



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 CO₂e-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% CO₂e-reduction goal from 2018 levels by 2030. Sustainability is about building a sustainable business for the future.

*27th UN Climate Change Conference

In 2022, SONGWON notably increased its efforts to significantly move the strategy and roadmap ahead. The CO₂e-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 CO₂e-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 ₂ -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 CO₂e-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?

Environment



Governance



How is SONGWON
acting responsibly?

Society



How is SONGWON
caring for Society?

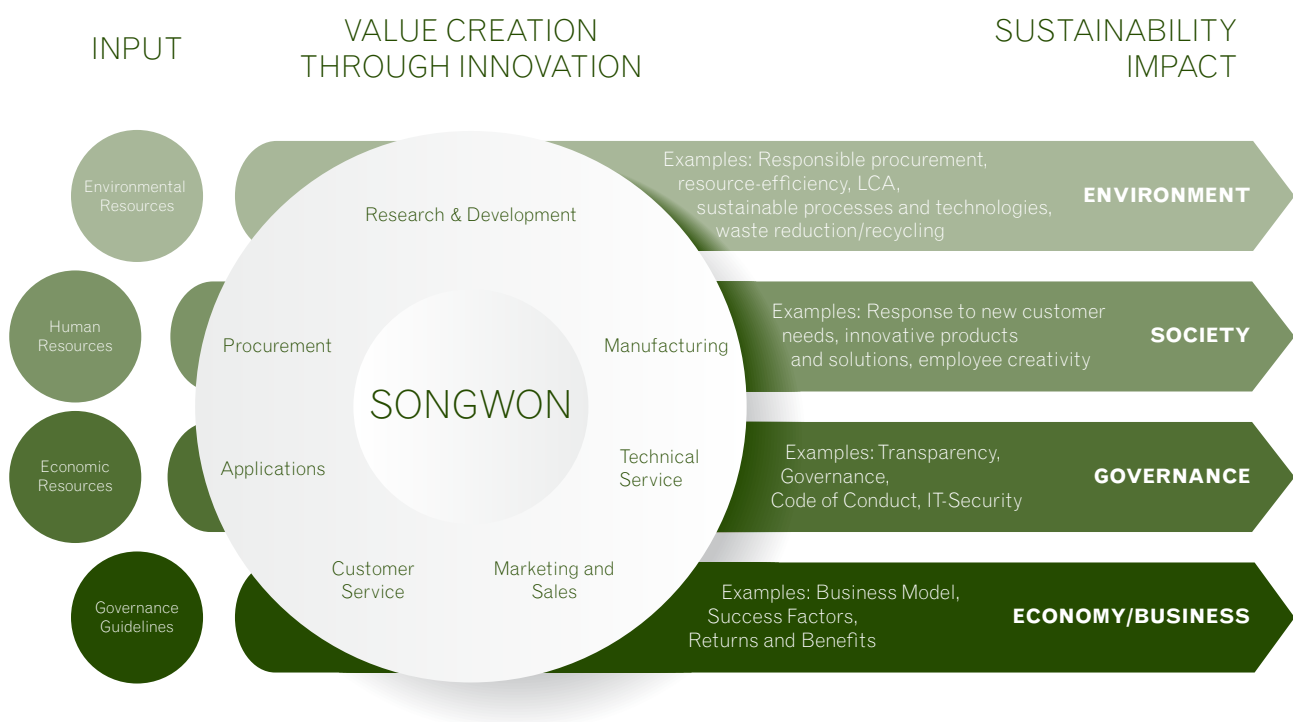
The integration of ESG in its reporting allows SONGWON to make the difference. It is not only about the inclusion of a core set of global metrics for NFI (non-financial information) in the mainstream reports,

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 2nd 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 2nd 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

(solvent-free polyurethane adhesive)

HI-THANE™ A-6200

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).

