

# ANNUAL REPORT 2022

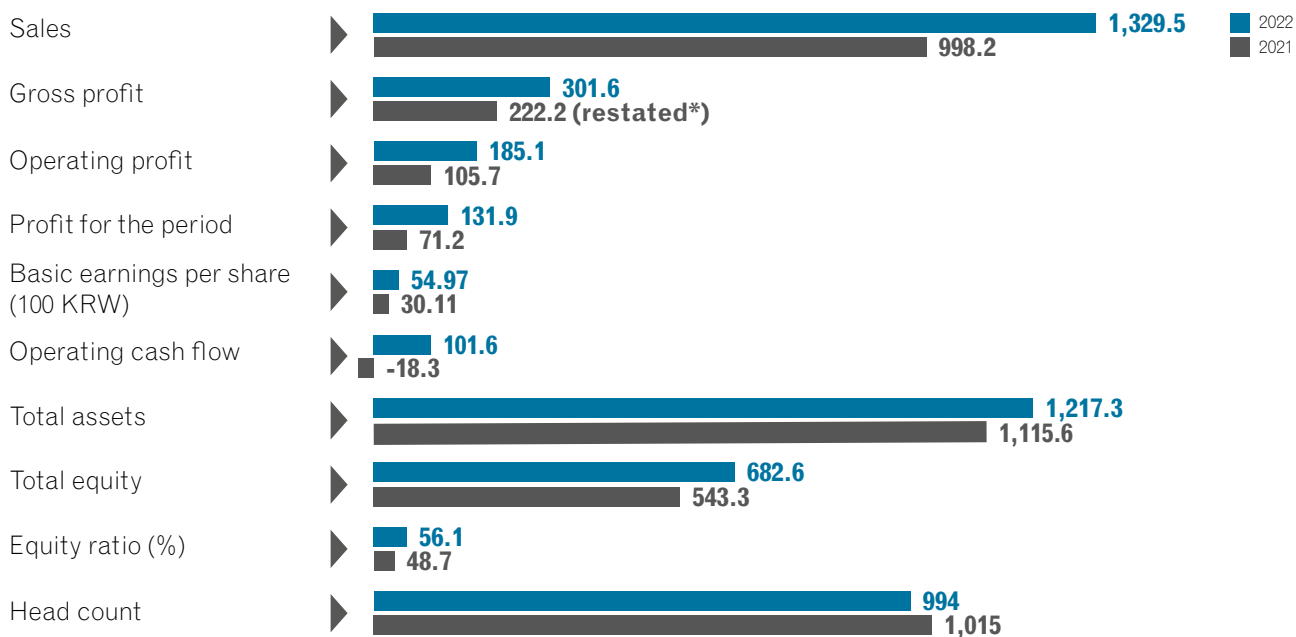


It's all about **the chemistry™**



## Key Financial Data 2022

in Billion KRW



\* refer to note 2.21. in the Financial Statements for further details

## Sales by reporting segment in 2022



## Sales by region in 2022



# SONGWON Industrial Group overview

**33**

*Nationalities*

**185.1**

*Billion KRW  
Operating profit*

**626**

*Direct energy  
consumption  
(1000 GJ)*

**131.9**

*Billion KRW  
Profit for the year*

**247**

*Employees working  
20+ years*

**5,497**

*KRW  
Basis earnings  
per share*

**994**

*Total head count*

**301.6**

*Billion KRW  
Gross profit*

**0.00**

*(%) Total case  
accident rate (TCAR)*

**1,217.3**

*Billion KRW  
Total assets*

**8**

*Manufacturing  
plants*

**682.6**

*Billion KRW  
Total equity*

**114**

*Total female  
employees  
worldwide*

**56.1**

*Equity ratio (%)*

**67**

*New talents added  
to the global team*



# LETTER TO SHAREHOLDERS

Dear Shareholders,

The challenges in 2022 have required uncompromising responsiveness and flexibility. Despite such turbulence, SONGWON continued making significant progress. Our businesses demonstrated strength as well as agility and our global team has shown remarkable discipline and dedication.

**SONGWON generated  
1,329,509 Million KRW in sales.**

Building on the positive end to 2021, SONGWON started 2022 strongly, recording increased revenues and higher profitability. Throughout the first 6 months of the year, SONGWON's businesses performed very well on the back of high demand and previously implemented price increases effectively counterbalanced rising raw material costs. In the 2<sup>nd</sup> half of 2022, the conflict in Ukraine, soaring energy prices and inflation, etc., changed the market landscape considerably, contributing to a downturn in demand. Nevertheless, by focusing on our strategy and financial prudence, SONGWON remained steadfast and delivered strong FY 2022 results. In addition, we launched new products, made key strategic investments and introduced SONGWON's mechanical recycling stabilization approach to the market.

**SONGWON recorded strong overall sales of 1,329,509 Million KRW for FY 2022, a rise of 33.2% compared to sales achieved for FY 2021 (998,190 Million KRW). The Group's net profit in 2022 of 131,932 Million KRW, marks an 85.3% increase compared to 2021 (71,209 Million KRW). The FY 2022 gross profit margin of 22.7% stood slightly higher than in FY 2021 (22.3%).**

## Building a sustainable business for the future

**In 2022, SONGWON notably increased its efforts to significantly move the strategy and roadmap ahead. We want to continue to expand and strengthen our leadership position in our key businesses by operating a sustainable business model that addresses the long-term goals of environment, society and governance (ESG). The strategic goal is to create added value by managing operations, innovation and business practices meeting the changing demands and sustainability requirements of our markets and stakeholders.**

In drawing conclusions from COP27\* and the Paris Agreement, we must build resilience against the impacts of climate change at SONGWON. Governments, including that of South Korea, have set the goal of achieving a net zero emissions economy by 2050 and are thus adopting respective regulations. This goal can only be achieved through the concerted efforts of governments and the industry. Accordingly, the South Korean government has formulated an interim target as of 2030: Emissions have to be reduced by 40% compared to the CO<sub>2</sub>e-output 2018.

On the way to a resource- and energy-efficient world, the chemical industry plays a substantial role. At SONGWON, we have defined important milestones regarding operations and CO<sub>2</sub>e-reduction by 2030. For the year 2022, we have requested and successfully completed an independent limited assurance under ISAE 3000 for a selection of the most important key performance indicators for the Korean manufacturing sites: Energy, CO<sub>2</sub>e-emissions (Scope 1 and Scope 2), Total Case Accident Rate (TCAR). The independently assured KPIs form a solid basis for target definition and are disclosed as aggregated information in the

\* 27<sup>th</sup> UN Climate Change Conference

Sustainability Report. The report – integrated in this Annual Report – is prepared in accordance with the 2021 Global Reporting Initiative (GRI) Standards. In 2022, we have again obtained EcoVadis Gold.

Sustainability becomes a standard, resulting in new or adapted business models. To us this means that we can build on our solid foundations, and at the same time, we are working on taking advantage of the new arising opportunities. We continue building an optimized pipeline of products and solutions meeting customer demands. It is essential for both SONGWON Divisions – Industrial and Performance Chemicals – to leverage new customer insights and to continue to act from an agile market-oriented perspective. We are introducing sustainable products and innovations, or are establishing a Sustainability Service in order to respond to the new market requirements – both for our customers and business partners.

Committed to support the circular economy, we have developed a design for mechanical recycling and offer a wide-ranging portfolio of performance improving products making end materials more durable and plastics easier to recycle. Additives allow further use of products or recycling without significant loss of initial properties. SONGWON performs LCAs (life cycle assessments) of its products due to the increased importance for all partners of the plastics value chain to contribute to a circular economy.

At SONGWON, the sustainability debate has given rise to a new understanding of long-term economic success with meaningful, responsible corporate action. Sustainability is a group-wide challenge involving the entire global team, all departments and business units, and it will influence the company's culture. Whilst at the beginning of this process, results are visible, the recognition is motivating and the momentum is driving us forward.

Over the years, we have developed the dexterity required to remain competitive and respond swiftly to demand volatility. In 2022, we benefited from unforeseen events which caused shortages in the market and led to new business for SONGWON. Supply chain disruptions worldwide, resulted in cost increases and pressure on capacities. However, despite the adverse conditions, SONGWON continued to deliver on the Group's commitments to customers as well as achieve the EcoVadis Gold rating.

**SONGWON achieved EcoVadis Gold for the 2<sup>nd</sup> consecutive year.**

The Russia-Ukraine conflict is significantly impacting the global economy. Although we have no operations in Russia or Ukraine, we are closely monitoring the

conflict and constantly assessing its potential impacts on SONGWON and our customers. Where necessary, we will respond by implementing actions to mitigate risks to our operations and continue to support our stakeholders affected by the conflict as far as possible.

By nurturing closer relationships and communicating with customers in a timely manner, we gained insight into their challenges and made improvements to our supply chain. SONGWON's multiple-supply approach for key raw materials spread across various countries reduces our dependence on individual suppliers. Despite raw material shortages and global supply chain bottlenecks, we leveraged our global scale advantages, optimized production processes and installed more automation to become more resource efficient.

**SONGWON launched its mechanical recycling stabilization approach.**

Our efforts to strengthen SONGWON by implementing a leaner structure and clear processes are ongoing as we adapt to more effectively navigate challenges. To support this, key leadership positions were filled which included a new Leader Group Commercial and Executive Committee member. Our goal is to minimize complexity and simplify daily practices to continue providing customers with high-quality products and services.

In addition to our personalized approach, operational excellence secures a competitive edge for SONGWON. For this reason, our operating model is designed to enhance our customer focus, achieve more efficiency, expand our reach and support transparency and accountability. Operating in a dynamic regulatory environment, we monitor developments and are committed to responding accordingly to ensure SONGWON remains compliant and fulfills its obligations as a responsible organization. In line with this, the Board updated SONGWON's mission and vision statements this year to better align with our goals and operations going forward.

**SONGWON's mission and vision statements were updated.**

We understand the power of collaboration and continued to build our partnerships with strategic partners, such as SABO S.p.A. as well as with distributors and logistics service providers. We also strengthened our "global reach, local execution" principle by adding 5 partners to our global distributor network. The information they share with us on business trends, new regulations and levels of anticipated demand in their regions has become even more valuable to us. Furthermore, cooperating with other industry players has always been part of our strategy and we continued to do this in 2022.

**5 new distributors were added to SONGWON's global network.**

At SONGWON, we foster an open, positive and rewarding working environment and most importantly, a safe one. The past 12 months have been demanding but

SONGWON's employees have risen to the challenge. Fully engaged as one unified team pulling together, they adapted quickly to change and continued to drive SONGWON's success.

Even though the past 2 years have certainly influenced how we carry out our day-to-day operations, it has not affected our people's overall approach to focusing on our priorities. They have sought ways to improve and ensure that we can continue to reliably meet our customers' needs. What we have achieved this year would not have been possible without the dedication of our people around the world and SONGWON's Management thanks each for their tireless efforts and commitment to SONGWON and to our customers.

Going forward, SONGWON will continue to closely watch global developments, seeking opportunities to advance our strategy, building on our strengths and adapting to business environment changes. By doing so, SONGWON is confident that it can continue supporting customers and creating lasting value for all of SONGWON's shareholders.

On behalf of the Board of Directors, the Executive Committee and the entire SONGWON team worldwide, we thank you, our shareholders for your valuable trust, sustained confidence and continued support.



**Jongho Park**  
Group CEO

# Board of Directors

## SONGWON Industrial Group



*Dongbek Park*

1944 - Korean  
Chairman of the Board



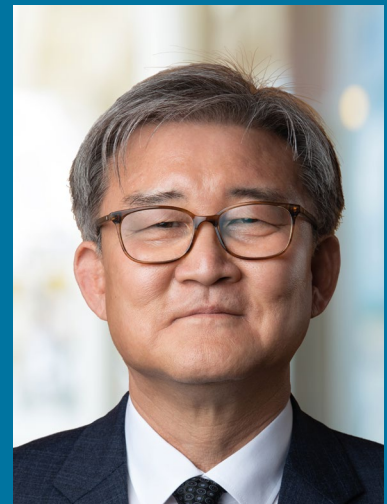
*Jongho Park*

1973 - Korean  
Executive Board Member



*Hans-Peter Wüest*

1961 - Swiss  
Executive Board Member



*Choung-Sik Kim*

1957 - Korean  
Executive Board Member

# Executive Committee

## SONGWON Industrial Group



*Jongho Park*  
Chief Executive Officer



*Hans-Peter Wüest*  
Chief Financial Officer



*Hans Werhonig*  
Leader Group Commercial



*Byungsoo Boo*  
Leader Operations



# Share Price Development

## Strong end to a challenging year

SONGWON ended the year 2022 on December 31<sup>st</sup>, with a market cap of 412 Billion KRW which marked a 19.8% loss in comparison to the market cap level achieved year-end 2021. During FY2022, the Korea Composite Stock Price Index (KOSPI) decreased its index level by 24.9%.

The global economic volatility and a sense of deep uncertainty across the financial markets in 2021 continued throughout FY2022. On the first day of trading in 2022, the stock market set a record high but during the next 12 months saw the worst decline since 2008, mostly driven by inflationary fears subsequently led by the U.S. Federal Reserve's tightening its monetary policy to combat rising inflation<sup>1</sup>.

In the first half of 2022, as the Russia-Ukraine conflict escalated, gas and oil prices soared. On March 7<sup>th</sup>, the international benchmark, Brent crude, spiked to USD 139.13, its highest level since July 2008<sup>2</sup>. This accelerated inflation and the markets responded with hard corrections. Across the globe, the central banks in most countries were forced to tighten their monetary policies faster and more sharply than previously anticipated, unsettling most of the world's financial markets.

SONGWON's share price performed well until May. The release of strong Q1/2022 results, disclosing sound growth and increased revenues, positively surprised the market. Reflecting the strong earnings momentum, SONGWON's share price climbed to its FY2022 peak on May 3<sup>rd</sup>, when it traded at 28,100 KRW.

However, in the course of the 4 months that followed, investors noted the rapid slowdown in demand for chemical products. Although there was nothing to signal that demand for SONGWON's products was dropping, many market players still anticipated seeing the demand for SONGWON's products eventually falling and subsequently deteriorating the company's profitability. As a result, SONGWON's share price began to slide and hit its lowest level for FY2022 on September 30<sup>th</sup>, where it closed at a stock price of 15,500 KRW.

In the 2<sup>nd</sup> half of 2022, the bearish trend in the stock market continued overall, with investors' concerns shifting from inflation to fears of a recession. Prices of cyclical products such as semiconductors and chemical products fell significantly as many industries were negatively impacted by a severe decline in demand. In the final months of the year, despite earnings expectations for SONGWON diminishing, the company's earnings remained strong.

However, SONGWON's share price performance was poor throughout the 2<sup>nd</sup> half of 2022 in general, but remained within a stable range of 16,000 KRW – 19,000 KRW. In Q4/2022, the lowest stock price was 16,100 KRW (October 13<sup>th</sup>) and the highest, 19,200 KRW (November 15<sup>th</sup>). This was due to the market observing that SONGWON shares were being traded at a very attractive valuation and projected that even if SONGWON's earnings declined substantially, there would be no meaningful market cap loss. SONGWON ended 2022 on December 31<sup>st</sup> with a stock price of 17,200 KRW.

2022 is considered to be one of the worst years for investors with financial markets posting steep losses, and many indexes seeing their worst performance since the financial crisis in 2008. In addition, the inflation rate was the highest it has been since the 1980s<sup>3</sup>. Moving into 2023, SONGWON expects its existing businesses to perform stably and is confident that the organization is well-placed to continue delivering sound performance for both its customers and investors going forward.

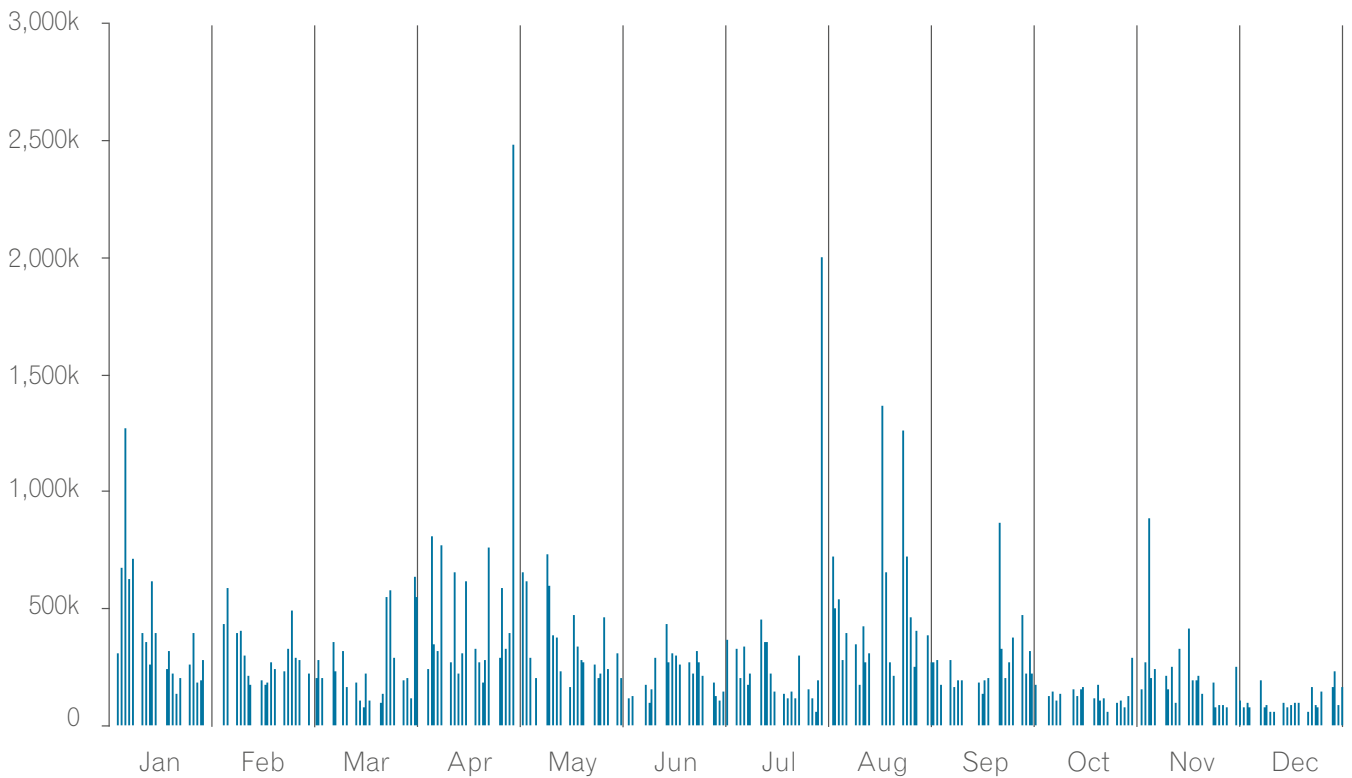
### Sources:

1. Capital Com SV Investments Ltd.
2. NBC News Digital
3. Forbes Media LLC

## SONGWON share price 2022



## SONGWON share volume 2022



Ticker:	KOSE: A004430	Share price (31.12.2022):	17,200 KRW
Stock exchange:	Korea	52-week high:	28,100 KRW
Listed since:	1977	52-week low:	15,500 KRW
Shares outstanding:	24 million	Free float:	64.36%
Market capitalization: (Million KRW)	412,800	Dividend per share (2021): (40% of nominal share value)	200 KRW

# 2022 Highlights

## R&D

Registered 8 new products  
Filed 6 new patent applications  
Put 22 new products in scale-up testing  
53 products under development

## CORPORATE

New Mission and Vision  
New Leader Group Commercial & EC member  
Introduced SONGWON's new Corporate Values

## COLLABORATION

Expanded SONGWON's global network with 5 new distributors  
Extended partnership with 3 distributors  
Added 22 new suppliers to SONGWON's Supply Chain

## PRODUCTION

Increased efficiency with more plant automation  
Added new equipment to support recycling  
Installed new technology to reduce CO<sub>2</sub> emissions

## SUSTAINABILITY

Achieved EcoVadis Gold for the 5<sup>th</sup> time  
Launched mechanical recycling stabilization approach  
Did Limited Assurance for 4 KPIs based on ISAE 3000 & ISAE 3410  
Recorded a 0.000% TCAR for 2022  
Reduced energy consumption: -18.2%

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# Company Profile

SONGWON is a global leader in the development, manufacture and supply of specialty chemicals and the 2<sup>nd</sup> largest producer of polymer stabilizers in the world. Founded in 1965 and headquartered in Ulsan, South Korea, SONGWON has group companies operating all over the world and provides the globally beneficial advantage of readily accessible local operations which offer valuable local insight. SONGWON's diverse team of dedicated and experienced professionals, works with customers and other industry experts to develop and deliver customized, application-specific chemical products for a wide variety of sectors and industries.

## Our Vision

To be a global leader in the specialty chemicals industry with a solid and sustainable growth, creating value for all our stakeholders.

SONGWON continues to successfully strengthen its global foothold particularly in emerging markets through its proprietary technologies and sound economics. With its wholly owned subsidiaries and 1 joint venture, the organization is well-positioned to continue its steady course of international expansion.

Information on SONGWON's 57-year history can be found on the company website:

[www.songwon.com/company/history](http://www.songwon.com/company/history)

## Our Mission

To be the supplier of choice by providing our customers with best-in-class service, a high quality, competitive and innovative range of products as well as customized solutions.

It is our duty to observe governance and act in accordance with environmental and social responsibility.

## *What we stand for*

### Entrepreneurship

Each of us truly lives SONGWON's entrepreneurial spirit, focusing on facts and figures. We stick to what we promise and transform innovative ideas to create additional benefit for our stakeholders.

### Collaboration

We see ourselves as an extended team that is always within reach for our stakeholders to support, providing expertise and creating value added solutions.

### Excellence

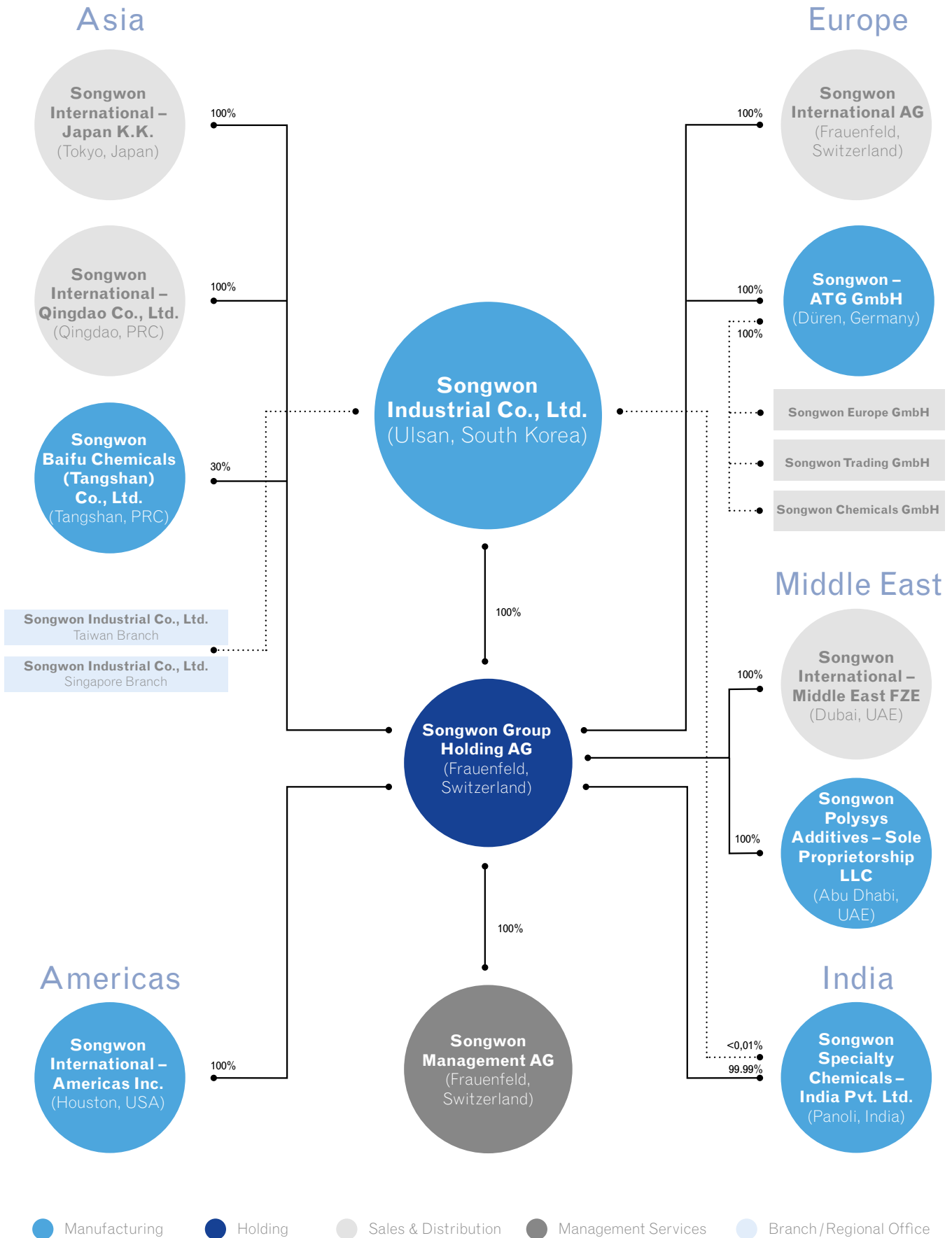
We understand the needs of the markets, seeking areas of improvement and applying our experience to generate sustainable value to our stakeholders.

### Value in people

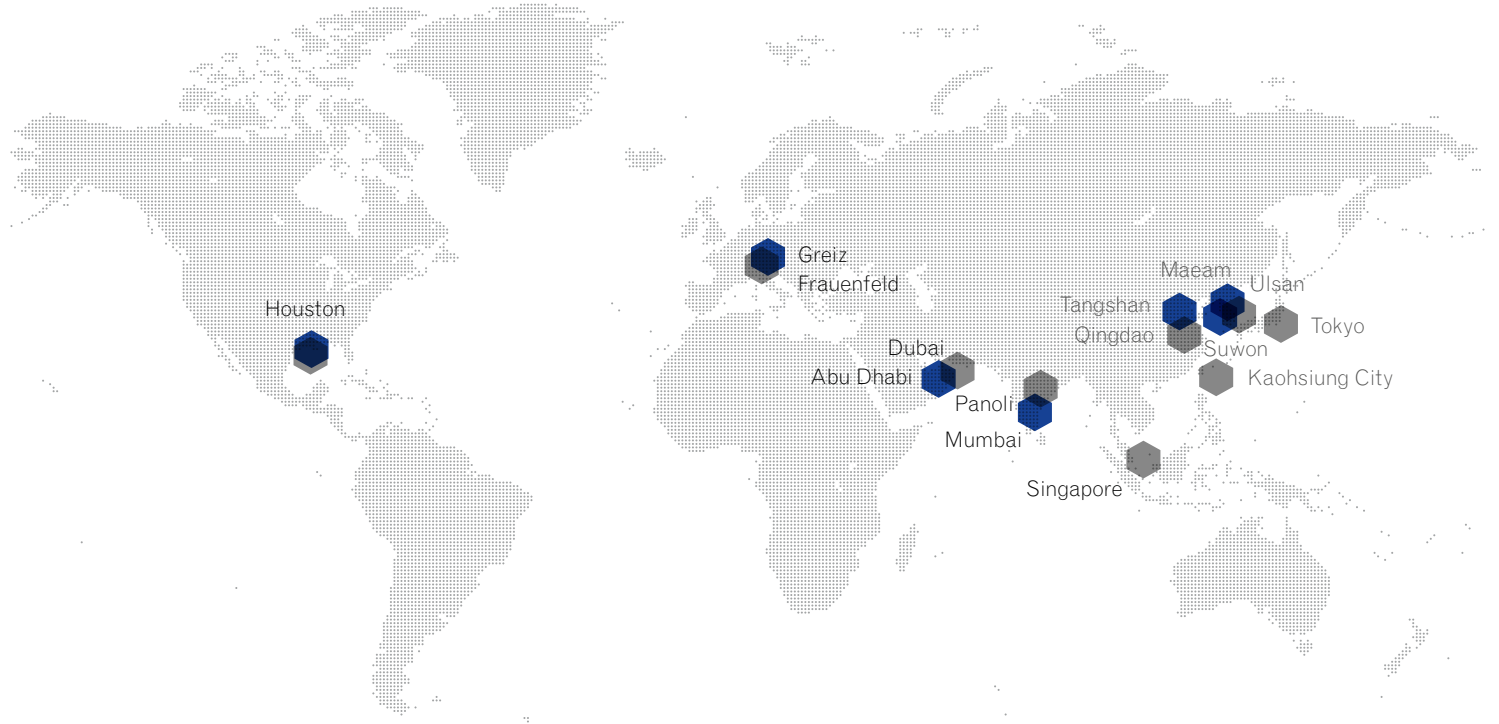
We are a committed team driven and dedicated to advancing our customers' interests. Our people, products and processes bear the hallmark of SONGWON's reliability, trust and confidence in the future.

# Group Structure

as of December 31<sup>st</sup>, 2022



# Global Locations



-  Headquarters in Ulsan, Korea.
-  14 Group companies, 1 joint venture and 2 representative offices, located in 10 different countries on 3 continents.
-  8 manufacturing facilities (incl. joint venture), 3 of which are located in Korea, and the others in Germany, USA, India, UAE and China
-  A worldwide network of sales offices, distributors, customer service and logistic hubs and warehouses.

Headquarters & Affiliates  
 Manufacturing  
 Application Development  
 Technical Service  
 R&D

	Headquarters & Affiliates	Manufacturing	Application Development	Technical Service	R&D
Germany, Düren	●				
Germany, Greiz		●	●	●	
India, Mumbai				●	
India, Panoli	●	●			
Japan, Tokyo	●			●	
PR China, Qingdao	●			●	
PR China, Tangshan	●	●			
Republic of Singapore, Singapore	●				
South Korea, Maeam		●	●	●	●
South Korea, Suwon		●		●	
South Korea, Ulsan	●	●		●	
Switzerland, Frauenfeld	●			●	
Taiwan, Kaohsiung City	●				
UAE, Abu Dhabi	●	●			
UAE, Dubai	●			●	
USA, Houston	●	●		●	



# Product Groups

Customized,  
high-performance solutions

As a specialty chemicals leader, SONGWON offers a broad portfolio of high-performance, market-oriented products to the industry. SONGWON's products are the result of 57 years of industry experience, the latest technologies, and customer collaboration combined with SONGWON's long tradition of innovation. Each is designed to add value and fulfill even the most demanding application criteria while providing our diverse customer base with a competitive advantage.

Knowing that the requirements and conditions of each of our markets are ever-changing, we regularly engage with our customers throughout the world in order to develop solutions that not only match their needs but exceed their expectations. One of the key elements in the management's global strategy is making sure that SONGWON is technologically up-to-date and well-equipped to provide customers with the most suitable solutions for their unique application areas.



## **POLYMER STABILIZERS –** protect during manufacture & use

SONGWON offers a comprehensive range of processing, heat and light stabilizers, in a variety of blends and physical forms, facilitate handling and application use and protect polymers from heat and light degradation. These include antioxidants, hindered amine light stabilizers, UV absorbers and One Pack Systems. During processing, they ensure that plastic end products retain their mechanical and physical properties while in use and also prolong their lifespan.

## **FUEL AND LUBRICANT ADDITIVES –** prolong product life cycles & improve performance

SONGWON has an extensive portfolio of aminic, phenolic, phosphite and thioester antioxidants especially for lubricants used in automotive and industrial applications as well as for fuels (incl. biofuels). Antioxidants retard oil oxidation by reacting with and stabilizing free radicals or decomposing hydroperoxides which extends the oil's life and enhances both its efficiency and performance.

## **COATINGS –** ensure long protection & durability

From liquid forms to powder to synergistic mixtures for the most demanding uses and applications, SONGWON's Performance Additives protect against thermal and light degradation. SONGWON also offers antioxidants (primary, secondary and thioesters), hindered amine light stabilizers, UV absorbers and synergistic blends of our products to ensure maximized performance across various sectors such as automotive, industrial etc.

### TPU/SPU –

offer customization & good physical properties

SONGWON provides customized polyurethane products to various industries such as coating resins for cable and synthetic leather for clothing/shoes, adhesives and ink binders for flexible packaging, protection films for mobile phones. TPU in particular offers good physical abrasion resistance and can be used to blend other resins (e.g., PVC etc.) to improve their properties.

### TIN INTERMEDIATES/PVC –

provide flexibility & quality

SONGWON's high-quality Tin Intermediates and Catalysts are especially developed for use in esterification processes and glass coatings. Our PVC stabilizer range now includes the new Calcium Organic stabilizer family and each one can be adapted to specific customer requirements. In addition to several products for PVC applications (e.g., pipes, cables, films, flooring, automotive interior parts etc.), SONGWON also has a broad range of plasticizers.

### SPECIALTY CHEMICALS –

deliver innovation & improve performance







By identifying opportunities for creating new electronics, functional monomers and flame retardants in cooperation with customers, SONGWON can meet the constant innovation that these markets demand.

SONGWON's electronic chemical products are designed mainly for KrF, ArF and EUV\* photoresists used in the production of semiconductors.

Functional Monomers add extra benefits to polymers which significantly improve physico-chemical properties and performance.

\*krypton fluoride, argon fluoride and extreme ultraviolet

## SONGWON OFFERS ONE OF THE INDUSTRY'S BROADEST PORTFOLIOS FOR A WIDE RANGE OF APPLICATIONS.

 Adhesives & Sealants	 Electrical & Electronics
 Agriculture	 Fuel & Lubricants
 Automotive	 Packaging
 Building & Construction	 Textiles & Fibers
 Coatings	 Wire & Cables
 Durable & Consumer Goods	

# Our Brands

**SONGCAT™**

Organo-Tin Intermediates

**SONGXTEND®**

Stabilizer Solutions

**SONGCIZER™**

Plasticizers

**SONGSTAR™**

Polyester Diols

**SONGCURE®**

Photoinitiators

**SONGNOX®**

Stabilizers & OPS Blends

**SONGSORB®**

Light Stabilizers

**SONGSTAB™**

PVC Stabilizers

**SONGSTOMER™**

TPU Grades

**SONGFLAME®**

Flame Retardants

**HI-THANE™**

Polyurethanes

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All of SONGWON's trademarks and product line brand names used in conjunction with SONGWON's business operations are registered (®) with the U.S. Patent and Trademark Office, and registered or subject to pending trademark applications (™) with the registries of many foreign countries, and/or are protected by common law.

Accordingly, SONGWON intends to keep its filings current and seek protection for new trademarks or product names on a country-by-country basis consistent with its business needs. All other trademarks, service marks, logos and trade names referenced in any of SONGWON's material are the property of their respective owners.

# Value Creation

## Our inputs

### People



994 employees  
33 nationalities  
100% commitment

### Manufacturing



8 world-class facilities  
Fully back integrated  
Leading-edge technologies

### Innovation



Technology Innovation Center  
Dedicated application labs  
53 products under development  
57 years of industry experience

### Financial



Total assets  
1,217.3 Billion KRW

## Our business

360° high-performance solutions

2 main reporting segments

Comprehensive customer support

9 Technical Service Centers

Sustainable supply chain

Fully compliant & regulatory support

Reliable on-time supply

Strong global distributor network

Culture of innovation & responsibility

Customers in 60+ countries

## Our 2022 outputs

### People



67 new talents joined the global team  
Ethics training across the business  
New Corporate Values introduced

### Manufacturing



LCAs (Life Cycle Assessments)  
Regular safety trainings & health inspections

### Innovation



8 new products launched this year

### Financial



Total revenues 1,329.5 Billion KRW  
Profit for the period 131.9 Billion KRW

# SONGWON focuses on:



## meeting our customers' current & future needs

Listening closely to and understanding our customers' concerns and needs is our key to reliably providing them with new products and solutions for high-end applications that enhance processing efficiencies and offer them solid ROI.



## expanding & developing our diverse portfolio

Although we already have one of the broadest and most comprehensive product portfolios on the market, we constantly seek to expand our 360° offering by developing the highest quality, high-performance and most sustainable solutions for new markets and applications.



## providing best-in-class & personalized customer support

We take good care of customers and cover all service areas – from customer service to logistics and from technical service to regulatory support, while also placing great importance on regulatory issues and using regulatory development to drive our innovation efforts.



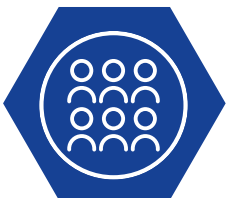
## creating value & remaining competitive

By creating sustainable value and achieving economic advantages through proprietary technology, economies of scale and backward integration, we help our customers overcome challenges and gain a competitive edge while successfully retaining our own.



## offering global coverage with local operations

As an industry leader, making sure we are close to our customers is essential to our success. We have state-of-the-art manufacturing facilities in all major regions across the globe and strong local operations. This is how we minimize the risks to our organization, whether from economic volatility, negative currency developments or the Russia-Ukraine conflict and how we ensure that we can capitalize on any growth opportunities.



## building our diverse team of professionals

SONGWON's success lies in the hands of a strong talented group of committed, highly competent experts. We make a point of ensuring that each member of our global team at every level knows that they are SONGWON's true assets and that we aim to provide them with the best and safest working conditions. Continually adding new key talents each year not only strengthens our organization but also improves our already outstanding EH&S performance.



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# Market, Risks & Opportunities

## The global landscape

As a global player, SONGWON is exposed to a wide range of risks and uncertainties that are inherently linked to our business activities and the global environment in which we operate. The unpredictability of things such as political, socio-economic and market volatility or the fast pace of technological advancement is often beyond the scope of our control. Although all of them carry the potential to negatively affect SONGWON, risks often bring beneficial opportunities. For this reason, sound risk and opportunity management are fundamental to SONGWON's success.

Operating in such a highly complex and changeable business environment as ours, we make every effort to identify potential risks early and to counteract possible detrimental impacts in order to mitigate any serious damage to our business. Risks related to economic and in particular political instability, have the potential to inhibit growth and also greatly affect demand. Although we can't prevent this from happening, we want to be certain that SONGWON is well-placed to defend its industry position at all times. To accomplish this, we focus on developing our capacities, products and technology as well as continually strengthening SONGWON's market position so that we can benefit from any opportunities emerging from risk.

After the historic levels of volatility in 2020 and 2021 – which saw the steepest global downturn on record, followed by the swiftest recovery – growth outcomes were more stable in 2022. However, this year has been exceedingly turbulent, with the global economy affected by multiple issues ranging from continual waves of COVID-19 and the conflict in Ukraine to ongoing supply and demand imbalances and disruptions in the labor markets. Inflationary pressure, the global energy crisis and a tightening monetary policy as well as a slowdown in economic recovery all added to the overriding disruptiveness throughout the year.

As we move into 2023, the drag of tighter monetary policy is expected to continue, with central banks in many countries raising interest rates. According to the International Monetary Fund (IMF), 2023 will be a tougher year than 2022 with the economies in the U.S., EU and China experiencing a slowdown. In the short and medium-term, with no end to the Russia-Ukraine conflict in sight, spiraling inflation and higher interest rates as well as the ongoing COVID-19 situation in China, IMF has forewarned that in 2023, one-third of the world's

economy is expected to be in recession. Global growth is forecasted to fall from 6% in 2021 to 3.2% in 2022 and 2.7% in 2023 – the weakest growth recorded since 2001, with the exception of the global financial crisis and during the acute phase of the COVID-19 pandemic.

Global inflation is forecasted to rise from 4.7% in 2021 to 8.8% in 2022 but to decline to 6.5% in 2023 and to 4.1% by 2024. Throughout 2023, inflation is expected to recede gradually in most economies as tightened monetary policies take effect and demand diminishes due to slower economic growth. Overall, the outlook for the global market and economy in 2023 remains uncertain and the risks are significant.

## Chemical industry 2022 challenges

This year, the chemical industry was subjected to:

- geopolitical risks and economic instability
- fluctuating, unpredictable customer demand
- stricter regional policies and rapidly changing regulations
- supply chain disruption and logistics issues
- raw material shortages and elevated prices
- fiercer competition and oversupply
- an even greater emphasis on sustainability

The turbulent environment created by the COVID-19 pandemic is still impacting global business and influencing the competitive environment. In addition to this, supply chain disruptions and logistics issues have made it essential for players in the industry to seek alternative solutions and implement more effective measures to optimize and secure the reliable continuity of supply to customers.

Throughout 2022, material supply issues were an ongoing challenge compounded by, raw materials shortages as well as limited container and vessel availability. Furthermore, the fluctuating, unpredictable demand for goods, difficulties in securing vessel space and rising shipping costs put pressure on supply chains and resulted in price increases for goods that could not always be offset.

Moreover, as an energy-dependent industry requiring high levels of natural gas feedstock, the Russia-Ukraine conflict had a destabilizing effect on energy supplies and posed the threat of major gas shortages or gas rationing measures. The threat of a lasting recession and ongoing high inflation could lead to sharply deteriorating chemicals demand from both consumers and key buyer industries such as automotive and construction.

Circumstances like these and in such a tight, highly competitive environment, mean that companies must work more efficiently to achieve profitable growth in their markets. In the next few years, maintaining an advantage will require organizations to ensure the best strategic choices are made. For many of the industry's established players, it will be crucial to focus on securing their share of the market in the coming years. To accomplish this and stay ahead, chemical companies will have to set clear priorities and become even more agile and resolute. Therefore, identifying and developing new approaches to how they operate and innovate will become even more essential.

## INDUSTRY TRENDS IN 2022

### **Macroeconomic:**

Raw material shortages and product supply issues in the market with customers concerned about production continuity drove demand higher. Further impacts from the Russia-Ukraine conflict, COVID-19 lockdowns in China and extreme weather conditions compounded supply challenges. Labor unrest took an unusually heavy toll on ports around the world in 2022 and as the year progressed, high inflation, climbing interest rates and the possibility of recession negatively impacted purchasing power resulting in a further decrease in the demand for products. In addition, logistics issues such as the lack of container/vessel availability contributed to increased costs and added to the challenges of fulfilling the high demand.

### **Environmental:**

For the chemical industry, both regulatory pressures, as well as sustainability imperatives increased in intensity again in 2022. This made it even more essential for industry players to focus on achieving tangible sustainability targets and ESG goals. The topic of the circular economy became even more important for our customers and remained at the top of the industry's agenda increasing sustainability/ESG obligations in addition to product performance requirements.

### **Technology:**

In the race for innovation and sustainable growth, technology is a catalyst for driving business results and plays an important role in creating lean and efficient processes. Chemical players continued to accelerate their investment in digitalizing operations this year again. The pace of this trend is expected to continue as the need for more resilient supply chains has highlighted the value of leveraging digital tools for demand forecasting, the tracing of raw materials to sources, real-time order tracking and automation of manufacturing facilities. Again this year, the technology related to sustainability continued to feature prominently and with it the drive for more efficiency. For example, in relation to polymer stabilizers, one aspect is supporting the circular economy by improving the recycling of plastics.



## How SONGWON is responding to these trends.

### **Macroeconomic:**

SONGWON continues to build on its multi-source strategy to secure materials from more than one supplier as well as seek suppliers located as close as possible to SONGWON's plants to achieve business continuity, avoid disruptions and reduce transport impacts. Furthermore, to better predict market changes, trends, or fluctuations in demand as early as possible, we continue to closely communicate with external stakeholders on a regular basis. The shared information acquired allows our teams to take appropriate actions to mitigate any negative impacts to both SONGWON's business and also to our customers. It also positions us to take advantage of any arising opportunities. Agility and responsiveness to changing market situations are solid pillars on which we manage risks.

### **Environmental:**

Although sustainability is already an integral part of SONGWON's daily business practices, we continue to focus on making it a key driver of our strategic direction and organizational development. SONGWON also continually explores recycling possibilities and confirms its support for the circular economy. For example, this year we launched our mechanical recycling approach at the K 2022 in Düsseldorf. Furthermore, we continue optimizing SONGWON's manufacturing processes, setting progressive targets (e.g., for waste management) and monitoring our impacts closely. On top of this, we seek to further reduce our carbon footprint and transition towards green energy sources wherever possible.

### **Technology:**

In order to meet new industrial requirements and specific customer needs as well as fulfill our obligations as a responsible organization, we aim to always make sure that SONGWON is equipped with the latest technologies. Consequently, we recognize digitalization as a very important opportunity for our business and not just a significant megatrend. As we seek to establish more effective ways of working, we are incorporating digital manufacturing, smart automation, modularization, sustainability criteria and standardization throughout SONGWON. Implementing digitalization across our organization provides us with valuable tools for increasing efficiency, making better business decisions, monitoring trends more closely and gaining valuable real-time information that supports risk management.

SONGWON responded to the turbulent economic and political global landscape in 2022, by making sure that we implement essential basics such as clear strategic targets that support not only operational improvements but also our overall competitiveness and product offering. Risks like natural events, accidents, or acts carried out intentionally to cause harm always exist. Any of these threats, whether global or local all have the potential to seriously damage the reputation or image of any company, including SONGWON's. Regardless of the nature or source of a potential risk, we make sure that the most effective processes are always in place to manage or limit risks as far as possible.

We believe that SONGWON's strong strategy and experience in the chemical industry combined with our insight into ongoing developments puts us in the best position to identify and minimize key risks as well as to capitalize on arising opportunities. This is what our stakeholders expect from us, and this is how we ensure that SONGWON continues delivering the most optimal results to meet our shareholders' expectations.

#### Sources:

[www.cefic.org](http://www.cefic.org)  
[www.deloitte.com](http://www.deloitte.com)  
[www.ft.com](http://www.ft.com)  
[www.globenewswire.com](http://www.globenewswire.com)  
[www.imf.org](http://www.imf.org)  
[www.oecd.org](http://www.oecd.org)  
[www.prnewswire.com](http://www.prnewswire.com)  
[www.worldbank.org](http://www.worldbank.org)

# Sales & Division Updates

## Sales strategy

### Customer-focused & value adding

Building solid, long-lasting relationships with our customers based on respect, reliability and trust is something SONGWON has done since its foundation. The personalized way we approach Sales brings us closer to our customers. In this way, we acquire valuable insight into the challenges they face which enables us to align SONGWON's offering with the specific demands of the market. Most importantly, we never forget that our customers always have a choice with whom they do business and this drives us to concentrate on where they see the most value.

