

▶▶▶ A New Start: Moving as One

## Message from the President and CEO

### **I Aim to Create a Functional Chemical Manufacturer That Can Compete on the World Stage. As CEO, I Will Give Top Priority to Developing Human Resources.**

I am Hidehito Takahashi, and I became president and CEO of Showa Denko K.K. and Showa Denko Materials Co., Ltd., in January 2022. With the unification of the management systems of both companies, Showa Denko and Showa Denko Materials have effectively realized their integration through a system in which 12 corporate officers common to both companies, under the president and CEO, execute the management of both companies. We will complete the integration as a newly integrated company (Resonac\*) in January 2023, and I am determined to work with everyone to enable the newly integrated company to make the leap forward to becoming a global top-level functional chemical manufacturer.

Our major advantage is the present overwhelming superiority over other companies of our semiconductor materials in terms of scale and product range. We will highlight to the world the superiority of our semiconductor and electronic materials segment, which is integral to the growth of the data economy, where vast amounts of data are utilized in economic activity. At the same time, we will thoroughly refine businesses with potential through portfolio management and strengthen the financial standing that underpins them. Our human resources, however, are the most important factor in achieving our goal of becoming a global top-level functional chemical manufacturer.

My leadership policy is to focus on doing what only I can do. What does this consist of? The answer is human resource development. Developing human resources requires time, passion, and perseverance. To this end, I will devote all of my time to human resource development and personnel matters.

\* The change of company name and the transition to a holding company structure are subject to approval at the extraordinary shareholders' meetings scheduled to be held for both companies in late September 2022.

President and CEO



Message from the President and CEO

Aiming to Compete with the World through Japan’s Manufacturing Industry

I believe that my earlier career has helped prepare me to guide our strategy. Approximately four years after joining a bank as a new graduate, I went abroad to study for a master’s degree in business administration, staying there to work after acquiring my degree to spend a total of 11 years overseas. In accumulating a variety of experiences as a bank employee, I came to feel that although the *monozukuri* (manufacturing) capabilities of Japan’s manufacturing industry were first rate, its poor management and strategies had prevented it from prevailing against companies from Europe and North America. With the dream of competing with the world through Japan’s manufacturing industry, I therefore decided to expand the skills and knowledge that I could use to contribute to Japan’s manufacturing industry, by accumulating a wide range of experiences.

After returning to Japan, I was approached by the General Electric Company (GE)—where Jack Welch’s management was at that time garnering acclaim—which I joined with the aim of developing myself until I returned to a Japanese company. I served as division manager and in other positions at three foreign-owned manufacturers, including GE. These experiences honed my ability to look at matters with a foot in both camps: Japan as viewed from overseas, and overseas as viewed from Japan.

Since joining Showa Denko, I have consistently tackled three initiatives. The first is reform of our portfolio. I strengthened the Carbon Division through the acquisition of Germany’s SGL GE, acquired a downstream coating materials company, and launched a takeover bid against Hitachi Chemical. The second is the promotion of openness and accountability in business management. Introducing key performance indicator (KPI) management and standardizing reporting formats enabled the forming of connections between divisions. The third is improvement of marketing. I have long felt that Japan’s general chemical manufacturers have a low level of awareness of marketing. With this in mind, I established a new marketing team in the Corporate Strategy Department. The new team’s activities included strengthening the management of research and development themes through the incorporation of a marketing perspective. The integration with Showa Denko Materials, which is in closer proximity to end-users, also bolstered our marketing capabilities. As all of these three initiatives are poised to achieve their goals, I have decided to devote all of my time and energy to developing human resources going forward.

In these ways, I promoted reforms to unlock Showa Denko’s potential. Accordingly, when I was sounded out about becoming president and CEO, it was natural for me to accept. I viewed it as recognition of my experience and track record to that point in promoting efforts in pursuit of Showa Denko’s quest to become a company that can compete on the world stage.

Becoming a Team Where People Trust Each Other to Facilitate Sound Management

I believe that management is a team effort. To facilitate sound management, a company must strengthen its management team, ensure their psychological safety, and eliminate any unconscious bias.

To illustrate, I would like to discuss the actions I took to ensure psychological safety among the management team. In launching the new management system, the 12 members, including myself, who would become corporate officers went on a two-day training camp in December 2021, at which we worked on team building. In a classroom session in the first half of the first day, after learning about the state of the corporate cultures of the two companies and what constitutes a team, we discussed the type of culture and team we would like to create. I spoke of my aim to create a team in the style of a jazz band without sheet music, where one member cues in another by making eye contact and each can anticipate another’s intentions. In the second half of the day, we held a program in which the participants wrote down (while I was out of the room) what they wanted me to stop, what they wanted me to rectify, and what they wanted to ask me, in response to which I would comment one by one. This exercise was a team-building technique known as new-leader assimilation\*, an initiative to improve relationships between managers and their subordinates by strengthening their mutual understanding.

In the first day’s session, we were able only to exchange opinions briefly, with comments limited primarily to requests for me to maintain a levelheaded response, such as to improve the way I sat to avoid giving a negative impression and to listen earnestly to others, even when they spoke at length. Other comments even suggested that my career history was so pristine that it was off-putting. On the second day, however, I received two to three hours of negative interview results in response to my presentations at the town-hall meetings we had held, criticizing everything from the content of my presentations to my way of speaking. Since I take critical opinions as valuable feedback that helps me to grow, I never feel angered or disheartened by them, but even I found such comments hard to take. There was no time for discouragement, however, as I was about to make a presentation to the camp members. Naturally, in light of the comments I had just heard, I played it safe in my remarks. After my presentation was finished, however, the 11 members said that my new style of speaking was dull and that there was no need to change to that extent as they would make good any of my shortcomings. When I heard this, I felt that we had truly become a team.

I do not believe that I can accomplish everything on my own, nor do I want to be an emperor in new clothes. I wanted to ensure everyone’s psychological safety and create a system that allows bad news to be delivered to me at once. I think the training camp has enabled us to create a team whose members trust each other.

\* New-leader assimilation: A technique to unite team members with their new leader by creating an opportunity for subordinates to have a discussion regarding their manager in his or her absence, with the content of the discussion conveyed to the manager anonymously. I incorporated this technique into the training camp activities with the object of accelerating the launch of the new team and advancing operations smoothly by strengthening mutual understanding.

The Critical Period of Post-Merger Integration

As can be seen from reading the career histories\*1 of the corporate officers common to both Showa Denko and Showa Denko Materials, who took up their positions in January 2022, not all of them are originally from either Showa Denko or Showa Denko Materials, with many recruited from outside the companies. The new team of 12 comprises seven corporate officers from Showa Denko and five from Showa Denko Materials. Including myself, five of the seven corporate officers from Showa Denko joined the Company in or after 2015. I am well aware that the present time, in which two companies of large scale are in the process of becoming one, is what might be described as a critical situation. Since time is of the essence for post-merger integration, we are creating an optimal management team while making up for a shortage of internal human resources with experience from external sources, although continuously pursuing such a strategy over the long term would not be advisable. Reflecting on this, I believe that developing our own human resources while we buy time in this way is of the utmost importance.

As explained in detail by Hideki Somemiya, Showa Denko’s chief financial officer (CFO), and Tomomitsu Maoka, the chief strategy officer (CSO), in their discussion with the analyst Mikiya Yamada elsewhere in this report\*2, until the promotion of openness and accountability and the increase in standardization in our businesses, the head office and individual divisions communicated in a manner resembling a hub-and-spoke system. Since each division had its own rules and operations, it was difficult for employees to understand anything other than their own division, and it was taken for granted that leadership positions would be filled by those from within a division. To address these issues, we spent three years working to promote openness and accountability and increase standardization, enabling us to cross divisions to handpick general managers. As a result, general managers of divisions today are expected foremost to provide leadership, rather than have complete knowledge of a division.

Showa Denko has 13 divisions. The general managers responsible for these divisions ought to be personnel with the best leadership skills, rather than those who have the longest experience of serving in them. For example, when there are two people with leadership skills in one division but none in another, it is crucial to have in place a system to allow one of the two to promptly take up the general manager’s position in the division in question. Although our efforts are still incomplete, I regard the fact that we developed a system to enable the transfer of divisional general manager-level personnel across divisions to be a significant step toward achieving reform.

