrial accident prevention-centered safety management by engaging in such activities as strengthening safety and health management of contractors, conducting risk assessments, and fostering industrial safety experts.

Dong-A Pharmaceutical launched the Safety and Health Team under direct control of the CEO in November 2021 to strengthen safety and health management. It also appointed each business site's production and process managers as supervisors and constantly operates a strict supervision system for accident prevention. In addition, it operates the Occupational Safety and Health Committee by business site and actively listens to field opinions, after which chief executives provide feedback, completing a decision-making process that is based on a virtuous cycle. In 2021, the Cheonan Plant and Icheon Plant received ISO 45001 and 14001 certifications, international standards on environmental, safety, and health management system. The company's plan for 2022 is to receive certification for the Dangjin Plant.

To ST Pharm, safety and health management are its corporate social responsibility and competitiveness. Based on the corporate management policy, ST Pharm has established and currently operates the health and safety management system. In addition to appointing a supervisor for each department to ensure effective operation of safety and health management system across all business areas, it also operates EHS Team that is a dedicated organization. The company also formed "EHS Steering Committee", consists of Production Division Head, Plant Head and EHS Team. The committee makes decisions based on internal discussion outcomes regarding the major health and safety matters and issues. In the first quarter, the countermeasures to SAPA, public announcement on toxic reagents, and total hydrocarbon (THC) response plan were discussed. In the second quarter, a response plan in relation to packaging materials, structure and grade label

with the enforcement of the "Act on the Promotion of Saving and Recycling of Resources" was discussed and also on the social responsibility evaluation plan of client suppliers. In the last quarter of the year, a discussion was based the Industrial Safety and Health Commission's inspection plan and ESG evaluation results.

CHAMMED designated the Production Management Team to be in charge of overall safety management work, and carries out work environment inspections and improvements, establishment of an industrial accident prevention plan, investigation on the cause in the event of an accident, and establishment of recurrence prevention measures. It also regularly provides safety and health training on the safety and health management system and cases of accidents. It actively takes action in the event of an accident and establishes recurrence prevention measures.

Dong-A Otsuka made known its strong commitment towards strengthening safety and health management by declaring its safety and health management policy and code, and is providing relevant training to all employees. To respond to stricter safety and health-related regulations, such as strengthening of the Occupational Safety and Health Act and enforcement of the SAPA, the company created Safety Management Headquarters in December 2021 and is working on establishment of a safety and health management system and accident prevention program. Based on the requirements stipulated in the SAPA, it created an integrated manual on safety and health management and established a process for safety and health management work. It established a process and guidelines for each work, including a worker participation program, risk assessment, potential risk identification, emergency training, accident recurrence prevention measures, and contractor/service company safety management. It examines and evaluates the process and guidelines, and appropriately manages and improves them.

Yongma Logis executes its safety and health management plan that includes safety and health management policy, management organization, relevant budget, and facilities, through a BOD reporting and approval process. It designated a Chief Safety Officer (CSO) to ensure overall management of safety and health at all business sites. In line with the organizational structure, it appoints a Safety and Health Officer by business site and business function and provides the supervisor with budget execution and management authority. In December 2021, the company created the Safety Management Team, dedicated to safety and health, and assigned employees with safety and health expertise to the team. Yongma Logis holds the Occupational Safety and Health Committee, a safety and health organization consisting of the same number of labor and management members, every quarter to deliberate/decide on important matters regarding safety and health. The company held a safety management declaration ceremony in line with the enforcement of the SAPA in January 2022, and made known its commitment to placing the highest priority on safety and health by publicly announcing its safety and health management policy, adopting a written resolution, and taking an oath to practice safety and health.

Soo Seok designated the Operational Support Office to be exclusively in charge of safety to build a prevention system. The Office is in charge of supporting the CSO and supervising safety management of all departments. In addition, the company holds the Occupational Safety and Health Committee on a quarterly basis to evaluate and improve matters regarding safety and to deliberate and decide on matters that labor and management worked together on. In 2021, the labor and management participated in a safety and health exhibition and conducted protective gear testing, followed by a replacement to safety shoes and lightweight safety helmets¹⁾ that were assessed as being suitable for field use. In addition, it provided special training to new workers who were exposed to hazardous work on a total 24 occasions.

DONGCHEONSU established an EHS policy and management system, and takes preventive measures, with central roles performed by the Environmental Safety Management Office, Production Department, and Operation Management Department. To ensure that industrial accident prevention plans are executed, the company provides regular training to supervisors as well as managers and onsite staff, in addition to training for new employees and training on special safety (forklift, commercial robot, etc.) and Material Safety Data Sheet (MSDS), thus strengthening employees' sense of responsibility over safety. It also conducts frequent field inspections to identify potential risk factors and has established a channel for workers to directly make suggestions at risk management meetings. In 2022, the company seeks to encourage more active employee participation in relevant activities based on a stronger sense of responsibility over safety by rewarding employees for their safety suggestions and reflecting such activities in performance evaluations.

ABEN Engineering & Construction has been reporting its safety and health plan to the BOD and receiving approval since 2021. It created the Safety and Health Office at headquarters which assists the Safety and Health Supervisor (field manager), and also designated a field safety manager who provides guidance and advice to the supervisor to support more systematic safety and health management. It operates the Safety and Health Office, Sales Planning Office, and CM Office based on the CEO's safety and health policy and goal to review and overhaul the safety and health management system. Preparations are being made to create a safety and health manual and to unify safety documents in the first half of 2022.

Internalizing a Culture of Safety & Health

Business Site Safety Inspection

Dong-A Pharmaceutical conducts a risk assessment twice a year to identify hazards of each business site. Through professional organization consulting, it investigates the safety management status at business sites and provides technical guidance to identify and implement safety and health improvement points and prevent accidents.

Dong-A Otsuka has a safety officer and manager perform a monthly safety and health inspection using a checklist for each of the three plants (Anyang, Cheongju, Chilseo) and 24 general business sites. In particular, each plant's safety managers go to a different plant every quarter to perform a safety inspection from a new perspective. A cross-over inspection round program is operated to identify and address potential risk factors in advance. Dong-A Otsuka makes diverse efforts to comply with laws and strengthen its safety management capabilities.

At Yongma Logis, the Safety Management Team performs a central role in inspecting matters related to business site safety and health, such as fulfilling the obligations of safety and health management stakeholders in accordance with the safety and health management system and taking other relevant measures. In addition, safety and health experts are dispatched to inspect and improve safety and health-related matters that are not in the range perceivable by business site workers, thereby creating an environment where workers stay safe. Furthermore, the company has supervisors and workers jointly perform risk assessments at its business sites across the nation and presents standard guidelines on performing risk assessments as part of efforts to standardize its safety and health environment upward.

ABEN Engineering & Construction conducts a risk assessment, with central roles performed by each field safety and health supervisor and with participation by safety managers and supplier managers. By doing so, the company determines whether risk factors are being appropriately managed by accident type/equipment/work/process, and removes or controls risk factors. It plans to establish a system in which drones, IoT, and other smart technologies are used to manage and inspect field safety from the construction phase to maintenance.

Safe Work Approval System

Dong-A Otsuka created an outsourced work safety management manual in 2021, thus strengthening safety management in the entire process ranging from the selection of outsourced companies to work completion. It strengthened the outsourced company selection criteria according to the manual, while also preventing safety accidents from occurring in the first place by having guidelines implemented, such as identifying risk factors and taking measures before work is commenced, issuing permit to work, providing safety training, and holding inspection round checks.

ABEN Engineering & Construction is operating a prior approval system for dangerous work at construction sites. Approval is received before work is commenced, including a work plan for operating bulldozers, excavators, dump trucks and other construction equipment; a work plan for handling heavy goods, welding, nighttime, weekend; and ladder usage plan. A safety manager then provides safety training, after which work can be started.

¹⁾ Safety helmet made of PE material which is suitable for minor work in the field

Safety Training

Dong-A ST provides worker and supervisor training online for systematic safety and health training. In 2021, a total of 1,110 employees completed worker training (at least three hours every quarter) and 41 employees completed supervisor training (annual 16 hours). The company also posts safety and health content, including a summary of industry safety and health laws and issues, as part of efforts to establish a safety culture that promotes employees' continued interest in safety and health.

To prevent safety accidents, Dong-A Otsuka provides safety training at three plants and 24 business sites, and provided safety training (two hours) once a month in 2021. Also, 60 employees completed safety management supervisor training (16 hours/year) and two employees completed a safety manager training course.

Soo Seok operates a safety training program with the goal, "everybody is a safety manager". It provides regular safety training to general workers, integrated safety training by quarter, and special safety training for dangerous work. To develop supervisor competencies and sense of responsibility, it entrusted a safety training organization to run a nurturing program from 2015 to 2021. As the entrusted supervisor training comes to an end in 2022, Soo Seok is planning special education that includes key matters regarding field safety management, remind training for staff with less than three years of length of service at Soo Seok exposed to relatively higher accident risks, and outsourced training by a professional organization to workers who handle hazardous work.

ABEN Engineering & Construction is strengthening safety accident prevention activities to respond to the enforcement of the SAPA and increased social interest in safety. In particular, the company changed to online training in 2020 for more effective safety and health training, and a total of 44 employees completed trainings in 2021.

Emergency Situation Response Training

Dong-A Pharmaceutical implements a fire safety-strengthening program, including joint training with a fire station and special training on using fire hydrants/fire extinguishers. In 2022, it will create a response manual by serious accident, based on which it will regularly hold emergency situation response training.

ST Pharm conducts prior inspections on safety measure details for dangerous work that is carried out in company, such as for the use of fire, working in enclosed space, working at height and involving electrical shutdown work. In preparation to major industrial accidents, such as fire/leakage, ST Pharm conducts emergency training every year regarding the use of fire extinguishers and hydrants, first aid and transporting injured persons.

The three plants of Dong-A Otsuka (Anyang, Cheongju, Chilseo) set an emergency contact network for each team and response scenario by disaster in preparation for emergency incidents, and carries out training. Training is provided every six months to workers on emergency rescues from enclosed space. The company held firefighting training in October 2021 and high-pressure gas leakage training in November.

Soo Seok established an emergency situation action plan in consideration of business site characteristics, and provides training on fire suppression, evacuation, and first aid. Education on first aid, which requires professional training, is provided in collaboration with the Korean Red Cross. The Glass Unit conducts emergency response training in consideration of process characteristics of operating a melting furnace.

DONGCHEONSU formed a Fire Safety Management Committee and an internal fire brigade to prepare for emergency situations, such as fire, and shares an emergency contact. It also conducts three types of mock training with the local fire station once a year according to an emergency response scenario, including emergency response training, internal fire brigade training, and fire extinguisher and AED/CPR practice.

Supporting Suppliers' Safety Management Capabilities

Dong-A Pharmaceutical appointed each plant head as an overall safety and health manager and manages safety and health of supplier employees. The overall safety and health manager refers to the work approval management criteria to handle work approval and supervision and holds a safety and health consultative group meeting (once a month) and joint safety and health inspection (once a quarter). The manager works together with suppliers to secure supplier safety and health and to prevent accidents.

To prevent safety accidents of cooperative employees (subcontract, service, contract manufacturing), ST Pharm applied the same company's safety and health management system to other corporates, and holds meeting with corporate consulting group every month for further improvements. ST Pharm' plans for 2022 include a monthly joint safety and health inspection to strengthen corporates' health and safety system and capabilities. Also, it includes a guidance on establishing a health and safety scheme to small maintenance companies that undergo long-term maintenance work. Furthermore, ST Pharm plans to invest in health and safety to ensure the health and safety costs and safety education in the construction industry are included in the contract.

Soo Seok holds a monthly subcontractor safety consultative group meeting and conducts a joint field inspection every quarter to share information on difficulties and issues experienced by subcontractors at business sites and to identify and implement improvement measures. In 2021, 18 cases of difficulties and issues were identified and 17 of them were resolved. The company also established and manages truck safety management regulations to prevent safety accidents of subcontracted workers. It also regulated outsourced construction work as part of the production department supervisor's duties to ensure continued, systematic safety management and supervision.

Employee Health Management Activities

Company Medical Office

To promote employee health and safety, a company medical office is operated at all times where professional nurses are stationed. Various OTCs and rest area are available inside the medical office for employee use at any time. In 2021, use of the medical office was restricted to comply with the government's quarantine guidelines in response to the prolonged COVID-19 situation as well as to promote employee safety. Accordingly, when employees felt dizzy or fatigued, they were immediately sent home so that they can rest while monitoring their conditions.

Medical Health Check-up for Employees

Dong-A Socio Holdings provides customized comprehensive health medical exams to employees aged 45 or more. This helps employees maintain good health by preventing and systematically managing illnesses that have a high possibility of occurrence. It also has the effect of increasing work engagement among employees who have found psychological stability. In 2021, nine employees over 45 years old were benefited from this system.

Creating a Healthy Workplace

A monthly health exam and health counseling is provided, including blood sugar/cholesterol measurement, urine sugar test, and body composition analysis, to help employees increase their ability in managing their health. Employees can steadily receive tracking observation and a re-examination even after their health medical examination, which helps with timely identification of health risk signals. In addition, utmost efforts are made to prevent industrial accidents by establishing a pleasant work environment and work conditions.

