SK Double Bottom Line Social Value

Measurement Guidebook

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Center for Social value Enhancement Studies

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Background

Why social value matters

Corporate social responsibility and the pursuit of social value creation

Traditionally, companies sought to generate as much economic value as possible by following two general business maxims: profit maximization and shareholder primacy. This emphasis on profitability was long seen as essential for survival and growth and required companies to generate the greatest possible returns relative to operational costs.

However, the 21st century ushered in a new era, with a growing emphasis on sustainability and the rise of the ESG (Environmental, Social, and Governance) framework. This shift is reflected in the landmark 2019 decision by the Business Roundtable, a prominent U.S. business association, to redefine a corporation as an entity serving the interests of all stakeholders. This represents a major transition for the group, which had historically endorsed the principles of shareholder primacy.

This change underscores a vital truth: the stakeholder landscape for companies is becoming increasingly complex. Stakeholders include not only shareholders and customers, but government entities, civic organizations, and the public at large. That is, the whole of society. Many stakeholders may not directly consume any one company's products or services but are nonetheless affected by that company's activities in some way through various impact pathways. And because of this, stakeholders are demanding greater social responsibility and accountability from companies.

* The term "social value" has no universally accepted definition. Within this guidebook, we use the term social value to refer to positive outcomes that enhance the public interest and contribute to community development, rather than those that exclusively maximize private gain.

Social value creation as a business strategy

In today's environment, corporations must confront a new reality: long-term survival requires not only generating economic value but also actively pursuing and creating social value. The concept of social value transcends philanthropy or public relations, however. A growing body of research suggests that creating economic and social value are not inherently conflicting goals – they can be pursued simultaneously. Studies have shown that sustainability and financial performance can be mutually reinforcing, with ESG factors acting as a driver of additional growth.

Leading companies are embracing this new reality. They are casting aside the old, passive methods of pursuing social and environmental responsibility and instead are actively integrating social value creation into their core business strategies. By doing so, they leverage social value as a competitive advantage.

SK Group: A commitment to social value

SK Group recognizes the importance of social value creation in today's dynamic business landscape, seeing it as a key element of a management strategy that nurtures innovation and fuels growth. This commitment reflects a groundbreaking transformation of the core objectives of SK's businesses, which now seek to balance the creation of both economic value for shareholders and customers with social value that responds to the needs of diverse stakeholders. This strategic shift is evident in the 13th revision (2016) of the SK Management System (SKMS), the SK Group's guiding philosophy and methodology. The revised SKMS explicitly acknowledges social value and embodies an aspiration to evolve into a responsible, mature firm that actively fulfills its social roles and responsibilities.

The need to measure social value

Traditional corporate accounting focuses on measuring corporate economic value. Accounting is a practice with a long history and widely-accepted standards. By comparison, measuring social value is a new practice, but companies, governments, and stakeholders across the globe are increasingly emphasizing the importance of accurately capturing and quantifying social value. This was made clear when the International Financial Reporting Standards (IFRS), Foundation — a global nonprofit that develops and publishes international accounting standards — established the International Sustainability Standards Board (ISSB) in 2021. The ISSB was founded to create a unified set of ESG reporting standards. By 2025, most countries are expected to require companies to disclose sustainability information based on these common standards. Similarly, South Korea established the Korea Sustainability Standards Board (KSSB) in December 2022 to align with international discussions on ESG disclosure and support domestic companies in their reporting efforts.

Informing investment: The demand for monetization

In addition, there has emerged a growing interest in using monetary value to measure corporate social performance and leverage this information to better manage corporation innovation activities. From a company's perspective, it is essential that stakeholders recognize the social impacts of corporate activities. Monetary measurement offers a compelling way to demonstrate that a company's activities generate value that exceeds their investment costs. In Korea, the public sector has long used cost-benefit analyses for this purpose, and internationally, the impact evaluation framework utilizes a similar methodology. A prominent example is the Social Return on Investment (SROI) framework developed by the Roberts Enterprise Development Fund (REDF). This framework helps companies assess social value creation relative to investment costs, informing optimal investment decisions.

Here it is important to also acknowledge that social value monetization is not without its critics. Some argue that expressing social value in monetary terms diminishes its inherent worth. Other critics have voiced concerns about the time and costs involved in the measurement process. The reality is that stakeholders may have diverse perspectives on how to measure performance, making it difficult to arrive at a single, universally accepted monetary value. Despite these challenges, the demand for monetization is likely to persist. Organizations in the capital market require tools to justify and guide investment decisions in initiatives that create social value. The SK Double Bottom Line Social Value Measurement Guidebook provides a framework that balances the need for robust measurement with a practical approach, acknowledging the inherent complexities involved.

The measurement of social value going forward

The late 2010s saw a heightened focus on the measurement of ESG performance. Leading companies around the world have actively embraced this trend. In Korea, more and more large corporations, public institutions, and financial firms are adopting social value monetization and publicly disclosing results. On the global stage, 2019 witnessed a significant development with the formation of the Value Balancing Alliance (VBA) by BASF (Germany) and SK Group. This collaborative effort, involving over 40 major companies, research organizations, and nonprofits, is working to establish a standardized methodology for measuring a company's social impact (Value-to-Society) in monetary terms.

Despite these advancements spearheaded by organizations at the vanguard of social value measurement, a broadly accepted methodology for social value monetization remains elusive. In the absence of standardized disclosure requirements, organizations employ a flexible approach to measuring social value, tailoring methodologies and data collection to match specific measurement objectives. However, it is crucial that firms avoid using self-serving metrics and instead prioritize the development and use of objective, externally credible measurement practices.

SK Group: A leader in social value measurement

Since 2018, SK Group has been a leader in social value measurement by implementing a monetization approach throughout its corporate network. Social value creation data for each SK affiliate is disclosed annually through media channels and sustainability reports. SK Group is also committed to transparency and knowledge sharing by publicly disclosing detailed measurement indicators. Furthermore, some SK affiliates are actively integrating social value measurement into their decision-making processes.

In the <SK Double Bottom Line Social Value Measurement Guidebook>, we share the principles, systems, methodologies, and practical applications that underpin our approach to social value measurement. By transparently disclosing our experiences in social value monetization, we aim to stimulate dialogue and foster collaboration within the wider social measurement community and contribute to the ongoing development and refinement of social value measurement practices.

02

Defining social value

Social issues and social values

The concept of social value can be approached from various perspectives. Two main viewpoints exist: the normative approach and the utilitarian approach. The normative perspective views social values as desirable standards that should guide human behavior. It emphasizes acknowledging and bridging significant gaps between reality as it is and these ideals to ensure that human beings live dignified lives. The utilitarian perspective, on the other hand, views the concept of social value through the lens of people's desires, needs, and overall well-being. It suggests that human needs can be effectively met primarily through the production of goods and services in a market system. However, the market inherently struggles to produce certain goods and services with residual value that are nonetheless essential to human prosperity. These include public goods such as clean air and water. These goods may only hold residual value, but nonetheless carry significant social value and stand in contrast to the purely economic value generated in the market.

SK's approach to value creation and the relative nature of social value

The SK DBL (Double Bottom Line) Social Value (SV) measurement framework adopts a specific operational definition of social value: the sum total of all social contributions a corporation makes toward solving social problems. Here, a social problem is defined as a structural issue causing hardship for a specific group or population within a given society. These problems are systemic and incapable of being tackled or otherwise mitigated by the efforts of lone individuals working independently.

SK's commitment to the creation of social value involves more than a passive acknowledgement of the need for social responsibility. Rather, SK Group leverages its strengths in efficiency and innovation to actively tackle social challenges. Yet, it is important to recognize that social value can be dependent on chronological and spatial context. That is to say: it is relative. But many core social values are grounded in universal human norms. Examples include the principles enshrined in the United Nations (UN) Universal Declaration of Human Rights and the Sustainable Development Goals (SDGs).

To help account for the unique characteristics of each country and era, it is possible to examine the social values espoused by a nation's laws and policies. The SK DBL SV measurement framework utilizes these and other criteria to comprehensively assess whether a company's social performance contributes to the creation of genuine social value.

Figure 1. Criteria for assessing social value

International

SDGs (Sustainable Development Goals)

Domestic (Korea)

Basic constitutional rights

Right	Description
Equality	Equality before the law, equal opportunity
Freedom	Freedom from unlawful state interference
Society	The right to work, the right to a decent life, the right to an education, and the right to a clean environment
Petition	The right to petition the government
Suffrage	The right to political participation

Key elements of the SK DBL(Double Bottom Line)

Traditionally, businesses have marshaled their resources to maximize Economic Value (EV), That is, they have focused on the on a single bottom line — profits — often to the exclusion of social value and other considerations. But SK has adopted a new approach to creating value, which it calls the DBL. The DBL system underscores SK's commitment to a more holistic and sustainable business model.

Within the SK DBL SV measurement measurement system, EV is seen to include both financial performance, or the basic economic outcomes of corporate activities, as well as indirect economic contributions, which represent the broader economic benefits generated for the whole of society. On the other hand, SV is also composed of two distinct components: the social performance of business activities and the performance of social contributions. The former focuses on the positive social impacts arising from a corporation's primary business operations, while the latter refers to the social value created through dedicated outreach activities.

The international community has long recognized the contributions of companies to prosperity and human development — which typically take the forms of economic growth and employment — as socially important. For this reason, the SK DBL SV measurement system also recognizes a company's indirect economic contributions as a kind of social value.

Furthermore, as the business community began to adopt ESG management practices in earnest, in 2021 the SK DBL SV measurement system was revised to consider four types of performance and enhance stakeholder understanding by aligning with broader corporate trends. These types are: the aforementioned indirect economic contributions, social performance, environmental performance, and governance performance.

For reference, see Annex I on page 22 (Evolution of the SK DBL SV Measurement System).

II

SV measurement: Theoretical framework

01

Principles

The following material is an outline of SK's core approach to DBL SV monetization measurement. The DBL SV measurement method offers an objective, robust suite of techniques for measuring the monetary value of social impacts.

1. Measure all quantifiable social value generated in the process of corporate activity

SK advocates for the measurement of all quantifiable social value generated through corporate activities. This includes social value generated at every stage of the value chain, such as research and product development, production, and sales, as well as in specific and targeted corporate social outreach initiatives. Moreover, all social value generated should be measured regardless of intent; any and all social impacts resulting from corporate activity are to be measured. Such a comprehensive approach to SV measurement promotes the generation of social value across all business operations.

2. Utilize metrics that best measure actual impacts

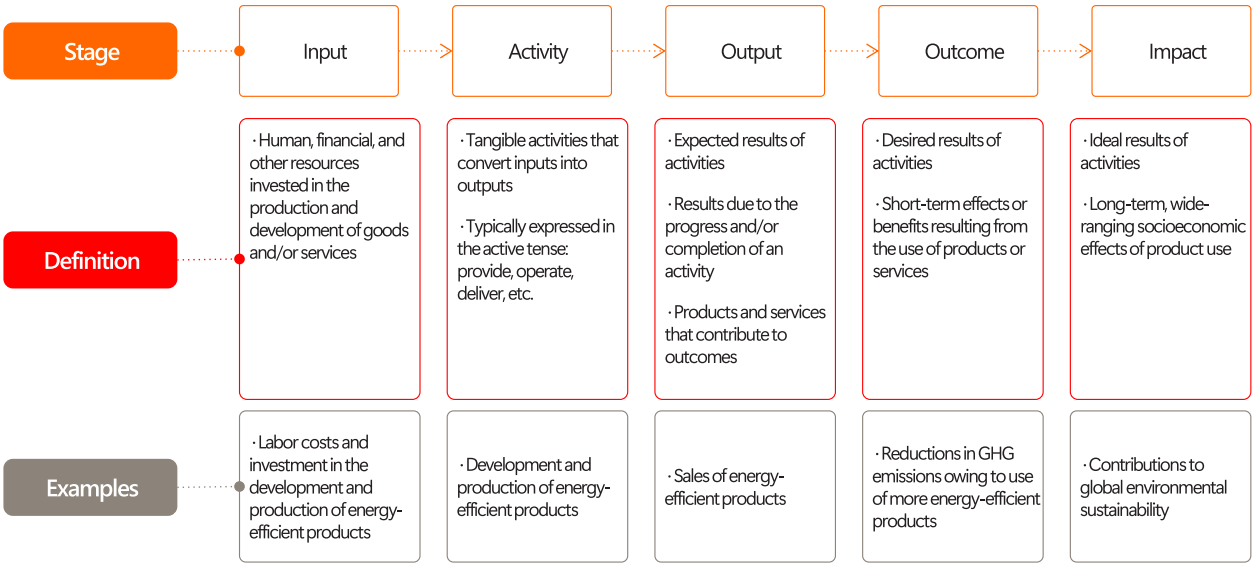
The SK DBL SV measurement system prioritizes quantifying the real-world social impacts of corporate activities. It aims to assess positive changes in beneficiaries' lives thanks to a company's commitment to social value creation. To understand how social problems are addressed and social performance is achieved, the SK DBL SV measurement framework utilizes the impact pathway* concept. However, measuring long-term impacts can be challenging due to the complex interplay of various factors that contribute to social outcomes. Attributing specific impacts to corporate activities is especially difficult over longer time frames. For this reason, the SK DBL SV measurement system emphasizes the measurement of outcomes. Typically, these are observable short-term changes that come about as a result of corporate initiatives.

* The impact pathway framework provides a systematic approach to analyzing the SV creation process by dividing it into five stages: 1) input, the resources and efforts invested to perform an activity, 2) activities, the specific activities of a corporation, 3) output, the tangible results or products generated by activities, 4) outcomes, the change(s) enjoyed by beneficiaries as a result of the output and 5) impacts, the positive societal change(s) achieved through corporate activity. Identifying the causal relationship between each stage is crucial, as it is necessary to establish how each stage contributes to overall impacts. Doing so also helps to illuminate potential gaps or weaknesses in the intervention.

The SK DBL SV measurement system acknowledges the inherent difficulties of quantifying the social value of certain kinds of outcomes, particularly those associated with a corporation's products, services, and activities. It also acknowledges that some social outcomes, even though demonstrably real (i.e., the "results" of corporate activities), can be challenging to directly quantify or translate into a monetary value. In such cases, alternative measures can be employed. These are quantifiable metrics that indirectly reflect the social change(s) a company is striving to achieve. For example, if a company aims to improve access to education, the number of scholarships awarded could serve as an alternative measure of these corporate efforts.

However, the use of alternative measures should be limited to situations where doing so is unavoidable, such as when securing sufficient data to directly measure the outcome is difficult. In the meantime, caution is necessary to avoid double-counting when employing different methodologies or techniques when measuring the same social impact.

Figure 2. SV measurement scenario: The impact pathway of energy-efficient products



3. Apply objective, conservative standards in measurement and monetary valuation

The SK DBL SV measurement system assigns a monetary value to social impacts in a process known as monetization. This requires a meticulous approach grounded in objectivity and conservatism. Valid, reliable data and consistent valuation methods are crucial throughout the process.

For instance, when monetizing the impact of a company's greenhouse gas emissions, the system utilizes the established Social Cost of Carbon (SCC*), a benchmark employed by many leading global companies. This ensures consistency and facilitates external recognition of the valuation's legitimacy. Similarly, market pricing data serves as a baseline for valuing various products and services.

Other measurement principles

- Benefits and costs are measured from a stakeholder-centric perspective
  - Drawing on the principles of stakeholder accounting, both the benefits *and* costs accruing to stakeholders as a result of any and all corporate activity are considered. The net social value created by a corporation is determined by subtracting the total value of costs from the total value of benefits.
- Social performance is measured on an accrual basis
  - The SK DBL SV measurement system measures social value generation on an accrual basis for each fiscal year. In simpler terms, the monetary value of social impacts created within a calendar year (January 1st to December 31st) is captured.
- All utilized data are subject to the legal and institutional standards of the source country/region
- Only performance above legally-obligated minimums is measured
  - Where legal or institutional mandates on social value generation exist, the SK DBL SV measurement system measures only the value generated in excess of statutory minimums

*The social impact of one unit of GHG emissions is calculated as a cost

Investment, interest, and measurement considerations*

While the business activities of unitary, large corporations are normally the targets of social value measurement, the SK DBL SV measurement system can be extended to consider social value created through investment activities. Specifically, when assessing the performance of an investor, or investor firm, the social value generated by an investee's business activities can be attributed to the investor, provided the investment is strategic and financially motivated.

* The social performance of an investor may be determined by the extent of its interest; i.e., its influence over the business performance of the investee company regardless of actual ownership stake

① If the investor has a controlling interest in the operations of an investee, the social value performance of the investee is entirely attributed to the investor

② If the investor does not have a controlling interest in the investee, the social value performance of the investor is limited to the performance of its stake in the investee

02

Dimensions

The SK DBL SV measurement system categorizes social value creation into four key areas.

The first area consists of indirect economic contributions and captures the positive economic benefits that a company generates for society beyond its direct, profit-oriented activities.

The second area is environmental performance, which considers a company's environmental impacts. It takes into account factors such as resource consumption, pollution (and efforts to reduce pollution), and corporate contributions to a sustainable future.

The third area is social performance, which focuses on positive social contributions made by addressing societal challenges and improving the overall well-being of communities.

The fourth area is governance performance, which assesses a company's commitment to ethical practices, transparency, and responsible stakeholder engagement.

Many leading global companies acknowledge the importance of social value and integrate ESG considerations into their management practices. However, typical ESG frameworks often rely on indexing limited individual aspects that may be universally applicable across all companies. And so, the SK DBL SV measurement system offers a distinct advantage: it goes beyond traditional ESG metrics by incorporating a system that measures the value a company creates for the environment and society through its products and services.

Indirect economic contributions

The social value of indirect economic contributions refers to the positive impacts on the national economy created by a corporation's core business activities. It captures value beyond mere profits. A corporation's economic contributions include the value of employment for workers, the value of dividends to shareholders, and the value of taxes paid to the government. These indirect economic contributions can be measured to capture the scale and depth of a corporation's commitment to creating social value.

Environmental performance

A corporation's environmental performance reflects the environmental impacts of its ongoing operations as well as the impacts generated by its products and services through their respective lifecycles. These include both negative and positive effects. Companies consume natural resource inputs such as energy, water, and raw materials in their production processes. These processes can generate negative environmental consequences, principally air and water pollution, as well as greenhouse gases (GHGs). Pollutants damage the environment and are measured as negative values. However, some companies develop and offer eco-friendly products and services that benefit the environment. These positive contributions, which include products that lower pollution or minimize resource consumption, are measured as positive values. In considering both negative and positive impacts, measurements of corporate environmental performance can inform a comprehensive picture of a company's environmental stewardship.

Social performance

Social performance measures the impact of corporate activity on the well-being of its stakeholders. Performance is measured through the value created by initiatives that improve the working environment for employees (labor performance), foster shared prosperity (win-win growth performance), support communities (outreach performance), and provide socially sustainable products and services.

Labor. A key consideration of social performance is how a corporation treats its workers. The social performance of a company vis-à-vis its workforce focuses on a corporation's commitment to its workers and goes beyond adhering to labor laws. It includes initiatives that improve the working environment and support employee growth. Companies are also encouraged to create employment opportunities for disadvantaged populations, contributing to positive social outcomes.

