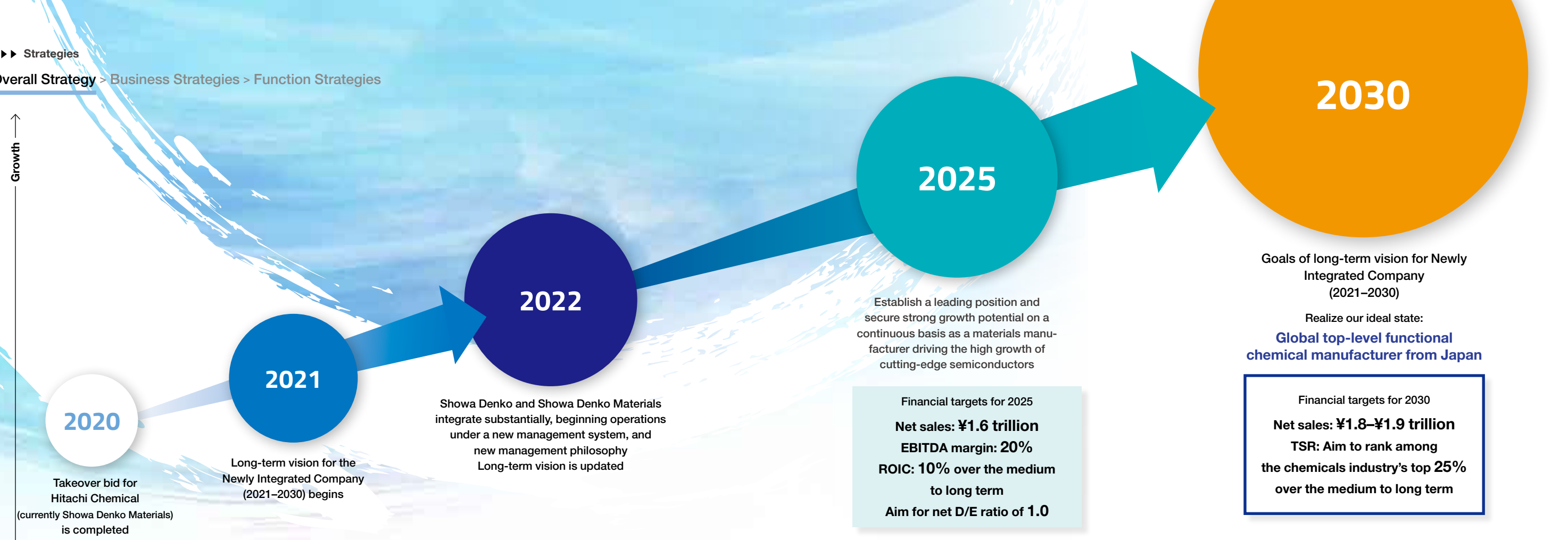


Growth ↑



## Overview of Our Long-Term Vision

Earning capacity →

With the unification of the management systems of Showa Denko and Showa Denko Materials in January 2022, both companies have effectively realized their integration through a system in which management is executed by 12 corporate officers common to both companies, under the president and CEO.

In conjunction with the launch of a new management system and the establishment of a new corporate philosophy, we also updated the long-term vision that we had announced in December 2020 and are moving forward with initiatives to achieve our ideal state in 2030.

### Purpose (Our Aspiration)

## Change society through the power of chemistry

Contribute to the sustainable development of global society by creating functions required of the times as an advanced material partner

### Ideal State

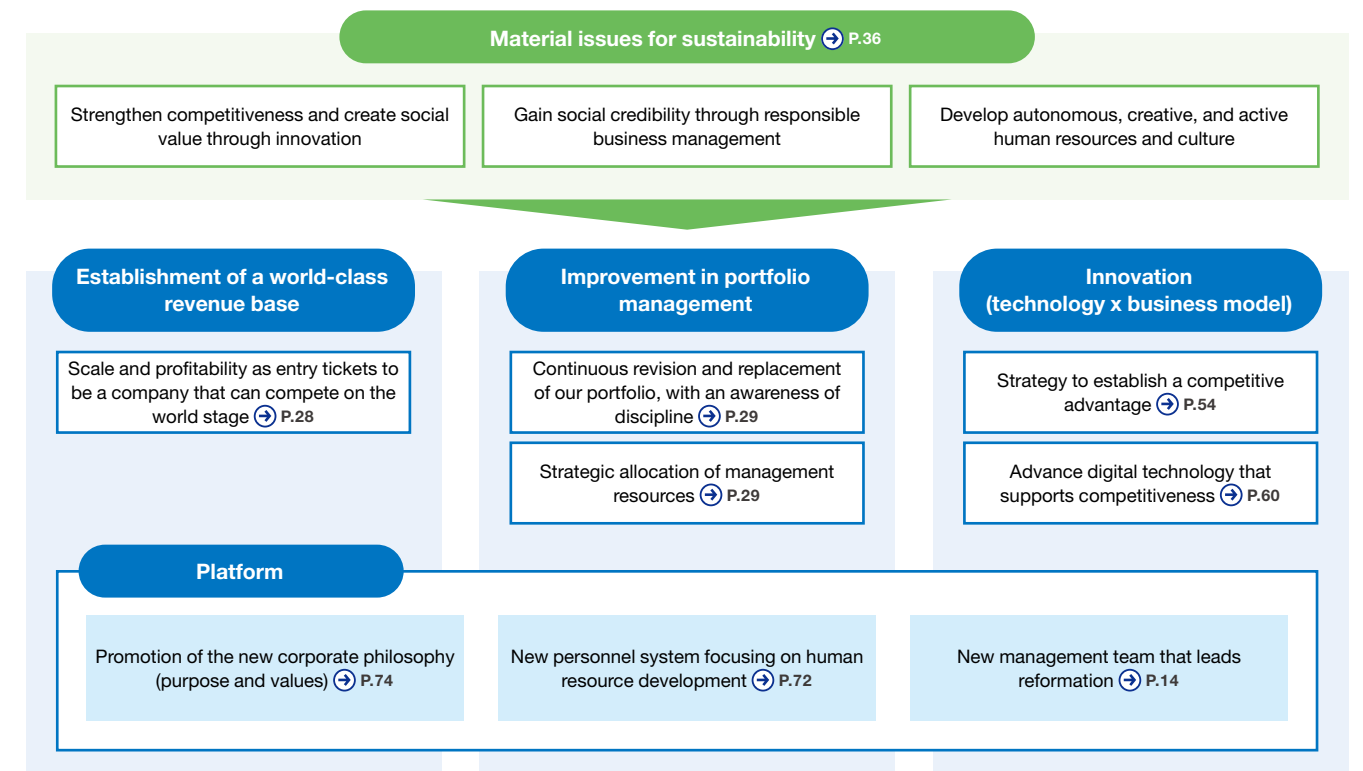
As we aim to realize the goal in our long-term vision of becoming a global top-level functional chemical manufacturer, we will strive to be a company that can compete on the world stage in both qualitative and quantitative terms, a company that contributes to the sustainable development of a global society through innovation and the capability to develop new businesses, and a company that attracts the attention of other corporations by developing co-creative talent that represents Japan's manufacturing industry.