Preventing COVID-19 Infection

Dong-A Socio Holdings strictly complies with the telecommuting ratio in accordance with the government's COVID-19 social distancing guidelines, and makes utmost efforts to prevent infection. During group vacation (summer, winter), Chuseok, and New Year holidays, it distributes COVID-19 self-diagnosis kits to employees so that they can take personal quarantine measures. We also set in place a vaccination paid leave system so that employees can return to work after resting sufficiently for as many as three days, including the day of vaccination.



RESPONSIBILITY

KRW **3.2** billion
CSR expenditures

3,041 TJ
Energy consumption

* Based on the figures of Dong-A Socio Group

140,236 tCO₂-eq
Greenhouse gas emissions

Alignment
with UN SDGs

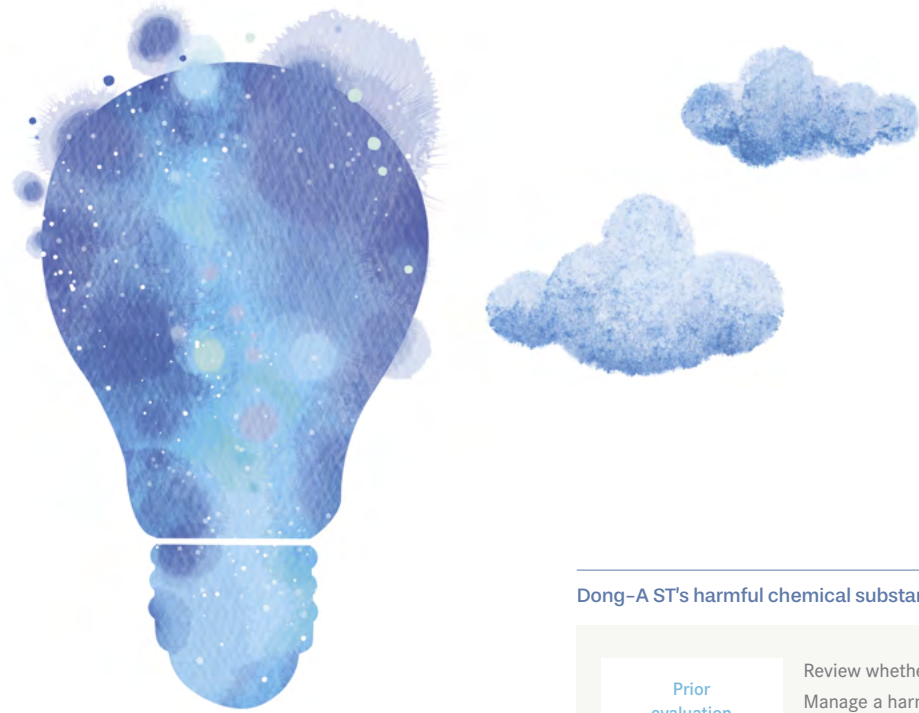


Dong-A Socio Group strives to provide better value by offering products that consider safety and environmental impact, not to mention customer convenience. We are committed to creating distinctive customer value through quality improvement and consumer-centered management to become a more trusted company.

In addition, we carry out social contribution activities that provide practical help to local communities leveraging our products and key competencies and based on employees' sense of sincerity. Furthermore, we are well aware of environmental issues, such as climate change, resource circulation, and discharge of environmental pollutants, are directly connected to the survival of not only the company but society as a whole. We therefore take part in global climate change responses by continually enhancing energy efficiency and managing greenhouse gas emissions, while also striving to minimize our carbon footprint.



Product Responsibility



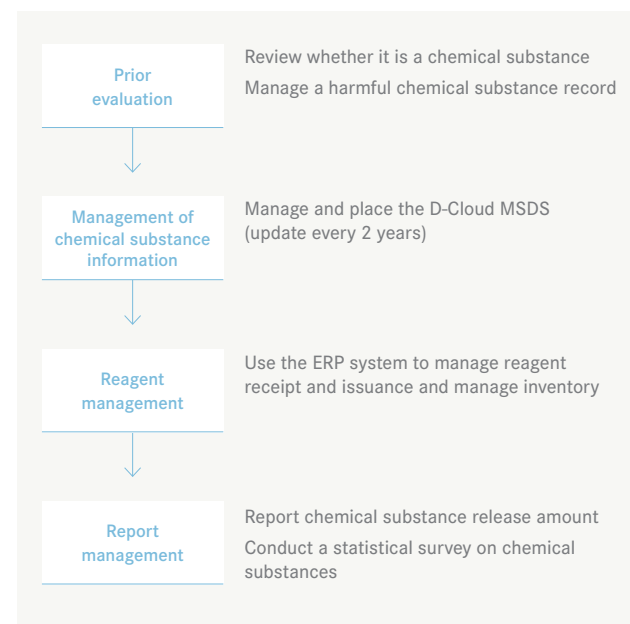
Strengthening Product Safety

Chemical Substance Management

Harmful Chemical Substance Management System Dong-A ST's Cheonan Campus established a process on handling harmful chemical substances in compliance with relevant laws, including the Chemical Substances Control Act, Act on the Safety Control of Hazardous Substances, and Occupational Safety and Health Act. It continues to use an ERP program and manages chemical substance purchase requests/goods receipt and issuance. It also conducts regular inspections of harmful chemical substance-handling facilities to prevent danger.

Dong-A Pharmaceutical has been subject to the Chemical Substances Control Act since 2020. In response to stricter regular inspection methods, the company is preparing some 70 documents to be fully prepared for regular inspections. In addition, it received a harmful chemical substance inspection and consulting from the Korea Environmental Preservation Association for a facility handling a small amount of harmful chemical substances, and received suitability approval from the Ministry of Environment in November. To prevent chemical substance accidents, it provided external trainings (16 hours) to technical personnel and employees in charge of relevant work. Also, employees in charge of harmful chemical substances provided training (2 hours) to other employees. Training results were registered in the training system of the Ministry of Environment's National Institute of Chemical Safety.

Dong-A ST's harmful chemical substance management system



Dong-A Otsuka established a harmful chemical substance management system and carries out management per phase, ranging from chemical substance receipt to issuance. It installed trenches, leak sensors, and protective gear for disaster prevention at each harmful chemical substance storage facility to meet legal criteria. It also built ventilation facilities in indoor facilities to ensure smooth air supply/exhaust. As a result, the Anyang, Cheongju, and Chilseo Plants all passed the regular inspection on harmful chemical substance-handling facilities in 2021. The next inspection will take place in 2023.

Submitting a Chemical Substance Reduction Plan Dong-A ST creates and submits a chemical substance release reduction plan in accordance with the Ministry of Environment's "Regulations on Creating a Chemical Substance Release Reduction Plan". To reduce dichloromethane, a harmful chemical substance, the Dong-A ST Cheonan Campus is examining the installation of RTO¹⁾ on seven dust collectors in operation. By reviewing whether to install RTO and measures for consecutive application, Dong-A ST plans to contribute to the reduction of dichloromethane release by 2025.

In 2020, the emission of 1,872.9 kg of dichloromethane from ST Pharm Sihwa was more than the legal limit (1,872.9 kg/yr). Therefore, it was required to submit a reduction plan to the Ministry of Environment by April 2022. In 2021, the company reviewed the installation of new prevention facilities to reduce environmental emissions for the plan, and in 2022, it has planned to install and operate RTO (Regenerative Thermal Oxidizer). After the completion of RTO installation, ST Pharm will submit in the document, including the annual release amount, release reduction measure and goal, process overview, material flow diagram, and release source that reflect the dichloromethane operation plan. In future, ST Pharm will also examine the alternative compounds from the research phase, having the goal of reducing the amount of used instead of reducing the released amount, for continued environmental protection.

Safety Management of Impurities

Safety Management of Synthetic APIs The Ministry of Food and Drug Safety ordered an assessment of the possibility of contamination by impurities, including NDMA, in the process of manufacturing and storing synthetic APIs and the completion of an approval change according to evaluation results by December 31, 2022. According to this order, Dong-A ST assessed a total of 154 items in 2021, and conducted internal testing on 28 items, excluding the 126 items that were assessed as having no possibility of contamination, and arrived at the conclusion that no impurities were detected, including NDMA. Regarding the results, the Ministry of Food and Drug Safety commented that a re-evaluation needs to be carried out in case of a change in an outsourced manufacturer such as Aldara Cream and Mebapenem Injection. Accordingly, the company plans to complete an assessment and approval change by December 31, 2022 for seven items, including Paramacet Tab. and Paramacet ER Tab. that require additional commissioned company materials.

Management of Elemental Impurities Dong-A ST's Cheonan Campus completed a risk assessment on the possibility of elemental impurity mixture on 43 manufactured items, from among a total 93 products excluding crude drug preparations, as of December 2021, and completed an assessment on seven items among 40 imported/commissioned products. In case of the Cozartan Plus Series, testing is complete but a report can be created only after obtaining manufacturer materials for lactose hydrate, which is a diluting agent from among the materials.

In case of the Amomentin Tab. and Mebapenem Injection Series, materials were received from the manufacturer. In case of raw materials and imported/commissioned products for which it is difficult to obtain manufacturer evaluation materials, Dong-A ST will use internal analysis results as the basic material and complete an elemental impurity risk assessment for all items in 2022.

Dong-A Pharmaceutical established regulations on managing pharmaceutical elemental impurities and manages elemental impurity tests and levels for all pharmaceuticals it produces. Elemental impurity testing was completed for four pharmaceuticals (Noscarina Gel, D-panthenol Ointment, Terbinew Gel, Champ Nose Syrup) produced at the Icheon Plant.

Dong-A Otsuka adopted an elemental impurity detector in 2019 at its Anyang Plant and Chilseo Plant, and replaced the Chilseo Plant's metal pipe inspection machine in 2021. By adopting such facilities, the company is preventing the mixture of foreign substances in the products, thus preventing product quality incidents.

Management of Raw Material Impurities Dong-A Otsuka applied the Hazard Analysis Critical Control Point (HACCP)²⁾ regarding food and beverage products to the Anyang Plant, Cheongju Plant, and Chilseo Plant, thereby preventing hazards that may arise from the manufactured foods and enhancing its products' hygiene safety. It also operates the "DOCCP system"³⁾, which inspects the practicality and effectiveness of training on deviations caused by manufacturing sites and established measures.

Strengthening Product Safety

Investment in Product Safety Tests CHAMMED completed V1 SMART and XU1 SMART RoHS test analysis in 2021 to strengthen product safety.

Dong-A Otsuka installed additional vinyl inspection machines at its Anyang Plant in 2021 to strengthen product safety, and also made investments in two projects, including replacement of an indoor distribution facility. In the 6-unit/30-unit product packaging line, there was previously one vinyl inspection machine. This enabled an inspection of only one side and not the opposite side. As such, there was a product shipment risk caused by wrapping defect. To address this issue, the company installed two additional vinyl inspection machines which has enabled a uniform wrapping inspection on both sides to prevent the shipment of products with a packaging defect. Also, thermographic diagnosis results indicated that there were concerns over a safety accident caused by increases in temperatures during peak electric power usage of transformer, fuse, and BUS bar⁴⁾ due to aging of an indoor distribution facility. To take measures, the company replaced the transformer and high-voltage distribution system, and completed lighting construction. The facility replacement enabled stable electric power supply, leading to expectations of smooth manufacturing of products.

¹⁾ Regenerative Thermal Oxidizer: Energy-saving incinerator that removes volatile organic compounds (VOC) and foul smell

²⁾ Criteria for focused management of each process to prevent mixture of hazardous substances in foods or food contamination throughout the entire process of food ingredient management, manufacturing, processing, cooking, and distribution

³⁾ The company's unique critical control points with DOCCP standing for "Dong-A Otsuka" and "Critical Control Point"

⁴⁾ An electric wire tube that performs conductor-like roles on PCB to deliver electric energy

Soo Seok made focused investments in the adoption of the latest testing machines (nine units from 2015 to 2020, approximately KRW 3.8 billion) to strengthen product quality, leading to improvements in the glass bottle foreign substance defect detection rate and the resulting minimization of damage caused by foreign substances. It also adopted a HOT Coating Machine worth around KRW 150 million for the purpose of strengthening solidity of glass bottle products, and raised external impact strength of glass bottles by 15%. The PET Unit strictly conducts relevant tests, including a heavy metal and endocrine disruptor detection test for food and beverage packaging containers, and strives to prevent product quality issues in the exterior, function, and other aspects.

Product Package Improvements Dong-A ST is conducting product package design renewals and adopting new packages to improve customer safety and convenience. Ahead of a design renewal, Dong-A ST held interviews of the Korean Pharmaceutical Association and the Korean Society of Health-system Pharmacists and also made visits to prescription-filling sites to reflect user opinions. It then conducted a customer satisfaction survey on a draft design and established a 'customer-centered package design' strategy. To prevent prescription-filling errors that can arise from similar package designs, the company adopted a new package design that uses a different color per identical product content to ensure easy distinction of a drug's product name, content, and packaging unit, and plans to consecutively apply it starting in March 2023.