Win-win growth. This refers to performance that emphasizes positive partnerships throughout the business ecosystem. Win-win growth is achieved when companies strive to treat partner firms and their employees fairly and promote mutually beneficial collaboration and shared prosperity. This extends to supporting small and medium-sized enterprises (SMEs), startups, and entrepreneurs, as well as demonstrating broader social responsibility.

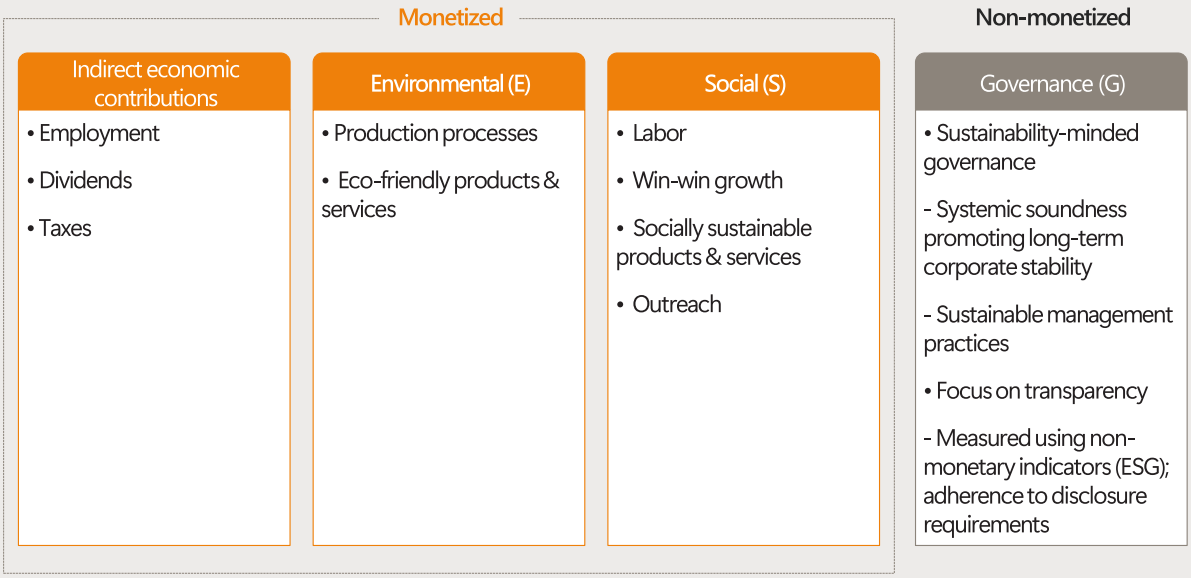
Outreach. Outreach efforts reflect a corporation's commitment to extending its positive impact beyond core business activities. Examples include social service initiatives and programs, charitable donations, volunteer work, and community development programs.

Socially sustainable products and services. This refers to how a corporation's offerings contribute to consumer well-being. It encompasses the provision of products of appropriate quality and the prioritization of consumer safety and health. In addition, corporations have a responsibility to educate consumers and stakeholders about their products and provide accurate information to consumers in every stage of the transaction process.

Governance performance

Governance performance refers to the effectiveness of a corporation's leadership and management. While good governance practices are characterized by a sense of social responsibility and contribute to corporate stability, they are typically measured using non-monetary indicators and therefore excluded from the SK DBL SV measurement process.

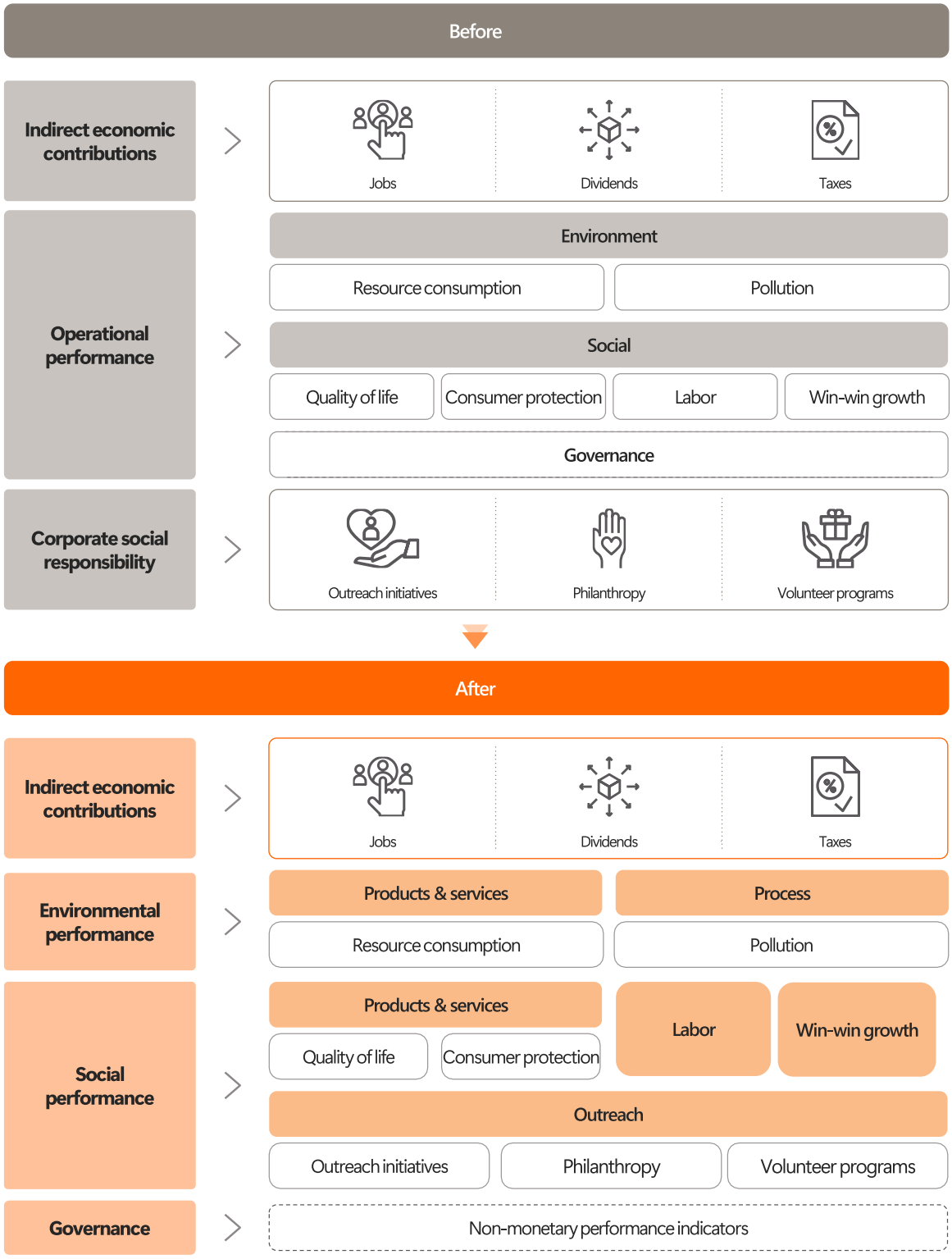
Figure 3. SK DBL SV measurement system: Dimensions



- **Indirect economic contributions**: Value created by corporate activities that indirectly benefits the national economy
- **Environmental performance**: Efforts to mitigate the environmental impacts of production processes and value created through eco-friendly products/services
- **Social performance**: Efforts to engender a positive working environment, promote win-win growth, make significant social contributions to the community, and create value through products/services that improve consumers' quality of life
- **Governance performance**: Commitment to transparent, fair, and accountable decision-making for stakeholders

[Annex I] Evolution of the SK DBL SV measurement system

Figure 4. Evolution of the SK DBL SV measurement system



03

Formula

Key components

The following describes the formula used to estimate the social value of corporate activity in the four dimensions outlined in section two of this chapter. The formula reflects the principles characterized in section one. It contains three essential components: the baseline, the monetization coefficient (or proxy), and the attribution. It can be expressed as follows:

(SV Performance* – Baseline) x Monetization coefficient (Proxy)**
x Volume or amount of product/service sold or provided x Attribution

Baseline

The baseline is the reference point used to measure the social value generated by corporate activities. It represents the starting point against which changes and improvements can be evaluated. It can be interpreted as the "before" in a before and after scenario, providing a context in which the effect of an intervention can be gauged.

Table 1. The five kinds of baselines

Baseline	Usage
Market-leading products & services	Comparison with the most innovative market offerings
Alternative products & services	Comparison with existing market offerings
Market average	Comparison with average offerings in same segment
Legal standard	Compared to legal or regulatory minimums
Zero baseline standard	Total social value created by products & services

* In the SK DBL SV measurement system, the estimated performance metric is referred to as the SV standard value.

** When measuring the positive effects of social value created (benefits), the formula used is: (SV standard value – baseline). This isolates additional value created. When measuring the reduction of negative effects compared to the baseline (costs), the formula used is: (Baseline point - SV standard value).

Monetization coefficient (Proxy)

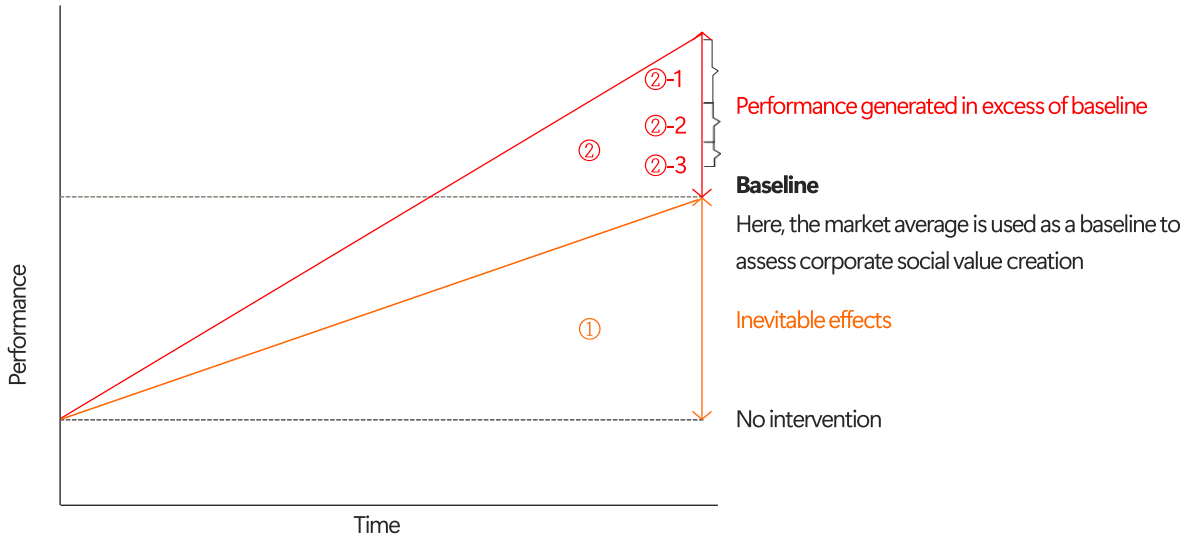
The monetization coefficient, or proxy, is a unit value used to convert the quantified social impacts of corporate activity into a monetary valuation. This allows for apples-to-apples comparisons of social value creation.

It is important to consider that proxies can change based on market conditions, environmental circumstances, and government policies, among other variables. Because of this, it is crucial to ensure that monetization coefficients remain accurate and up-to-date. Only by doing so is objective, empirically robust measurement assured.

Attribution

Attribution* refers to proportional performance accruing to each participant (or stakeholder) in an intervention based on their contributions to social value creation. Much like economic value, the internal and external value chains involved in creating social value are highly intricate, making it challenging to precisely quantify the contributions of individual participants. Therefore, when using the SK DBL SV measurement to monetize social value, various external benchmarking ratios (e.g., cost ratio, investment ratio) are often utilized to calculate attribution. In cases where the benchmarking approach is not feasible, the OKEF** role-based qualitative evaluation methodology is employed. OKEF leverages a taxonomy to categorize contributions and assign attribution.

Figure 5. Conceptual framework of attribution



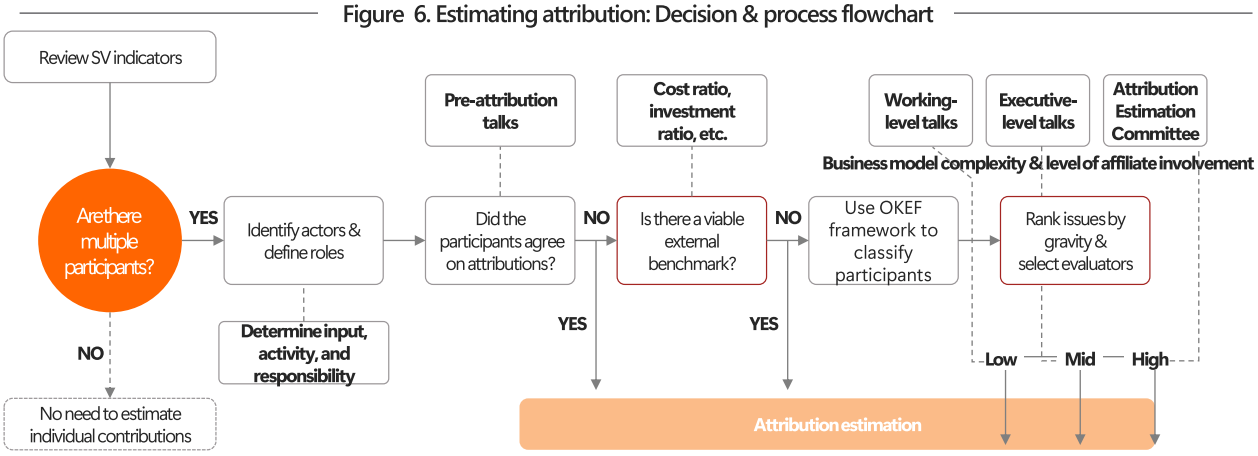
*In the SK DBL SV measurement system, attribution also refers to assigning credit for social value creation to various stakeholders involved. It recognizes that social impacts often result from combined efforts.

**OKEF is an abbreviation of Owner, Key Partner, Enabler, and Facilitator. The OKEF taxonomy is used to categorize stakeholders' specific contributions to social value creation.

- ① + ② = Gross social outcomes (baseline not applied)
- ①: Value of performance generated by existing market offerings (baseline not applied)
- ②: Aggregate performance generated by products and services in excess of market average; social value based on SK DBL SV measurement scheme
- ②-1, ②-2, ②-3 : SV performance of specific interests or stakeholder contributions; i.e., attributions

The SK DBL SV measurement system addresses how to fairly credit different stakeholders (companies, communities, etc.) involved in creating social value. There are two main approaches. The first is pre-agreed attribution, which is when stakeholders reach mutual agreement on a method or metric for estimating contributions before SV is measured. The values determined through agreement are then assigned to the stakeholders. If no agreement between stakeholders can be reached prior to estimating the amount of SV created, a second, two-pronged option can be deployed. The first prong involves a benchmarking process. If participants and/or stakeholders can agree on a relevant benchmark (costs incurred or other financial indicators, for example), that benchmark can be used to determine attributions. If no consensus can be reached regarding an appropriate benchmark, the OKEF classification method is employed. This qualitative approach evaluates contributions based on an assessment of each participant's role in producing the outcome or impact being measured.

Figure 6. Estimating attribution: Decision & process flowchart



OKEF Methodology

- Overview: In the SK DBL SV measurement framework, the OKEF scheme is used to identify participants and stakeholders in any given project, categorize their roles, and qualitatively assess their contributions to SV creation.
- OKEF evaluates contributions based on three key factors:
  - Input: Tangible and intangible resources (financial, human, and technological) invested in the development and/or production of a product or service
  - Activities: The practical actions that convert inputs (resources) into outputs (products and services)
  - Responsibility (or risk-taking): The level of control and accountability that each stakeholder and/or participant has over the economic gains or losses resulting from business or operational activities
- Participants are classified into the following roles in the OKEF classification scheme:

Owner	· The Owner is the entity that assumes a primary role in creating social value. · Owners contribute the majority of resources (financial, human, technology) and actively helm the project's core activities. · Owners set overall business directions, take full responsibility for outcomes, and wield significant decision-making authority.
Key Partner	· Key partners play a critical supporting role in social value creation. · They make significant contributions in terms of resources (above a certain threshold) and actively participate in project activities leveraging specific capabilities and capacities. · While they share responsibility for business activities and policies, their level of influence is lower than the Owner.
Enabler	· Enablers play a significant role in enabling social value creation. · They directly contribute resources to the project but delegate the execution of activities to other entities. · Enablers supervise the overall business process and, as a core entity, bear partial responsibility for any issues arising fr om the products or services delivered to customers.
Facilitator	· Facilitators play a supporting role in social value creation. · Unlike other roles, facilitators do not directly contribute resources; rather, they delegate and manage activities in the service of advancing the project. · Once their assigned activities are completed, authority over said activities is returned to the contractee or project commissioner. · Facilitators do not assume separate responsibility for the outcome(s) of the project.
Player	· Players assume minor roles in social value creation. · Their influence within the business ecosystem is very limited. They are generally replaceable by similar entities in the market.

- The OKEF methodology follows a heuristic* process to categorize project participants and assess their contribution to social value creation. First, participants are classified based on their level of involvement in the project using a set of established criteria (Players are excluded altogether). Each participant receives a score between 1 and 10 points based on the three OKEF criteria (input, activity, responsibility). For the main participants, an independent evaluation is performed for each criterion, allowing for a more detailed assessment of their contributions. Participants with a greater role in social value creation, such as Owners and Key Partners, receive a higher overall score than Enablers and Facilitators.

- The OKEF framework in the SK DBL SV measurement system acknowledges that participants may submit their own role classifications and evaluation scores, particularly when a participant actively promotes and contributes social value within a project. However, the system also considers external factors that might influence these claims. For issues of relatively minor importance (low-gravity issues), we encourage participants to engage in open communication and reach agreement as to how the contribution is to be divided. For more significant (high-gravity issues), the system recommends involving external experts or consultants. In such cases, qualified evaluators are selected and a clear process for estimating attribution is established via an Attribution Estimation Committee,** which strives to balance both accuracy and efficiency.

Issue gravity	Negotiating process & key actors
Low	Agreement on contributions via working level talks
Mid	Agreement on contributions via executive-level talks
High	Establishment of Attribution Estimation Committee, staffed by external industry or SV measurement experts & consultants

* In the context of the OKEF methodology, heuristics refer to a set of general guidelines or rules used to categorize stakeholders based on their involvement in a project. These guidelines are helpful when time or information is at a premium and a lack of either compromises the ability to render a complex judgment. However, they may not always be perfectly accurate.

** The Attribution Estimation Committee is a group of 4-5 experts with industry knowledge and proven objectivity. They come from various fields and backgrounds in social value measurement.. The Committee plays a crucial role in reviewing, evaluating, and reaching consensus on final attribution scores, especially in cases with complex attribution issues requiring external expertise.