SONGWON's Sales activities are aligned with global and local best practices. By regularly benchmarking our sales approach against key players in the industry, we continually build on our strengths and identify areas for improvement. One of the most important aspects of our sales teams' interactions with internal, as well as external stakeholders is transparency. Through transparency, we are able to establish an open dialogue to gain customers' confidence in SONGWON and grow long-term, constructive relationships with them. Furthermore, regularly communicating with all of SONGWON's stakeholders helps us to improve our responsiveness and adaptability to change. Most importantly, it also ensures that SONGWON remains agile, competitive and able to react swiftly to market trends.

Despite the ongoing global uncertainty and pandemic-related limitations facing them, our sales experts around the world worked with the same consistent level of commitment and professionalism in 2022. In addition to ensuring SONGWON's support and supply reliability, they also focused on emphasizing to customers that SONGWON was well-positioned to respond quickly to fluctuations and offer solutions such as adjusting product deliveries to meet their individual demands. For our Sales team, success means more than just selling products or promoting our services. In this respect, each year they seek to build on the success and challenges of the past years while further enhancing SONGWON's position in the industry. This year, while keeping a close eye on our markets, Sales cultivated strong relationships with existing and new customers by acting and reacting in a timely manner and always aiming to add value.

SONGWON's sales organization is strategically placed across the world. Our global, multicultural team understands and speaks the language of

SONGWON's customers. This ensures that both our local and international customers receive the best sales support possible. SONGWON's locally based Sales teams are key contributors to differentiating our position in the market. Ideally situated to identify trends in the respective regions quickly, they share important information with the rest of the business. With the pandemic still impacting the world this year, the role of SONGWON's local Sales professionals was very valuable and made it possible for us to meet market expectations and proactively address customer concerns. In 2022, we continued to optimize SONGWON's sales channels, made additional service improvements and partnered with new strategically placed distributors to be as close as possible to our customers.

**SONGWON expanded its global sales network with 5 new distributors.**

## Divisions update

Against the backdrop of ongoing geopolitical tensions, supply chain bottlenecks and rising variable costs across the regions, SONGWON's Divisions performed well in 2022 above expectations. Building on previous years' success and benefiting from the strong growth momentum continuing from the end of 2021, both Divisions registered sound business growth and increased revenues in the first half of the year. The robust performance underlines the effectiveness of our customer-focused strategy and very broad diversity of geographies and markets. It also shows the resilience of SONGWON's business model and the value of our comprehensive portfolio of high-quality products. Most of all, the result demonstrates the Divisions' customer commitment as well as their effective responsiveness to the many changes in this volatile environment which has received solid recognition from our customers.

For Division Industrial Chemicals, global demand continued to remain strong across all regions in the first 9 months of 2022. Higher revenues were partly driven by increases in global forecasted volumes on the back of customers aiming to offset potential logistics delays and competitor-related supply issues. In addition, formula pricing was applied to

## In 2022 our Divisions:

- strengthened alignment between Sales and internal and external stakeholders
- improved SONGWON's responsiveness to sudden changes
- increased collaboration with customers to gain more insight into their requirements
- expanded SONGWON's reach by strengthening its distributor network
- enhanced our ability to adapt and take advantage of opportunities
- ensured that SONGWON remained agile, competitive and updated on its markets
- provided valuable information from successful leads to develop new businesses
- demonstrated competence in managing logistics challenges
- reviewed and optimized processes to achieve greater efficiency

counterbalance the increasing cost of raw materials, energy and logistics and the Division also benefited from favorable FX developments in all regions. In the final 3 months of the year, the Division continued to deliver solid performance but the quarter was marked by higher product availability, weakening demand overall and further compounded by customers reducing safety stock levels.

Throughout the year, Division Performance Chemicals also benefited from strong global demand and delivered good performance overall for 2022 well above that of 2021 in terms of revenue despite facing higher material and logistics costs as well as price competition. The increase was partly due to the positive impact of the price increases implemented to offset the escalating price of raw materials. However, in the final months of the year, the Division was also negatively impacted due to weaker, more unpredictable demand and volatile prices but was able to benefit from decreasing raw material costs.

### Polymer Stabilizers (PS)

Despite the negative impacts from lockdowns in Asia and the conflict between Russia and Ukraine in Europe, demand remained consistently high for

PS across all regions in 2022, supported by supply shortages in the markets. During the year, SONGWON continued to supply high-performance PS products to the market and was able to confirm its reputation in the industry as a committed and reliable supplier. In keeping with the general industry trend, PS saw revenues drop in the final months of the year due to increased product availability and aggressive pricing, particularly from Asia, along with shipping constraints to the U.S. and the ongoing conflict in Europe.

Throughout the year, to achieve greater efficiency, the PS team carried on reorganizing to a leaner structure and further optimized its processes. Furthermore, additional investments were made to expand the production of PS products in terms of capacity and efficiency. Overall this year, PS performed very well, even better than in 2021, by balancing volumes and prices and capitalizing on the opportunities emerging from the current market environment.

### Fuel and Lubricant Additives (FLA)

SONGWON's FLA business continued to perform strongly, with even better than expected results, driven by multiple factors such as the rise in overall demand, supply shortages in the market and customers ordering ahead of normal patterns to counteract logistics delays. Optimization of volumes supplied to the market positively impacted profitability and formula-driven price increases led to higher revenues in 2022. In the final months of the year, FLA was also impacted by weaker demand and macroeconomic, political instability.

During the year, customers demand fluctuated with requests for different supply levels in different regions to meet their global needs. In response, the FLA team collaborated efficiently with customers to determine their industry challenges and make sure that SONGWON could continue to offer them comprehensive support. The team further extended SONGWON's reach this year by attending several key industry meetings and was successful in maintaining and growing the company's global presence.

### Coatings

For SONGWON's Coatings business, the first half of 2022 was a seller's rather than a buyer's market dominated by customers concerned about sufficient supply and shortages of several products in the market. Coatings was able to turn opportunities into business. Despite seeing stagnation in the Chinese market resulting from the lockdown and a government-imposed, zero-tolerance policy, Coatings achieved

higher revenues on the back of strong market demand across Europe, the U.S. and South Korea with orders above expectations. The decline in value in the latter part of the year was due to coatings product availability becoming more stable on a global level which led to a shift in customers' demand behavior. However, despite recording lower revenues in the final months of 2022, Coatings' previously implemented price increases still successfully counterbalanced the decline in value to return strong results overall for the year.

As one of SONGWON's youngest businesses, Coatings is still in its expansion phase and growing our market position. Amid the turbulent environment, the Coatings team continued to pursue its strategic aims, launched new products, achieved successful approvals at several key customers and expanded SONGWON's reach in the industry. Operating as a lean organization enables the team to move quickly. This year, by maintaining constant communication with customers and within the team, Coatings could realign and readjust its approach to fluctuations in the market and demand.

### **TPU/SPU**

The year was also challenging for TPU/SPU. Intense price competition combined with the rise in raw material prices and weaker demand in South Korea negatively impacted the businesses. However, performance in 2022 was stronger than in 2021 and TPU/SPU recorded higher revenues, despite significant decreases in volumes. The positive result was driven by the earlier implemented price increases and in the last half of the year, profitability improved as a result of declining raw material prices. Overall, performance was affected by weakening demand, particularly in South Korea and South East Asia and aggressive competition in the market.

Pursuing its strategy throughout 2022, the team continued to successfully promote TPU in Europe and the U.S. which led to an increase in sales and also expanded SONGWON's share in the SEA market with SPU. TPU/SPU also continued to work closely with customers and meet their requests with good service, competitive prices and stable quality.

### **Tin Intermediates/PVC**

Tin Intermediates/PVC performed strongly and above expectations in 2022, despite lower-than-anticipated demand and the worsening economic situation in Asia. In the early part of the year, both businesses recorded higher turnovers than in 2021 due to the positive impact of the previously implemented price increases which successfully offset the escalation in the price of raw

## **In 2022, both Divisions faced:**

- **logistics disruptions as well as limited container space and vessel availability**
- **higher raw material costs and steep rises in freight shipping costs**
- **unpredictable and customer orders with shorter lead times**
- **increased supply of materials and fierce competition**
- **key raw materials issues which demanded more frequent updates to customers**

materials. Later in the year, declining logistical costs in Q3/2022 made SONGWON more competitive outside Asia and supported new business opportunities. Demand for Tin Intermediates remained relatively strong, particularly in the Automotive E-coat market but the fall in the price of tin during the final quarter adversely affected profitability. Although demand for PVC in South East Asia dropped due to the general economic situation, it began to slowly pick up during the last months of 2022.

Despite the various challenges throughout the year, the team continued to focus on meeting customers' needs and delivering value while staying on track to deliver on SONGWON's strategic initiatives and drive performance.

### **Specialty Chemicals**

SONGWON's specialty chemicals are specifically developed to meet the requirements of a wide spectrum of applications for fast-moving industries such as electronics and functional monomers. With its strong focus on research and by collaborating with R&D and customers, the team identifies new opportunities to gain a competitive edge e.g., recently in the dynamic electrical and electronic sectors. SONGWON offers high-end specialty chemicals and raw materials for IT industries (incl. semiconductors) as well as display materials. Furthermore, when incorporated into the polymerization process, SONGWON's range of functional monomers, which are based on backbone chemistries, significantly improves processing performance.

Previously, SONGWON was only known in the industry as a leading polymer additives manufacturer. As of 2022, due to the team's consolidated efforts in the past few years and the products launched, SONGWON is now recognized as a reliable supplier of electronic materials, particularly photoresist monomers and saw an increase in customer requests this year.

# Customer Service (CS)

## Placing customer needs first

SONGWON has always placed the highest importance on providing customers with the best level of service possible and doing everything we can to fulfill their needs. We know that only when our customers are satisfied can we secure long-term success. For this reason, one of the cornerstones of SONGWON's business strategy is making sure that we provide superior customer service (CS) for our high-quality products as well as ensuring that they add value and meet expectations. Most importantly, by operating in a way that fosters trust and mutual respect, we strive to be their partner of choice.

For us, every interaction is an opportunity to exceed expectations and to emphasize the value we place on ensuring our customers' success. Each CS team member is fully committed to being readily accessible and providing professional, responsive customer service that reflects SONGWON's values. This commitment extends well beyond customer purchases. SONGWON's CS team aims to resolve any issues during the purchasing process but also throughout a customer's business relationship with SONGWON.

2022 was another challenging year for CS and SONGWON in general. Customers' mid- and long-term demand as well as their purchasing behavior continued to be unpredictable. However, with the global supply chain slowly returning to normal and SONGWON's good stock levels, delays were less of an issue and we could uphold our supply reliability.

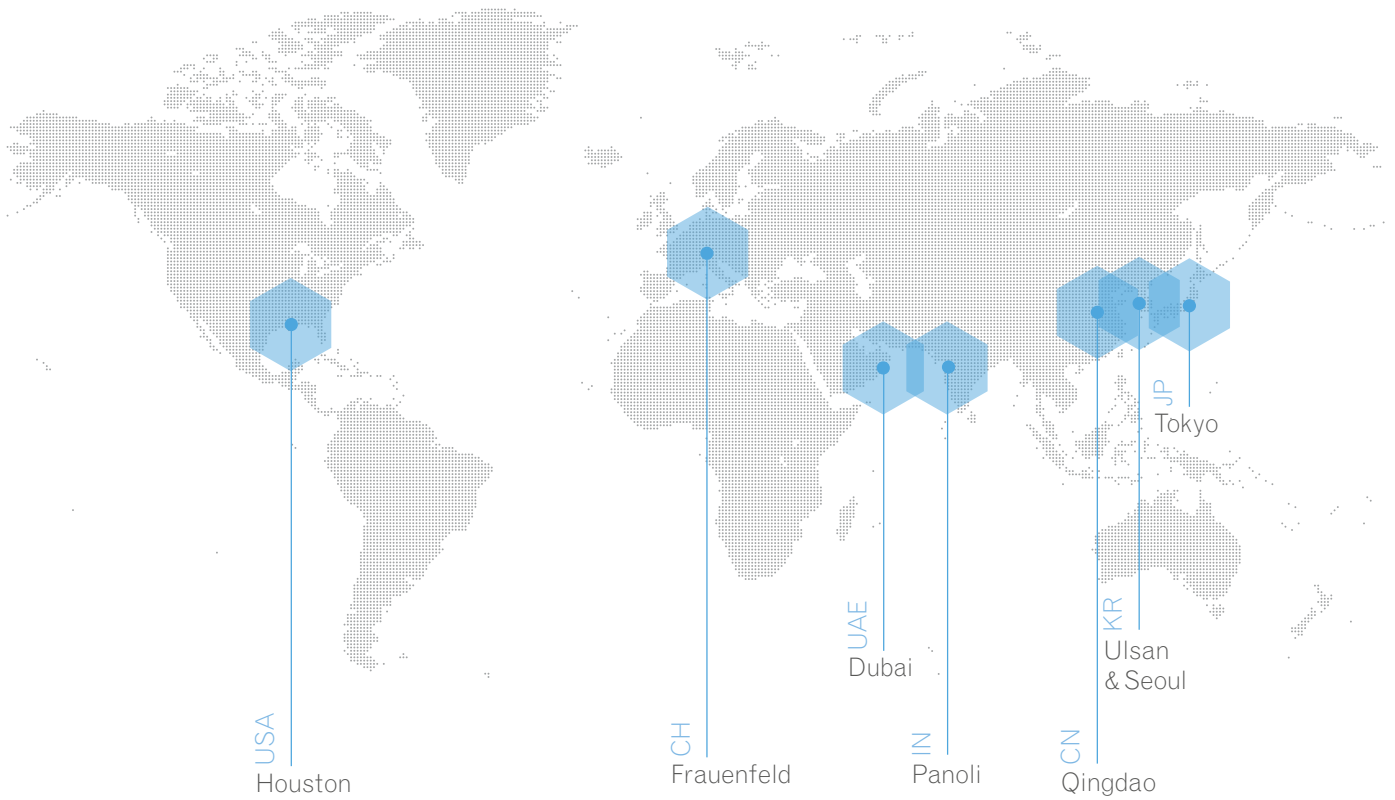
Amid the ongoing uncertainty, the CS team's proactive service and support continued to be very important to customers and much appreciated. Each year, CS strives to keep customers as well-informed as possible so that they have the chance to plan well but also have time to consider how best to proceed or seek an alternative solution if necessary. The CS team is able to do this, due to the culture of collaborative teamwork running through the entire organization which helps to keep SONGWON, and CS, at the forefront of what's happening in our industry.

SONGWON's Management has always endorsed clear communication across the business and has made sure that the organization is structured so that it facilitates an open and beneficial flow of information. This is especially important for the CS team and ultimately benefits our customers. Through the strong channels of communication in place at SONGWON, CS learns about delays or any unexpected issues immediately and can keep our customers informed and always updated on progress. Additionally, by having the latest information, the CS team can foresee potential difficulties and proactively take action to resolve them quickly and as far in advance as possible.

The CS team also makes a point of regularly collecting feedback from its internal and external stakeholders so that it can assess how it's doing and identify areas where both CS and SONGWON can make improvements. This valuable information is shared with SONGWON's Management and other relevant departments. Then, any necessary steps can be implemented or processes optimized to ensure that SONGWON continues to deliver the support customers want and need.

SONGWON provides high-quality service to our customers in more than 60 countries from our 8 CS centers located across the globe. The CS team's ability to deliver the most comprehensive service before, during and after the purchase of our products sets SONGWON apart. It is also a key contributor to customers' ongoing market success. Having this ability to provide our services from multiple global centers ensures that we can meet local needs effectively. This makes it possible for us to flexibly shift our support and services to alternative locations if required and ensures that we can navigate any disruptions which might occur.

To effectively meet local needs, SONGWON applies global and regional best practices from its Customer Service Centers in:



In keeping with our aim to improve SONGWON's service offering, CS continued to globally harmonize, optimize and simplify processes throughout 2022 and identify the greatest value areas. For example, Standard Operating Procedures (SOPs) were created for all processes related to CS activities. In addition, best practice trainings took place which gave the CS team

members the opportunity to advance their skills and support as well as challenge established processes. In the coming year, CS will continue working to further improve and harmonize its processes to achieve even more efficiency wherever it can and continue providing the best service possible to SONGWON's customers.

# Procurement

## Ensuring competitiveness & adding value

As SONGWON has grown over the years, Procurement has evolved to assume a larger and even more vital role in the business. The team does more for SONGWON than simply responsibly securing the continual supply of raw materials for our 8 global manufacturing facilities. Among other things, Procurement mitigates supply risks and ensures that our supply chain remains strong and efficient.

Again this year, the environment was challenging for Procurement with political instability, soaring oil prices, volatile supply chain conditions and ongoing logistics issues. However, our experts are accustomed to overcoming challenges, mitigating risk

and responding to unexpected issues. Each is highly qualified and has years of hands-on global experience across many industries. The ongoing learning and skill-building approach within the global Procurement organization enables them to apply essential out-of-the-box thinking, offer alternative solutions and provide valuable foresight as well as practical knowledge to everything they do for the organization.

## In 2022, Procurement faced challenges such as:

- geopolitical impacts e.g., Russia-Ukraine conflict
- pressures from rising inflation and cost increases e.g., soaring oil prices
- logistics disruption and labor unrest e.g., truck driver strike in South Korea
- supplier risk and supply chain continuity e.g., the scarcity of resources
- extreme weather e.g., dropping global water levels on major shipping routes
- increasing sustainability emphasis e.g., the demand for more transparency and traceability
- new laws implemented in various regions
- digital transformation e.g., to streamline processes, increase automation and improve data analytics
- more product documentation requirements e.g., K-REACH

Procurement aims to stay agile and well-prepared in advance to face the unexpected. In accordance with this, the team closely collaborates across the businesses and with suppliers to gain beneficial insight. This insight and local first-hand knowledge of the business environments, new regulations and trends related to fluctuating regional demand levels are invaluable.

In order to ensure business continuity in 2022, the team helped to alleviate supply chain disruptions while identifying new, more dependable solutions such as allocating purchase volumes to different regional suppliers. Also, to support SONGWON's sustainability strategy and avoid high logistics fees and long delivery lead times resulting from broken delivery chains, Procurement sought alternative sources in the various regions and more partners located closer to SONGWON's facilities.

Our Procurement team has built an exceptional global network of sustainably responsible partners for SONGWON and again this year, they worked on further diversifying and strengthening our supplier base. Procurement does not just use economic indicators to select new suppliers but instead looks at how good their sustainability performance and market competitiveness is. We make it a priority to only work with suppliers and partners who have the same dedication to the highest sustainability, safety and ethical standards as SONGWON.

**In 2022, Procurement added 22 new suppliers to SONGWON's global network of sustainably responsible suppliers.**

In 2022, supplier evaluations and assessments continued. Procurement regularly checked SONGWON suppliers' performance and evaluated aspects such as flexibility, reliability and quality as well as key sustainability factors. Doing this helps to identify areas with potential risks and provides us with a clear view of any issues, where SONGWON's standards could be compromised.

Procurement ensures that integrity is at the forefront of all of our business dealings and it communicates SONGWON's expectations clearly and transparently to all stakeholders. This year in response to the newly implemented law, the Procurement team completed a traceability exercise and a due diligence report on one of SONGWON's suppliers with an external agency. The report positively confirmed that the particular supplier was in line with our ethical business standards.

Throughout 2022, the team also continued to closely monitor and checked suppliers' "On Time Delivery" performance every month. Procurement's multi-source approach and the close relationships the team has with our external partners as well as the strong internal communication exchange with the businesses are beneficial for SONGWON. For example, communicating on a daily basis with our logistics suppliers ensures that the team is always alerted immediately about potential difficulties so that they can work quickly to minimize any impact to SONGWON and also share the relevant information with internal stakeholders.

Procurement's strong logistics management was crucial to ensuring SONGWON's smooth-running supply chain. By responding quickly to emerging issues and also to opportunities, the team ensured that SONGWON's production operated according to plan and products were shipped without delays. In the coming years, Procurement's priority will be maintaining SONGWON's competitive edge by matching the best supplier solutions possible with the needs of both internal and external stakeholders and selecting the most suitable, sustainably-responsible suppliers for us.



# Supply Chain

## Securing supply reliability

SONGWON is an industry leader with customers, suppliers and operations across the globe and our success depends on supply chain reliability. Each year, as the complexity of both the world's markets and global standards increases, our customers rely on us to supply them with high-performance, sustainable products when and where they need them. This is especially true for customers whose manufacturing operations and success depend heavily on uninterrupted supply reliability and on-time deliveries, regardless of their fluctuations in demand or external challenges.

Although pandemic-related disruptions were easing this year, geopolitical events, such as the conflict between Russia and Ukraine, negatively impacted global supply chains. In addition, extreme and often unexpected weather events such as massive flooding, heavy snowfall, or tropical storms, have already caused significant disruptions in recent years. Such events are becoming more commonplace and can lead to sudden and unforeseen pressure on supply chains. With volatility now a norm in our global business environment, having a robust, agile and dependable supply chain supporting SONGWON's operations has become essential.

Entering 2022, our Supply Chain continued to be confronted with the same challenging logistics bottlenecks as in the previous year with limited vessel availability and longer transport times from Asia to the rest of the world. Although the logistics situation improved again in the 2<sup>nd</sup> half of the year and transport reliability times were better, nevertheless, port congestion remained a challenge and led to long handling times.

In response to the difficult environment, the Supply Chain team acted as proactively and early as possible. They made sure that our integrated supply chain could rapidly respond to the fluctuations in demand, which have increased substantially in the past few years. For example, they replenished supply to SONGWON's

regional warehouses and implemented strict measures to ensure material availability for customers based on provided forecasts. Furthermore, to become more efficient and effective, the team continued to leverage global processes and standards as well as capabilities and made sure that these were aligned with SONGWON's strategy.

Throughout the year, the Supply Chain team continued to work closely with the businesses, exchanging information, not only with Procurement but with all Supply Chain stakeholders. This enabled them to stay a step ahead of the demand patterns and maneuver inventories across SONGWON's regions. Just as they had done in 2021, the team also collaborated closely with Sales to prioritize customers' needs and support them as best as possible. For example, ensuring reliable delivery schedules and finding workable solutions for customers such as providing partial deliveries in cases when fulfilling complete orders was not possible at that exact time.

To counteract potential supply chain risks, SONGWON continued to pursue its strategy to secure contracts and establish multiple supply sources across different geographies in 2022. Fostering direct and swift communication between the various functions and also with customers enabled Supply Chain to effectively identify and manage potential risks as well as uphold SONGWON's reliable supply assurances to customers. During the year, the team continued to strengthen the close contact with suppliers and customers in order to gain clear visibility into our extended supply chain. This contributed to ensuring that SONGWON was well-positioned to navigate unexpected situations more effectively.

Customers have come to know that they can depend on SONGWON to deliver quality and value and they count on us to support their sustainability goals. Continuing to earn our customers' trust and maintaining a responsible, integrated supply chain is a priority for our team. To support agility and facilitate harmonization, SOPs (standard operating procedures) are being implemented for all of our supply chain processes.

In addition, to increase flexibility and also ensure the best service even in demanding periods with high workloads and limited resources, cross-training took place in 2022 between the different supply chain functions. This also further strengthened the teamwork

throughout our global Supply Chain organization. Going forward, the team will continue to drive our digitalization strategy and operational excellence across SONGWON's entire supply chain to ensure that we can continue to remain a resilient and trusted sourcing partner to our customers.

## Supply Chain in 2022

- **The frequency of communication from production to the regional supply chain functions was increased to stay up-to-date with the supply situation so that regional decisions could be made at short notice.**
- **Regional supply chains worked closely with logistics partners and informed customers about possible delays so alternative solutions could be created.**
- **Internal communication across the organization was further streamlined.**
- **New forms of information were established for internal stakeholders, e.g., a global inventory overview to optimize decision-making.**
- **The supply chain leadership was strengthened to fit the evolving needs of the business.**
- **Process improvement initiatives continued to be implemented within Supply Chain to further achieve global harmonization of regional processes and automation.**

# Research & Development (R&D)

## Value-adding development

Over the years, our R&D strength has played a major part in helping SONGWON to become the partner of choice for customers in the wide range of industries we serve. However, in today's highly competitive, demanding and rapidly changing world, we realize that simply offering quality products is not enough to maintain SONGWON's leadership position.

It is vital for us to understand and constantly adapt our offering to meet our customers' diverse and evolving needs, now and in the future. This is why, in addition to striving to find new, innovative products to introduce to the market, the R&D team also focuses its efforts on continually improving SONGWON's existing products and most importantly, always aims to create value.

Making sure that we have strong R&D at the core of the company allows us to stay on top of current trends and identify new ones on the horizon. SONGWON's leadership knows that the only way to keep the organization competitive and one step ahead in the industry is through focused innovation. Consequently, investing in R&D is a high priority at SONGWON.

Every year, SONGWON's Management makes sure that R&D has the necessary resources and conditions to continue providing essential innovation and technology as well as strategic support across the organization.

Furthermore, to ensure that R&D was well-positioned to meet the increased number of challenges this year and deliver better market competitiveness, various processes were optimized and new ones implemented. Among them, improvements to R&D's structure to further standardize the research process led to more agility. Also, a newly established Task Force Team to strengthen project collaboration and strategic alignment across the organization in 2022, achieved more transparency and efficiency as well as being immeasurably valuable for new business development.

With an in-depth understanding of the strategic focus areas, our researchers are fully aligned with SONGWON's businesses. Again in 2022, they worked

### R&D highlights:

- 8 new products were registered**
- 53 new products are under development**
- 22 products are in scale-up**
- 93% scale-up success ratio achieved**
- 6 new patent applications were filed**
- 47 patents are currently held by SONGWON**

flexibly across the business based on project priority. Their close and valuable collaboration with each of the business functions provides R&D's researchers with a clear picture of the market situation as well as the highly specified and complex technical requirements of SONGWON's broad customer base and of the wide range of industries we serve.

Our strength lies in the deep commitment, competence and solution-oriented approach of every R&D expert. They develop new products requested from across the business based on the latest technologies and provide analysis development as well as regulatory affairs support. Knowing and competently responding to the evolving needs of customers with agility is vital to the company's success. R&D endeavors to expand its capabilities each year and also strengthen its support across the business.

This year, the R&D team brought 8 products from lab process development to production. Compared to 2021, the team achieved an increase in the scale-up success ratio to reach 93% (2021: 90%) and filed 4 new patents. During 2022, a wide variety of ideas emerged which are currently in the research and development stages or the scale-up testing phase. When implemented, all of these products are expected to lead to real business in 2023 and beyond.

At SONGWON, we have always known the benefits of continuous learning and how valuable it is to share knowledge and leverage expertise. For us, promoting synergy within the organization, continuous learning and also a positive learning attitude are important for improving R&D resources and developing our researchers' competency. In addition to this, R&D's processes are designed to increase our technology know-how and encourage constant questioning so that our researchers do not only rely on already available external information but are driven to go beyond it.

To further support this, SONGWON also seeks to engage in mutually beneficial, cooperation opportunities within the industry. Accessing the most up-to-date knowledge and resources all over the world helps us to improve R&D's expertise and realize our strategic ambitions. This year, the R&D team increased its collaboration with local and global technology partners, exchanging the latest information and best practices to facilitate more impactful research and accelerate the development of innovative, value-adding products.

Sustainability is a top priority, particularly the environmental aspects of specialty chemicals. In line with this, R&D aims to reduce any adverse impact on the environment by seeking ways to reduce emissions, improve process yields, minimize the use of raw materials and support recycling as well as prolong the life of end products. SONGWON is committed to responsible growth and therefore, R&D's technology methods and processes are specifically designed to offer more efficient and sustainable products that create value for both customers and society.

In future, as the demand for even faster, more advanced, sustainable and higher quality materials increases, R&D will be directing its efforts towards ensuring that it is well-equipped to continue meeting the requirements of SONGWON's very diverse customer base. At the same time, ensuring that SONGWON is well-positioned to meet and successfully navigate the challenges of the 4<sup>th</sup> industrial revolution.

## **R&D is a key contributor to the organization's success by strengthening SONGWON's competitiveness and paving the way for future growth by:**

- securing the quality our customers require
- ensuring we respond swiftly to customer requests
- improving processes and leveraging synergies
- investing in modern, advanced technologies
- developing high-performance products that add value

# TAD & Technical Service

## Application expertise & comprehensive support

To meet their performance requirements and also ensure compliance with today's increasingly stringent safety standards and industry regulations, our customers are demanding more than innovative products. They seek comprehensive application expertise and sophisticated technical service support.

At SONGWON, we have always focused on increasing our knowledge of customers' challenges and using the insight we gain to turn new product development ideas into tangible business outcomes. Doing this, and providing customers with high-quality products, accompanied by first-rate service, has been one of the keys to our ongoing success. Furthermore, it is our collaborative, customer-centered approach together with our long history of technical competence that has contributed to strengthening SONGWON's reputation as a supplier of choice.

Our experienced and highly-qualified Global Testing & Application Development (TAD) and Technical Service (TS) experts are the strength behind this approach. Working together in SONGWON's Technical Innovation Center in Ulsan, South Korea, they collaborate effectively and support our global business. With their outward focus on the market, TAD and TS keep on top of trends, identify opportunities for SONGWON to pursue and satisfy our customers' requirements, particularly with regard to their sustainability targets. SONGWON's Management always ensures that both TAD and TS are fully equipped with the resources and the skills they need to achieve positive outcomes.

In 2022, as pandemic restrictions eased worldwide, TS increased its efforts to enhance SONGWON's image and appeal as more than just a leading supplier/manufacturer. By actively engaging with customers via face-to-face and virtual meetings as well as holding webinars, participating in industry events and delivering presentations, TS was a key contributor to positioning SONGWON as a reliable and competent partner. For example, at K 2022 in Düsseldorf, Germany, they presented TAD's recently developed approach for the mechanical recycling of plastics with SONGWON's range of re-stabilization antioxidants.

## Global Testing & Application Development (TAD)

Within the Technical Innovation Center, TAD greatly benefits from the strong synergy with TS and R&D. Working closely together with them ensures that TAD stays ahead of changes in the market and is updated on customers' demands related to safety, sustainability and performance.

Amid a challenging year, the TAD team continued to increase its internal collaboration and level of support. Throughout 2022, the team focused on improving its testing service for internal stakeholders and customers. In addition, an emphasis was also placed on increasing knowledge within the team through trainings (particularly for junior and new members) and driving lab efficiency improvements.

Over the 12 months, our TAD professionals successfully met customers' demands using their experience, advanced technical application and development expertise. Besides this, it continued to play a fundamental role in supporting customers with testing as well as application development to gain approvals for SONGWON's products and other specific applications.

### In 2022, TAD:

- increased support of internal and external stakeholders
- provided faster, more sophisticated responses to customers
- developed an approach for the mechanical recycling of plastics
- generated on-time data for important topics
- improved lab efficiency and capabilities
- strengthened application development knowledge
- continued to develop new test methods

## Technical Service (TS)

Technical Service (TS) contributes significantly to the generation of new business. More than simply responding to technical questions, they work side-by-side with our customers to help them make product and process improvements and optimize their applications' performance by driving project efficiency. Additionally, with their vast technical know-how and experience, they assist customers to select the most suitable SONGWON products for their specific application areas and ensure that they can gain the most value from them long after purchase.

The TS team's skillful relationship-building also makes it possible for it to effectively engage with players throughout the industry, acquire information on the most current market trends and learn first-hand from customers about the challenges they face. To support the engagement with customers and channel all technical inquiries as well as to improve response times, TS has a dedicated email address [techservice@songwon.com](mailto:techservice@songwon.com).

Apart from offering comprehensive technical support to customers, our experts identify potential market segments, pinpoint the areas where SONGWON's

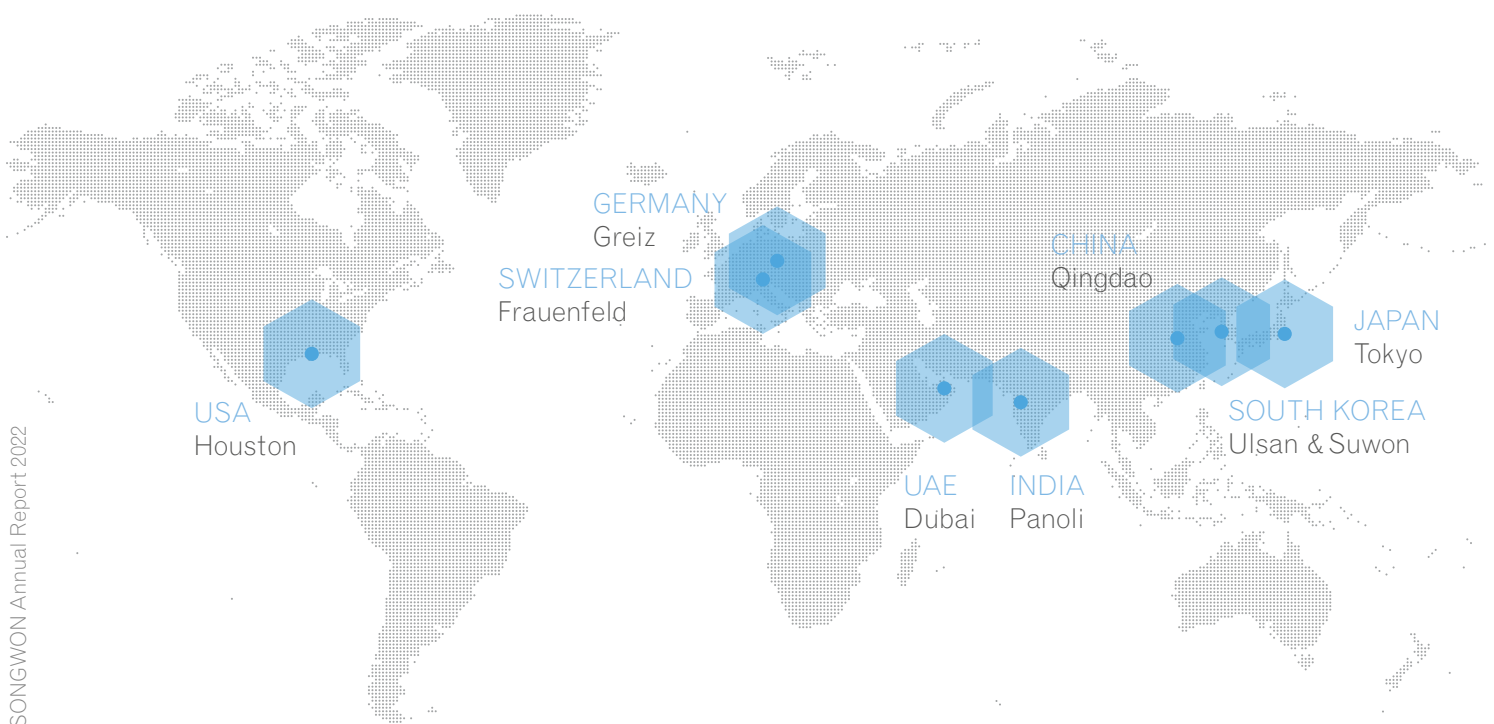
existing products can be improved and share this information with the other functions. A great asset to the organization, they act as business enablers and key facilitators between SONGWON's customers, our sales teams and our internal organization – Business Management, Manufacturing, R&D and TAD.

In 2022, the TS increased its commercial contribution to the Sales organization with a range of technical activities and in doing so, helped to highlight SONGWON's closeness to our customers. The team also focused on further improving its response times to technical inquiries and played a major role in getting key products approved more quickly at customers' facilities which benefited Sales.

This year, TS led the introduction of SONGWON's new mechanical recycling approach to the market and generated data for new products (e.g., SONGNOX® 9228 secondary antioxidant and SONGSORB® 1164 UV absorber). In addition to this, to continue to support customers' sustainability-related needs, the TS team continued to provide Life Cycle Assessments (LCAs) for SONGWON's main products. Going forward, the team will continue to closely analyze LCA customer requests to obtain an even greater understanding of future needs and where to further optimize its services.

## CLOSE-TO-THE-CUSTOMER EXPERTISE

We aim to be close to customers and offer the best level of technical support whenever they need it and wherever they are in the world. SONGWON has 9 strategically placed support centers across the globe.



# Manufacturing

## Dedicated to high-quality & supply reliability

Since our foundation in 1965, maintaining state-of-the-art manufacturing, supplying the industry with high-quality products and ensuring that global operating standards are met have always been central to SONGWON's operations. Our many years of production expertise, proprietary technology and backward integration are core strengths that support the organization's growth ambitions and provide us with a solid foundation for success.

**SONGWON's Maeam plant in South Korea is the world's largest fully back-integrated site dedicated to antioxidants.**

Each year we seek to further strengthen SONGWON's position as an industry leader by upgrading our plants with the latest technologies, improving automation, reducing complexity and implementing more sustainable production processes. Most importantly, we focus on remaining agile, minimizing our use of natural resources, bettering our safety performance and ultimately reducing SONGWON's environmental footprint.

Although the global pandemic eased in 2022, Manufacturing still faced many challenges, among them, high raw material and energy costs, an intensified supply-demand imbalance as well as supply chain disruptions due to the Ukraine crisis. In response, we directed our efforts throughout the year to achieving the most economical production and securing raw materials on time in order to effectively manage the ongoing supply instability and demand uncertainty.

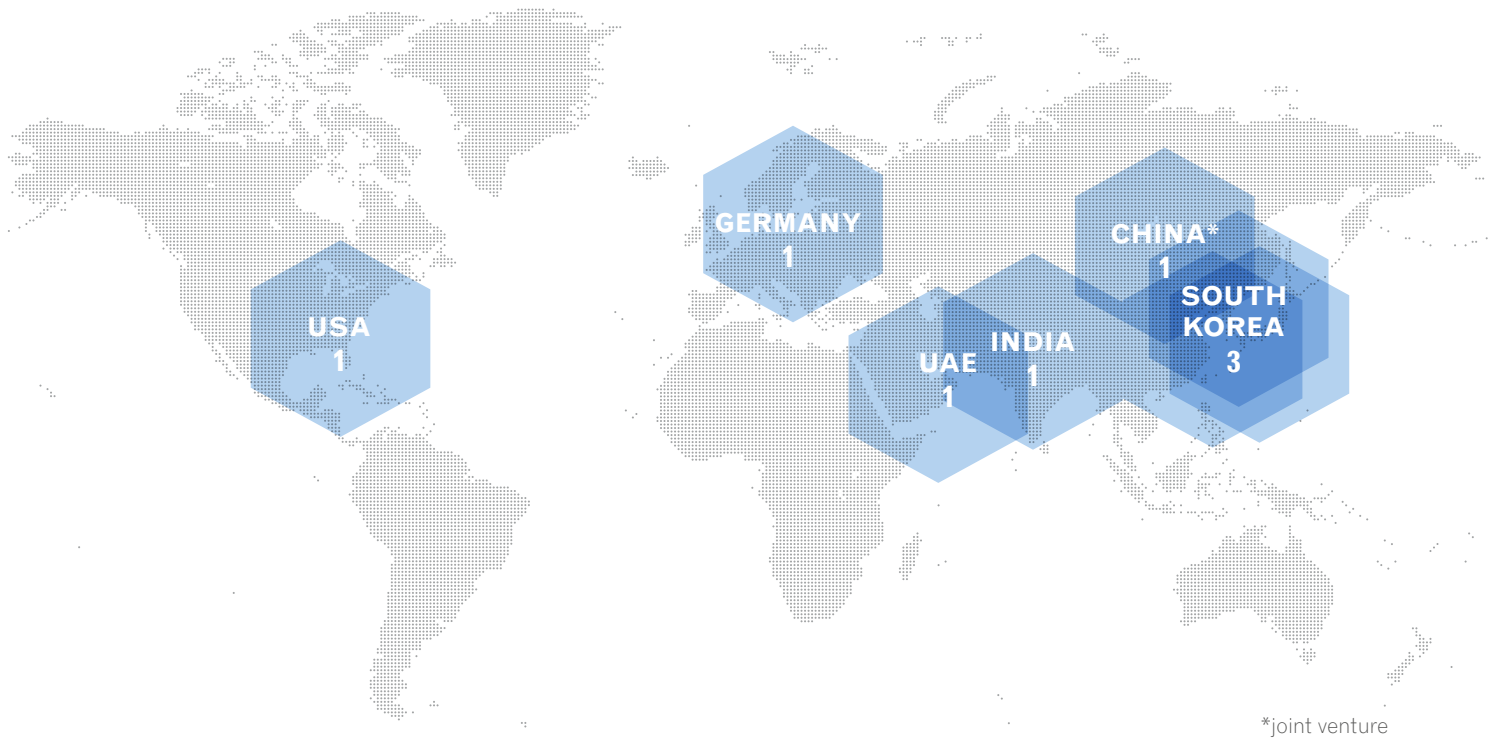
Across the globe, SONGWON has a total of 8, strategically placed, state-of-the-art manufacturing facilities. Fully equipped with the most modern technologies, they ensure that we can offer the same high production quality worldwide. SONGWON's customers count on us to provide high-quality products that deliver consistent, precise and stable performance during their own manufacturing processes.

Despite supply chain issues greatly impacting the flow of raw materials and scheduled, required maintenance, SONGWON's production sites continued to run at high utilization rates without disruption in the first half of 2022. In the 2<sup>nd</sup> half of the year, utilization was slightly lower due to the global recession which reduced forecasted volumes. Despite continual fluctuations, SONGWON's supply reliability was maintained by aligning our capacities to demand.

## SONGWON's manufacturing strategy is focused on:

- supplying customers reliably and on time
- providing high-quality products that match customers' needs
- anticipating and being well-prepared for changes in demand
- leveraging SONGWON's extensive manufacturing know-how
- utilizing assets optimally to produce economies of scale
- achieving more environmentally responsible production
- ensuring healthy and safe manufacturing facilities
- implementing automated systems for more efficiency

**SONGWON has 8 state-of-the-art manufacturing facilities.**



Our ongoing investment in leading-edge technology secures SONGWON's technological competitiveness in the growth markets we serve and ensures that we are always in a position to align our manufacturing capacities with our customers' demand and delivery requirements. Furthermore, our ongoing investments to increase production capacity underline SONGWON's commitment to supporting our broad customer base. For example, this year we installed leading-edge technology at our Ulsan plant to support a capacity and yield increase as well as increase stability and our raw material recovery rate.

In manufacturing today, the challenges we at SONGWON face are increasing especially related to meeting regulatory requirements such as the CCA (Chemical Control Act), the SAA (Serious Accident Act) and the IEC (Integrated Environment Control). As industry demands increase and legislation tightens globally, efficient and responsible manufacturing is essential to SONGWON's economic and environmental performance.

In response, we continued to drive efficiency improvements and focused on lowering our environmental impact in 2022 by striving to improve and manufacture more sustainably, but also to minimize the use of natural resources to reduce SONGWON's environmental footprint and better our safety performance.

Safety is paramount at SONGWON and we are deeply committed to maintaining and ensuring a safe production environment at all of SONGWON's facilities. We are very proud that our efforts have been recognized again by EcoVadis this year. We received the Gold Level for the 2<sup>nd</sup> consecutive year which places SONGWON in the top 6% of companies rated by EcoVadis in our relevant industry sector.

Our dedicated and experienced manufacturing team, many of whom have been with SONGWON for many years, worked tirelessly to respond to demand fluctuations and to manage the unprecedented challenges they faced this year. It is their experience and commitment combined with our rigorous EH&S culture that has made it possible for SONGWON to continue to manufacture and reliably supply the high-quality products our customers have come to expect over the years.

Going forward, SONGWON will continue to streamline and optimize processes, implement more automation, seek further ways to improve chemical yields and further reduce our environmental footprint. To ensure business continuity, expanding product lines to increase capacities will be ongoing and SONGWON's new One Pack Systems (OPS) plant at Ulsan, being constructed to meet the diverse needs of Korean customers, is expected to commence production in 2023.





## Manufacturing activities in 2022

### Installed

- additional technologies to increase capacity and yield
- more automation in the plants
- new equipment to increase recycling and sustainability
- optimized operation processes to achieve more efficiency

### Improved

- processes and working environment
- safety by eliminating hazards

### Reduced

- greenhouse gases through renewable energy sources
- utility costs and CO<sub>2</sub> emissions with better systems
- transportation costs by blending in one location

### Increased

- capacities by installing new equipment
- packing efficiency through automation

### Conducted

- on-site tests of new raw materials
- safety activities (drills, walks, etc.)
- an internal audit of PSM and CCA
- an SAA (Serious Accident Report)

# Quality Assurance (QA)

## An absolute priority

We are proud of the reputation we have built in our industry over the years for reliable, high quality. At SONGWON, Quality Assurance (QA) goes beyond merely obtaining official certifications or controlling the quality of our products. It involves our full attention to detail, having effective systems in place, continually aligning process improvements with sustainable best practices, and most importantly, compliance.

An absolute priority, QA is embedded into every corner of SONGWON's structure and operations. It is not just the QA team's responsibility; QA sits at the center of everything everyone at SONGWON does and is supervised at the highest organizational level. Moreover, it is our systematic approach to supporting the QA efforts of our customers in all aspects of their operations by providing them with safe, high-quality products that gain not only theirs but also their customers' trust.

Accordingly, our Quality Policy, which is aligned with SONGWON's business strategy, underlines our commitment to our stakeholders as well as how we respond to the requirements for quality service and products. This year, the SONGWON Group revised the Quality Policy.

With years of experience and highly skilled, our QA team is thoroughly trained in the latest QA methodologies, tools and best practices. To achieve the best results, they cooperate closely with teams from operations and SONGWON's businesses as well as with our customers. For the Sub Business Unit Electronics, the dedicated Quality Assurance Team member continued to closely collaborate with our customers. In 2022, to support smoother operations and more quality control for customers, the QA team began using a new quality analysis software application to provide all of our electronics customers with quality data in a more efficient way.

This year, with COVID-19 restrictions relaxed, QA could once again organize its regular QA meetings with the internal stakeholders at our major production sites as well as its QA Management Review meetings with all SONGWON's entities. During these meetings, all critical Items identified are immediately reviewed and actions agreed.

Engaged in every aspect of our Supply Chain, QA proactively ensures that SONGWON's products meet the stringent specifications demanded which makes quick turnarounds and/or faster time-to-market possible for our products. The QA team played a key role in supporting the expansion of SONGWON's portfolio with 2 new products launched in 2022: SONGNOX® 9228 secondary antioxidant and SONGSORB® 1164 UV absorber. QA coordinated all the relevant quality data with both product management and production to ensure further alignment and the required quality documentation.

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## SONGWON Industrial Group

### QUALITY POLICY

**SONGWON Vision**  
To be a global leader in the specialty chemicals industry with a solid and sustainable growth, creating value for all our stakeholders.