Quality Management

Establishing a Quality Management System

To preemptively respond to the pharmaceutical industry environment, in which domestic and overseas regulations are becoming stricter, and to comply with its quality policy, which is 'to timely produce and supply drugs appropriate for standards in accordance with the global standard system and to pursue continuous process improvements', Dong-A ST is building a foundation that meets cGMP¹⁾ level and continually enhancing quality competitiveness. To this end, the company is sharing information on deviation and claim cases; adopting field quality assurance (QA); engaging in such quality culture innovation activities as Q-Style Hero; fully establishing 6-Sigma; managing cost of poor quality (COPQ)²⁾; conducting supplier evaluation RA; computer system data integrity review (data integrity)³⁾ verification, and quality culture innovation (QCI) activities.

Dong-A Pharmaceutical is developing quality competitiveness by establishing a company-wide quality system and strengthening GMP. It inspects each plant's manufacturing and quality system, and regularly conducts an internal inspection on GMP compliance, and also established a launch process by new product type and made it into a system. In 2022, it will create a Production Division Quality Committee, an expansion of the GMP Committee at each plant, to discuss product quality-related issues and determine policy.

Strengthening GMP Management

To improve the GMP⁴⁾ quality level of a unit campus, Dong-A ST adopted a GMP IT system, thus strengthening data integrity, which was a vulnerability of the previous GMP system, and establishing a work process that meets global standards. In the process of system adoption, the company used a risk-based validation tool to change computer system validation (CSV)⁵⁾ into a simplified, simple process, and considerably reduced the quality management system construction period and costs. The company will focus on system stabilization and global GMP establishment to provide drug quality assurance that is equivalent to the global GMP operation system.

To improve GMP quality levels and secure data credibility, Dong-A Pharmaceutical implemented an automated work process by adopting such GMP IT systems as EDMS and QMS, and is building a data integrity management system. To establish an advanced document system and implement a unified quality policy, Dong-A Pharmaceutical created a drug (quasi-drug) quality manual and policy document that are common for three plants. Its plan is to receive GMP certification for the new Dangjin Plant by April 2022.

¹⁾ Current Good Manufacturing Practice. This is a strengthened drug manufacturing and quality management standard, and is a drug quality management standard that is recognized by the US FDA. Regulatory authorities in advanced countries, including the US FDA, strictly apply GMP regulations, including cGMP, and demand manufacturing and management based on cGMP or equivalent regulations (EU-GMP, etc.) as a prerequisite for import approval of drugs.

²⁾ Irrational, unnecessary, and low added value activities in the overall management process are identified and converted into monetary value. It is an unnecessary expense in a perfect quality state.

³⁾ Maintaining and guaranteeing data accuracy and consistency so that data cannot be changed using an unauthorized method when data is stored or transmitted.

⁴⁾ Good Manufacturing Practice. Good drug manufacturing and quality management standard. This rule is on manufacturing or quality management of drugs, etc. and is a basic condition that guarantees a drug's safety or efficacy aspects. WHO established GMP in 1968 and notified each country the following year.

⁵⁾ A process of establishing documented evidence by proving, at a high level, that a computerized system is operating consistently according to previous-defined standards.

Consumer Centered Management

Consumer Centered Management System

Dong-A ST first obtained Consumer Centered Management (CCM) certification in 2017, and carried out compliance management, environmental management and consumer safety production activities, CCM training, complaint management system changes, establishment of a package design strategy from the consumer perspective, and other activities aimed at preventing prescription-filling errors, improving products, and raising consumer convenience. As a result, Dong-A ST received third certification in 2021 and also a commendation from the Chairperson of the Korea Fair Trade Commission as an outstanding CCM company.

Dong-A Pharmaceutical is working on increasing consumer trust, systematizing consumer centered management, and strengthening consumer contact point services. It is minimizing customer inconveniences through active, preemptive responses on voice of customer (VOC). The company is also strengthening consumer-centered management by adopting a customer counseling system that strengthened consumer communication, including a knowledge management function, sharing function, VOC-processing schedule management, survey, and Kakao Notification Talk.

Activities to Increase Consumer Satisfaction

Improving the VOC System Dong-A ST is advancing the complaint management system. It quickly delivers accurate information to customers through knowledge management updates, including frequently-asked questions, academic materials related to products, and major issues. When a complaint is received, it is automatically shared with relevant departments to analyze the cause according to roles and responsibilities of each department and make company-wide efforts to improve product quality.

To promote active consumer communication, Dong-A Pharmaceutical reorganized the Customer Satisfaction Team that was previously affiliated with the Quality Management Department to be under the Communication Department in January 2021. The company is listening to VOC in greater detail and actively taking responses. Based on regular VOC analysis, the company is preventing consumer complaints and recurrence of claims, and actively reflecting consumer needs in an effort to provide distinctive customer experience.

Knowledge Management System Regarding around 7,100 general questions and some 1,600 claims among approximately 13,600 VOCs in 2021, Dong-A Pharmaceutical accurately and quickly provided consumers with information on product administration and usage methods, efficacy/effects and other basic product information, information on pharmacies where products can be purchased as well as product changes and improvements based on the Knowledge Management System (KMS).

Providing Products and Services that Consider Consumer Safety

Dong-A ST considers consumer safety throughout the entire process of product development, production, and supply. Product approval is received after a strict evaluation by the Ministry of Food and Drug Safety on product safety and other factors in consideration of the characteristics of the pharmaceutical industry. Afterwards, the product is produced in accordance with guidelines at a GMP-certified plant and the product is then supplied to hospitals, clinics, and pharmacies through a Korea Good Supplying Practice-certified wholesaler to promote consumer safety.



Social Contributions



Major Social Contribution Activities

Health

Donating Human Growth Hormones to Short Stature Children To help treat short stature children from low-income families, Dong-A ST signed an MOU with the Hanmaeum Social Welfare Foundation and has been donating human growth hormones every year since 2013. Dong-A ST plans to continually provide sponsorship.

Medical Expense Support for Low-income Cancer Patients Dong-A ST signed an MOU with the Korea Medical Assistance Foundation to help pay medical expenses, thereby reducing the physical and economic burden of low-income cancer patients. It provided KRW 200 million every year starting in 2020, with the total amounting to KRW 400 million. The company will continue this social contribution activity to ensure that no one left behind by healthcare systems and promote health and medical treatment for all.

People

Sponsorship for MERRY Since 2018, Dong-A Pharmaceutical has been contributing to the spread of the value of culture and arts by signing a sponsorship agreement with the culture and arts volunteer group "MERRY", which consists of young volunteers, as part of the "Relieve volunteer's fatigue" campaign that roots for young volunteers. In 2021, the company created a program that enables office workers and seniors to receive musical instrument education, and is nurturing senior volunteers.

1 Company 1 Barracks In accordance with an MOU signed with Korea Army Training Center in 2016, Dong-A Pharmaceutical provides Bacchus to all army recruits and trainees after a march free of charge, while also sponsoring performance and events for them. In 2021, it provided around 200 thousand bottles of Bacchus-F and donated some 500 thousand "DUSNON KF94 Masks for Protection from Yellow Dust" in December for COVID-19 prevention.

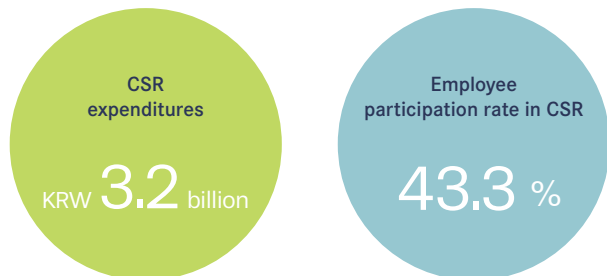
Society

Wednesdays with Bacchus It is a donation campaign to provide 2,000 Bacchus bottles every month to a senior welfare center in Dongdaemun-gu, where Dong-A Pharmaceutical's headquarters is located, every Wednesday.

Providing Oral Hygiene Products for the Good Morning Breakfast Program In February 2020, Dong-A Pharmaceutical signed an MOU to provide oral hygiene products for a Good Morning Breakfast program implemented by the Dongbu District Office of Education in Seoul and World Vision. The company provides a year's worth of oral hygiene products to 100 students at 10 schools to help children and youths maintain clean oral conditions after meals, including Garglin Kids, Garglin toothpaste, and Jordan toothbrush for children.

Dong-A Socio Group runs various social contribution programs in the areas of "health, environment, people, society" based on the mission of health and happiness of employees, customers, and society, while also taking the lead in building a voluntary employee participation culture. By doing so, we seek to realize our social contribution philosophy aimed to "thrive together", with a focus on the core values of continuity, sincerity, and business relevance, and fulfill corporate social responsibilities.

CSR Performance of Dong-A Socio Group in 2021



Green Management

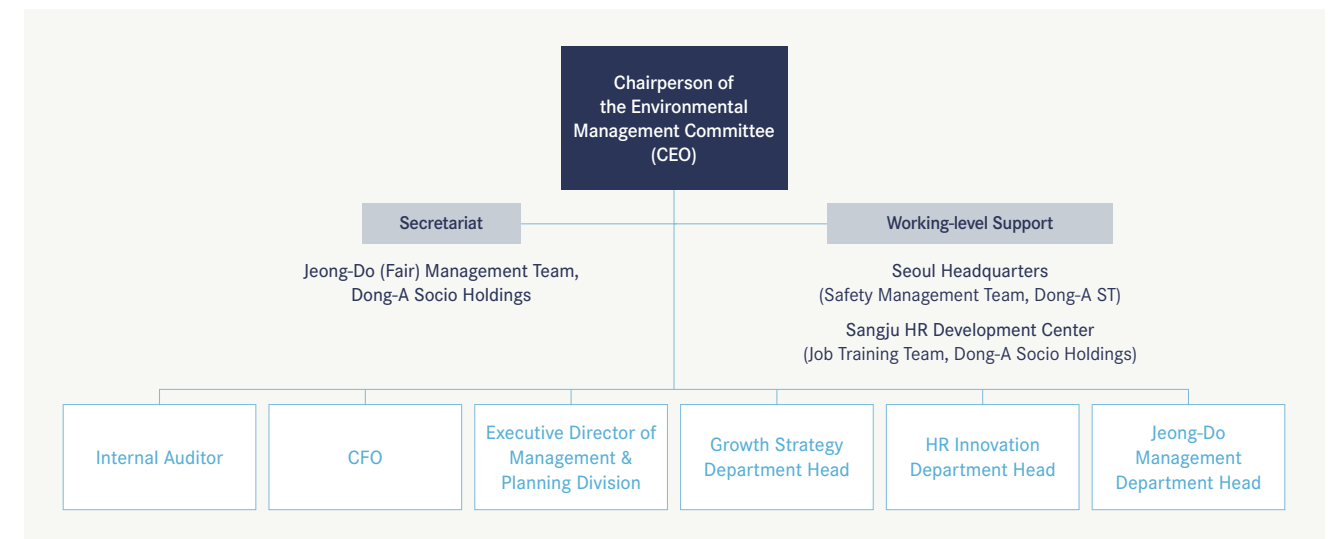


Environmental Management System

Humankind's healthy, pleasant lives are only possible when we prevent environmental pollution and damage, while also managing and preserving the environment in a sustainable manner. Dong-A Socio Group therefore preemptively responds to various environmental challenges that we face through environmental management, and strives to meet the expectations that internal and external stakeholders have towards us, which in turn will enable us to enhance corporate value and achieve sustainable growth.

To raise employee awareness of environmental problems, including climate change and air pollution, and to minimize environmental impact that can arise from our business activities, Dong-A Socio Holdings established an environmental policy and environmental goals, centered around the Environmental Management Committee, has established a system to respond to major environmental issues, including energy, greenhouse gas, and wastes, and carries out diverse activities.

Environmental Management Committee Organization



Responding to Climate Change

Managing Energy Consumption and GHG Emissions

Seoul Headquarters In 2021, we replaced lighting in elevator halls, hallways, and restrooms with LED and plan to change lighting in the buildings to LED in a phased manner. In addition, we replaced boilers and water coolers/heaters installed at each headquarters building with low NOx facilities, which will enable us to reduce GHG and nitrogen oxide/sulfur oxide emissions by 5–10%.

Dong-A Socio Holdings will replace old facilities that use considerable amounts of energy with new and high-efficiency facilities, and increase efficiency of energy that is used for air conditioning and heating as well as cold and hot water by comprehensively considering climate conditions and work hours. In addition, we will establish a building energy management system (BEMS) by 2023 to secure credibility of energy consumption data by building and establish efficient operation measures, in addition to conducting energy-saving campaigns, such as operating an energy consumption status chart.

Sangju HR Development Center With the goal of reducing surplus electric power, the Center increased installation of standby power cut-off outlets in 2021 (rate of building application of standby power cut-off outlets: year-on-year increase of 1.03% to reach around 32%), enabling us to use electric power more efficiently, thereby reducing energy consumption.

Adopting New and Renewable Energy Power Generation Facilities

Dong-A ST won a new and renewable energy support project from the Ministry of Trade, Industry and Energy in December 2021 as a way to actively look into use of new and renewable energy, and installed a photovoltaic power generation facility with a power generation capacity of some 200 kw on the rooftop of the Cheonan Campus and completed construction in March 2022. Operation of this photovoltaic power generation facility is expected to lead to power generation of approximately 22,000 kw and cost reduction effects of around KRW 2.4 million (based on KRW 110 per 1 kw) every month.

In addition to reviewing various government support projects, Dong-A ST will internally disseminate information on the Cheonan Campus case to facilitate the identification of new businesses and various ideas on using new and renewable energy. By doing so, it will actively reduce energy consumption and carbon emissions.