Case study: Assigning attribution through benchmarking (cost ratio)

- **Project: Promoting waste plastic recycling using compatibilizers**
  - Company A: Raw materials (compatibilizer) firm
  - Company B: Compounding firm. Mixes virgin resin, recycled resin, and compatibilizers to produce compounded plastics
  - Company C: Automobile parts & container manufacturer. Uses compounded plastic products
  - Benchmark calculation: Cost ratio = Sales price of compatibilizer / Sales price of compounded product
  - Company A's cost ratio: 1,000,000 KRW / 10,000,000 KRW = 10%
  - Based on the cost ratio benchmark, 10% of the total social value created by this project is attributed to Company A's role in supplying the compatibilizer that enables waste plastic recycling

Case study: Assigning attribution using the OKEF methodology

- **Project: Income supplementation for a disadvantaged group (the hearing-impaired) through the development of an IT platform**
  - Company A: Investment & marketing firm. Develops the app & secures investment in the project
  - Company B: Operations firm. Runs the platform, recruits hearing-impaired drivers, maintains cars
  - Company C: Customer service firm. Provides customer support

Firm	Stage 1: OKEF classification, qualitative evaluation				Stage 2: OKEF weights		
	Input	Activity	Responsibility	OKEF	Input	Activity	Responsibility
A	• Develop business model - Design platform - Attract investment and Pre-A funding	• Develop basic business idea • Conduct joint branding initiatives	• Build the foundation for collaboration	Key Partner	7	7	3
B	• Hire and train hearing-impaired drivers • Secure service fundamentals (car procurement, etc.)	• Maintain core ICT solutions • Develop the business platform	• Supervise the entire project	Key Partner	7	5	7
C	• Establish customer service platform	• Operate the customer-facing aspect of the platform	• Manage the operation of the platform	Key Partner	2	2	7

Company A received a combined score of 17 (7 + 7 + 3) based on the OKEF criteria: Input (resources provided), Activity (participation in project tasks), and Responsibility (accountability for outcomes). Across all three companies involved in the project, the total OKEF score was 47 points (7 + 7 + 3 + 7 + 5 + 7 + 2 + 2 + 7). Based on its OKEF score relative to the total project score, 36.17% (17 / 47 * 100) of social value generated by the project is attributed to Company A.

04

The indicator development process

The SK DBL SV measurement system categorizes social value into indirect economic contributions, environmental performance, and social performance. To measure performance, the system utilizes two types of indicators in each dimension: common indicators, and custom indicators. The former comprises industry-agnostic metrics that apply broadly across companies. Custom indicators, on the other hand, are built-to-spec and specially designed to assess the unique social and environmental benefits of a corporation's products or services. Common indicators employ standardized approaches to measurement, but the use of custom indicators differs based on the product or service being evaluated.

This section focuses on the development of custom indicators for measuring the performance of products and services. It describes the measurement process, including the steps involved, the judgement criteria for each step, and the formulas used. For a detailed explanation of common indicators, including measurement principles and their formulas, please refer to Chapters 3 (Indirect economic contributions), 4 (Environmental performance), and 5 (Social performance) of this guidebook.

Building custom indicators

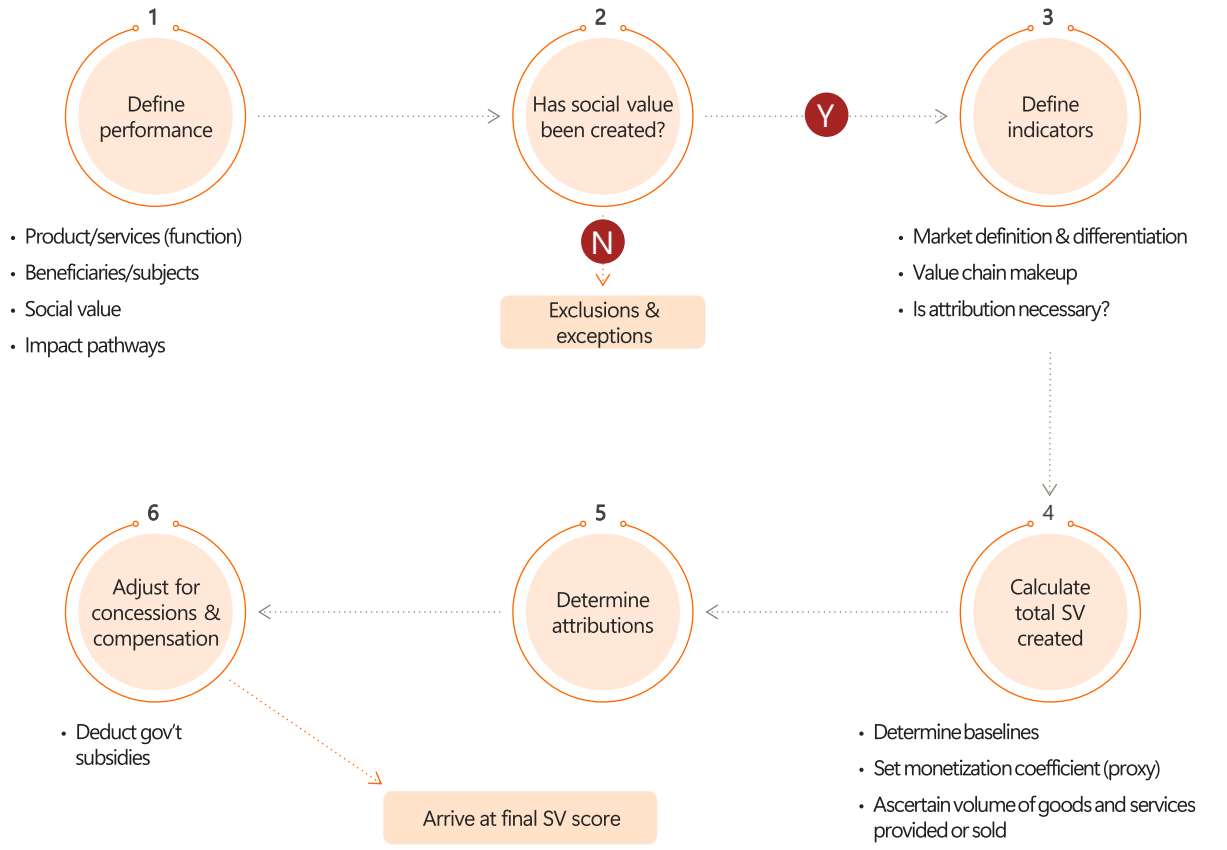
The social value generated by a corporation includes the environmental and social impacts of its products and services. These impacts can occur during the manufacturing stage or throughout the product's lifecycle, including its use and disposal.

To determine if a particular impact can be attributed to a company's offerings and thus measured within the product-and-service indicator category, the following considerations are key:

- Impacts generated outside a corporation's core business activities can be classified as outreach performance, rather than the performance of products or services. To determine whether some performance falls within the definition of core business activities, a corporation's articles of incorporation or related documentation such as corporate bylaws should be consulted.
- If the primary beneficiaries of the product or service are internal employees or partners, rather than outside customers, any performance may be classified as labor or win-win growth performance under the SK DBL SV measurement system, rather than the social performance of products and services. That is, unless employees/partners purchase said products and services through regular sales channels.

The SK DBL SV measurement system employs a six-stage process for developing custom indicators used to measure the SV created by a corporation's products or services. The first three stages focus on defining key elements of the SV performance. Stages four through six involve investigating quantitative data to monetize this performance based on these defined elements and then verifying the robustness of the estimations.

Figure 7. The indicator development process



Stage 1: Defining performance

This stage focuses on identifying and clearly defining the social value created by a corporation's products and/or services. The following is considered.

Impact on target groups. Who benefits from the product or service? Potential beneficiaries include customers, communities, and other stakeholders.

Functions delivered. How does the product or service deliver its benefit? This could be done through improved safety or the delivery of educational content, for example.

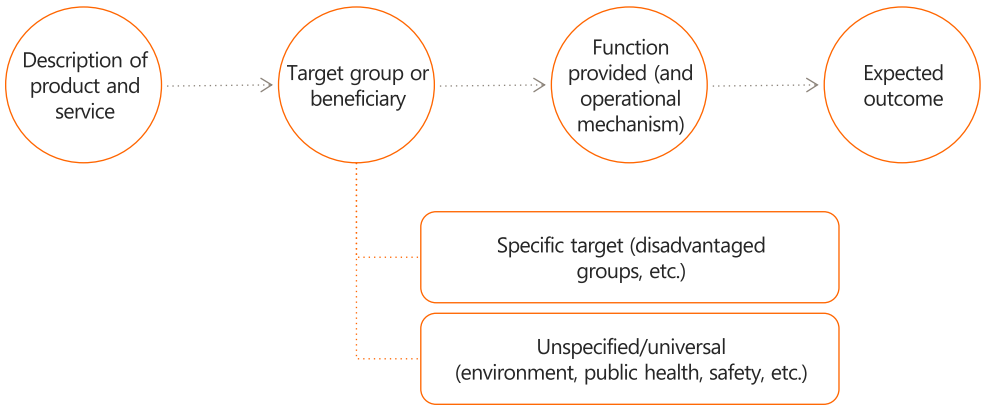
Benefits reaped. What positive outcomes are achieved for the target group? These are the improvements observed.

By answering these questions, a clearer picture of the impact pathway emerges. That is, how the product or service in question generates social value.

To illustrate, assume the following. A company installs CCTV cameras across a neighborhood, and a lower crime rate is observed following this intervention. The performance indicator defined here could be "Improved public safety through CCTV."

The key is to ensure the indicator accurately reflects the causal relationship between the product/service and the resulting positive change. Specific and well-defined indicators are crucial to accurately representing the social value created by a corporation's offerings.

Figure 8. Defining social performance



Target (beneficiary) classification

There are two basic categories of social impact beneficiaries or targets.

- Specific targets: In these cases, the benefits of the product or service differ from user to user. For example, a corporation may offer discounts on its products or services to low-income individuals and/or households, improving their accessibility. Here, the performance indicator could measure how much accessibility improved for the specific target group (in this case, an economically vulnerable population).
- Unspecified/universal targets: When a product or service provides the same type and level of benefit to all users, the target group is not explicitly defined. Examples of universal social benefits include increased public safety, better health care, and a cleaner environment. All "users" of these services may enjoy these benefits equally, regardless of socioeconomic status or background.

Defining the SV effect of the function provided

Another aspect of defining performance is deriving the social value generated by the function of the product or service. Table 2 below lists examples of products and services, targets/beneficiaries, functions provided, and outcomes.

Table 2. Examples of social value generated by products and services

Product/service	Target/beneficiary	Function	Outcome
Building insulation	Unspecified/universal	Internal/external insulating properties	Energy savings, GHG reductions
Flu vaccine	The vaccinated	Disease prevention	Reduced harm to public health
Real-time GPS navigation	Users/customers	Efficient route planning and provision	Shorter distance traveled; less time spent in transit

Stage 2: Assessing social value creation

Building upon the performance definitions of Stage 1, Stage 2 involves determining whether a product or service creates social value. The SK DBL SV measurement system considers a product or service to generate social value if it contributes to solving social issues or alleviates factors that threaten the sustainability of society and/or the environment. The system assesses social value creation using three key criteria; a product or service is considered to generate social value if it meets at least two of them. The criteria are as follows:

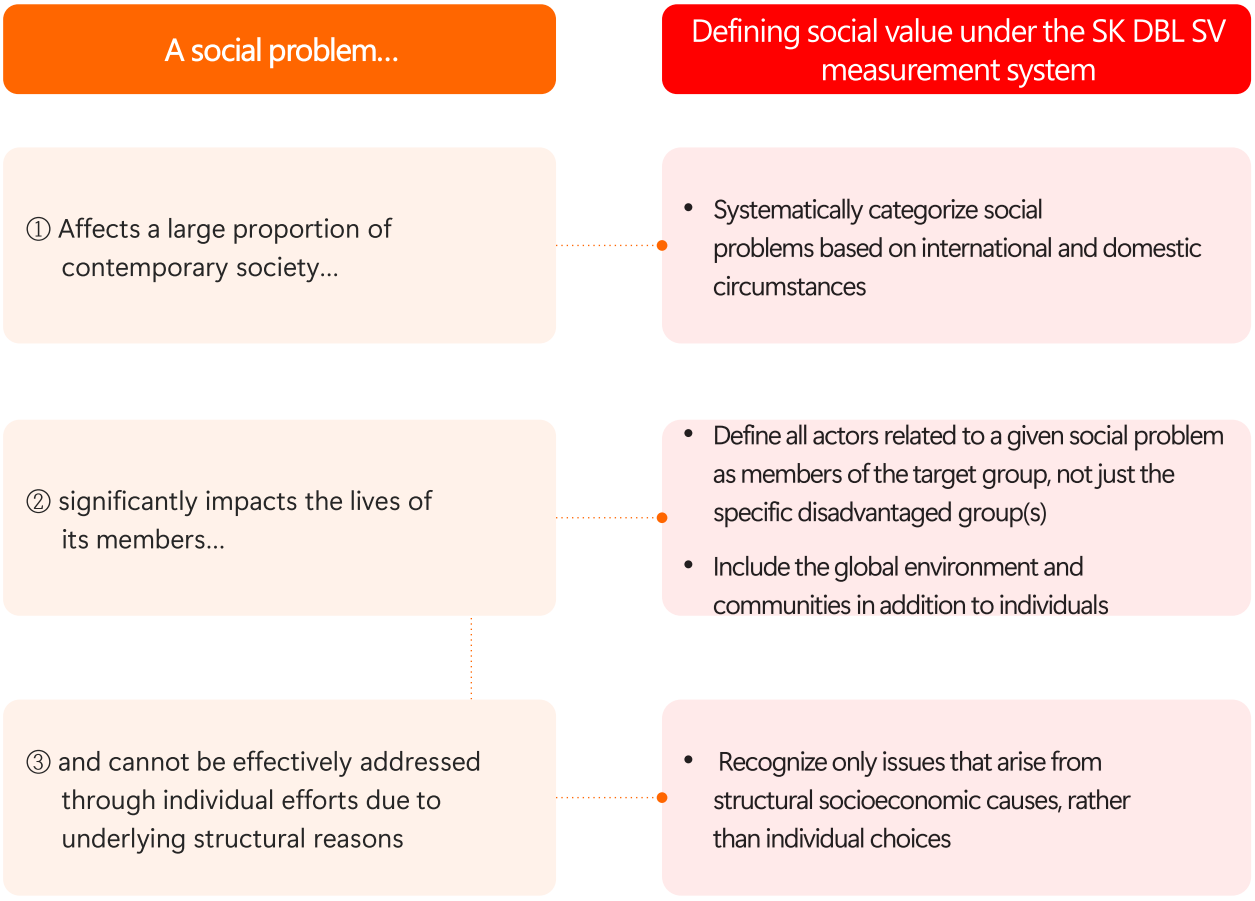
Criterion 1. Does the product or service contribute to addressing a social problem?

What is a social problem? In the SK DBL SV measurement system, it is defined as a condition that:

- Affects a large portion of contemporary society
- Significantly impacts the lives of its members
- Cannot be effectively addressed solely by individual efforts due to underlying structural reasons

Social problems are dynamic, and can evolve based on current events, regional characteristics, and community perceptions. They are also relative, influenced by the interaction between institutions and changing circumstances. To ensure the relevance of SV assessment, current social problems and analyses of these problems are referred to when evaluating whether a product or service addresses a social problem.

Figure 9. Social problems and assessing the creation of social value



Criterion 2. Does the product or service contribute to the public good, or add social or cultural value?

The second criterion for social value creation deals with specific social problems and examines whether the product or service contributes to the greater well-being of society and fosters tangible social or cultural value. Companies can achieve this by sharing resources with society, such as technology, information, and facilities. Products or services that consider cultural diversity or improve access to social services can also contribute significantly to the creation of social and cultural value.

Criterion 3. Is the product or service provided to disadvantaged groups that would otherwise be unable to access it?

The third criterion for social value creation focuses on whether the product or service benefits disadvantaged groups who might otherwise lack access. While a product or service's function may not directly address a social problem, it can still contribute to tackling the broader issue of inequality. Simply providing access to necessary products or services for those facing economic, geographic, or social barriers can be considered a form of social problem-solving.

The SK DBL SV measurement system recognizes two target groups within this category: individual members of disadvantaged classes, and members of the "win-win growth" class, which are organizations. These classifications are grounded in legal and policy frameworks but are intended to be flexible and accommodate the evolving nature of social problems.

Figure 10. The two target groups

Disadvantaged classes (groups of individuals)

Economic vulnerability

- Recipients of public assistance (basic livelihood stipends, other types of welfare)
- Lower-income households
- Citizens of underdeveloped countries (based on GNI)

Social vulnerability

- Disabled people, pregnant women, infants, children & adolescents, multicultural families, single-parent families, sex trafficking victims
- The elderly, career-interrupted women, etc.
- National Merit Order recipients, North Korean refugees, minorities, rehabilitation subjects, residents of isolated mountainous regions and islands

Baseline

All support directed to disadvantaged groups is recognized as SV performance

Example

Emergency reporting service for one-person households

SV contribution:

Number of service recipients x benefits of emergency alert service

Win-win growth targets (organizations)

Economic vulnerability

The SK DBL SV measurement system defines microenterprises (MEs) as a disadvantaged group. In the mining, manufacturing, construction, or transportation industries, they are small businesses with less than 10 full-time employees. In other sectors, they are businesses with less than 5 employees. MEs have average revenues of KRW 12 billion or less.

Social vulnerability

- Enterprises that employ members of vulnerable classes, firms that employ residents of and provide services to small villages and communities (e.g. Social Enterprises, Self-Support Enterprises, Grassroots Village Enterprises)
- Designated and statutory charities
- Companies owned or operated by the disabled, workplaces that meet standards for disabled employees
- Special classes of workers (insurance brokers, construction equipment operators, homeschool teachers, golf caddies, delivery workers, loan originators, etc.)

Baseline

Only support directed to win-win cooperation targets above and beyond the market average is recognized as SV performance

Example

Lower commissions on shopping platform (SK Stoa) sales to social enterprises and micro enterprises

SV contribution:

(Market avg. commission – SK Stoa commission) x Total value of transactions

The SK DBL SV measurement system takes a conservative approach to evaluating the creation of social value through price reductions. For example, if a corporation offers across the board discounts on its products and services that economically disadvantaged groups could feasibly take advantage of, this is not recognized as social value. This is because price discounts are a natural consequence of market competition that benefit all customer groups, and not solely disadvantaged groups. Therefore, measuring the social value of a discount program by simply estimating the percentage of disadvantaged participants would not be an accurate reflection of its social impact.

