

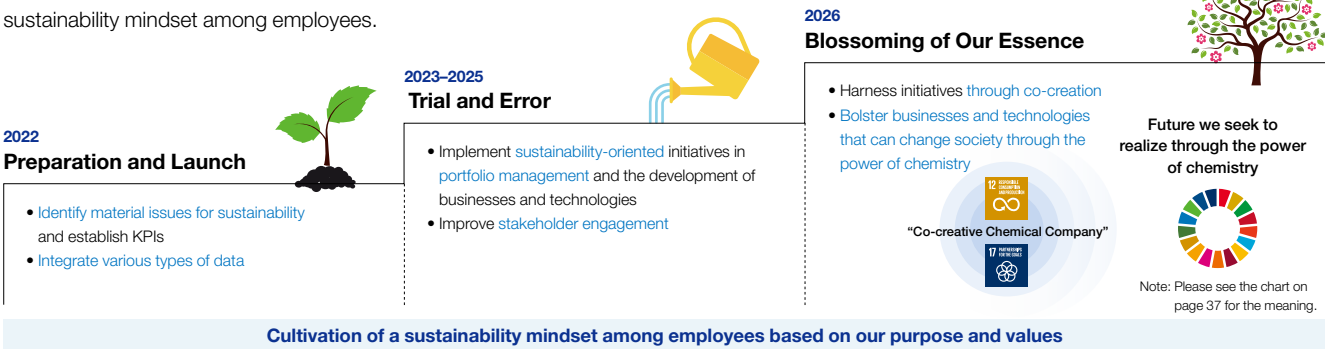
# Material Issues for Sustainability (Materiality)

To change society through the power of chemistry based on our purpose, we are strengthening our business execution system in accordance with the belief that we must position the concept of sustainability as an essential component of management. As part of these efforts, we have established Sustainability Vision 2030 and identified material issues for sustainability to implement the main strategies of our long-term vision. We are also working to raise awareness of the material issues within the Company.

## Roadmap for Achieving Sustainability Vision 2030

Positioning 2022, the year preceding the launch of the newly integrated company in 2023, as a year for preparations to achieve Sustainability Vision 2030, we have conducted repeated discussions and built a system to achieve the vision, such as incorporating issues of materiality into our medium- to long-term targets. In 2023, we will continue our efforts with the aim of enabling our unique essence to blossom from approximately 2026 onward, by adapting our initiatives based on engagement with a variety of stakeholders.

To achieve Sustainability Vision 2030, we have established five key areas and are promoting activities on a Companywide basis with the Sustainability Department, which began in January 2022, serving as the secretariat. The five key areas are (1) improvement of sustainability management to integrate it with management and business strategies; (2) creation of sources of growth through the development of businesses and technologies with a focus on sustainability; (3) creation of value resulting from the resolution of cross-organizational issues, such as carbon neutrality; (4) value creation through improvement of stakeholder engagement; and (5) cultivation of a sustainability mindset among employees.



## Sustainability Management

The management team, corporate headquarters, business divisions, plants, and Group companies unite as one to promote cross-organizational projects and internal cooperation, with the CEO supervising and the CSO driving the promotion of sustainability. After deliberating and deciding on important items such as policies and plans in relation to sustainability, the Management Committee consults with and reports to the Board of Directors.

The Company completely overhauled its sustainability promotion system in 2022. Under the new system, the Sustainability Promotion Council convenes a monthly meeting at which Group CXOs, including the president and CEO, assemble. The meeting sees discussions on a variety of topics, such as medium- to long-term strategies, non-financial KPIs, and engagement with stakeholders. In addition, the

### Corporate Officer Study Groups

A corporate officers' study group meeting, held in March 2022, discussed a variety of sustainability issues, such as awareness of supply chain risks and the importance of addressing the issue of climate change. The meeting also saw a range of discussions on the Company's purpose. These included a discussion in which participants gave their views on the social and environmental impact resulting from the Company's use in its operations of natural resources (such as hydroelectric power).

### New Employee Training

Training for new employees in April 2022 saw groupwork on the theme of whether companies could create profits through sustainability contributions. As the generation that will lead the Company into the future, participants voiced many frank opinions which engaged sincerely with social issues, without being bound by Showa Denko's business structure or current restrictions.