I am also keenly aware of issues regarding the growth of our young employees. When I held a roundtable discussion with young employees from one of our divisions, I asked them where they thought they would be in a decade’s time. One such employee imagined the series of personnel changes that would follow in their own division as a result of the departure of a particular person in a decade’s time. As I believe that a businessperson’s worth can be measured by the cumulative total of difficult situations they have faced and overcome in their careers, I am keen for young employees to experience divisions at various stages of development from a





Message from the President and CEO

young age to facilitate their growth. I aim to boost the value of young employees by developing them through challenging assignments at both struggling and flourishing divisions.

At the same time, I want to keep in mind that there are as many careers as there are people. A company needs human resources who want to be managers, so from an early stage I will stretch employees who truly wish to compete. However, not all employees need to have such aims. Since employees differ in terms of when they can give their utmost effort, I aim to provide equal opportunities and expand the range of career path choices.

\*1 For career histories and messages from the new corporate officers, please see Messages from Corporate Officers on page 14.  
\*2 Please see the Discussion on page 32.

Creating a New Company by Combining A and B to Produce X, Rather than Being Merely the Product of a Merger between Two Companies

Tomorrow will not be better than today unless we change what we do, the way we do it, and the people who do it. The integration of the companies comes with all three of these conditions for changing tomorrow. Opportunities such as this to change everything are a rare occurrence.

The integration of Showa Denko and Showa Denko Materials will see the companies take a new step as Resonac beginning in 2023. Although the two companies will become one, neither fully knows the other's human resources as yet. When managing through a mixed team, it is not healthy to have a situation where one half of the team knows nothing about the other. A shared language for discussing values is required to enable team members to communicate with each other on a common basis. To this end, in addition to the purpose of the newly integrated company set out in the long-term

vision—to “Change society through the power of chemistry”—the newly integrated company has stipulated the values that it holds dear and established these as part of its corporate philosophy along with the purpose. The four values call for employees to be Passionate & Results-Driven, have Open Minds & Open Connections, be Agile & Flexible, and maintain a Solid Vision & Solid Integrity.

Although describing these as values may sound like overemphasis, it is actually reasonable to speak of them as such. I would not want to work with people who did not hold such values. The people we need at Resonac are those who hold these four values. The newly integrated company will become X (that is, a united company) when the purpose and values have been completely disseminated. To achieve this goal, we will focus on boosting the number of people who share these values by devoting time to instilling our corporate philosophy.

We will pass on our corporate philosophy through a cascade system, from myself to corporate officers and from them to each division and the frontlines. However, as the corporate philosophy is passed on through the cascade, the level of enthusiasm for it wanes. To revive the enthusiasm, I am currently visiting operation sites. As of July 2022, I have visited 44 such sites in Japan and overseas. I go to the frontlines as much as possible and value the time spent with employees. I ask them to join with us if the corporate philosophy strikes a chord with them and they feel enthusiasm for it, and tell them that I hope they will share their feelings on it with those who are absent. Communicating directly with employees in this way is what I can do best and what I am uniquely qualified to do.

Concurrently, we added the new goal of becoming a company that develops co-creative talent that represents Japan's manufacturing industry to the goals we have adopted of becoming a company that can compete on the world stage and a company that contributes to a sustainable global society. I hope that Resonac can be a company that is envied for its human resources. The characteristic linking these human resources will be our values.

Realizing a “Co-creative Chemical Company,” as Our Purpose Cannot Be Achieved through Our Efforts Alone

The power of chemistry is an indispensable part of creating the functions needed for people to live. Our belief that chemistry holds the key to solving environmental and social issues led us to adopt “Change society through the power of chemistry” as our purpose. However, our purpose cannot be achieved through our efforts alone. We can only realize our purpose through co-creation with a variety of stakeholders, including customers, business partners, employees, and local people. This is why we seek to form connections with a wide range of stakeholders and why we chose “Co-creative Chemical Company” when we sought to put our vision into words. These words reflected the desire of both corporate officers and frontline employees.

Given that forming connections is not a one-way process, we cannot connect with others unless they choose to connect with us. Being chosen by others means becoming a good company. When we considered what constitutes a good company, sustainability emerged as a keyword. I believe that sustainability pertains not only to sustainability of the environment but also a company's ability to maintain its existence by continuously maximizing its value. A good company cannot survive without first earning revenues; at the same time, it will not be chosen by others unless it contributes to society. These aspects are two sides of the same coin. An unprofitable company cannot contribute to society. I believe that we must create a company that can strike a balance between these aspects.

In this sense, the Showa Denko as it currently stands cannot be described as a good company. We must evolve into a company that is chosen by others. Winning trust in our management team by establishing a high “say-do” ratio\* and achieving strong business results is integral to commanding the confidence of investors and other stakeholders. A company that is unable to do this cannot become a good company.

\* Say-do ratio: The ratio between what people say they will do and what they actually do.

Our Material Issues for Sustainability as a Mirror Reflecting Our Ideal State

The role of management in maximizing corporate value is to create an environment that facilitates continuous growth and boosts profits. To create such an environment, we must resolve our three sustainability-related material issues.\* The way we will do this is through our strategies. Resolving our material issues for sustainability will enable us to continuously boost profits and achieve growth. Environmental issues, human rights, diversity, and other issues are included in this scheme.

The three material issues for sustainability that we have formulated are like a mirror reflecting our ideal state, in light of which we have derived our main strategies: establishment of a world-class revenue base, improvement in portfolio management, and innovation (technology × business model).

With regard to portfolio management in particular, although Showa Denko currently maintains a wide range of businesses, the Company's corporate value is lower than the sum of the corporate value of each of its individual businesses, resulting in a conglomerate discount. We intend to raise the visibility of this issue and make clear the actions that we must take to address it, enabling each division to understand what a conglomerate truly is and why such a discount occurs.

There are three judgment conditions for achieving an improvement in our portfolio: whether a given business is consistent with our strategy, including sustainability; whether we are the best owner; and whether the business can achieve the rate of return that we expect. In line with these conditions, we will operate our businesses with discipline. Some investors may argue that a company president should concentrate on businesses that can demonstrate the most corporate value without, in their opinion, wasting time on examining the portfolio internally. Operating businesses with the discipline I just mentioned will be important to avoid such arguments while following through on our commitments will help build trust in our management team.

\* Our three material issues for sustainability: Strengthen competitiveness and create social value through innovation; gain social credibility through responsible business management; and develop autonomous, creative, and active human resources and culture.

Laying the Foundations to Become a Company That Cultivates Co-creative Human Resources

Although I have discussed what constitutes a good company, we must also consider the question: For whom are companies good? In concrete terms, a company that is good for its shareholders may not necessarily be one that is good for its employees. I believe that the only way to balance both is to become a company that cultivates co-creative human resources.

While I mentioned previously that a businessperson's worth can be measured by the cumulative total of difficult situations they have faced and overcome in their careers, I feel that the cumulative total stops increasing for businesspeople at most Japanese companies, where employees serve long apprenticeships. Going forward, I aim to create role models and build a path for young employees to one day become corporate officers by handpicking young employees to expand the cumulative total of their worth from an early stage. However, the cultivation of employees cannot be achieved overnight. I expect that it will take 10 years to achieve our aims in this regard. Regrettably, I will not be able to attain my ideal vision during my own tenure as president and CEO. Nevertheless, when I step down I hope to have it said of me that I laid the foundations for Resonac to become a company that cultivates co-creative human resources.

As I believe that the unification of the management systems of Showa Denko and Showa Denko Materials has enabled the creation of a management team that is worthy of trust, I am determined to deliver results. I would like to ask for your support and cooperation in our efforts.



## Corporate Philosophy

# Change society through the power of chemistry



## Passionate & Results-Driven

We will become a globally  
recognized top player.

## Agile & Flexible

We will transform into a dynamic organization.

## Open Minds & Open Connections

We will co-create new value  
with all stakeholders.

## Solid Vision & Solid Integrity

We commit to upholding our values of integrity to all stakeholders and ethics in developing chemical technologies.

while seeking to foster co-creative talent.

We have entered an era in which it is no longer enough for chemical manufacturers to contribute to the enrichment of people's lives; they also must act in an environmentally responsible manner to contribute to the realization of a sustainable society. Making such contributions will require our actions to spread beyond the Showa Denko Group and even the chemical industry. In this way, we can create value together with internal and external stakeholders and entities that share our ideals as a "Co-creative Chemical Company" building a better society.

**Establishment of the JOINT2 Consortium for Development of Next-Generation Semiconductor Package Assessment Technologies, Materials, Substrates, and Equipment**

➔ P.45

Showa Denko established the JOINT2 consortium in October 2021. With 12 member companies, including Showa Denko Materials, this consortium is tasked with the development of the 2.xD, 3D, and other next-generation mounting technologies that will be needed in a post-5G world. Member companies are also teaming up to supply customers with the ideal combinations of materials, equipment, and components from among all of their offerings.