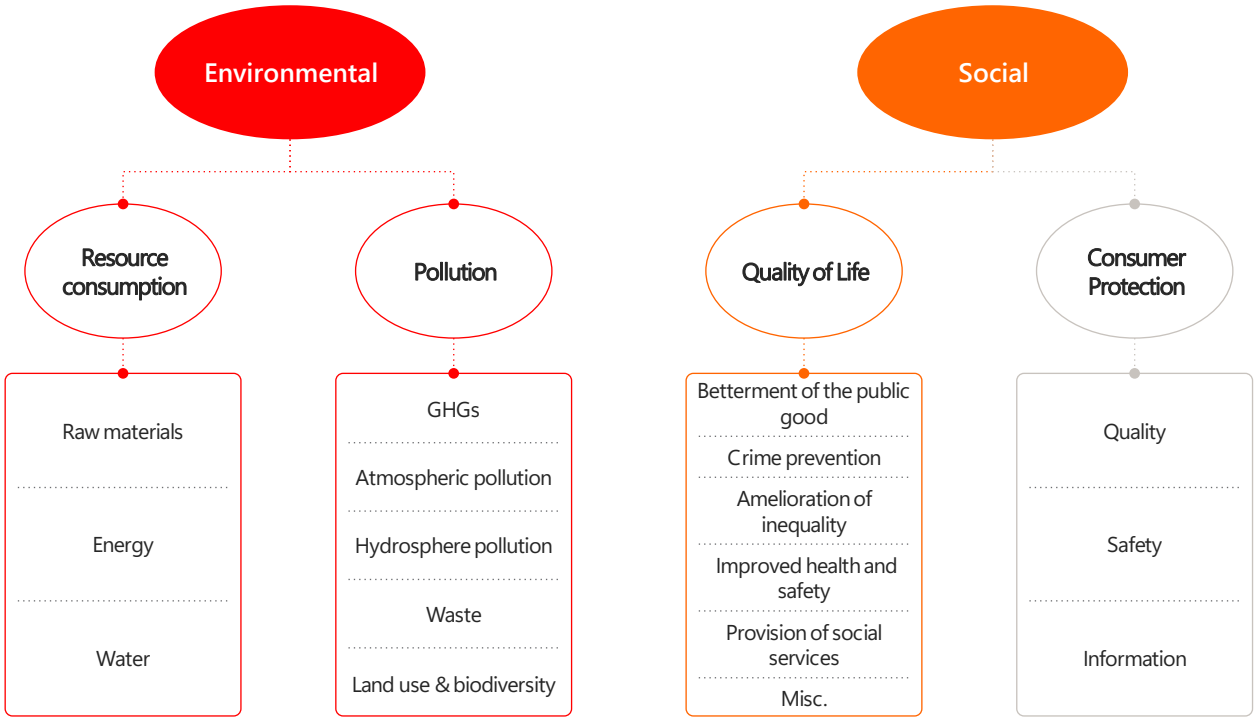
Table 3. Social value recognition by class & target

Class	Target beneficiary	Nature of benefit	SV recognized?	Examples
General public	Customers or users	Social value	Yes	Safety, health, risk prevention
		Economic welfare	No	Discounts, convenience, leisure
	Unspecified or universal	Social value	Yes	Risk prevention (vaccines/disease prevention)
		Economic welfare	No	Result of price competition
Dis-advantaged groups	Customers or users	Social value	Yes	Health, safety, risk prevention
		Economic welfare	No	Amelioration of inequality through targeted lower prices
	Unspecified or universal	Social value	Yes	Risk prevention (vaccines/disease prevention)
		Economic welfare	No	Higher incomes for disadvantaged groups following investment targeting revitalization of a commercial district

Stage 3: Defining the indicators

Figure 11 illustrates the categories used for defining and measuring the environmental and social impacts of products and services. The system may incorporate additional details and refinements as it continues to evolve.

Figure 11. Classifying social & environmental indicators



Defining market scope

Establishing a clear market scope is crucial when setting baselines against which the social performance generated by a corporation or group of corporations can be measured. This scope considers the market impacted by the social value created by a product or service. In general, market scope aligns with the competitive landscape for products or services offering similar functionalities. However, there are exceptions. When a product or service directly addresses a recognized social problem, all competition offering alternative solutions may be defined to fall within the scope of the market. For example, batteries for electric vehicles (EVs) may help reduce carbon emissions, since EVs do not emit tailpipe exhaust like traditional internal combustion engine automobiles. This would mean the market for gasoline, diesel, and other types of automotive fuels would form the relevant scope for calculating the contributions of EV batteries to addressing the problem of greenhouse gas emissions. On the other hand, if the focus is on the social impact of the battery's performance (for example, fuel efficiency, driving range, safety), then only the market for EV batteries would be an appropriate scope.

Table 4. Baseline setting: Comparable markets and market players

Industry	Comparable market players
Mobile communication	In Korea, suitable comparisons would include the social performance of major mobile network operators including SKT, KT, and LG U+
Solar power generation	Data from the entire electric power generation industry could be used to construct a baseline, including electricity generated via LNG, nuclear, and renewables. Domestically, data on all emissions and pollutants produced by power generation facilities could be used to inform a baseline
Vaccine development & production	For vaccines designed to inoculate against infectious disease, the market for qualitative ly different treatments (dietary supplements, for example) is excluded from comparison
Secondhand phones	The entire addressable market for mobile phones (new and used) could be used as a comparison

Criterion 1. Setting the social performance baseline

The social performance of a product or service is typically compared against the market average. The approach used in the SK DBL SV measurement system provides a more realistic and conservative benchmark: a market average baseline is established by considering the average social value of comparable product groups within a defined market scope.

However, as outlined in Table 5, there may be obstacles to acquiring the necessary data with which a baseline can be constructed.

Table 5. Potential issues in baseline-setting

Category	Major issues	Examples
Data availability	• Difficulties in acquiring SV performance data from market competitors	Data on product performance and market share may be proprietary information, closely held by market players
Rapid commercialization	•Difficulties that arise in identifying additionality in markets with low barriers to entry and frequent entries and exits	The mobile platform market is crowded, with numerous players offering products with broadly similar functionalities. Can be difficult to grasp status of the many small firms in the space
Market ambiguity	• Multiple perspectives as to what defines a "market" - Some definitions can seem arbitrary or subjective	- In the recycling market global, national, or regional in scope? - Should the SV performance of intermediate goods be compared to that of final goods in the same industry (ex., batteries & semiconductors)? - Some markets are tailored to the specific needs of a small su bset of customers: regional smart industrial complexes, individual incinerators, etc

To address these and other issues, various approaches can be used to craft a baseline depending on the data available. See Figure 12 below.

Figure 12. Baseline formulation according to data availability

Availability	Baseline used	Examples
Market average data available	1st Set total market average as baseline	• (Energy-efficient set-top boxes) Determine market share and total end-user power consumption of total IPTV market to inform baseline
Market average data for some product groups* unavailable (data available only for other groups) * "Product group" defined as a line of products from competitors made with identical or similar technologies and/or methods	2nd Set SV performance of products in same product category with highest market share as baseline	• (Drug development) Use SV data on most similar drug with highest level of public awareness in market to set baseline
	3rd Use SV performance of most similar product by the same company as market baseline	• (Energy-efficient chips) Use SV data of previous model in same product line as baseline

In most cases, the SV performance of products and services is measured against the market average. However, there are three exceptions where a Zero baseline is applied. The Zero baseline approach aims to incentivize companies to tackle more challenging social problems by pioneering innovative business models that create significant social value.

Table 6. Zero baseline scenarios

Scenario	Description
New products and services without comparisons	When a new product or service has no comparable offerings on the market, the Zero baseline is applied.
Products and services targeting disadvantaged groups	Products or services specifically designed to address the needs of disadvantaged and marginalized groups are measured against the Zero baseline. This approach is used to ensure that the impact of these products is fairly evaluated and takes into consideration the unique challenges faced by society's most vulnerable populations.
Incomparable public goods or services	In cases where products or services are considered public goods or services (clean air, public safety), and there is no inherent differentiation between providers due to government intervention or industry collaboration, the Zero baseline is used. This approach ensures that the social impact of these offerings is evaluated objectively, focusing on the overall value created for society.

Criterion 2. Setting the monetization coefficient (or proxy)

Once a performance indicator is defined, the next step is to find data that can be translated into monetary terms (monetized) to quantify the social value created.

For example, a GPS device designed to prevent children from going missing contributes to the creation of social value by helping keep children safe. Here, the performance indicator could be defined as the value of the costs and damages avoided that would otherwise be incurred when a child goes missing. To monetize this social performance, the average costs associated with missing children cases can be used as a monetization coefficient.

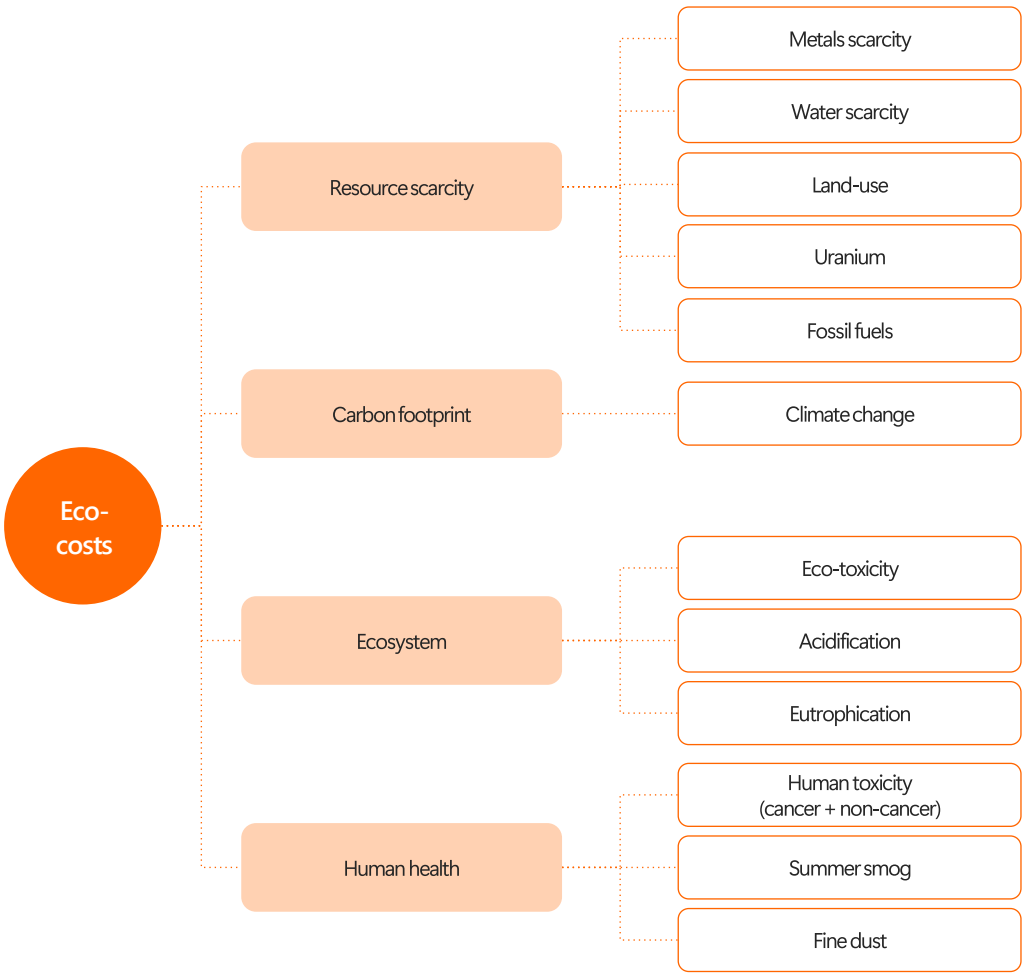
[Annex II] Defining the monetization coefficient: Eco-cost case study

Calculating the social value (SV) associated with corporate activities that benefit the environment, such as efforts to consume fewer raw materials and emit less pollution, requires selecting an appropriate monetization coefficient (or proxy). However, environmental performance often lacks an obvious market price. Even if a price exists for pollution abatement, it may not fully reflect the impacts of pollution across the entire product lifecycle, from production to consumption and disposal.

For a more comprehensive evaluation, the Life Cycle Assessment (LCA) approach is recommended. Widely used LCA databases include those provided by SimaPro, Ecoinvent, and GaBi. These tools can help calculate the environmental impact of a product or service throughout its lifespan.

One approach focuses on prevention costs – the expenses associated with reducing pollutant generation at the source. To facilitate this, the Stichting Sustainability Impact Metrics, in collaboration with the Delft University of Technology, operates the Eco-cost database. This database provides updated cost values for various pollutants and life cycle stages.

Figure 13. The structure of the Eco-cost database



As of 2024, for common environmental process indicators, the SK DBL SV measurement system utilizes Eco-cost database data as monetization coefficients (proxies) for air pollution, water pollution, and waste indicators.

Stage 4: Estimating initial SV performance

Stage 4 comprises the initial estimation of social value performance, using data collected according to the defined metrics.

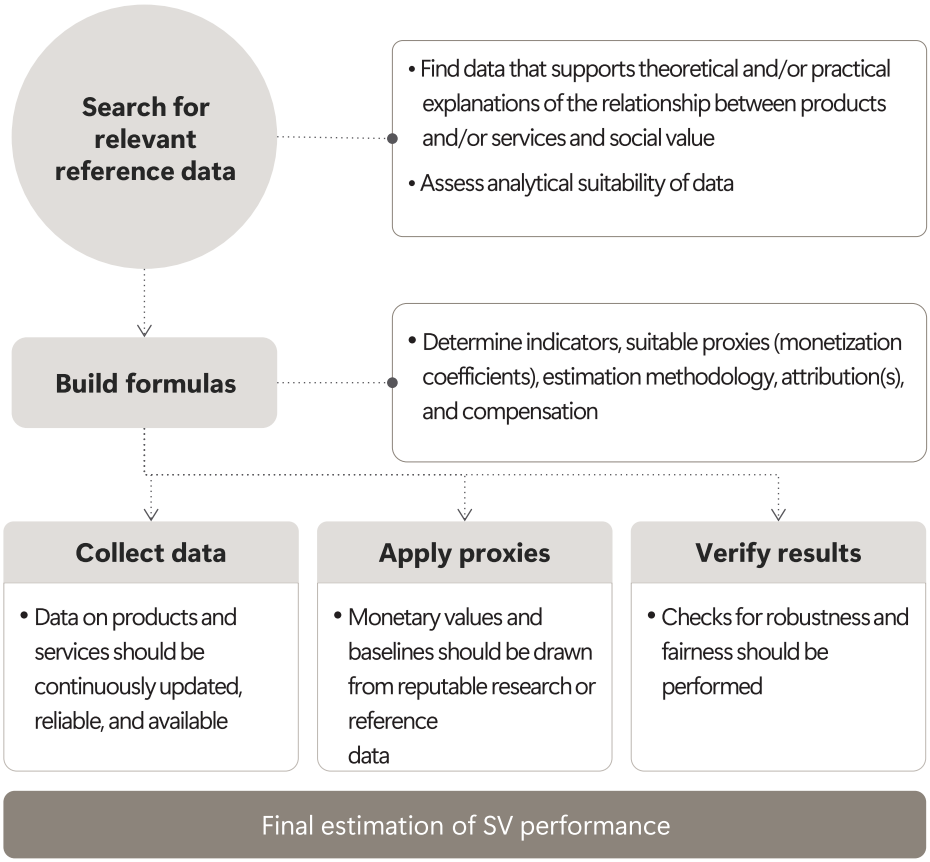
Stage 5: Assigning attribution

In some cases, multiple companies may contribute to the social value created by a product or service. Stage 5 involves analyzing the contribution of each company throughout the value chain. This analysis determines the extent to which each company's efforts at various stages have contributed to overall social performance; any one company's contribution to SV performance is its attribution. Refer to Section 3 of this chapter for details on the estimation of attribution.

Stage 6: Final determination of SV performance

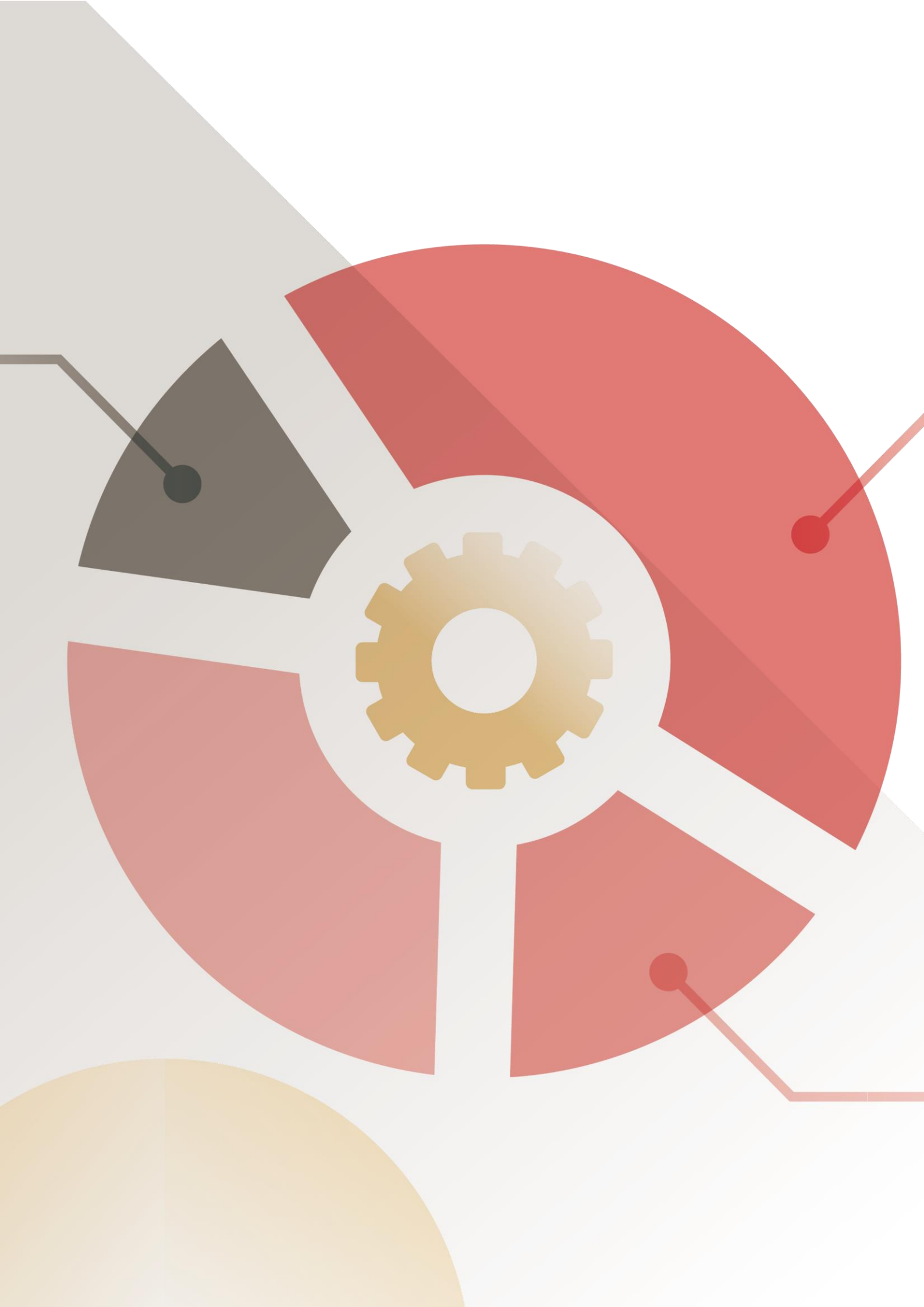
In the final stage, the attribution (if necessary) is applied to the initial performance of a company as measured in Stage 4. From the resulting figure the value of any external compensation provided (e.g., subsidies) is subtracted to arrive at a final value of SV performance.

Figure 14. The process of estimating SV performance



Some companies publish final social value (SV) results through various channels (e.g., sustainability reports, websites). In addition to the final scores, we strongly encourage disclosing the underlying measurement formulas and data used. This transparency fosters a deeper understanding of the process and creates opportunities for continuous improvement in the future.