### Forums for Exchanging Opinions with Directors and Audit & Supervisory Board Members

At a meeting held in May 2022 to facilitate the exchange of opinions with directors and Audit & Supervisory Board members, corporate officers shared their determination to pursue sustainability. Concurrently, participants engaged in a lively discussion on the development of the human resources who will lead efforts to create value over the medium to long term, as well as the importance of making decisions based on the understanding of a wide range of risks.

council has put in place a system to address specific issues with agility and on a cross-organizational basis by establishing projects and other bodies under its control. The Company also strives to cultivate a sustainability mindset by organizing forums for internal communication where officers and employees exchange opinions.

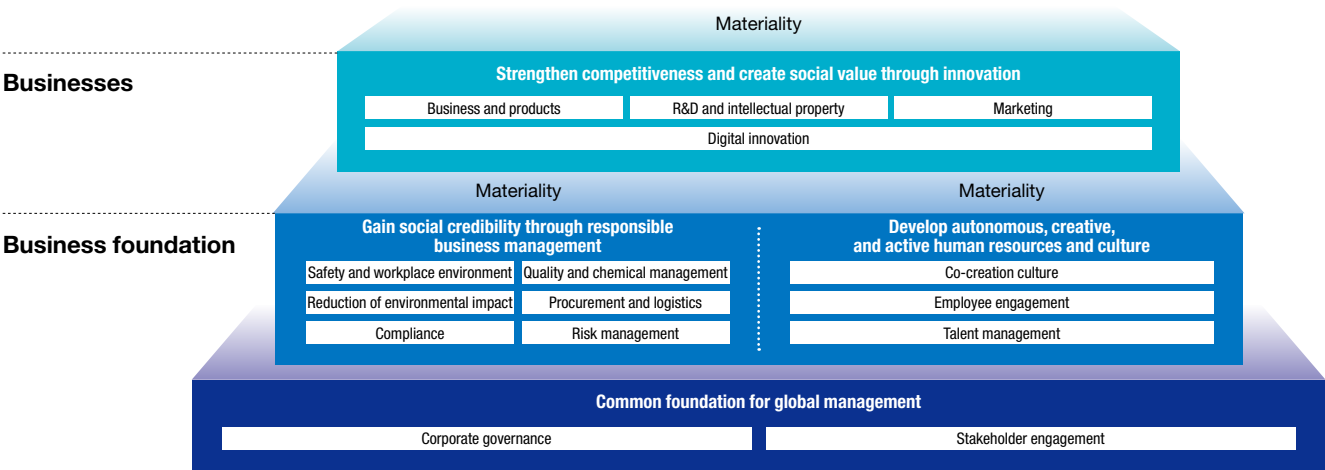
### Sustainability Promotion System (As of June 30, 2022)



## Material Issues for Sustainability

With an eye on 2030, Showa Denko has identified three issues of materiality in addition to their constituent elements. We have reflected these issues of materiality in the strategies set out in the long-term vision (P.27), and aim to incorporate them into our nonfinancial KPIs by approximately 2025.

The three issues of materiality are also related to the ideal state set out in our long-term vision through to 2030: becoming a company that can compete on the world stage, a company that contributes to a sustainable global society, and a company that develops co-creative talent that represents Japan's manufacturing industry. In addition, they address both the achievement of our long-term vision and the expectations of society. While we have not set KPIs for corporate governance or stakeholder engagement, we will also focus on these areas, which are as important as our issues of materiality in establishing a common foundation for global management.