### Global Top-Level Functional Chemical Manufacturer from Japan

Company that can compete on the world stage	Company that contributes to a sustainable global society	Company that develops co-creative talent that represents Japan's manufacturing industry
World-class competitiveness and profitability	Capability to create innovations and to develop new businesses	Ability to train competitive talent with shared values

### Main Strategies

Our long-term vision positions sustainability as an essential component of our Companywide strategies. Accordingly, we will establish a platform to become a global top-level functional chemical manufacturer and promote strategies incorporating our material issues for sustainability aimed at establishing a world-class revenue base, improving portfolio management, and spurring innovation.



Overview of the Long-Term Vision

Financial and Capital Strategies

Scale and Profitability as “Entry Tickets” to Be a Company That Can Compete on the World Stage

Long-Term Numerical Targets

Showa Denko believes that strength in both quantitative and qualitative terms is essential to competing on the world stage. Quality means being able to contribute to society, and contributing in a sustainable manner is especially important. On the other hand, being strong in quantitative terms—that is, being a profitable company of a certain scale—is vital from the perspective of maximizing corporate value as well as from the perspective of contributing to society by implementing timely investments to secure earnings.

With regard to our long-term numerical targets, we aim to maximize corporate value by scrupulously achieving our numerical targets through the pursuit of scale and profitability to the tune of net sales of ¥1.6 trillion or more and an EBITDA margin of 20% or more as “entry tickets” to be a company that can compete on the world stage.

To more accurately highlight our strategic intent and our efforts to improve the management of our portfolio, we changed disclosure segments in December 2022. With the segment reclassifications, we will aim to more clearly show the effects of the strategic allocation of management resources and continuous revision and replacement of our business portfolio, of which the most obvious example is our focused investment on semiconductor materials.

Please see page 40 for details on segment reclassifications.

Initiatives to Improve ROIC

Turning to our key performance indicators (KPIs), in a change from the KPI set forth in the long-term vision we announced in December 2020, we have introduced return on invested capital (ROIC) as a key numerical target from the perspective of emphasizing discipline.

We will promote awareness of ROIC-focused management among the heads of each business headquarters by measuring ROIC by each headquarters and the sub-business units that constitute the business headquarters and by ranking each sub-business unit by its ROIC components. In addition, we will instill ROIC-focused management and strive to improve portfolio management with the aim of achieving ROIC of 10% or more, by implementing both regular monitoring on a quarterly basis and a variety of measures, such as linking ROIC to management evaluations and bonuses.

	2021 (results)	2025 (target)	2030 (target)
Net sales* (trillion yen)	¥1.4	¥1.6	¥1.8–1.9
EBITDA margin (%)	14.3	20	
ROIC (%)	4.3	10% over the medium term	
Net D/E ratio (times)	1.15	Aim to achieve 1.0	

\* Figures do not reflect the impact of future M&As.

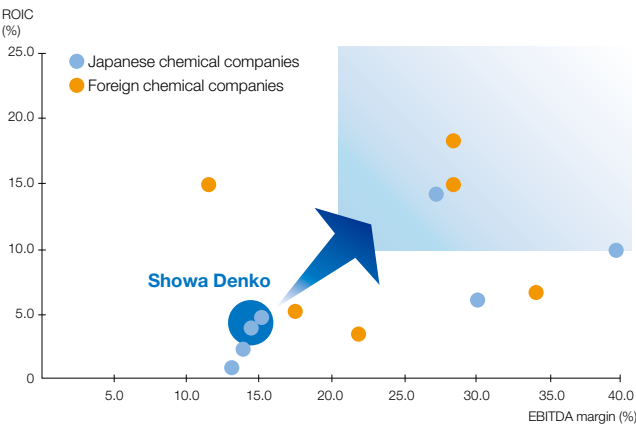
Change to New Segments for Disclosure in Line with the New Business Portfolio Strategy

New segments	Subsegments	EBITDA margin (2025 target)
Semiconductor and Electronic Materials	Semiconductor materials (front-end and back-end processes)	30% or more
	Device solutions (HD)	
	Device solutions (SiC)	
Mobility	Automotive products	20% or more
	Lithium-ion battery materials	
Innovation Enabling Materials	Ceramics	15% or more
	Functional chemicals (resins, etc.)	
	Aluminum specialty components	
	Coating materials	
Chemicals	Petrochemicals	15% or more
	Basic chemicals and industrial gases	
	Graphite electrodes	
Others	Life science	Achieve critical mass

Attribute of the business portfolio

- Core Growth
- Fundamental Technologies/Materials
- Stable Earnings
- Next-Generation

Asset Efficiency and Profitability of Global Chemical Companies



Source: Prepared by Showa Denko based on financial results and other disclosed materials.

Improvement in Portfolio Management

Portfolio companies incessantly strive to improve their portfolios. Showa Denko strives to further improve its portfolio management by continuously revising and replacing its business portfolio. The Company has adopted three criteria as its portfolio management policy, as follows. (1) Fitness for strategy: Whether a business matches the strategies of the Company’s overall strategies and the strategies reflecting the roles of each business unit in accordance with the attributes of the portfolio, with sustainability as a prerequisite. (2) Best owner: Who the best management authority is to maximize the value of a business. (3) Profitability and capital efficiency: Whether a business or investment will satisfy expectations in terms of profitability and capital efficiency. Using these criteria as management guidelines, we focus on ROIC and seek to maximize corporate value.

