

# 世界に誇れる、 化学を。

その仕事は、未来に新しい価値を提案しているか。

人と地球の明日を幸せにしているか。

私たちが創立以来、追求してきたのは

ほかの誰にもできない、デンカならではの強みを生かして

社会を、世界を、よりよく変えていく挑戦です。

100年を越える伝統と、最新のテクノロジーを融合させ

化学の未知なる可能性を切りひらくこと。

未来のニーズを予測し、まだ見ぬ豊かさを創造すること。

環境・エネルギー分野での先端素材の開発や

ライフサイエンス領域のさらなる推進など

私たちは「世界にとってかけがえのない存在」となる

企業をめざし、多様化する社会の課題に挑み続けます。

## Denka

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www.denka.co.jp

沖縄・石垣島

The Denka Way

Summer  
2023 Vol.16

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Denka

# The Denka Way

Summer  
2023  
Vol.16

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*To acquire  
three stars for  
all businesses*

Denka's Challenge to Make

100%

of Businesses  
"Three-Star  
Businesses"

As part of Business Value Creation, one of the growth strategies of Management Plan "Mission 2030," Denka aims to make all businesses "three-star businesses" by 2030. In this special feature, we will explain exactly what this entails.

## Definitions and conditions for three stars

Stars are awarded for meeting the criteria established for each of the three elements of Specialty, Megatrends, and Sustainability.



Maximizing profitability through businesses that Denka can perform better than anyone else

ROIC by product >10%  
(Past three-year avg.)

Denka will concentrate its management resources on businesses where it can leverage its strengths and perform better than anyone else. In addition to profitability, which is reflected in factors such as market share, uniqueness, and technological capabilities (number of patents), we have set ROIC (Return on Invested Capital) as a criterion to emphasize capital efficiency.



Focusing on three promising growth areas

Three focus areas:  
ICT & Energy, Healthcare,  
and Sustainable Living

Based on the analysis of megatrends that generate business opportunities, we have determined that businesses in the three focus areas of ICT & Energy, Healthcare, and Sustainable Living hold significant growth potential. As we move forward, our sole focus will be on product development and business creation within these specific areas.



Measuring business sustainability with two indicators

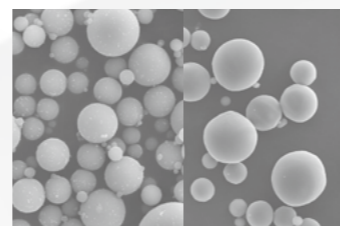
» Less than 10,000 tons of CO<sub>2</sub> emissions by product  
» Labor productivity by product over 5 million yen

Clear KPIs have been set for CO<sub>2</sub> emissions, including a target of reducing emissions by 60% by 2030 compared to FY2013, with the ultimate goal of achieving carbon neutrality by 2050. Additionally, businesses with low labor productivity are likely to face difficulties in maintaining operations as the working-age population declines. As such, only businesses that meet both of the above criteria are considered to have sustainable growth potential.

### Representative three-star products

#### Spherical Silica/Spherical Alumina

These products are based on Denka's unique high-temperature firing technology, which was inherited from the carbide business. As fillers for ICT-related semiconductor encapsulants, they have become flagship products that have supported the company's revenue over the past few years.



Spherical silica and spherical alumina

#### POST\* test reagents

Demand for POCT test reagents soared following the outbreak of COVID-19. However, it is uncertain whether this demand will be sustained as the world adapts to a "with-COVID" lifestyle. In the future, there will likely be demand in other major disease areas, following influenza and COVID-19.



COVID-19 Rapid Antigen Test Kits

\*Point of Care Testing

#### Highly transparent resin Clearen®

Clearen is widely used for shrink labels for beverage bottles, food packaging containers, caps on cosmetics, and other products. With the development of products utilizing biomass plastics and the establishment of chemical recycling technologies, further expansion of demand is expected.



Clearen® (used on a PET bottle)

## What is Denka's approach to Business Value Creation

## The meaning of three stars

"By 2030, we will increase the value of our human resources and management, and we will focus on creating business value that combines the three elements of specialty, megatrends, and sustainability." In order to realize Denka's New Vision and Management Plan "Mission 2030," portfolio transformation has been identified as one of the key challenges.

Denka's policy for portfolio management can be summed up as "100% three-star businesses." We established the target criteria with a focus on "clarity," "understandability through simple language and numbers," and "ease of working together toward a single goal."