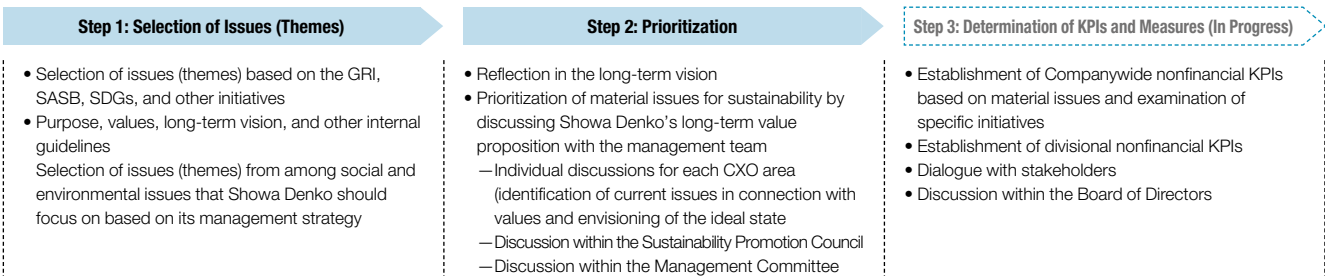
## Contribution to the SDGs through businesses

We have positioned the focus of our corporate activities as contributing to SDGs 12 and 17 as a Co-creative Chemical Company that seeks to create a recycling-oriented society. Goals that we contribute to through businesses and products are in the upper part of the semicircle, with goals that we contribute to through our business foundation in the base. Going beyond areas where we already contribute through our businesses, we are looking ahead with the aim to contributing to the creation of a future that we seek to realize through the power of chemistry.



## Process for Formulating Material Issues for Sustainability and Nonfinancial KPIs

In identifying its material issues, Showa Denko selected issues that contribute to realizing its long-term vision in terms of both expectations from society and level of importance to the Company. Currently, we have begun formulating material issues and related strategies and measures as well as Companywide nonfinancial indicators. Going forward, we plan to further evolve them, including by establishing divisional KPIs, through discussions with the Board of Directors and dialogue with stakeholders.



Material Issues for Sustainability

Material Issues for Sustainability and Nonfinancial KPIs

We will increase the likelihood of achieving our issues of materiality with an eye on 2030 and our related medium-term nonfinancial KPIs. We will do this by featuring the KPIs in a series of Companywide management cycles ranging from formulation to implementation, progress confirmation, and monitoring and supervision by the Board of Directors.

The table below shows our corporate-level KPIs based on our three issues of materiality. (For a portion of the KPIs, the indicators have been removed.) We will incorporate the indicators into each divisional unit while continuing to hold repeated discussions, to determine specific initiatives that enhance the motivation of employees to engage with them.

Going forward, we will continually revise the KPIs in accordance with our level of progress in achieving them, and with the views and expectations of a variety of internal and external stakeholders.

Strengthen competitiveness and create social value through innovation

The Company's ambition	Our ambition	The source of our growth lies in business activities utilizing our technological capabilities to change society through the power of chemistry. We will strengthen our competitiveness through innovation and our businesses to create social value.
	2030 targets	We create social value through our businesses via a series of processes—from the identification of social issues to the development of technologies and the provision of solutions—and the harnessing of initiatives through co-creation.
	Key constituent elements for achieving issues of materiality	<ul style="list-style-type: none"><li>• Creation of social value through our businesses</li><li>• Identification of social issues and provision of customer value through marketing</li><li>• Facilitation of open innovation and cooperation</li><li>• R&amp;D and intellectual property strategies that solve social issues</li><li>• Products and business strategies that contribute to the achievement of the SDGs</li><li>• Digital innovation that improves and accelerates the creation of social value</li></ul>
KPIs (Issues we plan to discuss and confirm with stakeholders)	Key items	<ul style="list-style-type: none"><li>• Setting of targets and establishment of evaluation indicators for sustainability businesses and products</li><li>• Initiatives for life cycle assessment (LCA)</li></ul>
	2025 targets	<ul style="list-style-type: none"><li>• Establish, implement, and monitor targets by business and mainstay product</li><li>• Calculate the LCA for mainstay products and introduce evaluation methods at the R&amp;D phase</li></ul>
	2021 results	<ul style="list-style-type: none"><li>• Launched studies to formulate business evaluation indicators that include new social and environmental aspects</li><li>• Commenced the pilot operation of a scheme to calculate our carbon footprint</li></ul>
Value creation	Social value	• Create social and environmental value directly and indirectly as a chemical manufacturer that serves as the basis for a variety of industries
	Environmental value	• Aim to maximize our positive impact and minimize our negative impact on society and the environment through the thorough implementation of responsible consumption and production in all of our businesses
	Economic value	<ul style="list-style-type: none"><li>• Create economic value by achieving business growth through the provision of social and environmental value, thereby helping to improve our corporate value</li><li>• Raise employee motivation by helping employees to gain a solid sense that we are realizing our purpose through our businesses</li></ul>