Strategic Allocation of Management Resources

Showa Denko is concentrating its management resources in semiconductor materials and mobility, its Core Growth businesses, while utilizing the funds it obtained through a public offering in 2021. We will aim to drive Companywide profit growth and to achieve profitability and capital efficiency that are high enough to compete on the world stage, through the focused allocation of management resources in Core Growth businesses.

Furthermore, we will increase the proportion of net sales accounted for by Core Growth businesses by growing such businesses. This strategy will see Companywide profit growth driven by Core Growth businesses, rather than the uniform growth of all businesses. As a result, we will raise the Companywide EBITDA margin—at a level equivalent to that of global chemical companies’ scale of business and profitability—which is the weighted average of the EBITDA margins of each business.

Progress in Portfolio Reform

In its long-term vision, Showa Denko launched targets for selling ¥200 billion worth of businesses in terms of business value. Subsequently, the Company promptly made decisions on business sales, such as announcing the sale of its aluminum can, aluminum rolled product, food wrap film, printed wiring board, and energy storage device businesses. To date, we have achieved approximately 80% of our target. We are working to optimize the allocation of management resources and restructure our business portfolio to realize continuous growth and spur innovation through the integration of the technologies of Showa Denko and Showa Denko Materials. In proceeding with such efforts, we have carefully examined each of the businesses for sale and transferred them to the best owners, who can fully utilize the technological capabilities and strengths of such businesses, including solid relationships with customers, to facilitate their further development.

Portfolio Management Policy

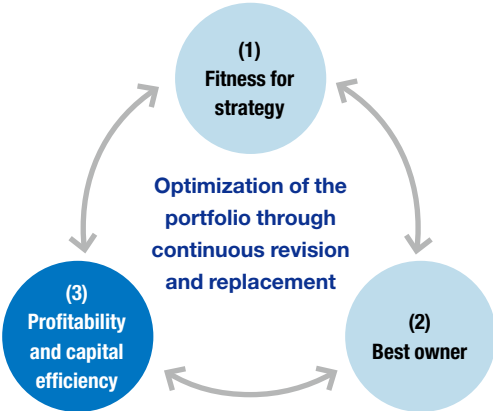
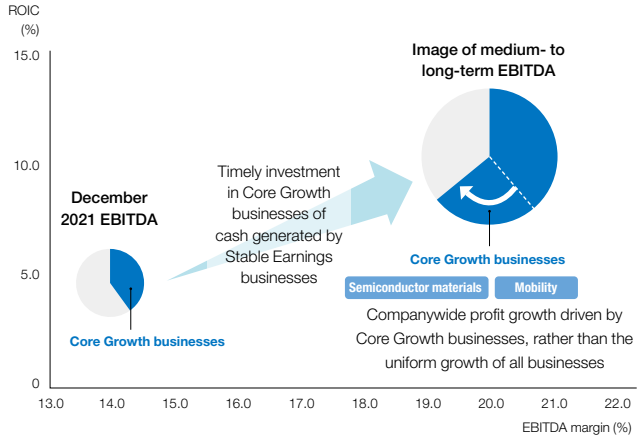


Image of Growth by Strategic Allocation of Management Resources to Core Growth Businesses



As for businesses that we will continue to operate, those connected to the semiconductor industry—a Core Growth business—will require large-scale investment given the likelihood of high market growth. With this in mind, we will raise investment funds on a Companywide basis by earning stable profits through Stable Earnings businesses such as petrochemicals and carbon.

As there is no end point to portfolio management, we will continuously examine business portfolio replacement to continue improving growth and profitability on an ongoing basis.

Overview of the Long-Term Vision | Financial and Capital Strategies

Specific Roadmap for Achieving Our Targets

Measures to Improve Profit

With regard to cost reductions and improvements in the profit structure, we promoted initiatives to reduce costs and enhance the profit structure to create synergistic effects through the integration of Showa Denko and Showa Denko Materials in a variety of areas. These included sales, procurement, production, and business site integration, with the expectation of achieving profit improvement of ¥28 billion by the end of 2023. As a result of these efforts, we achieved an improvement of ¥20.8 billion in 2021, ahead of the planned schedule.

With improvement measures progressing steadily, we have increased our target for profit improvement by ¥2 billion to ¥30 billion by the end of 2022, a year ahead of schedule.

Policy	Effect (Billions of yen)		
	Under the long-term vision 2021 (forecast)	Under the update of the long-term vision 2021 (actual results)	2025 (forecast)
Improvement of profit from sales			
• Revision of sales policies for customers and agents, etc.	¥3.0	¥3.2	¥3.0
Reduction of purchasing and logistics costs			
• Use of common materials and consolidation of logistics-related suppliers	3.0	2.6	3.0
• Sharing of transportation vehicles, warehouses, and personnel, etc.			
Reduction of rents			
• Reduction through head office integration	1.0	1.0	1.0
Optimization of operations / improvement of productivity			
• Structural reforms through organizational integration and operational efficiency improvements, etc.	14.0	7.3	15.0
• Improvement of productivity on manufacturing lines			
Reduction of other costs			
• Reduction of common costs, SG&A expenses, etc.	7.0	6.7	8.0
Companywide total	¥28.0	¥20.8	¥30.0

Efforts to Streamline Our Assets

In our long-term vision, we adopted a plan to generate ¥50 billion in funds by 2021. Under this plan, we worked to boost working capital and sell cross-shareholdings and other assets. Thanks to these efforts, we raised ¥64.7 billion in 2021, far exceeding the original plan.

In addition, we determined a policy under which we will in principle sell all of our cross-shareholdings. Moreover, we will generate a further ¥65 billion by 2025 and reduce our assets by over approximately ¥130 billion on a cumulative basis by 2025, by advancing measures such as the sale of idle assets.

Initiatives	Effect (Billions of yen)		
	Under the long-term vision 2021 (forecast)	Under the update of the long-term vision 2021 (results)	2025 (forecast)
Improvement in working capital*1	¥25.0	¥25.3	¥30.0
Sale of strategically held shares*2	20.0	29.4	45.0
Sale of other assets*2	5.0	10.0	55.0
Companywide total	¥50.0	¥64.7	¥130.0

\*1 Calculated from working capital turnover days at the end of 2020, number of days of improvement in 2021 (actual) and 2025 (estimate), and sales figures of retained businesses.