**SONGWON Mission**  
To be the supplier of choice by providing our customers with best-in-class service, a high quality, competitive and innovative range of products as well as customized solutions. It is our duty to observe governance and act in accordance with environmental and social responsibility.

**SONGWON Quality Policy**  
We are dedicated to providing high-quality products and best-in-class services to our customers. Our engagement is driven by teamwork and continuous improvement. Our focus is always our customers' needs and expectations and this enables us to achieve sustainable success together with our customers.

**To achieve our quality policy, we are committed to:**

<b>Product design and development</b>	Adding value and providing solutions to customers' businesses.
<b>Products and Services</b>	Zero customer complaints and achieving customers' satisfaction. Zero defect rates by doing it right the first time. Best-in-class service, knowing expectations and requirements from all interested parties.
<b>Health &amp; Safety</b>	We strictly comply with all relevant Health & Safety regulations.
<b>Compliance</b>	Ensuring our products meet all applicable statutory and regulatory requirements.
<b>Culture and Values</b>	We act as One Team and foster a culture of quality. Our core values: Collaboration / Excellence / Entrepreneurship / Value in People

SONGWON Industrial Group has an established Quality Management System (QMS) which fulfills ISO 9001:2015 Standards to achieve the quality and service required and expected by our customers and stakeholders.

Jongho Park  
Group CEO

It's all about **the chemistry™**

The main KPI's for the QA team are to achieve our quality targets and to do what we can to reduce customer complaints overall. Despite, achieving a positive decline in customer complaints over the past few years, in 2022, a slight increase compared to 2021 was recorded mainly related to global supply chain issues. The QA team always strives to respond to customers with an accurate root cause analysis as well as share our effective corrective actions with them as swiftly as possible. Actions to respond quickly to complaints are already in place and the QA team is looking at initiatives and ways to make improvements in order to reduce the complaints.

SONGWON's deep commitment to QA also extends to all of our business partners. By performing supplier audits, we confirm that our quality requirements are understood and executed according the agreed standards. It is also our way of making 100% sure that our suppliers can deliver to the agreed quality levels SONGWON has set. This year, the QA team worked closely with SONGWON's Business Units to improve and align our suppliers' quality levels. This ongoing project will continue in 2023.

## SONGWON has the following ISO standards in place:

- **Quality Management System: ISO 9001:2015**
- **Environmental Management System: ISO 14001:2015**
- **Occupational Health & Safety Management System: ISO 45001**

Furthermore, building collaborative, relationships with our suppliers and helping them improve quality levels is as vital to ensuring that SONGWON's rigorous quality assurance requirements are met. SONGWON expects and requests that all suppliers practice legal compliance and promote social responsibility toward such issues as the environment, human rights, and occupational safety. We also support customer audits which provide the QA team with an opportunity to share quality perspectives with customers and gain a better understanding of their expectations.

SONGWON first obtained ISO certification in 1995. Ever since, we have had a rigorous set of operating procedures in place and extensive, well-documented quality control measures. The ISO certifications of our plants not only highlight SONGWON's uncompromising focus on quality, but also underline SONGWON's efforts to constantly improve operations so that we can continue to consistently meet the expectations and ever-changing needs of our stakeholders.

ISO also sets out the criteria for a quality management system (QMS) based on several quality management principles. These include: strong customer focus, processes and continuous improvement. In order to make sure that SONGWON is always in a position to offer consistent quality, QA continuously adapts our QMS to new requirements created by the business or operations.

In 2022, the QA team continued with its roll out of the QMS software and successfully completed the implementation of a state-of-the-art document handling system for South Korea. Furthermore, they made improvements to SONGWON's product life cycle processes. The revised process implemented in the online QMS process flow system achieved greater transparency for all the involved stakeholders by providing better controls. The QMS software roll out is planned for next year in India.

Working with a global QMS, all of SONGWON's core processes, particularly the major support processes, are globally designed and this makes it possible for every interaction with the relevant departments to be standardized. Our global QA team's close collaboration and coordination with the regional QA organizations is what ensures that everyone at SONGWON is always working as "One Team" with the same agreed processes and quality goals.

# Regulatory Affairs

## Committed to compliance

As a globally operating organization, SONGWON must comply with a multitude of international and local laws, regulations, policies, enforcement authorities and cultural differences. Consequently, Regulatory Affairs is an essential function not only for SONGWON but also for our business partners, customers and shareholders. An integral part of our operations, it highlights SONGWON's uncompromising dedication to product quality and regulatory compliance as well as to being a responsible organization whose business is conducted in accordance with the highest ethical principles.

Our Regulatory Affairs team plays a fundamental role in supporting SONGWON to remain compliant and ensure that all activities are in keeping with global and regional standards, laws and regulations. In addition, SONGWON's Management has systematically built product compliance and product stewardship activities into the company's core business processes. This has made sure that our regulatory experts are involved in new product development right from the beginning – from R&D's stage and gate process, the budgeting and strategic planning stages, as well as the Stock Keeping Unit (SKU) setup process.

As SONGWON continues to expand, the scope of strategic regulatory support needed is increasing. To meet requirements and boost our Regulatory Affairs capabilities, new expertise was added to strengthen the team in 2022. Key trainings, particularly for new team members, were also provided to ensure the team is equipped with the most up-to-date best practices and knowledge e.g., on the management of chemical substances.

Furthermore, each of SONGWON's businesses has a dedicated Regulatory Affairs manager. This extra level of support at all stages facilitates valuable and productive collaboration between the businesses and Regulatory Affairs. It also enables more frequent exchanges on daily matters and industry developments as well as strategic discussions on the future of current and new products. This sharing of knowledge contributes to improving the Regulatory Affairs team's ability to provide accurate and rapid responses to customer inquiries.

Every year, the regulatory landscape in our industry becomes more and more complex and demanding, and with it, the task of ensuring SONGWON remains

compliant. During 2022, the team saw customers' demand for regulatory support noticeably increase. Particularly, in terms of the number and extent of the requests received as well as the range of topics and countries needing to be covered. Although facing many challenges, our highly-competent team was successful in meeting SONGWON's compliance commitments while fulfilling the regulatory needs of our customers.

## Current and future Regulatory Affairs challenges:

- **The ECHA<sup>1</sup> has increased its efforts to acquire better knowledge and regulate hazardous chemicals in the EU, by conducting detailed evaluations of current dossiers and requesting additional chemical studies. This will result in harsher regulatory pressure in relation to harmful chemical substances in the near future.**
- **More and more countries are developing and implementing their own regulatory frameworks for chemical substances which will bring new compliance criteria.**
- **Several countries currently already have draft proposals for new chemical control regulations to be enforced within the next several years and these will increase our team's workload.**
- **Upcoming registration deadlines in various regions must be met.**
- **NIER<sup>2</sup> has initiated its hazard evaluation process for registered substances in South Korea, thereby increasing the number of substances classified as "hazardous chemical substances" which require more safety measures to be implemented during manufacturing, transportation and at the customer level.**
- **The greater costs and time needed to gain regulatory approvals are impacting the speed of new substance development and commercialization globally.**
- **Substances of concern lists are getting longer every year and need to be closely monitored.**
- **Emphasis on sustainability has led to customers demanding more transparency from suppliers on substances of concern trace concentrations.**
- **Customers are progressively requesting more ISO Environmental Health or Safety certifications.**

1. European Chemicals Agency 2. National Institute of Environmental Research, South Korea

Our Regulatory Affairs team always looks out for regulatory changes, assesses how these impact SONGWON and discusses how to best support each business. By regularly engaging with internal stakeholders and external consultants, the team improved both its monitoring of regulatory issues and increased the exchange, awareness and support for regulatory topics across the organization. It also ensured that frequently required regulatory statements were readily accessible within the company to those needing them.

In addition, participating in relevant industry associations where we can collaborate and work together with external industry experts and suppliers, places SONGWON in a position to anticipate future regulatory changes. Furthermore, we make a point of informing customers of any relevant changes on the horizon as far in advance as possible so that they can prepare and take appropriate action in time.

SONGWON must always remain agile and up-to-date because customers today want to work with suppliers that go beyond just compliance. Customers

are demanding that suppliers meet their expectations for quality, price and delivery but also support them to improve their own products' sustainability standards. In response to the global demand for more sustainability, SONGWON's Management ensures that the Regulatory Affairs team has the required resources in place to support the ongoing development and production of more efficient and safer chemical substances.

We make sure that all SONGWON products meet our global customers' environmental, health and safety goals and want our customers to be confident that every SONGWON product complies with both global and local regulations. Supporting our customers' sustainability requirements with our expertise and assisting them to manage the complex aspects of regulatory compliance, registration and certification is something that we take very seriously.

Providing customers with comprehensive product information such as the specification (CoA), a technical data sheet (TDS) and a safety data sheet (SDS) is already general practice throughout our industry. At SONGWON, we go a step further and provide our customers with an additional regulatory data sheet (RDS) that offers a detailed overview of critical global product regulatory approval information. We also fulfill EU-REACH requirements by creating an eSDS for each hazardous substance that is manufactured or imported in quantities > 10 t/a.

To meet all the various regional regulatory requirements, we produce our SDSs in many languages and make them readily available on SONGWON's website so that it is easier for our global customers to comply with their local hazard communications requirements. This year, to ensure the most current SDSs and labels are readily available, the team transferred them into SONGWON's quality management system. In this way, clear and up-to-date communication on hazard classification and labeling changes are always on each product SDS and label.

For SONGWON, compliance will always be a top priority. Each year, we continue to improve and ensure that compliance remains at the center of our operations. As the emphasis on sustainability and product stewardship increases, SONGWON will continue focusing its efforts on seeking even better ways to manage and ensure compliance for SONGWON and our stakeholders across all the regions.

## 2022 Regulatory Affairs highlights:

### EU-REACH:

**6 new registrations submitted**  
**6 tonnage band updates done**

### K-REACH:

**48 new registrations successfully completed**

### EAEU REACH:

**14 pre-registrations made**

# Our People

## A committed global team

SONGWON is driven by a unified team of committed, highly-skilled people and each individual defines our success. Their efforts are the foundation for SONGWON's leading position in the industry and the key to securing the long-term loyalty of our customers. Placing the highest expectations on themselves, they work diligently across the different regions and do their very best for the organization, our customers and the industry.

Made up of 994 talented people who represent 33 different nationalities, our global team mirrors SONGWON's global customer base. With their diverse backgrounds and perspectives, they play an invaluable role in helping us remain successful amid all the challenges of today's competitive business environment. Working across the business and borders, our people are united in their determination to contribute, not just to SONGWON's business success but to the success of our customers as well.

Behind the unique and collaborative company atmosphere at SONGWON is the positive mix of long-standing employees with years of experience and young, ambitious new talent. Whether new to the organization or with us for a long time, each employee is dedicated to fulfilling their role in our strong global team. In addition to carrying out their daily tasks, our employees always seek to improve and challenge both themselves and their colleagues to go the "extra mile". It is this entrepreneurial team spirit and sense of pride as well as our global reach and local expertise that makes SONGWON what it is today.

To ensure that individuals and teams have the means to deliver positive business outcomes and achieve greater success, SONGWON's Management fosters an engaging, proactive culture of open communication and flat hierarchies. Apart from providing our people with a safe place to work and protecting their well-being, they engage in regular dialogue and listen to employees' views and ideas. SONGWON also holds Town Hall meetings and conducts employee surveys, to gain important insight into employee concerns and receive constructive feedback on how we can keep on improving as an organization.

During these uncertain times, we know the increased value and positive impacts of effective internal and external communication. Therefore, at SONGWON, we make a point of keeping our people regularly informed on our priorities, financial results, EH&S issues, etc. via HR, Management and team leader updates.

Information exchange across the business as well as leveraging internal synergies is strongly encouraged and supported. This year, in order to learn more about the challenges confronting SONGWON's customers, our teams remained in regular contact with them. Most importantly, the insights gained were shared with the other relevant functions.

We are always evolving as an organization and so is the ever-changing environment in which we work. In response to various changes, SONGWON's corporate values were updated in 2022. With our new values, we aim to firmly establish a corporate culture anchored to SONGWON's DNA based on a "One Company, One Culture" principle. Our renewed set of values better reflects who we are as an organization today as well as our business goals. To embed the new values across the company, HR is providing trainings/workshops with explanations and examples on how to live these values in our day-to-day work and how we all support each other to deliver on our business priorities. By providing an overview of the organization's activities and highlighting achievements, SONGWON's employee newsletter also contributes to maintaining the "One Company, One Culture" feeling and sense of pride in SONGWON.

However, being a successful organization is not just about our performance and achievements but also about acting in a responsible, ethical and law-abiding way. Our great sense of responsibility towards each other and all of our stakeholders demonstrates our commitment to really living our core values every day. In SONGWON's Code of Conduct, there is a clearly defined summary of essential information on the organization's values, ethical principles, compliance with laws, rules and regulations, as well as important guidelines and procedures for our daily operations\*.

SONGWON's Core Values, Code of Conduct and the Whistleblower Policy we have in place, all serve to emphasize the great importance we place on issues such as equality, diversity, human rights and sustainability at SONGWON. We make sure that every SONGWON employee understands that they are personally responsible for complying with all applicable laws, directives, policies and regulations. As part of onboarding, new employees receive a copy of the Code and HR organizes trainings to make them fully aware of SONGWON's values and rules from the moment they join our team. Refresher sessions are also conducted on a yearly basis to remind our people of the principles in our Code and ensure that they are always at the forefront of our thinking.

\* In 2022, there were no incidents to report, such as corruption that breached SONGWON's Code of Conduct and no significant fines (of either monetary or non-monetary value) for non-compliance with laws and regulations.

At SONGWON, we seek to create an inclusive working environment where people, regardless of their background or belief, can work together as one team in pursuit of common goals. We know that an inclusive culture that embraces diversity, respects human rights, offers equal opportunities and supports non-discrimination fosters a stronger bond between managers and employees and serves to build trust within the company. We want our employees to be proud of being part of a global organization that maintains strong standards of integrity and protect its people, assets and reputation.

We are proud of the talent we have at SONGWON and know that the organization's further success relies on them. Therefore, it is a priority for us to support our people to realize their maximum potential. Each year, HR aims to provide employees with chances to learn, share their knowledge with others and use their experience to continue making valuable contributions to the organization. In 2022, HR organized internal trainings aimed at strengthening SONGWON's Corporate Culture e.g., on ethics standards as well as English language courses, health and safety sessions, etc. For specific employees, after their manager defined a development goal, usually during the yearly performance review, HR supported the employee to find an appropriate external training or further education opportunity.

Apart from this, SONGWON has an e-Learning platform which makes it possible for our employees to access the learning content that HR implements on it from anywhere at any time. The content can be downloaded to read offline and employees can take assessment tests and even obtain certifications. This year again, the various businesses also offered knowledge-enhancing trainings and webinars to ensure that particularly newer members to SONGWON's team were fully up-to-date with our latest products and had the most current market information.

At SONGWON, comprehensive on-the-job training provides our people with the hands-on experience they need to advance their skills and the knowledge required to perform their best. Our employee exchange program, which is currently on hold due to COVID-19 restrictions, was developed to allow employees to work alongside another SONGWON team in different countries and cultures. It provides insight into other work environments, supports cultural understanding and also offers employees the chance to strengthen their language and international business skills. This experience of getting a chance to familiarize themselves with different ways of doing things and building stronger ties with other global team colleagues also benefits the local colleagues when the employee returns to their SONGWON base location. Over the years, strengthening the communication between locations and promoting the sharing of best practices has proven valuable to SONGWON on many levels. Most importantly, it helps us to establish a global mindset and build on our diversified culture.

## HR Highlights in 2022

- Introduced SONGWON's new Corporate Values.
- Strengthened the corporate culture anchored to SONGWON's DNA.
- Filled key global leadership positions to drive SONGWON's strategy.
- Offered internal trainings e.g., ethics standards to strengthen our Corporate Culture.
- Added further content for employees to the e-Learning Management System (LMS).
- Organized further education opportunities for specific employees.
- Continued harmonizing HR standards and optimizing procedures across the Group.
- Simplified SONGWON's best-practice performance system to make it more user-friendly.

SONGWON's Management and HR support and encourage collaboration and entrepreneurial spirit. Providing the environment and conditions for our employees to be proud of what they do and to contribute to fulfilling SONGWON's strategic targets is a driver of our success. HR strives to ensure sure that our employees feel empowered and continue to be driven by measurable results. Personal development is one of the keys to employee satisfaction and an important contributor to this is our state-of-the-art performance review system (PRS). This system allows us to provide our people with the support they need to realize SONGWON's strategy, targets and growth ambitions.

Our HR philosophy is built on acknowledging the essential role each individual plays within our organization and the ways they add value to everything SONGWON does. Most importantly, we make sure that whatever their function, our employees feel valued. Aligning the work to be done with SONGWON's organizational goals, and then assessing performance against a clear set of leadership expectations, targets and measures is how we motivate and develop the highly-talented individuals of our global team. SONGWON's PRS process is structured to assess, recognize and reward employees fairly. It provides both context and purpose for each employee's area of work, by enabling them to clearly understand what they contribute to the organization and where they can improve and develop. It also includes an individual development plan for employees on the responsibilities of their manager. The overall aim of SONGWON's PRS is that the results and discussions deliver reciprocally beneficial feedback for managers and employees which is fair, accurate and motivating for both.

As well as investing in and developing the skilled employees we already have within SONGWON, we continue to hire talented people. SONGWON's HR strategy is to hire the best person for the job and give them the environment to thrive. To ensure that the organization is well-placed to meet customers' needs, SONGWON offers a workplace where our employees are guided to focus on common outcomes and inspired to improve with meaningful tasks assigned to the right people in accordance with their function. This approach as well as our traineeship programs strengthen SONGWON's attractiveness as an employer and contributes to counteracting the global shortage of skilled workers. For HR, seeking out the "best" for the job at hand means more than attracting people with the right qualifications and experience. It involves finding people who share SONGWON's core values, contribute to our diversity and add to our multicultural environment.

As a leading global organization, operating in such an international and dynamic environment requires open-minded, collaborative thinkers who are versatile and can adapt to changes and manage challenges.

At SONGWON, we understand the value of leveraging a local manager's inherent understanding of the culture of both employees and customers. To hire for mid-to-lower-level positions, we do our best to recruit from inside SONGWON. HR's priority is to always fill a position with the best person for the job but we aim to hire from within wherever possible. We apply a similar approach to filling senior management positions. This year, we strengthened SONGWON's leadership team with 1 internal promotion hire and 1 external hire.

Our regional and global HR teams have played an essential role again this year in helping to secure business continuity for the organization. By introducing new measures and driving key strategies, HR ensured that employees were well-supported and could continue positively contributing to SONGWON's success. So that it can better support SONGWON's strategy going forward, HR will continue to increase its effectiveness by further implementing leaner, more optimized processes across the Group.

## At SONGWON, we:

**provide** an environment for sharing & collaborating.

**support** creativity & entrepreneurial team spirit.

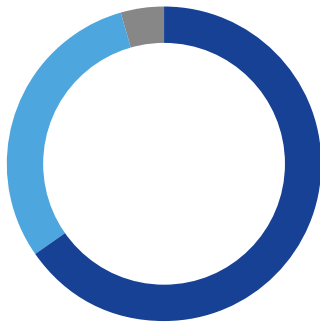
**enable** people to take responsibility.

**value** diversity & unique perspectives.

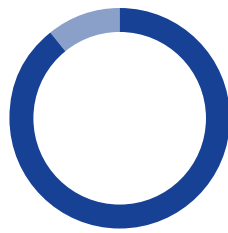
**encourage** further development & learning.

**acknowledge** hard work & achievements.



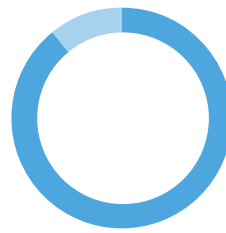


994  
Employees



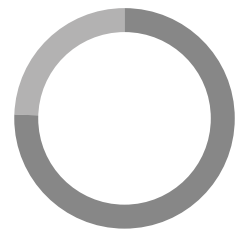
664  
Asia

Women (72)  
Men (592)



288  
EMEA

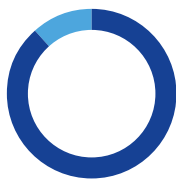
Women (32)  
Men (256)



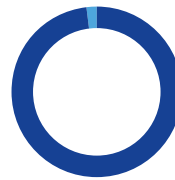
42  
Americas

Women (10)  
Men (32)

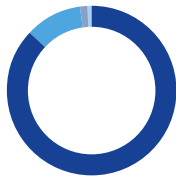
In 2022, 19 employees took parental leave and 13 employees returned to work.



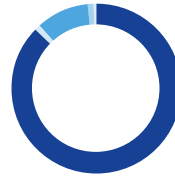
Women (114)  
Men (880)



Permanent (977)  
Temporary (17)



Men, salaried (864)  
Women, salaried (108)  
Men, hourly (16)  
Women, hourly (6)



Men, full-time (867)  
Men, part-time (1)  
Men, temporary (12)  
Women, full-time (100)  
Women, part-time (9)  
Women, temporary (5)

### BOD & Executive Committee



30-50 years old (2)  
over 50 years old (6)



Executive Committee  
Men (4)  
Women (0)

BOD  
Men (4)  
Women (0)

### Employees by gender

	Left	Hired
Total	88	67
Men	73	54
Women	15	13

### Employees by age

	Left	Hired
Total	88	67
> 50 years	18	8
From 30 to 50 years	49	23
< 30 years	21	36

# SONGWON's Global Team

Irish Dutch  
British German  
Belgian  
French Swiss  
Spanish Austrian  
Portuguese Italian  
American Romanian Chinese  
Jordanian  
Egyptian Pakistani Nepalese  
Russian Arab Japanese  
Venezuelan Indian  
Colombian Nigerian Sri Lankan Taiwanese  
Ugandan Malaysian Filipino  
Singaporean  
South Korean

**33** different nationalities work at SONGWON



# Sustainability Report

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# Sustainability Report

**Founded 57 years ago, SONGWON is a global and successful specialty chemicals leader with a broad product portfolio of industrial and performance chemicals. The company is located and active in countries and regions worldwide such as South Korea, the European Union, Switzerland, India, the USA, Japan, China and the UAE.**

## About the 2022 Sustainability Report

An important part of SONGWON's annual reporting process involves transparency on the relevant sustainability topics, their evaluation, measurement, management and integration into the business. SONGWON voluntarily reports its environmental, social and governance performance in its Sustainability Report. This report is prepared for transparency purposes for our stakeholders to measure and review the company's performance and achievements against sustainability goals.

The Sustainability Report is prepared in accordance with the 2021 Global Reporting Initiative (GRI) Standards. It includes a number of key performance indicators for its operations such as energy, greenhouse gas emissions, water, or waste management. It also covers social aspects such as accident rate, customer engagement, community investment, diversity as

well as governance topics. At SONGWON, we will continue to work on the UN's Sustainable Development Goals (SDGs) and strive to achieve a level that also contributes to similar initiatives.

Selected key performance indicators (KPIs) in the report have been externally assured by EY in accordance with ISAE 3000. For this initial assurance process in 2022, environmental as well as health and safety KPIs that meet specific criteria have been defined as follows: energy consumption, Scope 1 emissions, Scope 2 emissions, Total Case Accident Rate, – for all South Korean manufacturing sites (Ulsan, Maeam, Suwon). The scope of the report covers the governance and social aspects of all entities in the company's financial report. For the environmental KPIs, all manufacturing sites in South Korea and India are included. From 2023 onwards, the company's environmental data collection will be extended companywide.

## CEO and CSO Statement

Sustainability is an overall concern, the chemical industry is severely impacted, and we are noticing increased awareness in society worldwide. In drawing conclusions from \*COP27 and the Paris Agreement, we must build resilience against the impacts of climate change at SONGWON. Governments, including that of South Korea, have set the goal of achieving a net zero emission economy by 2050 and are thus adopting respective regulations. Accordingly, the South Korean government has formulated an interim target as of 2030: Emissions are to be reduced by 40% compared to 2018. The South Korean government annually verifies SONGWON's CO<sub>2</sub>e-emissions.

For SONGWON – in addition to climate change – new market requirements, customers, and partners in the supply chain are the most important drivers of sustainability. Sustainability is more than just “going green”. It is about building a sustainable business for the future by integrating the ESG topics into the corporate strategy: Environment, Society, Governance.

*We are set to reach the 40% CO<sub>2</sub>e-reduction goal from 2018 levels by 2030. Sustainability is about building a sustainable business for the future.*

\*27<sup>th</sup> UN Climate Change Conference

In 2022, SONGWON notably increased its efforts to significantly move the strategy and roadmap ahead. The CO<sub>2</sub>e-emissions (Scope 1 and Scope 2) shall be reduced by 40% from 2018 levels by 2030, relative to the production volume. The Sustainability governance structure is in place. We have defined important milestones regarding operations and CO<sub>2</sub>e-reduction. We are introducing sustainable products and innovations, or are establishing a Sustainability service in order to respond to the new market requirements – both, for our customers and business partners. As of now, LCAs\* are available for almost all core products. Measures are being continuously examined to further support the circular economy.

\* LCA: Life Cycle Assessments.

Whilst at the beginning of this process, results are visible, the recognition is motivating and the momentum is driving us forward.

### **Sustainability is a strategic driver**

We want to continue to expand and strengthen our leadership position in our key businesses by operating a sustainable business model. The strategic objective is to create added value by managing operations, innovation and business practices meeting the changing demands and sustainability requirements of our markets and stakeholders. This impacts the strategic direction of the company and requires important investments, in particular financial and human. Sustainability is a group-wide challenge involving the entire global team, all departments and business units, and it will influence the company's culture.

At SONGWON, the sustainability debate has given rise to a new understanding of long-term economic success with meaningful, responsible corporate action. Economic success and sustainable action are not mutually exclusive nor contradictory, but rather two goals that must be thought of together in business terms.

### **Newly introduced Independent Assurance for more transparency**

For SONGWON, transparency on the important sustainability topics, their evaluation, measurement, management and integration into the business is an important part of the annual reporting process. SONGWON has requested an **independent limited assurance under ISAE 3000 for the year 2022** for a selection of these indicators. These are further reported as aggregated information for its operations in South Korea's main sites. – In parallel to this first-

time limited assurance, the company's ESG data collection progresses worldwide, particularly with regard to the environmental indicators.

### **Risk Management – Our response to climate change and the volatile environment**

The critical events of the past two years – Covid, disrupted supply chains, or the geopolitical situation – have made it clear: different types of (as well as unexpected) risks must be considered and systematically integrated in the company's top management in order to mitigate the exposure whilst developing and exploiting opportunities.

SONGWON's response to climate change and the volatile situation is to work on having the essential instruments in place such as the process for identifying, assessing and managing risks and opportunities (Board of Directors and Executive Committee). In 2022, we put an emphasis on this subject matter and will continue increasing our efforts in 2023. In particular, assessing exposure to climate-related risks and opportunities over a given time horizon is fundamental for the transition to a low-carbon economy envisioned in the Paris Agreement and the United Nations SDGs. We manage this risk by continuously reducing our operations' carbon footprint or by developing sustainable products and solutions to support the circular economy. At the same time, we respond to new market respectively customer requirements.

However, the impact of potential risks – such as regulation (e. g., for product declaration or enhanced disclosing obligations, taxes and levies), market risks (e. g., customer requirements, increased cost for raw materials or transportation, rise in risk-based pricing of insurances) or the importance of our company's reputation (e. g., compliance, the certified health and safety measures for our employees) – ensure that we remain vigilant. In addition to strategy development, the establishment of a well thought-out professional risk management constitutes a pillar for the future.

## Sustainability Strategy and Governance Structure

Decisions taken in the chemical industry have both an important impact (internal and external) and long-term effects whilst requiring significant investments (human, financial, time). Improving energy efficiency, reducing polluting emissions and using renewable sources of energy are the most effective measures in

the long term and thus the most important objectives of the company's sustainability strategy.

In order to increase our company's resilience, SONGWON has developed a wholistic strategic approach. The overarching objective consists in creating added value by managing operations, innovation and business practices to meet the changing demands and sustainability requirements of our markets and stakeholders.

Goals	Measures
CO <sub>2</sub> -Emissions*: reduction of 40% by 2030 (Base year: 2018)	Verification by Korean Government Independent Limited Assurance by EY
Energy consumption: Energy-efficiency, renewables	Renewables: photovoltaics, agro-waste (implemented locally) Energy-efficiency: On-site operational optimization measures
Product footprint	LCA for all main products available; ongoing improvement
Health and Safety	Reached goal in 2022: Total Case Accident Rate of 0.000% Independent limited Assurance
Customer satisfaction	Sustainability Service Center
Innovation	Product innovations. Sustainable products
Circular economy	Developed design for mechanical recycling
Waste reduction	Share of recycling waste increases annually Recycled PE for packaging (up to 50%). RIGK-Certificate
Governance Structure	Sustainability Governance Structure in place

\*The CO<sub>2</sub>e-emissions (Scope 1 and Scope 2) shall be reduced by 40% from 2018 levels by 2030, relative to the production volume.

SONGWON has developed the Sustainability Governance Structure, by additionally nominating a CSO (Chief Sustainability Officer). – The highest governance body regarding Sustainability issues is the Board of Directors. At the second level, the Executive Committee (ECM) is responsible for decision-making. The ECM is highly involved in the management of the impacts on the economy, the environment and society.

Selected members are also active in the Sustainability Management Team which is led by the CSO. Through the Sustainability Team all Business Units and Departments leaders are integrated and participate in the management of the various issues.



## Material topics

In order to determine the material topics, SONGWON a) builds on the topics of its GRI-report of the previous year and b) proceeds in accordance with the Global Reporting Initiative GRI 3 standard. By engaging with internal and external stakeholders and experts that have a deep understanding of the company's context, we have identified and assessed the actual and potential impacts and prioritized what is most important for the reporting. Each aspect of sustainability is evaluated with regards to its business relevance and its economic, environmental and social impacts, – this includes impacts on human rights, and business relationships. Strategic priorities are set.

The determination of the material topics is a continuous process, with a result that should be valid in the long term. The material topics covered in this report are the most relevant when considering their potential impact on SONGWON's stakeholders and our ability to create long-term value. – The main responsibility for leadership lies with the Sustainability Management Team (s. Sustainability Governance Structure), whose members are in contact with customers, partners, the supply chain as well as stakeholders and shareholders. The feedback on the previous year's report confirms the direction taken and calls for more in-depth work on existing topics (e.g., with the independent assurance of most important KPIs) as well as an expansion to include new topics (e.g., customer topics in 2022). The supply chain is also considered important, a topic that will be dealt with in greater depth as of 2023.

### Material topics 2022

	Economic Performance	GRI 201	
	Anti-corruption	GRI 205	
	Anti-competitive Behavior	GRI 206	
Environment	Materials	GRI 301	
	Energy	GRI 302	Independent Limited Assurance: 302-1
	Water and Effluents	GRI 303	
	Biodiversity	GRI 304	
	Emissions	GRI 305	Independent Limited Assurance: 305-1
			Independent Limited Assurance: 305-2
Waste	GRI 306		
Society	Employment	GRI 401	
	Occupational Health&Safety	GRI 403	Independent Limited Assurance: 403-9
	Diversity, Equal Opportunity	GRI 405	
	Non-discrimination	GRI 406	
	Local Communities	GRI 413	
	Customer Health and Safety	GRI 416	
	Marketing and Labeling	GRI 417	
Customer Privacy	GRI 418		



# Approach to ESG – Environment, Society and Governance

*SONGWON wants to create long-term value for all stakeholders and deliver solid returns for shareholders by operating a sustainable business model that addresses the long-term goals of environment, society and governance (ESG).*

How is SONGWON dealing with environmental/ climate issues?



**E**  
Environment

**G**  
Governance



How is SONGWON acting responsibly?



**S**  
Society

How is SONGWON caring for Society?

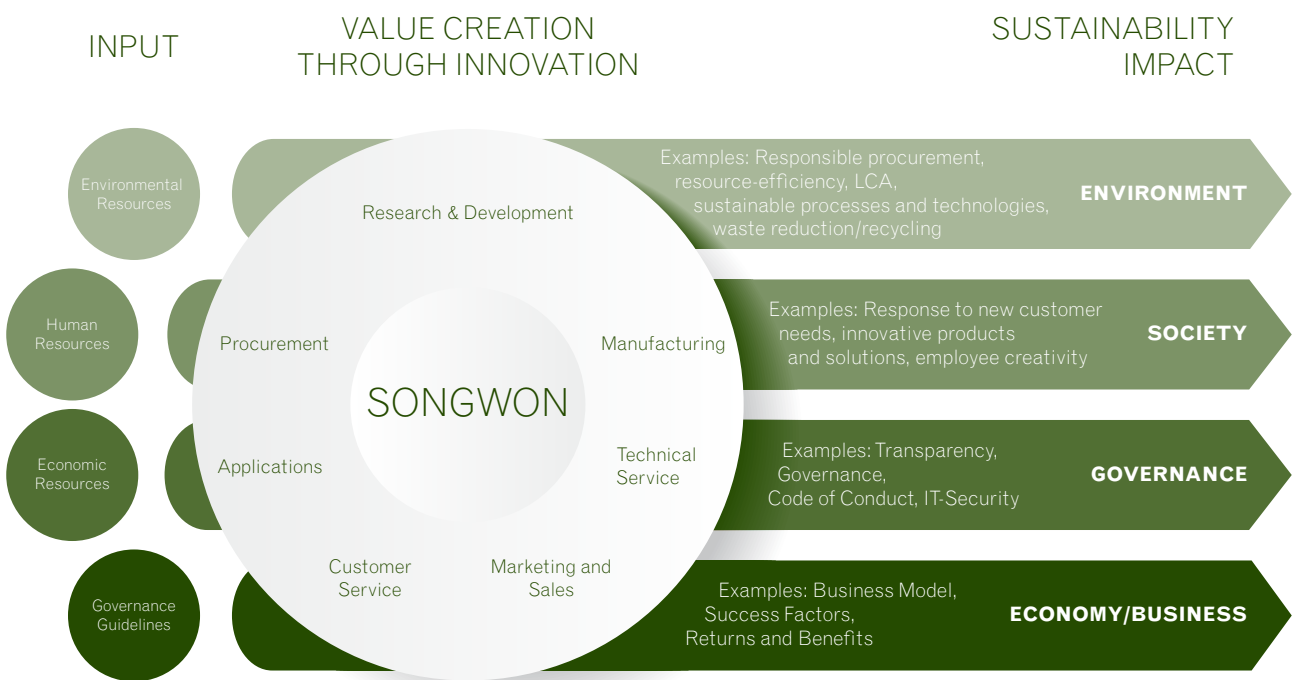
The integration of ESG in its reporting allows SONGWON to make the difference. It is not only about the inclusion of a core set of global metrics for NFI (non-financial information) in the mainstream reports,

or about considering stakeholders' concerns, as today these issues are material to business resilience, but it's about the way SONGWON creates value by integrating environmental, societal and governance aspects.

## Value Creation through Innovation

**Committing to ongoing sustainability, social and ecological responsibility – while creating value through innovation – reflects SONGWON's business model.**

We are living in a connected world in where society's commitment to the values of responsible business, sustainable economic development and long term value creation is continually increasing.



SONGWON takes into consideration the environmental, societal and economic impacts associated with its business activities and how these are contributing to sustainable development and the United Nations' Sustainable Development Goals.

## Selection of products

**SONGWON is a global leader in the development, manufacture and supply of specialty chemicals and the 2<sup>nd</sup> largest producer of polymer stabilizers in the world. Our diverse team of dedicated and experienced professionals, works with customers and other industry experts to develop and deliver customized, application-specific chemical products for a wide variety of sectors and industries.**

### Core and sustainable products

Over its 57 years in the industry, SONGWON has developed a wide-ranging portfolio of performance-improving products that make end materials more durable and plastics easier to recycle.

Additives allow further use of products by maintaining their initial properties or contribute to a second life of resins. By supporting customers in the selection of suitable products for their applications, SONGWON meets the today's requirements and contributes to circular economy.

### New products

The work to increase the capacities of several established product lines continues. At the same time, SONGWON is proud to launch new products meeting today's customer needs.

SONGWON will also be able to cover the subsequent rise in demand for high-end specialty chemicals and raw materials for IT industries (incl. semiconductors) as well as display materials. In 2022, with the completion of the 2<sup>nd</sup> production line for electronic chemicals, SONGWON is well-positioned to respond to the increasing demand for semiconductors.

**SONGNOX® 1076**  
(phenolic antioxidant)

**SONGNOX® 1680**  
(phosphite)

**SONGNOX® 1010**  
(phenolic antioxidant)

**SONGNOX® L670**  
(liquid primary antioxidant for lubricants)

**SONGSORB®**  
**CS WB product range**

(solvent-free coatings additives)

**SONGSTAB®**  
**CZ product range**  
(lead-free PVC additives)

**SONGSTAB®**  
**COS product range**  
(tin- and zinc-free PVC additives)

**HI-THANE™ A-7332**

**HI-THANE™ A-6200**

(solvent-free polyurethane adhesive)

**SONGNOX® 9228**

(antioxidant for color improvement, stabilization of Cr-type high-density polyethylene)

**SONGSORB® 1164**

(UV absorber for plastics)

**SONGSORB® CS 460**

**SONGSORB® CS 171**

(for highly durable coatings - new high performing triazine and a liquid benzotriazole)

**SONGSORB® CS B5439**

**SONGSORB® CS B5452**

(coatings on a water-based solution, new blends)

**Photoresist Monomers**

(raw material of photoresist in semiconductor manufacturing process)

**Photoresist Polymers**

(photoresist chemicals in the semiconductor manufacturing process)

## Technical Service

SONGWON's 9 support centers are strategically placed across the globe and offer customers the highest level of expert technical support. The Technical Service takes care of all customer requests in relation to technical matters. Sustainability drives our innovation efforts. 2022 is characterized by several innovations (process and products).

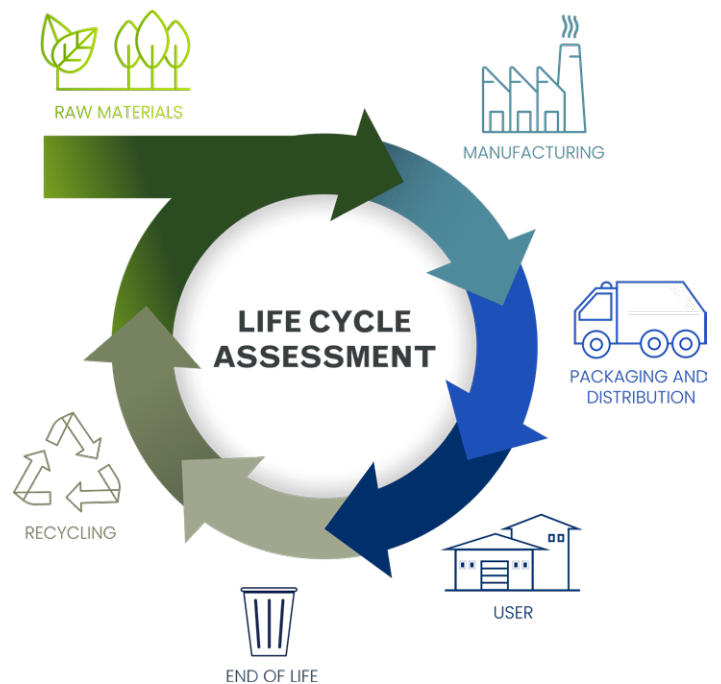
- + Proactive monitoring of customer requests.
- + Providing LCAs for the core products.
- + Developing a design and solutions for mechanical recycling, including key presentation at K2022.
- + Pushing education in the area of mechanical recycling.
- + Supporting product innovations, e. g., with bio-based content.
- + Extending the range of sustainable products and solutions.
- + Monitor activities on plastic waste as a renewable resource to support the circular economy.

## LCA – Available for SONGWON key products

SONGWON performs LCAs (life cycle assessments) of its products due to the increased importance for all partners of the plastics value chain to contribute to a circular economy.

- In 2022, LCA-data for major SONGWON products have been collected based on a proven methodology: e.g., materials, energy, emissions,
- with the aim of quantifying the global warming potential per product, to identify optimization possibilities,
- to identify opportunities through low impact raw materials, or further products extending durability of end products, or by using renewable energy for production and operations.

SONGWON continues working on solutions that consider the entire lifecycle of plastics.



# Environment

SONGWON's business depends on and impacts the natural environment in a myriad of ways, through its operations and supply chains, products and services. The visibility of the business impacts grows whilst expectations of producer responsibility extend along the value chain. The aim is to protect the environment by managing its natural resources (renewables, raw materials) through sustainable procurement and production, the reduction of energy and water consumption and the cutting down of emissions, wastes and effluents. An operational management system is implemented to reach the emissions reduction goal, to improve energy efficiency, to increase the recycling rate and the reduction of waste and wastewater.

SONGWON has reported on its sustainability performance regarding selected countries and indicators since 2008. As a result of the newly developed strategy, we note the following adapted disclosing measures:

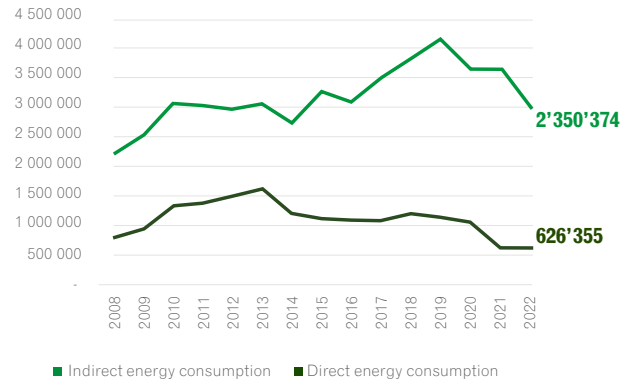
Scope of environmental data to be extended	The reporting scope includes all/the main manufacturing sites in Korea and India, for this report 2022 and the previous years.
	The environmental data collection will be extended company- resp. worldwide by 2023/24 (offices, OPS-sites etc.).
Disclosure by country	In accordance with the financial reporting, the environmental data will be disclosed by country from this report 2022 onwards (and not by site, as before).
Independent Limited Assurance	In accordance with ISAE 3000, EY has conducted the external review (limited assurance) of the energy (302-1) and emissions data (305-1, 305-2) and the Total Case Accident Rate (403-9) for the Korean sites.
	The assurance statement is set out on page 91.
Restatement	The corresponding tables are marked.
	At the end of June on an annual basis, the Korean Government verifies and corrects the by SONGWON in the Annual Report disclosed emissions data (Korea). The adjustments relate to the previous year's data. The (minor) adjustments – according to the Korean government – are included in the tables. A footnote details the modification.

## Energy

The total energy consumption for infrastructure (heating, cooling, electricity, steam etc.) and for chemical processes decreased by 18.2% in 2022. The production volume has been adapted to the volatile environment. Direct energy consumption (combustion, incineration, processes, not renewable) could further be reduced (-1.7%); the indirect energy consumption (locally purchased electricity and steam) was reduced by 21.8%. The energy intensity is 10.9 GJ/t.

### Energy consumption

in GJ (gigajoules)



ENERGY	Unit	2018 Base year	2021	2022	Change (%)
Direct Energy	GJ	1'191'882 (31.0%)	633'750 (17.4%)	626'355 (21.04%)	-1.7%
Indirect Energy	GJ	2'658'662 (69.0%)	3'005'609 (82.6%)	2'350'374 (78.96%)	-21.8%
<b>Total Energy</b>	<b>GJ</b>	<b>3'850'544 (100.0%)</b>	<b>3'639'359 (100%)</b>	<b>2'976'729 (100.0%)</b>	<b>-18.2%</b>

ENERGY	Unit	✓ 2022 Korea	2022 India	2022 Total	Share Korea
Direct Energy	GJ	603'853	22'502	626'355	96.4%
Indirect Energy	GJ	2'191'219	159'155	2'350'374	93.2%
<b>Total Energy</b>	<b>GJ</b>	<b>2'795'072</b>	<b>181'657</b>	<b>2'976'729</b>	<b>93.9%</b>

✓ Independent Limited Assurance, s. Assurance Statement p. 91  
Korea: Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon

### Examples of implemented measures

#### Renewables

**Ulsan:** The solar power generation facility installed on the roof of the warehouse produced 29'994 kWh in 2022.

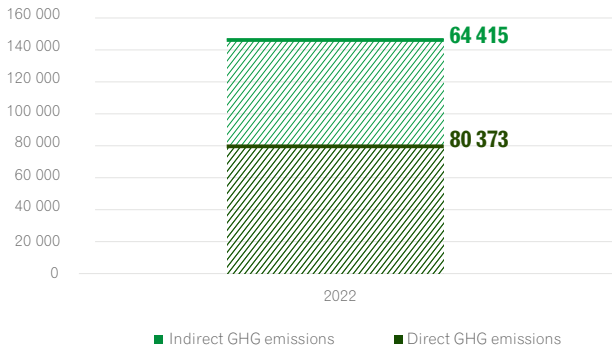
**Panoli:** The share of renewable energy continuously increases and reached approximately 65% in 2022 (2021: 61.42%). This was due in part to an important solar installation (> 4 million kWh) and the usage of carbon neutral agro-waste fuel for steam generation.

## Emissions

Since 2008, SONGWON monitors emissions data and reports greenhouse gas and other air emissions on an annual basis according to internationally recognized standards. The disclosed CO<sub>2</sub>eq-data include the Scope 1 and Scope 2 emissions of Korea and India. The emissions intensity is 0.53 tCO<sub>2</sub>e/mt.

### Footprint 2022

Tot. 144'788 tCO<sub>2</sub>-eq (-13.7%)



### Examples of implemented measures

**All sites:** The implemented renewables and energy-efficiency measures (s. Energy) result in emissions reductions.

**Korean sites:** SONGWON is participating in the Korean Government's target management system to reduce greenhouse gas emissions. The government defines quantified goals for each Korean plant and annually verifies the disclosed CO<sub>2</sub>eq-emissions of the previous year.

**Maeam:** NO<sub>x</sub> decreased by 18% and TSP by 24% compared to the previous year.

**Panoli:** In 2022, a reduction of 7'460 tCO<sub>2</sub>-eq was achieved through the usage of carbon neutral agro-waste fuel for steam generation and solar power.

**Panoli:** The newly installed on-line monitoring system monitors controls air emissions.

**Panoli:** Installation of an online monitoring system at the stack of the THERMAX boiler. CO, NO<sub>x</sub>, SO<sub>x</sub> are controlled by using automated advanced technology reciprocating grate design of Steam Boiler. NO<sub>x</sub>, SO<sub>x</sub> and CO generation is much lower due to complete combustion of the fuel and lower sulfuric content in the agricultural waste briquettes.