## Leadership in Energy- and Climate Change-Related Initiatives of the ICCA

 WEB

The International Council of Chemical Associations (ICCA) is an international chemical industry association. Showa Denko participates in this association as a representative of the Japan Chemical Industry Association. Five ICCA working groups have been established for the purpose of examining the issues that the chemical industry needs to address on a global scale. A member of Showa Denko plays a leadership role in these activities as a chairperson of the Energy & Climate Change Leadership Group.



Launch of the Stage for Co-creation  
Venue for Long-Term Co-creative  
R&D Projects with Internal and  
External Partners

➔ P.57

Launched in Yokohama City, Stage for Co-creation is a venue for the advancement of co-creative projects based on long-term R&D themes together with internal and external partners. Specific themes include those that contribute to the realization of a sustainable society, such as next-generation high-speed communications materials and plastic recycling.




**Joint Global Meetings That Integrate  
Prior Employee-Participation  
Activities to Deliver Solutions Which  
Exceed the Bounds of Customer  
Expectations and Imaginations**

➔ P.77

A global meeting held in 2021 drew participation by roughly 500 Showa Denko Group employees from seven countries around the world. This meeting integrated the discussion forums previously held separately by Showa Denko and Showa Denko Materials prior to 2020, to create a new venue for sharing best practices and encouraging exchanges between human resources. The opportunity was no doubt a stimulating experience for all who attended, and this stimulation is manifesting in the form of new co-creation.

Development of HD media compatible with MAS-MAMR next-generation HDD storage technology ➡ P.44

Commencement of mass production of six-inch monocrystal substrates for SiC power semiconductors ➡ P.44

Reinforcement of development capabilities  
through materials informatics  P.47

Unique innovation businesses supporting next-generation technologies and industries ➡ P.49

Cultivation of co-creative human resources  P.55

WelQuick technology embodying a hybrid approach ➔ P.59

Inventory management through introduction of T-AI  P.61

:Chemical community for voluntary, co-creative action ➡ P.73

CO<sub>2</sub> capture and use initiatives to achieve carbon neutrality → P.52

Co-creative plastic chemical recycling and large-scale hydrogen use initiatives [➔](#) P.52

Maximization of customer value in the steel recycling process through digital transformation ➡ P.52

Contribution to healthy and fulfilling lifestyles  
through the life science business ➡ P.53

Graphite electrode production through renewable energy use ➡ P.64

Greenhouse gas abatement systems  P.64Life cycle assessment and carbon footprint initiatives  P.64

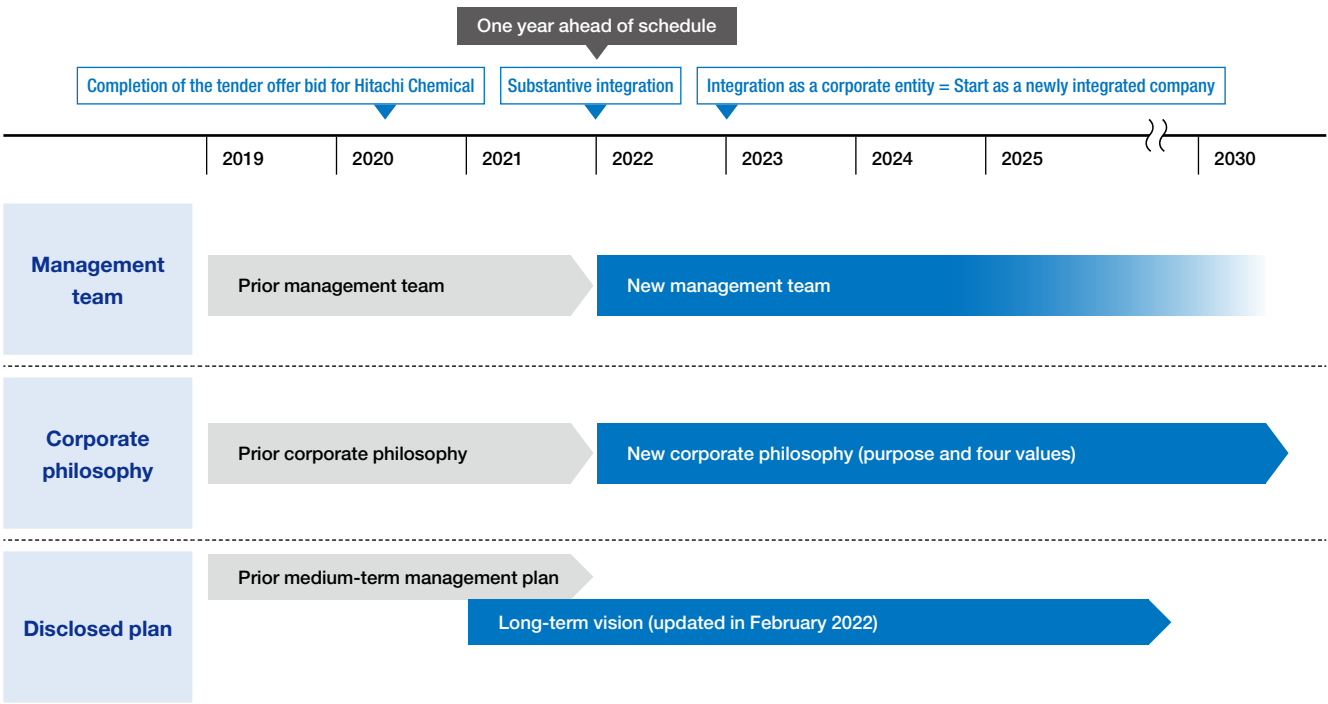
# Integration Progress and New Organizational Structure

## Progress of the Integration Process

### Integration of Our Management Organization Completed a Year Ahead of Schedule

The process of integrating Showa Denko K.K. and Showa Denko Materials Co., Ltd., has been progressing smoothly since the acquisition of the former Hitachi Chemical Co., Ltd. (currently Showa Denko Materials), in 2019.

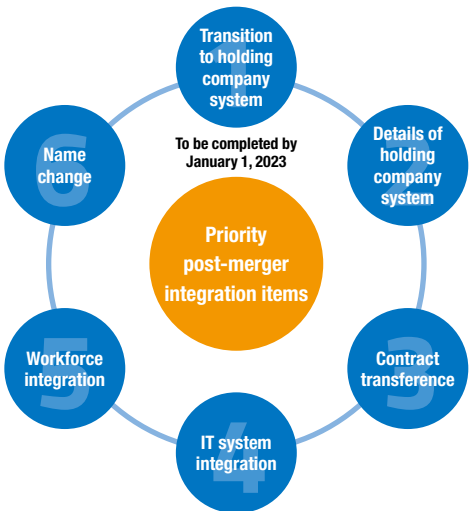
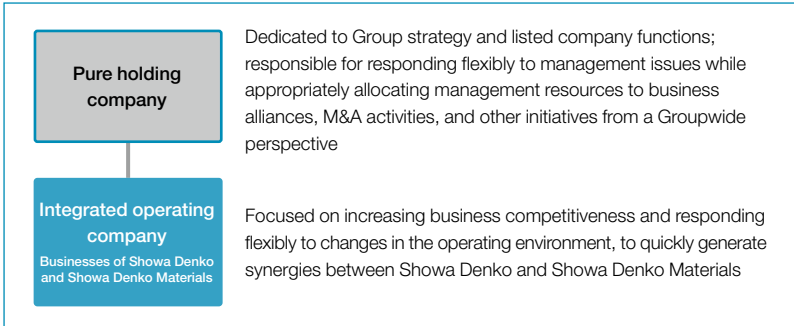
In January 2022, we integrated the management teams of the two companies, making for a substantively integrated structure with the same 12 individuals, including the president and corporate officers, managing both companies. In conjunction with the institution of the new management team and the release of our new corporate philosophy, we also updated our long-term vision in February 2022.



As it seeks to maximize corporate value in pursuit of its vision, the Showa Denko Group will accelerate business portfolio management aimed at facilitating the ongoing creation of value through the resolution of global social issues. We are currently preparing for the transition to a holding company structure, which is deemed to be the optimal structure for accomplishing these objectives.

The post-merger integration process, for which we have defined six priority management measures, is moving ahead smoothly and, in September 2022, we aim to formally announce a transition to a holding company structure, comprised of a holding company and an operating company, to be undertaken in January 2023.

Note: The transition to a holding company structure and associated change in the Company's name are subject to approval at the extraordinary general shareholders' meetings to be held for both companies in late September 2022.

