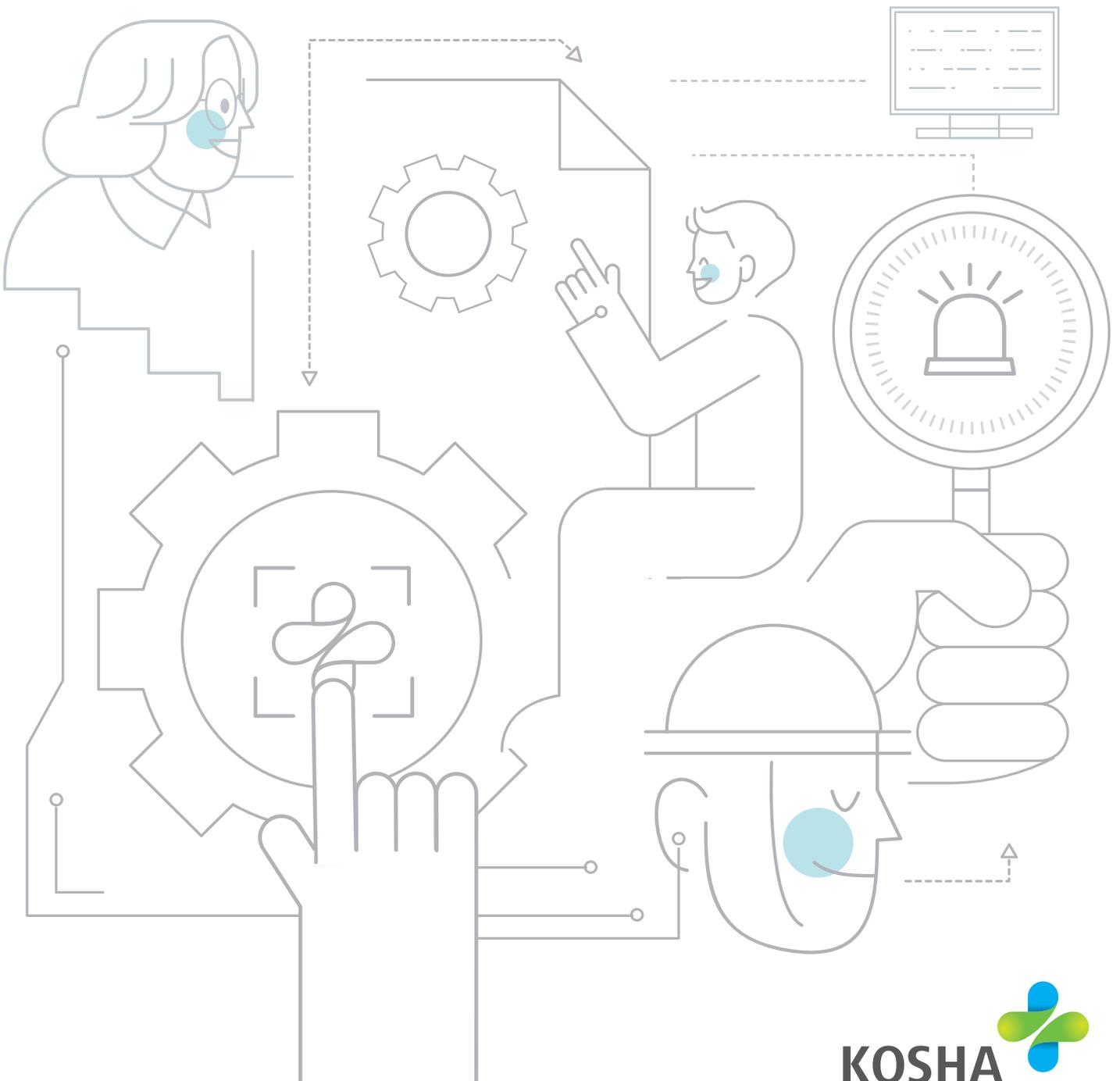


Protecting Worker's  
Life and Health

# KOSHA NEWS

Vol. 127

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Protecting Worker's Life and Health

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# Occupational Safety: An All-Out Commitment to Preventing Serious Accidents