GHG	Unit	2018 Base year	2021	2022	Change (%)
Scope 1: Direct	tCO <sub>2</sub> e	82'638 (54.2%)	92'533 54.7%	80'373 (55.2%)	-13.1 %
Scope 2: Indirect	tCO <sub>2</sub> e	69'842 (45.8%)	76'512 45.3%	64'415 (44.8%)	-15.8 %
<b>Total</b>	<b>tCO<sub>2</sub>e</b>	<b>152'480 (100.0%)</b>	<b>169'045 (100.0%)</b>	<b>144'788 (100.0%)</b>	<b>-14.3 %</b>

GHG	Unit	✓ 2022 Korea	2022 India	2022 Total	Share Korea
Scope 1: Direct	tCO <sub>2</sub> e	79'230	1'143	80'373	98.6%
Scope 2: Indirect	tCO <sub>2</sub> e	56'822	7'593	64'415	88.2%
<b>Total</b>	<b>tCO<sub>2</sub>e</b>	<b>136'052</b>	<b>8'736</b>	<b>144'788</b>	<b>94.0%</b>

✓ Independent Limited Assurance, s. Assurance Statement p. 91

Korea: Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon

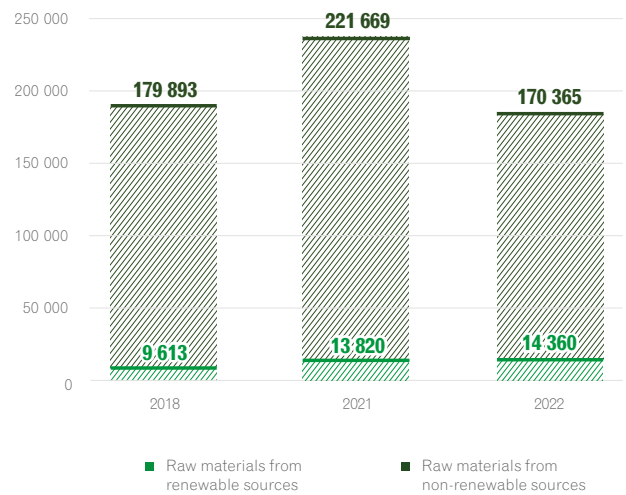
1) Restatement: The here disclosed Scope 1 and Scope 2 emissions data 2021 are in accordance with the by the Korean Government verified and confirmed data. The small adjustment of totally -0.6% (Total disclosed in the Annual Report 2021: 170'139 tCO<sub>2</sub>e) is due to a different consideration of certain CO<sub>2</sub>E-effects regarding Scope 1 and Scope 2 (VOC, incineration). The scope of the by the Korean Government conducted annual verification are the Korean sites (excl. India).

Other air emissions	Unit	2018 Base year	2021	2022	Change (%)
NOx	tCO <sub>2</sub> -eq	32'775	39'467	39'589	0.3%
SOx	tCO <sub>2</sub> -eq	53	33	27	-18.2%
TSP	tCO <sub>2</sub> -eq	4'231	1'390	1'060	-23.7%
<b>Total</b>	<b>tCO<sub>2</sub>-eq</b>	<b>37'059</b>	<b>40'890</b>	<b>40'676</b>	<b>-0.52%</b>

## Raw Materials

SONGWON seeks to find opportunities to use raw materials from renewable sources. Most of the required raw materials are still non-renewables. Nonetheless, the use of renewable raw materials increased by 3.9% in 2022 compared to 2021.

**Used Raw Materials**  
(in mt)



Raw Materials	Unit	2018 Base year	2021 (Share)	2022 (Share)	Change (%)
Raw materials from renewable sources	MT	9'613	13'820 (5.9%)	14'360 (7.8%)	3.9%
Raw materials from non-renewable sources	MT	179'893	221'669 (94.1%)	170'365 (92.2%)	-23.1%
<b>Total</b>	<b>MT</b>	<b>189'506</b>	<b>235'489 (100%)</b>	<b>184'725 (100%)</b>	<b>-21.6%</b>

### Examples of implemented measures

**All sites:** For sustainable procurement, suppliers of renewable raw materials were sought throughout, screened and upon fulfillment integrated into the suppliers list.

**Ulsan:** Our chemical processes allow continuous material consumption optimization and the new technology installed increases the raw material recovery-/recycling-rate.

**Maeam:** Increased recovery rate after production. Reduced raw material consumption through yield improvements.

**Maeam:** One of SONGWON's 1010 raw material recovered from residue processing is sold off-site. Also a new opportunity has opened up for dust products: they go on sale (instead of going to the landfill).

**Suwon:** Reduced raw material consumption through process optimization.



## Procurement and In-Bound Supply Chain

### Reliable supply worldwide

2022 was marred by a turbulent environment: the Cargo Union strikes in Korea, the unparalleled situation in China, shutdowns and disruptions in supply chains. Despite these events, SONGWON was able to ensure procurement to internal and external customers, whilst fully maintaining production. SONGWON's supply was constantly able to meet customers' demands thus demonstrating its reliability in this challenging year.

The procurement team completed traceability and supplier auditing by November 2022 meaning SONGWON could supply its products to customers worldwide, constraints free (particularly in the

US where newly introduced regulations applied). Despite volatile market conditions, the procurement team sought to obtain more samples from different suppliers and regions to expand the multiple sources of sustainable materials. We have built both a valuable global and local network of responsible partners by seeking long-term relationships. We not only select suppliers based on economic indicators but also based on sustainability performance (e.g., shorter transport distances for lower emissions), competitiveness or geographic area (e.g., close proximity to plants, reduced delivery time, same time zone, quick response).

The environment is expected to remain volatile due to the geopolitical situation or as governments plan, for example, to ban the export of certain materials to protect the domestic industry or by introducing other (restrictive) regulations.

### Exclusion of conflict materials

In 2022, SONGWON conducted CSR audits of its major suppliers and strictly applies the rule of non-trading or processing conflict minerals. This important measure is in accordance with (upcoming or existing) the regulation or requirements of various countries. Through this are excluded: the trading or processing of minerals or metals (such as tantalum, tungsten, tin, gold) from conflict and high-risk areas or the offering of products where child labor may potentially be involved in the value chain.

## Water

According to the on-site measurements, SONGWON's total water consumption decreased by 2.4% compared to 2021. All the water discharged by SONGWON's manufacturing facilities is internally treated and then conveyed to the central water treatment plants in the local municipalities. It is there that the organic content is reduced further and then released into the sea or discharged to a regional water treatment facility (e.g., as in Panoli/India). Water withdrawal and water discharge have decreased by 2.4% resp. 0.9% compared to 2021.

Water consumption	Unit	2018 Base year	2021	2022	Change (%)
Ground water	Liters	66'213	53'238	44'805	-15.8%
Municipal water	Liters	1'092'615	1'248'747	1'226'422	-1.8%
<b>Total</b>	<b>Liters</b>	<b>1'158'828</b>	<b>1'301'985</b>	<b>1'271'227</b>	<b>-2.4%</b>

No rain water. No surface water.

Water discharge	Unit	2018 Base year	2021	2022	Change (%)
Water withdrawal	MT	1,158,828	1,301,985	1'271'227	-2.4%
Water discharge	MT	700,529	734,060	727,257	-0.9%
Water recycled	MT	458,299	567,925	543'970	-4.2%

### Examples of implemented measures

**Ulsan:** Process improvement for the removal of Nitrogen-content in effluents.

**Panoli:** Installation of a MEE (Multiple Effects Evaporator) to reduce wastewater.

**Panoli:** A traditional multiple-effect evaporator is used to treat/transform liquid effluent to solid waste. Waste disposal is then carried out through a government approved disposal agency.

**Suwon:** The contamination of the soil is regularly checked: no pollutants were detected in the analytical values.

**Maeam:** Installation of new gas and leakage detectors to prevent hazardous chemicals leakage.

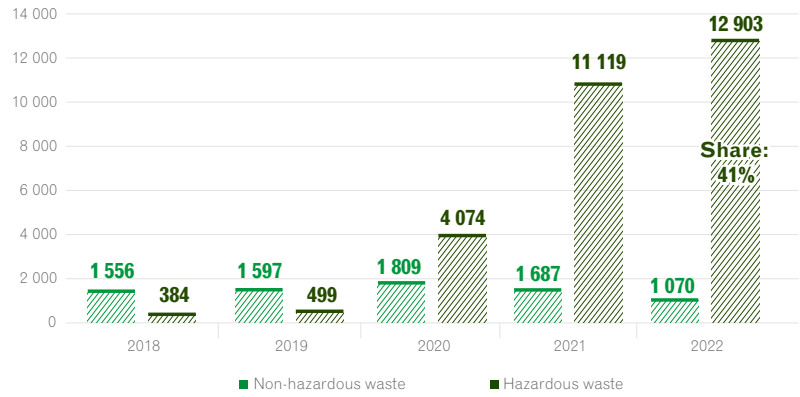
**Ulsan, Maeam, Suwon:** As the organic matter measurement index in effluent of the Water Environment Conservation Act was changed from COD to TOC, the TOC (Total Organic Carbon) index has been implemented in our control system. SONGWON complies with the TOC-limits and -law.

## Waste

This year, SONGWON's operations generated 31'556 tons of hazardous waste. Compared to 2021, the total of disposed hazardous waste decreased by 3.1%. The share of recycled hazardous waste was increased again, to 41%.

### Recycling

(in tons)



Hazardous Waste	Unit	2018 Base year	2021	2022	Change (%)
Wastes incinerated off-site	Tons	18,831	520	660	26.9%
Wastes landfilled	Tons	1'646	3'641	3'074	-15.6%
Recycling	Tons	384	11'119	12'903	16.0%
Others	Tons	6'229	17'287	14'919	-13.7%
<b>Total</b>	<b>Tons</b>	<b>27'090</b>	<b>32'568</b>	<b>31'556</b>	<b>-3.1%</b>

Non-hazardous Waste	Unit	2018 Base year	2021	2022	Change (%)
Landfill	Tons	2'879	418	255	-38.9%
Incineration off-site	Tons	646	603	1'430	237%
Recycling	Tons	1'556	1'687	1'070	-36.6%
Others	Tons	5	28	0	-100%
<b>Total</b>	<b>Tons</b>	<b>5'086</b>	<b>2'736</b>	<b>2'755</b>	<b>0.6%</b>

## Significant spills

SONGWON has not had any spills (oil, fuel, waste, and chemicals) to record or report since 2008. The company also has none to record or required to report in 2022.

## Biodiversity

The Korean pine tree is a characteristic element of the SONGWON-logo. SONGWON takes into consideration preservation of biodiversity in the management of its sites. At the same time, the company does not own, lease or manage anything that is in, or near protected areas or areas of high biodiversity. Also, to the best of our knowledge, none of SONGWON's activities, products or services significantly impact biodiversity.

### Examples of implemented measures

**Panoli:** This year, trees were planted on the factory premises and on the premises of the high school in the village of KHAROD (Panoli).

**Panoli:** In the past 2 years, 1200 trees were planted at our plant premises to protect and enhance the biodiversity of birds and other flying species. This measure also helps to reduce CO<sub>2</sub> and increases oxygen in the atmosphere.

**Panoli:** The implemented Zero Liquid Discharge System technology completely prevents wastewater from leaking into lakes, rivers or the sea. This helps to protect and enhance the biodiversity of water living species.

## SONGWON's design for circularity and contribution to mechanical recycling

### Input 1:

**SONGWON's design for circularity**

#### **SONGWON has designed a concept to give plastics a second life:**

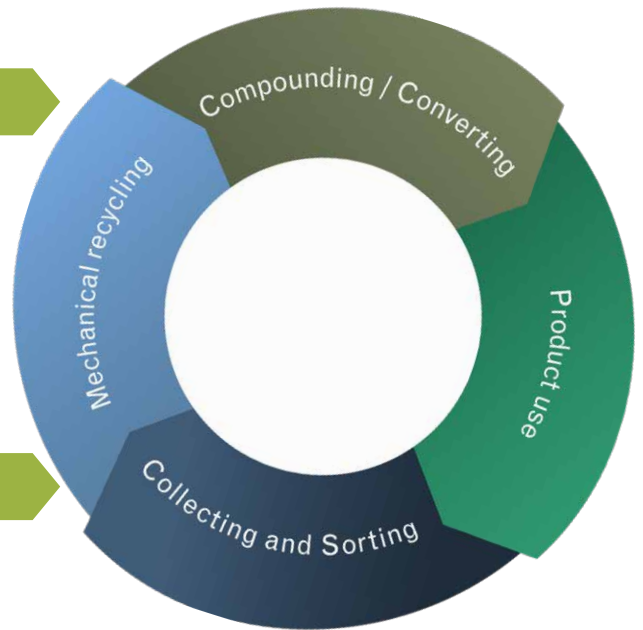
Additives allow further use of products or recycling without significant loss of initial properties.

### Input 2:

**SONGWON's contribution to mechanical recycling**

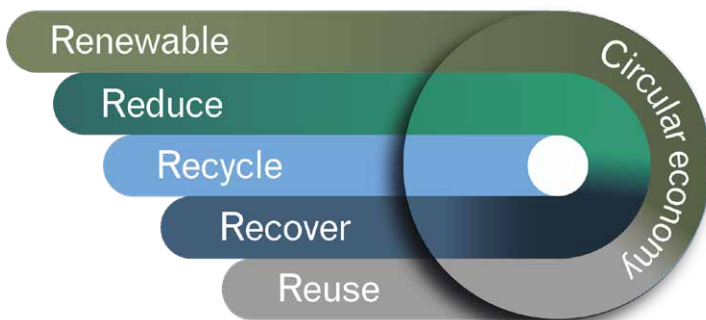
#### **SONGWON's top-up approach enables mechanical recycling:**

Through re-stabilization, by adding SONGNOX® binary blends (primary and secondary antioxidants), recycled resins are suitable for a second service life. This procedure is essential as the mechanical properties of not re-stabilized, recycled polyolefins (r-PO) are significantly reduced due to the higher melt flow rate resulting from a decrease in molecular weight.



## SONGWON's design for circularity and contribution to mechanical recycling

SONGWON has the 5R-measures in place to support and continuously improve circular economy and assumes its responsibility towards the environment and society. Employees are encouraged to go beyond minimum standards when it comes to protecting the environment.



#### **RENEWABLES:**

Raw materials from renewable sources: +54%

#### **RECYCLING:**

Mechanical recycling. Recycled PE for packaging: up to 50%

#### **REDUCE:**

Reduction on non-renewable energy by renewables (photovoltaics)

#### **REUSE:**

Design of circularity and mechanical recycling

#### **RECOVER:**

Recovering (e.g., tin) from wastewater for reusing or selling

## Manufacturing

### Environment

- Implementation of the measures mentioned in the Environment-section such as energy-efficiency, renewables, emissions-reduction, water-consumption, effluents and waste, or measures to preserve the environment (e.g., waters, biodiversity).
- Acquisition of licenses and permits according to the enactment of new laws, namely the EIA (Environmental Integrated Act) and the CCA(Chemical Control Act).
- Implemented IEC (Integrated Environment Control).
- ISO-Certifications 14001 and 45001.
- EHS-Policies are in place (Environment, Health and Safety).
- Life Cycle Assessment (LCA) analysis was conducted for more than 30 product groups manufactured at the Ulsan and Maeam plants; information on carbon emissions generated during the production of each product was saved and catalogued. SONGWON has confirmed more detailed information on the carbon emissions of its products and plans to a) respond to customer requests, and b) find ways to reduce carbon emissions by analyzing the data.

### Society

- **REACHED GOAL:TCAR of 0.000** (Total Case Accident Rate), including the independent limited assurance of this material key performance indicator. – A package of measures – improved over many years since 2014 – has been implemented for this purpose: e.g., on-site monitoring, trainings, safety walks, yearly health inspection of all plants.
- The working environment is continuously monitored to prevent in-house occupational illnesses (measurement of indicators, e.g., air quality) and we are conducting regular health examinations.
- SONGWON has been elected as excellent ESG Management Partner by SK Innovation.

### Governance

- Self-evaluation of SAA (Serious Accident Act): in accordance with the requirements.
- No cases of non-compliance. No violations of laws or regulations.
- A compliance evaluation has been conducted (revision of laws in Korea) and where necessary measures have been taken (e.g., only selecting workers who have been trained).

# Society

## Customer Focus

*As a global leader in the development, manufacture, and supply of specialty chemicals, SONGWON is committed and dedicated to advancing customers' interests and the industry. Driven by a pioneering spirit, we transform innovative ideas and continually move forward.*

### Customer Service

For its customers, SONGWON takes a holistic approach that encompasses all stages of the value chain, from procurement, to manufacturing, sales and service, to after sales (e.g., recycling solutions). The aim is to respond to new customer requests (e.g., LCA, sustainable products, packaging), regulation (e.g., the exclusion of conflict materials or child labor) or requirements regarding product and service information and labeling. –To ensure customer satisfaction, but also customers' health and safety, SONGWON presents important product and process innovations, with at the same time a positive impact on the environment:

- Declaration of sourcing and the components of all products, excluding conflict materials and child labor.
- Procurement - where possible – of renewable materials.
- Manufacturing of the products in a safe environment (TCAR 2022: 0.00%).
- Ensure a fast and reliable supply (despite disrupted supply chains or the geopolitical situation) - Use of recycled PE for packaging (up to 50%); Climate Protection Certificate from RIGK.
- LCAs are available for SONGON's major products.
- SONGWON continued building an optimized pipeline of products, services and solutions.
- Guidance, trainings, videos for the efficient, right and safe handling of products or solutions.
- Management of the (online) requests regarding product use, technologies, materials, regulation etc. received from customers or partners of the supply chain.
- SONGWON developed a design for mechanical recycling, a concept that gives plastics a second life and offers trainings.
- Monitoring of regulation and product (labeling) requirements. Also in 2022, SONGWON has zero cases of non-compliance regarding marketing communications or concerning product and service information and labeling.
- In 2023, SONGWON will implement a Sustainability Service Center.

**Customer-orientation means to SONGWON integrating all aspects of the value chain**, fast decisions, a high level of agility and solution-oriented approaches. SONGWON wants to keep the company a step ahead in the industry through high quality, constant improvement in cost position, and in product and process innovation.

# Our People

Health and Safety – Reached goal of zero incident



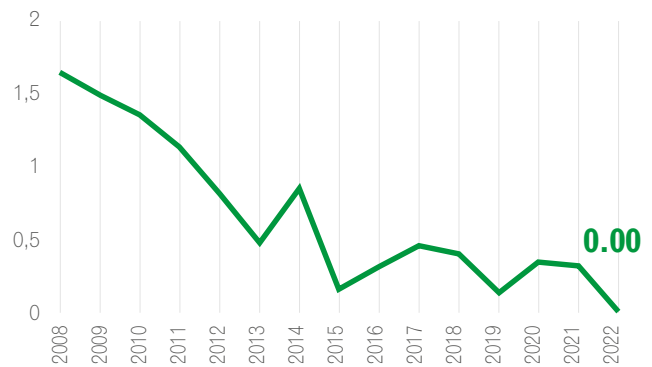
Providing safe and healthy work environments for all stakeholders is a priority. For this reason, this topic is not only classified as material, but we have also requested an independent review of the key performance indicator in 2022 (s. details below). In 2022, SONGWON reached a Total Case Accident Rate TCAR of 0.00% (2021: 0.32%). Since 2014, the company collates injury and illness rates annually. The causes of the injuries were investigated, and measures implemented, including ISO 45001, the Occupational Health and Safety certification, for the plants in Ulsan and Maeam (Korea) and the recommendations of the Korea Occupational Safety & Health Agency (KOSHA).

## Total Case Accident Rate (TCAR)

This performance of a TCAR of 0.0000 % and an injury rate of 0.0002 % is due to the measures that have been continuously adjusted. To SONGWON, a fundamental part of sustainable development and long-term planning consists in sharing knowledge and instruments across the organization to identify and withstand any potential health and safety risks. Regular assessments of the facilities and workplaces allow measures to be taken with the aim to continually optimize the safety standards. Monitoring systems, including physical installations as detectors, ensure a safe handling of chemical elements, products, processes, or technologies. Our employees actively engage in identifying and managing risks, as well as in finding ways to improve environment, health, and safety..

## TCAR

(Total Case Accident Rate, in %)



WORK RELATED INJURIES <sup>1</sup>	2018	2021	2022	Change (%)
TCAR (Total Case Accident Rate), (%)	0.420	0.320	0.000	-100.0%
Lost day rate (%)	0.0061	0.0041	0.0003	-92.7%
Injury rate (%)	0.0003	0.0004	0.0028	700.0%
Fatalities	0	0	0	
Plants/HQ undergoing regular health & safety sessments (%)	100	100	100	
Total cases of non-compliance from health & safety assessments with governmental laws or regulations	0	0	0	

1. Includes all manufacturing and OPS-sites: Korea, India, UAE, USA, EU

WORK RELATED INJURIES <sup>1</sup>	2021 Korea	✓ 2022 Korea*	Change (%)
TCAR (Total Case Accident Rate), (%)	0.5150	0.0000	-100.0%
Lost day rate (%)	0.0113	0.0004	-96.5%
Injury rate (%)	0.0004	0.0002	-50.0%

✓ Independent Limited Assurance, s. Assurance Statement p. 91

Korea: Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon (Total 2022: 1'966'850)

\* Working hours in in all manufacturing sites (Total 2022: 2'991'337)



## Diversity counts, inclusion matters.

At SONGWON, diversity is a feature of corporate culture. The 994 employees represent 33 nationalities. The functioning of the global company is ensured thanks to SONGWON's culture of respect and responsibility towards each other, and all stakeholders.

Policies and practices foster diversity, respect for human rights, offer equal opportunities and support non-discrimination. SONGWON's Core Values, Code of Conduct as well as the Whistleblower Policy serve to emphasize the importance placed on these attributes of the Corporate Culture:

- ethics trainings based on SONGWON's Code of Conduct
- established Whistleblower Policy across the company

- compliance and Code of Conduct training for new employees at their introduction, with a final exam on the LMS (Learning Management System); annual renewal of exam of the ethical standards on LMS
- monitoring process in place to detect, – and if necessary – sanction any non-compliance

The structure of the governance bodies is based on history (Board: 4 members, ECM: 4 members) and is composed of 100% men from 2 different continents (Asia, Europe). 88.8% of the (permanent) employees are men, 11.2% are women. 66.8% of the employees are from Asia, 29.2% are from Europe/Middle East/India and 4% from North and South America. (For the Governance Structure s. p. 55).

		2021	2022
Diversity, region	Tot. number of male/female employees (Head Count)	899/116	880/114
	Employees, male/female Asia	593/70	592/72
	Employees, male/female EMEA	272/35	256/32
	Employees, male /female Americas	34/11	32/10
	Number of nationalities	36	33
Diversity, level	Members, male/female, Group Board level	6/0	4/0
	Members, male/female, Group Executive level (ECM)	3/1	4/0
Full/part time	Full-time, male/female	889/104	867/100
	Part-time, male/female	1/10	1/9
	Temporary, male/female	9/2	12/5
Bargaining agreements	Total employees covered by collective bargaining agreements (%)	4	4
Compliance	Cases of non-compliance	0	0

*Also in 2022, there were no cases of discrimination, bribery; corruption, whistleblowing, child labor, nor of forced labor or breaches of the Code of Conduct. SONGWON complies with governmental laws on working conditions. SONGWON respects the employees' freedom of association and collective bargaining.*

## Local communities mean responsibility

SONGWON's local communities consist of groups of interacting people (partners, suppliers, neighbors, employees, schools, universities etc.) sharing the local business environment. Intents, resources, needs, risks and a number of conditions – social values of safety, security e.g., – are existent and affect the identity and the degree of cohesiveness of a community.

SONGWON lives this responsibility and understands it also as a business imperative. For this reason, we are continually looking out for ways to offer SONGWON's support to local community projects (e.g., Ulsan Library). Offering our support to humanity in general has always been reflected in our company's core values, and those of our employees. For this reason, it is clear to everyone working at SONGWON that all of us have a responsibility to be active members of the communities in which we live and work.

## Emphasis on human rights

The international community - including the UN and OECD - call for extended corporate responsibility to encompass not only the human rights of individuals but also of the supply chains. Companies are asked to establish systems and policies that ensure prevention of human rights violations.

SONGWON publicly pledged the Code of Conduct to the protection of dignity and values of all stakeholders and has strengthened its human rights protection system to create a safe and healthy organizational culture for its employees, free from discrimination.

SONGWON supports international standards including Universal Declaration of Human Rights, Human Rights and Labor Principles of UN Global Compact (UNGC), UN Guiding Principles on Business and Human Rights (UNGPR), International Labor Organization (ILO), and follows the laws of the countries we operate in.

**Quantitative target** on labor and human rights issues: 0 cases.

**Reached target** on labor and human right issues, also in 2022: 0 cases of non-compliance.

TCAR: 0.0000%; injury rate: 0.0002%, s. tables above.

Suppliers due diligence, s. Procurement and In-Bound Supply Chain.

Exclusion of child labor and conflict materials, s. Code of Conduct and Procurement.

# Sustainability Governance

*In 2022, SONGWON further developed Sustainability Governance and has implemented the structure (see graph, page 55). Together with the introduced appropriate measures, – such as the sustainability strategy, the independent limited assurance of selected key performance indicators and the approach to risk management – the company’s aim is to build resilience against the challenging and unpredictable market environment and widespread impacts of climate change. The purpose of the company is a shift to focusing on long-term value creation, grounded in its commercial and societal values, including environmental responsibility. This shift creates important implications for the role and meaning of good governance.*

## Governance

SONGWON's Board of Directors oversees the strategic direction of the Group and ensures that sound governance procedures are in place. The Board is closely involved in the management of the economic, environmental and social impacts (approval of the sustainability strategy, implementation, investments, reporting) since it also supervises decisions made by the Executive Committee. The Executive Committee is involved in the core decisions related to the Group's overall strategy, the sustainability strategy, policies, governance, implementation and reporting as well as the identification and management of risks and opportunities. The Executive Committee manages all SONGWON's day-to-day business whilst maintaining and ensuring good company-wide governance practices.

- The members of the highest governance body proposed to the Shareholders for election are nominated based on the following criteria: impartiality, free from external influence or conflicts of interest, performance history, ethical behavior and lastly leadership and expertise. These criteria help to constitute the diversity of the Board.
- The highest governance body delegates responsibility for managing the company's impacts to the aligned members of the Executive Committee: Group CEO, Group CFO, Leader Operations, Leader Group Commercial.
- The Board is responsible for reviewing and approving the reported information, including the organization's material topics, based on a proposal made by the Sustainability Management Team that is approved by the ECM.

- In case of a conflict of interest, the governing body member concerned will abstain from voting on the issues relating to the conflict of interest thus making sure that the highest levels of corporate governance are upheld.
- SONGWON's management has always fostered good communication throughout the organization and the company's structure facilitates the flow of information. All potential topics of critical concern (internal and external) can be raised with the ECM and are discussed at the meetings.
- Sustainability, and particularly the environmental, health and safety aspects of the chemical business will remain a priority. At the same time, governments are adapting regulations (emissions reduction goals) or reporting standards are being reviewed. As a result of these developments, the highest governance bodies are constantly having to face up to new challenges. Close collaboration with internal and external experts is one of the main measures to advance the collective knowledge, skills and experience of the highest governance body on sustainable development.

## Stakeholder Engagement

To SONGWON, involving stakeholders is a key part of sustainability management. Stakeholders are selected based on their relevance in terms of corporate strategy and sector, and whether they significantly influence SONGWON or are affected by the company's activities. The communication is fostered through contact and regular exchange. This report's content has been put together after taking into consideration the previous years' feedback and recommendations of our stakeholders in relation to the reported topics and

their importance. Stakeholder engagement activities predominantly are initiated at the top level (Board/ECM, leaders of the business units, site management) in order to identify actual and potential impacts and to determine respective prevention measures or common solutions. For the follow-up, all levels are integrated. SONGWON provides stakeholders with information (e.g., product declaration) that is understandable and accessible through appropriate communication channels. Stakeholder feedback is recorded and integrated into decision-making (e.g., online questionnaires, requests for low-emission products, product LCAs). In its business and communication activities, SONGWON promotes its values of respect, this includes impacts on human rights, and business relationships. Selected stakeholder engagements are:



Stakeholder Groups	Topics	Channels
Customers	Requests, new requirements, products, developments, strategy	Personal contact, website, newsletter, events, handbooks, emails
Suppliers	Due diligence, targets, products, developments, declaration	Direct contact, online, surveys, assessments, calls
Shareholders	Strategy, performance, ESG	Meetings, calls, annual reports
Industry Associations	Industry developments and issues, regulation, standards, legislation, partnerships	Conferences, meetings

## Risk Management

SONGWON's response to climate change and the volatile situation is to work on having the essential instruments in place such as the process for identifying, assessing and managing risks and opportunities (Board of Directors and Executive Committee). In 2022, we put an emphasis on this subject matter and will continue increasing our efforts from 2023 onwards. In particular, assessing exposure to climate-related risks and opportunities over a given time horizon is fundamental for the transition to a low-carbon economy envisioned in the Paris Agreement and the United Nations Sustainable Development Goals.

The underlying framework are the TCFD (Task Force on Climate-related Financial Disclosures) recommendations on climate-related financial disclosures which are structured around four thematic areas that represent the core elements of our company: governance, strategy, risk management, as well as metrics and targets. By integrating the concept we want to ensure that the effects of climate change become routinely considered in business and investment decisions. The Governance Structure (see p. 55) includes the Risk Committee that performs the respective function.

## Ethics and the Code of Conduct

*It's about acting in a responsible, ethical and law-abiding way to preserve the culture of responsibility to each other.*

We want our people to be proud of working for SONGWON, a company that has high standards of integrity and passionately protects its staff, assets and reputation.

The **Code of Conduct** sets out business principles and how every SONGWON employee should apply them, in line with the company's core values and the professional, customer-focused culture. The Code is regularly updated. The following areas are covered:

- Values
- Equal opportunities
- Health and safety
- Environment
- Fair trading
- Money laundering
- Trade control regulations
- Insider trading
- Bribery and corruption
- Gifts and favors
- Expenses and claims
- Intellectual property rights
- Use of company property
- Alcohol, controlled substances and weapons
- Breach of the Code
- Communication

In 2020, SONGWON introduced a Whistleblower Policy as part of the commitment to a culture of good corporate practice.

## Compliance

### Compliance

<b>Ethics and integrity</b>	No cases
<b>Discrimination and harassment</b>	No cases
<b>Human rights</b>	No cases
<b>Bribery and corruption</b>	No cases
<b>Anti-competitive practice</b>	No cases
<b>Environmental laws/regulations</b>	No cases

**No enquiries, reports or complaints were received in the period under review. There were also no cases of human rights violations, bribery, discrimination or other violations of personal rights. There were no lawsuits or fines as a result of anti-competitive practice, in relation to products and services or due to non-compliance with environmental laws and regulations.**

## IT-Security and -infrastructure

Ensuring a high IT-security and the ongoing development of the IT-infrastructure are top priorities. Safeguarding systems, networks and programs against digital attacks ensure a high level of cybersecurity.

The IT-policy is the framework for IT-services and knowledge-based articles serve as guidance. Measures to increase end users' awareness regarding IT security are in place (e.g., simulated phishing attacks). SONGWON calls on the support of dedicated IT experts for infrastructure services, tests or the simulation of attacks (e.g., external penetration tests). IT security is managed via both Global IT (Group level) and local IT (entity level).

## SONGWON's contribution to the UN Sustainable Development Goals (SDGs)

As a global specialty chemicals company, SONGWON will continue concentrating on the UN's Sustainable Development Goals (SDGs) and the defined material topics.



SDGs	Metrics and Disclosure	Report
Climate Action	Emissions reduction, Scope 1 and 2	Sustainability, Environment
	Energy efficiency	
	Renewable energies	
Clean Water and Sanitation	Sustainable management of water and sanitation	Sustainability, Environment
	Wastewater treatment	
	Water recycling and/or reuse system for reducing use of water	
	Water use reduction	
Responsible consumption and production	Development of circular economy	Sustainability, Environment
	Promotion of sustainable procurement	
	Preventive action for leakage of hazardous materials	
	Reduction of impact of consumption through innovative products (incl. LCA)	
	Development of sustainable technologies, processes, physicals/materials	
	Increasing resource and/or material efficiency	
Health and Well-Being	Safe working environment	Sustainability, Society
	TCAR (Total Case Accident Rate)	
	Illness rate	
	Leadership and role models	
Diversity and Equality	Ensure an environment of non-discrimination	Sustainability, Society
	Diversity by nationalities	
	Gender diversity	
Industry, Innovation and Infrastructure	Products life cycle assessment (LCA) and improvement (GHG-reduction etc.)	Sustainability, Value Creation through Innovation
	Pushing sustainable innovation, e.g., by extending the life cycle of products	
	Development of new products	
	Construction, replacements, improvements of infrastructure (plants, work environment)	
Decent Work and Economic Growth	Rate of employee turnover	Sustainability, Society, Share Price Development, Governance
	Share-and Stakeholders involvement	
	Share development / Dividend	
	Supply Chain	
	Governance	
Partnerships for the Goals	Partnerships, Memberships	Labels, Standards, Certifications, Partnerships, Memberships
	Sustainability Standards, Ratings	

# Labels, Standards, Certifications and Partnerships



EcoVadis Sustainability Rating



Commitment to and reporting in accordance with UN-Goals (SDGs)



ISO 14001, Environmental Management certification, for the Suwon plant (Korea)  
ISO 45001, Occupational Health and Safety certification, for plants in Ulsan and Maeam (Korea)

## GRI Standards

This report has been prepared in accordance with the GRI Standards



Member of the Green Business Network, Abu Dhabi (EAD) Platform for public and private sector organizations in Abu Dhabi to promote environmentally friendly practices (UAE)



SONGWON has been awarded by the Environment Agency Abu Dhabi (MOSAHEM Category) for supporting initiatives regarding the environment



Member of the Ulsan Environment Engineers Association (Korea)



Active Member of the Polyolefin Circular Economy Platform (recycling)



Member of the Korea Chemicals Management Association



Member of the Korean Environmental Preservation Association



Member of the Korean Metropolitan Area Process Safety Management Association



Climate Protection Certificate 2021



# GRI Content Index

	
	For the Content Index - Essentials Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for disclosures 2-1 to 2-5, 3-1 and 3-2 are aligned with the appropriate sections in the body of the report.
Statement of use	SONGWON has reported in accordance with the GRI Standards for the period from January 01/2022 to December 31/2022.
GRI 1 used	GRI 1: Foundation 2021
GRI Content Index	The GRI Content Index includes the General Disclosures (GRI 2), the Material Topics (GRI 3), and Reasons for Omissions for disclosures and requirements that the organization cannot comply with
Reporting Principles	SONGWON confirms the application of the Reporting Principles: Accuracy, Balance, Clarity, Comparability, Completeness, Sustainability context, Timeliness, Verifiability
Content Index Service	Reporting year 2022: Content Index Service Essential Reporting year 2021: Content Index Service

## GRI 2 - GENERAL DISCLOSURES 2021

Disclosure	Page	Comments, omissions
2-1 Organizational details	14–16	
2-2 Entities included in the organization's sustainability reporting	15, 52, 59	
2-3 Reporting period, frequency and contact point	81, 200, 203	
2-4 Restatements of information	61, 63	
2-5 External assurance	91	
2-6 Activities, value chain and other business relationships	17–20, 58–61, 68–71	
2-7 Employees	46–50, 72–74	
2-8 Workers who are not employees	72–74, 90	s. Health and Safety
2-9 Governance structure and composition	55, 75, 95–97	
2-10 Nomination and selection of the highest governance body	75, 95–97	
2-11 Chair of the highest governance body	55, 75, 95–97	Chairman, s. Governance Structure and Website: The Chair of the highest Governance body is not a senior executive.
2-12 Role of the highest governance body in overseeing the management of impacts	52, 53, 75, 95–97	
2-13 Delegation of responsibility for managing impacts	75, 95–97	
2-14 Role of the highest governance body in sustainability reporting	55, 75	
2-15 Conflicts of interest	75–77	In 2022, there were no cases of conflicts resulting from cross-memberships, cross-shareholding or the control by related parties

2-16	Communication of critical concerns	75–77	In 2022, no critical concerns about the organization's potential and actual negative impacts on stakeholders, business conducts or business relations have been communicated to the highest governance body.
2-17	Collective knowledge of the highest governance body	75–77	
2-18	Evaluation of the performance of the highest governance body	97	As the Governance Structure has been adapted / changed in 2022, neither a dependent nor an independent evaluation of the highest governance body has been carried out.
2-19	Remuneration policies	97	The remuneration policies for members of the highest governance body and senior executives are results dependent. SONGWON reserves the right to apply the confidentiality constraints and to keep the further information confidential
2-20	Process to determine remuneration	97	Confidentiality constraint, s. above.
2-21	Annual total compensation ratio	-	The information is not yet available (confidentiality).
2-22	Statement on sustainable development strategy	05, 52–54, 78	
2-23	Policy commitments	70–75, 98	Code of Conduct. Policies: Health and Safety. Environment.
2-24	Embedding policy commitments	70–75, 98	Also in order to obtain the ISO-certification, the policies are embedded in the structures and processes, are communicated companywide, to our partners and comprise trainings (e.g., Health and Safety)
2-25	Processes to remediate negative impacts	75–77	
2-26	Mechanisms for seeking advice and raising concerns	75–77	In 2022: No critical concerns about the organization's potential and actual negative impacts on stakeholders raised through grievance mechanisms and other processes.
2-27	Compliance with laws and regulations	77	In 2022: No cases of non-compliance.
2-28	Membership associations	80, 199	
2-29	Approach to stakeholder engagement	75–77	
2-30	Collective bargaining agreements	73	

### GRI 3 - MATERIAL TOPICS 2021

	Disclosure Management Approach	Page	Comments, Omissions
3-1	Process to determine material topics	56	
3-2	List of material topics	56	
3-3	Management of material topics	By topic, throughout	For each material topic, the following information is explained throughout: <ul style="list-style-type: none"> <li>• relevant impacts (economy, human rights, business)</li> <li>• strategic goals, qualitative and/or quantitative targets, policies</li> <li>• actions taken to achieve targets</li> <li>• tracking of action effectiveness,</li> <li>• engagement with / information of stakeholders</li> </ul>

## MATERIAL TOPICS

GRI Standards	Disclosure – Economy, Governance		Page	Comments, Omissions
<b>Economic Performance</b>				
GRI 3: Material Topics 2021	3-3	Management of material topics	56	
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	20, 58, 75	
	201-2	Financial implications and other risks and opportunities due to climate change	23, 76	Financial information not yet available. Will be established with the TCFD in 2023/4.
	201-3	Defined benefit plan obligations and other retirement plans	127	
	201-4	Financial assistance received from government	-	No
<b>Anti-corruption</b>				
GRI 3: Material Topics 2021	3-3	Management of material topics	56, 46, 73, 74, 77	
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	46, 73, 98, 99	100%
	205-2	Communication and training about anti-corruption policies and procedures	46, 77	
	205-3	Confirmed incidents of corruption and actions taken	46, 73, 77, 98, 99	No incidents.
<b>Anti-competitive Behavior</b>				
GRI 3: Material Topics 2021	3-3	Management of material topics	56, 77	
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	77	Code of Conduct, Governance

GRI Standards	Disclosure – Environment		Page	Comments, Omissions
<b>Materials</b>				
GRI 3: Material Topics 2021	3-3	Management of material topic	56, 61	
GRI 301: Materials 2016	301-1	Materials used by weight or volume	61	
	301-2	Recycled input materials used	61	
	301-3	Reclaimed products and their packaging materials	54, 61, 69, 71, 80	RIGK-Certificate
<b>Energy</b>				
GRI 3: Material Topics 2021	3-3	Management of material topic	54, 56, 62	
GRI 302: Energy 2016	302-1	Energy consumption within the organization	62, 87	Independent Limited Assurance: all sites in Korea
	302-2	Energy consumption outside of the organization	62	
	302-3	Energy intensity	62	
	302-4	Reduction of energy consumption	62	
	302-5	Reductions in energy requirements of products and services	60, 62, 70, 79	

## Water and Effluents

GRI 3: Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 66	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	66	
	303-2	Management of water discharge-related impacts	66	
	303-3	Water withdrawal	66	
	303-4	Water discharge	66	

## Biodiversity

GRI 3: Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 68	
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	68	
	304-2	Significant impacts of activities, products and services on biodiversity	68	
	304-3	Habitats protected or restored	68	

## Emissions

GRI 3: Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	54, 56, 63, 64	
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	63, 64, 88	Independent Limited Assurance: all sites in Korea
	305-2	Energy indirect (Scope 2) GHG emissions	63, 64, 89	Independent Limited Assurance: all sites in Korea
	305-3	Other indirect (Scope 3) GHG emissions	-	Not yet available. Planned for 2023/4.
	305-4	GHG emissions intensity	63	
	305-5	Reduction of GHG emissions	63, 64, 89	
	305-6	Emissions of ozone-depleting substances (ODS)	63, 64, 89	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	63, 64, 89	

## Waste

GRI 3: Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 67	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	67	
	306-2	Management of significant waste-related impacts	67	
	306-3	Waste generated	67	
	306-4	Waste diverted from disposal	67	
	306-5	Waste directed to disposal	67	

**GRI Standards**

**Disclosure – society**

**Page**

**Comments, Omissions**

**Employment**

<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 72–74	
<b>GRI 401:</b> Employment 2016	401-1	New employee hires and employee turnover	72–74	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	72–74	
	401-3	Parental leave	49, 72–74	

**Occupational Health and Safety**

<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 72–74	
<b>GRI 403:</b> Occupational Health and Safety 2018	403-1	Occupational health and safety management system	72–74	
	403-2	Hazard identification, risk assessment, and incident investigation	72–74	
	403-3	Occupational health services	72–74	
	403-4	Worker participation, consultation, and communication on occupational health and safety	72–74	
	403-5	Worker training on occupational health and safety	72–74	
	403-6	Promotion of worker health	43, 72–74	
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	43, 72–74	
	403-8	Workers covered by an occupational health and safety management system	72–74	100%.
	403-9	Work-related injuries	72–74, 90	Independent Limited Assurance: all sites in Korea.
	403-10	Work-related ill health	72–74, 90	For employees and workers who are not employees: No fatalities as a result of work-related ill health. No cases of recordable work-related ill health.

**Diversity and Equal Opportunity**

<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 75, 97	
<b>GRI 405:</b> Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	73, 75, 97	
	405-2	Ratio of basic salary and remuneration of women to men	-	The precise figure is not yet available.

**GRI Standards**

**Disclosure – society**

**Page**

**Comments, Omissions**

<b>Non-discrimination</b>			
<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 77 Code of Conduct.
<b>GRI 406:</b> Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	77 No cases.
<b>Local Communities</b>			
<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 52, 74
<b>GRI 413:</b> Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	52, 74
<b>Customer Health and Safety</b>			
<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 45, 47, 71
<b>GRI 416:</b> Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	71 Assessment of the health and safety impacts of product and service categories: 100%
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	71 No incidents.
<b>Marketing and Labeling</b>			
<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 37, 42–45, 73
<b>GRI 417:</b> Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	45, 59, 65, 71 Procurement. Customer Service. Recycling. Packaging.
	417-2	Incidents of non-compliance concerning product and service information and labeling	71, 77 No incidents of non-compliance.
	417-3	Incidents of non-compliance concerning marketing communications	71, 77 No incidents of non-compliance.
<b>Customer Privacy</b>			
<b>GRI 3:</b> Material Topics 2021	<b>3-3</b>	<b>Management of material topic</b>	56, 77
<b>GRI 418:</b> Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	77 No cases.