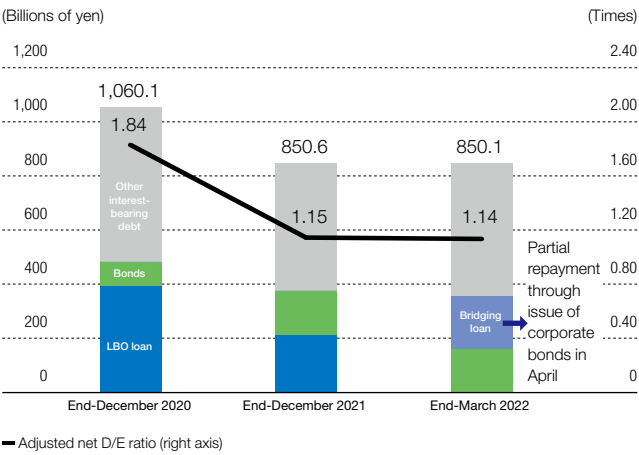
\*2 Accumulated amount of the sale of shares since 2020, excluding sale of shares of affiliate companies and divested businesses.

Reduction of Interest-Bearing Debt

At the end of December 2021, our interest-bearing debt came to ¥850.6 billion, down ¥209.5 billion compared with the end of December 2020. This reduction reflected such factors as the sale of assets in conjunction with reform of our business portfolio and efforts to streamline assets. The net D/E ratio increased to 1.15, partly as a result of the public offering. In December 2021, meanwhile, we issued bonds (¥100 billion), the proceeds of which we used to partially repay a leveraged buyout (LBO) loan. In addition, we carried out the prepayment of the LBO loan at the end of March 2022 by converting it to a bridging loan to reduce finance costs. We also issued a further ¥113 billion of bonds in April 2022, which we used to partially repay the bridging loan.

We will continue to aim to stabilize finances and cut finance costs by reducing interest-bearing debt.

Changes in the Interest-Bearing Debt Balance



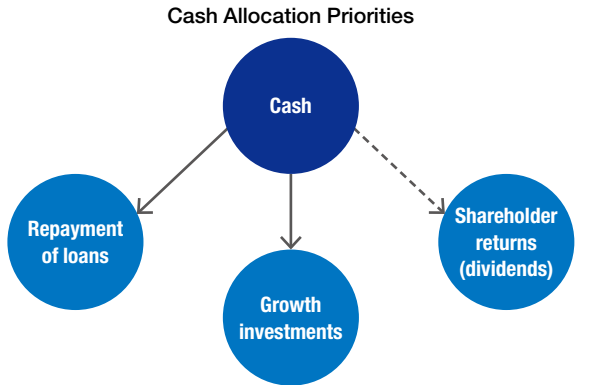
Capital Allocation

In view of the post-integration situation, we must allocate cash obtained through future business growth and business sales to implement growth investments aimed at expanding profits, while prioritizing to a certain degree the repayment of loans. While we aim to generate ¥1 trillion in cash flow from operating activities over the next five years on a consolidated basis, we plan to direct approximately a half to two-thirds of the cash flow generated to capital expenditures centered on Core Growth businesses, applying the remainder to maintaining stable dividends and reducing interest-bearing debt. If further strategic investments become necessary, we will raise funds through asset sales, portfolio replacement, and other means.

Shareholder Returns Policy

As for shareholder returns, Showa Denko aims to achieve total shareholder return—a comprehensive indicator for improving corporate value—at a level in the top 25% of the global chemical industry.

As previously mentioned, to improve our corporate value we will actively carry out capital expenditures centered on Core Growth businesses and reduce interest-bearing debt to bolster our financial standing. In addition, for the time being we will maintain a dividend policy of paying stable dividends.



In view of the post-integration situation, we must prioritize to a certain degree the repayment of loans and growth investments aimed at expanding profits.

Operating Results (Fiscal 2021)

The Group recorded consolidated net sales of ¥1,419,635 million in 2021, a substantial increase of 45.8% compared with the previous year. Sales in the Others segment decreased significantly due to the deconsolidation of SHOKO CO., LTD., resulting from the transfer of shares in the company. Sales were also down in the Aluminum segment as a result of the sale of the aluminum rolled products and aluminum can businesses. However, sales increased in the Petrochemicals segment thanks to market recovery. Sales were also up in the Chemicals, Electronics, and Inorganics segments due to a rise in sales volumes compared with fiscal 2020, when the impact of the COVID-19 pandemic led to a significant decline in sales. The increase in consolidated net sales also reflected the inclusion of the Showa Denko Materials segment in the consolidated results for the entire year.

The Group posted operating income of ¥87,198 million, a turnaround of ¥106,647 million from the operating loss in the previous year. Each segment was impacted by a decline in the production of automobiles and other vehicles consequent upon a shortage in the supply of semiconductors and by soaring raw materials prices. Despite such adverse conditions, operating income increased in the Petrochemicals segment due mainly to a significant improvement in the naphtha price factor, and in the Inorganics segment owing to a sizeable increase in sales volumes in conjunction with a recovery in demand for steel.

Operating income was also boosted by the inclusion of the Showa Denko Materials segment in the consolidated results for the entire year, although the deconsolidation of SHOKO CO., LTD., led to a decline in operating income in the Inorganics segment. The effects of various measures in the Chemicals, Electronics, and Aluminum segments also prompted an increase in operating income.

Although the Company recorded a net loss attributable to owners of the parent of ¥12,094 million, this represented an improvement of ¥64,210 million from the previous fiscal year. The loss was attributable to the recording of business restructuring expenses of ¥30.1 billion in connection with the transfer of the energy storage devices and systems businesses and the posting of environmental expenses of ¥9.0 billion for production sites in the Aluminum Specialty Components business.

Total assets at the end of the year amounted to ¥2,142,390 million, a decrease of ¥61,216 million from the level at December 31, 2020. Although cash and deposits increased largely as a result of a rise in funds received from a public offering, total assets declined due to a drop in tangible fixed assets and intangible fixed assets including goodwill. Despite an increase in accounts payable-trade, total liabilities came to ¥1,323,937 million, down ¥161,588 million from the level at December 31, 2020, as a result of a decline in interest-bearing debt.

Topics: Communication with Shareholders and Investors

Showa Denko provides disclosure on the Group's vision, strategies, and corporate information in an easy-to-understand, timely, and appropriate manner, engaging in investor relations (IR) activities to deepen trust and understanding of the Group through proactive dialogue with shareholders and investors.