Minimizing Environmental Impact

Water Resources Management

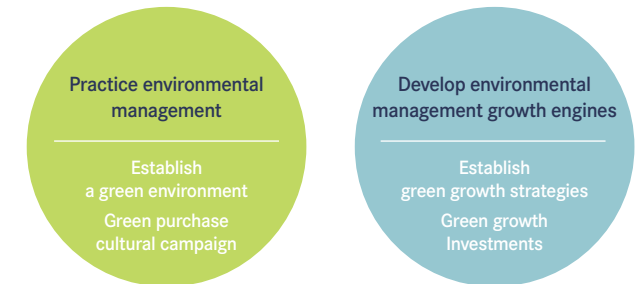
Seoul Headquarters installed water-saving devices and minimized water use. It also regularly injects coolant disinfectants to result in water quality improvements and a reduction in replaced water.

To manage water resources, the Sangju HR Development Center installed underground water flowmeters in March 2021 and monitors underground water on a monthly basis. It is looking into reusing reclaimed sewage water that was previously discharged into a river as water for landscaping (currently using no more than a monthly average 100 tons from July to October) and local agriculture in 2022. It also plans to replace public bathroom faucets to sensor-type faucets that enable water-saving. The Center is also replacing a membrane of an old sewage treatment plant, aiming to complete the project in the second quarter of 2022. It is thus making utmost efforts to manage the water quality of effluent from business sites and minimize the discharge of water pollutants.

Waste Management

To respond to the plastic waste issue that can become a serious environmental issue, Dong-A Socio Holdings is conducting a "Plastic Zero" campaign aimed at reducing the use of plastic disposables. As part of the Plastic Zero campaign, Seoul Headquarters is making such efforts as the use of paper containers for packaging at the cafeteria, provision of personal tumblers to new employees, internal broadcasting, and promotion posters. In addition, we are recording and managing recycled waste discharge data to reduce waste through more systematic recycling.

Dong-A Socio Holdings' Environmental Policy



Dong-A Socio Holdings' Environmental Goals

1. Minimize the use of paper
2. Use new & renewable energy
3. Achieve zero plastics
4. Increase use of eco-friendly products
5. Collaborate with eco-friendly companies

Seoul Headquarters

Energy Conservation Plan

Classification	Unit	2019	2020	2021	Goal for 2022 (3% reduction compared to the last three years)	Mid-to long-term goal by 2028
Electricity	kWh	500,765	437,774	477,246	457,000	440,000
Gas	m ³	52,785	44,960	50,708	480,000	46,000

Energy Consumption and GHG Emissions

Classification	Unit	2019	2020	2021
Energy consumption	TJ	8	7	8
Total GHG emissions	tCO ₂ eq	469	384	416
GHG emissions (Scope 1)	tCO ₂ eq	236.926	180.247	197.659
GHG emissions (Scope 2)	tCO ₂ eq	232.557	204.112	219.252
GHG emissions (Scope 3)	tCO ₂ eq	-	-	1.524

* Changed the unit due to the addition of Scope 3 in 2021, the total sum was truncated

Sangju HR Development Center

Energy Conservation Plan

Classification	Unit	2019	2020	2021	Goal for 2022 (3% reduction compared to the last three years)	Mid-to long-term goal by 2028
Electricity	kWh	448,684	276,477	245,132	313,728	300,000
Gas	m ³	9,501	2,080	2,044	4,405	4,000

Energy Consumption and GHG Emissions

Classification	Unit	2019	2020	2021
Energy consumption	TJ	4	2	2
Total GHG emissions	tCO ₂ eq	224	139	120
GHG emissions (Scope 1)	tCO ₂ eq	35.340	10.119	7.187
GHG emissions (Scope 2)	tCO ₂ eq	189.617	128.908	112.616
GHG emissions (Scope 3)	tCO ₂ eq	-	-	0.522

* Indicated three decimal places for GHG by sector within the Group, and truncated the sector sum

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Financial & Non-financial Performance Summary

Sustainable Management Performance of Dong-A Socio Group¹⁾

	Performance indicators	Unit	2019	2020	2021
Economic	Total assets	KRW billion	1,358.6	1,511.1	1,691.4
	Total liabilities	KRW billion	611.7	622.4	706.3
	Total shareholders' equity	KRW billion	746.9	888.7	985.0
	Sales	KRW billion	769.7	783.3	881.9
	Operating profit	KRW billion	52.8	50.6	61.6
	Operating profit margin	%	6.9	6.5	7.0
	R&D investment	KRW billion	21.5	18.8	6.5
	R&D investment to sales	%	2.8	2.4	0.7
	Social	No. of employees	Person	5,483	5,514
No. of full-time employees		Person	5,163	5,319	5,239
No. of part-time employees		Person	320	195	274
No. of female employees		Person	1,028	1,077	1,073
Percentage of female employees		%	16.0	19.5	19.5
Safety training hours per person		Hour/Person	16.1	22.6	14.4
Industrial accident		Case	19	15	14
Job training hours per person ²⁾		Hour/Person	17.7	27.8	17.2
Employee turnover rate ³⁾		%	9.3	9.2	10.9
Average length of service		Year	8.1	8.5	9.0
CSR expenditures		KRW billion	4.0	3.1	3.2
CSR expenditures to operating profit		%	7.5	6.2	2.4
Employee participation rate in CSR		%	29.3	23.5	43.3
Violation of laws ⁴⁾	Case	3	2	8	
Environmental	Energy consumption ⁵⁾	TJ	1,622	2,041	3,041
	Greenhouse gas (GHG) emissions ⁶⁾	tCO ₂ eq	110,080	136,862	140,236
	GHG emissions (Scope 1) ⁶⁾	tCO ₂ eq	49,245	61,043	51,766
	GHG emissions (Scope 2) ⁶⁾	tCO ₂ eq	60,835	74,538	87,815
	GHG emissions (Scope 3) ⁷⁾	tCO ₂ eq	-	-	655
	Water consumption	Ton	1,650,263	1,793,065	1,845,892
	Wastewater discharge	Ton	1,094,536	896,726	714,398
	Volume of waste generated	Ton	10,357	14,600	68,811
	Volume of hazardous waste generated	Ton	3,099	7,120	5,516
Waste recycling rate	%	21.8	44.1	9.8	

¹⁾ Including Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, STgen Bio, CHAMMED, Dong-A Otsuka, Yongma Logis, Soo Seok, Korea Sinto, DONGCHEONSU, ABEN E&C, DA Information

²⁾ Sum of internal trainings conducted at the Group affiliates and training courses offered at the HR Development Center of the Group

³⁾ Based on the number of retired persons, including voluntary resignation and resignation to change jobs, as well as resignation due to executive promotions and transfer among the Group affiliates and retirement at the regular retirement age

⁴⁾ Total number of violation of laws, including the Occupational Safety and Health Act and environmental laws, by the Group affiliates

⁵⁾ Figures for 2019: Including Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, Soo Seok

Figures for 2020 and 2021: Including Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, STgen Bio, CHAMMED, Dong-A Otsuka, Yongma Logis, Soo Seok, Korea Sinto, DONGCHEONSU, ABEN E&C, DA Information

⁶⁾ Figures for 2019: Including Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, Yongma Logis, Soo Seok, Korea Sinto

Figures for 2020 and 2021: Including Dong-A Socio Holdings, Dong-A ST, Dong-A Pharmaceutical, ST Pharm, STgen Bio, CHAMMED, Dong-A Otsuka, Yongma Logis, Soo Seok, Korea Sinto, DONGCHEONSU, ABEN E&C, DA Information

⁷⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

Sustainable Management Performance of Dong-A Socio Holdings

Financial Performance

Summarized Consolidated Statements of Comprehensive Income	Classification	(Unit: KRW billion)		
		2019	2020	2021
	Operating revenues	769.7	783.3	881.9
	Operating expenses	716.9	732.7	820.4
	Operating profit	52.8	50.6	61.6
	Other income	2.4	140.0	37.8
	Other expenses	3.3	2.3	31.3
	Finance income	5.1	7.4	8.7
	Finance costs	14.1	17.5	15.7
	Gain (Loss) using the equity method	(4.3)	(8.1)	5.0
	Profit before income tax expense	38.7	170.2	66.1
	Income tax expense	18.7	7.8	5.6
	Profit for the year	20.0	162.4	60.5
	Other comprehensive income (loss)	(0.1)	(4.7)	3.0
	Total comprehensive income for the year	19.8	157.7	63.5

Summarized Statements of Comprehensive Income	Classification	(Unit: KRW billion)		
		2019	2020	2021
	Operating revenues	67.7	54.5	57.8
	Operating expenses	43.7	37.1	26.4
	Operating profit	24.0	17.4	31.4
	Other income	0.1	90.4	3.0
	Other expenses	0.1	29.6	9.3
	Finance income	3.7	6.1	6.2
	Finance costs	8.5	10.8	10.7
	Profit before income tax expense	19.2	73.6	20.6
	Income tax expense	5.3	0.7	(0.3)
	Profit for the year	14.0	72.9	20.9
	Other comprehensive income (loss)	0.7	(0.8)	(1.9)
	Total comprehensive income for the year	14.6	72.1	19.0

Summarized Consolidated Statements of Financial Position	Classification	(Unit: KRW billion)		
		2019	2020	2021
	Current assets	315.3	329.4	358.6
	Non-current assets	1,043.3	1,181.7	1,332.8
	Total assets	1,358.6	1,511.1	1,691.4
	Current liabilities	414.4	348.4	467.3
	Non-current liabilities	197.3	274.0	239.1
	Total liabilities	611.7	622.4	706.3
	Equity attributable to owners of the Parent Company	745.1	888.7	965.2
	Share capital	30.7	30.8	31.7
	Share premium	285.9	287.8	310.0
	Capital adjustment	(197.9)	(206.3)	(206.3)
	Other components of equity	141.9	137.0	135.9
	Retained earnings	484.6	639.4	693.9
	Non-controlling interest	1.8	0.01	19.9
	Total equity	746.9	888.7	985.0
	Total liabilities and equity	1,358.6	1,511.1	1,691.4

Summarized Statements of Financial Position	Classification	(Unit: KRW billion)		
		2019	2020	2021
	Current assets	49.2	53.8	74.9
	Non-current assets	744.7	779.9	910.8
	Total assets	793.9	833.7	985.7
	Current liabilities	122.9	184.1	193.4
	Non-current liabilities	122.6	93.2	141.8
	Total liabilities	245.5	277.3	335.2
	Share capital	30.7	30.7	31.7
	Share premium	285.9	285.9	310.0
	Capital adjustment	(193.3)	(193.3)	(201.7)
	Other components of equity	88.5	89.1	86.0
	Retained earnings	336.7	344.1	424.5
	Total equity	548.4	556.4	650.5
	Total liabilities and equity	793.9	833.7	985.7

Non-financial Performance

Classification	Performance indicators	Unit	2019	2020	2021	
Business Ethics	Employee participation rate in anti-corruption training	%	83.9	94.5	89.9	
	Employee participation rate in pledge to Jeong-Do management	%	90.2	97.0	94.8	
	Violation of laws	Case	1	1	0	
	No. of employees ¹⁾	Person	173	165	97	
	No. of full-time employees	Person	156	147	84	
	Safety training hours per person	Hour/Person	5.4	8.3	7.5	
	Industrial accident / Injury	Case	1	0	0	
	Lost days	Day	3	0	0	
	Grievance handling rate ²⁾	%	100	100	100	
	Organizational diagnosis	Point	3.7	3.2	2.9	
Human Rights & Labour	Percentage of employees subject to regular performance evaluation	%	100	100	78.4	
	Job training hours	Hour	4,733	2,661	1,486	
	Job training hours per person	Hour/Person	27.4	16.1	17.2	
	No. of part-time employees	Person	17	18	13	
	Percentage of part-time employees	%	10.4	10.9	13.4	
	No. of female employees	Person	62	58	24	
	Percentage of female employees	%	35.6	35.2	24.7	
	No. of female executives	Person	2	1	1	
	No. of female managers	Person	6	4	1	
	Employee turnover rate	%	7.6	9.7	17.5	
	Average length of service	Year	9.2	11.1	11.2	
	Percentage of female employees entitled to parental leave	%	14.6	0.0	16.7	
	Percentage of male employees entitled to parental leave	%	0.0	3.7	0.0	
	Sustainable Value Chain	CSR expenditures to operating profit	%	0.2	0.3	0.1
		No. of people benefited from CSR activities	Person	2,150	2,069	1,007
		Employee participation rate in CSR	%	16.2	50.9	96.0
		Supplier participation rate in pledge to CSR Code of Conduct	%	33.2	41.1	0.0
R&D investment ³⁾		KRW billion	15.6	12.3	0.16	
R&D investment to sales ³⁾		%	25.4	22.5	0.3	
Environment	Water consumption	Ton	14,996	17,597	6,163	
	Wastewater discharge	Ton	3,465	2,564	1,351	
	Volume of waste generated	Ton	26	53	32	
	Greenhouse gas (GHG) emissions	tCO ₂ eq	1,811	1,606	630	
	GHG emissions (Scope 1)	tCO ₂ eq	599	487	286	
	GHG emissions (Scope 2)	tCO ₂ eq	1,212	1,119	342	
	GHG emissions (Scope 3) ⁴⁾	tCO ₂ eq	-	-	2	
Energy consumption	TJ	35	31	12		