# Appendix

<b>Disclosure 302-1 Energy consumption within the Organization</b>		
	<b>2022</b> Total	<b>✓ 2022</b> Korea
Direct Energy Sources (in GJ)	626'355	603'853
Indirect Energy Sources (in GJ)	2'350'374	2'191'219
<b>Total (in GJ)</b>	<b>2'976'729</b>	<b>2'795'072</b>
Total fuel consumption from non-renewable sources (GJ)	626'355	603'853
Total fuel consumption from renewable sources (GJ)	0	0
<b>Total fuel consumption (GJ)</b>	<b>626'355</b>	<b>603'853</b>
I. electricity consumption	1'237'194	1'078'038
II. heating consumption	0	0
III. cooling consumption	0	0
IV. steam consumption	1'113'181	1'113'181
<b>Total (in GJ)</b>	<b>2'350'375</b>	<b>2'191'219</b>
I. electricity sold	0	0
II. heating sold	0	0
III. cooling sold	0	0
IV. steam sold	0	0
<b>Total energy consumption within the organization (GJ)</b>	<b>2'976'729</b>	<b>2'795'072</b>
Standards, methodologies, assumptions, and/or calculation tools used	Well defined and established process: Data collection on-site, by plant. Data entry (Excel). Data consolidation in Ulsan/Korea by the EHS-Team. Monthly data monitoring. Data controlling in Ulsan by the EHS-Team. Data transfer to Switzerland. Data preparation for independent limited assurance and the disclosure (GRI, Assurance) in the Sustainability Report (integrated in the Annual Report). Conclusions of the independent limited Assurance to be implemented. Report to be published.	
Source of the conversion factors used.	Generic conversion factors	

- ✓** Independent Limited Assurance, s. Assurance Statement p. 91–93
- Korea:** Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon
- Total:** Includes all Korean sites and India

### Disclosure 305-1 Direct (Scope 1) GHG emissions

	2022 Total	✓ 2022 Korea
Gross direct (Scope 1) GHG emissions (tCO <sub>2</sub> e)	80'373	79'230
Gases included in the calculation	Disclosed: SOx, NOx, TSP Data not yet available for: POP, VOC, HAP, PM	Disclosed: SOx, NOx, TSP Data not yet available for: POP, VOC, HAP, PM
Biogenic CO <sub>2</sub> E emissions in metric tons of CO <sub>2</sub> E equivalent	No	No
Base year for the calculation:	2018	2018
I. the rationale for choosing it;	Korean Government base year	Korean Government base year
II. emissions in the base year (tCO <sub>2</sub> e);	82'638	82'638 The scope of the independent limited assurance does not include the base year CO <sub>2</sub> e
III. the context for any significant changes in emissions that triggered recalculations of base year emissions.	No	No
Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.	Korea's Ministry of Environment	Korea's Ministry of Environment
Consolidation approach for emissions	Operational and financial	Operational and financial
Standards, methodologies, assumptions, and/or calculation tools used	Refer to GRI 302-1; identical process	Refer to GRI 302-1; identical process

✓ Independent Limited Assurance, s. Assurance Statement p. 91–93

**Korea:** Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon

**Total:** Includes all Korean sites and India



## Disclosure 305-2 Energy indirect (Scope 2) GHG Emissions

	2022 Total	✓ 2022 Korea
Gross location-based energy indirect (Scope 2) GHG emissions (tCO <sub>2</sub> e)	64'415	56'822
Market-based energy indirect (Scope 2) GHG emissions	Not yet available	Not yet available
Gases included in the calculation; whether CO <sub>2</sub> E, CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>	CO <sub>2</sub> e	CO <sub>2</sub> e
Base year for the calculation, if applicable, including:	2018	2018
I. the rationale for choosing it;	Korean Government base year	Korean Government base year
II. emissions in the base year;	69'842	69'842 The scope of the independent limited assurance does not include the base year CO <sub>2</sub> e
III. the context for any significant changes in emissions that triggered recalculations of base year emissions.	No	No
Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.	Korea's Ministry of Environment	Korea's Ministry of Environment
Consolidation approach for emissions; whether equity share, financial control, or operational control.	Operational and financial	Operational and financial
Standards, methodologies, assumptions, and/or calculation tools used.	Refer to GRI 302-1; identical process	Refer to GRI 302-1; identical process

✓ Independent Limited Assurance, s. Assurance Statement p. 91–93

**Korea:** Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon

**Total:** Includes all Korean sites and India

## Disclosure 403-9 Work-related injuries

For all employees:	2022 Total	✓ 2022 Korea
I. The number and rate of fatalities as a result of work-related injury;	0	0
II. The number and rate of high-consequence work-related injuries (excluding fatalities);	0	0
III. The number and rate of recordable work-related injuries;	0.0028	0.000
IV. The main types of work-related injury;	No cases	No cases
V. The number of hours worked.	2'991'337	1'966'850
<b>For all workers who are not employees but whose work and/or workplace is controlled by the organization:</b>		
I. The number and rate of fatalities as a result of work-related injury;	0	0
II. The number and rate of high-consequence work-related injuries (excluding fatalities);	0	0
III. The number and rate of recordable work-related injuries;	0	0
IV. The main types of work-related injury;	No cases	No cases
V. The number of hours worked.	30'198	30'198
The work-related hazards that pose a risk of high-consequence injury, including:	H&S Policy is in place. ISO 45001, Occupational Health and Safety certification, for plants in Ulsan and Maeam. Ongoing monitoring. Monthly reports by plant. Year-long evaluation of incidents, implementation of measures for prevention. Quarterly safety and health education for all employees, training for hazardous chemical handlers once every two years in accordance with the Chemicals Control Act. Promoting the safety and health of workplace through the Safety and Health Committee and the Supplier Council.	
I. how these hazards have been determined;	Different measures are in place (s. above)	Different measures are in place (s. above)
II. which of these hazards have caused or contributed to high-consequence injuries during the reporting period;	In 2022, no hazards	In 2022, no hazards
III. actions taken or underway to eliminate these hazards and minimize risks using the hierarchy of controls.	s. report	s. report
Any actions taken or underway to eliminate other work-related hazards and minimize risks using the hierarchy of controls.	s. report	s. report
Whether the rates have been calculated based on 200,000 or 1,000,000 hours worked.	s. above	s. above
Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded.	No exclusions	No exclusions
Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.	Refer to GRI 302-1; identical process	Refer to GRI 302-1; identical process

- ✓ Independent Limited Assurance, s. Assurance Statement p. 91–93
- Korea:** Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon
- Total:** Includes all manufacturing and OPS-sites: Korea, India, UAE, USA, EU



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Songwon Industrial Co., Ltd.  
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Ulsan, Korea

## Independent assurance report

We have been engaged to perform a limited assurance engagement on the selection of environmental and social indicators consolidated for the main sites in South Korea listed in Appendix 1 (the “Selected Information”) disclosed with a  in the Songwon Industrial Co., Ltd.’s Sustainability Report for the reporting period from 1 January 2022 to 31 December 2022.

Our engagement was limited to the Selected Information listed above. We have not assessed the following key performance indicators (“KPIs”) or information disclosed in the Sustainability Report.

- ▶ Information other than the Selected Information indicated above
- ▶ KPIs related to sites outside of Korean manufacturing sites: Ulsan, Maeam, Suwon
- ▶ KPIs related to previous reporting periods
- ▶ Qualitative statements



### Applicable criteria

Songwon Industrial Co., Ltd defined as applicable criteria (hereafter «applicable criteria»):

- ▶ Selected GRI Sustainability Reporting Standards 2021
  - KPI 1: (GRI 302-1: Energy consumption within the organization)
  - KPI 2: (GRI 305-1: Direct (Scope 1) GHG emissions)
  - KPI 3: (GRI 305-2: Indirect (Scope 2) GHG emissions)
  - KPI 4: (GRI 403-9: Work-related injuries)

A summary of the standards is presented on the GRI homepage. We believe that these criteria are a suitable basis for our limited assurance engagement.

The quantification of greenhouse gases (GHG) is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emission factors and the values needed to combine emissions of different gases.

### Responsibility of Songwon Industrial Co., Ltd ’s management



The management of Songwon Industrial Co., Ltd. is responsible for the selection of the applicable criteria and for the preparation and presentation of the disclosed KPIs marked with a  in the Sustainability Report in accordance with the applicable criteria. This responsibility includes the design, implementation, and maintenance of internal controls relevant to the preparation of the KPIs that are free from material misstatement, whether due to fraud or error.

### Independence and quality control



We have complied with the independence and other ethical requirements of the *International Code of Ethics for Professional Accountants (including International Independence Standards)* of the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies the International Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



#### **Our responsibility**

Our responsibility is to express a limited assurance conclusion on the above mentioned KPIs based on the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial*. This standard requires that we plan and perform our engagement to obtain limited assurance about whether the KPIs have been prepared, in all material respects, in accordance with the Applicable Criteria.

In accordance with the engagement agreement, our duty of care for this engagement only extends to the management of Songwon Industrial Co., Ltd.

Based on risk and materiality considerations we have undertaken procedures to obtain sufficient and appropriate evidence. The procedures selected depend on the practitioner's judgment. This includes the assessment of the risks of material misstatements in above mentioned KPIs. The procedures performed in a limited assurance engagement vary in nature and timing from and are less in scope than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.



#### **Summary of work performed**

Our limited assurance procedures included, amongst others, the following work:

- ▶ Assessment of the suitability of the underlying criteria and their consistent application
- ▶ Inquiries of company's representatives responsible for collecting, consolidating, and calculating the KPIs in order to assess the process of preparing the data, the reporting system, the data capture and compilation methods as well as internal controls to the extent relevant for the limited assurance engagement
- ▶ Inspection of the relevant documentation of the systems and processes for compiling, analyzing, and aggregating sustainability data and testing such documentation on a sample basis
- ▶ Analytical procedures and inspection of documents on a sample basis with respect to the compilation and reporting of the KPIs
- ▶ Analytical procedures of the Sustainability Report 2022 regarding plausibility and consistency with the KPIs
- ▶ Site visit of Ulsan factory in South Korea where inquiries were made of key individuals.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.



#### **Our conclusion**

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the Selected Information has not been prepared, in all material respects, in accordance with the Applicable Criteria.

*Ernst & Young Han Young*

February 24, 2023

**Enclosure mentioned**

**Appendix 1: selection of environmental and social indicators**

	<b>Selected Information</b>	<b>Consolidation and Reporting Boundary</b>	<b>Reported value</b>
<b>Environmental</b>			
KPI 1	Direct Energy (GJ)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	603'853
KPI 1	Indirect Energy (GJ)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	2'191'219
KPI 1	TOTAL ENERGY (GJ)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	2'795'072
KPI 2	Scope 1: Direct (tCO <sub>2</sub> -eq)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	79'230
KPI 3	Scope 2: Indirect (tCO <sub>2</sub> -eq)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	56'822
<b>Social</b>			
KPI 4	TCAR (Total Case Accident Rate), (%)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	0.000



# Corporate Governance

# Corporate Governance

## Dedicated to transparency and accountability

Ensuring sound and accountable corporate governance establishes an essential foundation for responsible management and secures lasting business success. SONGWON's commitment to the highest levels of transparency and accountability has always gone beyond just complying with statutory obligations.

Over the years, we have built a solid reputation as a globally operating company with strong ethical principles that conducts its business in full compliance with legal requirements and is driven to deliver long-term value to our shareholders. At SONGWON, we are proud to be known as a market leader that makes valuable contributions to both the industry and to the communities in which we operate.

As an organization committed to responsible governance and guided by integrity, it is our priority to provide visibility on SONGWON's financial and business performance. This supports us to gain and maintain the trust of SONGWON's employees, customers, shareholders and all other stakeholders. Exercising responsible corporate governance in our daily activities across the globe is how we ensure that SONGWON remains a strong, accountable organization that is well-positioned to meet both our targets and the needs of stakeholders as well as deliver long-term competitive returns for shareholders.

SONGWON's core values: entrepreneurship, collaboration, value in people and excellence lie at the heart of our approach to corporate governance. These form the core of how we operate our business, interact with our stakeholders, create value and plan for the future. Guided by these values, SONGWON's leadership bases all decision-making on them and also applies these values to long-term objectives and developing the strategic vision for the organization.

At SONGWON, corporate governance is more than simply an issue that concerns our governing bodies. Firmly embedded throughout the organization, our dedicated and talented employees apply it to everything they do. Our people measure their contribution to SONGWON's overall success not just on the basis of business growth, but by how well they can create value for our stakeholders in accordance with high standards of accountability.

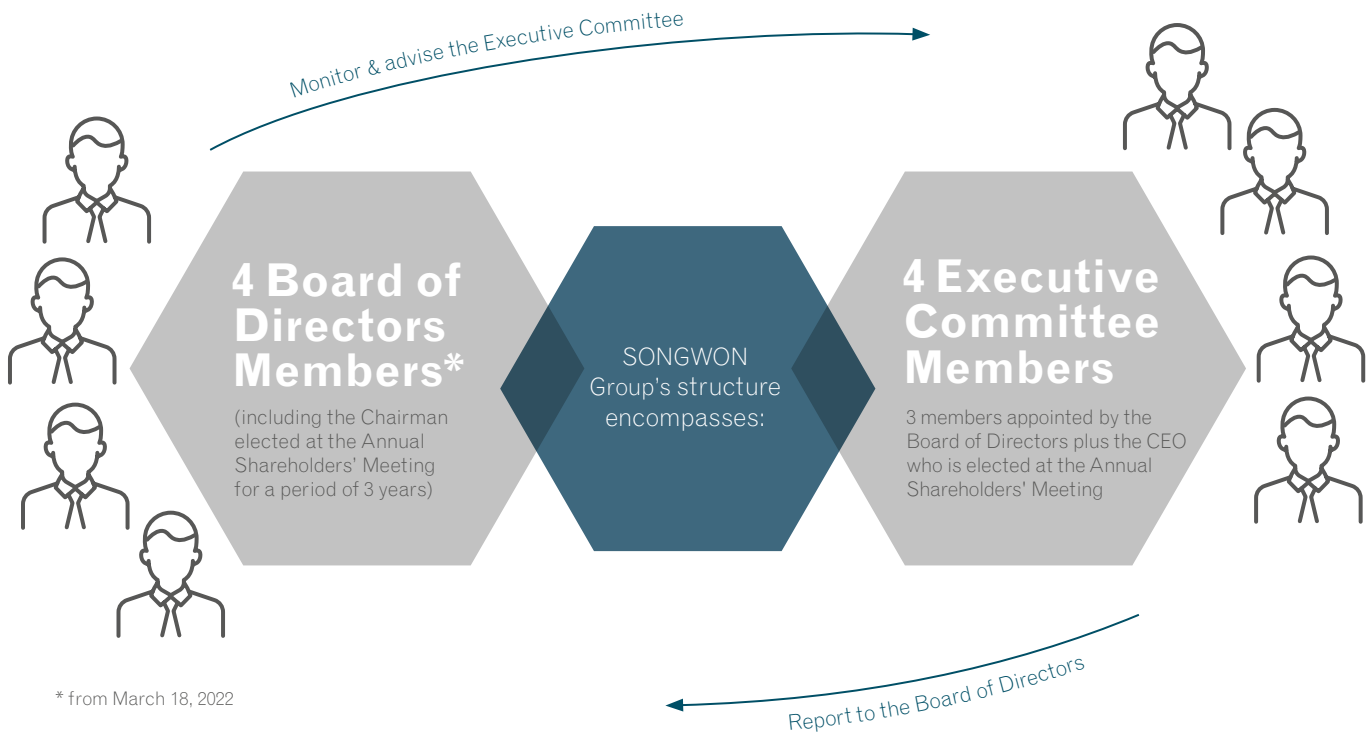
Every member of SONGWON's global team places the highest priority on always acting in line with responsible corporate governance. Across our business, SONGWON's Management has set out a clear framework for decision making and accountability that provides guidance on the standards of behavior and integrity we should expect of ourselves and each other as well as of our partners. SONGWON's Code of Conduct includes directives, policies and practices that support us to conduct our daily business in a responsible way.

Furthermore, in 2022, the Board of Directors revised and updated SONGWON's vision and mission statements as well as its core values. These changes have been communicated to all internal stakeholders and are available to all of SONGWON's external stakeholders on the company's website.

For SONGWON's leadership, it is a priority to ensure that the company is always in compliance with all the relevant external standards and regulations. Most importantly, the Management aims to mitigate risks by maintaining consistent standards and responsible business practices across the entire organization. SONGWON Industrial Group already has sound existing policies and procedures in place for monitoring potential risks, together with the ICFR\* process.

This ongoing process has already further strengthened the Group's ability to identify potential risks and supports continuous improvement at SONGWON. For example, to fulfill the requirements set out by ICFR, SONGWON has a whistleblower policy which is a part of the CFA (Controlling, Finance & Administration) manual. Global HR maintains this corporate policy at SONGWON. All of SONGWON's policies, e.g., ESG policies that serve to reinforce the principles of an 'open, fair and clean' corporate culture throughout the organization are continually implemented or optimized on an ongoing basis by the Executive Committee and approved by the Board.

\* Internal Control Over Financial Reporting



## Annual Shareholders' Meeting

Each year, all SONGWON shareholders are invited to attend the Annual Shareholders' Meeting where important decisions are made on matters concerning Songwon Industrial Co., Ltd. and the Group. Traditionally, the meeting focuses on the Annual Report and financial accounts and shareholders are always given the opportunity to put forth any questions they may have relating to the meeting's agenda. Mechanisms provided by Korean law for shareholders make it a requirement for company directors to organize a shareholders' meeting and propose resolutions submitted by the shareholders.

This year, SONGWON's Annual General Meeting took place on March 18<sup>th</sup>, 2022 at SONGWON's Headquarters in Ulsan, Korea. During this meeting, the Annual Report for the financial year 2021 was approved, as well as the proposal for the distribution of profits. In addition, a new outside director of the Board of Directors was appointed at the Annual General Meeting. In the subsequent Board meeting, the Board of Directors appointed the new outside director as SONGWON's new Chairman of the Board.

## The Board of Directors & Executive Committee

SONGWON Industrial Group's structure comprises the Board of Directors and Executive Committee.

- The Board of Directors consists of 3 executive members and 1 non-executive member, which is equivalent to 3 internal directors and 1 outside director in line with Korean regulations.

During the year, the members of the Board usually attend 4 face-to-face meetings but if not possible due to circumstances such as ongoing COVID-19 restrictions, then meetings take place via video call. In 2022, 3 Board meetings were conducted virtually. In addition to these meetings, virtual ad hoc meetings are also organized when necessary.

- SONGWON's Executive Committee comprises 4 members, all of whom hold key managerial positions in the Group. The Committee normally meets in person once every quarter and also regularly holds tele- and video conferences, as well as communicating via email. This year, it was also not possible for the Executive Committee to meet in person due to COVID-19 restrictions, so the team had 12 virtual meetings in 2022.



The Executive Committee manages all of SONGWON's daily business while maintaining and ensuring sound company-wide governance practices. In addition to developing and implementing policies, the Committee makes all the operational decisions based on the Group's overall strategy, including the allocation of resources, investments and HR issues, with the exception of specific decisions reserved under the Korean Company Act for the Board. The Executive Committee is also responsible for handling any instances which relate to the Korean Company Act and should any arise, it prepares the required proposals for submission to the Board for final approval.

- At SONGWON, the responsibilities of the Chairman of the Board and CEO are separated. All the responsibilities concerning business operations decisions are managed by the Executive Committee and the decision-making process related to SONGWON's strategy and investment is handled by the Board. This clear division of responsibilities reinforces the Group's corporate governance by ensuring greater transparency, controls and accountability. In keeping with its tradition of continuous improvement, SONGWON's leadership always seeks to implement the Board's activities with a defined scope of responsibility which is clearly different from the activities of the Executive Committee.

SONGWON's Board of Directors oversees the strategic direction of the Group and makes certain that sound governance procedures are in place. The Executive Committee is the governing body that is responsible for making decisions relating to economic, environmental and social impacts as well as identifying and managing risks and opportunities. SONGWON's highest governance body also reviews the adequacy of the organization's internal controls to ensure the quality of the organization's sustainability reporting.

These decisions are supervised by the Board. The Board established an Audit Committee\* and an HR Committee to support the Executive Committee optimize the overseeing of the activities within these two areas. Members of both the Board and the Executive Committee constitute the Risk Committee (see p. 55, Sustainability Governance Structure).

\* as per the IAA standard

At SONGWON, we base the nomination and selection of governance body members (excl. the executive members), to propose to the shareholders for election, on criteria such as impartiality, performance history, ethical behavior, leadership, expertise and impartiality.

These criteria help to ensure the diversity of the Board with individuals of different backgrounds, who can share different perspectives. In 2022, the Board of Directors comprised individuals representing 2 different nationalities with knowledge from many industries. Each year, the Board of Directors evaluates the outcomes of the decisions and the actions it has taken to assess their effectiveness and value for SONGWON. In accordance with the Sustainability Governance structure, the Board and Executive Committee are involved as the highest bodies/decision makers regarding ESG.

## Chairman of the Board, Chief Executive Officer (CEO) & Executive Management

The Chairman of the Board is a non-Executive Director who was elected at SONGWON's Annual Shareholders' Meeting. The CEO is an Executive Director. He serves as Chair of the Executive Committee and exercises ongoing control of the Group. The CEO manages according to the Board of Directors' instructions, and in line with the division of responsibilities between the CEO and the Board of Directors as approved by the Board.

## Remuneration

For SONGWON's highest governance body members, senior managers, and executives (incl. departure arrangements), remuneration is aligned with the company's performance overall and takes into account the social, economic and environmental results.

## External auditors

In accordance with Korean regulations, auditors for SONGWON are appointed for a period of 3 years and reported at the Annual Shareholders Meeting. SONGWON's current auditors are Ernst & Young. The Board and the Executive Committee work closely with them to make sure that they remain up-to-date and well-informed about relevant issues concerning the accounts, reporting procedures and management of the Group's assets.

## Corporate governance framework

**SONGWON's Vision and Mission statements reflect our commitment to maintaining the highest levels of integrity and ethical standards throughout our global operations.**

At SONGWON, we know that to build a healthy, high-performing and responsible organization, we must encourage direct and respectful communication at all levels and cultivate a corporate culture of honesty, tolerance and integrity. We know that corporate culture determines people's behavior within an organization. For this reason, making sure that our employees are constantly kept up-to-date and well-informed is very important to us.

SONGWON's leadership regularly shares information on the organization's operations, activities and strategic aims with employees. SONGWON's Board and upper management also make it a priority to regularly communicate the importance of responsible behavior and also to ensure that ethical business conduct is always at the forefront of our day-to-day activities.

To support this, both SONGWON's Vision and Mission statements are clearly communicated to all employees and also released publicly to make them available to our stakeholders worldwide. A complete set of policies relating to all of SONGWON's business activities has also been established. Accessible to every employee, the policies outline our dedication to high ethical standards and compliance with the applicable laws in the areas and regions we operate.

For this reason, great effort goes into ensuring that SONGWON's Code of Conduct is constantly aligned with internationally agreed standards and updated regularly. SONGWON's Code of Conduct is promoted across the whole organization through internal communication and trainings. It is also downloadable from SONGWON's website.

Every employee receives a copy of SONGWON's Code of Conduct when they are hired and their knowledge is tested every year to ensure the guidelines remain fresh in their minds. The Code explains how to apply the basic principles aligned with SONGWON's core values and our safe, honest, trustworthy, professional, customer-focused culture. It also offers practical advice on how to comply with laws and regulations, including how to interact with colleagues as well as SONGWON's customers and communities.

SONGWON's Code also governs the way we handle information, confidentiality and data security, the prevention of money laundering, bribery and corruption as well as issues related to keeping personal and business interests separate. With a strong monitoring process, the Management makes sure that if the Code is breached in any way, it can be easily detected and dealt with quickly. In 2022, no breaches were reported.

SONGWON's leaders endeavor to apply a collaborative approach to management where each individual, including senior management, is easily approachable, always open to engaging in dialogue and ready to advise and offer guidance. SONGWON's Management seeks to foster an environment of openness and clarity where people are treated fairly and encouraged to contribute. Questions and even discussions are both welcome and encouraged right across the organization. Although no punishment culture exists at SONGWON, every employee is very aware of the zero-tolerance policy for any breach of standards or any improper, unethical behavior.

Consistent with our commitment to maintaining a culture of honesty and integrity, SONGWON's whistleblower policy and framework provide all SONGWON stakeholders with a method of reporting\* (incl. anonymously) any actual or suspected misconduct within the organization. The policy also protects whistleblowers from any repercussions or breaches of their confidentiality. All concerns reported are treated with the utmost discretion and handled as swiftly as possible to ensure that issues are resolved quickly or any necessary changes within the organization are implemented appropriately.

\* External 3<sup>rd</sup> party concerns can be reported directly to the Executive Committee.

There were no whistleblower claims reported in 2022 and also no incidents that breached SONGWON's principles (e.g., corruption, anti-trust, or discrimination). However, if there had been an incident, then the most appropriate form of communication and/or consultation method would have been applied immediately based on the nature of the issue at hand. In 2022, SONGWON had no monetary or non-monetary fines for non-compliance with laws and regulations to report.

## Internal control

Internal control is fundamental to SONGWON's corporate culture. Each year, the organization aims to strengthen and improve its internal control system that monitors all of the Group's activities. By doing so, SONGWON makes sure that its rules of business engagement concerning external legislation and regulations, as well as its internal guidelines and control documentation, are diligently adhered to.

Another important aspect of internal control is identifying risks and then ensuring that they are managed effectively. Our main goal is to minimize SONGWON's exposure to risk as far as possible while making sure that we can capitalize on valuable opportunities at the same time. SONGWON is organized in such a way as to ensure it meets the requirements for effective internal control and its working methods are characterized by organizational transparency and a clear division of responsibilities. To ensure it can achieve true and fair consolidated financial reporting, the Group also has the necessary financial and business reporting systems in place which are important instruments of control.

Using well-established procedures, internal group reports are compiled each month and then presented in a document that also includes extensive analysis. A number of people from various company levels from different Group departments are involved in preparing the quarterly and annual accounts. After reviewing the summarized results, the management team, Executive Committee and the Board of Directors approve them.

Should a conflict of interest ever arise, the governing body member in question abstains from voting on the issues relating to the conflict of interest to make sure that the highest levels of corporate governance are always maintained. SONGWON is not aware of any conflicts of interest in 2022, or of any which could have potentially occurred during the year.

At SONGWON, we recognize that corruption can severely impact sustainable economic and social development and can have a detrimental effect on poorer communities. We are also very aware that as we expand our operations, it is very likely for SONGWON to be more exposed to regions and environments where corruption is known to exist. For this reason, SONGWON's Management is continually optimizing its policies and processes and always remains open and responsive to improvements that stakeholders and authorities may propose and consider necessary.

To optimize corporate governance,  
SONGWON:



uses efficient communication to further strengthen the interaction between the Board, Executive Committee and the various function leaders.



increases the Board's knowledge and understanding of the relevant impacts of SONGWON's activities on a regular basis. For example, each business and function is invited to present and discuss its strategies and actions with the Board.



organizes Town Hall meetings to support and improve engagement between employees at all levels and senior management. These provide SONGWON's leadership with the opportunity to share information with employees on the Group's financial results, business activities and strategy as well as emphasize SONGWON's expectations concerning ethical business conduct, sustainability and EH&S, etc.



assesses the quality of the Town Hall meetings, identifying improvement areas and following up on issues or concerns raised by employees.



focuses on improving and reinforcing the Internal Control Systems at all levels and at each entity of the Group.



continues to be actively involved in various associations and organizations to increase its ability to monitor key issues (incl. social, economic and environmental), identify possible risks and opportunities and ensure that SONGWON is always in a position to act accordingly at an early stage.



# Financial Statements

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## INTRODUCTION TO THE CONSOLIDATED FINANCIAL STATEMENTS

On the following pages (107 – 197), consolidated financial statements for the year 2022 are presented. The financial statements disclosed are prepared according to International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS") and represent the statements submitted for approval to the Annual General Shareholders' Meeting on March 17, 2023 in Ulsan, Korea.

While the management of the Group is responsible for the preparation and presentation of the financial statements, the Group's independent auditor is responsible for expressing an opinion on these financial statements. The report on the consolidated financial statements – issued by our Group auditor, Ernst & Young Han Young – can be found on pages (104 – 106).

# INDEPENDENT AUDITOR'S REPORT



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## Independent auditor's report

(English Translation of a Report Originally Issued in Korean)

### The Shareholders and Board of Directors Songwon Industrial Co., Ltd.

#### Opinion

We have audited the consolidated financial statements of Songwon Industrial Co., Ltd. (the "Company") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2022 and 2021, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2022 and 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS").

#### Basis for opinion

We conducted our audit in accordance with Korean Standards on Auditing ("KSA"). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The Group consists of the Company, its 13 subsidiaries and a joint venture, and the volume of intragroup transactions, such as sales and purchases, are significant. Due to the significant impact of the completeness and accuracy of the elimination of intragroup transactions as well as sales and purchases and related receivables and payables on the preparation of the consolidated financial statements, we have selected this area as a key audit matter.

The main audit procedures we have performed in relation to this key audit matter are as follows:

- We performed an analytical procedure on the Group's significant intragroup sales and purchases as well as related receivables and payables of the current reporting period to prior reporting period.
- We confirmed the consistency of the major intragroup sales, purchases and related balances that are subject to elimination by comparing those to the input data used in the consolidation system.
- We reviewed whether all intragroup sales and purchases aggregated during the consolidation closing process were eliminated.



### **Other matters**

As explained in Note 2.20 to the consolidated financial statements, the comparative consolidated statements of comprehensive income for ended December 31, 2021 have been restated to reflect adjustments of freight costs. The adjustments have no impact on the net assets and net profit of Group as of and for year ended December 31, 2021

### **Responsibilities of management and those charged with governance for the consolidated financial statements**

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with KIFRS, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

### **Auditor's responsibilities for the audit of the consolidated financial statements**

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial



- statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is *Yoon, Jung Won*.

*Ernst & Young Han Young*

February 24, 2023

This audit report is effective as of February 24, 2023, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the auditor's report date to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

# CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As of December 31, 2022 and 2021

<b>Assets</b>	Notes	<b>2022</b> Million KRW	2021 Million KRW
Non-current assets		536,604	487,268
Property, plant and equipment	6.2.2, 7, 26, 27	441,541	424,301
Right-of-use assets	6.2.2, 8	16,969	17,901
Investment properties	6.2.2, 9, 26, 27	3,456	3,467
Intangible assets	6.2.2, 10, 11, 26	11,427	9,650
Investments accounted for using the equity method	1.2.3, 12	7,818	6,466
Other non-current assets	21	30,778	6,028
Other non-current financial assets	13, 25, 32	16,030	12,068
Deferred tax assets	29	8,585	7,387
Current assets		680,707	628,381
Inventories	14, 26	377,129	335,880
Trade and other receivables	15, 25.2, 32	177,174	179,720
Income tax receivables		2,047	308
Other current assets	16	12,920	13,584
Other current financial assets	13, 25	6,677	1,145
Cash and cash equivalents	17, 25.2	104,760	97,744
<b>Total assets</b>		<b>1,217,311</b>	<b>1,115,649</b>
<b>Equity and liabilities</b>			
Equity		682,622	543,254
<i>Non-controlling interests</i>		-	-
<i>Equity attributable to owners of the parent</i>		<i>682,622</i>	<i>543,254</i>
Issued capital	18.1	12,000	12,000
Capital surplus	18.2	20,482	20,482
Reserves	18.3	29,103	28,623
Retained earnings	18.3	622,951	483,732
Other components of equity	18.4	-1,914	-1,583
Non-current liabilities		130,667	128,396
Bonds, interest-bearing loans and borrowings	19, 25, 27	65,745	60,502
Pension liability	21	2,682	5,945
Other long-term employee-related liabilities	22	9,061	8,544
Non-current lease liabilities	8, 25	14,564	15,454
Other non-current financial liabilities	23, 25	1	1
Other non-current liabilities		453	428
Deferred tax liabilities	29	38,161	37,522
Current liabilities		404,022	443,999
Interest-bearing loans and borrowings	19, 25, 26, 27	208,070	235,311
Trade and other payables	24, 25, 32	139,275	173,266
Current lease liabilities	8, 25	2,334	2,480
Other current financial liabilities	23, 25	554	689
Other current liabilities	20	5,440	4,043
Income tax payable		48,349	28,210
<b>Total liabilities</b>		<b>534,689</b>	<b>572,395</b>
<b>Total equity and liabilities</b>		<b>1,217,311</b>	<b>1,115,649</b>

# CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

As of December 31, 2022 and 2021 (see note 2.3)

	<b>2022</b>	2021
	Thousand USD	Thousand USD
<b>Assets</b>		
Non-current assets	426,090	386,916
Property, plant and equipment	350,605	336,916
Right-of-use assets	13,474	14,214
Investment properties	2,744	2,753
Intangible assets	9,074	7,663
Investments accounted for using the equity method	6,208	5,134
Other non-current assets	24,439	4,787
Other non-current financial assets	12,729	9,583
Deferred tax assets	6,817	5,866
Current assets	540,516	498,966
Inventories	299,459	266,705
Trade and other receivables	140,685	142,707
Income tax receivables	1,625	245
Other current assets	10,259	10,786
Other current financial assets	5,302	909
Cash and cash equivalents	83,186	77,614
<b>Total assets</b>	<b>966,606</b>	<b>885,882</b>
<b>Equity and liabilities</b>		
Equity	542,036	431,371
<i>Non-controlling interests</i>	–	–
<i>Equity attributable to owners of the parent</i>	<i>542,036</i>	<i>431,371</i>
Issued capital	9,529	9,529
Capital surplus	16,264	16,264
Reserves	23,108	22,727
Retained earnings	494,655	384,106
Other components of equity	-1,520	-1,255
Non-current liabilities	103,758	101,953
Bonds, interest-bearing loans and borrowings	52,205	48,042
Pension liability	2,130	4,721
Other long-term employee-related liabilities	7,195	6,784
Non-current lease liabilities	11,565	12,271
Other non-current financial liabilities	1	1
Other non-current liabilities	360	340
Deferred tax liabilities	30,302	29,794
Current liabilities	320,812	352,558
Interest-bearing loans and borrowings	165,218	186,849
Trade and other payables	110,591	137,582
Current lease liabilities	1,853	1,969
Other current financial liabilities	440	547
Other current liabilities	4,319	3,211
Income tax payable	38,391	22,400
<b>Total liabilities</b>	<b>424,570</b>	<b>454,511</b>
<b>Total equity and liabilities</b>	<b>966,606</b>	<b>885,882</b>

# CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

for the years ended December 31, 2022 and 2021

	Notes	2022 Million KRW	2021 (restated)* Million KRW
Sales	6.1, 6.2, 32	1,329,509	998,190
Cost of sales	28.5, 32	-1,027,889	-776,000
<b>Gross profit</b>		<b>301,620</b>	<b>222,190</b>
Selling and administration costs	28.2, 28.5, 32	-116,504	-116,476
Operating profit		185,116	105,714
Other income	28.3	3,833	6,038
Other expenses	28.4	-3,447	-7,233
Share of result from investments accounted for using the equity method	12	2,020	1,103
Finance income	28.6	63,807	27,863
Finance expenses	28.7	-70,229	-32,301
Profit before tax		181,100	101,184
Income tax expenses	29	-49,168	-29,975
<b>Profit for the period</b>		<b>131,932</b>	<b>71,209</b>
Other comprehensive income, net of taxes			
<i>Net other comprehensive income to be reclassified to profit or loss in subsequent periods</i>		-242	7,863
Gain on valuation of interest rate swaps	18.4	25	1,182
Exchange differences on translation of foreign operations	18.4	-267	6,681
<i>Net other comprehensive income not to be reclassified to profit or loss</i>		12,478	9,270
Losses on valuation of financial assets at FVOCI	18.4	-89	-252
Re-measurement gain on defined benefit plans	18.4, 21	12,567	9,522
Total other comprehensive income, net of taxes		12,236	17,133
<b>Total comprehensive income</b>		<b>144,168</b>	<b>88,342</b>
Profit for the period attributable to:			
Owners of the parent	30	131,932	72,273
Non-controlling interests		-	-1,064
<b>Profit for the period</b>		<b>131,932</b>	<b>71,209</b>
Total comprehensive income attributable to:			
Owners of the parent		144,168	89,302
Non-controlling interests		-	-960
<b>Total comprehensive income</b>		<b>144,168</b>	<b>88,342</b>
Earnings per share			
Basic / diluted, profit for the period attributable to ordinary equity holders of the parent	30	5,497	KRW 3,011

\* Refer to note 2.21 for further details

# CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

for the years ended December 31, 2022 and 2021 (see note 2.3)

	<b>2022</b>	2021 (restated)*
	Thousand USD	Thousand USD
Sales	1,055,696	792,612
Cost of sales	-816,195	-616,182
<b>Gross profit</b>	<b>239,501</b>	<b>176,430</b>
Selling and administration costs	-92,510	-92,488
Operating profit	146,991	83,942
Other income	3,044	4,794
Other expenses	-2,737	-5,743
Share of result from investments accounted for using the equity method	1,604	876
Finance income	50,666	22,125
Finance expenses	-55,765	-25,649
Profit before tax	143,803	80,345
Income tax expenses	-39,042	-23,802
<b>Profit for the period</b>	<b>104,761</b>	<b>56,543</b>
Other comprehensive income, net of taxes		
<i>Net other comprehensive income to be reclassified to profit or loss in subsequent periods</i>	-193	6,245
Losses on valuation of interest rate swaps	19	939
Exchange differences on translation of foreign operations	-212	5,306
<i>Net other comprehensive income not to be reclassified to profit or loss</i>	9,907	7,361
Losses on valuation of financial assets at FVOCI	-72	-200
Re-measurement gain on defined benefit plans	9,979	7,561
Total other comprehensive income, net of taxes	9,714	13,606
<b>Total comprehensive income</b>	<b>114,475</b>	<b>70,149</b>
Profit for the period attributable to:		
Owners of the parent	104,761	57,388
Non-controlling interests	-	-845
<b>Profit for the period</b>	<b>104,761</b>	<b>56,543</b>
Total comprehensive income attributable to:		
Owners of the parent	114,475	70,911
Non-controlling interests	-	-762
<b>Total comprehensive income</b>	<b>114,475</b>	<b>70,149</b>
Earnings per share	USD	USD
Basic / diluted, profit for the period attributable to ordinary equity holders of the parent	4,37	2,39

\* Refer to note 2.21 for further details

# CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

for the years ended December 31, 2021 and 2022

	Attributable to owners of the parent								Non-controlling interests	Total equity
	Issued capital	Capital surplus	Reserves	Retained earnings	Other components of equity			Total		
					Cash flow hedge reserve	Fair value reserve of financial assets at FVOCI	Foreign currency translation reserve			
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	
As of January 1, 2021	12,000	22,359	28,335	405,105	-1,207	-362	-7,521	458,709	4,788	463,497
Profit for the period	–	–	–	72,273	–	–	–	72,273	-1,064	71,209
Other comprehensive income	–	–	–	9,522	1,182	-252	6,577	17,029	104	17,133
Total comprehensive income	–	–	–	81,795	1,182	-252	6,577	89,302	-960	88,342
Dividends	–	–	–	-2,880	–	–	–	-2,880	–	-2,880
Appropriation to reserves	–	–	288	-288	–	–	–	–	–	–
Change in non-controlling interest due to interest increase	–	-1,877	–	–	–	–	–	-1,877	-1,230	-3,107
Change in non-controlling interest due to disposal of subsidiary*	–	–	–	–	–	–	–	–	-2,598	-2,598
As of December 31, 2021	12,000	20,482	28,623	483,732	-25	-614	-944	543,254	–	543,254
As of January 1, 2022	12,000	20,482	28,623	483,732	-25	-614	-944	543,254	–	543,254
Profit for the period	–	–	–	131,932	–	–	–	131,932	–	131,932
Other comprehensive income	–	–	–	12,567	25	-89	-267	12,236	–	12,236
Total comprehensive income	–	–	–	144,499	25	-89	-267	144,168	–	144,168
Dividends	–	–	–	-4,800	–	–	–	-4,800	–	-4,800
Appropriation to reserves	–	–	480	-480	–	–	–	–	–	–
As of December 31, 2022	12,000	20,482	29,103	622,951	–	-703	-1,211	682,622	–	682,622

\* Refer to note 5 for further details

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

for the years ended December 31, 2021 and 2022 (see note 2.3)

	Attributable to owners of the parent								Non-controlling interests	Total equity
	Issued capital	Capital surplus	Reserves	Retained earnings	Other components of equity			Total		
					Cash flow hedge reserve	Fair value reserve of financial assets at FVOCI	Foreign currency translation reserve			
	Thous. USD	Thous. USD	Thous. USD	Thous. USD	Thous. USD	Thous. USD	Thous. USD	Thous. USD	Thous. USD	
As of January 1, 2021	9,529	17,754	22,498	321,673	-958	-287	-5,972	364,237	3,803	368,040
Profit for the period	–	–	–	57,388	–	–	–	57,388	-845	56,543
Other comprehensive income	–	–	–	7,561	939	-200	5,223	13,523	83	13,606
Total comprehensive income	–	–	–	64,949	939	-200	5,223	70,911	-762	70,149
Dividends	–	–	–	-2,287	–	–	–	-2,287	–	-2,287
Appropriation to reserves	–	–	229	-229	–	–	–	–	–	–
Change in non-controlling interest due to interest increase	–	-1,490	–	–	–	–	–	-1,490	-978	-2,468
Change in non-controlling interest due to disposal of subsidiary*	–	–	–	–	–	–	–	–	-2,063	-2,063
As of December 31, 2021	9,529	16,264	22,727	384,106	-19	-487	-749	431,371	–	431,371
As of January 1, 2022	9,529	16,264	22,727	384,106	-19	-487	-749	431,371	–	431,371
Profit for the period	–	–	–	104,761	–	–	–	104,761	–	104,761
Other comprehensive income	–	–	–	9,979	19	-72	-212	9,714	–	9,714
Total comprehensive income	–	–	–	114,740	19	-72	-212	114,475	–	114,475
Dividends	–	–	–	-3,810	–	–	–	-3,810	–	-3,810
Appropriation to reserves	–	–	381	-381	–	–	–	–	–	–
As of December 31, 2022	9,529	16,264	23,108	494,655	-	-559	-961	542,036	–	542,036

\* Refer to note 5 for further details



## CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended December 31, 2022 and 2021

	Notes	2022 Million KRW	2021 Million KRW
Profit for the period		131,932	71,209
Total adjustments	31	102,471	81,365
Changes in operating assets and liabilities	31	-98,782	-155,285
Interest received		524	247
Payments of income tax		-34,590	-15,833
<b>Net cash flows provided by operating activities</b>		<b>101,555</b>	<b>-18,297</b>
Proceeds from sale of property, plant and equipment	7, 31	79	438
Proceeds from sale of intangible assets	10, 31	-	2,196
Purchases of property, plant and equipment	7	-45,073	-24,296
Purchases of intangible assets	10	-3,114	-2,270
Dividends received from investments using equity method	12	581	519
Disposal of subsidiary, net of cash disposed	5	-	5,584
(Increase) / decrease in other financial assets, net		-6,064	973
<b>Net cash flows provided by investing activities</b>		<b>-53,591</b>	<b>-16,856</b>
Proceeds from borrowings	31	697,848	666,819
Repayments of borrowings	31	-719,157	-589,361
Payment of lease liabilities		-3,419	-3,461
Increase / (decrease) in other financial liabilities, net	31	94	-1,242
Interest paid	31	-8,183	-5,254
Acquisition of additional interest in subsidiary	1.2.1	-	-3,107
Dividends paid	18	-4,800	-2,880
<b>Net cash flows provided by financing activities</b>		<b>-37,617</b>	<b>61,514</b>
Increase in cash and cash equivalents		10,347	26,361
Net foreign exchange differences		-3,331	-1,401
Cash and cash equivalents as of January 1	17	97,744	72,784
<b>Cash and cash equivalents as of December 31</b>	<b>17</b>	<b>104,760</b>	<b>97,744</b>

## CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended December 31, 2022 and 2021 (see note 2.3)

	<b>2022</b>	2021
	Thousand USD	Thousand USD
Profit for the period	104,761	56,543
Total adjustments	81,368	64,608
Changes in operating assets and liabilities	-78,438	-123,304
Interest received	416	196
Payments of income tax	-27,466	-12,572
<b>Net cash flows provided by operating activities</b>	<b>80,641</b>	<b>-14,529</b>
Proceeds from sale of property, plant and equipment	63	348
Proceeds from sale of intangible assets	-	1,744
Purchases of property, plant and equipment	-35,790	-19,292
Purchases of intangible assets	-2,473	-1,802
Dividends received from investments using equity method	461	412
Disposal of subsidiary, net of cash disposed	-	4,434
(Increase) / decrease in other financial assets, net	-4,815	773
<b>Net cash flows provided by investing activities</b>	<b>-42,554</b>	<b>-13,383</b>
Proceeds from borrowings	554,126	529,487
Repayments of borrowings	-571,046	-467,982
Payment of lease liabilities	-2,715	-2,748
Increase / (decrease) in other financial liabilities, net	75	-986
Interest paid	-6,498	-4,172
Acquisition of additional interest in subsidiary	-	-2,467
Dividends paid	-3,811	-2,287
<b>Net cash flows provided by financing activities</b>	<b>-29,869</b>	<b>48,845</b>
Increase in cash and cash equivalents	8,218	20,933
Net foreign exchange differences	-2,646	-1,112
Cash and cash equivalents as of January 1	77,614	57,794
<b>Cash and cash equivalents as of December 31</b>	<b>83,186</b>	<b>77,614</b>

# 1. CORPORATE INFORMATION

## 1.1 THE GROUP

SONGWON Industrial Group (the "Group") consists of the parent company Songwon Industrial Co., Ltd. (the "Company") and its consolidated subsidiaries as listed below. The Company was incorporated on December 15, 1965, under the law of the Republic of Korea to engage in the manufacture and commercial sale of polymer stabilizers, tin intermediates, PVC stabilizers and specialty chemicals, among others. The Company's main manufacturing plants are located in Korea in Ulsan, Maeam and Suwon and in India in Ankleshwar. The address of the registered office (Songwon Industrial Co., Ltd.) can be found at the end of the annual report.

The Company has listed its common shares on the Korea Exchange since June 1977, pursuant to the Korean Securities and Exchange Act.

## 1.2 SCOPE OF CONSOLIDATION

### 1.2.1 CHANGE IN THE SCOPE OF CONSOLIDATION

As of December 31, 2022, the scope of consolidation for the consolidated financial statements encompasses 14 entities (2021: 14 entities). Additionally, one entity is classified as a joint venture (2021: one entity) and accounted for using the equity method.

During the twelve months of 2022, no changes in the legal structure of the Group and scope of consolidation took place.

During the twelve months of 2021, the following changes in the legal structure of the Group and in scope of consolidation took place:

- Establishment of a new distribution entity in China, Songwon International-Qingdao Co., Ltd. in April 2021.
- Sale of 72% interest in Qingdao Long Fortune Songwon Chemical Co. Ltd effective as of April 30, 2021. Therefore, the Group's control in Qingdao Long Fortune Songwon Chemical Co. Ltd. ceased and the entity was deconsolidated (refer to note 5. for further details).
- Acquisition of an additional 18.5% interest in Songwon Polysys Additives-Sole Proprietorship LLC effective as of March 23, 2021. Therefore, the Group's interest in Songwon Polysys Additives-Sole Proprietorship LLC, which had already been fully consolidated as of April 1, 2014, increased from 81.5% to 100% for a consideration of 2.75 Million USD (3,107 Million KRW).

The consolidated financial statements include the financial statements of the Company and of the subsidiaries listed in the following table. The table also includes joint ventures which are accounted for using the equity method.