Although the impact of COVID-19 has resulted in a shift to communication with shareholders and investors centered on online briefings and telephone conferences, the Company's management team held a small meeting with analysts after taking sufficient infection countermeasures. The meeting saw a lively discussion on the update of the long-term vision under the new management system. In addition, we held a Packaging Solution Center facility tour and business briefing in March 2022, holding the tour and briefing in a hybrid format with in-person and online participants. In addition, we held an online company briefing for individual investors in December 2021, with the participation of 556 individual investors from across Japan.



Packaging Solution Center facility tour and business briefing



## Discussion between the CFO, the CSO, and an Analyst

# Working to Be a Company Continuing to Create Value in a Sustainable Manner

**Showa Denko invited Mikiya Yamada of Mizuho Securities Co., Ltd., to join Hideki Somemiya, Showa Denko's chief financial officer (CFO), and Tomomitsu Maoka, the chief strategy officer (CSO), for a discussion on the Company's financial and capital strategies, to ensure that it continuously creates value in a sustainable manner.**

(The discussion was held in a Showa Denko conference room on April 13, 2022.)



### Hideki Somemiya

Managing Corporate Officer and CFO  
Showa Denko K.K.

#### Profile

Hideki Somemiya held positions at Nomura Research Institute, Ltd., Merrill Lynch Japan Securities Co., Ltd., and JPMorgan Securities Japan Co., Ltd., where he was managing director of the Technology, Media & Telecommunication Group of the Investment Banking Division prior to joining Sony Corporation. At Sony, Mr. Somemiya was in charge of Groupwide M&A activities, served as CFO of semiconductor operations, and took part in the launch of an AI sensing solution business. He joined Showa Denko in October 2021 and took up his current position in January 2022.

### Mikiya Yamada

Senior Analyst, Equity Research  
Department, Mizuho Securities Co., Ltd.

#### Profile

Mr. Yamada began his career at Dow Chemical Japan Ltd., where he served in a number of positions, including general manager of research and development and of financial planning as well as financial planning manager for Dow's Pacific region. After working for Goldman Sachs Co., Ltd., JPMorgan Chase & Co., Lehman Brothers Japan Inc., and Barclays Securities Japan Limited, he joined Mizuho Securities in 2016. Mr. Yamada covers the chemical and textile sectors extensively in his current position.

### Tomomitsu Maoka

Managing Corporate Officer and CSO  
Showa Denko K.K.

#### Profile

After starting his career at A.T. Kearney, Inc., Tomomitsu Maoka moved to Infineon Technologies Japan K.K., and then to Lenovo Japan K.K., where he was involved in business strategies and business model transformation, before joining Renesas Electronics Corporation. At the company, he covered various roles including corporate planning, the entire operations in China, etc., as senior vice president. He joined Showa Denko in October 2021 and took up his current position in January 2022.

## Aiming to Become a Global Top-Level Functional Chemical Manufacturer from Japan

**Yamada** Let me begin by saying that the strategy outlined in the update of Showa Denko's long-term vision—of clearly committing management resources to business areas where the Company can prevail—was very straightforward. With the adoption of semiconductor materials and mobility as the two pillars of its investments, the Company has set out a well-defined scenario for the semiconductor materials area in which it will invest in semiconductor gases, a strength of Showa Denko; back-end process materials, a strength of Showa Denko Materials (formerly Hitachi Chemical); and ceria-based slurry, where vertically integrated synergies can be utilized.

In contrast, I believe that challenges remain in mobility. I wonder if Showa Denko's mobility business is of a sufficient scale for it to operate successfully in the mobility area. I have my doubts regarding both the significance of positioning mobility as one of the two priority investment areas and the likelihood of the Company prevailing in competition. Prevailing in growth areas naturally requires the commitment of abundant management resources. Unfortunately, however, I do not believe that Showa Denko's financial standing allows for the investment of adequate management resources in both areas at the present time. While I applaud the Company's determination and its approach to semiconductor materials, I think that many investors are looking for a more persuasive narrative on how it will implement its strategies.

**Somemiya** Thank you for your comments. As you correctly point out, we recognize that improving our financial standing is our highest priority. We must achieve a more appropriate capital structure and develop the strength to facilitate our next major growth investment. Under the new leadership of president and CEO Takahashi, Showa Denko has laid out a management approach with an emphasis on return on invested capital (ROIC), with a view to not only instilling portfolio management (P.28) within the Company but also making disciplined investment an aspect of our appeal to external communities. This stance reflects our intention to respond to the points raised by capital markets.

When I joined the Showa Denko Group in October 2021, head office and individual divisions communicated in a manner resembling a hub-and-spoke system. However, as we set about implementing portfolio management, those who lead stable earnings businesses within the Company are entitled to know how the businesses receiving the cash they have generated will invest that cash and what returns are being targeted. Therefore, to improve on the previous structure, we updated it to allow all the general managers of divisions to also take part in discussions on the plans of other divisions, beginning in December 2021. With the updated structure enabling each division to understand its own role in overall optimization, we have introduced ROIC and key performance indicators (KPIs) as a shared language and aim to make the structure function effectively. This structural change was not achieved overnight. Rather, it was realized by president and CEO Takahashi (the then CSO), who established the foundations over a period of three years, including the unification of reporting formats.

Acquiring the former Hitachi Chemical entailed a financial risk in terms of generating cash flow. The acquisition was the biggest decision in our history. Given Showa Denko's current position, I regard achieving a more appropriate capital structure as an urgent priority to take the Company to a point where it can carry out strategic investments under normal conditions. We are aiming to generate ¥1 trillion

in operating cash flow over the next five years and plan to invest between half and two-thirds of this amount with a focus on semiconductor materials. In the update of our long-term vision, we have indicated our intentions for capital structure and capital allocation as part of our financial strategies. We will also continue to refine our targets, such as the appropriateness of a debt-to-equity (D/E) ratio of 1.0—a long-term numerical target—and implement financial management to establish a balance sheet with capacity for further investment.

Although remuneration linked to our stock price currently applies only to directors and corporate officers, we envisage introducing this system for all employees at some point. In promoting portfolio management, we believe that our corporate value will improve if employees strive to achieve overall optimization with an awareness of the roles of each portfolio category, which in turn allows us to show them that they will be rewarded accordingly. We therefore aim to implement this system for employees after providing a sufficient explanation of its introduction.