Gain credibility through responsible business management

The Company's ambition	Our ambition	As a chemical manufacturer, we will conduct responsible business management in all of our businesses from perspectives including safety, the environment, and quality to realize a sustainable society together with stakeholders, such as suppliers and customers. In addition, we will reinforce and enhance our system for managing increasingly diverse and complex risks by thoroughly implementing soft-law-based compliance going beyond legal and regulatory compliance.
	2030 targets	In addition to cultivating a safety culture and eliminating accidents of every kind, we will earn the trust of stakeholders by minimizing and preparing to tackle a wide range of risks, including strategic, operational, and hazard risks, to flexibly address the changing management and business environments and continuously offer value that is unique to us.
	Key constituent elements for achieving issues of materiality	<ul style="list-style-type: none"><li>• Establishment of environments where all people can work with peace of mind</li><li>• Provision of quality and safety to maximize customer value</li><li>• Reduction of environmental impact throughout the entire product life cycle</li><li>• Creation of a sustainable society, by working together with suppliers</li><li>• Thorough implementation of soft-law-based compliance going beyond legal and regulatory compliance</li><li>• Reinforcement of our system for managing increasingly diverse and complex risks</li></ul>
KPIs (Issues we plan to discuss and confirm with stakeholders)	Key items	<ul style="list-style-type: none"><li>• Cultivation of a safety culture and elimination of occupational incidents, equipment-related accidents, environmental accidents, accidents involving products, and product compliance violations</li><li>• Reduction of environmental impact resulting from business activities</li><li>• Promotion of sustainable procurement</li><li>• Strengthening of integrated risk management and thorough implementation of compliance going beyond legal and regulatory compliance</li></ul>
	2025 targets	<ul style="list-style-type: none"><li>• Achieve zeros in five target categories</li><li>• Reduction of greenhouse gas emission (GHG) volumes</li><li>• Improve the quality of communication utilizing a self-assessment questionnaire</li><li>• Entrench a global compliance standard and code of conduct within the Group</li><li>• Establish and operate an integrated risk management structure and enhance our risk management system</li></ul>
	2021 results	<ul style="list-style-type: none"><li>• Number of serious occupational incidents, serious equipment-related accidents, environmental accidents, and quality compliance violations</li><li>• Began consideration of new sustainable procurement guidelines (scheduled for formulation and disclosure in 2022)</li><li>• Launched the examination of a new risk management system, compliance standard, and code of conduct (scheduled for formulation, introduction, and disclosure in 2022)</li></ul>
Value creation	Social value	• Balancing of our contribution to the resolution of social issues and duty as a chemical manufacturer through responsible business management
	Environmental value	• Reduction of environmental impact through improved recycling rates by reducing GHG emissions and waste
	Economic value	• Improvement of motivation, raising of productivity, reduction of costs, and enhancement of brand value through eradication of all types of accidents and other incidents and increased efficiency of internal processes