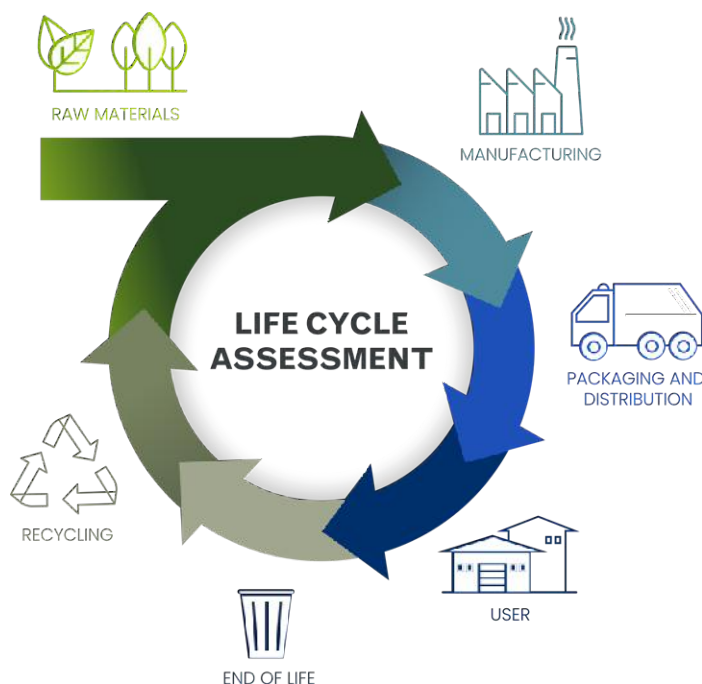
- + Proactive monitoring of customer requests.
- + Providing LCAs for the core products.
- + Developing a design and solutions for mechanical recycling, including key presentation at K2022.
- + Pushing education in the area of mechanical recycling.
- + Supporting product innovations, e. g., with bio-based 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:

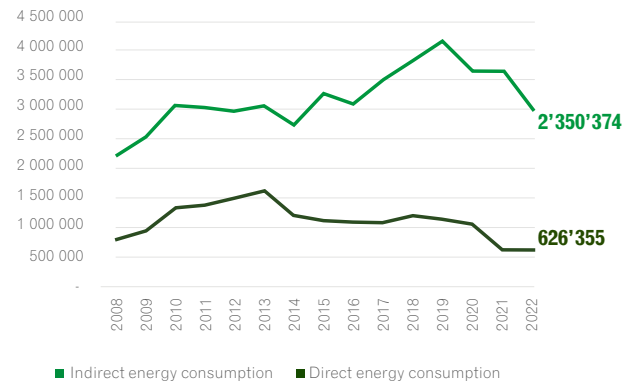
Scope of environmental data to be extended	The reporting scope includes all/the main manufacturing sites in Korea and India, for this report 2022 and the previous years.
	The environmental data collection will be extended company- resp. worldwide by 2023/24 (offices, OPS-sites etc.).
Disclosure by country	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%
Total Energy	GJ	3'850'544 (100.0%)	3'639'359 (100%)	2'976'729 (100.0%)	-18.2%

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%
Total Energy	GJ	2'795'072	181'657	2'976'729	93.9%

✓ 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.

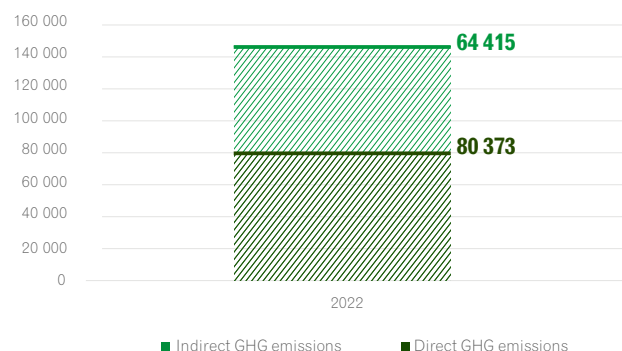
Panoli: The share of renewable energy continuously increases and reached approximately 65% in 2022 (2021: 61.42%). This was due in part to an important solar installation (> 4 million kWh) and the usage of carbon neutral agro-waste fuel for steam generation.

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 CO₂eq-data include the Scope 1 and Scope 2 emissions of Korea and India. The emissions intensity is 0.53 tCO₂e/mt.

Footprint 2022

Tot. 144'788 tCO₂-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 CO₂eq-emissions of the previous year.

Maeam: NO_x decreased by 18% and TSP by 24% compared to the previous year.

Panoli: In 2022, a reduction of 7'460 tCO₂-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_x, SO_x are controlled by using automated advanced technology reciprocating grate design of Steam Boiler. NO_x, SO_x 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 ₂ e	82'638 (54.2%)	92'533 54.7%	80'373 (55.2%)	-13.1 %
Scope 2: Indirect	tCO ₂ e	69'842 (45.8%)	76'512 45.3%	64'415 (44.8%)	-15.8 %
Total	tCO₂e	152'480 (100.0%)	169'045 (100.0%)	144'788 (100.0%)	-14.3 %

GHG	Unit	✓ 2022 Korea	2022 India	2022 Total	Share Korea
Scope 1: Direct	tCO ₂ e	79'230	1'143	80'373	98.6%
Scope 2: Indirect	tCO ₂ e	56'822	7'593	64'415	88.2%
Total	tCO₂e	136'052	8'736	144'788	94.0%