# The road to 100% three-star businesses

Increasing the number of three-star businesses will contribute to boosting overall company revenue and driving it towards sustainability. Now, let's delve into the process through which each business can attain three stars. In this section, we will outline the steps involved in the process.

## Deliberations by the Portfolio Transformation Committee

The Portfolio Transformation Committee, chaired by the president, holds discussions on measures to achieve a 100% three-star business portfolio.

The first meeting, scheduled for July, will focus on measures to upgrade one-star businesses to three-star status. Subsequently, regular meetings will be conducted to address measures for two-star businesses and to evaluate the progress and effectiveness of measures implemented thus far.

## The deliberation process



## The overall schedule

All of Denka's existing businesses fall into one of the three focus areas, giving them one star for megatrends. This is the starting line. The challenge going forward will be meeting the criteria for specialty and sustainability.



## Encouraging challenges and accelerating change

The entire company must drive change, and the goal of achieving 100% three-star businesses serves as a clear and unambiguous indicator of this objective. Currently, some of our businesses are facing challenges in attaining early profitability and are burdened with labor-intensive operations and high CO<sub>2</sub> emissions. While it is important to focus on day-to-day activities such as improving operations, reducing costs, and expanding product lineups, one-star and two-star businesses will struggle to reach three-star status solely through conventional efforts. Even for businesses that are currently three-star, the decline sets in when transformation ceases.

On the other hand, it is not impossible for a one-star business to evolve into a three-star business in the next few years, becoming a long-term pillar of support for Denka. Denka's history provides many examples. For instance, acetylene black was initially developed as a conductive material for dry cell batteries. Although the demand for this product declined temporarily, it has now become essential as a conductive material in lithium-ion batteries and submarine cables. It is not uncommon for a product once considered obsolete to regain relevance by pivoting markets and concepts.

This time, we have provided simple and easily understandable indicators and clarified the challenges associated with each product. Additionally, a budget has been allocated to address the current situation. I am confident that we can achieve 100% three-star businesses if each division embraces reform with determination and undertakes challenges that surpass conventional wisdom.

The Corporate Planning Department is committed to providing utmost support for the transformation of each division, and together, we will strive to realize our goal of becoming specialists who utilize the power of chemistry to create a better world.

To acquire three stars for all businesses

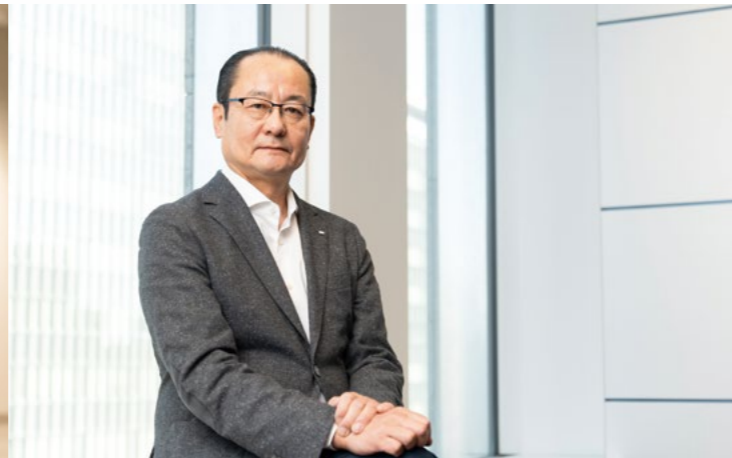
# Our challenges as described by four division managers

How will Denka's divisions go about achieving a three-star rating for all businesses? The heads of each division discuss their aspirations toward this goal.

## Electronics & Innovative Products



## Life Innovation



## Elastomer & Infrastructure Solutions



## Polymer Solutions



### Organizations and relationships unbound by conventional wisdom

**Hiroto Horiuchi, Chief of Department**

To achieve three-star ratings for all products within this division, we will adopt the following strategies to focus our efforts, allocate resources effectively, and revamp our business portfolio:

- » Developing and delivering optimal materials in a timely manner, aligned with megatrends.
- » Engaging in in-depth conversations with end customers and processors to comprehend their concerns.
- » Making contributions to fields where we have expertise.
- » Making investments at opportune moments, or in other words, securing production capacity in advance with an awareness of demand growth

I would like every member of this division to be aware of their respective responsibilities, demonstrate commitment to the organization and their own vision, and find fulfillment in their work. While launching a product or expanding a business in a timely manner may take considerable effort, overcoming these challenges brings about joy and excitement, which serve as motivation for the next step forward. To this end, I believe it is important to have a culture that embraces flexible ideas not bound by conventional wisdom.