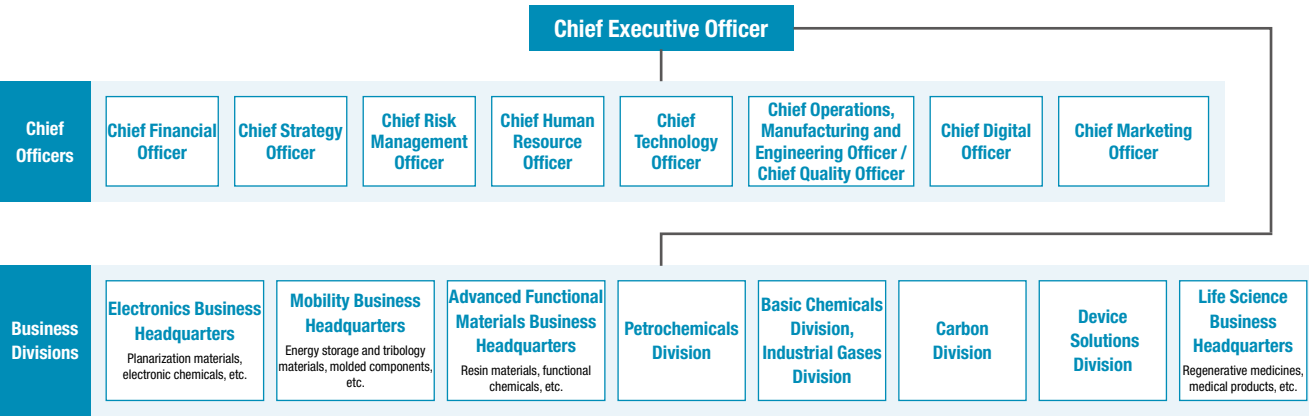


### Transition to the New Organizational Structure

Presently, corporate officers serve concurrently at both Showa Denko and Showa Denko Materials, and chief officers have been appointed to oversee their respective functions. We also intend to establish headquarters for electronics, mobility, advanced functional materials, and the life science business in January 2023. The substantive integration of business divisions and sites is being advanced by the respective preparation officers.

Moreover, the Company looks to transition to a holding company structure in January 2023. Preparations for this transition are moving forward, through a concerted effort by Group companies overseen by business division heads and other leaders.

#### Management Structure in Preparation for 2023



Note: The future business headquarters are currently acting in the form of preparation offices.

## Second Founding in January 2023



As part of our departure on our journey as a newly integrated company, we have decided to change our name to Resonac Corporation.

This change in name will be emblematic of our symbolic second founding, which will position us to contribute to the sustainable development of the global society by creating the functions required of the times as an advanced material partner. These contributions will be made through co-creation with a range of stakeholders, both inside and outside of the Group and the chemical industry.

#### Desire Encapsulated in the New Company Name and Logo

The name "Resonac" was created by combining the word "resonate" with the "c" of "chemistry." This name encapsulates our desire to attract new partners and transform society by creating a movement toward the future that resonates with people, through the combination of our wide range of advanced material technologies and the technical prowess and ideas of our partners.

This desire is also expressed through the Resonac logo, with the two-line design of the "R" symbolizing the co-creation born from this feeling of resonance and representing our stance toward shaping the future with an increasingly wide range of partners.

#### Holding Company

Resonac Holdings Corporation

#### Newly Integrated Company (Operating Company)

Resonac Corporation



## Messages from Corporate Officers

In January 2022, Showa Denko began operating under the guidance of a new president and a new team of corporate officers.

On the following pages, you will find messages from the new management team in which they explain the action they will take to help fulfill our purpose.

### Improvement of Corporate Value to Become Japan's First World-Leading Functional Chemical Manufacturer under the Guidance of the New Management Team

My leadership policies are grounded on the idea of everyone focusing on the things that only they can do. In my case, this includes supporting human resource development and engaging more closely with employees. However, if I am going to focus on these tasks, we need to be able to promote management through a unified team of trustworthy individuals.

If we do not change anything, whether it be what we do, how we do it, or who does it, we will see no progress. Recognizing this, together with our management team, I seek to transform Showa Denko into a company that can compete on global scale, guided by our purpose of "Change society through the power of chemistry." I hope you will look forward to our future undertakings.

**Profile**  
Hidehito Takahashi joined Showa Denko in 2015 after working at The Mitsubishi Bank, Ltd. (current MUFG Bank, Ltd.), and GE Japan Holding Corporation, and was involved in the acquisition of the former Hitachi Chemical and the establishment of the ideal portfolio for the newly integrated company as chief strategy officer (CSO). He assumed his current position in January 2022. Mr. Takahashi emphasizes the importance of psychological security above all else and thus hopes to cultivate an environment in which people feel free to present critical opinions or bad news to him. His favorite expression is "Change before you have to."



**Hidehito Takahashi**  
Chief Executive Officer (CEO)

### Contribution to the Development of a Sustainable, Digital-Infused Society with a Focus on Speed and Co-creation

Since the establishment of the JOINT2 consortium in 2021, the Preparation Office for Electronics Business Headquarters has been engaging in open innovation with consortium members to move ahead with the development of the next-generation semiconductor mounting technologies that will be indispensable to the future. We have also begun developing a system for integrated management and tracking of information regarding suppliers in an effort to strengthen supply chains amid the recent uncertainty. My division will continue to deliver solutions created through co-creative material development projects, to contribute to the happiness and prosperity of people and to harmony with the global environment.

**Profile**  
Hiroyuki Yamashita joined the former Hitachi Chemical in 1982, where he gained experience in the sale and planning of inorganic material products, overseas sales (in the United States), and the management of friction material operations. He later came to hold positions such as director of a regional headquarters company in China and head of automotive product and telecommunications business divisions at Hitachi Chemical. He assumed his current position at Showa Denko in 2021. His motto is "Balance is crucial to management." To Mr. Yamashita, this motto does not necessarily mean to always take the middle ground, but more that he aims to make decisions by considering as many interested parties as possible. He is also constantly aware of the importance of taking the perspectives of others into account in decisions, even while remaining mindful of the need for personal standards.



**Hiroyuki Yamashita**  
General Manager,  
Preparation Office for Electronics  
Business Headquarters  
Relevant pages ➡ P.42-45



**Keiichi Kamiguchi**  
Chief Risk Management Officer (CRO)  
Relevant pages ➡ P.69-71

### Support for Proactive Transformation by Tracking and Preemptively Addressing Risks from a Range of Perspectives

As CRO, I will play a leadership role in addressing the increasingly diverse and complicated spectrum of risks by developing systems for comprehensively managing strategy, operational, hazard, and other risks to ensure that we can fulfill our purpose. Moreover, I will help establish the Group Code of Conduct and global compliance standards for the newly integrated company, to ensure compliance with laws and regulations as well as with so-called "soft law" standards. I also aim to support transformation by strengthening Groupwide oversight and monitoring functions and consequently corporate governance systems.

**Profile**  
Keiichi Kamiguchi joined Showa Denko in 1983, after which he was positioned in roles responsible for corporate planning and industrial gas and basic chemical operations. In the years that followed, he has overseen legal affairs, internal audits, general affairs, human resources, and purchasing supply chain management as CRO before assuming his current position in January 2022. Mr. Kamiguchi emphasizes trust in his work. His management approach is aimed at winning stakeholder trust by improving corporate value through business operation with a focus on soundness, effectiveness, and transparency.



**Hiroshi Sakai**  
Chief Technology Officer (CTO)  
Relevant pages ➡ P.54-57



**Hideki Somemiya**  
Chief Financial Officer (CFO)  
Relevant pages ➡ P.28-35

### Masterful Financial Guidance of the Newly Integrated Company, Coupled with Promotion of Unending Corporate Transformation to Maximize Corporate Value

The role of a CFO is to help investors understand the direction of a company, to ensure a fair evaluation of its corporate value in capital markets. At the same time, the CFO has a role to play in internal fund and resource allocation by promoting resource allocation and financial management in a way that contributes to maximizing corporate value. For this reason, I am driving organization and human resource development with the goal of facilitating the cross-organizational creation of value.

**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. His favorite analects is "Stay hungry, stay foolish!"

### Acceleration of R&D in a Borderless Environment Where People Feel Safe to Take Risks and Fail

For those of us involved in R&D, our four values were a matter of course even before they were put into words. Looking ahead, I hope to develop an environment in which we can focus even more strongly on R&D and intellectual property activities, while acting with speed and an open mind to ensure that our research projects produce results.