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

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

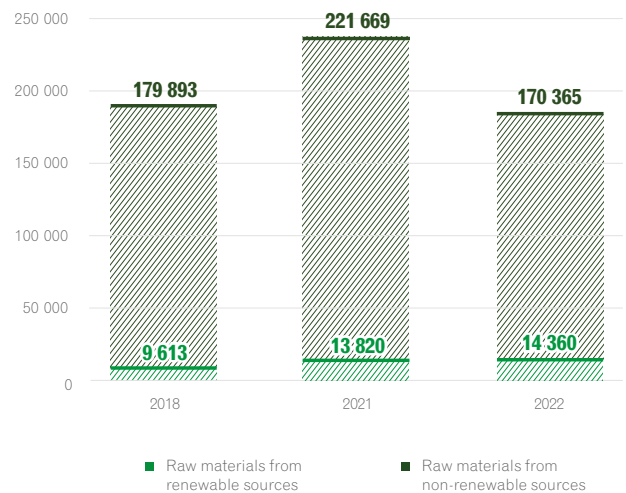
1) Restatement: The here disclosed Scope 1 and Scope 2 emissions data 2021 are in accordance with the by the Korean Government verified and confirmed data. The small adjustment of totally -0.6% (Total disclosed in the Annual Report 2021: 170'139 tCO₂e) is due to a different consideration of certain CO₂E-effects 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 ₂ -eq	32'775	39'467	39'589	0.3%
SOx	tCO ₂ -eq	53	33	27	-18.2%
TSP	tCO ₂ -eq	4'231	1'390	1'060	-23.7%
Total	tCO₂-eq	37'059	40'890	40'676	-0.52%

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%
Total	MT	189'506	235'489 (100%)	184'725 (100%)	-21.6%

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%
Total	Liters	1'158'828	1'301'985	1'271'227	-2.4%

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.

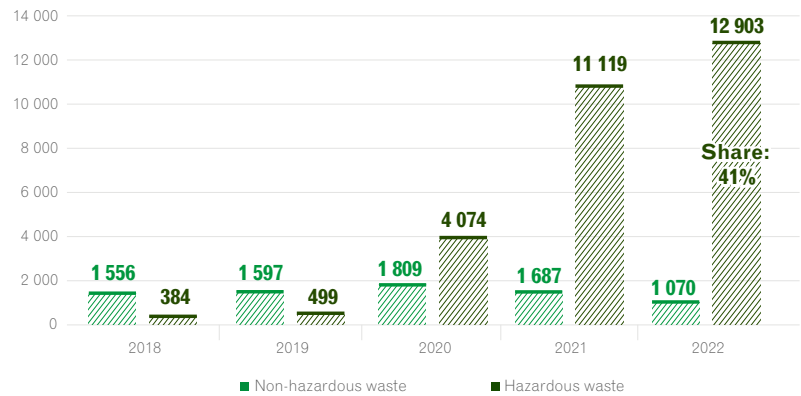
Ulsan, Maeam, Suwon: As the organic matter measurement index in effluent of the Water Environment Conservation Act was changed from COD to TOC, the TOC (Total Organic Carbon) index has been implemented in our control system. SONGWON complies with the TOC-limits and -law.

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%
Total	Tons	27'090	32'568	31'556	-3.1%

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%
Total	Tons	5'086	2'736	2'755	0.6%

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 CO₂ 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:

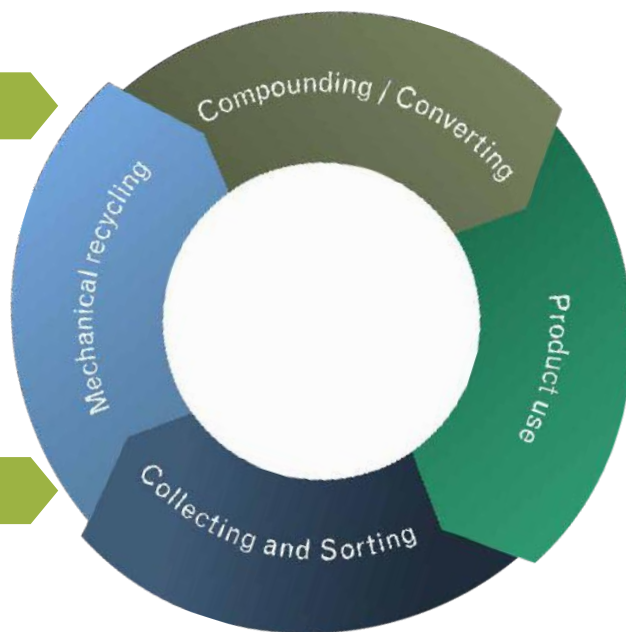
Additives allow further use of products or recycling without significant loss of initial properties.