- **MOEL and KOSHA concentrate resources on helping SMEs prevent industrial accidents**
  - The Ministry of Employment and Labor (MOEL, Minister Lee Jung-sik) and the Korea Occupational Safety and Health Agency (KOSHA, President Ahn Jong-ju), convened the Resolution Conference on Comprehensive Response to Prevent Serious Accidents at SMEs at KOSHA's Southern Seoul Area Office on February 19.
  - The gathering was prompted by the recent expansion of the Serious Accidents Punishment Act to businesses with fewer than fifty employees, effective since January 27 this year. The government's increased focus on enhancing industrial accident prevention capabilities among small and medium-sized enterprises (SMEs) has increased recognition of the need for concerted efforts to yield results in the second year of the Serious Accident Reduction Roadmap.
  - The event was attended by Minister Lee, President Ahn, and senior officials and directors of regional offices from MOEL and KOSHA. This marked their inaugural collaborative endeavor, serving as a pivotal platform for reaffirming their dedication to concerted efforts to mitigate serious accidents amid challenging circumstances and wholeheartedly advancing in practical safety management at the ground level.

## Occupational Safety: An All-Out Commitment to Preventing Serious Accidents

- Minister Lee led the deliberations, reviewing the progress and future plans for the Nationwide Survey on Occupational Safety and fostering discussions on effective means of support moving forward.
- During the conference, participants made a national commitment through the Declaration of Support for SMEs' Serious Accident Prevention. They pledged to prioritize efforts in preventing serious accidents at SMEs, focusing on (1) successfully completing the Nationwide Survey on Occupational Safety, (2) establishing and implementing the self-regulated prevention program, and (3) fostering a safety culture and safety awareness.
- Minister Lee stressed: "The government's immediate priority is to concentrate all available resources and capabilities on reducing confusion at the sites of accidents and easing the challenges encountered by SMEs." He urged "swift responses to businesses seeking support through the Nationwide Survey on Occupational Safety" and highlighted the significance of "offering thorough guidance and assistance to SMEs via the support centers of KOSHA's 30 frontline agencies."
- In conclusion, the Minister appealed to everyone to "embrace the vital mission and responsibility of safeguarding lives and ensuring safety, urging unwavering commitment to ensuring the completion of the Nationwide Survey on Occupational Safety and the attainment of tangible outcomes through bold innovation in industrial accident prevention programs."

# Prevent Cerebro-Cardiovascular Diseases with Comprehensive Health Checkup and Counseling Support!

- **Security guards, taxi/bus drivers, delivery personnel, and others eligible for support in covering cerebro-cardiovascular disease screening costs**
  - The Korea Occupational Safety and Health Agency (KOSHA, President Ahn Jong-ju) will broaden the implementation of the Health Checkup Grants Program for Workers at Elevated Risk for Cerebro-Cardiovascular Conditions, initiated since 2021 for the prevention of such work-related illnesses. This expansion is set to begin on February 19.
  - The Health Checkup Grants Program entails specialized screenings conducted at 55 designated medical institutions, targeting cerebro-cardiovascular diseases that may not be clearly detected through regular health checkups. In cases where health counseling is deemed necessary, a significant portion of the incurred costs, including 80 percent of the screening costs and all counseling fees, will be covered under this program.
  - This year, the program's reach is extending to cover 20,000 workers, up from 15,000. It's designed to support not just night shift workers and the elderly, but also those working long hours\*. This expansion bolsters KOSHA's assistance efforts for workers, particularly those in specialized categories, who face a higher risk of cerebro-cardiovascular diseases.

## KOSHA

## Prevent Cerebro-Cardiovascular Diseases with Comprehensive Health Checkup and Counseling Support!

\* This refers to workers who are at risk of health hazards due to long working hours, as stipulated under Article 54(4) (Specially Extended Working Hours) and Article 59 (Special Business Categories for Working Hours) of the Labor Standards Act.

- Notably, the application process has been modified from a first-come, first-served basis to quarterly public announcements. This change aims to prioritize support for individuals who are at a higher risk of cerebro-cardiovascular diseases. Moreover, those identified as high-risk groups for such diseases based on the results of comprehensive health checkups will receive additional support for precise examinations and health counseling.