By promoting coordination with business divisions in a manner that unites our R&D and intellectual property activities with our technology, I will strive to make us a world-leading functional chemical manufacturer.

**Profile**  
After joining Showa Denko in 1986, Hiroshi Sakai was assigned to a finely crushed substance research center in Shiojiri City, Nagano Prefecture, where he was involved in the research of magnetic barium ferrite powder. He later was sent to study overseas before being placed in a hard disk media research and development position in 1993. He took part in the development of SiC epitaxial wafers in 2019, became CTO in 2020, and assumed his current position in January 2022. His credo is to be positive and forward-looking and to enjoy everything.

### Enhance Mobility and Ability to Communicate across Internal and External Borders to Facilitate a World-Leading Mindset

I serve as CSO in the new management team launched in 2022. My role in this position is to broadly and strongly emphasize the purpose of the newly integrated company—"Change society through the power of chemistry"—by defining and by leading to what it means to have a strong presence in the global market. To this end, I will drive a diverse range of flexible co-creative initiatives, together with both internal and external partners, to shape the future of the Company based on solid foresight.

**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. Mr. Maoka's motto is "God only gives us trials that we can overcome."



**Tomomitsu Maoka**  
Chief Strategy Officer (CSO)  
Relevant pages ➡ P.26-27, 32-39



## Messages from Corporate Officers

### Refinement of Technologies and Businesses to Engage in Enthusiastic Co-creation Initiatives

By capitalizing on the material insight gained through R&D activities and our understanding of contemporary market needs and people, I aim to build on the material-related strengths of the newly integrated company to maximize the value we provide. I am enthusiastic about creating niche products, and I aim to enjoy this process and to propose new materials that help resolve social issues. I hope that the Company can evolve to become a team of frank and wholesome functional material specialists.

#### Profile

Joining the former Hitachi Chemical in 1987, Mitsuo Katayose has been involved in R&D in areas ranging from materials to electronics and displays. He has also held roles in functional material business planning, automotive product planning and operations, and marketing, even serving as CTO and manager of the life science business, before assuming his current position in January 2022. His favorite saying is "Having value is more important than being successful. One's value is measured not by what one has gained, but by what one has given."



**Mitsuo Katayose**  
General Manager,  
Preparation Office for Advanced  
Functional Materials Business  
Headquarters

Relevant pages ➡ P.48–49

### Creation of Networks Spreading Outside of the Organization to Continue Developing Highly Profitable Businesses

I hope that our cross-business marketing and sales divisions will be organizations capable of quickly assessing changes in social and market needs and making timely proposals which capitalize on Showa Denko's technology and product value in response to such change. For this reason, it is crucial for us to develop marketing and sales networks that allow for the sharing of information among divisions and the proposal of our value to customers around the world.

#### Profile

Shigeru Fujita joined the former Hitachi Chemical in 1987, where he sold semiconductor materials. After serving as president of overseas sales companies in Taiwan and Singapore, he became general manager of Hitachi Chemical's marketing and sales operations in April 2017, before taking up a concurrent position as deputy general manager of its telecommunications operations in April 2019. He was appointed to his current position in January 2022. His basic stance on sales is to take an approach that satisfies the buyer, the seller, and the greater society.



**Shigeru Fujita**  
Chief Marketing Officer (CMO)

Relevant pages ➡ P.58–59

### Never-Ending Ambitions Pursued with Speed That Outpaces Social Change to Make Our Dreams a Reality

The automotive industry currently finds itself at a once-in-a-century turning point. In this industry, vehicles are being made of lighter weight while adopting electrification and autonomous driving technologies, for the purpose of providing comfortable and eco-friendly mobility options. We are thus poised to contribute to society by offering solutions that incorporate the technologies and products which will support next-generation automobiles. To ensure that we can take advantage of this prime position, we should engage in open discussion with our colleagues and customers who are working around the world, in an ambitious quest to create new value.

#### Profile

Yoshito Ishii joined the former Hitachi Chemical in 1992, where he was involved in the development, mass production, and ultimately commercialization of graphite anode materials for lithium-ion batteries. After taking up positions leading development and business divisions at Hitachi Chemical, he transferred to Hitachi Power Solutions Co., Ltd., eventually overseeing its electricity and energy business as president. Returning to Hitachi Chemical in April 2019, he was placed in charge of the energy business before assuming his current position in November 2021. His favorite saying is by Peter Drucker: "The best way to predict the future is to create it."



**Yoshito Ishii**  
General Manager,  
Preparation Office for Mobility  
Business Headquarters

Relevant pages ➡ P.46–47

### Cultivating an Organizational Culture in Which Our Values Are Expressed through Actions to Achieve Our Purpose

The ultimate strategy for becoming a functional material manufacturer that contributes to the resolution of social issues is development of people. In an era of volatility, uncertainty, complexity, and ambiguity, I want our people to be able to act with autonomy, connecting with others and going beyond boundaries to engage in the co-creation of new values. Nurturing talent is the most important responsibility of a leader. I, as CHRO, and my team are committed to partnering with leaders of the Company, building up frameworks that enable our people to become aware of their own potential, and creating opportunities for them to unleash everyone's potential.

#### Profile

After joining the former Hitachi Chemical in 1995, Nori Imai cultivated her business acumen through corporate planning, sales in the United States (dispatched), and business planning at several business units before assuming her current role in January 2022. Her mottoes are "Where there is a will, there is a way" and (with Steve Jobs) "If today were the last day of my life, would I want to do what I am about to do today?" She is thus motivated in fostering a corporate culture, which enables everyone to think and act freely, aiming for their ideal career goals, and aligning individual power for sustainable transformation of the Company.



**Nori Imai**  
Chief Human Resource Officer (CHRO)

Relevant pages ➡ P.72–77

### Cross-Functional Action Founded on Pride to Earn Enduring Trust

The larger a company becomes, the more difficult it becomes to facilitate effective communication within the organization. This situation can erect barriers that discourage people from commenting on others' work or on other functions, which in turn makes for people and organizational cultures that cannot accurately determine the best course of action to create results. It is important for people to take part in open discussions, commenting, and collaboration that crosses the boundaries of functions on topics such as our strengths and weaknesses and what needs to be done to give form to our values. I therefore want to work together with all members of our team to provide cross-functional support to people and organizations that are committed to creating results. I also think it is important to be quick to deliver bad news and to be appreciative of those with the courage to do so.

#### Profile

Masami Tobito has a background in production technologies, manufacturing, and purchasing supply chain management that was gained at Toyota Motor Corporation, Amazon.com, Inc., and GKN Driveline Japan Ltd. He joined Showa Denko in 2017 and worked in the Carbon Division, where he was involved in the integration of operations with SGL GE, reforms to purchasing supply chain management and other aspects of manufacturing operations, and management. Mr. Tobito became a corporate officer in July 2021 and assumed his current position in January 2022. He is a fan of Taiichi Ohno's belief that not being aware of any issues in one's work is itself an issue. Mr. Tobito realizes that naturally it is important to follow instructions and resolve issues that may arise. More importantly, though, he seeks to work together with all team members to remove any obstacles that may impede the Company in achieving future progress or realizing its vision.



**Masami Tobito**  
Chief Operations, Manufacturing and  
Engineering Officer (CMEO)  
Chief Quality Officer (CQO)

Relevant pages ➡ P.62–68

### Transformation of Business and Management by Linking People and Information through IT and Digital Technologies

Companywide digital transformation will allow us to standardize our operating processes, structure our data, and reform our culture while fundamentally transforming our business model, in a manner that is more conducive to autonomous growth and high levels of competitiveness. I therefore look to cultivate the digital-proficient human resources that will be imperative to such digital transformation, to drive the ongoing improvement and evolution of business processes and data. Through such exhaustive data utilization, I aim to link people and information across internal and external business chains and thereby contribute to co-creation with stakeholders and the creation of social value.

#### Profile

Hideki Shibata held positions heading the IT planning and robotics innovation divisions of FUJIFILM Holdings Corporation and the ICT strategy division of FUJIFILM Corporation prior to joining Showa Denko in May 2019. At the Company, he promoted digital transformation as the general manager of the Information Systems Department before taking up a concurrent position as associate counselor in January 2020 and then his current position in January 2022. He likes to emphasize the importance of chance encounters and how a preoccupation with one's past can cost one the future.