### Honoring the efforts of our predecessors and passing on the business to the future

**Hideki Takahashi, Chief of Department**

For our existing product groups, such as influenza vaccines and testing reagents, it is crucial to analyze individual product characteristics, historical backgrounds, and other factors in order to identify weaknesses and make improvements. We cannot solely rely on expanding sales. In fact, in certain cases, we must be prepared to discontinue sales. I firmly believe that the key to success lies in collaboration between manufacturing, sales, and development.

On the other hand, when it comes to new ventures like the G47Δ virus for cancer treatment and IntelliPlex, we have yet to attain a specific threshold of orders, production, and sales. Therefore, our primary priority should be achieving rapid sales results before delving into problem identification and analysis. Nevertheless, I encourage you to anticipate potential issues proactively and take the necessary steps to prevent them.

To honor the efforts of our predecessors, who have painstakingly nurtured our product groups thus far, and to ensure a seamless transition for those who will support Denka in the future, it is imperative that we devote ourselves to becoming an all three-star division.

### Concentrate management resources on businesses we can do well.

**Masahiro Omata, Chief of Department**

Of our 31 products, 26 of them are one star. It is no exaggeration to say that the achievement of our targets for FY2030 depends on our progress in this matter. We will identify the businesses that we can do well and those that we cannot, concentrate our resources on the former, and make this division an indispensable part of achieving the company-wide goals of Mission 2030. Under this policy, we will continue to take conventional approaches, such as examining the supply-demand balance in the future, pursuing value by raising prices, accelerating new product development, and shifting to high value-added grades, while accelerating growth by aggressively investing in businesses where we can perform well.

One of the biggest challenges in our journey to becoming a three-star business lies in the creation of new ventures. Therefore, we must also focus on research and development.

The FY2023 signifies a fresh start as we strive to break free from three consecutive years of operating losses. Our goal is to establish ourselves as a core division committed to providing essential materials for the construction of social infrastructure, under the banner of "Sustainable Living." Together with our colleagues, we will approach our tasks with confidence and pride.

### If we are serious about change, we will see three stars

**Kei Hara, Chief of Department**

We will make the following efforts to achieve an all three-star rating.

- » Restructuring of one-star and two-star businesses: We will examine future plans, incorporate measures for business continuity, and set targets with specific time frames.
- » Social implementation of chemical recycling: We will work from the perspective of how we can contribute to building a circular economy on a national and global scale.
- » Increasing added value of existing products: We will move away from strategies based on optimistic thinking such as "When demand recovers..." and "If PMMA\* market conditions improve..."
- » New business creation: In the short term, our focus will be on creating new markets by making minor adjustments to existing products through interdepartmental collaboration. In the medium to long term, we will leverage external resources such as CVC, open innovation, and M&A.
- » Comprehensive business review: Depending on the item, we may restart the business or implement radical measures.

Change is essential. We must communicate and act in a way that conveys Denka's seriousness to division members, suppliers, and customers.

\*PMMA (polymethyl methacrylate): Acrylic resin, one of the typical transparent resins



Special Feature 2

Mission 2030

Human Resources  
Value Creation

Energize Your Mind and Body!

# Denka's Health and Productivity Management

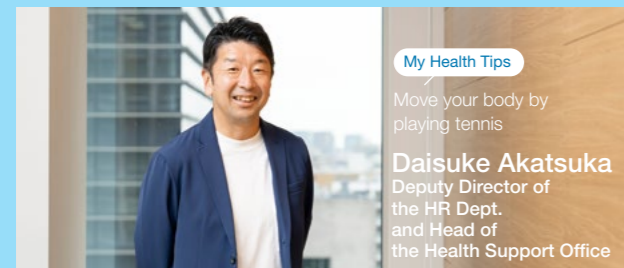
Health and productivity management is our focus as we promote “human resources value creation,” one of the pillars of our new management plan, “Mission 2030.” In this article, we share why we are focusing on health and productivity management and what kind of health measures we will take.