### \* Comprehensive health checkup and health counseling package

Category	Comprehensive cardiac structural examination	Comprehensive cardiovascular examination	Comprehensive cerebrovascular examination
Examination type	Echocardiography & 2+ health counseling sessions	Coronary artery contrast CT scan & 2+ health counseling sessions	Brain MRA & 2+ health counseling sessions

- Workers requiring urgent medical attention will receive immediate guidance to general hospitals, while those who have completed comprehensive health checkups can access structured health promotion programs, if needed, at 5 Workers' Health Centers nationwide and 40 branch offices.
- Applications for assistance can be submitted via the KOSHA website (<https://www.kosha.or.kr>) or mail (fax) starting from February 19. Employers, those provided with labor of a person in a special type of employment, and individual workers are eligible to apply directly.

## KOSHA

## Prevent Cerebro-Cardiovascular Diseases with Comprehensive Health Checkup and Counseling Support!

- KOSHA President Ahn Jong-ju stated: "By expanding comprehensive health checkup support, we can detect high-risk workers early and contribute to the prevention of cerebro-cardiovascular diseases. I will spare no effort in ensuring that all workers can work in good health by providing ample attention and support."



# General Contractors Increase Involvement in Enhancing Subcontractors' Workplace Safety and Health Programs!

- **Agreement Signed for Safety Companion Project Enhancing Safety and Health Collaboration between General Contractors and Subcontractors**
  - The Korea Occupational Safety and Health Agency (KOSHA, President Ahn Jong-ju) and the Korea Foundation for Cooperation of Large & Small Business, Rural Affairs (KOFCA, Secretary-General Kim Yeong-hwan) signed a memorandum of understanding (MOU) to ensure smooth operations of the Safety Companion Project (for safety and health collaboration between general contractors and subcontractors). This ceremony was held at the KOFCA's conference room in Jung-gu, Seoul on February 2, at 3 p.m.
  - The Safety Companion Project aims to support the improvement of hazardous processes in small and medium-sized manufacturing plants to ensure fundamental safety and alleviate the gap in safety and health management standards between large and small companies, or between general contractors and subcontractors, by providing partial financial support for the costs associated with making hazardous processes safer. A budget of KRW 322 billion is allocated for this project, targeting a total of 4,025 companies in 2024.

## KOSHA

## General Contractors Increase Involvement in Enhancing Subcontractors' Workplace Safety and Health Programs!

- The project is twofold: First, it aims to close the safety and health gap between large and small businesses, particularly in manufacturing. Second, it facilitates safety and health collaboration between general contractors and subcontractors. For the former, the project targets manufacturing businesses with fewer than fifty regular employees, small businesses as defined by the Framework Act on Small and Medium Enterprises (excluding in-house subcontractors), businesses engaged in essential manufacturing processes, and the top six high-risk industries. The latter initiative, launched this year, promotes a partnership between main contractors and the government to boost the capabilities of subcontractors in preventing industrial accidents. This is achieved by providing joint support for a portion of their investments in safety and health measures.
- KOSHA and KOFA have announced a collaborative initiative to improve hazardous processes at various workplaces. Both organizations will pool their resources to provide joint support for this endeavor. According to the terms of the Memorandum of Understanding (MOU), the plan includes vigorous promotion and backing of this project, offering consulting and other safety and health activity support to participating businesses. Furthermore, the agreement describes preferential treatment for participating general contractors during KOFA's corporate evaluation activities, in line with their commitment to enhancing workplace safety and health standards.
- KOSHA President Ahn Jong-ju stated: "I expect this agreement will serve as a catalyst for general contractors to take a more engaged role in strengthening the safety and health capabilities of subcontractors. KOSHA will continue to make proactive efforts through the general contractor-subcontractor safety and health collaboration remain committed to supporting subcontractors in need of safety improvements through timely collaboration efforts."