¹⁾ Including Standing Committee members²⁾ Based on internal aggregation³⁾ Based on separate financial statements⁴⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

Creation and Distribution of Economic Value

Classification		Unit	2019	2020	2021
Creation of economic value	Sales	KRW billion	67.7	54.5	57.8
	Dividend	KRW billion	6.1	6.1	9.2
Shareholders & investors	Interest expense	KRW billion	8.1	7.7	7.7
	Total	KRW billion	14.2	13.8	16.9
Employees	Salaries	KRW billion	13.5	10.6	9.0
	Employee benefits	KRW billion	2.1	2.0	2.1
	Total	KRW billion	15.6	12.6	11.1
Suppliers	Raw material expenses	KRW billion	-	-	-
	Outsourcing expenses	KRW billion	2.3	2.1	1.3
	Total	KRW billion	2.3	2.1	1.3
Government & local communities	Income tax	KRW billion	5.3	0.7	(0.3)
	CSR expenditures	KRW billion	0.05	0.14	0.07
	Total	KRW billion	5.3	0.9	(-0.2)

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

Sustainable Management Performance of the Group Affiliates

Dong-A ST

Classification		Unit	2019	2020	2021		
Financial Performance	Total assets	KRW billion	1,012.3	984.9	1,115.3		
	Total liabilities	KRW billion	362.7	338.5	455.5		
	Total shareholders' equity	KRW billion	649.6	646.4	659.8		
	Sales	KRW billion	612.2	586.6	590.1		
	Operating profit	KRW billion	57.0	34.1	15.5		
	Operating profit margin	%	9.3	5.8	2.6		
	Non-financial Performance	No. of employees	Person	1,601	1,594	1,646	
Employee participation rate in anti-corruption training		%	89.0	93.5	100.0		
Violation of laws		Case	2	1	0		
Safety training hours		Hour/Person	17.2	17.3	6.7		
Industrial accident		Case	1	2	2		
Job training hours		Hour/Person	21.8	36.9	20.1		
Percentage of female employees		%	27.8	28.0	29.5		
Employee turnover rate		%	5.2	6.8	7.5		
Average length of service		Year	11.1	11.6	11.6		
Water consumption		Ton	141,852	157,998	167,583		
GHG emissions		tCO ₂ eq	11,109	14,082	21,852		
GHG emissions (Scope 1)		tCO ₂ eq	2,767	5,448	7,085		
GHG emissions (Scope 2) ¹⁾		tCO ₂ eq	8,342	8,633	14,712		
GHG emissions (Scope 3) ²⁾		tCO ₂ eq	-	-	55		
Energy consumption		TJ	-	307	470		
Creation and Distribution of Economic Value		Creation of economic value	Sales	KRW billion	612.2	586.6	590.1
			Dividend	KRW billion	8.4	8.4	8.4
	Shareholders & investors	Interest expense	KRW billion	7.6	5.2	5.6	
		Total	KRW billion	16.0	13.6	14.1	
	Employees	Salaries	KRW billion	110.5	110.4	132.4	
		Employee benefits	KRW billion	15.9	16.0	17.0	
		Total	KRW billion	126.4	126.4	149.4	
	Suppliers	Raw material expenses	KRW billion	258.5	225.5	236.5	
		Outsourcing expenses	KRW billion	23.6	23.2	25.9	
		Total	KRW billion	282.1	248.6	262.5	
	Government & local communities	Income tax	KRW billion	8.1	9.4	-0.8	
		CSR expenditures	KRW billion	1.3	1.4	0.8	
		Total	KRW billion	9.4	10.8	0	

¹⁾ GHG Scope 2 emissions in 2020 and 2021 increased due to the addition of fuel expense item

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

²⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

Dong-A Pharmaceutical

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	255.0	271.9	325.4	
	Total liabilities	KRW billion	130.6	139.4	176.0	
	Total shareholders' equity	KRW billion	124.3	132.5	149.4	
	Sales	KRW billion	400.4	414.8	437.4	
	Operating profit	KRW billion	52.8	50.1	54.0	
	Operating profit margin	%	13.2	12.1	12.4	
	Non-financial Performance	No. of employees	Person	866	926	917
Employee participation rate in anti-corruption training		%	92.8	91.4	95.9	
Violation of laws		Case	0	0	0	
Safety training hours		Hour/Person	16.2	14.7	15.5	
Industrial accident		Case	0	0	2	
Percentage of female employees		%	20.0	21.3	20.3	
Employee turnover rate		%	4.6	5.6	8.9	
Average length of service		Year	11.2	11.0	10.7	
Water consumption ¹⁾		Ton	385,736	343,880	421,878	
GHG emissions		tCO ₂ eq	8,605	10,378	12,352	
GHG emissions (Scope 1)		tCO ₂ eq	2,110	3,798	3,666	
GHG emissions (Scope 2)	tCO ₂ eq	6,495	6,580	8,546		
GHG emissions (Scope 3) ²⁾	tCO ₂ eq	-	-	140		
Energy consumption	TJ	-	247	605		
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	400.4	414.8	437.4
		Dividend	KRW billion	33.0	33.0	35.4
	Shareholders & investors	Interest expense	KRW billion	1.1	1.1	0.8
		Total	KRW billion	34.1	34.1	36.2
	Employees	Salaries	KRW billion	65.8	59.5	72.7
		Employee benefits	KRW billion	9.3	9.4	10.0
		Total	KRW billion	75.1	68.9	82.7
	Suppliers	Raw material expenses	KRW billion	157.5	152.0	98.6
		Outsourcing expenses	KRW billion	24.3	26.8	51.3
		Total	KRW billion	181.8	178.7	149.9
	Government & local communities	Income tax	KRW billion	7.0	6.3	2.4
		CSR expenditures	KRW billion	2.2	0.9	1.6
		Total	KRW billion	9.2	7.2	4.0

¹⁾ Water consumption increased due to new opening of the Dangjin Plant in 2021²⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

ST Pharm

Classification		Unit	2019	2020	2021		
Financial Performance	Total assets	KRW billion	341.1	445.8	494.7		
	Total liabilities	KRW billion	37.4	143.9	165.9		
	Total shareholders' equity	KRW billion	303.7	301.8	328.8		
	Sales	KRW billion	93.3	109.0	139.1		
	Operating profit (loss)	KRW billion	(26.7)	(131)	4.5		
	Operating profit (loss) margin	%	(28.6)	(12.0)	3.3		
	Non-financial Performance	No. of employees	Person	469	505	560	
Violation of laws		Case	0	0	8		
Safety training hours		Hour/Person	24.5	24.1	28.7		
Industrial accident		Case	1	1	0		
Job training hours		Hour/Person	14.6	16.4	7.7		
Percentage of female employees		%	23.9	23.4	25.5		
Employee turnover rate		%	10.5	10.9	10.4		
Average length of service		Year	6.4	6.6	6.5		
Percentage of local talent		%	18.0	10.3	22.0		
Water consumption		Ton	125,881	123,221	133,841		
Recycling rate of waste		%	32.8	49.2	47.5		
GHG emissions		tCO ₂ eq	17,803	18,365	16,788		
GHG emissions (Scope 1)		tCO ₂ eq	184	503	462		
GHG emissions (Scope 2)		tCO ₂ eq	17,619	17,862	16,282		
GHG emissions (Scope 3) ¹⁾		tCO ₂ eq	-	-	44		
Energy consumption		TJ	-	366	355		
Creation and Distribution of Economic Value		Creation of economic value	Sales	KRW billion	93.3	109.0	139.1
		Shareholders & investors	Interest expense	KRW billion	0.1	0.04	2.0
			Salaries	KRW billion	29.0	28.8	42.0
		Employees	Employee benefits	KRW billion	2.1	2.6	2.9
	Total		KRW billion	31.1	31.4	44.9	
	Suppliers	Raw material expenses	KRW billion	31.8	50.3	70.7	
		Outsourcing expenses	KRW billion	1.4	1.5	2.1	
		Total	KRW billion	33.2	51.8	72.8	
	Government & local communities	Income tax	KRW billion	1.8	1.6	1.3	
		CSR expenditures	KRW billion	0.01	0.02	0.02	
		Total	KRW billion	1.8	1.6	1.3	

¹⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

STgen Bio

Classification		Unit	2019	2020	2021		
Financial Performance	Total assets	KRW billion	135.6	147.5	140.7		
	Total liabilities	KRW billion	43.8	54.3	50.4		
	Total shareholders' equity	KRW billion	91.8	93.2	90.3		
	Sales	KRW billion	6.4	15.9	40.3		
	Operating profit (loss)	KRW billion	(34.1)	(17.8)	(2.7)		
	Operating profit (loss) margin	%	(532.5)	(111.4)	(6.6)		
	Non-financial Performance	No. of employees	Person	186	212	219	
Violation of laws		Case	0	0	0		
Safety training hours		Hour/Person	13.0	18.8	3.5		
Industrial accident		Case	1	0	0		
Job training hours		Hour/Person	5.8	9.1	5.0		
Percentage of female employees		%	28.0	33.5	34.7		
Employee turnover rate		%	9.5	7.5	24.2		
Average length of service		Year	4.8	4.5	5.0		
Percentage of local talent		%	51.2	15.6	57.1		
Water consumption ¹⁾		Ton	32,068	42,706	63,273		
General waste discharge		Ton	16	60	81		
Medical waste discharge		Ton	11	10	58		
GHG emissions ²⁾		tCO ₂ eq	-	7,307	7,262		
GHG emissions (Scope 1)		tCO ₂ eq	-	1,642	1,623		
GHG emissions (Scope 2)		tCO ₂ eq	-	5,665	5,618		
GHG emissions (Scope 3) ³⁾		tCO ₂ eq	-	-	21		
Energy consumption		TJ	-	149	148		
Creation and Distribution of Economic Value		Creation of economic value	Sales	KRW billion	6.4	15.9	40.3
		Shareholders & investors	Interest expense	KRW billion	1.2	1.1	1.1
			Salaries	KRW billion	10.0	13.1	13.0
	Employees	Employee benefits	KRW billion	1.5	1.8	2.2	
		Total	KRW billion	11.5	15.0	15.1	
	Suppliers	Raw material expenses	KRW billion	0.4	3.7	5.8	
		Outsourcing expenses	KRW billion	6.7	3.1	3.7	
		Total	KRW billion	7.1	6.7	9.5	
	Government & local communities	Income tax	KRW billion	0.5	0.5	-	
		CSR expenditures	KRW billion	-	-	0.004	
		Total	KRW billion	0.5	0.5	0.004	

¹⁾ Production increased as a result of global biosimilar market expansion

²⁾ GHG emissions in 2019 were not measured

³⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

CHAMMED

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	10.3	10.9	11.5	
	Total liabilities	KRW billion	3.3	3.8	3.9	
	Total shareholders' equity	KRW billion	7.0	7.0	7.6	
	Sales	KRW billion	11.2	9.3	9.5	
	Operating profit	KRW billion	0.8	0.2	0.4	
	Operating profit margin	%	7.1	1.9	4.3	
Non-financial Performance	No. of employees	Person	55	53	50	
	Violation of laws	Case	0	0	0	
	Safety training hours	Hour/Person	12.0	17.7	17.4	
	Industrial accident	Case	0	1	0	
	Job training hours	Hour/Person	16.0	9.3	7.7	
	Percentage of female employees	%	22.7	20.8	22.0	
	Employee turnover rate	%	20.0	20.8	44.0	
	Average length of service	Year	2.4	4.3	4.7	
	R&D expense to total sales	%	8.1	11.8	10.8	
	Water consumption	Ton	78	112	94	
	GHG emissions ¹⁾	tCO ₂ eq	-	50	93	
	GHG emissions (Scope 1)	tCO ₂ eq	-	-	32	
	GHG emissions (Scope 2)	tCO ₂ eq	-	50	61	
	GHG emissions (Scope 3) ²⁾	tCO ₂ eq	-	-	-	
	Energy consumption	TJ	-	1	1	
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	11.2	9.3	9.5
		Salaries	KRW billion	2.2	2.4	2.3
	Employees	Employee benefits	KRW billion	0.2	0.2	0.2
		Total	KRW billion	2.4	2.5	2.5
	Suppliers	Raw material expenses	KRW billion	4.5	3.6	3.3
		Outsourcing expenses	KRW billion	0.03	0.03	0.1
		Total	KRW billion	4.5	3.6	3.4
	Government & local communities	Income tax	KRW billion	0.1	0.04	0.09
		CSR expenditures	KRW billion	-	-	0.002
	Total	KRW billion	0.1	0.04	0.09	

¹⁾ GHG emissions in 2019 were not measured

²⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption (measured at 0.03)