Develop autonomous, creative, and active human resources and culture

The Company's ambition	Our ambition	The source of our value lies in cultivating co-creative individuals and nurturing a corporate culture to solve issues imaginatively via co-creation by forming connections autonomously with customers and stakeholders through empathy, including various parties who will lead future generations.
	2030 targets	Through the cultivation of creative and co-creative individuals and the nurturing of a corporate culture conducive to their development, we will aim to become a developer of talent whose employees are the envy of other companies.
	Key constituent elements for achieving issues of materiality	<ul style="list-style-type: none"><li>• Nurturing of a co-creation culture born of mutual trust and respect</li><li>• Development and acquisition of professional-minded human resources</li><li>• Improvement of employee engagement</li></ul>
KPIs (Issues we plan to discuss and confirm with stakeholders)	Key items	<ul style="list-style-type: none"><li>• Implementation of our corporate philosophy</li><li>• Strengthening of talent management</li><li>• Continuous growth of individuals and the organization</li><li>• Active involvement of human resources and ensuring of their psychological safety through the deepening of diversity and inclusion</li></ul>
	2025 targets	<ul style="list-style-type: none"><li>• Further evolve and strengthen examples of co-creation from our global awards</li><li>• Increase the number of appointments through in-house recruitment that promote autonomous career development</li><li>• Improve engagement-related scores</li><li>• Enhance the diversity of management and nurture an inclusive corporate culture by increasing the ratio of female managers</li></ul>
	2021 results	<ul style="list-style-type: none"><li>• Planned and launched global awards (opportunities to accelerate the embodiment of our purpose and values) for the newly integrated company</li><li>• Designed the way in which we will operate in-house recruitment for the newly integrated company</li><li>• The ratio of female managers came to 4.5% in Japan and 11.5% globally</li></ul>
Value creation	Social value	• Promote innovation through internal and external co-creation aimed at solving social issues by cultivating the growth and active involvement of creative and co-creative individuals and the nurturing of a conducive corporate culture.
	Environmental value	
	Economic value	• Raise employee motivation and realize high productivity by boosting the competitiveness of human resources through strategic job rotations, with management developing leaders from the perspective of Companywide optimization.

Material Issues for Sustainability and Nonfinancial KPIs

We held a dialogue with outside experts on establishing our issues of materiality and KPIs



Kenji Fuma WEB  
CEO  
Neural Inc.

**Fuma:** The power of materials and chemistry is integral to solving social issues. There are many tasks that Showa Denko must and can address. Given that changes in the business environment will become even more dramatic from 2030 onward, Showa Denko should position the current period of the long-term vision as an 8.5-year period for preparing to reap the fruits of innovation in 2030 and beyond, eliminating restrictions in relation to people, products, money, time, and other matters. While there is no need to achieve KPIs in full from day one, it is crucial to move forward a step or two from the status quo and inspire a desire on the part of the relevant divisions to move ahead. Work on KPIs does not finish with their establishment. As revision becomes necessary, I think that Showa Denko's process of carefully formulating KPIs through repeated internal discussions is highly commendable. Nevertheless, becoming a company that can compete on the world stage, and a company with like-minded partners throughout the world, requires the inclusion of a global perspective. It is necessary for Showa Denko to backcast from its ideal state with a more long-term outlook. While I believe that its emphasis on people is also praiseworthy, Showa Denko must draw in and involve the generation of employees who will be at the heart of its management in 2040 and 2050. I also think it would be a good idea for the Company to cultivate future generations while exposing them to experiences outside the Company.

**Sustainability Department:** While we have positioned the achievement of our medium-term KPIs as a first step looking ahead to 2030, we reaffirmed that we must take larger steps, incorporating a global perspective, and nurturing a mindset to motivate all employees to work. We will also consider activities that benefit Showa Denko and society into the future, such as science, technology, engineering, art, and mathematics (STEAM) education.

Views on Material Issues for Sustainability and Nonfinancial KPIs from the Employees in Charge

We met employees in charge of environmental safety, risk management, and compliance to hear their views on materiality and KPIs



Meiko Saihata WEB  
Employee in charge of  
environment and safety

Safety is our top priority and guiding principle. We have adopted the goal of eliminating accidents, disasters, and environmental accidents. We will not adopt half-hearted targets. This is because no one should suffer. We will continue to exhaustively communicate these targets with employees while incorporating them into our systems and frameworks one at a time.



Tomotaka Tsutsuzaki WEB  
Employee in  
charge of risk  
management



Daisuke Yoshida WEB  
Employee in  
charge of  
compliance

I hope we take the best elements of both the Showa Denko Group and the Showa Denko Materials Group, and make them better. We are striving to integrate the management of operational and hazard risks and develop global standards transcending regions that will serve as a foundation for our diverse range of employees, in order to underpin our contributions to further business growth and a sustainable society. In addition, a Companywide, cross-organizational team is currently formulating the Group Code of Conduct.

Note: Visit our website for details on the dialogues and interviews.