Note: There is currently no formal institution responsible for verifying the monetized values associated with social performance. However, within SK, the Social Value Measurement Center, part of the Center for Social Value Enhancement Studies (CSES), actively participates in the development and review of SK indicators. This ongoing collaboration helps ensure the continuous improvement and accuracy of the measurement system.

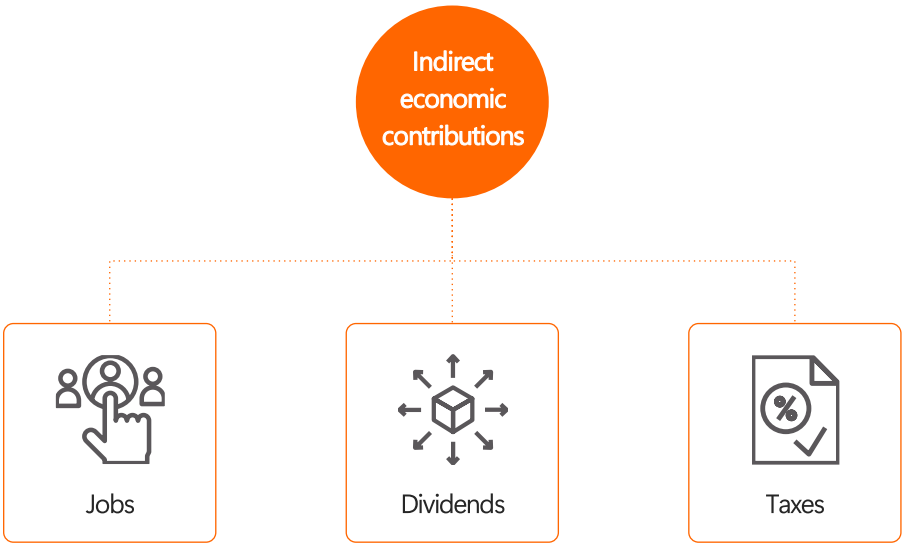


III

Indirect economic contributions

01

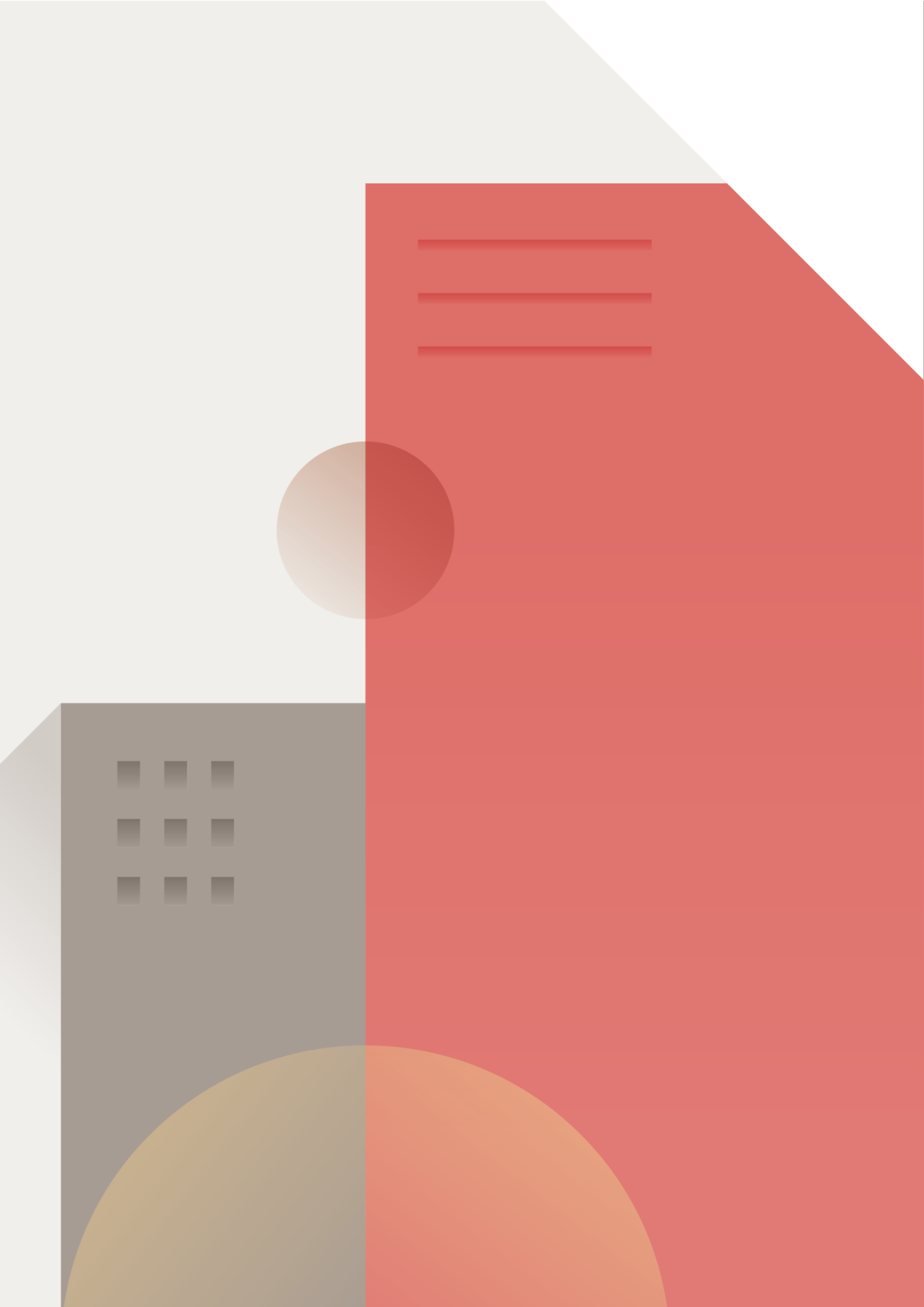
Indirect economic contributions



	Jobs
Description	• This indicator assesses the economic contributions corporations make to society through the employment of workers. There are two main considerations. **Wages and salaries.** This includes the total annual wages paid to all corporate employees (including executives and foreign employees) as reported to national tax authorities. Performance bonuses are also factored in, regardless of the payout date (e.g., a bonus paid in February 2024 would count towards the corporation's jobs performance in 2023). **Employee benefits.** The system recognizes the social value created by corporations when they offer fringe benefits that enhance their employees' well-being and quality of life
Data and methodology	• Total wages and salaries and all costs associated with employee benefits.
Notes	• Performance bonuses are counted in the year they are earned, regardless of the payout date. • Costs related to work-life balance and health & safety are measured as social performance, and not economic performance. They are not included here to avoid double-counting. • Executive expense accounts are excluded as they do not directly contribute to employee well-being, which is the intended focus of this indicator.

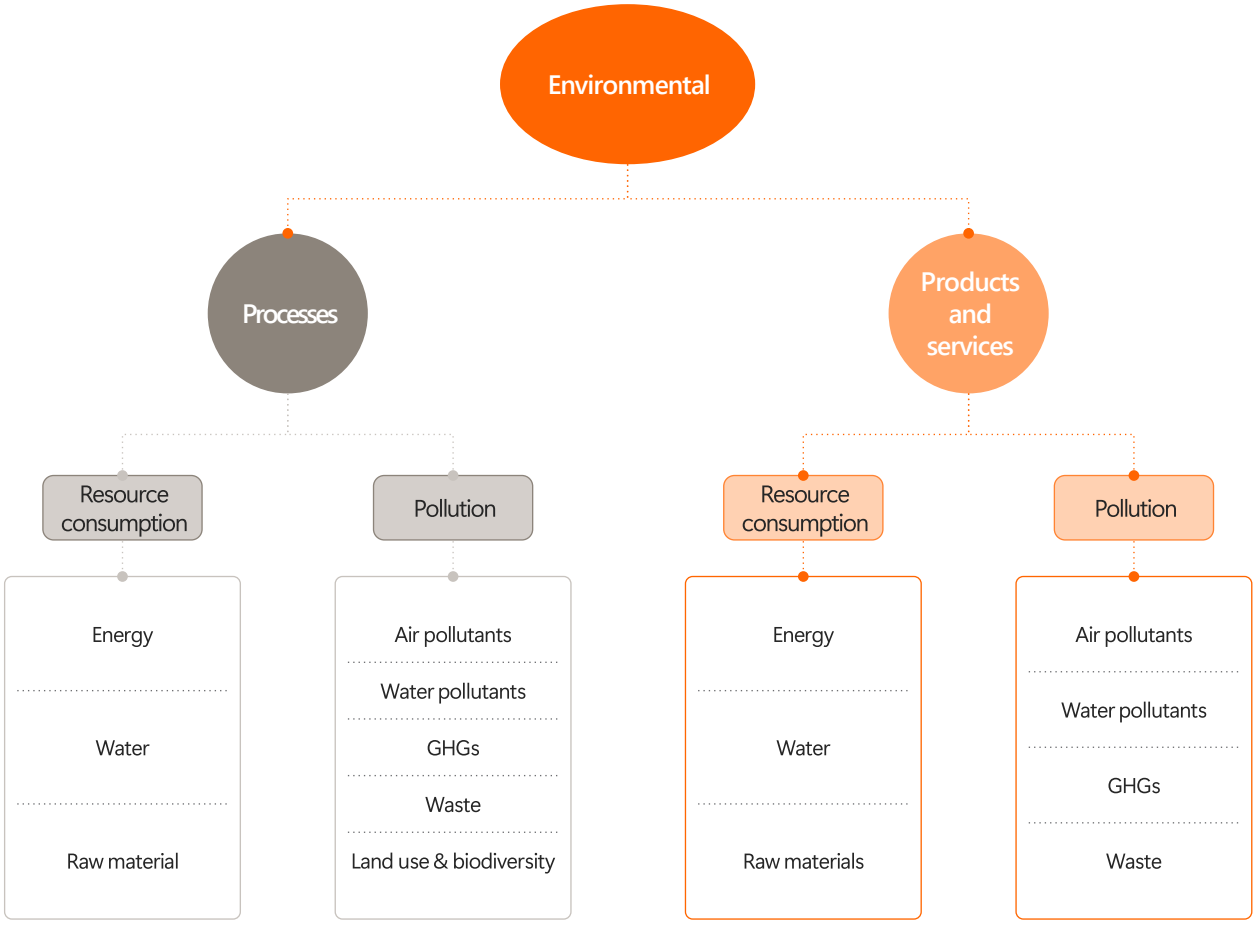
	Dividends
Description	• Corporations may contribute to enhancing shareholder value by redistributing profits generated through business activities to shareholders according to their ownership stakes.
Data and methodology	• Total value of dividends paid in current year. Extracted directly from corporate financial statements, and specifically from the net change in working capital table.
Notes	• Dividends are counted in the year they are paid, reflecting the corporation's performance in the previous year. • Dividends paid from overseas affiliates and subsidiaries to the parent are also reflected as performance.

	Taxes
Description	• Corporations contribute to national well-being and the development of the citizenry by paying taxes on their corporate activities within the country.
Data and methodology	• Total amount of taxes paid in the measurement year – Includes: Corporate income taxes, other national taxes, local taxes – Amount of taxes paid as a result of corporate activity in the measurement year
Notes	• To avoid double-counting, taxes paid by overseas branches of corporations to the relevant country are deducted from domestic corporate taxes paid. • National and local taxes are extracted from the "taxes and utility accounts" section of the income statement. However, the following items are excluded: ① Fines, penalties, and employment levies for the disabled (already accounted for in labor indicators) ② Items included in manufacturing expenses ③ Association fee items (e.g., chamber of commerce membership fees)



IV

Environmental performance



Note. Only water use, air pollutants emissions, water pollutants emissions, GHGs emissions, and waste productions are currently measured.

01

Processes

The SK DBL SV measurement system offers two primary methods for assessing environmental process performance: aggregate performance and unit performance. The most appropriate approach depends on the specific environmental impact being measured. Aggregate performance focuses on the overall environmental footprint of a product, service, or process. Conversely, unit performance measures the environmental impact associated with each unit of production or output. When evaluating environmental process performance, companies should carefully consider the pros and cons of each method to ensure they select the one that most accurately reflects their environmental impact.

Measuring aggregate environmental performance

Environmental performance can be measured in aggregate. To do so, the volume of resources depleted and pollution generated in a specific year are measured. This method provides a conservative estimate of a company's environmental performance by measuring environmental impacts as costs. Ideally, offsetting actions would result in zero environmental impact, as society should strive to minimize its environmental footprint. Thus, this method offers a valuable perspective on a corporation's absolute environmental footprint.

However, a key limitation of this method becomes evident when production volume increases. Even if a company adopts eco-friendly technologies and strives to minimize the environmental impact of its production activities, its total environmental impact may be considerable due to higher output. Large production volumes in this way can make it difficult for firms to record improvements in aggregate environmental performance, necessitating an alternative measure for measuring environmental performance. This measure is described in the following material.

Measuring unit environmental performance

Environmental performance can also be measured in terms of unit efficiency. Using this method, a company measures the environmental impact associated with each unit of production (e.g., per ton, per kWh). Because this approach focuses on environmental efficiency, rather than total environmental impact, it does not disincentivize production. This makes it useful for measuring the performance of companies that strive to minimize the per-unit environmental costs of their products.

However, establishing production unit standards that accurately represent environmental efficiency across different industries can be challenging.

- In estimating environmental impact using the unit performance approach, the effects of corporate activity on the environment are calculated in terms of unit impacts: environmental impact divided by volume of goods produced. When employing this approach, the way production volume is expressed may vary depending on the industry and the product in question. Monetary units, weight (tons, kilograms), and production units such as area (square meters) or power in Watts are typical examples.
- When selecting a production unit standard, production volume is preferred as it directly reflects output. If this data is not readily available, the quantity of raw material inputs used can serve as a substitute. For instance, a synthetic resin manufacturer might use weight in tons of a specific resin type as its production unit standard. It is important to avoid using price-related variables such as sales or costs, as these can be influenced by market fluctuations and skew efficiency measurements.
- Unit environmental efficiency is relatively easier to measure in the manufacturing sector and similar production-oriented industries, but in other sectors, alternative unit standards are necessary. In the ICT industry, for example, an alternative measure could be server capacity used to deliver services, or another measurement of deployed capital.

The impact of a corporation's production processes on environmental performance is measured in two ways: environmental pollution and resource consumption. The following figure details the target substances and performance calculation methods used to measure each of these pollutants.

Pollution

Greenhouse gases

Description

- This indicator measures emissions from corporate activities that contribute to climate change. It considers the total amount of GHGs emitted by a corporation's processes to assess environmental impact as well as corporate efforts to reduce GHG emissions.

Data and methodology

- The total amount of GHGs emitted during corporate production and operational activities is measured. To reflect the environmental impact of these emissions, the cost of a unit of GHGs is applied to monetize these impacts. This cost represents a proxy for the environmental damage caused by GHG emissions. The formula for determining net emissions performance for any given year is estimated as:
- Net greenhouse gas emissions (tCO2e) x SCC

Notes

The six major GHGs	Global Warming Potential (GWP) index score
Carbon dioxide (CO2)	1
Methane (CH4)	21
nitrogenoxide (N2O)	310
Hydrofluorocarbons (HFCs)	140-11,700
Perfluorocarbons (PFCs)	6,500-9,200
Sulfur hexafluoride (SF6)	23,900

- **Greenhouse gases**
  Greenhouse gases trap heat in the atmosphere, causing global warming and disrupting climate patterns. This warming can lead to rising sea levels, outbreaks of infectious diseases, and imbalances in ecosystems on land and in the ocean. The UNFCCC identifies six main greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrogenoxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). CO2 is the most abundant greenhouse gas, but different gases have varying heat-trapping abilities. To account for this, emissions are converted into a CO2 equivalent (CO2e) using global warming potential (GWP). The specific GWP values used for conversion follow the guidelines set by the Ministry of Environment's GHG emissions trading scheme.
- **Global Warming Potential (GWP)**
  An index used by the Intergovernmental Panel on Climate Change (IPCC) to gauge the extent to which major GHGs contribute to global warming.
- **Social Cost of Carbon (SCC)**
  An index that estimates the international social cost of one unit of CO2 . Numerous methods exist for calculating SCC.

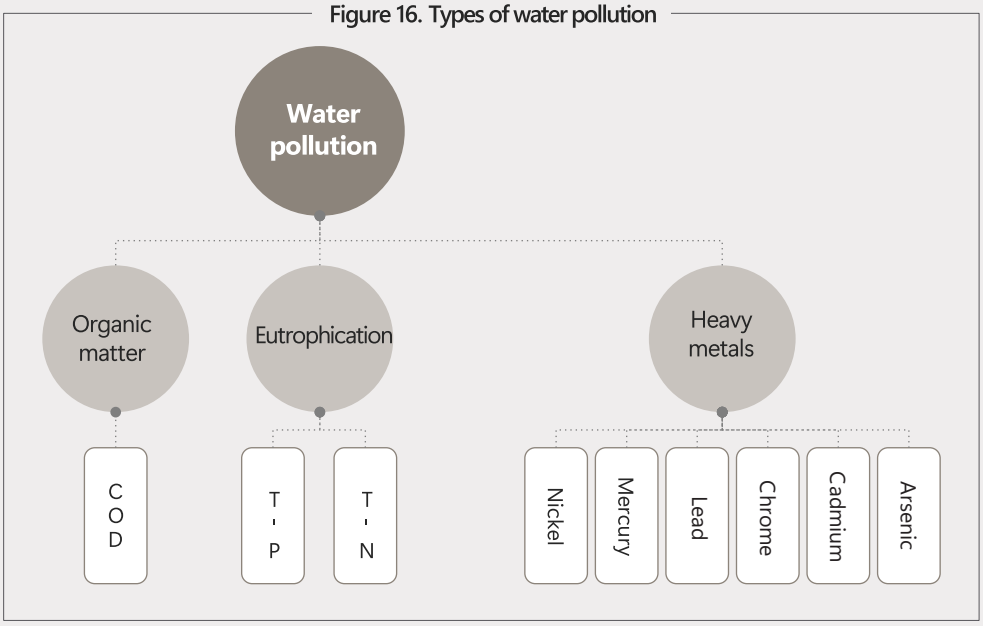
	Air pollution
Description	• This indicator measures airborne pollutants emitted from corporate facilities during production processes. These pollutants negatively impact human health and the environment. The focus is on five key pollutants: nitrogenoxides (NOx), sulfuroxides (SOx), particulate matter less than 10 micrometers in diameter (PM10), particulate matter less than 2.5 micrometers in diameter (PM2.5), and volatile organic compounds (VOCs).
Data and methodology	• The total volume of airborne pollutants emitted in the course of corporate business activities is measured. The cost of a unit of air pollutants is applied to monetize these impacts. This cost represents a proxy for the environmental impact caused by the generation of airborne pollutants. The formula for determining net air pollutant performance for any given year is estimated as: • Air pollutant emissions (tons) x Unit environmental cost per ton
Notes	• In Korea, airborne pollutants are defined according to Article 2 of the Clean Air Conservation Act (refer to Article 2 and Annex 1 of the Enforcement Rules for details). The four main kinds of pollutants are as follows: • NOx (Nitrogen Oxides): Mainly nitrogen monoxide (NO) and nitrogen dioxide (NO2). These are commonly emitted from chemical manufacturing, metal processing, fossil fuel combustion, and other processes. • SOx (Sulfur Oxides): Primarily sulfur dioxide (SO2) and sulfur trioxide (SO3), produced during power generation, metal processing, and fossil fuel combustion, among other activities. • PM (Particulate Matter): Microscopic particles suspended in the air, including PM10 (particles less than 10 micrometers in diameter) and PM2.5 (particles less than 2.5 micrometers in diameter). Sources include combustion facilities, industrial processes, and unpaved roads. • VOCs (Volatile Organic Compounds): Organic substances that contribute to smog formation. Emitted from painting facilities, refineries, gas stations, and automobiles .VOCs are also found in consumer products and building materials.