<b>Consolidated entities</b>	Location	Status	2022	2021	
			December 31	December 31	December 31
			Interest	Status	Interest
Songwon Industrial Co., Ltd.	Korea	Parent		Parent	
Songwon International – Japan K.K.	Japan	Subsidiary	100%	Subsidiary	100%
Songwon Specialty Chemicals-India Pvt. Ltd.	India	Subsidiary	100%	Subsidiary	100%
Songwon International – Americas Inc.	USA	Subsidiary	100%	Subsidiary	100%
Songwon International AG	Switzerland	Subsidiary	100%	Subsidiary	100%
Songwon Group Holding AG	Switzerland	Subsidiary	100%	Subsidiary	100%
Songwon Management AG	Switzerland	Subsidiary	100%	Subsidiary	100%
Songwon ATG GmbH	Germany	Subsidiary	100%	Subsidiary	100%
Songwon Europe GmbH	Germany	Subsidiary	100%	Subsidiary	100%
Songwon Chemicals GmbH	Germany	Subsidiary	100%	Subsidiary	100%
Songwon Trading GmbH	Germany	Subsidiary	100%	Subsidiary	100%
Songwon International – Qingdao Co., Ltd.	China	Subsidiary	100%	Subsidiary	100%
Songwon International Middle East FZE	UAE	Subsidiary	100%	Subsidiary	100%
Songwon Polysys Additives-Sole Proprietorship LLC	UAE	Subsidiary	100%	Subsidiary	100%

**Entity accounted for using the equity method (joint venture)**

Songwon Baifu Chemicals (Tangshan) Co., Ltd.	China	Joint venture	30%	Joint venture	30%
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## 1.2.2 SUMMARIZED STATEMENTS OF FINANCIAL POSITION AND COMPREHENSIVE INCOME OF SUBSIDIARIES

The summarized statements of financial position and comprehensive income of subsidiaries are as follows:

	<b>Total assets</b>	<b>Total liabilities</b>	<b>Total equity</b>	<b>Total revenue</b>	<b>Net income</b>	<b>Total comp. income</b>
<b>2022</b> as of December 31	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
Songwon International – Japan K.K.	62,789	50,664	12,125	139,524	870	870
Songwon Specialty Chemicals-India Pvt. Ltd.	50,388	9,531	40,857	31,651	3,054	3,161
Songwon International – Americas Inc.	134,021	94,813	39,208	333,753	5,851	5,851
Songwon International AG	127,717	97,458	30,259	338,812	7,519	7,947
Songwon Group Holding AG	134,625	4,125	130,500	–	14,211	14,211
Songwon Management AG	23,284	15,103	8,181	–	2,010	5,053
Songwon-ATG GmbH	7,539	3,769	3,770	9,051	551	551
Songwon Europe GmbH	2,051	1,821	230	4,736	166	166
Songwon Chemicals GmbH	92	7	85	1,065	24	24
Songwon Trading GmbH	81	6	75	944	19	19
Songwon International – Qingdao Co., Ltd.	10,648	6,213	4,435	26,336	729	729
Songwon International – Middle East FZE	10,517	7,215	3,302	34,771	1,851	1,851
Songwon Polysys Additives – Sole Proprietorship LLC	34,787	11,442	23,345	43,369	1,956	1,956
<b>2021</b> as of December 31						
Songwon International - Japan K.K.	49,060	36,729	12,331	95,047	1,504	1,504
Songwon Specialty Chemicals-India Pvt. Ltd.	50,735	10,916	39,819	30,152	5,836	5,944
Songwon International - Americas Inc.	109,679	76,476	33,203	212,348	5,347	5,347
Songwon International AG	104,526	75,276	29,250	270,572	18,611	19,117
Songwon Group Holding AG	127,741	4,318	123,423	–	11,736	11,736
Songwon Management AG	22,387	19,545	2,842	–	-1,196	4,523
Songwon-ATG GmbH	7,817	3,713	4,104	8,894	301	301
Songwon Europe GmbH	162	15	147	1,336	33	33
Songwon Chemicals GmbH	139	4	135	1,145	26	26
Songwon Trading GmbH	113	4	109	942	17	17
Qingdao Long Fortune Songwon Chemical Co., Ltd.	13,847	9,462	4,385	15,333	690	690
Songwon International – Middle East FZE	10,165	7,149	3,016	22,957	1,579	1,579
Songwon Polysys Additives – Sole Proprietorship LLC	34,788	14,504	20,284	24,903	406	406

### 1.2.3 INTEREST IN JOINT VENTURES

The Group has a 30% interest in Songwon Baifu Chemicals (Tangshan) Co., Ltd., classified as a jointly controlled entity which primarily engages in the production of thioesters. Determination was driven by the contractually agreed sharing of control with regard to relevant activities, requiring unanimous consent of the control-sharing parties.

The summarized statements of financial position and summarized statements of comprehensive income of joint ventures (accounted for using the equity method) are as follows:

<b>Statement of financial position</b>	<b>Cash and cash equivalents</b>	<b>Total current assets</b>	<b>Total non-current assets</b>	<b>Current financial liabilities</b>	<b>Total current liabilities</b>	<b>Non-current financial liabilities</b>	<b>Total non-current liabilities</b>	<b>Equity</b>	<b>Carrying amount</b>
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	1,803	10,744	12,954	1,670	2,056	58	89	21,553	6,466
December 31, 2021	1,803	10,744	12,954	1,670	2,056	58	89	21,553	6,466
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	5,981	15,765	13,722	2,363	3,366	28	62	26,059	7,818
December 31, 2022	5,981	15,765	13,722	2,363	3,366	28	62	26,059	7,818



<b>Statement of comprehensive income</b>	<b>Revenue</b>	<b>Depreciation &amp; Amortization</b>	<b>Interest income</b>	<b>Interest expense</b>	<b>Profit before tax</b>	<b>Income tax expenses</b>	<b>Profit for the period</b>	<b>Other comp. income</b>	<b>Total comp. income</b>
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	31,813	-163	23	-6	4,944	-1,269	3,675	-100	3,575
December 31, 2021	31,813	-163	23	-6	4,944	-1,269	3,675	-100	3,575
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	43,077	-176	4	-5	8,723	-1,990	6,733	-290	6,443
December 31, 2022	43,077	-176	4	-5	8,723	-1,990	6,733	-290	6,443

The investment in the joint venture is accounted for as using the equity method. The joint venture is continuing its operations as of December 31, 2022, and its reporting period is the same as that of the Group. In 2022, dividends of 581 Million KRW were received from Songwon Baifu Chemicals (Tangshan) Co., Ltd. (2021: 519 Million KRW), refer to note 12.

#### 1.2.4 NON-CONTROLLING INTERESTS

No transactions with non-controlling interest related to acquisitions or disposals took place during the reporting period 2022.

In 2021, The Group acquired an additional 18.5% interest in Songwon Polysys Additives-Sole Proprietorship LLC as of March 23, 2021 and increased its shareholding to 100%. In addition, the sale of the 72% interest in Qingdao Long Fortune Songwon Chemical Co. Ltd., effective April 30, 2021, led to loss of control in Qingdao Long Fortune Songwon Chemical Co. Ltd. and the entity was deconsolidated (refer to note 5). As of December 31, 2021, the Group disposed all of its non-controlling interests. The net loss attributable to the non-controlling interests for the year 2021 amounted to 1,064 Million KRW.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### 2.1 BASIS OF PREPARATION

The Group prepares statutory financial statements in the Korean language in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("KIFRS") enacted by the *Act on External Audit of Stock Companies*.

The consolidated financial statements have been prepared on a historical cost basis, except for certain items, such as financial instruments, which are mentioned separately in the following accounting principles. The consolidated financial statements are presented in Korean won (KRW) and all values are rounded to the nearest million (000,000), except when otherwise indicated.

The Group maintains its official accounting records in Korean won. In the event of any differences in the interpretation of the consolidated financial statements or the independent auditor's report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

### 2.2 BASIS OF CONSOLIDATION

The consolidated financial statements comprise the financial statements of the Group and its subsidiaries as of December 31, 2022. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if, and only if, the Group has:

- Power over the investee (i.e., existing rights that give it the current ability to direct the relevant activities of the investee)
- Exposure or rights to variable returns from its involvement with the investee
- The ability to use its power over the investee to affect its returns

Generally, there is a presumption that a majority of voting rights results in control. To support this presumption and when the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- The contractual arrangement with the other vote holders of the investee
- Rights arising from other contractual arrangements
- The Group's voting rights and potential voting rights

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when it loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the statements of comprehensive income from the date that the Group gains control until the date that it ceases to control the subsidiary.

Profit or loss and each component of other comprehensive income (OCI) are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to align their accounting policies with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.



## 2.3 CONVENIENCE TRANSLATION INTO UNITED STATES DOLLAR AMOUNTS

The parent company operates primarily in Korean won and its official accounting records are maintained in KRW. The USD amounts provided in the financial statements represent supplementary information solely for the convenience of the reader. All KRW amounts are expressed in USD at the rate of 1,259.38 KRW to 1 USD, the exchange rate in effect on December 31, 2022. Such a presentation is not in accordance with generally accepted accounting principles and should not be construed as a representation that the KRW amounts shown could be readily converted, realized or settled in USD at this or at any other rate.

## 2.4. BUSINESS COMBINATIONS AND GOODWILL

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, which is measured at acquisition date fair value, and the amount of any non-controlling interests in the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred and included in administrative expenses.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as of the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interests, and any previous interest held over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group reassesses whether it has correctly identified all of the assets acquired as well as all of the liabilities assumed, and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregated consideration transferred, then the gain is recognized in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units (CGU) that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill has been allocated to a CGU and part of the operation within that unit is disposed of, the goodwill associated with the disposed operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed in these circumstances is measured based on the relative values of the disposed operation and the portion of the CGU retained.

## 2.5 INTEREST IN JOINT ARRANGEMENTS

### Joint ventures

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. The considerations made in determining joint control are similar to those necessary to determine control over subsidiaries.

The Group's investments in its joint ventures are accounted for using the equity method. Under the equity method, the investment in a joint venture is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's share of net assets of the joint venture since the acquisition date.

The statements of comprehensive income reflect the Group's share of the results of operations of the joint venture. Any change in OCI of those investees is presented as part of the Group's OCI. In addition, when there has been a change recognized directly in the equity of a joint venture, the Group recognizes its share of any changes, when applicable, in the statements of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the joint venture are eliminated to the extent of the interest in the joint venture.

The aggregate of the Group's share of profit or loss in a joint venture is shown on the face of the statements of profit or loss outside operating profit and represents profit or loss after tax and non-controlling interests in the subsidiaries of the joint venture.

The financial statements of the joint venture are prepared for the same reporting period as the Group. When necessary, adjustments are made to align the accounting policies with those of the Group.

At each reporting date, the Group determines whether there is objective evidence that the investment in the joint venture is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the joint venture and its carrying value, and then recognizes the loss as "Share of profit of a joint venture" in the statements of comprehensive income.

Upon loss of significant influence over the joint venture, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the joint venture – upon loss of significant influence or joint control – and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

## Joint operations

A joint operation is defined as an arrangement in which the parties with joint control have rights to the assets and obligations for the liabilities relating to that arrangement. In respect of its interest in a joint operation, a joint operator must recognize all of its assets, liabilities, revenues and expenses, including its relative share of jointly controlled assets, liabilities, revenue and expenses.

The considerations made in determining joint control are similar to those necessary to determine control over subsidiaries.

## 2.6 FOREIGN CURRENCY TRANSLATION

The consolidated financial statements are presented in KRW, which is the parent company's functional currency. Each entity in the Group determines its own functional currency, and items included in the financial statements of each entity are measured using that functional currency.

Transactions in foreign currencies are initially recorded by the companies at their respective functional currency rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling at the reporting date. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined.

The assets, including goodwill and liabilities of foreign subsidiaries, where the functional currency is other than the KRW, are translated using the exchange rate at the end of the reporting period, while the statements of comprehensive income are translated using the average exchange rates during the period. Differences arising from such translations are recognized within equity and reclassified to net income when the gain or loss on disposal of the foreign subsidiary is recognized.

In determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which the Group initially recognizes the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of advance consideration.

## 2.7 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are valued at cost less accumulated depreciation and accumulated impairment losses. If the recognition criteria are met, such costs include the cost of replacing part of the property, plant and equipment and borrowing costs for long-term construction projects. Other repair and maintenance costs are recognized in the statements of comprehensive income as incurred. If the costs of certain components of an item of property, plant and equipment are significant in relation to the total cost of the item, they are accounted for and depreciated separately.

Depreciation expenses are calculated by using the straight-line method. The following useful lives are assumed:

Land	No depreciation
Buildings	18-60 years
Structures	10-40 years
Machinery	10-20 years
Other	1-39 years

Residual values and useful lives are reviewed annually and adjusted accordingly if expectations differ from previous estimates.

The gain or loss arising from the derecognition of a property, plant or equipment shall be determined as the difference between the net disposal proceeds and the carrying amount of the asset. It shall be recognized in the income statement when the asset is derecognized.

## 2.8 INTANGIBLE ASSETS

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses.

Intangible assets with useful finite lives are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least at the end of each reporting period. Changes in the expected useful life, or the expected consumption pattern of future economic benefits embodied in the asset, are accounted for by changing the amortization period or method, as appropriate, and are treated as changes in accounting estimates. The amortization expense on intangible assets with finite lives is recognized in the income statement under cost of sales and selling and administration costs in the expense category that is consistent with the function of the intangible assets.

Intangible assets with indefinite useful lives (such as goodwill and memberships) are not amortized, but are tested for impairment annually either individually, or at the cash-generating unit level. The assessment of

indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in useful life from indefinite to finite is made on a prospective basis.

Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the income statement when the asset is derecognized.

Intangible assets with finite useful lives are amortized using the straight-line method with the following useful lives:

Software	3-10 years
Industrial rights	10 years

## 2.9 INVESTMENT PROPERTY

The Group classifies the property to earn rentals or for capital appreciation, or both, as investment properties. As investment properties are accounted for using a cost model, the same accounting policies applied to property, plant and equipment are used for their accounting treatment, except for their classification and presentation.

## 2.10 LEASES

The Group assesses at contract inception whether a contract is, or contains, a lease. That is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

### Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

- *Right-of-use assets*  
The Group recognizes right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any re-measurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Unless the Group is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognized right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term. Right-of-use assets are subject to impairment (see note 8).
- *Lease liabilities*  
At the commencement date of the lease, the Group recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate (see note 25.3.3).

In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. The carrying amount of

the right-of-use asset and lease liability is re-measured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment to purchase the underlying asset.

- *Short-term leases and leases of low-value assets*  
The Group applies the short-term lease recognition exemption to its short-term leases of tools and other equipment (i.e., those leases that have a lease term of twelve months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered of low value (i.e., below 5,000 USD). Lease payments on short-term leases and leases of low-value assets are recognized as an expense on a straight-line basis over the lease term.
- *Significant judgement in determining the lease term of contracts with renewal options*  
The Group determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised. The Group has the option, under some of its leases to lease the assets for additional terms. The Group applies judgement in evaluating whether it is reasonably certain to exercise the option to renew. That is, it considers all relevant factors that create an economic incentive for it to exercise the renewal. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise (or not to exercise) the option to renew (e.g., a change in business strategy).

## Group as a lessor

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. Rental income arising is accounted for on a straight-line basis over the lease terms and is included in revenue in the statement of profit or loss due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized over the lease term on the same basis as rental income. Contingent rents are recognized as revenue in the period in which they are earned. In the financial year 2022, the Group has not entered into lease agreements as a lessor.

## 2.11 IMPAIRMENT OF NON-FINANCIAL ASSETS

The Group reviews non-financial assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If any indication exists, or when annual impairment testing for assets, such as membership is required, the Group estimates the asset's recoverable amount. Recoverability of assets is measured by the comparison of the carrying amount of the asset to the recoverable amount, which is the higher of the asset's value in use and its fair value less costs to sell. If assets do not generate cash inflows that are largely independent of those from other assets or groups of assets, the impairment test is not performed at an individual asset level; instead, it is performed at the level of the cash-generating unit (CGU) that the asset belongs to.

Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate valuation model is used.

For assets excluding goodwill, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such an indication

exists, the Group estimates the asset or cash-generating unit's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited, so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such a reversal is recognized in the income statement.

The following criteria are also applied in assessing impairment of specific assets:

### Goodwill

Goodwill is tested for impairment annually as of December 31, and whenever there are events or changes in circumstances (triggering events), which suggest that the carrying amount may not be recoverable. Goodwill is carried at cost less accumulated impairment losses.

For the purpose of impairment testing, goodwill acquired in a business combination is allocated to the (groups of) cash-generating unit(s) that is expected to benefit from the synergies of the business combination. If the carrying amount of the cash-generating unit(s), to which the goodwill is allocated, exceeds its recoverable amount, an impairment loss on goodwill is recognized. The recoverable amount is the higher of the cash-generating unit(s) fair value less costs to sell and its value in use.

Impairment losses relating to goodwill cannot be reversed in future periods.

### Intangible assets with indefinite useful lives

Intangible assets with indefinite useful lives are tested for impairment annually as of December 31, either individually, or at the cash-generating unit level, as appropriate and when circumstances indicate that the carrying value may be impaired.

## 2.12 BORROWING COSTS

Borrowing costs directly attributable to the acquisition, construction or production of an asset, that requires a substantial period of time to get ready for its intended use or sale, are capitalized as part of the cost of the respective assets.

## 2.13 INVENTORIES

Inventory is valued at the lower of the acquisition or production cost and net realizable value, cost being generally determined on the basis of a weighted average. Production costs comprise direct material and labor and applicable manufacturing overheads, including depreciation charges based on normal operating capacity. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

## 2.14 CASH AND CASH EQUIVALENTS

Cash and cash equivalents in the statements of financial position comprise cash at banks, as well as on hand and short-term deposits with a maturity of three months or less.

## 2.15 PROVISIONS

A provision is recognized when the Group has a present legal or constructive obligation as a result of a past event. It is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the effect is material, provisions are recognized at present value by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money.

### Greenhouse gas emissions

The Group receives free emission rights as a result of emission trading schemes. The rights are received on an annual basis and, in return, the Group is required to remit rights equal to its actual emissions. The Group has adopted the net liability approach to the emission rights granted. Therefore, a provision is recognized only when actual emissions exceed the emission rights granted and still held. The emission costs are recognized as other operating costs. Where emission rights are purchased from other parties, they are recorded at cost, and treated as a reimbursement right, whereby they are matched to the emission liabilities and re-measured to fair value. The changes in fair value are recognized in the statement of profit or loss and other comprehensive income.

## 2.16 PENSIONS AND OTHER LONG-TERM EMPLOYMENT BENEFITS

### Pensions

The Group operates three defined benefit pension plans: one in Korea, one in Switzerland and one in India. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method.

Re-measurements, comprising actuarial gains and losses, the effect of the asset ceiling, excluding net interest and the return on plan assets (excluding net interest), are recognized immediately in the statements of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

Past service costs are recognized in profit or loss on the earlier of the date:

- the plan amendment or curtailment
- that the Group recognizes restructuring-related costs

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. The pension expenses are recognized in the income statement under cost of sales and selling and administration costs.

### Other long-term employment benefits

The parent company also implements a bonus plan designed to present a prescribed quantity of gold and entitles compensated vacation to long-term service employees. Accounting policies of the bonus plan are mostly the same as the defined benefit plan, except that re-measurements are recognized immediately in profit or loss.

## 2.17 TAXES

### Current income tax

Current income tax assets and liabilities for the current period are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted, or substantively enacted, at the reporting date in the countries where the Group operates and generates taxable income.

### Deferred tax

Deferred tax is provided using the liability method on temporary differences at the reporting date between the tax basis of assets and liabilities, and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- where the deferred tax liability arises from the initial recognition of goodwill, or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit, nor taxable profit or loss;
- with respect to taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized, except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit, nor taxable profit or loss;
- with respect to deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future, and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction, either in other comprehensive income, or directly in equity.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.



## 2.18 REVENUE FROM CONTRACTS WITH CUSTOMERS

The Group's business is the manufacture and commercial sale of antioxidants, stabilizers and polyurethane. Revenue from contracts with customers is recognized when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group has generally concluded that it is the principal in its revenue arrangements, except for the agency services below, because it typically controls the goods or services before transferring them to the customer.

### Sales of Goods

The Group has concluded that revenue from sale of goods should be recognized at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods.

### Sale of services

The Group provides transportation service in combination with the sales of goods. The services can be provided by others and are not significantly modified or customized. There are two performance obligations in a contract for bundled sales of goods and transportation services, because its promises to transfer goods and provide transportation services, are capable of being distinct and separately identifiable. The Group allocates the transaction price based on the relative stand-alone selling prices of goods and transportation services. The Group concluded that revenue for transportation services, will be recognized over time because the customer simultaneously receives and consumes the benefits provided by the Group.

### Contract balances

#### 1) *Contract assets*

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays a consideration or before payment is due, a contract asset is recognized for the earned consideration that is conditional.

#### 2) *Trade receivables*

A receivable represents the Group's right to an amount of consideration that is unconditional (i.e., only the passage of time is required before payment of the consideration is due). Refer to accounting policies of financial assets in the note 2.19.

#### 3) *Contract liabilities*

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognized when the payment is made, or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Group performs under the contract.

## 2.19 FINANCIAL INSTRUMENTS

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

### Financial assets

Financial assets are classified, at initial recognition, as subsequently measured at amortized cost, fair value through other comprehensive income (FVOCI), and fair value through profit or loss (FVtPL).

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them: With the exception of trade receivables that do not contain a significant financing component, or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs.

In order for a financial asset to be classified and measured at amortized cost or FVOCI, it needs to give rise to cash flows that are, solely payments of principal and interest (SPPI), on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace (regular way trades), are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

#### *1) Subsequent measurement*

For purposes of subsequent measurement, financial assets are classified in four categories:

- Financial assets at amortized cost (debt instruments);
- Financial assets at FVOCI with recycling of cumulative gains and losses (debt instruments);
- Financial assets designated at FVOCI with no recycling of cumulative gains and losses upon derecognition (equity instruments);
- Financial assets at FVtPL.

#### *2) Financial assets at amortized cost (debt instruments)*

This category is the most relevant to the Group. The Group measures financial assets at amortized cost if both of the following conditions are met:

- the financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortized cost are subsequently measured using the effective interest rate (EIR) method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired.

### 3) Financial assets at FVOCI (debt instruments)

The Group measures debt instruments at FVOCI if both of the following conditions are met:

- the financial asset is held within a business model with the objective of both holding to collect contractual cash flows and selling; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

For debt instruments at FVOCI, interest income, foreign exchange revaluation and impairment losses or reversals are recognized in the statement of profit or loss and computed in the same manner as for financial assets measured at amortized cost. The remaining fair value changes are recognized in OCI. Upon derecognition, the cumulative fair value change recognized in OCI is recycled to profit or loss. The Group's debt instruments at FVOCI includes investments in quoted debt instruments included under other non-current financial assets.

### 4) Financial assets designated at FVOCI (equity instruments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity instruments designated at FVOCI when they meet the definition of equity under KIFRS 1032 and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to profit or loss. Dividends are recognized as other income in the statement of profit or loss when the right of payment has been established, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in OCI. Equity instruments designated at FVOCI are not subject to impairment assessment.

The Group elected to classify irrevocably its non-listed equity investments under this category.

### 5) Financial assets at FVtPL

Financial assets at FVtPL include financial assets held for trading, financial assets designated upon initial recognition at FVtPL, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at FVtPL, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortized cost or at FVOCI, as described above, debt instruments may be designated at FVtPL on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

Financial assets at FVtPL are carried in the statement of financial position at fair value with net changes in fair value recognized in the statement of profit or loss.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at FVtPL. Embedded derivatives are measured at fair value with changes in fair value recognized in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required, or a reclassification of a financial asset out of the FVtPL category.

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at FVtPL.

## 6) Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognized (i.e., removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a pass-through arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

After the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognize the transferred asset to the extent of its continuing involvement. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

## 7) Impairment of financial assets

Further disclosures relating to impairment of financial assets are also provided in the sections:

- significant accounting judgments, estimates and assumptions
- debt instruments at FVOCI
- trade and other receivables

The Group recognizes an allowance for expected credit losses (ECLs) for all debt instruments not held at FVtPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors regional specific to the debtors and the economic environment.

For debt instruments at FVOCI, the Group applies the low credit risk simplification. At every reporting date, the Group evaluates whether the debt instrument is considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In making that evaluation, the Group reassesses the internal credit rating of the debt instrument. In addition, the Group considers that there has been a significant increase in credit risk when contractual payments are more than 30 days past due. The Group considers a financial asset in default when contractual payments are 180 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external

information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

## Financial liabilities

### *1) Initial recognition and measurement*

Financial liabilities are classified, at initial recognition, as financial liabilities at FVtPL, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include mainly trade and other payables, interest-bearing loans and borrowings as well as derivative liabilities.

### *2) Subsequent measurement*

The measurement of financial liabilities depends on their classification, as described below:

### *3) Financial liabilities at FVtPL*

Financial liabilities at FVtPL include financial liabilities held for trading and financial liabilities designated upon initial recognition as at FVtPL.

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Group that are not designated as hedging instruments in hedge relationships as defined by KIFRS 1109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in the statement of profit or loss.

Financial liabilities designated upon initial recognition at FVtPL are designated at the initial date of recognition, and only if the criteria in KIFRS 1109 are satisfied.

### *4) Loans and borrowings*

This is the category most relevant to the Group. After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the statement of profit or loss.

This category generally applies to interest-bearing loans and borrowings. For more information, refer to note 19.

### 5) Derecognition

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the statement of profit or loss.

### Offsetting of financial instruments

Financial assets and financial liabilities are offset, and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

### Derivative financial instruments and hedge accounting

#### 1) Initial recognition and subsequent measurement

The Group uses derivative financial instruments, such as forward exchange contracts and interest rate swaps, to hedge its foreign currency risks, interest rate risks and commodity price risks. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

For the purpose of hedge accounting, hedges are classified as:

- fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment.
- cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability, or a highly probable forecast transaction or the foreign currency risk in an unrecognized firm commitment.
- hedges of a net investment in a foreign operation.

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which it wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge.

The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the Group will assess whether the hedging relationship meets the hedge effectiveness requirements (including analysis of the sources of hedge ineffectiveness and how the hedge ratio is determined). A hedging relationship qualifies for hedge accounting if it meets all of the following effectiveness requirements:

- there is an economic relationship, between the hedged item and the hedging instrument.
- the effect of credit risk does not dominate the value changes, that result from that economic relationship.
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

Hedges that meet all the qualifying criteria for hedge accounting are accounted for, as described below:

#### 2) Fair value hedges

The change in the fair value of a hedging instrument is recognized in the statement of profit or loss as other expense. The change in the fair value of the hedged item attributable to the risk hedged is recorded as part of the carrying value of the hedged item and is also recognized in the statement of profit or loss as other expenses. For fair value hedges relating to items carried at amortized cost, any adjustment to carrying value is amortized

through profit or loss over the remaining term of the hedge using the EIR method. The EIR amortization may begin as soon as an adjustment exists and no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

If the hedged item is derecognized, the unamortized fair value is recognized immediately in profit or loss.

When an unrecognized firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognized as an asset or liability with a corresponding gain or loss recognized in profit or loss. The Group has forward exchange contracts as well as currency and interest rate swaps (CRS) in order to hedge the risk of foreign exchange rate fluctuation of assets and liabilities denominated in foreign currencies and floating interest rates on corporate bonds. The Group applies fair value hedge accounting for forward exchange contracts (note 25.1.1) and currency and interest rate swaps (note 25.1.2).

### *3) Cash flow hedges*

The effective portion of the gain or loss on the hedging instrument is recognized in OCI in the cash flow hedge reserve, while any ineffective portion is recognized immediately in the statement of profit or loss. The cash flow hedge reserve is adjusted to the lower of the cumulative gain or loss on the hedging instrument and the cumulative change in fair value of the hedged item.

The amounts accumulated in OCI are accounted for, depending on the nature of the underlying hedged transaction. If the hedged transaction subsequently results in the recognition of a non-financial item, the amount accumulated in equity is removed from the separate component of equity and included in the initial cost or other carrying amount of the hedged asset or liability. This is not a reclassification adjustment and will not be recognized in OCI for the period. This also applies where the hedged forecast transaction of a non-financial asset or non-financial liability subsequently becomes a firm commitment for which fair value hedge accounting is applied.

For any other cash flow hedges, the amount accumulated in OCI is reclassified to profit or loss as a reclassification adjustment in the same period or periods during which the hedged cash flows affect profit or loss.

If cash flow hedge accounting is discontinued, the amount that has been accumulated in OCI must remain in accumulated OCI if the hedged future cash flows are still expected to occur. Otherwise, the amount will be immediately reclassified to profit or loss as a reclassification adjustment. After discontinuation, once the hedged cash flow occurs, any amount remaining in accumulated OCI must be accounted for depending on the nature of the underlying transaction as described above.

The Group had interest rate swap agreements about some borrowings which had been terminated early. The Group applied cash flow hedge accounting for interest rate swap contracts (note 25.1.3).

### *4) Hedges of a net investment*

Hedges of a net investment in a foreign operation, including a hedge of a monetary item that is accounted for as part of the net investment, are accounted for in a way similar to cash flow hedges. Gains or losses on the hedging instrument relating to the effective portion of the hedge are recognized as OCI while any gains or losses relating to the ineffective portion are recognized in the statement of profit or loss. On disposal of the foreign operation, the cumulative value of any such gains or losses recorded in equity is transferred to the statement of profit or loss.

## Fair value measurement

The Group measures financial instruments such as derivatives at fair value at each balance sheet date.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- in the principal market for the asset or liability, or
- in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- **Level 1** — Quoted (unadjusted) market prices in active markets for identical assets or liabilities.
- **Level 2** — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
- **Level 3** — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognized in the financial statements at fair value on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

The Group determines the policies and procedures for both recurring fair value measurement, such as investment properties and unquoted AFS financial assets, and for non-recurring measurement, such as assets held for sale in discontinued operation.

External valuers are involved for valuation of significant assets, such as AFS financial assets, and significant liabilities. Selection criteria include market knowledge, reputation, independence and whether professional standards are maintained.

At each reporting date, the Group analyses the movements in the values of assets and liabilities which are required to be remeasured or re-assessed as per the Group's accounting policies. For this analysis, the Group verifies the major inputs applied in the latest valuation by agreeing the information in the valuation computation to contracts and other relevant documents.

The Group, in conjunction with the Group's external valuers, also compares the change in the fair value of each asset and liability with relevant external sources to determine whether the change is reasonable.



On an interim basis, the Group and the Group's external valuers present the valuation results to the Group's independent auditors. This includes a discussion of the major assumptions used in the valuations. For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy, as explained above.

## 2.20 GOVERNMENT GRANTS

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as income on a systematic basis over the periods that the related costs, for which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognized as income in equal amounts over the expected useful life of the related asset.

When the Group receives grants of non-monetary assets, the asset and the grant are recorded at nominal amounts and released to profit or loss over the expected useful life of the asset, based on the pattern of consumption of the benefits of the underlying asset by equal annual installments.

## 2.21 RESTATEMENT OF PRIOR YEAR FIGURES IN CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

In the 2<sup>nd</sup> quarter of 2022, the Group performed a reclassification of 3<sup>rd</sup> party freight costs related to direct shipments for IC sales in Songwon Industrial Co., Ltd., from selling and administration costs (SG&A) to cost of sales (COS). As a result of this reclassification, the results for the financial year ended December 31, 2021 (comparable period), have been restated. For the financial year ended December 31, 2021, COS increased by 22,835 Million KRW, SG&A decreased by -22,835 Million KRW.

This caused a decrease in gross profit of -2.3%-points when compared to the previously reported year ended December 31, 2021. The changes in disclosure have no impact on the operating profit and net profit for the period.

## 2.22 NEW AND AMENDED STANDARDS AND INTERPRETATIONS

The Group applied certain standards and amendments for the first-time, which are effective for annual periods beginning on or after January 1, 2022 (unless otherwise stated). The Group has not adopted early any other standard, interpretation or amendment that has been issued but is not yet effective.

### Amendments to KIFRS 1103: Reference to the Conceptual Framework

The amendments replace a reference to a previous version of the KASB's Conceptual Framework with a reference to the current version issued in March 2018 without significantly changing its requirements.

The amendments add an exception to the recognition principle of KIFRS 1103 *Business Combinations* to avoid the issue of potential day 2, gains or losses arising for liabilities and contingent liabilities that would be within the scope of KIFRS 1037 *Provisions, Contingent Liabilities and Contingent Assets* or KIFRS 2121 *Levies*, if incurred separately.

The exception requires entities to apply the criteria in KIFRS 1037 or KIFRS 2121, respectively, instead of the Conceptual Framework, to determine whether a present obligation exists at the acquisition date.

The amendments also add a new paragraph to KIFRS 1103 to clarify that contingent assets do not qualify for recognition at the acquisition date.

These amendments had no impact on the consolidated financial statements of the Group as there were no contingent assets, liabilities and contingent liabilities within the scope of these amendments arisen during the period.

#### Amendments to KIFRS 1016: Property, Plant and Equipment: Proceeds before Intended Use

The amendment prohibits entities from deducting from the cost of an item of property, plant and equipment, any proceeds of the sale of items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the costs of producing those items, in profit or loss.

These amendments had no impact on the consolidated financial statements of the Group as there were no sales of such items produced by property, plant and equipment made available for use on or after the beginning of the earliest period presented.

#### Amendments to KIFRS 1101 First-time Adoption of International Financial Reporting Standards: Subsidiary as a First-Time Adopter

The amendment permits a subsidiary that elects to apply paragraph D16(1) of KIFRS 1101 to measure cumulative translation differences using the amounts reported in the parent's consolidated financial statements, based on the parent's date of transition to KIFRS, if no adjustments were made for consolidation procedures and for the effects of the business combination in which the parent acquired the subsidiary. This amendment is also applied to an associate or joint venture that elects to apply paragraph D16(1) of KIFRS 1101.

These amendments had no impact on the consolidated financial statements of the Group as it is not a first-time adopter.

#### Amendments to KIFRS 1109 Financial Instruments: Fees in the 10 percent Test for Derecognition of Financial Liabilities

The amendment clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. There is no similar amendment proposed for KIFRS 1039 *Financial Instruments: Recognition and Measurement*.

These amendments had no impact on the consolidated financial statements of the Group as there were no modifications of the Group's financial instruments during the period.

#### Amendments to KIFRS 1037: Onerous Contracts – Costs of Fulfilling a Contract

An onerous contract is a contract under which the unavoidable costs (i.e., the costs that the Group cannot avoid because it has the contract) of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

The amendments specify that when assessing whether a contract is onerous or loss-making, an entity needs to include costs that relate directly to a contract to provide goods or services include both incremental costs (e.g., the costs of direct labor and materials) and an allocation of costs directly related to contract activities (e.g., depreciation of equipment used to fulfil the contract as well as costs of contract management and supervision). General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract.

The Group has applied these amendments to contracts for which it has not yet fulfilled all its obligations at the beginning of the annual reporting period in which it first applies the amendments.

### 3. SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUMPTIONS

The preparation of the Group's financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods. The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, which have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below.

Notes	Description	Nature of estimation
7, 8, 9, 10, 11	<b>Impairment of non-financial assets / goodwill</b>	Impairment exists when the carrying value of an asset or cash-generating unit exceeds its recoverable amount, which is the higher of its fair value less costs to sell and its value in use. The determination of the recoverable amount of a cash-generating unit involves the use of estimates by management. The fair value less costs to sell calculation is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. The value in use calculation is based on a discounted cash flow model. The cash flows are derived from the expectations for the next three to five years and do not include restructuring activities that the Group is not yet committed to or significant future investments that will enhance the asset's performance of the cash-generating unit being tested. The recoverable amount based on the value in use is most sensitive to the discount rate used for the discounted cash flow model (WACC), as well as the expected future cash-inflows and the growth rate used for extrapolation purposes. The recoverable amount based on the fair value less cost to sell is most sensitive to the market prices, premiums and the estimate of cost to sell. These estimates, including the methodologies used, can have a material impact on the fair value and ultimately, the amount of any goodwill impairment.
21, 22	<b>Pension and other employment benefits</b>	The cost of defined benefit pension plans and other similar long-term employee benefits, and the present value of the pension obligation are determined using actuarial valuations. An actuarial valuation involves making various assumptions, which may differ from actual developments in the future. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases. Due to the complexity of the valuation, the underlying assumptions and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions.
29.1, 29.2	<b>Income tax / deferred tax assets</b>	The Group applies significant judgement in identifying uncertainties over income tax treatments. Since the Group operates in a complex multinational environment, it assesses on a yearly base whether these uncertainties have an impact on its consolidated financial statements.  Deferred tax assets are recognized for all unused tax losses, to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies.
25.2	<b>Fair value of financial instruments</b>	Where the fair value of financial assets and financial liabilities recorded in the statement of financial position cannot be derived from active markets, their fair value is determined using valuation techniques including the discounted cash flow model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgment is required in establishing fair values. The judgments include consideration of inputs, such as liquidity risk, credit risk and volatility. Changes in assumptions about these factors could affect the reported fair value of financial instruments.

25.3.3 **Leases – determination of lease term and incremental borrowing rate**

The Group determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised. The Group applies judgement in evaluating whether it is reasonably certain whether or not to exercise the option to renew or terminate the lease. That is, it considers all relevant factors that create an economic incentive for it to exercise either the renewal or termination. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate (e.g., construction of significant leasehold improvements or significant customization to the leased asset).

The Group cannot readily determine the interest rate implicit in the lease, therefore, it uses its incremental borrowing rate (IBR) to measure lease liabilities. The IBR is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment.



## 4. STANDARDS ISSUED BUT NOT YET EFFECTIVE

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's consolidated financial statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

### Amendments to KIFRS 1117: Insurance Contracts

In 2021, the IASB issued KIFRS 1117 Insurance Contracts (KIFRS 1117), a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. Once effective, KIFRS 1117 will replace KIFRS 1104 Insurance Contracts (KIFRS 1104) that was issued in 2007. KIFRS 1117 applies to all types of insurance contracts (i.e., life, non-life, direct insurance and re-insurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features.

A few scope exceptions will apply. The overall objective of KIFRS 1117 is to provide an accounting model for insurance contracts that is more useful and consistent for insurers. In contrast to the requirements in KIFRS 1104, which are largely based on grandfathering previous local accounting policies, KIFRS 1117 provides a comprehensive model for insurance contracts, covering all relevant accounting aspects. The core of KIFRS 1117 is the general model, supplemented by:

- A specific adaptation for contracts with direct participation features (the variable fee approach)
- A simplified approach (the premium allocation approach) mainly for short-duration contracts

KIFRS 1117 is effective for reporting periods beginning on or after January 1, 2023, with comparative figures required. Early application is permitted, provided the entity also applies KIFRS 1109 and KIFRS 1115 on or before the date it first applies KIFRS 1117. The amendments are not expected to have a material impact on the Group's financial statements.

### Amendments to KIFRS 1001: Classification of Liabilities as Current or Non-current

In January 2020, the IASB issued amendments to paragraphs 69 to 76 of KIFRS 1001 specify the requirements for classifying liabilities as current or non-current. The amendments clarify:

- What is meant by a right to defer settlement
- That a right to defer must exist at the end of the reporting period
- That classification is unaffected by the likelihood that an entity will exercise its deferral right
- That only if an embedded derivative in a convertible liability is itself an equity instrument would the terms of a liability not impact its classification

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and must be applied retrospectively. The amendments are not expected to have a material impact on the Group's financial statements.

### Amendments to KIFRS 1008: Definition of Accounting Estimates

In February 2021, the IASB issued amendments to KIFRS 1008, in which it introduces a definition of accounting estimates. The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, they clarify how entities use measurement techniques and inputs to develop accounting estimates.

The amendments are effective for annual reporting periods beginning on or after January 1, 2023 and apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of that period. Earlier application is permitted as long as this fact is disclosed.

The amendments are not expected to have a material impact on the Group's financial statements.

## Amendments to KIFRS 1001: Disclosure of Accounting Policies

In February 2021, the IASB issued amendments to KIFRS 1001, in which it provides guidance and examples to help entities apply materiality judgements to accounting policy disclosures. The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their significant accounting policies with a requirement to disclose their material accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures.

The amendments to KIFRS 1001 are applicable for annual periods beginning on or after January 1, 2023 with earlier application permitted.

The Group is currently revising their accounting policy information disclosures to ensure consistency with the amended requirements.

## Amendments to KIFRS 1012: Deferred Tax related to Assets and Liabilities Arising from a Single Transaction

In May 2021, the Board issued amendments to KIFRS 1012, which narrow the scope of the initial recognition exception under KIFRS 1012, so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences.

The amendments should be applied to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, at the beginning of the earliest comparative period presented, a deferred tax asset (provided that sufficient taxable profit is available) and a deferred tax liability should also be recognized for all deductible and taxable temporary differences associated with leases and decommissioning obligations.

The Group is currently assessing the impact of the amendments.

## 5. SALE OF A SUBSIDIARY

For the financial year ended December 31, 2022, there was no sale of a subsidiary.

The Group sold its 72% interest in Qingdao Long Fortune Songwon Chemical Co. Ltd. with the effective date April 30, 2021. The financial information for the period to the date of disposal is set out below.

### 5.1 FINANCIAL PERFORMANCE AND CASH FLOW INFORMATION

The financial performance and cash flow information of Qingdao Long Fortune Songwon Chemical Co. Ltd. presented in the tables below are for the four months ended April 30, 2021.

Description	<b>2021</b>
	YTD April 30 Million KRW
Sales	13,482
Cost of sales	-11,691
Gross profit	1,791
Selling and administration costs	-1,082
Operating profit	709
Other income	194
Other expenses	-992
Finance income	77
Finance expenses	-42
(Loss) / profit before tax	-54
Income tax expenses	-125
(Loss) / profit after tax	-179

	<b>2021</b>
	YTD April 30 Million KRW
Net cash flow from operating activities	-2,066
Net cash flow from investing activities	49
Net cash flow from financing activities	-138
Net (decrease) / increase in cash generated by the subsidiary	-2,155

The net of cash disposed from the sale of 72% interest in Qingdao Long fortune Songwon Chemical Co. Ltd. with effective date April 30, 2021, is as follows:

	<b>2021</b>
	YTD April 30 Million KRW
Cash and cash equivalents of subsidiary	-1,524
Total consideration received from sale of subsidiary	7,108
Disposal of a subsidiary, net of cash disposed	5,584

## 5.2 DETAILS ON SALE OF SUBSIDIARY

The net impairment losses resulting from the sale of 72% interest in Qingdao Long fortune Songwon Chemical Co. Ltd. (SWDM-CN) of 2,378 Million KRW have been recognized as "Other expenses" within the consolidated statements of comprehensive income for the year ended December 31, 2021:

	<b>2021</b>
	Million KRW
Impairment losses from revaluation of SWDM-CN as of March 31, 2021	-3,331
Reversal of 28% impairment losses allocated to non-controlling interests	953
<b>Net impairment losses from sale of 72% interest in SWDM-CN</b>	<b>-2,378</b>

The total consideration received from the sale of 72% interest in Qingdao Long fortune Songwon Chemical Co. Ltd. was derived as follows:

	<b>2021</b>
	As of April 30
<b>Description</b>	Million KRW
Property, plant and equipment	70
Right-of-use assets	588
Inventories	928
Trade and other receivables	8,512
Cash and cash equivalents	1,524
Other non-current and current assets	201
<i>Total assets</i>	<i>11,823</i>
Non-current lease liabilities	-734
Trade and other payables	-907
Other non-current and current liabilities	-476
<i>Total liabilities</i>	<i>-2,117</i>
<b>Net assets of subsidiary</b>	<b>9,706</b>
<i>Non-controlling interests of 28%</i>	<i>-2,598</i>
<b>Total consideration received from sale of 72% interest</b>	<b>7,108</b>



## 6. SEGMENT INFORMATION

The Group is organized into two main reporting segments "Industrial Chemicals" and "Performance Chemicals". The segments are defined based on SONGWON's product portfolio and its respective product families.

- Industrial Chemicals**  
 Industrial Chemicals operating segment mainly includes the product lines "Polymer Stabilizers", "Fuel and Lubricant Additives" and "Coatings".
- Performance Chemicals**  
 Performance Chemicals operating segment mainly includes the product lines "Thermoplastic Polyurethanes / Solution Polyurethanes", "Tin Intermediates / PVC Stabilizers and Plasticizers" and "Specialty Chemicals".

The Chief Operating Decision Makers (CODM), at Songwon, leaders of respective divisions, monitor the sales and operating profits or losses of its operating segments separately for the purpose of making decisions about resource allocation and performance assessment. However, certain income and expense positions such as other income / expenses, finance income / expenses and income tax expenses are managed on a Group basis and therefore not allocated to operating segments. The Group does not disclose a measure of total assets and liabilities for each reportable segment as such amounts are not reported to the CODM.

There are no inter-company transactions between the two operating segments.

### 6.1. REPORTED KEY FIGURES

The following key figures are presented each month to the CODM. For the segment reporting, the same accounting policies and methods of computation as were followed in the most recent annual financial statement are used.

Description	2022		2021		2022		2021	
	Industrial Chemicals		Performance Chemicals		Total			
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
Sales	983,239	735,654	346,270	262,536	1,329,509		998,190	
Operating profit	179,470	95,621	5,646	10,093	185,116		105,714	

## 6.2. GEOGRAPHIC INFORMATION

### 6.2.1. SALES

The sales information below is based on the location of the customer. Korea is disclosed separately due to the size of the Korean market whereas all other countries have been summarized into regions. Therefore, no other country's revenues are disclosed separately.

	<b>2022</b>	2021
	Million KRW	Million KRW
Korea	240,554	212,843
Rest of Asia	363,393	281,754
Europe	302,286	230,546
North and South America	334,558	211,418
Australia	4,817	4,503
Middle East and Africa	83,901	57,126
<b>Total sales</b>	<b>1,329,509</b>	<b>998,190</b>

The Group has no customer who accounts for more than 10% of the Group's total sales during the reporting periods.

### 6.2.2. NON-CURRENT ASSETS

Non-current assets information presented below consists of property, plant and equipment, right-of-use assets, investment properties and intangible assets.

	<b>2022</b>	2021
	Million KRW	Million KRW
Korea	411,991	389,764
Rest of Asia	24,036	27,268
Europe	7,619	8,164
North and South America	10,388	10,851
Middle East and Africa	19,359	19,272
<b>Total</b>	<b>473,393</b>	<b>455,319</b>

## 7. PROPERTY, PLANT AND EQUIPMENT

	Land	Buildings	Structures	Machinery	Other	Construction in progress	Total
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
<b>Acquisition cost</b>							
As of January 1, 2021	149,550	91,280	65,989	489,289	46,278	10,640	853,026
Additions	–	1	339	1,883	297	25,801	28,321
Disposals	-44	-158	-1,186	-9,172	-2,046	–	-12,606
Reclassifications	150	474	6,714	13,752	228	-21,318	–
Disposal of subsidiary*	–	–	–	-464	-75	-48	-587
Net exchange differences	–	1,780	–	2,518	344	52	4,694
As of December 31, 2021	149,656	93,377	71,856	497,806	45,026	15,127	872,848

As of January 1, 2022	149,656	93,377	71,856	497,806	45,026	15,127	872,848
Additions	–	144	431	1,802	830	45,352	48,559
Disposals	–	-51	-421	-4,641	-745	–	-5,858
Reclassifications	–	9,293	1,052	37,692	-23,112	-24,925	–
Net exchange differences	–	575	–	-192	54	-56	381
As of December 31, 2022	149,656	103,338	72,918	532,467	22,053	35,498	915,930

### Accumulated depreciation and impairment

As of January 1, 2021	–	-27,904	-42,663	-318,670	-37,577	–	-426,814
Depreciation charge	–	-2,548	-3,047	-22,510	-2,249	–	-30,354
Disposals	–	60	1,034	7,287	1,999	–	10,380
Impairment	–	–	–	-931	-62	-49	-1,042
Disposal of subsidiary*	–	–	–	395	74	48	517
Net exchange differences	–	-283	–	-749	-205	1	-1,236
As of December 31, 2021	–	-30,675	-44,676	-335,178	-38,020	–	-448,547

As of January 1, 2022	–	-30,675	-44,676	-335,178	-38,020	–	-448,547
Depreciation charge	–	-2,761	-3,253	-21,516	-1,681	–	-29,211
Disposals	–	14	308	3,337	689	–	4,348
Impairment	–	-27	–	-891	–	–	-918
Reclassification	–	-1,535	-26	-20,100	21,661	–	-
Net exchange differences	–	-113	–	164	-112	–	-61
As of December 31, 2022	–	-35,096	-47,647	-374,184	-17,462	–	-474,389

### Net book value

As of December 31, 2022	149,656	68,242	25,271	158,283	4,591	35,498	441,541
As of December 31, 2021	149,656	62,703	27,180	162,628	7,007	15,127	424,301

\* Refer to note 5 for further details

During the year ending 2022, there were impairment losses of property, plant and equipment within Songwon Specialty Chemicals-India Pvt. Ltd of 918 Million KRW due to scrapping of pilot plant.