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

Dong-A Otsuka

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	257.3	251.7	245.8	
	Total liabilities	KRW billion	105.2	100.6	88.7	
	Total shareholders' equity	KRW billion	152.1	151.1	157.1	
	Sales	KRW billion	288.4	268.9	293.9	
	Operating profit (loss)	KRW billion	6.4	(1.3)	9.3	
	Operating profit (loss) margin	%	2.2	(0.5)	3.2	
Non-financial Performance	No. of employees	Person	1,043	938	951	
	Employee participation rate in anti-corruption training	%	99.2	92.5	98.5	
	Violation of laws	Case	0	0	0	
	Safety training hours	Hour/Person	15.5	15.5	15.7	
	Industrial accident	Case	10	4	4	
	Job training hours	Hour/Person	62.5	73.3	45.3	
	Percentage of female employees	%	4.0	4.6	5.5	
	Employee turnover rate	%	9.9	7.9	9.4	
	Average length of service	Year	11.2	11.3	12.8	
	Water consumption	Ton	807,790	748,820	743,768	
	GHG emissions ¹⁾	tCO ₂ eq	-	16,095	17,474	
	GHG emissions (Scope 1)	tCO ₂ eq	-	6,989	7,350	
	GHG emissions (Scope 2)	tCO ₂ eq	-	9,106	9,878	
	GHG emissions (Scope 3) ²⁾	tCO ₂ eq	-	-	246	
	Energy consumption	TJ	-	323	346	
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	288.4	268.9	293.9
		Dividend	KRW billion	1.3	-	2.0
	Shareholders & investors	Interest expense	KRW billion	1.1	0.8	0.5
		Total	KRW billion	2.4	0.8	2.5
	Employees	Salaries	KRW billion	60.4	57.3	62.1
		Employee benefits	KRW billion	7.3	7.3	7.6
		Total	KRW billion	67.7	64.6	69.6
	Suppliers	Raw material expenses	KRW billion	137.3	127.7	131.7
		Outsourcing expenses	KRW billion	8.6	8.4	7.7
		Total	KRW billion	145.9	136.1	139.5
Government & local communities	Income tax	KRW billion	1.4	0.4	2.1	
	CSR expenditures	KRW billion	0.3	0.4	0.2	
	Total	KRW billion	1.7	0.8	2.3	

¹⁾ GHG emissions in 2019 were not measured

²⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

Yongma Logis

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	199.5	214.5	217.4	
	Total liabilities	KRW billion	98.4	105.9	100.0	
	Total shareholders' equity	KRW billion	101.1	108.6	117.4	
	Sales	KRW billion	249.6	275.9	304.9	
	Operating profit	KRW billion	11.5	13.1	12.8	
	Operating profit margin	%	4.6	4.7	4.2	
Non-financial Performance	No. of employees	Person	556	578	532	
	Employee participation rate in pledge to Jeong-Do management	%	100.0	100.0	100.0	
	Violation of laws	Case	0	0	0	
	Safety training hours	Hour/Person	25.9	24.1	26.3	
	Industrial accident	Case	0	6	0	
	Job training hours	Hour/Person	94.1	113.8	8.0	
	Percentage of female employees	%	13.8	13.1	7.3	
	Employee turnover rate	%	9.2	19.2	17.9	
	Average length of service	Year	8.0	8.0	9.5	
	Water consumption	Ton	6,795	8,637	5,123	
	GHG emissions	tCO ₂ eq	27,452	26,369	7,155	
	GHG emissions (Scope 1)	tCO ₂ eq	18,755	17,636	5,184	
	GHG emissions (Scope 2)	tCO ₂ eq	8,697	8,733	1,970	
	GHG emissions (Scope 3) ¹⁾	tCO ₂ eq	-	-	1	
Energy consumption	TJ	-	-	113		
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	249.6	275.9	304.9
		Dividend	KRW billion	2.5	2.5	2.5
	Shareholders & investors	Interest expense	KRW billion	1.6	1.6	1.5
		Total	KRW billion	4.1	4.0	4.0
	Employees	Salaries	KRW billion	28.6	30.9	32.4
		Employee benefits	KRW billion	5.4	5.8	6.2
		Total	KRW billion	34.0	36.6	38.7
	Suppliers	Raw material expenses	KRW billion	35.2	36.9	41.1
		Outsourcing expenses	KRW billion	166.3	190.5	211.6
		Total	KRW billion	201.5	227.4	252.7
	Government & local communities	Income tax	KRW billion	5.6	4.8	2.2
		CSR expenditures	KRW billion	0.02	0.02	0.05
		Total	KRW billion	5.6	4.8	2.2

¹⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

Soo Seok

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	171.2	161.4	159.2	
	Total liabilities	KRW billion	81.3	71.1	72.5	
	Total shareholders' equity	KRW billion	89.9	90.3	86.7	
	Sales	KRW billion	131.8	114.5	112.8	
	Operating profit	KRW billion	8.9	6.2	2.3	
	Operating profit margin	%	6.8	5.4	2.1	
Non-financial Performance	No. of employees	Person	254	254	250	
	Violation of laws	Case	0	0	0	
	Safety training hours	Hour/Person	25.0	24.9	17.9	
	Industrial accident	Case	0	1	0	
	Job training hours	Hour/Person	20.1	30.9	19.4	
	Percentage of female employees	%	7.1	7.9	8.0	
	Employee turnover rate	%	16.5	11.0	14.4	
	Average length of service	Year	8.7	9.8	9.9	
	Water consumption ¹⁾	Ton	15,301	26,916	43,268	
	Waste recycling rate	%	48.5	53.1	73.5	
	GHG emissions ²⁾	tCO ₂ eq	34,739	34,399	45,883	
	GHG emissions (Scope 1) ²⁾	tCO ₂ eq	17,899	23,717	24,586	
	GHG emissions (Scope 2) ²⁾	tCO ₂ eq	7,860	10,682	21,283	
	GHG emissions (Scope 3) ³⁾	tCO ₂ eq	-	-	14	
Energy consumption	TJ	-	539	776		
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	131.8	114.5	112.8
		Dividend	KRW billion	2.5	2.0	2.0
	Shareholders & investors	Interest expense	KRW billion	1.6	1.1	1.0
		Total	KRW billion	4.1	3.1	3.0
	Employees	Salaries	KRW billion	16.3	16.1	15.3
		Employee benefits	KRW billion	2.7	2.9	3.3
		Total	KRW billion	18.9	19.0	18.6
	Suppliers	Raw material expenses	KRW billion	31.0	25.2	29.8
		Outsourcing expenses	KRW billion	5.6	5.2	4.8
		Total	KRW billion	36.7	30.4	34.6
	Government & local communities	Income tax	KRW billion	0.2	0.4	0.6
		CSR expenditures	KRW billion	0.1	0 ⁴⁾	0.2
		Total	KRW billion	0.3	0.4	0.8

¹⁾ Figure for 2019 is an estimate due to a meter breakdown²⁾ Includes the Anyang Plant only and excludes the Dangjin Plant and Color Pack Unit³⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption⁴⁾ CSR expenditures of KRW 800,000

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

Korea Sinto

Classification		Unit	2019	2020	2021		
Financial Performance	Total assets	KRW billion	29.4	30.0	28.8		
	Total liabilities	KRW billion	3.9	5.2	3.7		
	Total shareholders' equity	KRW billion	25.6	24.9	25.2		
	Sales	KRW billion	32.8	20.5	27.4		
	Operating profit (loss)	KRW billion	2.3	(0.5)	0.3		
	Operating profit (loss) margin	%	7.0	(2.4)	1.1		
	Non-financial Performance	No. of employees	Person	96	95	88	
Violation of laws		Case	1	0	0		
Safety training hours		Hour/Person	24.0	18.0	17.0		
Industrial accident		Case	2	0	1		
Job training hours		Hour/Person	4.0	0.8	0.1		
Percentage of female employees		%	3.1	3.2	3.4		
Employee turnover rate		%	4.0	0.0	2.3		
Average length of service		Year	14.0	15.0	16.0		
Water consumption		Ton	1,657	1,691	1,840		
Recycling rate of waste ¹⁾		%	97.0	97.7	97.9		
GHG emissions		tCO ₂ eq	5,934	4,945	6,711		
GHG emissions (Scope 1)		tCO ₂ eq	1,095	927	1,190		
GHG emissions (Scope 2)		tCO ₂ eq	4,839	4,018	5,521		
GHG emissions (Scope 3) ²⁾		tCO ₂ eq	-	-	-		
Energy consumption		TJ	-	-	137		
Creation and Distribution of Economic Value		Creation of economic value	Sales	KRW billion	32.8	20.5	27.4
			Dividend	KRW billion	0.3	-	0.1
		Shareholders & investors	Interest expense	KRW billion	-	-	-
			Total	KRW billion	0.3	-	0.1
		Employees	Salaries	KRW billion	6.0	5.9	5.9
	Employee benefits		KRW billion	0.7	0.6	0.6	
	Total		KRW billion	6.7	6.5	6.6	
	Suppliers	Raw material expenses	KRW billion	7.8	6.7	11.8	
		Outsourcing expenses	KRW billion	7.5	1.8	3.9	
		Total	KRW billion	15.3	8.5	15.6	
	Government & local communities	Income tax	KRW billion	0.4	-	0.01	
		CSR expenditures	KRW billion	-	0.002	0.008	
		Total	KRW billion	0.4	0.002	0.02	

¹⁾ Waste recycling rate is the amount that was treated by an outsourced recycling company²⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption (measured at 0.6)

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

DONGCHEONSU

Classification		Unit	2019	2020	2021		
Financial Performance	Total assets	KRW billion	62.6	63.3	65.7		
	Total liabilities	KRW billion	14.3	14.0	15.1		
	Total shareholders' equity	KRW billion	48.3	49.3	50.5		
	Sales	KRW billion	24.8	26.7	32.2		
	Operating profit	KRW billion	0.3	1.7	2.2		
	Operating profit margin	%	1.2	6.4	6.8		
	Non-financial Performance	No. of employees	Person	78	83	89	
Violation of laws		Case	0	1	0		
Safety training hours		Hour/Person	14.0	29.1	36.2		
Industrial accident		Case	2	0	1		
Percentage of female employees		%	15.4	18.1	20.2		
Employee turnover rate ¹⁾		%	6.4	2.5	2.2		
Average length of service		Year	5.1	5.4	5.6		
Percentage of local talent		%	59.0	51.9	74.3		
Water consumption		Ton	128,368	212,863	258,429		
Wastewater discharge		Ton	2,237	19,061	27,071		
GHG emissions ²⁾		tCO ₂ eq	-	3,245	3,985		
GHG emissions (Scope 1)		tCO ₂ eq	-	220	276		
GHG emissions (Scope 2)		tCO ₂ eq	-	3,025	3,577		
GHG emissions (Scope 3) ³⁾		tCO ₂ eq	-	-	132		
Energy consumption		TJ	-	66	78		
Creation and Distribution of Economic Value		Creation of economic value	Sales	KRW billion	24.8	26.7	32.2
			Dividend	KRW billion	0.4	0.4	0.4
		Shareholders & investors	Interest expense	KRW billion	0.4	0.2	0.2
			Total	KRW billion	0.8	0.6	0.6
		Employees	Salaries	KRW billion	3.4	3.6	4.2
	Employee benefits		KRW billion	0.5	0.6	0.6	
	Total		KRW billion	3.9	4.1	4.8	
	Suppliers	Raw material expenses	KRW billion	12.5	13.5	15.5	
		Outsourcing expenses	KRW billion	0.1	0.1	0.2	
		Total	KRW billion	12.6	13.6	15.6	
	Government & local communities	Income tax	KRW billion	0.8	0.1	0.5	
		CSR expenditures	KRW billion	0.08	0.1	0.1	
		Total	KRW billion	0.9	0.3	0.6	

¹⁾ Made adjustment to figures for 2019 and 2020 due to change in calculation formula²⁾ GHG emissions in 2019 were not measured³⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

ABEN Engineering & Construction

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	11.2	16.8	16.6	
	Total liabilities	KRW billion	5.6	10.1	6.9	
	Total shareholders' equity	KRW billion	5.7	6.7	9.7	
	Sales	KRW billion	23.5	47.9	81.3	
	Operating profit (loss)	KRW billion	(0.9)	1.2	4.5	
	Operating profit (loss) margin	%	(3.7)	2.6	5.6	
Non-financial Performance	No. of employees	Person	36	41	44	
	Employee participation rate in pledge to Jeong-Do management	%	100.0	100.0	100.0	
	Violation of laws	Case	0	0	0	
	Safety training hours	Hour/Person	13.9	13.6	14.7	
	Industrial accident	Case	1	1	4	
	Job training hours	Hour/Person	7.6	18.3	20.3	
	Percentage of female employees	%	19.4	19.5	15.9	
	Employee turnover rate	%	16.7	22.0	25.0	
	Average length of service	Year	3.6	3.9	4.0	
	Water consumption	Ton	-	194	322	
	GHG emissions ¹⁾	tCO ₂ eq	-	2	11	
	GHG emissions (Scope 1)	tCO ₂ eq	-	-	7	
	GHG emissions (Scope 2)	tCO ₂ eq	-	2	4	
	GHG emissions (Scope 3) ²⁾	tCO ₂ eq	-	-	-	
Energy consumption	TJ	-	2	-		
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	23.5	47.9	81.3
	Shareholders & investors	Dividend	KRW billion	0.09	1.0	2.0
		Interest expense	KRW billion	-	-	-
		Total	KRW billion	0.09	1.0	2.0
	Employees	Salaries	KRW billion	2.8	3.4	4.3
		Employee benefits	KRW billion	0.3	0.4	0.6
		Total	KRW billion	3.1	3.8	5.0
	Suppliers	Raw material expenses	KRW billion	5.3	8.5	11.7
		Outsourcing expenses	KRW billion	13.4	31.6	55.7
		Total	KRW billion	18.7	40.0	67.4
	Government & local communities	Income tax	KRW billion	0.06	0.2	1.1
		CSR expenditures	KRW billion	-	-	0.006
		Total	KRW billion	0.06	0.2	1.1