# Financial Grants for Installation of Ventilation System

- **Financial assistance is available for installing ventilation systems, including those for cooking facilities.**
  - **Businesses with fewer than 50 employees are eligible for grants equivalent to 70% of installation costs (up to KRW 50 million)**
- The Korea Occupational Safety and Health Agency (KOSHA, President Ahn Jong-ju) continues its support program for installing ventilation systems to protect workers from acute poisoning caused by chemicals and other hazards.
- Ventilation systems are often deemed expensive and not adequately supplied by business owners. In response, KOSHA has allocated a budget of KRW 15.8 billion this year to support workplaces with associated hazardous factors and risks. The installation costs will be subsidized up to a maximum of KRW 50 million, depending on the number of regular employees in the petitioning workplace, as outlined in the table below.
- Last year, a total of 595 businesses were helped to cover the installation costs for local exhaust systems, supply/exhaust ventilation systems, and ventilation systems for cooking facilities.



## Financial Grants for Installation of Ventilation System

### Eligible Business Categories and Support Rates

Target Business Categories	Supported Items	Support Rates
Businesses with fewer than 50 regular employees or establishments classified as small enterprises	Local exhaust ventilation systems and supply/exhaust ventilation systems* * Equipment that qualifies under the special provisions for local exhaust systems as stipulated in Article 425 of the Rules on Occupational Safety and Health Standards	<b>70%</b> (30% self-funding)
Businesses with more than 50 regular employees, exceeding the criteria for small enterprises		<b>50%</b> (50% self-funding)

\* Exclusions apply for a company belonging to an enterprise group subject to limitations on mutual investment, as well as local governments and other public entities.

- The supported items include local exhaust systems and supply/exhaust ventilation systems for preventing acute poisoning in chemical handling facilities as well as ventilation systems for cooking facilities.
- Businesses seeking support for the installation costs of ventilation systems can either visit or mail their applications to the nearest KOSHA offices by Friday, February 23, 2024.
- KOSHA President Ahn Jong-ju stated: "The installation of proper ventilation systems is crucial in preventing chemical poisoning accidents. I hope that the support program for installing these systems will play a significant role in creating pleasant and healthy workplaces."

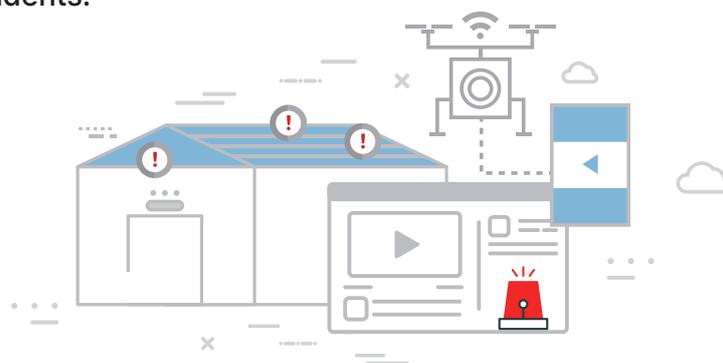
# Using Drones to Uncover the Risks of Falling from Roofs!

- **Launching a pilot project for industrial accident prevention by identifying dangers of cattle shed roof through digital twin simulations**
  - **Moving forward, AI-powered risk assessment from drone images enables swift targeting of wide areas**
- Roof construction accidents at cattle sheds, factories, warehouses, and other sites resulted in 125 fatalities over the three-year period from 2020 to 2022. These fatal accidents are particularly prevalent in small-scale, extremely short-term projects that last just one to two days.
  - The Korea Occupational Safety and Health Agency (KOSHA), a subsidiary of the Ministry of Employment and Labor, launched a pilot program from August to November 2023 to establish a roof construction accident prevention system utilizing digital twin\* technology, with a specific focus on preventing roof collapses. This system enables the assessment of roof material, aging, and other risk factors through drone photography. As the project advances, specialized accident prevention measures for high-risk roof sites are expected to become feasible.
- \* Digital twin: a virtual representation of real-world facilities or locations, implemented as a digital space for various applications