During the year ending 2021, there were impairment losses of property, plant and equipment within Qingdao Long Fortune Songwon Chemical Co., Ltd., occurred during the ordinary course of business (828 Million KRW, not related to the COVID-19 pandemic) and impairment losses related to the sale of 72% interest in Qingdao Long Fortune Songwon Chemical Co., Ltd. of 175 Million KRW totaling 1,003 Million KRW. Additional impairment losses of 39 Million KRW have been recognized within Songwon International-Americas Inc., occurred during the ordinary course of business and not related to the COVID-19 pandemic.

Non-cash acquisition of property, plant and equipment during the year ending 2022 amounted to 3,486 Million KRW (2021: 4,025 Million KRW) and accounts payables relating to non-cash transactions amounted to 12,590 Million KRW as at year ending 2022 (2021: 9,104 Million KRW).

### Capitalized borrowing costs

Borrowing costs, which are directly attributable to the acquisition or production of a qualified asset, are capitalized as part of the cost of that asset. As at year end 2022, borrowing costs of 267 Million KRW have been capitalized (2021: 94 Million KRW).

### Contractual commitments and pledged assets

A pledged asset is an asset that is transferred to a lender for the purpose of securing debt. The lender of the debt maintains possession of the pledged asset but does not have ownership unless a default occurs (refer to note 27). For contractual commitments to purchase property, plant and equipment refer to note 26.3.

## 8. RIGHT-OF-USE ASSETS AND LEASES

Set out below are the carrying amounts of right-of-use assets recognized and the movements during the period:

	<b>Buildings</b>	<b>Structures</b>	<b>Machinery</b>	<b>Other</b>	<b>Total</b>
<b>Acquisition cost</b>	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
As of January 1, 2021	21,174	1,525	1,103	1,014	24,816
Additions	982	–	–	133	1,115
Disposals	-262	–	–	-184	-446
Modification of contract	-193	653	47	67	574
Disposal of subsidiary*	-2,293	–	–	–	-2,293
Net exchange differences	1,296	–	85	47	1,428
As of December 31, 2021	20,704	2,178	1,235	1,077	25,194

As of January 1, 2022	20,704	2,178	1,235	1,077	25,194
Additions	84	80	–	110	274
Disposals	–	–	–	-126	-126
Modification of contract	5	578	–	213	796
Net exchange differences	859	1	-35	23	848
As of December 31, 2022	21,652	2,837	1,200	1,297	26,986

<b>Accumulated depreciation</b>					
As of January 1, 2021	-3,216	-1,152	-195	-496	-5,059
Depreciation charge	-1,620	-578	-148	-330	-2,676
Disposals	262	–	–	184	446
Impairment	-1,454	–	–	–	-1,454
Disposal of subsidiary*	1,705	–	–	–	1,705
Net exchange differences	-207	-1	-21	-26	-255
As of December 31, 2021	-4,530	-1,731	-364	-668	-7,293

As of January 1, 2022	-4,530	-1,731	-364	-668	-7,293
Depreciation charge	-1,644	-610	-155	-305	-2,714
Disposals	–	–	–	126	126
Modification of contract	–	–	–	20	20
Net exchange differences	-141	-1	9	-23	-156
As of December 31, 2022	-6,315	-2,342	-510	-850	-10,017

<b>Net book value</b>					
As of December 31, 2022	15,337	495	690	447	16,969
As of December 31, 2021	16,174	447	871	409	17,901

\* Refer to note 5 for further details

No impairment losses were recognized in 2022 on right-of-use assets.

In 2021, impairment losses of 1,454 Million KRW were recognized in relation to the sale of 72% interest in Qingdao Long Fortune Songwon Chemical Co., Ltd.

Further, the Group recognized rent expenses from short-term leases of 229 Million KRW (2021: 134 Million KRW), leases of low-value assets of 81 Million KRW (2021: 82 Million KRW) and variable lease payments of 41 Million KRW (2021: 452 Million KRW) in the consolidated statements of comprehensive income.

Set out below are the carrying amounts of lease liabilities and the movements during the year:

Description	2022	2021
	Million KRW	Million KRW
As of January 1	17,934	18,572
Additions	274	1,115
Modifications	816	574
Net exchange differences	689	499
Accretion of interest	604	635
Payments	-3,419	-3,461
As of December 31	16,898	17,934

The maturity analysis of lease liabilities is disclosed in note 25.3.3.

## 9. INVESTMENT PROPERTIES

<b>Acquisition cost</b>	<b>Land</b>	<b>Buildings</b>	<b>Total</b>
	Million KRW	Million KRW	Million KRW
As of January 1, 2021	3,280	507	3,787
Net exchange differences	-	-3	-3
As of December 31, 2021	3,280	504	3,784
Net exchange differences	-2	-6	-8
As of December 31, 2022	3,278	498	3,776

### Accumulated depreciation

As of January 1, 2021	-	-304	-304
Depreciation charge	-	-15	-15
Net exchange differences	-	2	2
As of December 31, 2021	-	-317	-317
Depreciation charge	-	-10	-10
Net exchange differences	-	7	7
As of December 31, 2022	-	-320	-320

### Net book value

As of December 31, 2022	3,278	178	3,456
As of December 31, 2021	3,280	187	3,467

Investment properties are stated at cost less any accumulated depreciation and impairment losses, if any. The same useful lives have been applied for property, plant and equipment.

<b>Description</b>	<b>2022</b>	2021
	Million KRW	Million KRW
Rental income	15	17
Operational expenses	-37	-39

The Company owns an office building in Busan which is subleased. The fair value of the office building amounts to 8.607 Million KRW as of December 31, 2022 (2021: 7,950 Million KRW). In addition, Songwon International - Japan K.K. owns an object which is subleased. The fair value of the building and land is 19 Million KRW (2021: 25 Million KRW). The fair value of investment properties is calculated based on the valuation of an independent rating agency taking into consideration the location and category of the investment property being valued. It is classified as Level 3 based on valuation technique of the fair value hierarchy.

During the current year, the Company did not dispose of any investment properties (2021: no disposed investment properties).

Disclosure of pledged assets can be found in note 27.

## 10. INTANGIBLE ASSETS

	Industrial rights	Software	Memberships	Goodwill	Construction in progress	Total
Acquisition cost	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
As of January 1, 2021	6,032	2,771	831	41,116	670	51,420
Additions	2	214	–	–	2,054	2,270
Disposals	-1	-4	–	–	–	-5
Reclassifications	610	–	–	–	-610	–
Net exchange differences	–	77	–	2,922	–	2,999
As of December 31, 2021	6,643	3,058	831	44,038	2,114	56,684
As of January 1, 2022	6,643	3,058	831	44,038	2,114	56,684
Additions	344	411	–	–	2,359	3,114
Disposals	-453	-11	–	–	-133	-597
Reclassifications	1,154	–	–	–	-1,154	–
Net exchange differences	–	100	–	-3,304	–	-3,204
As of December 31, 2022	7,688	3,558	831	40,734	3,186	55,997
<b>Accumulated amortization and impairment</b>						
As of January 1, 2021	-3,103	-2,494	–	-38,066	–	-43,663
Amortization charge	-500	-114	–	–	–	-614
Disposals	1	4	–	–	–	5
Net exchange differences	–	-69	–	-2,693	–	-2,762
As of December 31, 2021	-3,602	-2,673	–	-40,759	–	-47,034
As of January 1, 2022	-3,602	-2,673	–	-40,759	–	-47,034
Amortization charge	-632	-168	–	–	–	-800
Disposals	586	11	–	–	–	597
Impairment	-391	-	–	–	–	-391
Net exchange differences	–	-92	–	3,150	–	3,058
As of December 31, 2022	-4,039	-2,922	–	-37,609	–	-44,570
<b>Net book value</b>						
As of December 31, 2022	3,649	636	831	3,125	3,186	11,427
As of December 31, 2021	3,041	385	831	3,279	2,114	9,650

Intangible assets with a definite useful life are amortized over the useful life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. During the year ended 2022, the Group recognized impairment loss on intangible assets on industrial rights of 391 Million KRW (2021: no impairment loss).



The intangible assets with an indefinite useful life are tested for impairment on an annual basis. An impairment test was carried out for goodwill and memberships based on the recoverable amount of each asset. For further details of the impairment test, refer to note 11. The goodwill items consist of items acquired in a business combination. In the financial years 2022 and 2021, no business combination took place that led to a recognition of goodwill.

## 10.1 DETAILS OF INDIVIDUALLY SIGNIFICANT INTANGIBLE ASSETS

Description	Remark	2022	2021	Remaining life
		December 31 Million KRW	December 31 Million KRW	
Industrial rights	REACH	3,073	2,705	6.4
Industrial rights	1330 Technology	357	475	3.0
Membership	New Seoul Country	778	778	Indefinite
Goodwill	Acquisition of Business SeQuent Scientific Limited	3,125	3,279	Indefinite
Construction-in-progress	D-365	2,781	1,365	n/a
Construction-in-progress	REACH	273	749	n/a
Construction-in-progress	IT LIMS system	132	–	n/a
Significant intangible assets total		10,519	9,351	

## 11. IMPAIRMENT TESTING OF GOODWILL AND INTANGIBLES WITH INDEFINITE USEFUL LIFE

### 11.1. IMPAIRMENT TESTING OF GOODWILL AND INTANGIBLE ASSETS WITH INDEFINITE USEFUL LIFE

Goodwill acquired through business combinations and memberships with an indefinite useful life have been allocated to the cash-generating units (CGUs) according to their business activities. Goodwill acquired in a business combination is allocated to each CGU expected to benefit from the synergies of the business combination.

The goodwill resulting from the business acquisition of SeQuent Scientific Limited was allocated to the individual CGU of Songwon Specialty Chemicals – India Pvt. Ltd., India (SWDM-IN).

Details of the allocation of goodwill and intangible assets with an indefinite useful life to the CGU are as follows:

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Goodwill of Songwon Specialty Chemicals-India Pvt. Ltd., India (SWDM-IN)	3,125	3,279
Memberships with indefinite useful lives of the rest of the Group (main CGU)	831	831
Total tested goodwill and intangible assets with indefinite useful lives	3,956	4,110

The Group performed its annual impairment test in December 2022 and 2021. The recoverable amount of the CGU – to which goodwill and intangible assets with an indefinite useful life are allocated – has been determined based on its value in use, calculated using the discounted cash flow (DCF) model.

#### CGU of SWDM-IN

As of December 31, 2022, the recoverable amount of the CGU of Songwon Specialty Chemicals – India Pvt. Ltd., India amounts to 46,919 Million KRW or 3,082 Million INR (2021: 56,939 Million KRW or 3,565 Million INR) and exceeds the carrying amount of the respective CGU.

#### Memberships with indefinite useful lives of the rest of the Group

As of December 31, 2022, no impairment loss is recognized according to the impairment test on memberships with indefinite useful lives (2021: no impairment loss).

### 11.2. KEY ASSUMPTIONS USED IN CALCULATION OF VALUE IN USE

The calculation of the CGU value in use reflects the future free cash flows for the next five years for SWDM-IN discounted to the present value at the WACC and an estimated residual value. The projected free cash flows for SWDM-IN's CGU is estimated on the basis of the Budget 2023 and the Business Plan 2023 – 2027, as approved by management, and mid-term assumptions. For the free cash flows extending beyond the detailed planning period, a terminal value was computed by capitalizing the normalized cash flows using a constant growth rate. The long-term growth rate was calculated in consideration of the long-term inflation expectations for relevant countries.

In addition, a market risk premium of 6.00% (2021: 6.50%) and a small cap premium of 3.02% (2021: 3.21%) were applied for the calculation of the WACC.

The key assumptions underlying the calculation are as follows:

<b>Parameters for the determination of the recoverable amount of the CGU</b>	<b>Description</b>
Average annual growth rate	Average annual growth is calculated on the basis of mid-term assumptions.
WACC	WACC, which is the weighted average of cost of equity and cost of debt, is calculated using the Capital Asset Pricing Model (CAPM). The application of pre-tax WACC and post-tax WACC yields the same value in use.
Long-term growth rate	Long-term growth rate is calculated based on the long-term inflation expectations for the relevant countries.

<b>Parameters for the determination of the recoverable CGU amount of SWDM-IN</b>	<b>2022</b>	<b>2021</b>
Average annual growth rate	6.27%	4.88%
Pre-tax WACC	16.05%	15.53%
Post-tax WACC	11.80%	11.57%
Long-term growth rate	2.82%	3.05%

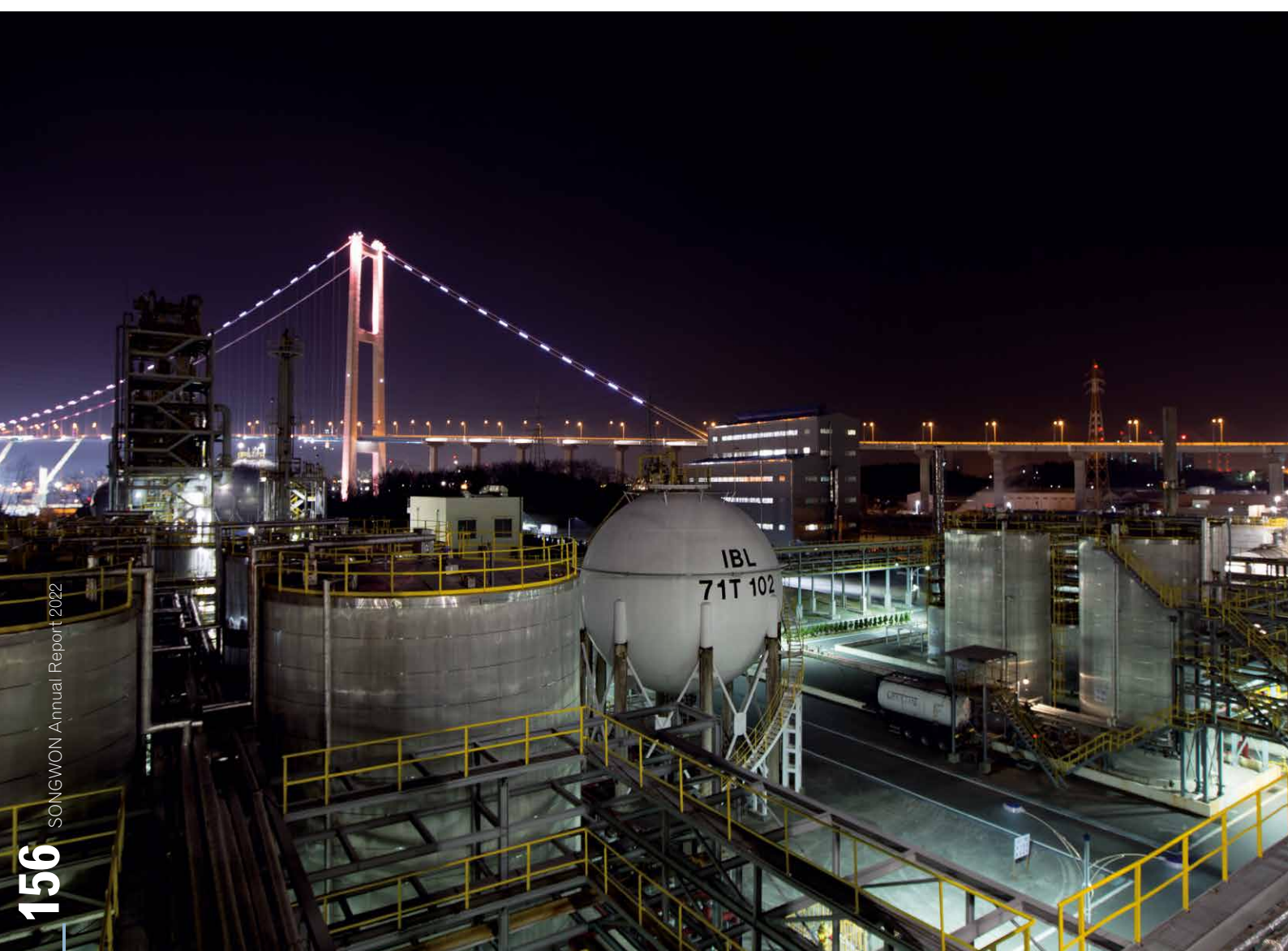
The following changes in key assumptions in 2022 led to a situation where the value in use for the CGU SWDM-IN equals the carrying amount:

<b>Parameters for the determination of the recoverable CGU amount</b>	<b>Sensitivity analysis SWDM-IN</b>
Average annual growth rate	0.00%
Pre-tax WACC	20.02%
Post-tax WACC	14.47%
Long-term growth rate	0.00%

## 12. INVESTMENT ACCOUNTED FOR USING THE EQUITY METHOD

Changes in the investments in joint ventures are summarized as follows:

	As of January 1	Dividends	Share of result from equity method revaluation	Exchange rate effects	As of December 31
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
2021					
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	5,912	-519	1,103	-30	6,466
Total	5,912	-519	1,103	-30	6,466
2022					
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	6,466	-581	2,020	-87	7,818
Total	6,466	-581	2,020	-87	7,818



## 13. OTHER FINANCIAL ASSETS

Description	2022		2021	
	December 31		December 31	
	Non-current	Current	Non-current	Current
	Million KRW	Million KRW	Million KRW	Million KRW
Financial instruments at amortized cost (bank deposit)	529	1,826	349	408
Financial instrument at FVtPL	11,847	2,591	9,530	–
Derivative assets at FVtPL (note 25)	2,293	1,849	505	25
Equity instrument at FVOCI	–	–	102	–
Guarantee and other deposits at amortized cost	1,361	411	1,582	712
<b>Total</b>	<b>16,030</b>	<b>6,677</b>	<b>12,068</b>	<b>1,145</b>

As of December 31, 2022 financial instruments at amortized cost (bank deposit) include restricted cash of 7 Million KRW (2021: 7 Million KRW).

### 13.1 EQUITY INSTRUMENTS AT FVOCI

Details of equity instruments at FVOCI as of December 31, 2022 and 2021 are as follows:

Description	2022				2021			
	December 31				December 31			
	Number of shares	% to equity	Cost	Fair value	Number of shares	% to equity	Cost	Fair value
		Million KRW	Million KRW			Million KRW	Million KRW	
Ulsan Broadcasting Corporation	180,000	3.00%	900	–	180,000	3.00%	900	102
<b>Total</b>			<b>900</b>	<b>–</b>			<b>900</b>	<b>102</b>

Investments in equity instruments that do not have a quoted market price in an active market are measured using an appropriate valuation technique.

## 14. INVENTORIES

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Raw materials and supplies	85,687	83,529
Work in progress	1,250	2,374
Finished and semi-finished goods	232,946	177,085
Goods in transit	54,131	70,978
Consignment stocks	3,115	1,914
<b>Total inventories at the lower of cost and net realizable value</b>	<b>377,129</b>	<b>335,880</b>

As of December 31, 2022, inventory allowance balance amounted to 4,853 Million KRW for raw materials, work in progress, finished and semi-finished goods (2021: 5,129 Million KRW). The Group recognized reversal of inventory allowance of 276 Million KRW in the financial year 2022 (2021: expense of 2,021 Million KRW).

For the year ended 2022, the Group recognized inventory impairment losses of 1,777 Million KRW in course of the annual inventory stocktaking procedures.

For the year ended 2021, impairment losses of 749 Million KRW have been recognized in relation to the sale of 72% interest in Qingdao Long Fortune Songwon Chemical Co., Ltd.

## 15. TRADE AND OTHER RECEIVABLES

Description	<b>2022</b>	2021
	December 31 Million KRW	December 31 Million KRW
Trade and notes receivables	176,734	179,814
Allowances for trade and notes receivables	-1,371	-1,269
Trade and notes receivables (related parties)	63	-
Other accounts receivables	1,670	1,164
Allowances for other accounts receivables	-18	-26
Accrued income	96	37
<b>Total</b>	<b>177,174</b>	<b>179,720</b>

Other accounts receivables include customs duty refunds, rental income receivables and others.

Changes in the allowance for doubtful accounts for trade and other receivables are as follows:

	Million KRW
January 1, 2021	-1,283
Charge for the period	-353
Utilized	66
Unused amounts reversed	275
December 31, 2021	-1,295
January 1, 2022	-1,295
Charge for the period	-106
Utilized	-
Unused amounts reversed	12
December 31, 2022	-1,389

The ageing analysis of trade and other receivables is as follows:

	Total	Current	Days past due			
			≤ 90	91-120	121-180	> 180
	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
December 31, <b>2022</b>	178,563	166,012	11,689	51	261	550
December 31, 2021	181,015	169,676	10,773	-	-	566

Refer to note 25.3.2 on credit risk of trade receivables, which describes how the Group manages and measures credit quality of trade receivables that are neither past due, nor impaired.

As the right of recourse is granted to the transferee, the balance of trade receivable that are not derecognized at the end of the financial year amounts to 68,440 Million KRW (2021: 55,531 Million KRW). The total amount of deposits received was carried in the financial statements under interest-bearing loans and borrowings.

## 16. OTHER CURRENT ASSETS

Other current assets as of December 31, 2022 and 2021, consist of the following:

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Advance payments	1,030	1,273
Prepaid expenses	4,623	5,322
VAT refundables	7,267	6,989
<b>Total</b>	<b>12,920</b>	<b>13,584</b>

## 17. CASH AND CASH EQUIVALENTS

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Cash on hand	59	52
Bank accounts	76,069	89,727
Time deposits (< 3 months)	28,632	7,965
<b>Total</b>	<b>104,760</b>	<b>97,744</b>

Cash at banks earns interest at floating rates based on daily bank deposit rates. Time deposits are made for various periods from one day to three months, depending on the Group's immediate cash requirements, and earn interest at the respective short-term deposit rates.



## 18. ISSUED CAPITAL AND RESERVES

### 18.1 SHARE CAPITAL

In accordance with the Articles of Incorporation, the Company is authorized to issue 100,000,000 shares of common stock with a par value of 500 KRW per share. As of December 31, 2022 and 2021, the Company issued 24,000,000 shares of common stocks outstanding with a carrying value of 12,000 Million KRW.

### 18.2 CAPITAL SURPLUS

As of December 31, 2022 and 2021, the Group's capital surplus is composed of the following:

Description	2022	2021
	December 31	December 31
	Million KRW	Million KRW
Paid-in capital in excess of par value	20,065	20,065
Gain on disposal of treasury stock	4,296	4,296
Loss on change in non-controlling interest due to interest acquisition	-3,879	-3,879
<b>Total</b>	<b>20,482</b>	<b>20,482</b>

### 18.3 RESERVES

Description	2022	2021
	December 31	December 31
	Million KRW	Million KRW
Legal reserve	3,288	2,808
Asset revaluation surplus	25,815	25,815
<b>Total</b>	<b>29,103</b>	<b>28,623</b>

#### Legal reserves

In accordance with the Korean Commercial Code, an amount equal to at least 10% of cash dividends is required to be appropriated as a legal reserve until the reserve equals 50% of paid-in capital. The legal reserve may not be utilized for cash dividends, but may only be used to offset a deficit, if any, or be transferred to capital. Appropriation to the legal reserve from retained earnings, pursuant to the approval of the General Meeting of Shareholders on March 17, 2023 amounted to 480 Million KRW (2021: 288 Million KRW).

#### Asset revaluation reserve

The Group re-valued certain parts of its property, plant and equipment in accordance with the Korean Asset Revaluation Act on January 1, 1984, and January 1, 1999, resulting in a revaluation surplus of 2,884 Million KRW and 64,277 Million KRW, respectively. An asset revaluation surplus amounting to 62,343 Million KRW, net of related revaluation tax, was credited to capital surplus. As of December 31, 2022 and 2021, the asset revaluation surplus is 25,815 Million KRW. The asset revaluation surplus of 23,312 Million KRW and 13,216 Million KRW were utilized in disposition of accumulated deficit pursuant to the approval of the stockholders on March 6, 2008, and March 7, 2009, respectively. The asset revaluation surplus may not be utilized for cash dividends, but may only be used to offset a deficit, if any, or be transferred to capital.

## Dividends

Dividends approved by the shareholders are as follows:

Description	2022	2021
	December 31	December 31
Subject to the year	2021	2020
Dividends on ordinary shares in KRW	4,800,000,000	2,880,000,000
Number of shares	24,000,000	24,000,000
Dividends per share in KRW	200	120

## 18.4 ACCUMULATED OTHER COMPREHENSIVE INCOME

Accumulated other comprehensive income, net of tax, as of December 31, 2022 and 2021, is composed of the following:

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Re-measurement of defined benefit plans	-4,368	-16,935
OCI recognized within retained earnings	-4,368	-16,935
Cash flow hedge reserve	-	-25
Fair value reserve of financial assets at FVOCI	-703	-614
Foreign currency translation reserve	-1,211	-944
OCI recognized within other components of equity	-1,914	-1,583

Details of other comprehensive income for the year ended December 31, 2022 and 2021, are as follows:

Description	2022	2021
	Million KRW	Million KRW
Pre-tax amounts		
Gains / (losses) on valuation of interest rate swaps	33	1,534
(Losses) / gains on valuation of financial assets FVOCI	-103	-326
Exchange differences on translation of foreign operations	-267	6,681
Re-measurement gains / (losses) on defined benefit plans	15,726	11,568
Pre-tax amounts total	15,389	19,457
Tax effects		
Gains / (losses) on valuation of interest rate swaps	-8	-352
(Losses) / gains on valuation of financial assets at FVOCI	14	74
Re-measurement gains / (losses) on defined benefit plans	-3,159	-2,046
Tax effects total	-3,153	-2,324
Net amounts		
Gains / (losses) on valuation of interest rate swaps	25	1,182
(Losses) / gains on valuation of financial assets FVOCI	-89	-252
Exchange differences on translation of foreign operations	-267	6,681
Re-measurement gains / (losses) on defined benefit plans	12,567	9,522
Net amounts total	12,236	17,133

## 19. BONDS, INTEREST-BEARING LOANS AND BORROWINGS

Interest-bearing loans and borrowings as of December 31, 2022 and 2021, are as follows:

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Corporate bonds	56,905	54,832
Long-term borrowings	8,840	5,670
Non-current interest-bearing loans and borrowings	65,745	60,502
Current portion of long-term borrowings	1,930	1,780
Short-term borrowings	206,140	233,531
Current interest-bearing loans and borrowings	208,070	235,311
Total	273,815	295,813

Details of corporate bonds which the Group entered in the form of a private placement bond and floating rate note (FRN) as of December 31, 2022 are as follows:

Contractual party	Form	Contract amount	Carrying amount Million KRW	Maturity dates	2022
					December 31 Interest rate
Hana Bank	Private placement bond	26,000 Million KRW	26,000	24.09.2021 – 24.09.2024	2.09% (fixed rate)
Woori Bank	Private placement bond (FRN)	24,500 Thousand USD	30,905	17.09.2021 – 13.09.2024	3M Libor +0.8%
Total			56,905		

Contractual party	Form	Contract amount	Carrying amount Million KRW	Maturity dates	2021
					December 31 Interest rate
Hana Bank	Private placement bond	26,000 Million KRW	26,000	24.09.2021 – 24.09.2024	2.09% (fixed rate)
Woori Bank	Private placement bond (FRN)	24,500 Thousand USD	28,832	17.09.2021 – 13.09.2024	3M Libor +0.8%
Total			54,832		

Details of long-term borrowings as of December 31, 2022 and 2021, are as follows:

Banks	Description	Maturity date	Annual interest rate (%)	2022	2021
				December 31 Million KRW	December 31 Million KRW
Busan Bank	General Loan	08.05.2024	6M Base rate +1.61	1,770	2,950
Kyongnam Bank	General Loan	08.05.2024	12M BBR+1.32	–	4,500
Korea Development Bank	General Loan	24.08.2026	4.48	9,000	–
Subtotal				10,770	7,450
Less current portion				-1,930	-1,780
Non-current portion				8,840	5,670

Details of short-term borrowings as of December 31, 2022 and 2021, are as follows:

Banks	Description	Annual interest rate (%)	2022	2021
			December 31 Million KRW	December 31 Million KRW
Woori Bank	Trade loan	2.16~5.76	24,890	46,810
Hana Bank	Trade loan	2.20~6.14	23,842	13,868
Korea Development Bank	General & trade loan	2.08~4.97	81,446	103,122
Busan Bank	General & trade loan	1.33~4.75	17,759	15,000
Kyongnam Bank	General & trade loan	4.27~5.62	28,203	14,731
NH Bank	General loan	4.84~5.46	20,000	30,000
KB Bank	General loan	4.80	10,000	10,000
Subtotal			206,140	233,531



## 20. EMISSION RIGHTS AND EMISSION LIABILITIES

Details of annual quantity of allocated emission allowances as of December 31, 2022, are as follows  
(Unit: Korean Allowance Unit - KAU):

	2021	2022	2023	2024	2025	Total
Allocated emission allowance	138,875	138,875	138,875	137,574	137,574	691,773

Changes in emission rights and emission allowances during each planned period are as follows  
(Units: KAU and Million KRW):

	2021*		2022		2023	
	Quantity	Book value	Quantity	Book value	Quantity	Book value
<b>Beginning</b>	23,735	375	3,171	348	–	–
Allocation	138,875	–	138,875	–	138,875	–
Allocation cancelled	–	–	–	–	–	–
Additional allocation	–	–	–	–	–	–
Disposal	-1,600	-27	–	–	–	–
Delivery to government	-157,839	–	–	–	–	–
Carryforward	-3,171	-348	–	–	–	–
<b>Ending</b>	–	–	142,046	348	138,875	–

\* Emission rights 2021 approved by government during 2022

	2024		2025	
	Quantity	Book value	Quantity	Book value
<b>Beginning</b>	–	–	–	–
Allocation	137,574	–	137,574	–
<b>Ending</b>	137,574	–	137,574	–

There are no emission rights provided as collateral as of December 31, 2022.

Changes in emission liabilities included in other current liabilities during the current and prior reporting period are as follows (in Million KRW):

	2022	2021
As of January 1	14	725
Increase	–	14
Decrease	-14	-725
As of December 31	–	14

Allocated greenhouse gas emissions free of charge in 2022 were 138,875 KAU.  
Estimated greenhouse gas emissions in 2022 were 141,118 KAU (2021: 163,000 KAU).

## 21. PENSION LIABILITY

<b>Pension plan</b>	<b>2022</b> Million KRW	2021 Million KRW
Net defined benefit liability (incl. in pension liability)	2,682	5,945
Korean	–	–
Swiss	2,658	5,907
Indian	24	38
Net defined benefit asset (incl. in other non-current assets)	30,622	6,017
Korean	30,622	6,017

The Group has three defined benefit pension plans: one pension plan in Korea, one in Switzerland and one in India.

The following tables summarize the components of net benefit expense recognized in the consolidated statements of comprehensive income and the funded status and amounts recognized in the consolidated statement of financial position for the respective plans.

## 21.1 DEFINED BENEFIT OBLIGATION

Changes in the defined benefit obligation:

	<b>Korean plan</b> Million KRW	<b>Swiss plan</b> Million KRW	<b>Indian plan</b> Million KRW	<b>Total</b> Million KRW
Defined benefit obligation as of January 1, 2021	77,982	42,764	251	120,997
Pension cost charged to profit or loss				
Service costs	5,637	1,987	27	7,651
Interest costs	2,321	67	17	2,405
<i>Sub-total included in profit or loss</i>	<i>7,958</i>	<i>2,054</i>	<i>44</i>	<i>10,056</i>
Benefits paid	-5,903	-8,229	-32	-14,164
Re-measurement gains / (losses) in OCI				
Actuarial changes arising from changes in demographic assumptions	–	-1,220	2	-1,218
Actuarial changes arising from changes in financial assumptions	-4,162	-865	29	-4,998
Experience adjustments	-1,097	-3,737	79	-4,755
<i>Sub-total included in OCI</i>	<i>-5,259</i>	<i>-5,822</i>	<i>110</i>	<i>-10,971</i>
Employee contributions	–	900	–	900
Exchange differences	–	2,118	20	2,138
Defined benefit obligation as of December 31, 2021	74,778	33,785	393	108,956
Pension cost charged to profit or loss				
Service costs	4,999	1,465	36	6,500
Interest costs	2,636	123	27	2,786
<i>Sub-total included in profit or loss</i>	<i>7,635</i>	<i>1,588</i>	<i>63</i>	<i>9,286</i>
Benefits paid	-2,699	2,053	-31	-677
Re-measurement gains / (losses) in OCI				
Actuarial changes arising from changes in demographic assumptions	24	–	–	24
Actuarial changes arising from changes in financial assumptions	-15,424	-7,549	-1	-22,974
Experience adjustments	1,335	711	-1	2,045
<i>Sub-total included in OCI</i>	<i>-14,065</i>	<i>-6,838</i>	<i>-2</i>	<i>-20,905</i>
Employee contributions	–	780	–	780
Exchange differences	–	1,707	-21	1,686
Defined benefit obligation as of December 31, 2022	65,649	33,075	402	99,126
Weighted average duration 2021 (years)	11.60	14.10	7.40	
Weighted average duration 2022 (years)	10.00	12.36	6.52	

## 21.2 PLAN ASSETS

Changes in the fair value of plan assets:

	<b>Korean plan</b> Million KRW	<b>Swiss plan</b> Million KRW	<b>Indian plan</b> Million KRW	<b>Total</b> Million KRW
Plan assets as of January 1, 2021	75,692	31,196	244	107,132
Pension cost charged to profit or loss				
Interest income	2,251	49	15	2,315
Administration expenses	-122	-16	–	-138
<i>Sub-total included in profit or loss</i>	<i>2,129</i>	<i>33</i>	<i>15</i>	<i>2,177</i>
Benefits paid	-6,187	-8,229	-32	-14,448
Re-measurement gains / (losses) in OCI				
Return on plan assets (excluding amounts included in interest expenses)	-839	1,433	3	597
<i>Sub-total included in OCI</i>	<i>-839</i>	<i>1,433</i>	<i>3</i>	<i>597</i>
Employer contributions	10,000	1,062	105	11,167
Employee contributions	–	900	–	900
Exchange differences	–	1,483	20	1,503
Plan assets as of December 31, 2021	80,795	27,878	355	109,028
Pension cost charged to profit or loss				
Interest income	2,845	103	23	2,971
Administration expenses	-194	-16	–	-210
<i>Sub-total included in profit or loss</i>	<i>2,651</i>	<i>87</i>	<i>23</i>	<i>2,761</i>
Benefits paid	-2,398	2,053	-31	-376
Re-measurement gains / (losses) in OCI				
Return on plan assets (excluding amounts included in interest expenses)	-2,441	-2,745	7	-5,179
<i>Sub-total included in OCI</i>	<i>-2,441</i>	<i>-2,745</i>	<i>7</i>	<i>-5,179</i>
Employer contributions	17,664	948	43	18,655
Employee contributions	–	780	–	780
Exchange differences	–	1,416	-19	1,397
Plan assets as of December 31, 2022	96,271	30,417	378	127,066

The Group expects to make a contribution in the following year at the amount comparable to the contribution made during the current reporting period, and the composition of plan assets as of December 31, 2022 and 2021 is as follows:

Structure of plan assets:	<b>Korean plan</b>		<b>Swiss plan</b>		<b>Indian plan</b>	
	<b>2022</b>	2021	<b>2022</b>	2021	<b>2022</b>	2021
Equity	–	–	31%	35%	–	–
Debt instruments	–	–	23%	25%	–	–
Real estate	–	–	28%	19%	–	–
Investment funds	98%	95%	–	–	100%	100%
Alternative investments	–	–	17%	20%	–	–
Cash and cash equivalents	2%	5%	1%	1%	–	–
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The category equity, debt instruments, real estate and alternative investments are quoted or daily traded with exception of cash and cash equivalents. With only a few exceptions, there is no active market for plan assets in investment funds.



## 21.3 NET PENSION LIABILITY / ASSET

Changes in the net defined benefit liability / asset are as follows:

	<b>Korean plan</b> Million KRW	<b>Swiss plan</b> Million KRW	<b>Indian plan</b> Million KRW	<b>Total</b> Million KRW
Net defined benefit liability as of January 1, 2021	-2,290	-11,568	-7	-13,865
Pension cost charged to profit or loss				
Service costs	-5,637	-1,987	-27	-7,651
Administration expenses	-122	-16	-	-138
Net interests	-70	-18	-2	-90
<i>Sub-total included in profit or loss</i>	<i>-5,829</i>	<i>-2,021</i>	<i>-29</i>	<i>-7,879</i>
Benefits received	-284	-	-	-284
Re-measurement gains / (losses) in OCI				
Actuarial changes arising from changes in demographic assumptions	-	1,220	-2	1,218
Actuarial changes arising from changes in financial assumptions	4,162	865	-29	4,998
Return on plan assets (excluding amounts included in interest expenses)	-839	1,433	3	597
Experience adjustments	1,097	3,737	-79	4,755
<i>Sub-total included in OCI</i>	<i>4,420</i>	<i>7,255</i>	<i>-107</i>	<i>11,568</i>
Employer contributions	10,000	1,062	105	11,167
Employee contributions	-	-	-	-
Exchange differences	-	-635	-	-635
Net defined benefit asset as of December 31, 2021	6,017	-	-	6,017
Net defined benefit liability as of December 31, 2021	-	-5,907	-38	-5,945
Pension cost charged to profit or loss				
Service costs	-4,999	-1,465	-36	-6,500
Administration expenses	-194	-16	-	-210
Net interests	209	-20	-4	185
<i>Sub-total included in profit or loss</i>	<i>-4,984</i>	<i>-1,501</i>	<i>-40</i>	<i>-6,525</i>
Benefits paid	301	-	-	301
Re-measurement gains / (losses) in OCI				
Actuarial changes arising from changes in demographic assumptions	-24	-	-	-24
Actuarial changes arising from changes in financial assumptions	15,424	7,549	1	22,974
Return on plan assets (excluding amounts included in interest expenses)	-2,441	-2,745	7	-5,179
Experience adjustments	-1,335	-711	1	-2,045
<i>Sub-total included in OCI</i>	<i>11,624</i>	<i>4,093</i>	<i>9</i>	<i>15,726</i>
Employer contributions	17,664	948	43	18,655
Employee contributions	-	-	-	-
Exchange differences	-	-291	2	-289
Net defined benefit asset as of December 31, 2022	30,622	-	-	30,622
Net defined benefit liability as of December 31, 2022	-	-2,658	-24	-2,682

The re-measurement gains recognized in the statements of other comprehensive income are gains of 12,567 Million KRW (2021: gains of 9,522 Million KRW), net of tax. The total amount as of December 31, 2022, of accumulated losses included in retained earnings is 4,368 Million KRW (2021: accumulated losses of 16,935 Million KRW), net of tax.

The principal assumptions used in determining pension benefit obligations for the Group's plans are shown below:

	Determining net benefit expense		Determining pension benefit obligation	
	2022	2021	2022 December 31	2021 December 31
<b>Discount rate</b>				
Korean plan	3.58%	3.05%	5.88%	3.58%
Swiss plan	2.30%	0.35%	2.30%	0.35%
Indian plan	7.45%	6.50%	7.45%	6.50%
<b>Future salary increases</b>				
Korean plan	3.75%	3.80%	3.78%	3.75%
Swiss plan	2.50%	1.75%	2.50%	1.75%
Indian plan	8.00%	7.00%	8.00%	7.00%

A quantitative sensitivity analysis for significant assumptions as of December 31, 2022, is as follows:

Discount rate	Sensitivity level		Impact on defined benefit obligation Million KRW
	Change		
Korean plan	+1.00%		5,201
	-1.00%		-6,094
Swiss plan	+0.25%		-991
	-0.25%		1,049
Indian plan	+1.00%		-16
	-1.00%		20
<b>Salary increase</b>			
Korean plan	+1.00%		-6,280
	-1.00%		5,434
Swiss plan	+0.25%		93
	-0.25%		-91
Indian plan	+1.00%		19
	-1.00%		-16

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period.

## 22. OTHER LONG-TERM EMPLOYEE-RELATED LIABILITIES

Other long-term employee-related liabilities consist of the following:

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Other long-term employee benefits – Korea	7,002	4,911
Other long-term employee benefits – Others	704	765
Share-based payment-related liability	1,355	2,868
<b>Total other long-term employee-related liabilities</b>	<b>9,061</b>	<b>8,544</b>

### 22.1 OTHER LONG-TERM EMPLOYEE BENEFITS – KOREA

The parent company implements a bonus plan designed to compensate employees with a prescribed quantity of gold and entitle compensated vacation to long-term service employees. Accounting policies of the bonus plan are mostly the same as that of the defined benefit plan, except that all the past service costs and actuarial variances are recognized immediately in profit or loss.

Description	Million KRW
As of January 1, 2021	4,630
Current service costs	468
Interest costs	131
Re-measurement losses	-58
Total payment	-260
As of December 31, 2021	4,911
Current service costs	474
Interest costs	164
Re-measurement gains	1,944
Total payment	-491
As of December 31, 2022	7,002

Description	2022	2021
	December 31	December 31
Discount rate	5.79%	3.46%
Compensation increase	2.00%	2.00%
Compensation per day for vacation	KRW 101,760 – 222,480	KRW 101,760 – 222,480
Rate of increase in gold price	6.90%	6.25%
Gold price per 3.75 grams	320,000	302,000

### 22.2 OTHER LONG-TERM EMPLOYEE BENEFITS – OTHERS

The remaining other long-term employee benefits refer to legally established termination benefits of subsidiaries located in United Arab Emirates of 581 Million KRW (as of December 31, 2021: 612 Million KRW) and expenses for the defined contribution plan of Songwon Specialty Chemicals India Pvt. Ltd. of 123 Million KRW (as of December 31, 2021: 153 Million KRW).

## 22.3 SHARE-BASED PAYMENT RELATED LIABILITY

On March 31, 2013, the Group granted virtual stock options to eligible employees of subsidiaries according to the Virtual Stock Option and Long-term Incentive Plan ("LTIP"). The virtual stock options granted are an entitlement of cash compensation, and are neither a stock option, nor any other listed or unlisted security and do not grant any right to physically acquire stocks. Settlement of options exercised is in cash only. When the virtual stock option is exercised, the Group shall pay to the holder the greater of the difference between the fair market value at the exercise date (the listed stock price of Songwon Industrial Co., Ltd.) minus the strike price or nil (zero). The virtual stock options, granted under the LTIP, are subject to a vesting period of two to four years during which the holder of the options must be continuously employed by the Group.

The fair value of options, granted as of December 31, 2022 and 2021, was estimated using the following assumptions:

Description	2022	2021
Dividend yield	0.87%	0.70%
Expected volatility	45.00%	45.00%
Risk-free interest rate	2.26%	1.70%
Weighted average expected life of share options (years)	2.84	3.2
Model used	Binomial tree	Binomial tree

The carrying amount of the liability relating to the LTIP on December 31, 2022 amounts to 1,355 Million KRW (December 31, 2021: 2,868 Million KRW) and the corresponding number of share options vested as of December 31, 2022 and 2021 is 125,001 and 188,126, respectively.

The decrease of the LTIP liability led to a negative expense (income) for employee services received during the year 2022, recognized in the statements of comprehensive income, which amounts to 452 Million KRW (2021: expense of 1,255 Million KRW). There were no cancellations and modifications to the awards during the years 2022 and 2021.

### Movements during the year

The following table illustrates the number and weighted average exercise prices (WAEP) of, and movements in, share options during the reporting period:

Description	2022		2021	
	Number	KRW	Number	KRW
Outstanding as of January 1	471,089	17,552	551,676	17,468
Granted during the year	101,625	21,450	109,513	15,950
Forfeited during the year	-40,800	20,256	-102,350	19,492
Exercised during the year	-124,850	15,516	-87,750	12,763
Outstanding as of December 31	407,064	18,879	471,089	17,552
Exercisable as of December 31	125,001	20,605	188,126	17,334

The weighted average of remaining contractual life for the share options, outstanding as of December 31, 2022, was 3.0 years (December 31, 2021: 4.0 years). The weighted average fair value of options granted during the reporting period was 4,244 KRW (2021: 9,732 KRW).

The exercise price for options outstanding at the end of the reporting period ranges from 8,120 KRW – 27,000 KRW (2021: 8,120 KRW – 27,000 KRW).

## 23. OTHER FINANCIAL LIABILITIES

Other financial liabilities as of December 31, 2022 and 2021, are as follows:

Description	Non-current Million KRW	2022 December 31		2021 December 31	
		Current Million KRW	Non-current Million KRW	Current Million KRW	Non-current Million KRW
Derivative liabilities (note 25)	–	–	–	–	249
Deposits	1	–	1	–	–
Accrued interest expenses	–	554	–	–	440
<b>Total</b>	<b>1</b>	<b>554</b>	<b>1</b>	<b>–</b>	<b>689</b>

## 24. TRADE AND OTHER PAYABLES

Description	2022 December 31		2021 December 31	
	Million KRW	Million KRW	Million KRW	Million KRW
Trade payables	78,386	–	116,139	–
Trade payables (related parties)	1,361	–	1,145	–
Other accounts payables	28,744	–	30,636	–
Other accounts payables (related parties)	7	–	7	–
Withholdings	1,835	–	1,501	–
Accrued expenses	28,904	–	23,826	–
Guarantee deposits	38	–	12	–
<b>Total</b>	<b>139,275</b>	<b>–</b>	<b>173,266</b>	<b>–</b>

Trade and other payables do not bear interest and usually become due within 30-60 days.