¹⁾ GHG emissions in 2019 were not measured

²⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption (measured at 0.1)

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

DA Information

Classification		Unit	2019	2020	2021	
Financial Performance	Total assets	KRW billion	2.7	3.4	3.3	
	Total liabilities	KRW billion	1.7	2.2	1.8	
	Total shareholders' equity	KRW billion	1.1	1.2	1.6	
	Sales	KRW billion	12.6	12.7	14.7	
	Operating profit	KRW billion	0.1	0.2	0.3	
	Operating profit margin	%	0.8	1.6	2.0	
Non-financial Performance	No. of employees	Person	70	70	70	
	Violation of laws	Case	0	0	0	
	Safety training hours ¹⁾	Hour/Person	4.0	4.0	10.3	
	Industrial accident	Case	0	0	0	
	Job training hours	Hour/Person	6.4	4.7	7.5	
	No. of part-time employees	Person	0	0	0	
	Percentage of female employees	%	14.3	12.9	12.9	
	Employee turnover rate	%	8.5	7.1	12.9	
	Average length of service	Year	8.9	7.9	8.2	
	Water consumption	Ton	-	300	310	
	GHG emissions ²⁾	tCO ₂ eq	-	19	40	
	GHG emissions (Scope 1)	tCO ₂ eq	-	-	19	
GHG emissions (Scope 2)	tCO ₂ eq	-	19	21		
GHG emissions (Scope 3) ³⁾	tCO ₂ eq	-	-	-		
Energy consumption	TJ	-	10	-		
Creation and Distribution of Economic Value	Creation of economic value	Sales	KRW billion	12.6	12.7	14.7
	Employees	Salaries	KRW billion	3.8	4.2	4.5
		Employee benefits	KRW billion	0.7	0.8	0.8
		Total	KRW billion	4.5	5.0	5.3
	Suppliers	Raw material expenses	KRW billion	3.1	2.8	3.4
		Outsourcing expenses	KRW billion	3.5	3.1	4.0
		Total	KRW billion	6.6	5.9	7.3
	Government & local communities	Income tax	KRW billion	0.01	0.05	0.07
		CSR expenditures	KRW billion	-	0.09	0.07
		Total	KRW billion	0.01	0.1	0.1

¹⁾ Offered training through the HuNet of SooSeok Academy in 2019

²⁾ GHG emissions in 2019 were not measured

³⁾ Began to calculate Scope 3 emissions in 2021 only by including water consumption (measured at 0.1)

* Based on separate financial statements. There may be a difference between individual items and the total due to round-off.

Stakeholder Engagement

Dong-A Socio Holdings listens attentively to stakeholder opinions, and conducts detailed examinations of the impact of its decision-making and management activities on individual stakeholders or stakeholder groups. In addition, we share information on our management activity outcomes and plan while also encouraging stakeholders to participate through various channels.

Stakeholder Communication Channels

Stakeholder	Communication channel	Frequency	Major issues and expectations
Group Affiliates	DSC	Biannually	Establish the Group-level policies and share information on the status
	Employee training for the Group affiliates	Yearly	
	Website of Dong-A Socio Holdings	Year-round	
	Jeong-Do Management Website	Year-round	
Shareholders & Investors	BOD	Quarterly	Minimize management risks, enhance shareholder and investor value
	AGM	Yearly	
	Meetings and phone-calls	When an issue arises	
	Public disclosure	When an issue arises	
Local Communities	CSR activities	When an issue arises	Support the underprivileged, contribute to the development of local communities
	Provide training facilities of the HR Development Center in Sangju	When an issue arises	
Government	Presentations of and meetings with the Ministry of Employment and Labor	When an issue arises	Respond to policies and regulations
	Allbaro System (Waste management system of the Ministry of Environment)	When treating waste (once a year for final performance)	
Employees	Intranet (D-Portal)	Year-round	Strengthen employee communication and enhance employees' quality of life, share labor and human rights operation policies, and prevent workplace harassment
	Online welfare center (Ezwelfare)	Year-round	
	Webzine (With Dong-A)	Year-round	
	Dong-A Pharmaceutical Magazine	Monthly	
	Grievance Handling Counseling Center	When an issue arises	
	K-Whistle Helpline & Audit Hotline Reporting CLEAN :D	Year-round	
Partner Companies	Jeong-Do Management Website	When an issue arises	Fully establish fair operation practices by implementing anti-corruption, transparent management
	E-mail	When an issue arises	
	Education	Yearly	
	K-Whistle Helpline & Audit Hotline Reporting CLEAN :D	Year-round	

UNGC & UN SDGs

UNGC

The United Nations (UN) is asking businesses to implement The Ten Principles of the UN Global Compact (UNGC) in the areas of Human Rights, Labour, Environment and Anti-Corruption, and to support UN's development plan in a comprehensive range, including the UN Sustainable Development Goals (SDGs). With its joining of the UNGC in 2020, Dong-A Socio Holdings has been supporting the ten principles and striving to comply with them. Content related to The Ten Principles is reported through this report. Going forward, we plan to actively execute the principles as a responsible corporate citizen.

The Ten Principles of the UN Global Compact

Principles	Page	
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	10-11, 52-53, 71-72
	Principle 2: make sure that they are not complicit in human rights abuses.	
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	72-73
	Principle 4: the elimination of all forms of forced and compulsory labour;	
	Principle 5: the effective abolition of child labour; and	
	Principle 6: the elimination of discrimination in respect of employment and occupation.	
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges;	16-19, 85-87
	Principle 8: undertake initiatives to promote greater environmental responsibility; and	
	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.	9-11, 60-62

UN SDGs

In 2015, the UN and 193 UN member countries announced 17 goals for sustainable development to resolve economic, environmental and social issues of humankind.

As a global corporate citizen, Dong-A Socio Holdings chose SDGs that have high relevance in consideration of direct or indirect impact on overall business models and is carrying out diverse sustainable management activities to achieve the goals, aiming to contribute to the achievement of the UN SDGs as a global corporate citizen.



GRI Standards

Universal Standards (GRI 100)

GRI Standards	Disclosure	Title	ISO 26000	Page
Organizational Profile				
	102-1	Name of the organization		33
	102-2	Activities, brands, products, and services		33-47
	102-3	Location of headquarters		116
	102-4	Location of operations		116
	102-5	Ownership and legal form		54
	102-6	Markets served		33-47
GRI 102	102-7	Scale of the organization	6.3.10, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.4.5, 6.8.5, 7.8	89, 92, 94-105
	102-8	Information on employees and other workers		89, 92, 94-105
	102-9	Supply chain		33
	102-10	Significant changes to the organization and its supply chain		N/A
	102-11	Precautionary Principle or approach		56-57
	102-12	External initiatives		11, 107
	102-13	Membership of associations		114
Strategy				
GRI 102	102-14	Statement from senior decision-maker	4.7, 6.2, 7.4.2	4-5
	102-15	Key impacts, risks, and opportunities	6.2	56-57
Ethics and Integrity				
GRI 102	102-16	Values, principles, standards, and norms of behavior	7.7.5, 4.4, 6.6.3	9-10, 52-53, 60-62
	102-17	Mechanisms for advice and concerns about ethics		10, 61-62
Governance				
	102-18	Governance structure	6.2, 7.4.3	54-56
	102-20	Executive-level responsibility for economic, environmental, and social topics		9, 49, 52-53
	102-21	Consulting stakeholders on economic, environmental, and social topics	6.2	9, 49, 52-53, 106
GRI 102	102-22	Composition of the highest governance body and its committees	6.2	55-56
	102-23	Chair of the highest governance body	6.2	54
	102-24	Nominating and selecting the highest governance body	6.2	54-56
	102-25	Conflicts of interest	6.2	54-56
	102-26	Role of highest governance body in setting purpose, values, and strategy	6.2	9, 49, 52-56

GRI Standards	Disclosure	Title	ISO 26000	Page
Stakeholder Engagement				
	102-40	List of stakeholder groups	5.3, 6.2	106
	102-41	Collective bargaining agreements		55.9% ¹⁾
GRI 102	102-42	Identifying and selecting stakeholders	6.2, 6.7	106
	102-43	Approach to stakeholder engagement	6.2, 6.7	106
	102-44	Key topics and concerns raised	6.2, 6.7	50-53, 106
Reporting Practice				
	102-45	Entities included in the consolidated financial statements	7.5.3, 7.6.2	33
	102-46	Defining report content and topic boundaries		116
	102-47	A list of the material topics identified in the procedure for defining report content		50-53
	102-48	Restatements of information		No significant change
	102-49	Changes in reporting		No significant change
GRI 102	102-50	Reporting period		114
	102-51	Date of most recent report		June 2021
	102-52	Reporting cycle		1 year
	102-53	Contact point for questions regarding the report		114
	102-54	Claims of reporting in accordance with the GRI Standards		114
	102-55	GRI content index		108-111
	102-56	External assurance	7.5.3	116
Management Approach				
GRI 103	103-1	Explanation of the material topic and its boundary	6.2.3, 6.3.7, 6.3.10, 6.4.3, 6.4.3, 6.5.4, 6.5.5, 6.4.6	12-15, 49, 51-53, 58-59, 66-67
	103-2	The management approach and its components		
	103-3	Evaluation of the management approach		

¹⁾ The Group's average value based on the figures of Dong-A ST, Dong-A Pharmaceutical, and ST Pharm. The reporting scope is planned to be expanded by confirming the collective agreement ratio.

Topic Specific Standards GRI 200, 300, 400

GRI Standards	Disclosure	Stakeholder	ISO 26000	Page
Economic Performance (GRI 200)				
Economic Performance				
GRI 201	201-1	Direct economic value generated and distributed	6.8.1, 6.8.2, 6.8.3, 6.8.7, 6.8.9	93–105
Indirect Economic Impacts				
GRI 203	203-1	Infrastructure investments and services supported	6.3.9, 6.8.1–6.8.2, 6.8.7, 6.8.9	89, 92
	203-2	Significant indirect economic impacts	6.3.9, 6.6.6–6.6.7, 6.7.8, 6.8.1–6.8.2, 6.8.5, 6.8.7, 6.8.9	93–105
Procurement Practices				
GRI 204	204-1	Proportion of spending on local suppliers		93–105
Anti-corruption				
GRI 205	205-1	Operations assessed for risks related to corruption	6.6.1–6.6.3, 6.6.6	60–62
	205-2	Communication and training about anti-corruption policies and procedures	6.6.1–6.6.3, 6.6.6	61–62
	205-3	Confirmed incidents of corruption and actions taken	6.6.1–6.6.3	62
Environmental Performance (GRI 300)				
Energy				
GRI 302	302-1	Energy consumption within the organization	6.5.4	86, 89, 92
Emissions				
GRI 305	305-1	Direct (Scope 1) GHG emissions	6.5.5	86, 89, 92
	305-2	Indirect (Scope 2) GHG emissions	6.5.5	86, 89, 92
Effluents and Waste				
GRI 306	306-2	Waste by type and disposal method	6.5.3	89, 92
	306-3	Significant spills	6.5.3	No such case
Environmental Compliance				
GRI 307	307-1	Non-compliance with environmental laws and regulations	4.6	No such case
Social Performance (GRI 400)				
Employment				
GRI 401	401-1	New hires and employee turnover	6.4.3	89, 92

GRI Standards	Disclosure	Stakeholder	ISO 26000	Page
Social Performance (GRI 400)				
Occupational Health and Safety				
GRI 403	403-1	Occupational health and safety management system	6.4.6	36–37, 74–77
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	6.4.6	36–37, 74–77
	403-3	Occupational health services	6.4.6	36–37, 74–77
	403-4	Worker participation, consultation, and communication on occupational health and safety	6.4.5–6	36–37, 74–77
	403-5	Worker training on occupational health and safety	6.4.6	36–37, 74–77
	403-6	Promotion of worker health	6.4.6	36–37, 74–77
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	6.4.6	36–37, 74–77
	403-8	Workers covered by an occupational health and safety management system	6.4.6	74
Training and Education				
GRI 404	404-1	Average hours of training per year per employee	6.2.3, 6.3.7, 6.3.10, 6.4.3, 6.4.7	68, 89, 92
	404-2	Programs for upgrading employee skills and transition assistance programs	6.3.6, 6.3.7, 6.3.10, 6.4.3, 6.4.4, 6.4.7, 6.8.5	68–69
Diversity and Equal Opportunity				
GRI 405	405-1	Diversity of governance bodies and employees	6.2.3, 6.3.7, 6.3.10, 6.4.3	89, 92
Non-discrimination				
GRI 406	406-1	Incidents of discrimination and corrective actions taken	6.3.6, 6.3.7, 6.3.10, 6.4.3	No such case
Local Communities				
GRI 412	412-2	Employee training on human rights policies or procedures	6.3, 6.3.3	71
GRI 413	413-1	Operations with local community engagement, impact assessments, and development programs	6.3.9, 6.5.1–6.5.3, 6.8	24–29, 84
Customer Privacy				
GRI 418	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	6.7.1–6.7.2, 6.7.7	No such case
Socioeconomic Compliance				
GRI 419	419-1	Non-compliance with laws and regulations in the social and economic area	4.6, 6.7.1–6.7.2, 6.7.6	92

GHG Emission Verification Statement

Scope of Verification KSA Certification, Ltd.("KSA") conducted verification under the limited assurance level on the year of 2021 Greenhouse Gas Emissions (Scope 1, 2, 3) of DONG-A SOCIO HOLDINGS and 12 other group companies.