## KOSHA

## Using Drones to Uncover the Risks of Falling from Roofs!

- KOSHA has used its pilot program and developed digital maps for cattle sheds with limited access. Collaborating with Hapcheon-gun in Gyeongsangnam-do, 405 cattle sheds were selected for digital twin representations, and drone aerial photography (with a resolution of 5 cm/pixel) was conducted following community outreach.
- To assess the risk level of photographed cattle shed roofs, the agency collaborated with experts to derive risk assessment criteria. These criteria incorporate factors such as material, aging, damage, and skylights/solar panels/openings; and include area and quantity information. The finalized criteria were applied to the 405 cattle sheds, categorizing them into five risk levels (safe, caution, warning, severe, high risk).
- KOSHA has developed digital maps illustrating the locations of cattle sheds and their associated risk levels. These initiatives include offering direct technical support to high-risk cattle sheds, disseminating one-point sheet (OPS: a type of safety checklist used for conducting risk assessments) and other safety and health materials, collaborating on inspections and campaigns with local governments (Hapcheon-gun), and executing various activities to prevent industrial accidents.



## Using Drones to Uncover the Risks of Falling from Roofs!

- In the upcoming year, KOSHA will expand digital mapping to encompass not only cattle sheds but also factories and industrial complexes prone to roof construction risks. Plans are also in the works for developing an AI-powered automatic recognition system capable of identifying roof material types and risk factors. To this end, satellite and aerial photography data will be collected and associated dataset\* will be established. Moreover, various pilot measures will be undertaken such as sensor installation (including displacement/access detection sensors, with future sensor types to be determined) to detect fall risks among roof construction workers.

\* Data including objects, scope, risk information, etc., for AI learning

- The ultimate goal is to apply the developed system to industrial accident prevention projects in densely populated areas with roof construction risks. Rapid establishment of a roof risk database in vast areas where direct access are challenging will enable efficient industrial accident prevention activities such as fall risk zone management and close work progress monitoring.
- KOSHA President Ahn Jong-ju expressed optimism, stating: "We anticipate an efficient reduction in fatal accidents by establishing industrial accident prevention models using digital twin and other smart technologies. We will continue to explore various smart safety and health systems to take the lead in mitigating serious accidents."

# Industrial Safety Helmets Repurposed as Safety Umbrellas for Children

- **Safety umbrellas for children are created by upcycling discarded safety helmets and donated to Child Welfare Centers in Korea**
  - In an innovative initiative, discarded safety helmets from industrial sites are being repurposed into safety umbrellas for children, aiming to prevent traffic accidents in vulnerable local communities.
  - The Korea Occupational Safety and Health Agency (KOSHA, President Ahn Jong-ju) under the Ministry of Employment and Labor, in partnership with the Eastern Branch of Save the Children (Head: Seong-Hoon Roh), held a ceremony on January 19 to mark the delivery of upcycled safety helmets transformed into safety umbrellas, with the objective of enhancing child safety, particularly at locations prone to traffic accidents.
  - The ceremony is part of ongoing efforts following the signing of the Multilateral Memorandum of Understanding (MOU) signed last year on Upcycling Discarded Safety Helmets for ESG Management Expansion.
    - \* The five signatory parties include KOSHA, Pohang City, POSCO PR Tech (a steel mill maintenance business), Usisan Inc. (a social enterprise), Save the Children (an NGO)
  - Safety helmets, formerly worn by workers at GS E&C Corp. and eight other companies, were collected and then repurposed through upcycling into 167 safety

## KOSHA

## Industrial Safety Helmets Repurposed as Safety Umbrellas for Children

umbrellas. These items are slated for distribution to six Children Welfare Centers in Pohang, facilitated by the international humanitarian NGO, Save the Children.

- Pohang has recorded the highest incidence of child traffic accidents in Gyeongsangbuk-do over the last five years\*.