Water pollution

Description

- This indicator measures the environmental impact of organic and inorganic compounds and heavy metals a corporation discharges into the hydrosphere during business activities.

Figure 16. Types of water pollution



Data and methodology

- The total volume of water pollutants discharged by a corporation in the course of business activities is measured. To reflect the environmental impact of these discharges, a unit environmental cost is applied to each pollutant, converting the discharge into a monetary value.
- Pollutants discharged into water (tons) x Unit environmental cost per ton

Notes

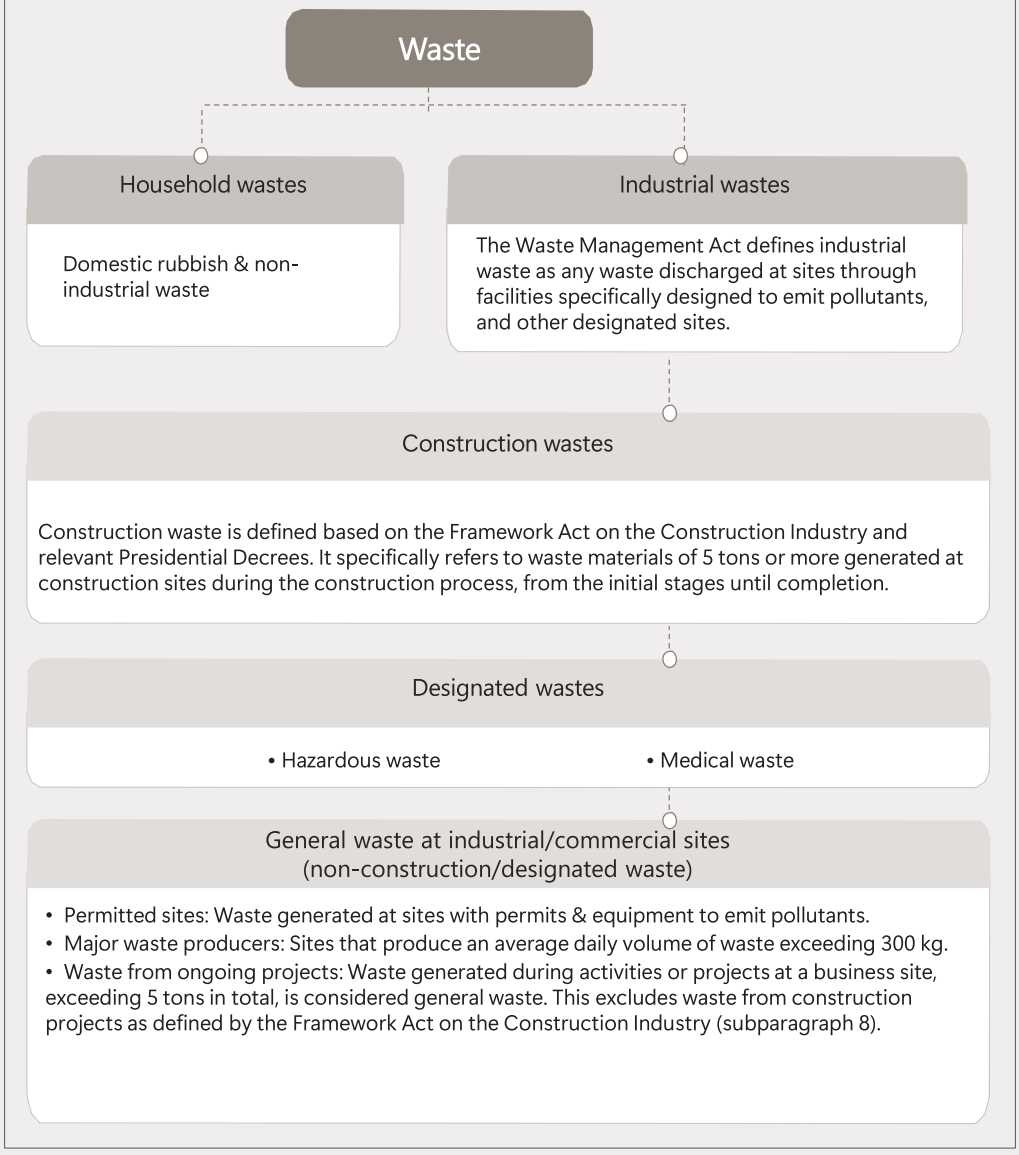
- The types and definitions of water pollutants considered follow the regulations of the country where the business operates. For businesses in Korea, refer to Article 3 and Annex 2 of the Enforcement Rules of the Water Environment Conservation Act.

Waste

Description

- This indicator assesses the environmental impact of waste generated by corporate business activities. Waste includes any discarded matter that can pose a threat to the environment unless properly processed or disposed of. Corporations are responsible for minimizing the amount of waste they generate. The SK DBL SV measurement system categorizes waste into general waste and what is known in Korea as “designated” waste. Waste is further sub-classified into incinerated waste and landfill waste. This allows for a more nuanced assessment of the environmental costs of different waste streams.
- General waste refers to common waste materials generated by businesses and households, such as paper, food, and packaging waste. Overall, general waste has a lower environmental impact compared to designated waste. In Korea, designated waste is defined by Presidential Decree as hazardous waste that can pollute the environment or harm human health. Examples include waste oil, batteries, and fluorescent lamps. Due to the potential environmental threats posed by designated waste, it is subject to stricter regulations regarding storage, transportation, and disposal.

Figure 17. Types of waste



Data and methodology

- The total amount of waste generated by a corporation in the course of business activities is measured. To reflect the environmental impact of waste disposal, a unit environmental cost is applied incinerated waste and landfill waste. This coefficient is used to monetize waste quantities. Total waste performance is estimated through the following formula:
- Volume of waste produced (tons) x Unit environmental cost per ton

Notes

- The specific types of designated waste considered in the measurement system are defined according to Article 3 and Annex 1 of the Enforcement Decree of the Wastes Control Act.

	Land use and biodiversity
Description	• This indicator measures the impact of a corporation's business activities on land use and biodiversity. Land plays a vital role in regulating the environment, providing essential resources for human life, and offering recreational opportunities. However, when corporate activities transform land from its natural state, it can alter the quantity and quality of ecosystem services provided by that land. This indicator uses monetary values to assess the changes in land and biodiversity resulting from these business activities.
Data and methodology	• Currently under review and to be updated at a later date.
Notes	**Land use type** This refers to the natural or artificial state of the land, categorized based on the dominant plant and animal life (flora and fauna) and biome (e.g., farmland, forest, grassland, desert, wetland, ocean). **Biodiversity** This encompasses the variety of living organisms found in terrestrial and aquatic ecosystems, including diversity within species (genetic diversity), between species (species richness), and across entire ecosystems (ecosystem diversity). **Ecosystem services** These are the benefits that humans derive from ecosystems. In Korea, they are as defined in Article 2, Paragraph 10 of the Act on the Conservation and Use of Biological Diversity. They can be categorized as: • Provisioning services: Tangible products obtained from nature, such as food, water, and wood. • Regulating services: Environmental processes that benefit humans, including air and water purification, carbon sequestration, flood control, and climate regulation. • Cultural services: Non-material benefits related to recreation, aesthetics, and cultural significance, such as ecotourism, scenic landscapes, and recreational opportunities. • Supporting services: Essential ecological processes that maintain healthy ecosystems, such as soil formation, nutrient cycling, and habitat provision.

Resource Consumption

	Water
Description	• Water is a vital resource essential for most business activities. Responsible companies will strive to reduce water consumption and pursue the efficient use of this precious natural resource. This metric considers corporate water consumption and accounts for direct abstractions from various sources, including surface water, groundwater, and seawater, as well as freshwater purchased on the market.
Data and methodology	• Measurement principle: This metric assesses corporate water consumption during the measurement year. • Total performance: Water consumption volume in the measurement year is multiplied by the unit cost of water.
Notes	• Statistical basis The unit cost of water is calculated based on the average purchase price per unit of water for the given type of water (groundwater, surface water, etc) in the measurement year, adjusted by a water processing rate. • The water processing rate is determined by subtracting the added value rate of the water provider from 1: (1 – water provider added value rate) • Two types of data may be used to estimate the water rate. Actual data on costs provided by the water supplier are preferred. If unavailable, industrywide data on water costs for the industry in which the water provider is active may be used instead. • If a company collects and processes its own water, the volume of water abstractions is measured.

Case study: The costs of waste

Measuring aggregate performance

- Counting the cost of waste: The environmental impacts and social costs of waste generation

What is the social value of the environmental impact of non-recyclable waste generated by corporations?

Waste category		Total volume (A)	Unit	Environmental impact unit cost (B)		SV performance (A x B) (in KRW)
General	Landfill waste	xx,xxx,xxx	㎥(ton)	Social costs of landfilled/ incinerated waste	xxx KRW/㎥(ton)	△20 mln
	Incinerated waste	x,xxx,xxx			xx KRW/㎥(ton)	△30 mln
Designated	Landfill waste	-			-	-
	Incinerated waste	x,xxx,xxx			xx KRW/㎥(ton)	△40 mln
Total SV performance						△90 mln

02

Products & services

For details on measuring the environmental impact of products and services, refer to the techniques and case studies described in Section 4 of Chapter 2.

Case study: Baseline application (market average)

Company A Energy savings & GHG reductions achieved through distribution of energy-efficient set top boxes (STB)

Key features	Smaller size, lower power usage in standby mode compared to existing products
Social problem addressed	GHG emissions generated as a result of proliferation of STBs and attendant household power consumption

Defining performance

Input	Activity	Output	Outcome	Impact
Resources invested in product development	Production	Results	Energy savings and/or GHG reductions	Environmental contributions
Costs incurred in product development	Production & sales of energy-efficient STBs	No. of households with energy-efficient STBs	Lower energy consumption and emissions	Mitigated damage and costs to society & the environment; lowered climate change risk

Calculating SV

(Market average power consumption (kWh/year) – Corporate power consumption (kWh/year))

x Unit price of electricity (KRW/kWh) / Social Cost of Carbon (KRW/kg CO2e)

x Operating hours (hours/year) per energy-efficient STB = approx. KRW 400 mln

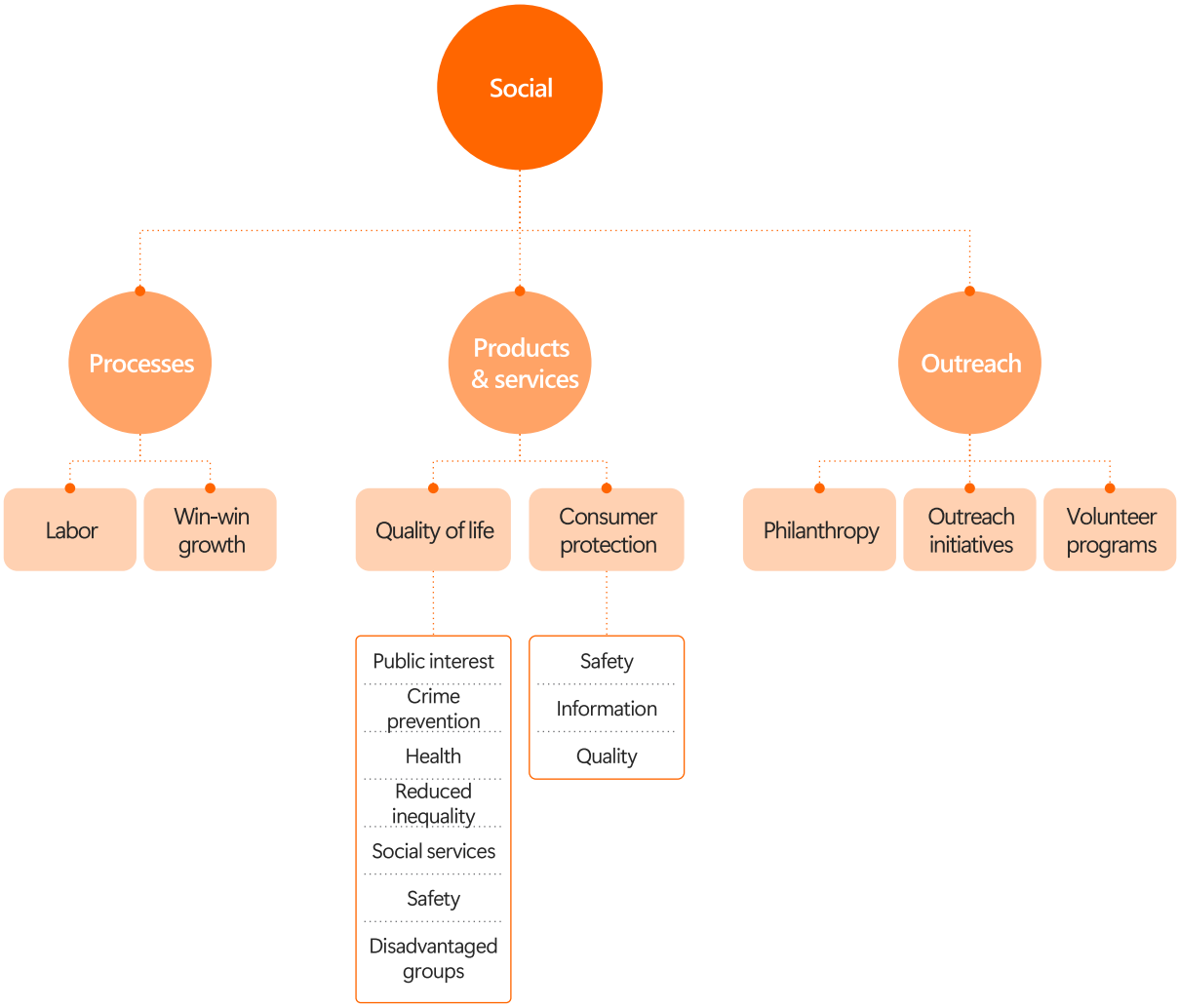
* Calculating market average baseline

Category	Company A(My company)	Company B	Company C
Power consumption	00W	00W	00W
Market share	00%	00%	00%
Weighted market average	00		

Data sources	Korea Energy Agency: Power consumption data Ministry of Science and ICT: Set-top box market share data Korea Electric Power Corporation: Residential electricity unit price data PwC: Basic data used in estimating global social cost of carbon

V

Social performance


Social
Processes
Products & services
Outreach
Labor
Win-win growth
Quality of life
Consumer protection
Philanthropy
Outreach initiatives
Volunteer programs
Public interest
Crime prevention
Health
Reduced inequality
Social services
Safety
Disadvantaged groups
Safety
Information
Quality

01

Labor

The SK DBL SV measurement system considers three key labor-related indicators: the employment of disadvantaged groups, employees' quality of life, and safety and health management.

Employment of disadvantaged groups

Many members of society face challenges in finding and maintaining stable employment. The SK DBL SV measurement system recognizes that corporations that create employment opportunities for members of disadvantaged groups contribute to social value creation. This indicator measures a corporation's efforts to provide jobs for the disadvantaged and underprivileged.

Employment of disadvantaged groups

	Employment of the disadvantaged and underprivileged
Description	• **Disadvantaged groups** Refers to members of society who, due to various difficulties, face challenges entering the general labor market or securing adequate income (refer to Article 2 of the Social Enterprise Promotion Act for details). These groups can include recipients of direct cash welfare, the poor or near-poor, older adults and seniors (aged 55+), people with disabilities, and women re-entering the workforce after career breaks. Companies can create social value by directly hiring members of these disadvantaged groups, improving their incomes and quality of life. • This indicator measures jobs created due to corporate policies specifically designed to create employment opportunities for members of disadvantaged groups. Employees hired as part of normal recruiting that otherwise fit the criteria are not included. Only employment is excess of statutory obligations is counted. For example, if a company is legally required to hire a certain percentage of disabled workers, only the number of disabled workers hired beyond that quota would contribute to SV performance. If a corporation fails to meet statutory requirements for the employment of disabled workers, any fines incurred for failing to meet quotas are considered negative social performance and subtracted from a corporation's SV score.
Data and methodology	• The increased income earned by members of disadvantaged groups after being hired is measured. This income is considered the primary social benefit created by employment of the disadvantaged and underprivileged. • Formula: Increase in income = (Post-employment income - pre-employment income) x number of hired individuals - government subsidies • Example: (Monthly salary - Average monthly income before employment) x number of disabled people hired - government subsidies

Notes

- **Income data**
  - Post-employment income: This refers to the average monthly wage earned by the member of the disadvantaged group. If the employment period is less than 12 months, the monthly average is calculated based on actual earnings.
  - Pre-employment income: This is estimated based on statistics for expected earned income levels for different types of disadvantaged group (refer to relevant sources).
- **Special considerations**
  - Double counting: If a hired worker falls into multiple disadvantaged categories, they should only be counted once to avoid double counting their impact.
  - Recognition timeframe: The social value contribution of employing members of disadvantaged groups is recognized three years after the time of hiring. This timeframe considers the development of job proficiency, job stability, and other factors.
    - Rationale
      - ✓ Proficiency: Typically, three years is considered the minimum time required to become proficient in a new role.
      - ✓ Stability: Standard terms for contract workers are typically two years. The three-year requirement reflects the importance of stability.
- **Exclusions**
  - This indicator excludes employees hired through temp agency arrangements, day-laborers, and other types of workers due to a lack of job stability and the difficulty in measuring their impact on reducing income inequality. Only permanent hires and directly-hired contract positions are recognized.
  - Non-cash benefits: Non-cash fringe benefits provided to employees are not included in income measurements.
- **Overseas affiliates & operations**
  - Local conditions: When measuring the performance employment at overseas affiliates or branches, local circumstances and established systems should be taken into account. This includes determining which groups qualify as disadvantaged according to local standards and using relevant data sources for pre-employment income estimates in that region.
- **Employment in underdeveloped countries (Bottom of Pyramid - BoP)**
  - The indicator recognizes the creation of social value through employment of local citizens following the establishment of a branch or subsidiary in an underdeveloped country. In such cases, the entire local labor market is considered disadvantaged.
  - Criteria: The World Bank's classification of low-middle and low-income countries based on gross national income per capita is used to define underdeveloped countries.
  - Calculating performance: The social value performance in these areas is calculated by subtracting the average wage in the underdeveloped region from the wage offered by company.
  - Average wage data: Data for similar jobs or the same industry within the underdeveloped region should be used when estimating average wages.

Quality of life

Beyond providing fair compensation, corporations play a significant role in fostering employee well-being. This indicator assesses a corporation's efforts to improve the quality of life of its workforce. It considers initiatives that promote work-life balance, such as educational programs and family-friendly systems. By investing in employee well-being, corporations can contribute to social value creation.