**Hideki Shibata**  
Chief Digital Officer (CDO)

Relevant pages ➡ P.60–61



## Value Creation Process

Purpose

# 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

Future to Be Realized through Chemistry

Happiness and prosperity of the people



Harmony with the global environment

Ideal State

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

Material issues for sustainability

Strengthen competitiveness and create social value through innovation

Gain social credibility through responsible business management

Develop autonomous, creative, and active human resources and culture

Financial capital

Consolidated total assets

**¥2,142.4 billion**

(As of December 31, 2021)

Manufacturing capital

Worldwide production bases

Intellectual capital

Intellectual properties, material technologies, function engineering technologies, assessment technologies, and a wealth of expertise related to organic chemicals, inorganic chemicals, and aluminum

Human capital

Organizational culture and diversity for creating diversity

Social capital

Base of long-term customers and trusting relations built through co-creation with a range of stakeholders

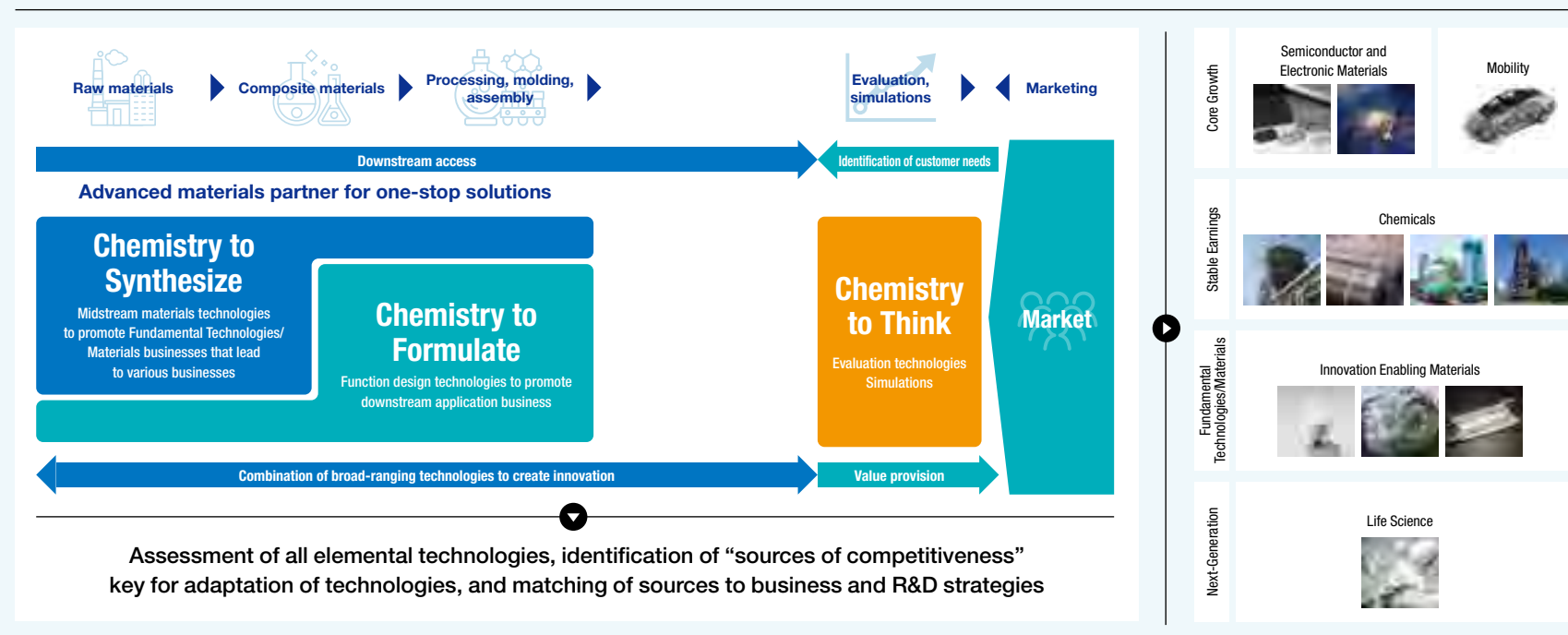
Natural capital

Effective use of energy and resources; technologies that contribute to the resolution of environmental issues

Value creation model:

## "Co-creative Chemical Company"

Provision of customer value by identifying downstream customer needs and producing innovation through the adaptation of multiple technologies as made possible by possessing a broad lineup of material and technology offerings spanning midstream and downstream areas



Material issues for sustainability

Strengthen competitiveness and create social value through innovation

We are creating social value through our business by taking the initiative in co-creation and enacting a process, spanning from the identification of social issues to the provision of solutions to these issues, by means of technology development and new business models.

Gain social credibility through responsible business management

We must cultivate a culture of safety and work to eliminate accidents, while mitigating strategy, operational, hazard, and other risks. In addition, we should facilitate a flexible response to the changing environment in order to gain trust from stakeholders by continuously delivering distinctive value.

Develop autonomous, creative, and active human resources and culture

We aim to become a human resource developing company, whose employees are the envy of other companies, by fostering creative and autonomous co-creative human resources and building the corresponding corporate culture.

Values

Passionate & Results-Driven

Agile & Flexible

Open Minds & Open Connections

Solid Vision & Solid Integrity



## History Prior to Integration

Through integration, Showa Denko and Showa Denko Materials (the former Hitachi Chemical) will bring midstream materials and downstream application technologies together within a single corporate group. As an integrated entity, we will maximize the resultant synergetic effects to continuously create new functions in response to the needs of the times for advanced materials, thereby contributing to the sustainable development of society.


### Showa Denko

Originating in the field of electrochemistry, Showa Denko has developed its technological capabilities over the course of years to expand into the fields of inorganic chemistry, organic chemistry, and metal materials. Many of its past technological achievements have been passed down to serve the development of a wide variety of products in use today, including materials and components used for IT equipment and mobility devices as well as essential daily items.

**1908**  
Established Sobo Marine Products K.K. (later Nihon Iodine K.K.) to manufacture and sell iodine

**1931**  
Started production of ammonium sulfate using domestic technology (Showa Fertilizers K.K.)

**1934**  
Industrialized domestically produced aluminum (Nihon Iodine K.K.)



Successfully promoted the domestic production of ammonium sulfate and aluminum, while working to facilitate the use of electricity as a material and the development of domestic technologies

**1912**  
Started research into electrical insulating varnishes aiming at domestic production (origin of the former Hitachi Chemical)



Started research into insulating varnish for electrical motors aiming at domestic production

**1939**  
Established Showa Denko K.K. through the merger of Showa Fertilizers and Nihon Electrical Industries

**1945**  
Resumed production of ammonium sulfate fertilizer

**1951**  
Achieved domestic production of synthetic resin emulsion (Showa Highpolymer Co., Ltd.)

**1953**  
Achieved domestic production of unsaturated polyester resin (Showa Highpolymer Co., Ltd.)


**1965**  
Achieved domestic production of vinyl ester resin (Showa Highpolymer Co., Ltd.)

**1930**  
Started trial production of phenol resin laminates

**1931**  
Started trial production of porcelain insulators

**1933**  
Started trial production of carbon brushes

**1969**  
Oita Petrochemical Complex started commercial operation



Enabled integrated manufacturing of a diverse range of petrochemical products, such as polyethylene, polypropylene, and acetic acid, through construction of the Oita Petrochemical Complex


**1986**  
Started production and sale of aluminum cylinders (Showa Aluminum Corporation)

**1988**  
Entered the hard disk business



Employed the sputtering (thin-film forming) method, a challenging technical option, to manufacture HD media, anticipating future demand for larger storage capacity

**1955**  
Started production of copper-clad laminates for multilayer PWBs




Developed technique to enable complicated wiring on a single copper-clad laminate board, which facilitated mass production of electronic circuits, a key contributor to the popularization of commercial television and radio systems

**1974**  
Started production of pharmaceutical, MS-antigen

**1978**  
Started sale of photosensitive film of alkali-based solvents


**2001**  
Merged with Showa Aluminum Corporation

**2003**  
Started the plastic chemicals recycling business



Processed used plastics to recover gas to use as material for hydrogen, ammonia, soda, dry ice, and other products, looking to contribute to a recycling-based economy


**1984**  
Started production of circuit connecting film for displays



Developed anisotropically conductive circuit connection films, an innovation that enabled mass production of high-definition LCD screens

**1992**  
Started sale of reflow-resistance epoxy molding compounds

**2009**  
Started production of cooling devices for power semiconductors




Developed cooling devices for power semiconductors applying Showa Denko's proprietary thermal design technology and aluminum processing technique

**2010**  
Merged with Showa Highpolymer Co., Ltd.

**2016**  
Established a joint venture in South Korea for semiconductor processing high-purity gas production


**1998**  
Started mass production of carbon anode materials for lithium-ion batteries

Started production of CMP slurry for shallow trench isolation (STI)



Developed proprietary cerium oxide particles to achieve high-speed polishing (smoothing) to increase productivity


**2001**  
Started production of molded plastic rear door modules



Succeeded in manufacturing molded plastic rear door modules for the first time in Japan using the resin molding technology nurtured over many years


**2008**  
Started production of allergy diagnostic reagents for simultaneous measurement of 33 items

**2017**  
Acquired SGL GE, a German graphite electrode supplier



Acquired the graphite electrode business to promote global development

**2017**  
Started contract development and manufacturing for regenerative medical products



Built global supply systems to promote businesses for contract development and manufacturing for regenerative medical products, thereby contributing to increased availability of regenerative medicine

### Showa Denko Materials

(The former Hitachi Chemical Co., Ltd.)