**Maoka** Showa Denko and the former Hitachi Chemical have a good relationship, with each strength complementing the other's weaknesses. Although Showa Denko, which is positioned in the midstream section of the value chain, has capabilities in materials development, difficulties in understanding how its products are used in the downstream section made it challenging to develop products with high added value. On the other hand, the former Hitachi Chemical, which is positioned in the downstream section of the value chain, has outstanding insight into how its customers wish to use its materials in their products and a wealth of know-how on meeting their requirements. However, over-optimizing its adaptability has resulted in the gradual erosion of its capabilities in midstream materials composition and development as well as in investment. We view the integration of the two companies as an excellent combination, because it facilitates value creation using the entire value chain, applying Showa Denko's material development capabilities to address the requirements of Showa Denko Materials' customers.

Going forward, the way in which we solve social issues will be an important theme. The main area in which we have been able to demonstrate our ability to create synergies is in semiconductor materials. We must set forth a more specific value creation scenario in the mobility area, exactly as Mr. Yamada points out. Today, our business activities involve the connected, autonomous, shared, and electric (CASE) field for automobiles. Within this field, we focus on electrification trends, as we believe it is crucial for us to enhance added value while creating new products and services that leverage the synergies of both companies.

Vertical integration that strengthens the value chain from midstream





Discussion

to downstream in such a manner is highly unusual. For this reason, I believe that we can create unique models and value and I aim to take on a variety of challenges.

**■ Yamada** You mean that the newly integration of Showa Denko and Showa Denko Materials will enable the integrated Company to proceed to a new dimension. To make that happen, I believe that it will be vital for everyone involved to work together, as Mr. Somemiya has explained. The Company will not be able to record great achievements unless all concerned are aware of their own roles and understand each other's specific characteristics and ideas. In that sense, communicating collectively, rather than on a one-to-one basis, surely holds the key to creating synergies and accomplishing strategies.



**■ Somemiya** You are absolutely right. If one excludes the large petrochemicals, hard disk, and graphite electrode businesses, Showa Denko is a collection of 20 or more medium-sized businesses with net sales on a scale ranging from ¥20 billion to ¥60 billion, as opposed to a corporate entity with net sales of ¥1.4 trillion. Accordingly, we view achieving overall optimization through portfolio management and ensuring that everyone understands the trajectory of our overarching strategy as critical aspects of our business management.

To this end, we will strengthen cross-divisional functions that transcend the boundaries of each organization. To give an example, the organization of the CFO, which I preside over, reports to Chief Human Resource Officer (CHRO) Nori Imai on frontline conditions and other matters as a member of the organization under the CHRO. In addition, those engaged in accounting in all divisions—who have thus far been closely affiliated with their own divisions—will report to me on such issues as division expenditures, as members of the organization under the CFO. In this way, we have put in place a system in which the CFO and the CHRO provide support for the operation of divisions while steadfastly communicating Companywide policies to divisions through those engaged in personnel and accounting in each division and functional division. The aim of this system is to strengthen cooperation between CXOs and business divisions. We have introduced the same arrangement for other CXOs as well, although the degree of corporate governance differs according to function.

In addition, we have begun tackling the development of human resources with high potential. While it had been common for employees to build a career in the division to which they were assigned after joining Showa Denko, the Company is now expanding the promotion of transfers across divisions and job rotations, including at the head office, which will enable management teams to identify and develop human resources with high potential.

**■ Maoka** Beginning in 2022, Showa Denko has been holding town hall meetings at various locations. At these meetings, Mr. Somemiya touched on the ranking of business divisions in terms of ROIC. At first, I was concerned that we would receive negative feedback from those in the business field about being ranked in such a way. However, many responded that they were grateful, as no one had ever discussed such an issue with them before and it was enlightening. All those present expressed their understanding of the explanations provided on portfolio management and ROIC, which helped them to gain an appreciation of the rationale behind the Company's decisions. Speaking personally, I was greatly heartened to learn that employees felt this way on the occasion of the meeting.

**■ Yamada** Your experience makes clear that sharing information is the first step. I believe that making an issue visible facilitates the establishment of a shared language, which further enhances the importance of working together.

**■ Maoka** As horizontal cooperation progresses between businesses, situations will arise in which—for example—a business supplying raw materials commits funds to product development expenses or capital expenditures, which might put Business A at something of a disadvantage but result in a positive outcome for the Company as a whole. At such times, I intend to rate the efforts of Business A as valuable and demonstrate that assessment resolutely in terms of my actions. Since focusing only on numbers would ultimately result in failure, I believe it is crucial that we move forward while placing due importance on both individual businesses and the Company as a whole.

**■ Somemiya** The greater the number of employees who understand and implement Showa Denko's purpose and values\*, the better we can establish a virtuous cycle that improves not only the Company's financial but also its nonfinancial value. President and CEO Takahashi has frequently pointed out that tomorrow will not be better than today unless we change what we do, the way we do it, and the people who do it. Therefore, I hope that Showa Denko's Values will become a deeply ingrained part of its guiding precepts.

\* Values: This is the value system we hold dear. It entails being Passionate & Results-Driven, Agile & Flexible, having Open Minds & Open Connections, and maintaining a Solid Vision & Solid Integrity.

**■ Yamada** Although it may not be appropriate for an analyst who basically focuses on business results to say so, I believe that around only half of a company's value may be found in its numbers. To convert value that is not expressed in numbers into that which is visible in the numbers over the long term, it is important for employees to move in the same direction while remaining confident that they are being evaluated properly in both quantitative and qualitative terms.

Roadmap for Realizing Our Long-Term Vision as a "Co-creative Chemical Company"

**■ Yamada** As implied in Showa Denko's purpose—"Change society through the power of chemistry"—society will not be transformed without the power of chemistry. It is my belief that the power of chemistry is indispensable to maintaining the types of value that we currently enjoy, to the maximum possible extent. At the same time, the power of chemistry has an integral role to play in helping society progress toward the resolution of environmental issues, such as carbon neutrality, and the achievement of the United Nations Sustainable Development Goals (SDGs), including the goals related to

social inequality and hunger, in a way that leads to greater affluence. With that said, the fact remains that the SDGs cannot be achieved through chemistry alone. This is why shifting to a co-creation model that reflects current circumstances is the correct direction for Showa Denko to take. The way in which it makes this shift will be of the utmost importance, and I have high expectations of the Company in this regard. Co-creation increases the number of stakeholders with whom Showa Denko engages. As such stakeholders each have stakeholders with a host of interests of their own, I believe that Showa Denko can make a more persuasive case for convincing stakeholders to join it in realizing co-creation, if it can demonstrate in specific terms the way in which it will distribute the value created with internal and external parties.