Quality of life

	Family-friendly systems
Description	• This indicator measures corporate contributions to improving employee quality of life by supporting a healthy work-life balance. It considers initiatives that go beyond legal requirements to create a family-friendly work environment. • **Mandatory systems** – For work-life balance programs that companies have a statutory obligation to offer, the SK DBL SV measurement system only recognizes social performance in excess of legal minimums. See the Ministry of Employment and Labor's Maternity Protection and Work-Family Balance Support Handbook (2023) for examples of mandatory programs. They include: – Maternity protection: Pre- and post-natal leave, miscarriage/stillbirth leave, spousal maternity leave, reduced working hours during pregnancy, leave for infertility treatment, etc. – Other family policies: Childcare leave, flex-time work for childcare, family care leave, flex-time work for caregivers, etc. • **Voluntary systems** The indicator also recognizes independent corporate efforts to contribute to a family-friendly workplace culture. Examples of such efforts include: – On-site childcare facilities (for large companies, only those facilities that go beyond statutory requirements) – Financial or other forms of support for employee childcare
Data and methodology	• The economic utility accruing to employees through corporate work-life balance programs is used as an alternative measure of the social value of such initiatives. • Formulas: The SV contribution from work-life balance initiatives is calculated by summing the performance scores for each program offered: ✓ Work-life balance SV = Parental leave performance + Flex-time performance + Performance of misc. work-life balance initiatives ✓ Parental leave SV = Number of months of parental leave taken x average monthly salary of employees ✓ Paid flex-time work SV = Paid flex-time working hours x average hourly wage of employees ✓ Unpaid flex-time work SV = Unpaid flex-time work hours x minimum hourly wage ✓ Other work-life balance SV = Replacement cost or total implementation cost • Note: Alternative measures are used to estimate the economic utility to employees. Alternative service costs represent the estimated market price for similar services (childcare costs).

Notes	• **Statutory minimums** Only the performance of work-life balance programs that exceeds legally-mandated minimums is considered to have contributed to the creation of social value. For example, only leave granted above and beyond the legal minimum is included in the SV calculation. • **Cultural considerations** While companies are legally obligated to offer childcare leave and flex-time childcare schemes in Korea, the SKL DBL SV measurement system recognizes that there are many barriers to actually taking advantage of these programs from the perspective of the worker. For this reason, the system acknowledges full SV performance of when a corporation actively facilitates employee access to these programs. This applies equally to both men and women.

	Education and training
Description	• This indicator measures the performance of corporate human capital development programs. It is used to assess the overall value of educational curricula offered by a corporation, excluding any compulsory education and/or training.
Data and methodology	• The contribution of educational programs to employee well-being and quality of life is measured by evaluating the performance of corporate Human Resource Development (HRD) systems. The total cost of educational programs targeting quality of life improvements of employees is used as the alternative measure.
Notes	• **Statutory minimums**. Mandatory legal education and training requirements as defined by the Ministry of Employment and Labor include the following: – Sexual harassment prevention training (Article 13 of the Equal Employment Opportunity Act) – Personal information protection training (Article 28 of the Personal Information Protection Act) – Occupational safety and health education (Article 31 of the Occupational Safety and Health Act) – Training to improve awareness of persons with disabilities (Article 5-2 of the Act on Employment of Persons with Disabilities) – Anti-Corruption training (Article 42, Paragraph 3 of the Enforcement Decree of the Improper Solicitation and Graft Act) – Retirement pension education (Article 32 of the Employee Retirement Benefit Security Act)

Health & safety

Beyond providing a fair wage and a good work-life balance, corporations have a responsibility to ensure the health and safety of their workforce. For this reason, the SK DBL SV measurement system assesses corporate efforts to prevent workplace accidents, create a safe working environment, and promote employee well-being. Effective health and safety programs not only protect employees but also contribute to a positive and productive work environment.

Health & safety

	Health
Description	• This indicator measures corporate efforts in excess of legal requirements to promote employee health and wellness. It considers the following. – Illness & disease prevention: Programs (health screenings) exceeding minimums stipulated in the national industrial accident insurance scheme – Safety & health management: Activities that minimize work-related injuries and damage.
Data and methodology	• Performance is measured as total costs incurred in implementing health promotion activities that exceed those covered by national industrial accident insurance. • Health promotion SV = Disease prevention performance + Safety and health management performance

	Industrial accidents, injuries, and fatalities
Description	• This indicator measures corporate efforts to prevent workplace accidents and ensure employee safety. A high industrial accident rate negatively impacts employee well-being, and companies must actively work to provide a safe working environment. An industrial accident is defined as any event, occurrence, or phenomenon that causes physical and/or mental harm to workers in the course of performing work. This includes injury, disease, disability, and death.
Data and methodology	• The value of insurance payouts to workers as compensation for industrial accidents that can be attributed to human error is measured as negative social performance. • Industrial accident SV = Insurance paid out as a result of industrial accidents and any accident-related costs.
Notes	• Industrial accident insurance payments include all work-related injuries, illnesses, disabilities, and deaths covered by insurance in the measurement year, regardless of when the accident occurred. Cases where the company directly covers costs without insurance are included. Insurance payments delayed due to legal disputes are applied to the year they are actually paid.

Case study: Addressing poverty

Alleviating poverty through the employment of disadvantaged populations

- Empowering communities: The social value of employment opportunities for low-income individuals and the disabled

What social value is created by corporations when they improve the incomes and living conditions the disadvantaged and underprivileged through the creation of targeted employment opportunities?

Group	Monthly income (in KRW)		# of individuals (C)	Subsidies received* (D) (in KRW)	SV performance ((A-B) x C - D) (in KRW)
	After (A)	Before (B)			
Low-income individuals	3 mln	2 mln	10	-	10 mln
Disabled individuals (by official standards)	2.5 mln	2 mln	20	1 mln	9 mln
Total SV performance					19 mln

* Refers to government employment subsidies (e.g., subsidies for employing the disabled)

Improvements to quality of life

- Better working conditions, better workers: Measuring the social value created by programs that boost productivity and well-being

What social value is created by corporations when they furnish an enriching, stimulating, and pleasant working environment for their employees?

Family-friendly systems

Category	# of workers eligible x hours used (A)	Average salary (monthly & nominalized hourly) (in KRW) (B)	SV performance (in KW) (A x B)
Maternity/ Paternity leave*	50(5 workers x 10 hours/month)	Approx. 3 mln/month	150 mln
Flex-time work (paid)	1,500 (3 workers x 500 hours)	Approx. 40k/hour	60 mln
Total SV performance			210 mln

Education & training

Category	Data points	Total costs (in KRW) (A)	SV performance (in KRW) (A)
Professional development	Development costs of online curricula	30 mln	30 mln
SV-oriented education	Operational costs	10 mln	10 mln
Total SV performance			40 mln

*While parental leave is mandated by law, recognizing the challenges employees might face in utilizing it, the SK DBL SV system acknowledges full performance when a company actively facilitates employee access to these programs. (applies equally to men and women)

Case study: Wellness & safety

Supporting the health and safety of workers

- Maximizing well-being, minimizing risk: The social value of health & safety programs, and the costs of harm to workers

What social value is created by corporations when they establish and run health & safety programs? And what social value is lost in the event of an industrial accident?

Worker safety

Category	Data points	Total costs (in KRW) (A)	SV performance (in KRW) (A)
Disease prevention	Costs of regular physicals and vaccination campaigns	50 mln	50 mln
Health promotion	Costs of on-site gyms, smoking cessation programs	10 mln	10 mln
Total SV performance			60 mln

Industrial accidents

Category	Data points	Total costs (in KRW) (A)	SV performance (in KRW) (A)
Damages (human)	Total insurance payout	△30 mln	△30 mln
Total SV performance			△30 mln

02

Win-win growth

Win-win growth is measured using indicators that gauge social performance in four key areas: fair trade, shared prosperity, socially responsible procurement, and the health and safety at partner companies.

Fair trade

Stronger partnerships mean fairer outcomes. This indicator assesses a corporation's commitment to fair and ethical business practices throughout its supply chain. It measures corporate efforts to make the terms of its transactions with suppliers and subcontractors more fair.

Fair trade

	Payment
Description	• This indicator measures a corporation's commitment to the fair treatment of its suppliers by evaluating the terms of payment. Specifically, this indicator looks at whether the corporation offers prompt payments. Avoiding delays in payments to suppliers improves their cash flows and financial stability.
Data and methodology	• The value of interest expenses saved by suppliers thanks to shorter payment terms is measured and considered as contributing to social performance. – Total benefit accrued to suppliers = Total value of payments x (Large companies average terms – Company average terms) / 365 days x Average interest rate
Notes	• **Subcontracting transactions.** As defined by Article 2 of the Fair Transactions in Subcontracting Act, subcontracting is a type of transaction in which one company contracts another to perform one or several tasks (manufacturing, repair, construction, services, etc.). • **Payments.** Refers to the value of these transactions, as stipulated in the Subcontracting Act. • **Payment terms.** Refers to the number of days a company takes to pay a supplier after receiving the final deliverable. The relevant date for calculating this is defined in Article 13 of the Fair Transactions in Subcontracting Act and can vary based on the nature of the work involved. • **Industry average terms.** This refers to the average number of days large companies in Korea typically take to pay subcontractors. Based on Fair Trade Commission data and Win-Win Index data. • **Average interest rate.** This refers to the average loan interest rate that commercial banks offer to SMEs. Data sources include the Bank of Korea's weighted average interest rate of depository banks and the Korea Federation of Banks' rate on new loans to SMEs.

	Unfair trade
Description	• This indicator measures the damage and costs of abusive or manipulative corporate practices to dictate prices, quantities, or other terms. The level of these damages can be compared against similar companies to inform an understanding of how fair a company is in its dealings with subcontractors and suppliers.
Data and methodology	• The value of damages a corporation causes to its partners due to unfair trade practices is measured. Damages can be measured in two ways: direct harm and Fair Trade Commission (FTC) penalties. Direct damages are explicit financial losses incurred by partners, including loss of revenue, increased costs, and legal fees. If measuring direct damages is challenging, the value of FTC penalties (fines, surcharges, etc.) imposed on the corporation for unfair trade practices related its partners can be used as an indirect indicator of damages caused to partners.
Notes	• **Market dominant position**. When a company has enough market power to unfairly influence competitors. • **Fair Trade Commission (FTC) sanctions**. The FTC can impose corrective measures and fines on companies shown to have engaged in unfair trade practices related to subcontractors. There are two basic types of disciplinary actions: orders and fines. Orders are requests for correction, made through public announcements, that require companies to stop violating the law (Article 25 of the Fair Transactions in Subcontracting Act). Fines are financial penalties. The value of these levies may be up to twice the value of the subcontracting contract and can be imposed on all parties involved in the violation (Article 25-3 of the Fair Transactions in Subcontracting Act). • The indicator applies to all financial interactions with partners (business partners), SMEs, individuals, and other businesses. It only excludes direct subsidiaries and affiliates of the company being measured. Only final judgments issued in the measurement year are considered. These judgments may involve corrective actions for violations of the Fair Transactions in Subcontracting Act, or violations committed by executives and employees during subcontracting transactions. • For more information, refer to the FTC's online case processing system.

Shared prosperity

A thriving business ecosystem fosters win-win partnerships, and a corporation's impact extends beyond its direct partners. By strengthening the entire business ecosystem, companies can create lasting social value. This indicator gauges a corporation's commitment to supporting small and medium-sized enterprises (SMEs), startups, and social enterprises. Assistance offered to these partners can include access to capital or financing solutions (financial support), knowledge transfers (technology sharing), training or skill-building programs (human capital development), the sharing of best practices and operational guidance (management consulting), market expansion support, and access to shared facilities or resources (infrastructure sharing). By fostering a collaborative environment, companies can contribute to a more robust and sustainable economy for everyone. To avoid double counting, support programs are categorized under the indicator that best reflects their nature. As quantifying and measuring the social performance of shared prosperity initiatives can be extremely challenging, a number of alternative measures are used to gauge performance, such as the value of inputs. In principle, the value of corporate contributions of both resources and activities is measured.

Shared Prosperity

	Financial support
Description	• This indicator measures the social performance of financial support provided by large corporations to their suppliers and business partners, usually in the form of financing or funding of production or operational activities. Financial support can not only help guard against excessive concentrations of profits in large companies, but also help smaller businesses stand on their own two feet, improving the health of the larger business ecosystem.
Data and methodology	• The benefit accruing to partners via various forms of financial support is measured. Alternative measures are used to assess the value of these efforts. • **Interest-free loans** – The value of these loans is calculated by considering the difference between the market interest rate and the rate offered by the company – Benefit = Loan amount x difference in interest rate • **Grants** – The full amount of the grant is considered the benefit
Notes	• **Rationale** – Financing (or funding) provided by companies to partner firms for the following objectives may be classified as contributing to win-win growth performance: • Purchasing raw materials and equipment • Investing in production infrastructure • Investing in R&D – See Fair Trade Commission regulations and standards for evaluating fair trade between large and small businesses – Advance payment made for goods or services rendered is excluded, as it is a *quid pro quo* activity that results in a liability for partner firms • **Data sources** – Average interest rate at commercial banks: Bank of Korea, deposit bank weighted average interest rate – Small business loan interest rate: Korea Federation of Banks – Scope: This indicator applies to all financial support programs offered to business partners, SMEs, individuals, and other businesses, but excludes subsidiaries and affiliates of the company

	Technical support
Description	• This indicator assesses a corporation's commitment to fostering the technological capabilities of its partners. It evaluates the resources and activities invested in providing technical support and transfers of knowledge and technology to suppliers, subcontractors, and other partners, ultimately contributing to their growth and a more robust business ecosystem.
Data and Methodology	• The value of technical support and guidance for partner firms is measured. This essentially involves measuring the contribution of corporate resources and efforts against the benefits experienced by the partners. • However, directly calculating the precise impact of such support on partner outcomes (e.g., increased sales or value creation) can be difficult, so the system utilizes alternative measures that indirectly reflect the social value created. • The value is estimated based on several factors, depending on the type of assistance provided. Commonly used data include input costs, market prices for comparable services (when applicable), and advisory fees charged by professional consultants for comparable expertise. • In situations where directly measuring the value of technical support is impractical, the system may consider an additional alternative measure: the added value generated from the partner's purchases of products or services developed with the company's assistance. • **Grant**: Full amount recognized • **In-kind contributions**: Estimated market value recognized • **Interest-free or low-interest cash loans**: Principle x (avg. market interest rate at commercial banks – rate of loan*) • **Free rental or lease of equipment** : Estimated value of lease • **Misc.:** Value of purchases related to technical support x Added value rate in partner firm's industry *Interest rate is determined separately for each program
Notes	• **Recognized technology support** – Technology transfers from a corporation to a supplier or subcontractor – Provision of patent rights – Joint research and development – Support for new products and/or localization of existing products – Support for adopting a partner company's patents or new technology and entering into a related contract • **Recognized technology protection** – Support for using a technical data escrow system for the protection of partners' technologies – Joint patent application – Support for patent application – Support for using a trade secret certification system • **Data sources** – Average interest rate at commercial banks: Bank of Korea, based on the deposit bank weighted average interest rate for new loans. – Value added rate: Statistics Korea – Scope: This indicator applies to all targets designated by each support program, including partners (business partners), SMEs, individuals, and other businesses, but excluding unrelated subsidiaries and affiliates of the company being measured.

Notes	– Contributions through purchases: The contribution to partner income generation through purchases of products developed thanks to technical support provided by the company being measured is calculated as follows: (Purchase amount x value added rate) x Contribution rate • Misc: For joint research, attributions should be estimated. In cases where this is difficult, a 5:5 ratio can be arbitrarily applied. • Direct measurement: If the value of technical support provided can be converted into a monetary value, or if the market price of said support can be reasonably estimated, the full amount (or estimated market price) is recognized.

	Human resources support
Description	• This indicator assesses a corporation's efforts to help SMEs recruit and retain talented employees. It considers various support activities, such as posting personnel to SMEs on temp assignments or supporting SME participation in job fairs.
Data and methodology	• The costs of support activities incurred by the company are measured. These costs may represent the cost of establishing or running the relevant programs or the estimated market price of the services provided.
Notes	• **Recognized human resources support** – Mid-level managers, professional engineers, and other employees posted on temp assignments to suppliers, subcontractors, and other partners at the corporation's expense. Partner firms may have the option of directly hiring these workers. – Suppliers and subcontractors hiring individuals who have been trained by the large corporation specifically to support recruitment efforts. – Suppliers and subcontractors attending job fairs organized by the large corporation to connect with potential hires. – Any other relevant financial support related to human resource recruitment activities. • **Scope:** This indicator applies to all targets designated by each support program, including business partners, SMEs, individuals, and other businesses, and excludes only direct subsidiaries and affiliates of the corporation.

	Operational support
Description	• Many small and medium-sized enterprises (SMEs) face operational challenges due to limited resources, infrastructure, and economies of scale. This indicator assesses a corporation's efforts to support its suppliers and subcontractors through various management-related programs, fostering shared growth within the business ecosystem.
Data and methodology	• The costs incurred by the company in the operation of managerial support activities are measured. These costs can include the expenses incurred in running the program or the estimated market price of the services provided.
Notes	• **Recognized operational support**: Win-win growth committees leverage best practices to promote shared prosperity and growth for the corporation and its partner firms. • **Scope**: This indicator applies to all targets designated by each support program, including business partners, SMEs, individuals, and other businesses, excluding only direct subsidiaries and affiliates of the corporation. Notably, programs such as internal job training for partner company personnel can be included, as they contribute to the development and long-term success of partner businesses.

Socially responsible procurement

Socially responsible procurement goes beyond price and quality; it considers the social impact of purchasing decisions. This approach encourages corporations to support producers in vulnerable regions or situations, fostering shared growth and positive social change.

The following indicators gauge a corporation's commitment to social responsibility through its procurement practices, measuring how it supports producers facing economic hardship or those located in disadvantaged areas, and gauging how it stimulates economic activity and fosters growth in underserved or disadvantaged regions and/or communities.

Socially responsible procurement

	Fair trade practices in underdeveloped regions
Description	• This indicator measures responsible business practices that consider the social and economic impacts of corporate activities. Corporations are being called upon to manage their supply chains ethically and contribute to a positive cycle within the global market.
Data and methodology	• The value of transactions in low-income regions is measured. – Value of transactions x sectoral value-added rate • This approach considers both increased income for producers and the contribution to overall economic development within these regions.
Notes	• Low-income regions: Defined as lower middle-income economies or low-income economies according to World Bank Gross National Income per Capita data. – Sectoral value added rate Data source: Statistics Korea. • Fair trade: Additional details on fair trade practices within the supply chain for products sourced from low-income regions may be considered (refer to specific data collection methods).
	Support for inclusive commercial relationships
Description	• Social enterprises, companies employing people with disabilities, and cooperatives play a vital role in addressing social challenges and engendering positive social change. However, these kinds of businesses often face economic hardships. This indicator assesses a corporation's efforts to support the self-reliance of these kinds of enterprises through preferential purchasing programs.
Data and methodology	• The total value of corporate transactions made with social enterprises, companies employing people with disabilities, cooperatives, and other types of disadvantaged producers is measured. – Value of transactions with social enterprises x sectoral value-added rate • This approach recognizes corporate contributions to overall economic development within the larger socioeconomic ecosystem.
Notes	• Social enterprises and disadvantaged producers: Evidence such as transaction details and data from preferential purchasing platforms can be used to identify these types of businesses. • Sectoral value-added rate: Sourced from Statistics Korea.