Showa Denko Materials continues to create new functions and value centered on semiconductor materials and other IT and mobility products. These efforts are driven by its proficiency in developing products using the material design technologies to capitalize on the material characteristics it has fostered since its founding.

### Change Society through the Power of Chemistry

The Quest to Shape a Desired Future

#### The Story of Showa Denko

A driving force behind Showa Denko in its early years was the desire of founder Nobuteru Mori (1884–1941) to save people from hunger and to enrich their lives. This passion propelled us to achieve, for the first time, domestic production of ammonium sulfate, which was used to manufacture the fertilizer necessary for growing food, in 1931, before commencing refinement of aluminum by taking advantage of plentiful hydroelectric power generation resources in 1934. These successes helped Showa Denko to contribute to the increased competitiveness of Japan on the global stage while enabling it to grow its business. It could thus be said that Showa Denko was motivated by the spirit of Goals 2 and 9 of the United Nations Sustainable Development Goals (SDGs) some 80 years before they were announced. In fact, hydroelectric power is garnering renewed attention today as a form of renewable energy.

SDG Goal 2: Zero hunger

SDG Goal 9: Industry, innovation and infrastructure

\* We refer to addressing issues not covered in the SDGs that will be discovered in the future, specifically by changing society through the power of chemistry, as "SDG Goal 18".

#### The Story of Showa Denko Materials

The core of Showa Denko Materials at the time of its founding was the resin technologies it used to achieve domestic production of electrical insulating varnishes in 1914. These material technologies, which involving kneading, mixing, and applying resins, have given rise to a range of functions, which have been commercialized as coatings, adhesives, and molding materials. The scope of Showa Denko Materials' business has continued to grow as its lineup evolved to include processed products made using these materials. Similar to Showa Denko, the business of Showa Denko Materials has long been founded on the principles of Goal 9 of the SDGs, as seen in its history of developing technologies for domestic production of chemicals. Furthermore, Showa Denko Materials has also embodied the spirit of what we refer to as "SDG Goal 18" through its dedication to identifying and resolving social issues from a forward-looking perspective.

More details on the stories of both companies are available on our corporate website.

2023

RESONAC

### Integration as a corporate entity

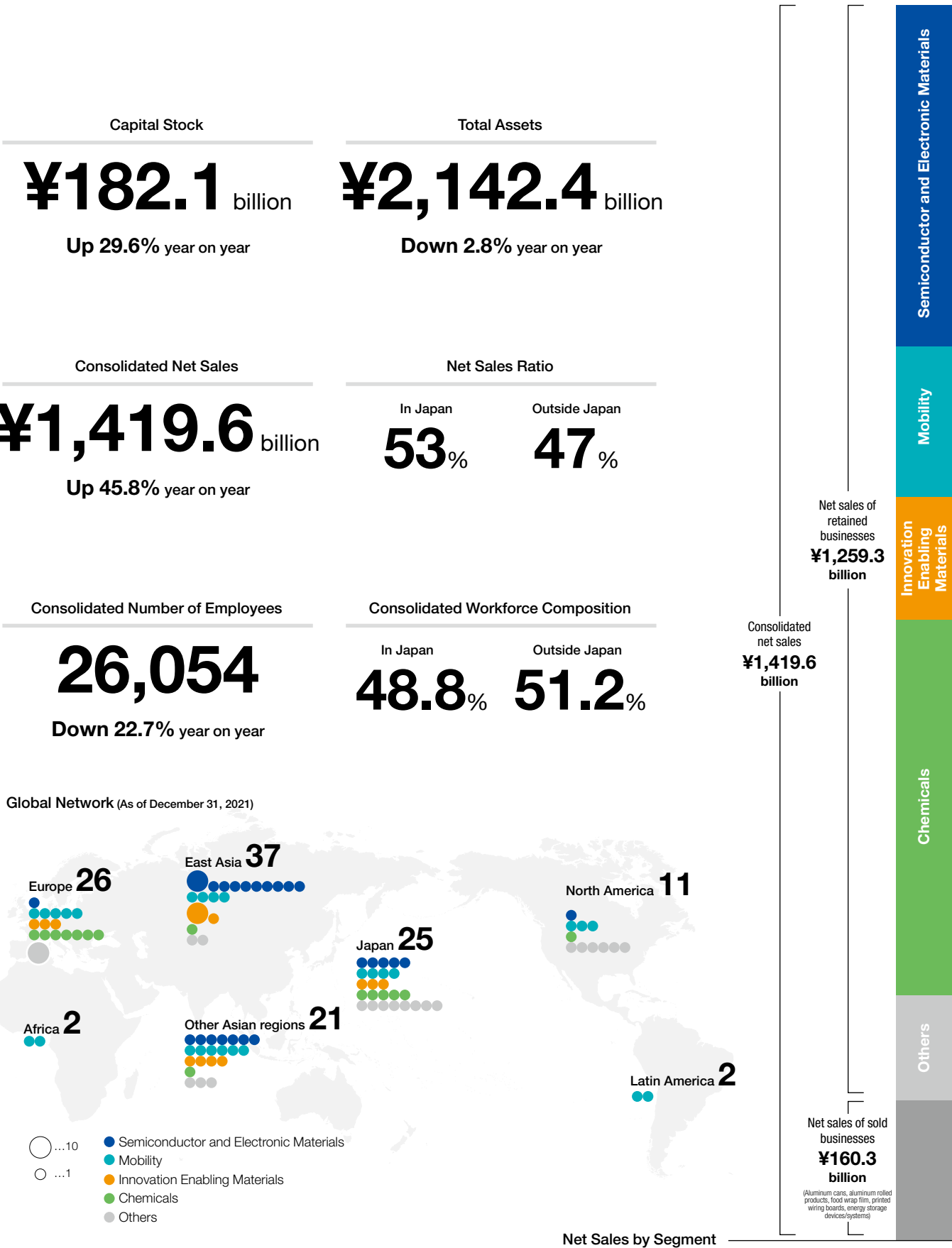
Note: The change in Company name is subject to approval at the extraordinary general shareholders' meetings scheduled to be held for both companies in late September 2022.

2022

### Substantive integration

(Integration of the management team)

Overview of the Showa Denko Group's Business (2021 Results)



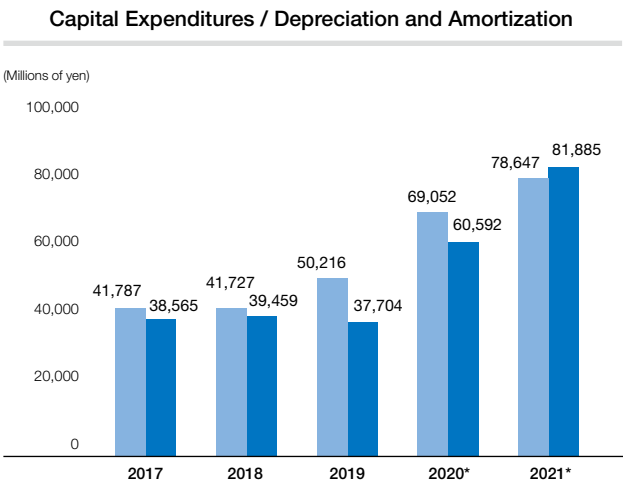
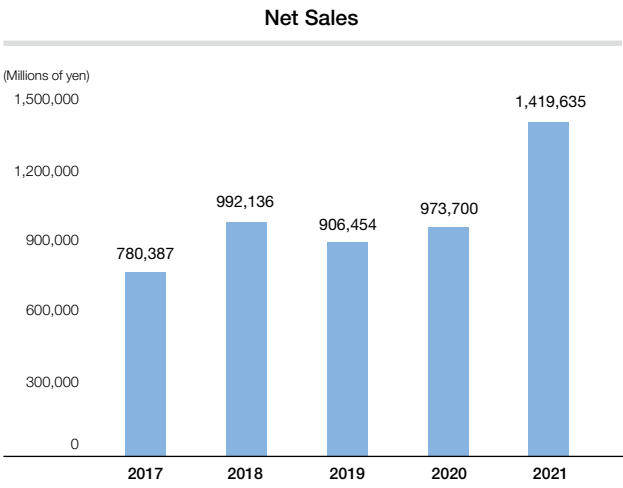
▶ A change to reportable segments was instituted in 2022. For details, please refer to Segment Overview. [P.40](#)