Reference Standard

- ISO 14064- 1,2,3: 2006
- IPCC Guideline: 2006
- WRI GHG Protocol
- Korea ETS guideline provided by Ministry of Environment, Republic of Korea

Verification Opinion As a result of verification activities, verification team has found no significant errors. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

• GHG Emissions & Energy (Scope1, 2, 3)

No.	Site	Ton CO ₂ -eq/yr				TJ/yr		
		Direct (scope1)	Indirect (scope2)	Other indirect (scope3)	Total	Direct (scope1)	Indirect (scope2)	TOTAL
1	Dong-SocioHoldings	286	342	2	630	5	7	12
2	Dong-AST	7,085	14,712	55	21,852	125	345	470
3	Dong-Pharmaceutical	3,666	8,546	140	12,352	428	177	605
4	STPharm	462	16,282	44	16,788	3	352	355
5	STGenBio	1,623	5,618	21	7,262	31	117	148
6	CHAMMED	32	61	-	93	-	1	1
7	Dong-AOtsuka	7,350	9,878	246	17,474	143	203	346
8	YongmaLogis	5,184	1,970	1	7,155	73	40	113
9	SooSeok	24,586	21,283	14	45,883	332	444	776
10	KoreaSinto	1,190	5,521	-	6,711	22	115	137
11	DONGCHEONSU	276	3,577	132	3,985	4	74	78
12	ABENE&C	7	4	-	11	-	-	-
13	DAInformation	19	21	-	40	-	-	-
Total		51,766	87,815	655	140,236	1,166	1,875	3,041

※ For detailed GHG information by business site, please check the verification report issued by the KSA.

※ Scope3: Use of water

May 17th 2022



KOREAN STANDARDS ASSOCIATION

Third Party's Assurance Statement

To readers of Dong-A Socio Group Integrated Report 2020

Introduction

The Korean Standards Association ("KSA") was commissioned by DONG-A SOCIO HOLDINGS ("DONG-A SOCIO HOLDINGS") to perform a third-party Assurance Engagement of '2021 DONG-A SOCIO HOLDINGS Integrated Report' (the "Report"). KSA presents independent opinions as follows as a result of feasibility of the data contained in this Report. DONG-A SOCIO HOLDINGS has sole responsibility for content and performance contained in this Report.

Independence

As an independent assurance agency, KSA does not have any kinds of commercial interest in businesses of DONG-A SOCIO HOLDINGS apart from undertaking a third-party assurance on the Report. We have no other contract with DONG-A SOCIO HOLDINGS that may undermine credibility and integrity as an independent assurance agency.

Assurance Standards and Level

This Assurance Engagement followed the AA1000AS v3 assurance standards to provide Moderate Level assurance. We checked the four principles of inclusivity, materiality, responsiveness and impact in combination with information credibility of the Report. We also reviewed whether the Report content was created in accordance with the GRI Standards.

Assurance Type and Scope

This Assurance Engagement followed the AA1000AS v3 assurance standards to provide Type 2 assurance, which means that the assurance assessed the accuracy and reliability of the company's statements and performance data provided in the Report. The assurance scope is from January 1 2021 to December 31 2021 and the assurance focused on systems and activities including policies and goals, businesses and programs, standards, and achievements of the Company's sustainability management. While the company's environmental and social data as well as financial data was verified, the scope of review concerning stakeholder engagement was limited to the materiality assessment process.

Assurance Methodology

We used the following methods to gather information, documents and evidence with respect to the assurance scope.

- Analyses of articles related to DONG-A SOCIO HOLDINGS's sustainability management published by domestic media outlets
- Review of management system and process used in improving the performance of sustainability management and preparing the Report
- Review of the consistency between the financial performance data and the company's audit report/publicly announced data
- Examination of internal documents and basic materials

Assurance Results and Opinions [On an assurance principle/process level]

KSA reviewed the draft version of this Report to present our opinions as an assurance provider. Modifications were made of the Report content if deemed necessary. We were not aware of any significant errors or inappropriate descriptions in this Report as a result of our Assurance Engagement. As such, we present our opinions of the 2021 DONG-A SOCIO HOLDINGS Integrated Report as follows.

INCLUSIVITY

Has DONG-A SOCIO HOLDINGS engaged its stakeholders in strategically responding to sustainability?

KSA believe DONG-A SOCIO HOLDINGS is aware of the importance of stakeholder participation and is making an all-out effort to establish a process that will increase their participation. DONG-A SOCIO HOLDINGS has selected stakeholders including government and related shareholders and investors, local communities, government, employees, partner companies to receive diverse feedbacks and opinions.

MATERIALITY

Has DONG-A SOCIO HOLDINGS included material information in the Report to help stakeholders make informed decisions?

We are not aware of any significant omissions or exclusions of data that is material to stakeholders. We verified that DONG-A SOCIO HOLDINGS conducted materiality assessment with issues identified from analyses of internal and external environments and reported according to the result.

RESPONSIVENESS

Has DONG-A SOCIO HOLDINGS appropriately responded to stakeholder requirements and interest in this Report?

We verified that DONG-A SOCIO HOLDINGS responded stakeholders' needs and interests through reflecting stakeholders' opinions in the Report. We are not aware of any evidence that DONG-A SOCIO HOLDINGS 's response to significant issues of stakeholders was reported inappropriately.

IMPACT

Has DONG-A SOCIO HOLDINGS appropriately monitored its impact on the stakeholders?

We verified that the Company is monitoring and assessing its impact on the stakeholders by conducting an enhanced verification of its standard business activities. Furthermore, it has been verified that the Company appropriately publishes its findings in the Report.

GRI Standards Disclosure

We confirmed that this Report was prepared in accordance with GRI Standards Core Option. Based on data DONG-A SOCIO HOLDINGS provided, we also confirmed a validity of the contents related to General Standard Disclosure and Specific Standard Disclosure.

UNIVERSAL STANDARDS

We have verified that the Report complied(s) with the requirements of the Universal Standards of Core Option, and (have) reviewed the following disclosures:

102-1 ~ 102-13(Organizational profile), 102-14(Strategy), 102-16 ~ 102-17(Ethics and integrity), 102-18(Governance), 102-40 ~ 102-44(Stakeholder engagement), 102-45 ~ 102-56(Reporting practice), 103(Management Approach)

TOPIC-SPECIFIC STANDARDS

We have checked the material topics identified from a materiality test process in which content to be disclosed. We examined disclosures below:

201-1, 203-1, 203-2, 204-1 302-1, 303-5, 305-1, 305-2, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 412-2, 419-1

★ In the case of index 403, we assure the following specifically for Dong-A Pharmaceutical and Dong-A ST

Opinions and Recommendations [Performance /Issues]

We present the following recommendations to help DONG-A SOCIO HOLDINGS establish a company-wide sustainability management strategy and respond to continuous issues of sustainability.

ECONOMY

Dong-A Socio Group's integrated report, which discloses its sustainable management strategy at the Group level including Dong-A Socio Holdings Co. is winning higher trust from society and its stakeholders. This integrated sustainable management report (hereinafter, "the Report") conveys the value created by the Group, and information relating to the allocated economic resources in accordance with global guidelines. In particular, the Report discloses more comprehensive economic value than the generally disclosed financial information by containing local community and supply-chain-related economic value, which enhances its stakeholders' understanding of the ESG of Dong-A Socio Group. It is recommended that the Group disclose quantitative information on improved economic performance in accordance with the global guidelines by reinforcing responsible management, thereby securing transparency in accounting and establishing and implementing a more credible internal control system.

ENVIRONMENT

Dong-A Socio Group publishes the Report in line with global environmental trends, recognizing the impact of business activities on the environment, society, and the economy. Collecting and disclosing environmental indicators as part of our efforts to respond positively to global climate-change, and fulfill our responsibilities for environmental improvement. It is expected that such efforts will contribute to the reduction of environmental pollution, and to mitigation of climate change. The Group is monitoring environmental indicators such as water-and air-quality, as well as energy and greenhouse gases. However, in relation to some quantitative indicators, Dong-A Socio Group needs to improve the accuracy and appropriateness of the data criteria based on the GRI standards, in order to establish a standard calculation guideline and to strengthen the effectiveness of the data-collection system. It is recommended that Dong-A Socio Group will strengthen its internal processes, and disclose information in accordance with the process of setting specific goals, while executing, reviewing and evaluating its goals regarding environmental management.

SOCIETY

It is known that Dong-A Socio Group operates a corporate social responsibility council to deliberate and take decisions on projects related to social responsibility within the Group. It is highly appreciated that in 2021 the Group strengthened social responsibility management for non-listed companies and carried out active discussions on Dong-A Socio Group's CSR programs. Now that the Group is disclosing its third non-financial performance since 2020, it is our assessment that the Group needs to consider qualitative improvement of the Report. We are recommending that listed companies within the Group need to upgrade their contents so that they can disclose information in line with global standards, while non-listed companies report their ESG-related performance considering business importance and ESG risks and reflecting the nature of their business. It is also recommended that the Group expands its scope to the legal compliance-oriented human rights, and social-responsibility management activities beyond legal regulations regarding labor activities.

May 2022

Myung Soo Kang
KSA Chairman & CEO




The Korean Standards Association (KSA), established as a special corporation in accordance with the Law for Industrial Standardization in 1962, serves as a knowledge service provider that distributes and disseminates such services as industrial standardization, quality management, sustainability management, KS certification and ISO certification. The KSA is committed to the sustainable development of Korean society as an ISO 26000 national secretary, certified GRI training partner, AA1000 assurance provider, KSI (Korea Sustainability Index) operator, and UN CDM DOE (development operational entity), and as an assurance provider of the Korean government's greenhouse gas energy target management system.

Membership

UNGC (Global Compact Network Korea)
 The Korean Dietetic Association
 United Defense Council of Dongdaemun-gu
 Seoul Chamber of Commerce & Industry
 Union of Faithful Pharmaceuticals Report
 International Management Institute,
 The Federation of Korean Industries
 Korea Association for Chief Financial Officers
 Korea Exchange
 Korea Industrial Technology Association
 Executive Company,
 Korea Industrial Technology Association
 Korea Listed Companies Association
 Korea Listed Companies Audit Association
 Korea-Japan Economic Association

* As of December 2021; and Based on the membership of Dong-A Socio Holdings

About This Report

This report is Dong-A Socio Group's third Integrated Report since the first one published in 2020, aimed at communicating with investors and other stakeholders on financial and non-financial performance of Dong-A Socio Group and the efforts that were made to achieve them.

Reporting Standards

This report was developed in accordance with the core option of the Global Reporting Initiative (GRI) standards. Dong-A Socio Holdings joined the UN Global Compact (UNGC) in September 2020, and thus strives to internalize The Ten Principles of the UN Global Compact in Dong-A Socio Group's management activities. In addition, Dong-A Socio Group will make active efforts to contribute to achieving the UN Sustainable Development Goals (SDGs) as a way to achieve our own sustainable development and fulfill social responsibilities.

Reporting Scope and Boundary

"Dong-A Socio Group" refers to the Group affiliates that are subject to consolidation according to the Korean International Financial Reporting Standards (K-IFRS). The reporting scope includes information on Dong-A Socio Holdings and 12 Group affiliates that are connected to Dong-A Socio Holdings in their actual execution of business activities. Financial data is on a consolidated basis, and non-financial data, such as environmental and social data, is on a separate basis of an individual affiliate. Unless otherwise indicated in the general descriptions and information, data of Dong-A Socio Group's overseas branches, sub-subsidiaries, and investment companies is excluded. The geographical boundary is the Republic of Korea, where business sites that account for at least 99% of sales are located, and the time boundary is from January 1, 2021 to December 31, 2021. Some performance data includes data through April 2022.

Third Party Assurance & Disclaimer

Financial information was created by going through an audit by an independent audit firm. To ensure objectivity and credibility of the Integrated Report, an independent assurance process was implemented by Korean Standards Association. This report includes financial circumstance, operation, business performance, top corporate management's plan, and goal-related outlook statements of Dong-A Socio Holdings and the Group affiliates. Despite the third-party assurance, there may be a difference between the company's actual performance and future performance that was stated or implied through outlook statements.

CONTACT INFORMATION

This report is available in PDF format which can be downloaded at Dong-A Socio Group Jeong-Do management website. Stakeholder opinions on this report are collected through various channels, including phone and postal mail.

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ADDITIONAL INFORMATION

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Dong-A Socio Group Jeong-Do Management Website
<https://gamasot.dongasocio.com/index.php/en>

With Dong-A Website <http://with.donga.co.kr>

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人類의 健康과 福祉向上에 이바지한다.

東亞쏘시오그룹 會長 姜信浩

OUR PLEDGE

To fulfill the demands of social justice, we endeavor to fulfill our corporate social responsibility. We also use new sciences and technologies to contribute to the promotion of human health and welfare.



DONG-A SOCIO GROUP