People's attitudes do not change readily. I believe that it is only when people first change their actions and achieve results and experience success that their attitudes change.

**■ Maoka** I believe that efforts toward carbon neutrality cannot progress without the consent of consumers. To this end, we must involve not only companies but also a variety of stakeholders, such as governments. Showa Denko carries out two sets of activities under the Jisso Open Innovation Network of Tops (JOINT) and JOINT2 (➡ P.45), consortiums engaged in the development of semiconductor packaging materials, substrates, and equipment that are prime examples of activities involving stakeholders. As materials alone cannot create products of value, co-creation initiatives with a range of parties are indispensable. Also important is highlighting the significance of such initiatives to the world. Even if Showa Denko does something of value, ultimately it will see no returns and create no incentives if no one knows that the Company was responsible for the achievement. Establishing a system to address this point will be a challenge for us as we go forward. Although we have focused on in-house collaboration between divisions and departments thus far, I believe that it is vital to create a foundation to create value by pursuing co-creation, without being constrained by company or corporate frameworks.

**■ Yamada** Providing an environment for creating such a foundation is of crucial importance. Meanwhile, I feel that the chemical industry is lagging behind other industries in making use of digitization. Although Showa Denko is making great strides in terms of streamlining production and other matters, I hope that it will leverage digital technology to connect directly with customers, academia, and society to create new value. I think that connecting directly with a variety of stakeholders will invigorate communication and increase the sharing of information, which will contribute to the overall optimization of companies and of the industry.

**■ Somemiya** Utilizing digital technology to connect directly with a variety of stakeholders certainly holds the key. I also hope that we can create a platform in which more people with open minds can participate, and construct an ecosystem that enables not only Showa Denko but all parties to enjoy the advantages.

Similarly, achieving carbon neutrality requires the involvement of all parties, including the industry as a whole and governments, rather than the efforts of a single company. To this end, we must create a movement that is committed to fundamentally realizing carbon neutrality.

**■ Yamada** If companies only invest at their own convenience and at a time that suits them, the fundamental issue will remain unsolved. Instead, I believe that it is crucial for co-creation partners to build systems by reconciling their respective viewpoints and objectives. Although Showa Denko is prepared to do what it can to realize carbon neutrality, making investments in carbon neutrality on its own would not produce the returns demanded by investors, who would



not tolerate such investment. I believe that progress can only be made by improving co-creation to a stage where all parties know the actions that they must take in order to work together.

Promoting Dialogue with Investors and Other Stakeholders

**■ Yamada** This year marks the 20th year since I began covering Showa Denko, and I have been truly impressed with the progress it has made. Again, as Showa Denko's purpose sets out, society will not change without the power of chemistry. The chemical industry appeals to me. I sincerely hope that Showa Denko will become one of the world's leading chemical companies. To achieve this status, it must actively communicate information to customers and the various stakeholders with whom it engages in co-creation, including communicating more information to society and stakeholders.

**■ Somemiya** The reason we have not communicated information to an adequate extent lies in the fact that we have not been sufficiently active. Through my communication with investors as CFO, I have come to realize very keenly that Showa Denko has not sufficiently met the trust and expectations of its stakeholders. We have not necessarily been negligent in any way, and I do appreciate that we have worked to engage with stakeholders to the best of our ability. Nevertheless, given that we have not met such trust and expectations while remaining unaware of changes in the external environment due to our long history and past connections, we must make a fresh start. On this basis, the two companies will become a new company called Resonac\*, rather than two companies coming together. Accordingly, the new company will be aware of the need to create a vision and new value.

\* Resonac is the name of the newly integrated company to be established in 2023 (subject to approval at the extraordinary shareholders' meetings scheduled to be held for both companies in September 2022).

**■ Maoka** When Mr. Yamada spoke at a study session held for the management team at Showa Denko, his answer to a question on why the chemical industry was not fairly evaluated—despite the value it produced—was that chemistry was basically the name of a process and that the activities of the chemical industry were not widely known. This reply made a strong impression on me. It made me aware once again that it is important to objectively analyze how our business affects a variety of people and to develop methods of improvement. Ultimately, we deliver value to people, rather than companies or investors. We must devote ourselves to implementing a way of co-creating that captures people's hearts, unshackled by the past conventions of the chemical industry.

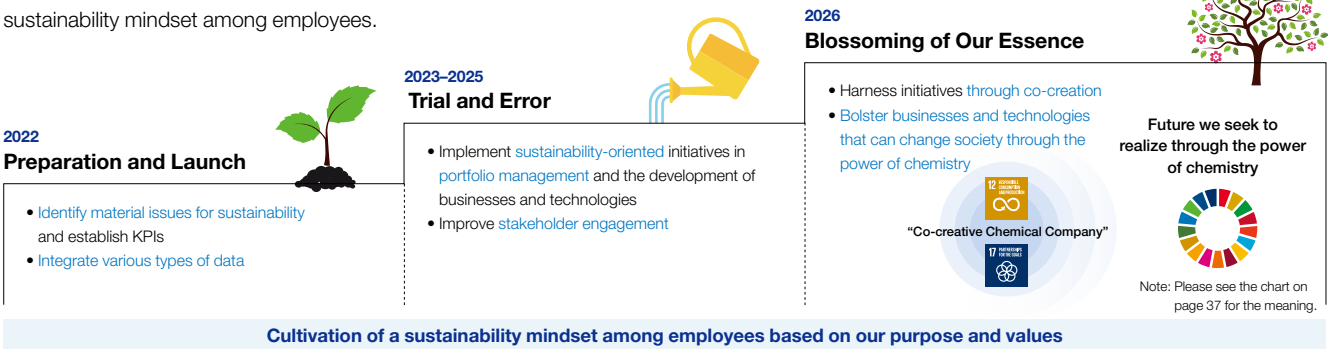
## Material Issues for Sustainability (Materiality)

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.