## 25. ADDITIONAL INFORMATION ON FINANCIAL INSTRUMENTS

### 25.1 DERIVATIVES FINANCIAL INSTRUMENTS

Description	2022		2021	
	December 31		December 31	
	Assets	Liabilities	Assets	Liabilities
	Million KRW		Million KRW	
Forward exchange contracts (current portion)	624	–	25	38
Interest rate swaps (current portion)	–	–	–	33
Currency and interest rate swaps (current portion)	1,225	–	–	178
Currency and interest rate swaps (non-current portion)	2,293	–	505	–
<b>Total</b>	<b>4,142</b>	<b>–</b>	<b>530</b>	<b>249</b>

#### 25.1.1 FORWARD EXCHANGE CONTRACTS

Details of forward exchange contracts which the Group entered into with financial institutions in order to hedge the risk of foreign exchange rate fluctuation of assets denominated in foreign currencies as of December 31, 2022 and 2021 are as follows:

##### 2022

December 31

Contractual party	Position	Contract amount	Maturity dates	Contractual exchange rate (KRW)
Citibank Korea	sell	JPY 1,608,000,000	31.01.2023~30.06.2023	10.7500
Citibank Korea	sell	EUR 15,660,000	31.01.2023~30.06.2023	1,425.00~1,467.00
Woori Bank	sell	EUR 15,660,000	31.01.2023~30.06.2023	1,425.40~1,467.80

##### 2021

December 31

Contractual party	Position	Contract amount	Maturity dates	Contractual exchange rate (KRW)
Citibank Korea	sell	JPY 264,000,000	28.01.2022~30.06.2022	10.8210
Citibank Korea	sell	EUR 7,200,000	28.01.2022~30.06.2022	1,371.00~1,383.50
Woori Bank	sell	JPY 264,000,000	28.01.2022~30.06.2022	10.6210
Woori Bank	sell	EUR 10,800,000	28.01.2022~30.06.2022	1,365.00~1,378.00

## 25.1.2 CURRENCY AND INTEREST RATE SWAPS

The Group is exposed to exchange rate and interest rate risks due to the corporate bond issuance in the form of a floating rate note (refer to note 19). To hedge these risks, the Group has entered into the following currency and interest rate swaps (CRS) as of December 31, 2022 and 2021 are as follows:

2022 December 31					
Contractual party	Target	Contract amount	Interest exchange condition	Contract date	Maturity date
Hongkong Woori Investment	Corporate bond (foreign currency FRN)	Receipt: 24,500 TUSD	3M Libor +0.8%	17.09.2021	13.09.2024
		Payment: 28,643 MKRW	Fixed 1.96%		

2021 December 31					
Contractual party	Target	Contract amount	Interest exchange condition	Contract date	Maturity date
Hongkong Woori Investment	Corporate bond (foreign currency FRN)	Receipt: 24,500 TUSD	3M Libor +0.8%	17.09.2021	13.09.2024
		Payment: 28,643 MKRW	Fixed 1.96%		

## 25.1.3 INTEREST RATE SWAPS

As of December 31, 2022, the Group has not entered into additional interest rate swap contracts to hedge the risk in floating interest rate.

Due to the repayment of hedged long-term interest-bearing loans and borrowings in December 2022, the Group discontinued hedge accounting and terminated the interest rate swap. The termination resulted in a recycling of accumulated net losses of 25 Million KRW from OCI to P&L.

As of December 31, 2021 the Group has entered into the following interest rate swap contract to hedge the risk in floating interest rate:

2021 December 31		
Description	Interest rate swap contract	
Contract date	17.12.2021	
Maturity date	19.12.2022	
Contract amount	10,000 Million KRW	
Fixed interest rate	3.62%	
Floating interest rate	3MCD+1.72%	

Due to the early repayment of the hedged long-term interest-bearing loans and borrowings in September 2021, the Group discontinued hedge accounting and terminated the existing interest rate swaps. The termination of the interest rate swaps resulted in a recycling of accumulated net losses of 527 Million KRW from OCI to P&L and a gain on derivative transactions of 58 Million KRW.

## 25.2 FAIR VALUES

Set out below is a comparison by class of the carrying amounts and fair value of the Group's financial instruments that are carried in the financial statements.

		2022		Carrying amount		Fair value	
		December 31		Non-current	Current	Non-current	Current
Financial assets	Description	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
		Financial assets at amortized cost					
	Other financial assets	1,890	2,237	1,890	2,237		
	Trade and other receivables	–	177,174	–	177,174		
	Cash and cash equivalents	–	104,760	–	104,760		
	<i>Total financial assets at amortized cost</i>	<i>1,890</i>	<i>284,171</i>	<i>1,890</i>	<i>284,171</i>		
	Financial assets at FVtPL						
	Forward exchange contracts	–	624	–	624		
	Currency and interest rate swaps	2,293	1,225	2,293	1,225		
	Other financial assets	11,847	2,591	11,847	2,591		
	<i>Total financial assets at FVtPL</i>	<i>14,140</i>	<i>4,440</i>	<i>14,140</i>	<i>4,440</i>		
	<b>Total financial assets</b>	<b>16,030</b>	<b>288,611</b>	<b>16,030</b>	<b>288,611</b>		
	Financial liabilities at amortized cost						
Financial liabilities	Other financial liabilities	1	554	1	554		
	Lease liabilities	14,564	2,334	14,564	2,334		
	Trade and other payables	–	139,275	–	139,275		
	Interest-bearing loans and borrowings	65,745	208,070	65,745	208,070		
	<i>Total financial liabilities at amortized cost</i>	<i>80,310</i>	<i>350,233</i>	<i>80,310</i>	<i>350,233</i>		
	<b>Total financial liabilities</b>	<b>80,310</b>	<b>350,233</b>	<b>80,310</b>	<b>350,233</b>		



2021  
December 31

Description	Carrying amount		Fair value	
	Non-current Million KRW	Current Million KRW	Non-current Million KRW	Current Million KRW
Financial assets at amortized cost				
Other financial assets	1,931	1,120	1,931	1,120
Trade and other receivables	–	179,720	–	179,720
Cash and cash equivalents	–	97,744	–	97,744
<b>Total financial assets at amortized cost</b>	<b>1,931</b>	<b>278,584</b>	<b>1,931</b>	<b>278,584</b>
Financial assets at FVOCI				
Other financial assets	102	–	102	–
<b>Total financial assets at FVOCI</b>	<b>102</b>	<b>–</b>	<b>102</b>	<b>–</b>
Financial assets at FVtPL				
Forward exchange contracts	–	25	–	25
Currency and interest rate swaps	505	–	505	–
Other financial assets	9,530	–	9,530	–
<b>Total financial assets at FVtPL</b>	<b>10,035</b>	<b>25</b>	<b>10,035</b>	<b>25</b>
<b>Total financial assets</b>	<b>12,068</b>	<b>278,609</b>	<b>12,068</b>	<b>278,609</b>
Financial liabilities at amortized cost				
Other financial liabilities	1	440	1	440
Lease liabilities	15,454	2,480	15,454	2,480
Trade and other payables	–	173,266	–	173,266
Interest-bearing loans and borrowings	60,502	235,311	60,502	235,311
<b>Total financial liabilities at amortized cost</b>	<b>75,957</b>	<b>411,497</b>	<b>75,957</b>	<b>411,497</b>
Financial liabilities at FVOCI				
Interest rate swaps	–	33	–	33
<b>Total financial liabilities at FVOCI</b>	<b>–</b>	<b>33</b>	<b>–</b>	<b>33</b>
Financial liabilities at FVtPL				
Forward exchange contracts	–	38	–	38
Currency and interest rate swaps	–	178	–	178
<b>Total financial liabilities at FVtPL</b>	<b>–</b>	<b>216</b>	<b>–</b>	<b>216</b>
<b>Total financial liabilities</b>	<b>75,957</b>	<b>411,746</b>	<b>75,957</b>	<b>411,746</b>

The fair value of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

The following methods and assumptions were used to estimate the fair values:

- cash and cash equivalents, trade and other receivables, trade payables and other current liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments;
- fair value of financial assets at FVOCI and financial assets at FVtPL are derived from quoted market prices in active markets, if available;
- fair value of unquoted financial assets at FVOCI and financial assets at FVtPL are estimated using appropriate valuation techniques (refer to note 25.2.1).

## 25.2.1 FAIR VALUE HIERARCHY

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Description	Valuation technique
Level 1	Quoted (unadjusted) prices in active markets for identical assets or liabilities
Level 2	Other techniques for which all inputs which have a significant effect on the recorded fair value are observable either directly or indirectly
Level 3	Techniques which use inputs that have a significant effect on the recorded fair value that are not based on observable market data

As of December 31, 2022 and 2021, the Group held the following financial instruments carried at fair value on the statements of financial position:

		December 31, 2022	Level 1	Level 2	Level 3
		Million KRW	Million KRW	Million KRW	Million KRW
<b>Financial assets</b>	Derivatives				
	Forward exchange contracts	624	–	624	–
	Currency and interest rate swaps	3,518	–	3,518	–
	<i>Total derivatives</i>	<i>4,142</i>	<i>–</i>	<i>4,142</i>	<i>–</i>
	Debt instruments				
	Exchange traded fund at FVtPL	14,438	–	14,438	–
	<i>Total debt instruments</i>	<i>14,438</i>	<i>–</i>	<i>14,438</i>	<i>–</i>
	<i>Total financial assets</i>	<i>18,580</i>	<i>–</i>	<i>18,580</i>	<i>–</i>

		December 31, 2021	Level 1	Level 2	Level 3
		Million KRW	Million KRW	Million KRW	Million KRW
<b>Financial assets</b>	Derivatives				
	Forward exchange contracts	25	–	25	–
	Currency and interest rate swaps	505	–	505	–
	<i>Total derivatives</i>	<i>530</i>	<i>–</i>	<i>530</i>	<i>–</i>
	Debt instruments				
	Exchange traded fund at FVtPL	9,530	–	9,530	–
	<i>Total debt instruments</i>	<i>9,530</i>	<i>–</i>	<i>9,530</i>	<i>–</i>
	Equity instruments				
	Equity instruments at FVOCI	102	–	–	102
	<i>Total equity instruments</i>	<i>102</i>	<i>–</i>	<i>–</i>	<i>102</i>
<b>Total financial assets</b>	<b>10,162</b>	<b>–</b>	<b>10,060</b>	<b>102</b>	
<b>Financial liabilities</b>	Derivatives				
	Forward exchange contracts	38	–	38	–
	Interest rate swaps	33	–	33	–
	Currency and interest rate swaps	178	–	178	–
	<i>Total derivatives</i>	<i>249</i>	<i>–</i>	<i>249</i>	<i>–</i>
	<b>Total financial liabilities</b>	<b>249</b>	<b>–</b>	<b>249</b>	<b>–</b>

During the reporting periods ended December 31, 2022 and 2021, there were no transfers between Level 1 and Level 2 fair value measurements. For the financial assets and financial liabilities for which the fair values are disclosed (refer to note 25.2) the carrying amounts are reasonable approximations of fair values and are measured using Level 3 measurement methods, except for cash and cash equivalents.

### 25.3 FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial liabilities comprise loans and borrowings, trade and other payables, and other financial liabilities. The main purpose of these financial liabilities is to finance the Group's operations. The Group has trade accounts and other accounts receivables, cash and cash equivalents and other financial assets that arrive directly from its operations. The Group also holds financial instruments at FVOCI and financial instruments at FVtPL and enters into derivative transactions and applies hedge accounting for cash flow hedges if applicable.

The Group is exposed to market, credit and liquidity risks. The Group's management oversees the management of these risks through appropriate risk assessment and monitoring activities to minimize their effects.

### 25.3.1 MARKET RISK

Market risk refers to the risk that a financial instrument's fair value or future cash flows will fluctuate because of changes in market prices. Market prices comprise two types of risk:

- interest rate risk; and,
- foreign currency risk.

Financial instruments affected by market risk include loans and borrowings, deposits, financial instruments at FVOCI, financial instruments at FVtPL and derivative financial instruments. The sensitivity analyses in the following sections relate to the position as of December 31, 2022 and 2021.

#### Interest rate risk

Interest rate risk refers to the risk that a financial instrument's fair value or future cash flows will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's interest-bearing loans and borrowings as well as bank deposits with floating interest rates.

The Group's exposure to the risk of changes in market interest rates relates substantially to the Group's interest-bearing loans and borrowings with floating interest rates, which exposes the Group to cash flows risk. In response, the Group is minimizing the risk partially through a currency and interest rate swap contract or choosing the most favorable financing instruments by switching to the loans with more favorable conditions or improving the Group's credit rating.

#### Interest rate sensitivity

The following table demonstrates the sensitivity to a reasonably possible change in interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's interest-bearing loans and borrowings as well as bank deposits with floating interest rates. With all other variables held constant, the Group's profit before tax is affected through the impact on floating rate borrowings as follows:

	<b>Increase / (decrease)</b>	<b>Effect on profit before tax</b>
	in %	Million KRW
December 31, <b>2022</b>	1.00	-1,067
	-1.00	1,067
December 31, 2021	1.00	-1,013
	-1.00	1,013

#### Foreign currency risk

The Group's exposure to the risk of changes in foreign exchange rates relates primarily to the Group's operating activities. The risk of foreign exchange primarily relates to US Dollar (USD), Euro (EUR), Japanese Yen (JPY), Swiss Franc (CHF), United Arab Emirates Dirham (AED) and to the Indian Rupee (INR).

Foreign exchange risks arise when commercial transactions, recognized assets or liabilities are denominated in a currency that is not the entity's functional currency.

The objective of the management of foreign currency risk is to maximize the value of the firm through minimizing the fluctuation of net profit and uncertainty arising from the fluctuation in foreign currency. To accomplish this, the Group uses a strategy to accord the collection terms of receivables and payment terms of payables denominated in USD considering the similar volume of exports and imports. In regard to EUR and JPY, the Group manages the risk through currency forward contracts.

## Foreign currency sensitivity

The Group carries out a sensitivity analysis for the dominant foreign currencies: US Dollar (USD), Euro (EUR), Japanese Yen (JPY), Swiss Franc (CHF), United Arab Emirates Dirham (AED) and the Indian Rupee (INR). The assumed possible currency fluctuations are based on historical observations and future prognoses. The financial instruments are incorporated into calculations. The following table demonstrates the sensitivity of consolidated net profit before tax to a reasonably possible shift in exchange rates related to financial instruments held in the balance sheet. Assuming that all the other variables are constant and only the foreign exchange rate changes by 10%, the impacts on net profit for the years ended on December 31, 2022 and 2021, are as follows:

Currency	2022 December 31		2021 December 31	
	10% increase Million KRW	10% decrease Million KRW	10% increase Million KRW	10% decrease Million KRW
USD	6,566	-6,566	2,380	-2,380
EUR	1,007	-1,007	1,418	-1,418
JPY	4,451	-4,451	2,783	-2,783
CHF	278	-278	272	-272
AED	-202	202	-225	225
INR	131	-131	209	-209
Total	12,231	-12,231	6,837	-6,837

The Group's exposure to foreign currency changes for all other currencies is not material.

### 25.3.2 CREDIT RISK

Credit risk is the risk that the counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily for trade and other receivables) and investing activities.

The Group maintains a policy to keep trade relationship only with the customers with high credit rating assessed by credit assessment, considering their financial position, past experience of defaults and other indicators of default. If the credit rating of a customer worsens, the Group sets an individual credit limit on that customer and intensively manages its credit risk. In addition, the Group minimizes the credit risk by maintaining the exposure to the credit risk at an insignificant level through ongoing management including periodical reviews of all the customers. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets disclosed in note 25.2.

The Group is also exposed to the credit risk with regard to bank deposits, as well as cash and cash equivalents in which the maximum exposure to credit risk at the reporting date is the carrying value. The exposure to the related credit risk, however, is relatively restricted because the Group maintains relationships with the financial institutions with high credit ratings.

### 25.3.3 LIQUIDITY RISK

Liquidity risk is the risk that the Group will encounter difficulty in meeting obligations associated with financial liabilities due to the unfavorable economy of the industry or financial markets.

The Group manages its liquidity risk through its own strategy and plans which consider the maturity of financial instruments and expected operating cash flows and include the policy to map out the maturity of financial assets and liabilities.

In addition, the Group maintains credit facilities with the banks including overdraft to respond to an unexpected shortage in liquidity. In response to expansion of the business, the Group manages funding schedules and ongoing review procedures, considering the appropriate mix of long-term and short-term loans and borrowings, to maintain the consistency and flexibility in obtaining liquidity and stable financing.

The details of maturity profile of the Group's financial liabilities and lease liabilities, excluding financial derivative instruments, based on contractual undiscounted payments as of December 31, 2022 and 2021, are as follows:

	<b>Less than a month</b>	<b>1 to 3 months</b>	<b>3 to 12 months</b>	<b>1 to 5 years</b>	<b>&gt; 5 years</b>	<b>Total</b>
<b>2022</b>	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
December 31						
Interest-bearing loans and borrowings	19,327	124,209	64,534	65,745	–	273,815
Trade and other payables	109,868	22,072	7,335	–	–	139,275
Lease liabilities	278	563	2,022	7,655	9,311	19,829
Other financial liabilities	486	42	26	1	–	555
<b>Total</b>	<b>129,959</b>	<b>146,886</b>	<b>73,917</b>	<b>73,401</b>	<b>9,311</b>	<b>433,474</b>

	<b>Less than a month</b>	<b>1 to 3 months</b>	<b>3 to 12 months</b>	<b>1 to 5 years</b>	<b>&gt; 5 years</b>	<b>Total</b>
<b>2021</b>	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW	Million KRW
December 31						
Interest-bearing loans and borrowings	23,834	33,581	177,896	60,502	–	295,813
Trade and other payables	146,162	26,776	328	–	–	173,266
Lease liabilities	269	545	2,211	7,899	10,206	21,130
Other financial liabilities	320	96	24	1	–	441
<b>Total</b>	<b>170,585</b>	<b>60,998</b>	<b>180,459</b>	<b>68,402</b>	<b>10,206</b>	<b>490,650</b>

### 25.3.4 CAPITAL MANAGEMENT

The capital managed by the Group is identical to the total amount of equity presented in the consolidated statements of financial position. The primary objective of the Group's capital management is to ensure its continued ability to provide consistency for its equity shareholders through a combination of capital growth and distribution. In order to achieve this objective, the Group monitors its gearing to balance risk and returns at an acceptable level, and also maintains a sufficient funding base to enable the company to meet its working capital and strategic investment needs. To maintain or adjust the capital structure, the company may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares considering not only the short-term position, but also its long-term operational and strategic objectives. At Group level the debt ratio is reviewed regularly. The debt-equity ratio as of December 31, 2022 and 2021, is 78% and 105%, respectively.

On a monthly basis, all subsidiaries have to report key performance indicators, which also include capital management information.

## 26. COMMITMENTS AND CONTINGENCIES

### 26.1 CONTINGENT LIABILITIES

There are no current proceedings of lawsuits, claims, investigations and negotiations in relation to the product liability, mercantile law, environmental protection, health and safety etc., which could have a significant impact on the business operations and on the Group's consolidated financial position or income. Contingent liabilities in the Group are related to tax appeals of 224 Million KRW (2021: 235 Million KRW) and a customer complaint concerning the quality of a SONGWON product. The assessed damage was valued at 157 Million KRW (2021: 808 Million KRW). Further investigations are being carried. However, it was considered improbable in the fiscal year under review that there would be an outflow of economic resources relating to the contingent liability.

### 26.2 OTHER LEASE COMMITMENTS

The Group has entered into short-term and low-value leases on certain buildings, vehicles, furniture and fixtures. The lease periods for low-value leases are below 5 years. There are no restrictions placed upon the Group by entering into these leases. Future minimum short-term and low-value lease payments as of December 31, 2022 and 2021 are as follows:

Description	2022	2021
	December 31 Million KRW	December 31 Million KRW
Short-term lease commitments		
Within one year	-2	-6
<i>Total short-term lease commitments</i>	<i>-2</i>	<i>-6</i>
Low-value lease commitments		
Within one year	-66	-70
After one year but not more than five years	-61	-121
<i>Total low-value lease commitments</i>	<i>-127</i>	<i>-191</i>
<b>Total</b>	<b>-129</b>	<b>-197</b>

### 26.3 OTHER COMMITMENTS

As part of the ordinary business activities, the Group enters into various contractual commitments for the purchase of inventories, property, plant and equipment, intangible assets and investment properties. As of December 31, 2022, the Group entered into commitments to purchase property, plant and equipment, as well as raw materials amounting to 11,444 Million KRW (December 31, 2021: 18,765 Million KRW).

Details of the Group's available short-term credit line facilities (excluding general loans) as of December 31, 2022, are as follows:

Description	Currency	Credit limit	Used	Unused
USANCE and L/C for import	Thousand USD	22,000	6,036	15,964
D/A and D/P	Thousand USD	103,000	47,531	55,469
	Million KRW	12,000	8,203	3,797
Secured loan of credit sales	Million KRW	9,000	8,724	276
Other foreign currency guarantees	Thousand USD	8,750	913	7,837
Bond issuance payment guarantee	Million KRW	26,000	26,000	–
	Thousand USD	24,990	24,990	–
<b>Total Million KRW</b>		<b>47,000</b>	<b>42,927</b>	<b>4,073</b>
<b>Total Thousand USD</b>		<b>158,740</b>	<b>79,470</b>	<b>79,270</b>

## 27. ASSETS PLEDGED AS COLLATERAL AND GUARANTEES

Details of property, plant and equipment and investment property pledged by the Group as collateral for interest-bearing loans and borrowings as of December 31, 2022 and 2021, presented in the maximum pledge amount, are as follows:

Pledged to	Pledged assets		2022	2021
			December 31	December 31
<i>Property, plant and equipment</i>				
<i>(Joint collateral in connection with long-term loan)</i>				
Busan Bank	Land, buildings and machinery	Million KRW	30,000	30,000
Kyongnam Bank	Land, buildings and machinery	Million KRW	18,000	18,000
<i>Property, plant and equipment and investment property</i>				
<i>(Collateral for other than long-term loan)</i>				
Woori Bank	Land, buildings and machinery	Million KRW	120,000	120,000
Hana Bank	Land, buildings and machinery	Million KRW	80,400	60,000
Korea Development Bank	Land, buildings, investment properties and machinery	Million KRW	96,600	57,000
Busan Bank	Land, buildings and machinery	Thousand USD	24,000	24,000
Total		Million KRW	345,000	285,000
		Thousand USD	24,000	24,000

No other items of property, plant and equipment are pledged as collateral for interest-bearing loans and borrowings as of December 31, 2022 and 2021.

Due to the full released payment guarantees by Korean banks in the first quarter 2021, there were no activities in financial year ended December 31, 2022.

### Payment guarantee to Seoul insurance company

In the financial year ended December 31, 2022, the Group possesses payment guarantees to Seoul guarantee insurance company for government subsidy return guarantee of 71,5 Million KRW as well as deposit guarantee for approval of development activity and urban planning facility business of 49,6 Million KRW.



## 28. OPERATING PROFIT AND OTHER INCOME / EXPENSES

### 28.1 RESEARCH AND DEVELOPMENT EXPENSE

Research and development expenses of 6,284 Million KRW (2021: 7,375 Million KRW) are recorded in the consolidated statements of comprehensive income. Development expenses are not capitalized because the conditions for capitalization have not been met.

### 28.2 SELLING AND ADMINISTRATION EXPENSES

Description	2022	2021
	Million KRW	(restated)* Million KRW
Sales-related costs	-45,559	-45,303
Personnel expenses	-49,270	-52,253
Travelling and entertainment	-4,416	-2,348
Depreciation and amortization	-2,356	-2,369
Administration expenses	-9,294	-10,135
IT expenses	-3,547	-3,036
Others	-2,062	-1,032
<b>Total</b>	<b>-116,504</b>	<b>116,476</b>

\*Refer to note 2.21 for further details

### 28.3 OTHER INCOME

Description	2022	2021
	Million KRW	Million KRW
Fee income	72	120
Income resulting from government grants received	1,454	911
Gains on disposal of property, plant and equipment	6	269
Gains on disposal of intangible assets	-	2,196
R&D sales income	860	843
Rental income	15	17
Miscellaneous income	1,426	1,682
<b>Total</b>	<b>3,833</b>	<b>6,038</b>

## 28.4 OTHER EXPENSES

Description	2022	2021
	Million KRW	Million KRW
Miscellaneous expenses	-701	-1,882
Losses on disposal of property, plant and equipment	-1,437	-2,058
Impairment of tangible assets	-918	-1,042
Impairment of right-of-use asset	–	-1,454
Impairment of inventory	–	-749
Impairment of other non-current assets	–	-48
Impairment of intangible assets	-391	–
<b>Total</b>	<b>-3,447</b>	<b>-7,233</b>

## 28.5 EXPENSES CLASSIFIED BY NATURE

Description	2022	2021 (restated)*
	Million KRW	Million KRW
Purchased material	-818,604	-555,695
Freight and logistic costs	-43,186	-65,871
Energy costs	-53,741	-43,612
Personnel expenses	-130,702	-128,288
Depreciation and amortization	-33,524	-35,138
Other expenses	-68,083	-71,105
<b>Total</b>	<b>-1,147,840</b>	<b>-889,709</b>
Thereof recorded in cost of sales	-1,027,889	-776,000
Thereof recorded in selling and administration costs	-116,504	-116,476
Thereof recorded in other expenses	-3,447	-7,233
<b>Total</b>	<b>-1,147,840</b>	<b>-889,709</b>

\*Refer to note 2.21 for further details

## 28.6 FINANCE INCOME

Description	2022	2021
	Million KRW	Million KRW
Gains on foreign exchange transactions	33,915	14,491
Gains on foreign exchange translations	23,564	11,397
Gains on derivative transactions	1,688	1,364
Gains on valuation of derivatives	3,816	352
Gain on valuation of financial assets FVtPL	189	–
Interest on loans and receivables	635	259
<b>Total finance income</b>	<b>63,807</b>	<b>27,863</b>

## 28.7 FINANCE EXPENSES

Description	2022	2021
	Million KRW	Million KRW
Interest on borrowings	-8,773	-5,874
<b>Total interest expenses</b>	<b>-8,773</b>	<b>-5,874</b>
Losses on foreign exchange transactions	-32,084	-13,145
Losses on foreign exchange translations	-28,649	-12,338
Losses on derivative transactions	-337	-689
Losses on valuation of derivatives	-	-38
Loss on disposal of financial assets FVtPL	-67	-
Loss on valuation of financial assets FVtPL	-31	-
Bank charges	-288	-217
<b>Total finance expenses</b>	<b>-70,229</b>	<b>-32,301</b>

## 28.8 NET GAINS AND LOSSES OF FINANCIAL INSTRUMENT CLASSES

Description	2022	2021
	Million KRW	Million KRW
Financial assets at amortized cost	7,549	6,907
Financial assets at FVOCI	-63	929
Financial assets at FVtPL	5,258	1,027
Financial liabilities at amortized cost	-18,941	-12,117
Financial liabilities at FVtPL	-	-38
<b>Total net gains and losses of the classes of financial instruments</b>	<b>-6,197</b>	<b>-3,292</b>

Net gains / (losses) of financial instruments recognized in the consolidated statement of comprehensive income

Finance expense*	-69,941	-32,084
Finance income	63,807	27,863
<b>Total</b>	<b>-6,134</b>	<b>-4,221</b>

Net gains / (losses) of financial instruments recognized in the consolidated statement of other comprehensive income

Financial assets at FVOCI	-63	929
<b>Total</b>	<b>-63</b>	<b>929</b>
<b>Total</b>	<b>-6,197</b>	<b>-3,292</b>

\* Excluding bank charges

## 29. INCOME TAX EXPENSES

The major components of income tax expense in the statements of comprehensive income are as follows:

### 29.1 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Description	2022	2021
	Million KRW	Million KRW
Current income tax charge	-53,921	-33,685
Adjustments in respect of current income tax of previous year	963	1,113
Deferred income taxes related to changes of temporary differences, net	5,605	4,013
Deferred income taxes related to tax loss carry forwards	-195	96
Deferred income taxes related to changes in tax rate	-4,773	-3,836
Deferred income taxes recognized directly in other comprehensive income	3,153	2,324
<b>Income tax expenses</b>	<b>-49,168</b>	<b>-29,975</b>

Description	2022	2021
	Million KRW	Million KRW
Accounting profit before income taxes	181,100	101,184
At parent company's statutory income tax rate of 23.93% (2021: 23.65%)	-43,330	-23,929

*(Increase) / decrease in income tax expenses resulting from:*

Adjustments in respect of current income tax of previous years	963	1,113
Non-temporary differences	-576	-487
Tax credits	603	274
Non-deductible expenses / (non-taxable income)	-46	-29
Effect of different tax rates in tax jurisdiction	-6,890	-6,888
Others	108	-29
<b>At the effective income tax rate 27.15% (2021: 29.62%)</b>	<b>-49,168</b>	<b>-29,975</b>

## 29.2 DEFERRED TAX

Deferred tax relates to the following:

Description	Consolidated statements of financial position		Consolidated statements of comprehensive income	
	2022	2021	2022	2021
	December 31 Million KRW	December 31 Million KRW	December 31 Million KRW	December 31 Million KRW
Net pension obligation	-2,585	864	-290	1,304
Other long-term employment benefits	1,666	1,400	266	135
Trade receivables	145	176	-31	24
Inventories	4,113	2,237	1,876	528
Fixed assets	-8,853	-9,488	635	332
Gain on revaluation of land	-26,159	-27,396	1,237	78
Other non-current financial assets	-267	-279	12	-54
Other current financial assets	361	227	120	98
Other current assets	826	1,186	-360	281
Other non-current financial liabilities	-39	-101	62	69
Current lease liabilities	282	294	-12	54
Other current financial liabilities	1,194	546	648	-170
Other current liabilities	74	210	-136	15
Intangible assets	3	60	-57	-90
Loss on interest swaps	-	8	-	-
Loss available for offsetting against future taxable income	-	195	-195	96
Investments in subsidiaries	-337	-274	-63	-180
Translation difference	-	-	78	77
Deferred tax income			3,790	2,597
Net deferred tax liabilities	-29,576	-30,135		

Reflected in the statements of financial positions as follows:

Deferred tax assets	8,585	7,387
Deferred tax liabilities	-38,161	-37,522

The Group offsets tax assets and liabilities if, and only if, it has a legally enforceable right to do so, and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same tax authority.

Reconciliation of deferred tax liabilities, net:

Description	2022	2021
	Million KRW	Million KRW
Opening balance as of January 1	-30,135	-30,331
Deferred tax recognized in statements of comprehensive income	3,790	2,597
Deferred tax recognized in other comprehensive income (note 18.4)	-3,153	-2,324
Translation differences	-78	-77
Closing balance as of December 31	-29,576	-30,135

Expecting sufficient taxable income, the Group recognized deferred income tax assets to the extent of future taxable income. For the following deductible temporary differences, no deferred tax assets as of December 31, 2022 and 2021, were recognized.

Description	2022	2021
	Million KRW	Million KRW
Temporary differences related to investments in subsidiaries	8,655	7,979
Total	8,655	7,979

As of December 31, 2022, the Group consumed recognized tax loss carry forwards and tax credit carry forwards.

Expected timing of expiration of recognized tax loss carry forwards and tax credit carry forwards, as of December 31, 2021, was as follows:

2021 December 31	Recognized deferred tax assets	
	Tax loss carry forwards Million KRW	Tax credit carry forwards Million KRW
less 1 year	–	–
1-5 years	–	–
5 years and later	195	–
Total	195	–

## 30. EARNINGS PER SHARE

Basic earnings per share are calculated by dividing net profit for the year attributable to ordinary equity holders of the parent company by the average number of ordinary shares outstanding during the year. There is no difference between basic and diluted earnings per share in 2022 and 2021, as no securities with dilutive features have been issued as of the end of the reporting periods.

The following reflects the income and share data used in the basic per share computations:

Description	2022	2021
	KRW	KRW
Net profit attributable to ordinary equity holders of the parent	131,931,556,030	72,272,884,671
Weighted average number of ordinary shares	24,000,000	24,000,000
Earnings per share (basic / diluted)	5,497	3,011



## 31. CASH FLOW STATEMENT

Cash and cash equivalents in the consolidated statements of cash flows are equal to those in the consolidated statements of financial position.

The Group's consolidated statement of cash flows is prepared using the indirect method. The adjustments to the net profit for the period of the non-cash and non-operating items and changes in operating assets and liabilities for the years ended December 31, 2022 and 2021, are as follows:

Description	Notes	2022	2021
		Million KRW	Million KRW
<b>Adjustments</b>			
Depreciation of property, plant and equipment	7	29,211	30,354
Depreciation of right-of-use assets	8	2,714	2,676
Depreciation of investment properties	9	10	15
Amortization of intangible assets	10	800	614
Impairment of tangible assets	7	918	1,042
Impairment of right-of-use assets	8	–	1,454
Impairment of intangible assets	10	391	–
Impairment of non-current financial assets		–	9
Impairment of other non-current assets		–	48
Impairment of inventories	14	1,777	749
Losses on disposals of property, plant and equipment, net	7	1,431	1,788
Gain on disposal of intangible assets, net	28.3	–	-2,196
Share of result from investments accounted using the equity method	12	-2,020	-1,103
Share-based compensation expenses	22.3	-452	1,255
Pension costs	21.3	6,525	7,879
Other long-term employee benefits expenses	22.1, 22.2	2,521	635
Finance income		-11,645	-7,270
Finance expenses		21,122	13,441
Income tax expenses	29.1	49,168	29,975
<b>Total</b>		<b>102,471</b>	<b>81,365</b>

Description	2022	2021
	Million KRW	Million KRW
<b>Changes in operating assets and liabilities</b>		
Trade receivables	-5,306	-52,508
Other receivables	-573	147
Other current assets	445	-4,309
Other current financial assets	-1,815	10
Inventories	-40,728	-141,262
Trade payables	-35,853	43,597
Other payables	147	9,406
Other current financial liabilities	3,566	-178
Other current liabilities	1,711	1,371
Pension liabilities	-18,751	-10,617
Other long-term employee benefits	-1,625	-942
<b>Total</b>	<b>-98,782</b>	<b>-155,285</b>



Changes in liabilities arising from financing activities for the years ended December 31, 2022 and 2021, are as follows:

	<b>Current interest-bearing loans and borrowings</b>	<b>Non-current interest-bearing loans and borrowings</b>	<b>Other financial liabilities</b>
	Million KRW	Million KRW	Million KRW
As of January 1, 2021	158,940	59,647	3,461
Cash flows	79,579	-2,121	-1,242
Foreign exchange movement	-906	674	-1,468
Net losses on valuation of financial liabilities	-	-	-61
Reclassification	-2,302	2,302	-
As of December 31, 2021	235,311	60,502	690
Cash flows	-21,309	-	94
Foreign exchange movement	-689	-	-229
Reclassification	-5,243	5,243	-
As of December 31, 2022	208,070	65,745	555

## 32. RELATED PARTY DISCLOSURES

The companies listed below have been identified as related parties:

Company name	Location	Relation with the Group	Remarks
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	China	Joint Venture	Jointly controlled by Songwon Group Holding AG
Songwon Moolsan Co., Ltd.	Korea	Other (refer to note 32.5)	A company that has significant influence on the Group
Kyungshin Industrial Co., Ltd.	Korea	Other (refer to note 32.5)	A subsidiary of Songwon Moolsan Co., Ltd.

The following table provides the total amount of transactions that have been entered into with related parties for the relevant financial years and balances as per year-end:

Related party	Description	2022	2021
		Million KRW	Million KRW
Songwon Moolsan Co., Ltd.	Selling and administration costs	-80	-79
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	Sales	64	-
	Cost of sales	-28,826	-16,728
Total	Sales	64	-
	Cost of sales	-28,826	-16,728
	Selling and administration costs	-80	-79

Related party	Description	2022	2021
		December 31 Million KRW	December 31 Million KRW
Songwon Moolsan Co., Ltd.	Other non-current financial assets	33	33
	Trade and other payables	7	7
Songwon Baifu Chemicals (Tangshan) Co., Ltd.	Trade and other receivables	63	-
	Trade and other payables	1,361	1,145
Total	Other non-current financial assets	33	33
	Trade and other receivables	63	-
	Trade and other payables	1,368	1,152

## 32.1 THE ULTIMATE PARENT

Songwon Industrial Co., Ltd. is the ultimate parent based and listed in Korea.

## 32.2 TERMS AND CONDITIONS OF TRANSACTIONS WITH RELATED PARTIES

Outstanding balances of related parties at the year-end are unsecured, interest free and settlement occurs in cash. There have been no guarantees provided or received for any related party receivables or payables. For the year ended December 31, 2022, the Group has not recorded any impairment of receivables relating to amounts owed by related parties (December 31, 2021: none). This assessment is undertaken periodically by examining the financial position of the related party and the market in which the related party operates.

## 32.3 TRANSACTIONS WITH KEY MANAGEMENT PERSONNEL

During the financial year 2022, no other transactions with key management personnel than those disclosed in 32.4 took place.

## 32.4 COMPENSATION OF KEY MANAGEMENT PERSONNEL OF THE GROUP

Description	2022	2021
	Million KRW	Million KRW
Short-term employee benefits	13,930	9,934
Post-employment benefits	534	777
Other long-term benefits	1,218	540
Share based payments	-100	297
Termination benefits	–	528
Total compensation paid to key management personnel	15,582	12,076

The amounts disclosed in the table are the amounts recognized as an expense during the reporting period related to key management personnel. Key management personnel are those persons with authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of that entity.

## 32.5 OTHER RELATED PARTIES

Other related parties are Songwon Moolsan Co., Ltd. (Korea) which has significant influence on the Group due to the interest held in the share capital of the parent company of 23.88%. Further, the subsidiary of Songwon Moolsan Co., Ltd., Kyungshin Industrial Co., Ltd., which holds interest in the share capital of the parent company of 9.15%, is identified as a related party of the Group.

### 33. IMPACT OF GLOBAL ECONOMIC SITUATION ON CONSOLIDATED FINANCIAL STATEMENTS

The Group closely monitors the global situation and assesses the future impact of the COVID-19 pandemic as well as the Russian-Ukrainian conflict on the consolidated financial statements on a regular basis. For the financial year 2022, the following assessments were performed, amongst others:

#### INDICATION OF IMPAIRMENT ON PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

The Group assessed whether there were any internal and external indicators of impairment of property, plant and equipment and intangible assets. For the year ended December 31, 2022 no impairment of property, plant and equipment and intangible assets has been recognized (2021: no impairment) due to the COVID-19 outbreak or related to the Russian-Ukrainian conflict.

#### EXPECTED CREDIT LOSS (ECL) OF TRADE RECEIVABLES AND FINANCIAL ASSETS

In order to determine the impact of the global economic situation on the ECL model in accordance with KIFRS 1109, the Group reassessed past events, current conditions and forecasts of future economic conditions. As of December 31, 2022, the Group identified the changes in risk indicators considering the nature of risk such as geographical location of debtors which has been reflected in the ECL model for the recognition of allowance on expected credit risks. Such parameter adjustments resulted in a decrease in the allowance on ECL by 64 Million KRW in the consolidated financial statements as of December 31, 2022.

#### GOVERNMENT GRANTS RECEIVED

For the year ended December 31, 2022, the Company received government grants of 1,454 Million KRW to assist the entity in response to the COVID-19 pandemic, impacting the current economic situation.

### 34. EVENTS AFTER THE REPORTING PERIOD

The consolidated financial statements for the year ended December 31, 2022, were approved by the Board of Directors of the parent company on January 27, 2023.

There have been no material events between December 31, 2022 and the date of authorization for issue of these financial statements that would require adjustments of the consolidated financial statements or disclosure.

## 35. GLOBAL MINIMUM TAX

The Organization for Economic Cooperation and Development (OECD)/G20 inclusive Framework on Base Erosion and Profit Shifting (BEPS) addresses the tax challenges arising from the digitalization of the global economy. Global Minimum Tax (Pillar Two) was released and is applicable to Multinational Enterprises (MNEs) with revenue in excess of EUR 750 Million per their consolidated financial statements.

National Assembly of South Korea passed into law new Global Minimum Tax rules to align with the OECD BEPS Pillar Two in December 2022. The regulation will be included in the Adjustment of International Taxes Act and will be effective for fiscal years beginning on or after 1 January 2024. However, the Enforcement Decrees that provide further details on the application of the legislation are only expected to be finalized later in 2023.

In South Korea, Pillar Two legislation is not yet considered substantively enacted as of December 31, 2022, for IAS 12 purposes. The Group, therefore, has not recognized any tax effect arising from the Global Minimum Tax in its consolidated financial statements as of December 31, 2022, and for the year then ended.



# SONGWON's Memberships

## **ALIA**

Asian Lubricants Industry Association  
[www.asianlubricants.org](http://www.asianlubricants.org)

## **ATC**

Additive Technical Committee  
[www.atc-europe.org](http://www.atc-europe.org)

## **CEFIC**

European Chemical Industry Council  
[www.cefic.org](http://www.cefic.org)

## **CEPAD**

The European Alkylphenols and  
Derivatives Association  
<http://cepad.cefic.org>

## **ELISANA**

European Light Stabilisers and  
Antioxidants Association  
<https://elisana.cefic.org>

## **EPCA**

European Petrochemical Association  
[www.epca.eu](http://www.epca.eu)

## **FCA**

CEFIC Food Contact Additives Group  
<http://fca.cefic.org>

## **GPCA**

Gulf Petrochemicals and Chemicals Association  
[www.gpca.org.ae](http://www.gpca.org.ae)

## **ILMA**

Independent Lubricant Manufacturers  
Association  
[www.ilma.org](http://www.ilma.org)

## **JHOSPA**

Japan Hygienic Olefin and  
Styrene Plastics Association  
[www.jhospa.gr.jp](http://www.jhospa.gr.jp)

## **JHPA**

Japan Hygienic PVC Association  
[www.jhpa.jp](http://www.jhpa.jp)

## **KCMA**

Korea Chemicals Management Association  
[www.kcma.or.kr](http://www.kcma.or.kr)

## **KEEA**

Korean Electric Engineers Association  
[www.keea.or.kr](http://www.keea.or.kr)

## **KEEF**

Korea Environmental Engineers Association  
[www.keef.or.kr](http://www.keef.or.kr)

## **KFSI**

Korea Fire Safety Institute  
[www.kfsi.or.kr](http://www.kfsi.or.kr)

## **KISA**

Korea Industrial Safety Association  
[www.safety.or.kr](http://www.safety.or.kr)

## **KITA**

Korea International Trade Association  
[www.kita.net](http://www.kita.net)

## **KLCA**

Korea Listed Companies Association  
[www.klca.or.kr](http://www.klca.or.kr)

## **KOEAA**

Korea Energy Engineers Association  
[www.koeaa.or.kr](http://www.koeaa.or.kr)

## **KSCIA**

Korea Specialty Chemical Industry Association  
[www.kscia.or.kr](http://www.kscia.or.kr)

## **LiSAO – REACH Consortium**

[www.reachcentrum.eu](http://www.reachcentrum.eu)

## **NLGI**

National Lubricating Grease Institute  
[www.nlgi.org](http://www.nlgi.org)

## **OrganoTin REACH Consortium**

[www.reachcentrum.eu](http://www.reachcentrum.eu)

## **PCEP**

Polyolefin Circular Economy Platform  
<https://pcep.eu>

## **SPE**

Society of Plastics Engineers  
[www.4spe.org](http://www.4spe.org)

## **STLE**

Society of Tribologists and  
Lubrication Engineers  
[www.stle.org](http://www.stle.org)

## **UEA**

Ulsan Environment Association  
[www.ulsanenv.or.kr](http://www.ulsanenv.or.kr)

# About this report

Publishing this comprehensive report each year and disclosing our operational, social and environmental and financial performance, reaffirms our commitment to providing our stakeholders with a transparent account of the challenges and opportunities facing SONGWON, our industry and the regions and communities across the world where we operate and do business.

This is SONGWON Industrial Group's 12th Annual Report. It contains a detailed overview of our economic, environmental and social performance in FY 2022 (January 1<sup>st</sup> to December 31<sup>st</sup>) and replaces the SONGWON Annual Report 2021, which was published in March 2022. Unless otherwise specified, the latest report includes updates to the previous report that reflect data through end-of-year 2022.

## Reporting scope

In this Annual Report, we share information on SONGWON management's approach, strategy, performance and the progress made in 2022 related to the Group's material topics. The material topics covered in the report focus on the key areas of corporate governance, economic, environment, labor practices, human rights, society and product responsibility.

The topics featured in this Annual Report were identified using a broad review and consultation process and reflect the concerns and views gathered throughout the year via direct and indirect engagement with all of SONGWON Industrial Group's stakeholders (among them, employees, customers, suppliers, partners and SONGWON's Senior Management etc.) Further information on the Group's materiality topics, the review and stakeholder engagement processes can be found on pages 56 and 76 of this year's report.

All the data which has been compiled for this report has been carefully measured according to industry standard measurement methods, unless stated otherwise. In 2022, there were no significant changes in the reporting period, scope, boundary or measurement methods which have been applied or included in the report.

The boundary for this report is defined by the structure of the SONGWON Industrial Group and the countries in which it operates, unless otherwise specifically stated. Any restatements regarding the content of previous reports have been disclosed separately.

## Reporting standards

This report has been prepared in accordance with the GRI Standards. The GRI Standards are the world's most widely used sustainability reporting standards and represent global reporting best practices for a range of economic, environmental, social and corporate governance topics.

For more information on the indicators that are relevant to SONGWON's business operations, see the GRI Content Index on pages 81-86.





## Forward-looking statements

SONGWON's Annual Report 2022 contains forward-looking statements concerning the future plans, strategies and performance of the SONGWON Group. Some of the statements contained in this report that are not historical facts are statements of future expectations and other forward-looking statements reflecting SONGWON Group management's views, assumptions and expectations available at the date of publication. Please be advised that these involve known and unknown risks and uncertainties which are difficult to predict and generally beyond our control, and could cause the actual results, financial situation, performance or events to differ materially from those expressed in, implied or projected by the forward-looking information and statements contained within this report.

These statements may be identified by words such as 'anticipate', 'assume', 'believe', 'could', 'expect', 'foresee', 'plan', 'shall', 'should', and other similar words or expressions used to identify forward-looking statements. Furthermore, any statement that refers to expectations, projections or other indications of future events or circumstances, including any underlying assumptions should also be considered forward-looking statements. SONGWON does not intend and does not assume any obligation to update or amend any industry information or forward-looking statements or forecasts presented in this report to reflect new information, subsequent events and developments or otherwise except as required by applicable law or stock exchange regulation.

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