\* Source: Korea Road Traffic Authority (KoRoad) Statistics (traffic accident casualties under 12 years old by si, gun, and gu)

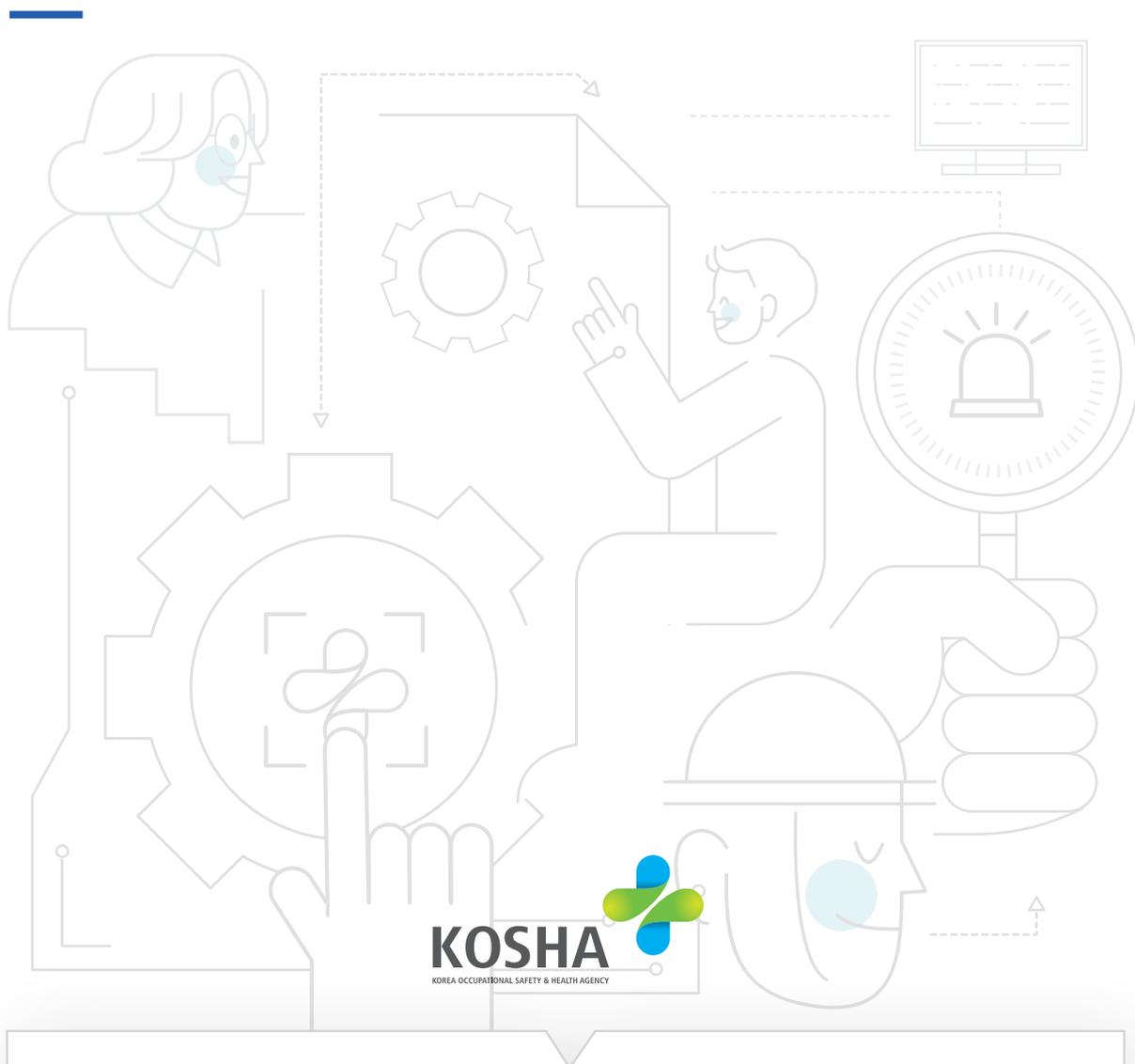
- The safety umbrellas, crafted with the aim of preventing child traffic accidents, feature school zone speed limit markings (30km/h) and are colored yellow. This design facilitates easy identification of children by drivers, prompting cautious driving behavior.
- KOSHA President Ahn Jong-ju stated: "Beyond the initiative to upcycle discarded safety helmets, we are committed to fostering local community development by establishing a resource recycling cooperation system. We aspire for these safety helmets, once guardians of industrial safety, to now protective umbrellas for children."



Safety umbrellas made from upcycled safety helmets

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