Input 2:

SONGWON's contribution to mechanical recycling

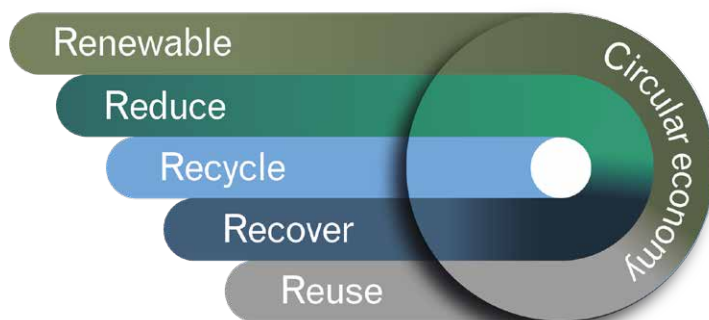
SONGWON's top-up approach enables mechanical recycling:

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 SONGWON'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

TCAR
0,000%

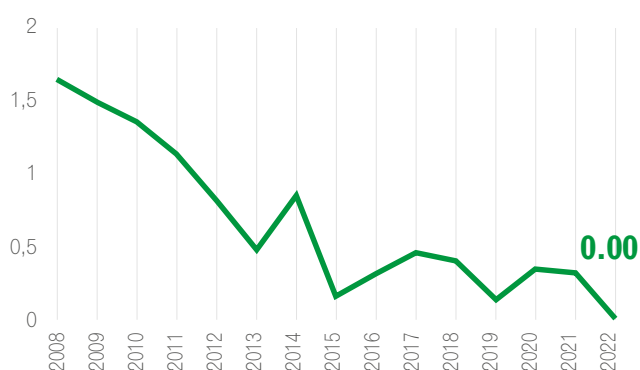
Providing safe and healthy work environments for all stakeholders is a priority. For this reason, this topic is not only classified as material, but we have also requested an independent review of the key performance indicator in 2022 (s. details below). In 2022, SONGWON reached a Total Case Accident 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 ¹	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 ¹	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

Ethics and integrity	No cases
Discrimination and harassment	No cases
Human rights	No cases
Bribery and corruption	No cases
Anti-competitive practice	No cases
Environmental laws/regulations	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"> • relevant impacts (economy, human rights, business) • strategic goals, qualitative and/or quantitative targets, policies • actions taken to achieve targets • tracking of action effectiveness, • engagement with / information of stakeholders

MATERIAL TOPICS

GRI Standards	Disclosure – Economy, Governance		Page	Comments, Omissions
Economic Performance				
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
Anti-corruption				
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.
Anti-competitive Behavior				
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
Materials				
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
Energy				
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	3-3	Management of material topic	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	3-3	Management of material topic	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	3-3	Management of material topic	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	3-3	Management of material topic	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	

Employment

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 72–74	
GRI 401: 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

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 72–74	
GRI 403: 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

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 75, 97	
GRI 405: 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
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Non-discrimination

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 77	Code of Conduct.
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	77	No cases.

Local Communities

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 52, 74	
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	52, 74	

Customer Health and Safety

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 45, 47, 71	
GRI 416: 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.

Marketing and Labeling

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 37, 42–45, 73	
GRI 417: 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.

Customer Privacy

GRI 3: Material Topics 2021	3-3	Management of material topic	56, 77	
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	77	No cases.

Appendix

Disclosure 302-1 Energy consumption within the Organization		
	2022 Total	✓ 2022 Korea
Direct Energy Sources (in GJ)	626'355	603'853
Indirect Energy Sources (in GJ)	2'350'374	2'191'219
Total (in GJ)	2'976'729	2'795'072
Total fuel consumption from non-renewable sources (GJ)	626'355	603'853
Total fuel consumption from renewable sources (GJ)	0	0
Total fuel consumption (GJ)	626'355	603'853
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
Total (in GJ)	2'350'375	2'191'219
I. electricity sold	0	0
II. heating sold	0	0
III. cooling sold	0	0
IV. steam sold	0	0
Total energy consumption within the organization (GJ)	2'976'729	2'795'072
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 ₂ 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 ₂ E emissions in metric tons of CO ₂ 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 ₂ e);	82'638	82'638 The scope of the independent limited assurance does not include the base year CO ₂ 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 ₂ 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 ₂ E, CH ₄ , N ₂ O, HFCs, PFCs, SF ₆ , NF ₃	CO ₂ e	CO ₂ 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 ₂ 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
For all workers who are not employees but whose work and/or workplace is controlled by the organization:		
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:	<p>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.</p>	
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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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

Selected Information		Consolidation and Reporting Boundary	Reported value
Environmental			
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 ₂ -eq)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	79'230
KPI 3	Scope 2: Indirect (tCO ₂ -eq)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	56'822
Social			
KPI 4	TCAR (Total Case Accident Rate), (%)	Includes all Korean manufacturing sites: Ulsan, Maeam, Suwon	0.000