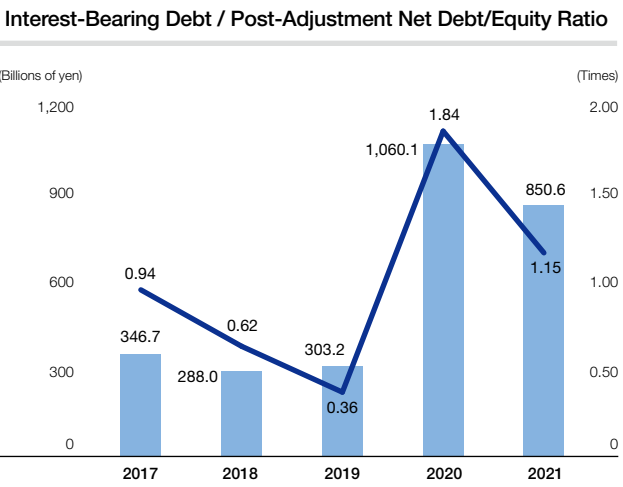
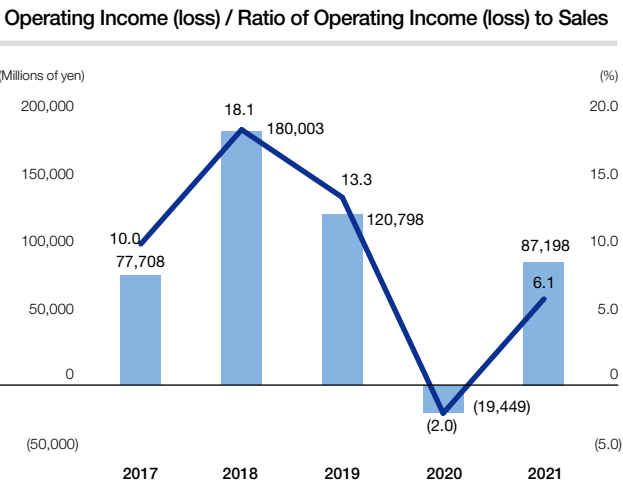
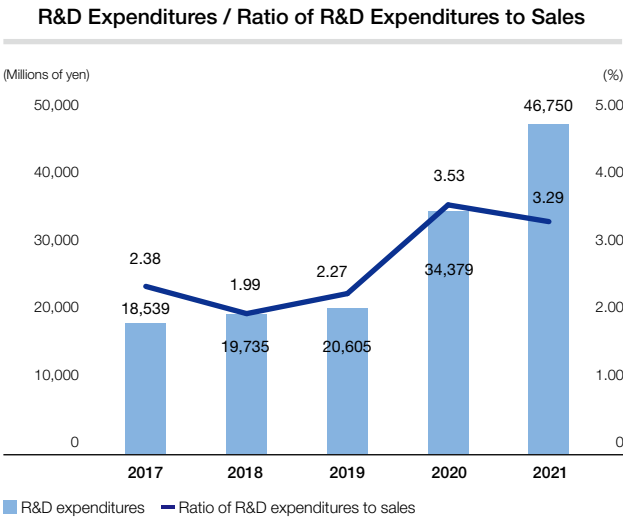


# Financial and Nonfinancial Highlights

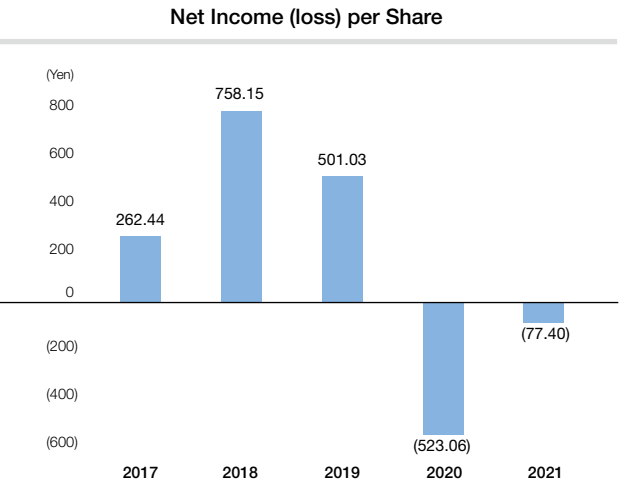
Figures include data for Showa Denko Materials after July 1, 2020.



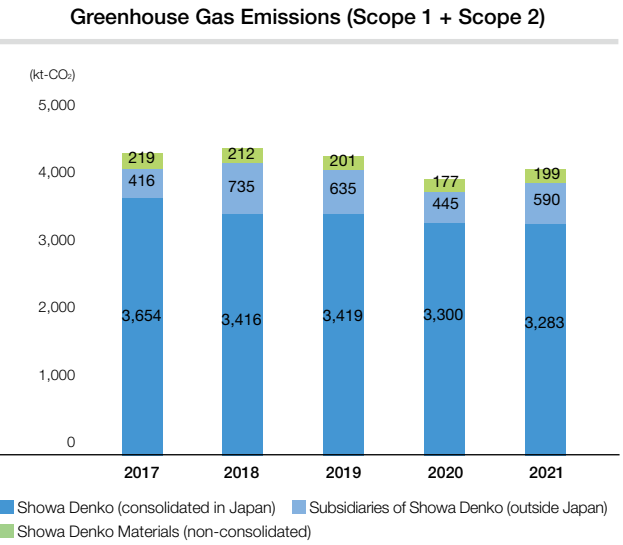
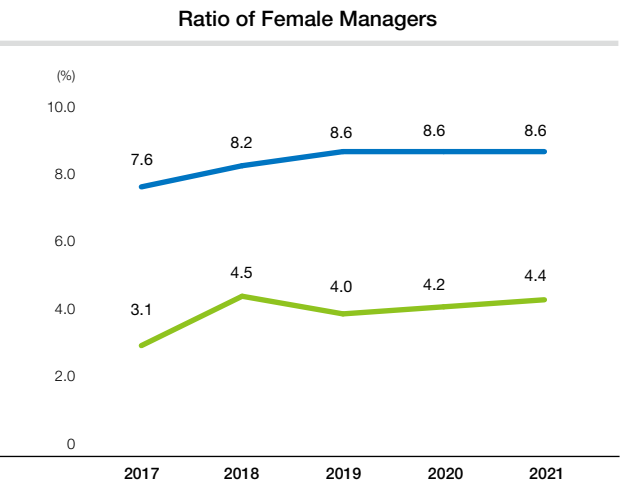
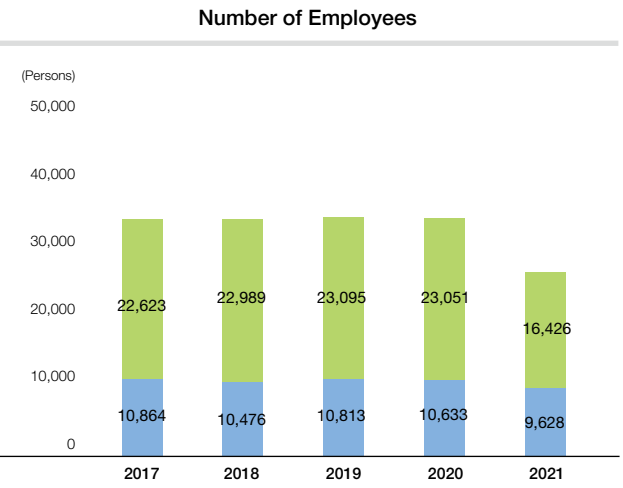
\* Figures exclude amortization of intangible assets resulting from the purchase price allocation of Showa Denko Materials.



Note: For more details, please refer to note 2 on page 92.



Figures for Showa Denko Materials are displayed prior to its incorporation into the Showa Denko Group on July 1, 2020, for reference purposes.



Note: Figures on page 25 for which the scope is "Showa Denko (consolidated)," "Showa Denko (consolidated in Japan)," or "Subsidiaries of Showa Denko (outside Japan)" exclude figures for Showa Denko Materials and its consolidated subsidiaries.