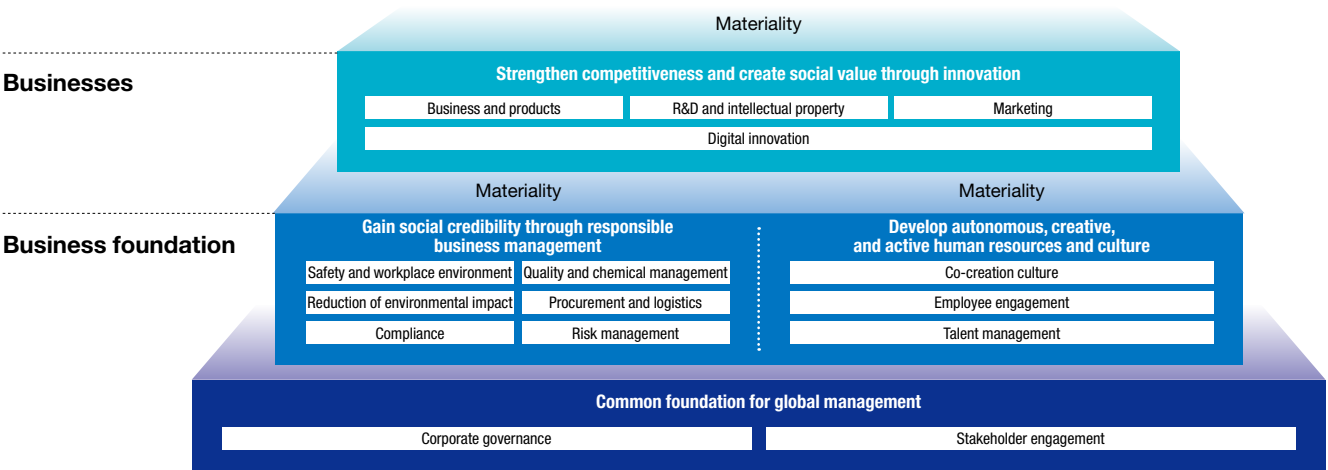
#### Sustainability Promotion System (As of June 30, 2022)



### Material Issues for Sustainability

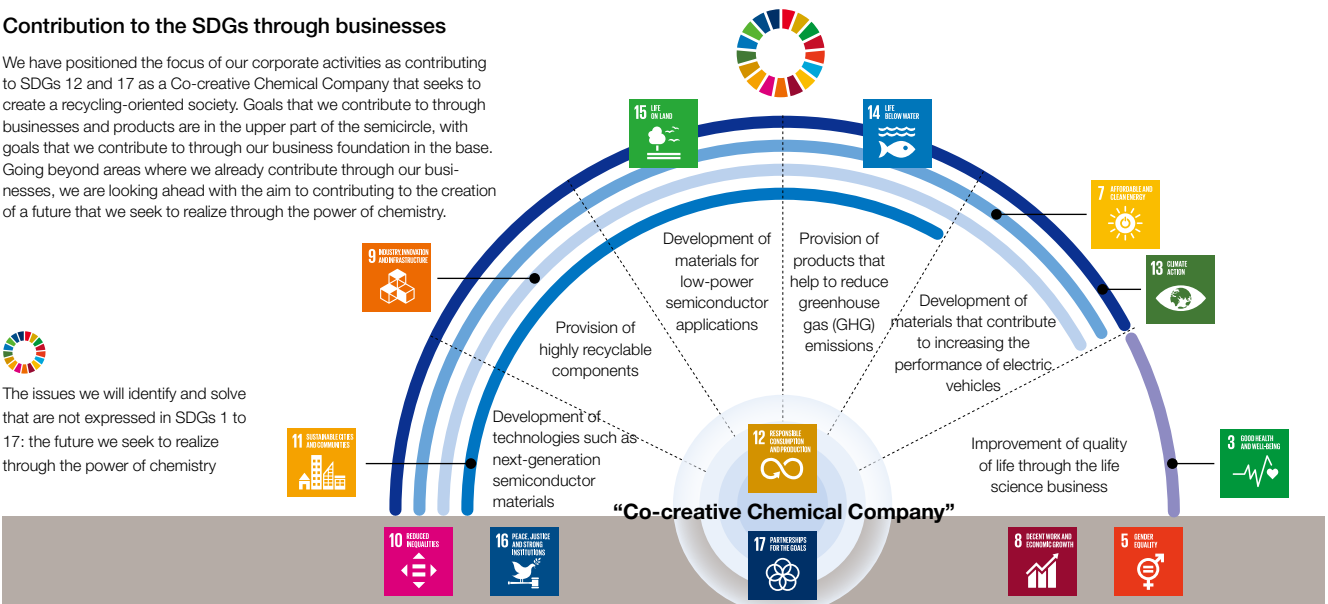
With an eye on 2030, Showa Denko has identified three issues of materiality in addition to their constituent elements. We have reflected these issues of materiality in the strategies set out in the long-term vision (P.27), and aim to incorporate them into our nonfinancial KPIs by approximately 2025.

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.



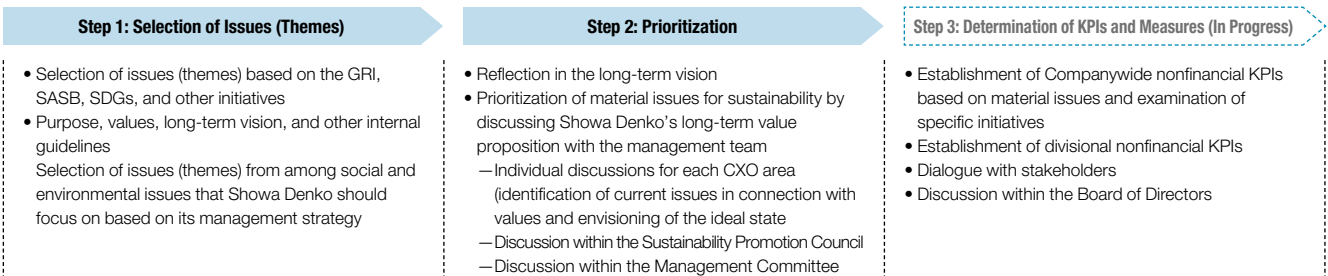
### Contribution to the SDGs through businesses

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.