Socially responsible global conduct

The following indicators assess two key aspects of a corporation's commitment to social responsibility within its global supply chain. The first measures the financial impact of any violations of social responsibility standards within the supply chain, and the second evaluates corporate efforts to promote the stability and integrity of supply chains.

Socially responsible global conduct

	Noncompliance costs
Description	• This indicator assesses the costs of disruptions to the ethical and sustainable functioning of the global supply chain. It includes the value of materials sourced from conflict zones or those linked to unfair trade practices, such as conflict minerals, and specifically tin, tantalum, tungsten, and gold mined in the Democratic Republic of the Congo (DRC) and surrounding areas.
Data and methodology	• The costs of unethical or unsustainable sourcing practices are measured. – Preferred indicator: If evidence exists of sanctions arising from violations of socially responsible sourcing practices, the value of these sanctions is used. – Secondary indicator: In the absence of confirmed violations, the entire transaction cost associated with materials potentially linked to such violations is used. This emphasizes the risks of unethical sourcing and encourages stricter and more sustainable procurement.
Notes	• Evidence for identifying violations can include sanctions related to import regulations or breaches of ethical sourcing guidelines. • Company-specific ethical sourcing policies, in addition to domestic laws and international standards, can be considered when evaluating compliance. * U.S. Securities and Exchange Commission Dodd-Frank Wall Street Reform and Consumer Protection Act: This legislation aims to increase transparency in the use of conflict minerals and promote responsible sourcing practices.

	Supply chain stability
Description	• This indicator assesses corporate initiatives that promote responsible sourcing and transparent business practices. • For example: a corporation using blockchain technology to create a shared digital ledger system to track the movement and ownership of critical materials would contribute to the creation of a more transparent and accountable supply chain.
Data and methodology	• The total costs incurred in developing and operating systems or institutions that promote supply chain sustainability are measured.
Notes	• Evidence for this investment can include project costs associated with developing and maintaining these systems. • Corporate guidelines that specify how certain initiatives are to exceed domestic legal obligations and international corporate responsibility standards can also be considered as a benchmark for this indicator.

Promoting health and safety at partner companies

Corporations have a duty to ensure the well-being of all workers – not just their own. The following two indicators are used to gauge a corporation's commitment to fostering a culture of safety throughout its supply chain, and particularly at SMEs. By sharing expertise in accident prevention and health risk management, larger corporations can empower their partners to create a safer and healthier work environment for all.

The following indicators assess corporate efforts in two key areas: minimizing industrial accidents and enhancing health management.

○ Health & safety at partner firms ○

	Health and safety initiatives
Description	• This indicator assesses corporate efforts to create a safe working environment throughout its supply chain, and particularly at SMEs. • Partner companies: First- and second-tier suppliers within a corporation's value chain. • Safety and health management support: Preventative activities that aim to minimize physical harm and property damage at the workplace.
Data and methodology	• The total cost of relevant activities is measured. The costs of supplier safety and health management support programs are considered.
Notes	• Qualifying activities – Training programs on safety and health management practices for partner company personnel – Development and implementation of safety protocols at partner companies – Resources dedicated to promoting a culture of safety within the supply chain • Scope: Costs associated with mandatory training by law are excluded. Only expenses associated with optional training initiatives are recognized • Data sources – Compliance Program data from Korean Fair Competition Federation: Fair Trade Commission – Win-Win Growth Committee: Win-Win Growth Index (combines Small and Medium Enterprise Sentiment Survey and the Korean Fair Trade Commission's performance evaluation)

	Material and human damage due to industrial accidents
Description	• This indicator evaluates the damage caused by industrial accidents within its supplier network. It gauges the impact of industrial accidents on people and equipment at partner companies.
Data and methodology	• The cost of material and human damage arising from industrial accidents throughout a company's value chain is measured as negative performance. – The full cost associated with repairing or replacing damaged physical assets (e.g., equipment, facilities) is recorded as negative performance. Insurance payouts can also be used as a reference point. – mpacts on workers: The amount of industrial accident insurance compensation received by injured workers at partner companies is measured.
Notes	• Data sources – Physical damage: Information on accounting asset values (e.g., equipment, facilities) or associated insurance payouts. – Human damage: The value of industrial accident insurance payouts received by workers. – Partner negligence: Even if an accident is deemed the fault of a partner company, it may still be included in this metric. • Legal context – The Occupational Safety and Health Act emphasizes the responsibility of contractees (larger companies) to ensure the safety and health of subcontractors (partner companies).

Case study: Fair treatment of suppliers

Fair trade

- Prompt payment for mutual trust: The social value of responsibly engaging subcontractors and supplier firms

What social value is created by a corporation when it pays its partners promptly, contributing to the financial stability of its supplier network?

Contract value (in KRW) (A)	Industry avg. payment terms* (B)	Company avg. payment terms (C)	Divisor	Market interest rate**(D)	SV performance (in KRW) A x (B-C) /365 x D
500 bln	15.6 days (net)	8 days (net)	365 days	3.87%	402.9 mln
Total SV performance					402.9 mln

*Most recent Win-Win Growth Index data from the Korea Fair Trade Commission

** Avg. interest rate at commercial banks in measurement year

Shared prosperity

- Innovation through collaboration: The social value of technology transfer and other support initiatives for subcontractors, supplier firms, and SMEs

Case 1

What social value is created when a corporation shares laboratory equipment with partner firms and suppliers to support R&D and experimentation?

Category	Contribution	SV performance
Grants & Loans	Interest-free or low-interest loans	KRW 1 bln x (3.87% - 0%) = KRW 38.7 mln (Formula: Value of lease x (Market interest rate – Interest rate provided)
In-kind contributions	Free leases	(Estimated market value of lease)
Total SV performance		KRW 38.7 mln

Case 2

What social value is created when companies provide funding to their suppliers and partner firms supporting joint R&D projects?

Category	Contribution	SV performance (in KRW) (A + B - C)
Variable values (A)	Hourly operating costs x operating hours x number of uses	30.1 bln
Fixed values (B)	Labor costs & expenses	1.6 bln
Amount received(C)	Value of lab use	500 mln
Total SV performance		Approx. 31.2 bln

Case study: Supply chain responsibility

Socially responsible procurement

- Building bridges: The social value of empowering disadvantaged producers and fostering community growth

What social value is created when corporations partner with companies employing people with disabilities and integrate them into their supplier networks?

Socially responsible procurement (total value) (in KRW) (A)	Sectoral added value rate (B)	SV performance (in KRW) (A x B)
3 bln	(Service sector)50.2%	1.5 bln
Total SV performance		1.5 bln

*Avg. added value rate based on National Tax Service or Bank of Korea data for measurement year

Health & safety at partner companies

- Building resilience together: The social value of corporate efforts to promote health and safety within the supply chain, and the costs of industrial accidents

What social value is created by companies when they invest in fire response training for their suppliers, alongside other efforts to minimize the impact of industrial accidents on their workers and capital equipment?

Ensuring safety

Category	Type of support	Costs incurred (in KRW) (A)	SV performance (A)
Safety	Fire safety education (10 firms, 1 session per firm, KRW 10 mln per session)	100 mln	100 mln
Total SV performance			100 mln

Damage from industrial accidents

Category	Unit	Total value (in KRW) (A)	SV performance (A)
Damages due to industrial accident(s) (human & physical)	Aggregate value of insurance payout(s)	△50 mln	△50 mln
Total SV performance			△50 mln

03

Outreach

Outreach indicators are divided into three categories: outreach activities, philanthropy, and volunteer programs.

Outreach activities

This indicator measures the social performance of projects directly planned and operated by the corporation as well as projects carried out in cooperation with implementation partners.

Outreach

	Outreach activities
Description	• This indicator assesses the social contributions of corporate projects designed to tackle social problems and produce societal impacts. These projects include those planned and run directly by the corporation as well as those run in collaboration with external partners. – Direct outreach activities: Programs independently planned and operated by the corporation. – Partnership activities: Programs are co-created and implemented with the support of external organizations.
Data and methodology	• The value of resources invested in outreach activities is measured. – Project budget including costs, campaign expenses, and any opportunity or agency costs incurred.
Notes	• Cost estimates in outreach planning documentation and/or final project reports may be referenced to obtain social project data.

Philanthropy

This indicator measures the value of a corporation's charitable giving, including donations to disadvantaged groups, non-profit organizations, and public institutions.

Philanthropy

	Philanthropy
Description	• This indicator measures the value of corporate philanthropy. Corporations can play a vital role in addressing social challenges by donating cash or goods to those in need. These recipients may include members of disadvantaged groups, non-profit organizations, and public institutions.
Data and methodology	• The total value of all legally-recognized donations is measured and considered the social performance of philanthropic giving. In Korea, these donations are those for which a legal tax receipt acknowledging the gift can be provided. • Some donations may be channeled through intermediary organizations before reaching the final beneficiaries. While these intermediary efforts contribute to the overall impact, due to the difficulty of verification, this indicator focus solely on the company's initial contribution.
Notes	• Qualifying donations: Legal and designated donations for which official tax receipts can be issued. • Recognition criteria: To be counted in this metric, donations must have occurred within the measurement year and have a corresponding donation receipt. Donations or parts of donations in previous tax years that exceeded deductible limits outlined in tax laws are not recognized. • Non-cash donations: The value of non-cash donations is determined by the amount listed on the official donation receipt issued by the recipient organization.

Volunteer programs

This indicator measures the performance of volunteer work performed by members of the organization that donate their own time and effort

Volunteer programs

	Volunteer programs
Description	• This indicator recognizes the social value created by corporate employees who volunteer their time and skills to support local communities and disadvantaged groups.
Data and methodology	• To quantify the impact of these volunteer activities, this indicator assigns a market value based on the type of service provided. • The social performance of volunteer activities is calculated by multiplying the total number of hours volunteered in each category by a corresponding hourly wage.
Notes	• Data for this metric can be collected from volunteer service certificates issued by each department. These certificates should document the type and duration of volunteer activities performed by employees. • Hourly wage categories – Type 1: Tasks requiring no specific skills or education (e.g., cleaning) - Minimum wage – Type 2: Care work involving direct interaction with beneficiaries (e.g., childcare) - Social worker level 1 wage – Type 3: Skills donation (e.g., English translation, mentoring) - Average hourly wage for corporate employees – Type 4: *Pro bono* consulting – Average hourly wage for market consultants

Case study: The value of community engagement

Outreach activities

- Investing in communities: The impact of outreach projects on people and places

What social value is created by companies when they invest in programs that support both underprivileged youth in their communities and environmental education for elementary school students?

Program	Indicator	Formula	SV performance
Happiness Plus Nutritious Lunch Box	Number of beneficiaries provided with one week's worth of *banchan* (food to be eaten with rice)	Banchan provided (units) x Market price per unit	1000 units x KRW 6,000 per unit = KRW 6 mln
Happy Green Classroom	Number of elementary school students participating in eco-friendly education	Beneficiaries (number) x Market price of similar program	3,000 beneficiaries x KRW 15k = KRW 45 mln
Sharing Happiness Dream Orchestra (for underprivileged youth)	Total program costs	(No. of kids x Price of similar curricula) + Job consulting + Misc. expenses	KRW 15 mln
Total SV performance			KRW 66 mln

Volunteer programs

- Skills for good: The social value of volunteer programs dedicated to addressing social problems

What social value is created when companies empower employees to contribute their time, talent, and expertise through volunteer activities?

Category	Examples	Formula		SV performance (in KRW)
		Total volunteer hours	Hourly rate	
General volunteer work	Janitorial and/or maintenance work at senior care facilities	32,000 (4,000 volunteers x 8 hours)	KRW 10,000 (Min. hourly wage)	KRW 320 mln
Childcare	Teaching after-school classes for students from low-income households	300 (100 volunteers x 3 hours)	KRW 15,000 (Hourly wage of entry-level social workers)	KRW 4.5 mln
Skills donation	English translation & interpretation, mentoring, etc	-	Variable	-
Pro bono work	Free legal/technical consultation	-	Variable	-
Total SV performance				KRW 324.5 mln

Case study: The impact of charitable giving

Philanthropy

- Seeding a better future: The social impact of philanthropic contributions to charitable causes at home and abroad

What social value is created by a corporation's philanthropic efforts, including cash and in-kind donations to address social issues, and what kind of results do these efforts produce?

Examples	SV performance (in KRW)
Donations to disaster relief efforts	1 bln
Donation of used IT equipment	500 mln
Total SV performance	1.5 bln

04

Products & services

The social value created through a corporation's products can be divided into two key areas:

Quality of life

This refers to products and services that enhance people's lives and well-being. Refer to Chapter 2, Part 4 for details on how social value is measured when products and services improve consumers' quality of life.

Consumer protection

This focuses on ensuring the safety, fairness, and transparency of a corporation's offerings. The following explains how to measure social value in consumer protection areas not covered elsewhere.

	Noncompliance costs: Safety
Description	• This indicator measures the social costs incurred when accidents or defects caused by noncompliance with safety regulations cause damage to people and/or property.
Data and methodology	• The costs associated with damages caused to consumers due to product or service safety issues arising from noncompliance with safety standards are used to measure lost social value. – Preferred measure: The primary measure is the total cost of damages incurred due to noncompliance with relevant safety regulations for products and services. – Secondary measure: If data on the cost of damages is unavailable, the total amount of compensation paid out and any associated expenses incurred due to noncompliance can be used as a secondary measure. In this case, the actual compensation received by aggrieved parties should be used, rather than any amount stipulated in contractual language.
Notes	• Scope: The indicator considers safety regulations outlined in relevant laws, such as the Framework Act on Consumers, the Framework Product Safety Act, the Food Sanitation Act, and the Electrical Appliances and Household Products Safety Management Act. Additionally, it includes safety standards specified in contracts, product manuals, advertising materials, and other documents associated with the sale of products and services. • Damages: The social costs measured include expenses related to product recalls, compensation payouts, settlements, and additional services provided to consumers due to safety concerns.

	Noncompliance costs: Quality control
Description	• This indicator measures the social costs incurred when defects in quality, performance, or form fall below the standards guaranteed by trade practices or specific customer contracts, resulting in damages to consumers.
Data and methodology	• The costs associated with harm caused to consumers due to product or service quality issues arising from noncompliance with quality standards are measured. • Preferred measure: The primary measure is the total cost of damages incurred due to noncompliance with relevant product or service quality standards. • Secondary measure: If data on total damages and/or costs is unavailable, the total amount of compensation paid out and any associated expenses incurred due to noncompliance can be used as a secondary measure. In this case, the actual compensation received by aggrieved parties should be used, rather than any amount stipulated in contractual language
Notes	• Scope: This indicator considers quality standards outlined in contracts, product manuals, advertising materials, and other documents associated with the sale of products and services, in addition to general trade practices. • Damages: The social costs measured include expenses related to product recalls, compensation payouts, settlements, and additional services provided to consumers due to quality concerns.

	Noncompliance costs: Information provision
Description	• This indicator measures the social costs incurred when corporations distribute misleading information to consumers. This can include exaggerations, falsifications, omissions, or the concealment of important details.
Data and methodology	• The cost of damages associated with financial and psychological uncertainty and risks borne by consumers due to noncompliance with product or service information disclosure standards is measured. – Preferred measure: The primary measure is the total cost of damages incurred due to noncompliance with relevant information-related regulations for products and services. – Secondary measure: If data on total damages and costs is unavailable, the total amount of compensation paid out or associated expenses incurred due to noncompliance can be used as a secondary measure. In this case, the actual compensation received by aggrieved parties should be used, rather than any amount stipulated in contractual language.
Notes	• Scope: This indicator considers information disclosure standards outlined in relevant laws, such as the Act on Fair Labeling and Advertising and the Act on Broadcast Advertising, etc. • Damages: The social costs measured include the value of compensation payments, settlements, and additional services rendered due to the provision of misleading information to consumers.

Case study: The market average as a baseline

Company B Creating social value by preventing financial fraud

Key functions

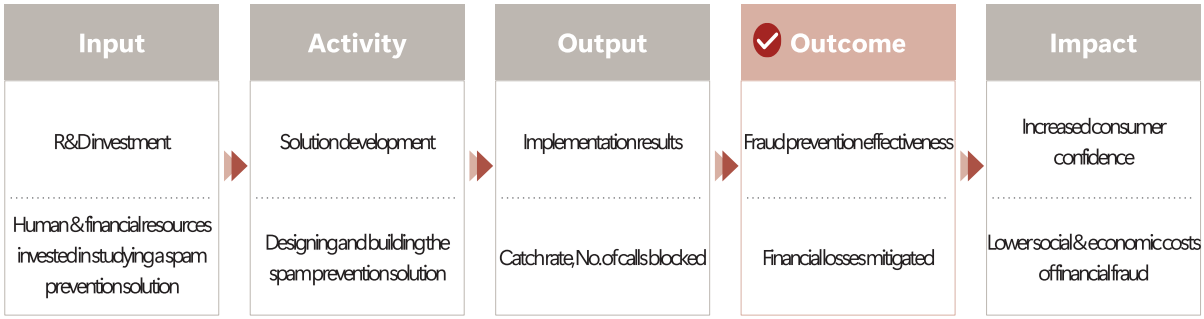
The Voice Spam Filtering System (VSFS) offers a suite of features designed to protect users from spam calls. It can:

- Block suspicious bulk outgoing calls
- Monitor incoming calls from known spam traps
- Detect spam calls and block spam using probability analysis
- Analyze spam numbers through connection patterns

Social problem(s) addressed

Rise in electronic financial fraud caused and losses incurred by voice phishing scams

Defining SV



Calculating SV

Social value = ((VFSF catch rate - Market avg. catch rate)
x Costs incurred per phishing call) x Number of blocked calls
= KRW 23.4 bln (2019)

	Company A	Company B	Company C
Calls blocked	00 calls	00 calls	00 calls
Market share	00%	00%	00%
Market weighted avg.	00		

Data sources

Voice Spam Blocking Rate Report from Korea Communications Commission

Financial Supervisory Service: Social Cost of Voice Phishing Report

Korea Financial Investment Association: Financial Fraud Victims Report

Case study: The Zero baseline for unique new services

Company C Creating social value by preventing traffic accidents

Key functions

The Vehicle-to-Everything (V2X) service alerts nearby subscribers to the T-Map navigation service if a vehicle within 1 kilometer ahead has suddenly stopped, significantly improving road safety.

Social problem(s) addressed

The occurrence of traffic accidents due to stationary vehicles on the expressway

Defining SV

Input	Activity	Output	Outcome	Impact
R&D investment	Solution development	Implementation results	Traffic accident prevention	Creation of a safer traffic environment
Human & financial resources invested in studying a real-time traffic safety notification solution	Designing and building the real-time notification service	Number (ratio) of notifications	Accidents avoided through use of notification service	Lower social & economic costs of traffic accidents

Calculating SV

Social value = Annual cost of highway traffic accidents

x V2X penetration rate x Recognition rate x Accident reduction rate = KRW 5.8 bln

Data sources	
	KoROAD: Costs of highway accidents, total number of highway users
	5GAA (5G Automotive Association): Probability of accident reduction through V2X service, probability of recognizing and responding to V2X notifications
	Company C: Number of T Map notification recipients

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