## Let's Study!

### Why is health and productivity management important?

We interviewed Mr. Akatsuka, head of the Health Support Office, regarding the reason we are focusing on health and productivity management and health measures to be taken.

You can stay even healthier with support!  
Let's do our best and communicate with family and coworkers!



My Health Tips

Move your body by playing tennis

**Daisuke Akatsuka**  
Deputy Director of the HR Dept. and Head of the Health Support Office

### What is health and productivity management in the first place?

It is a form of management in which companies implement strategic initiatives to maintain and enhance employee health. In recent years, more Japanese companies are taking great interest in it, and Denka has defined health and productivity management as one of the basic policies of Mission 2030. Why do companies even care about their employees' health? This is because, with the shrinking population and declining birthrates, there is growing recognition that each employee is a valuable company asset. Health and productivity management will not only help reduce the number of employees not able to work due to illness or injury but will also increase productivity and operation quality. Although we set high targets in Mission 2030, such as making 100% of businesses “three-star businesses,” these targets can only be achieved if all employees are in good health so they can exchange their knowledge and ideas at each site. In other words, it is not an overstatement to say that employee health forms the foundation for achieving Mission 2030.

### What kind of health measures will be taken?

Denka has been promoting various activities concerning employee health, such as health checks and flu shots. However, in order to strategically provide more support for employee health, we believed it necessary to identify what the issues were and to provide tailored support to deal with each of them. To this end, we established the Health Support Office in 2021. The office started by collecting and analyzing the health check results of each office. The results can be seen on page 10. We found the overall figures were not bad,

\*Secondhand smoke: Smoke from the lit end of a cigarette. It comprises more toxic chemicals than the smoke inhaled by the smoker.

and many employees have healthy habits, such as a good exercise routine. On the other hand, it also revealed that some offices have high smoking rates. Smoking can lead to developing diseases and cause problems associated with secondhand smoke,\* so we would like to strengthen our efforts to prevent them. The most important thing in health and productivity management is prevention. We will also promote further improvements of other issues to support employee health in various aspects.

### Do you have a message for employees?

To be honest, I myself had not been careful about my health and used to be a smoker. However, one day, I felt that I would become seriously ill if I smoked another cigarette. From then, I became conscious of my health and strived to quit smoking by utilizing supplements. I am now working energetically as head of the Health Support Office. It is difficult to develop health habits without changing your mindset. We would like to help create the opportunity for you to change and to promote your health through various initiatives.

### Recognized as a “White 500” enterprise

Denka was selected as one of the top 500 companies (“White 500” enterprises) in the large enterprise category of the 2023 Certified Health & Productivity Management Outstanding Organizations Recognition Program. This program is organized by the Ministry of Economy, Trade, and Industry (METI) and the Nippon Kenko Kaigi to recognize large companies in that excel in health management. This marks Denka's second consecutive year of being selected for the program.



# Let's Check!

## Denka's Health Report Card

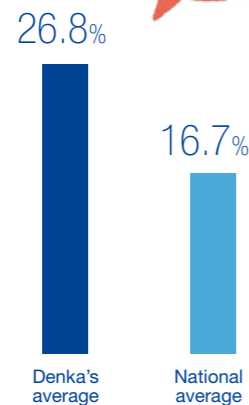
We analyzed the results of each office's FY2022 health checks!  
Let's look at the numbers!

### Percentage of Smokers

Let's try harder ▲

About 35% of some offices' employees smoke!

Compared to the national average, Denka employs a high percentage of smokers. The percentages at some offices are particularly high, exceeding 35%! We believe we might have a lower aversion to smoking because we are surrounded by smoking coworkers. However, half of the smokers that answered our company survey said they eventually want to quit, so we think it is important to create opportunities to do so and to continue to support them.



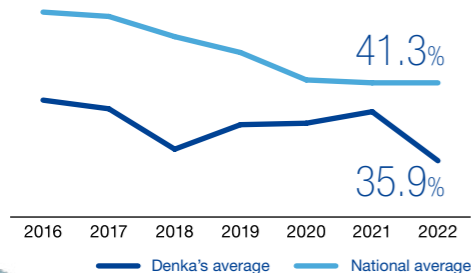
### People with appropriate levels of blood sugar, blood pressure, and fat

Let's try harder ▲

About 65% need to be careful of lifestyle diseases



Percentage of people with appropriate levels of blood sugar, blood pressure, and fat

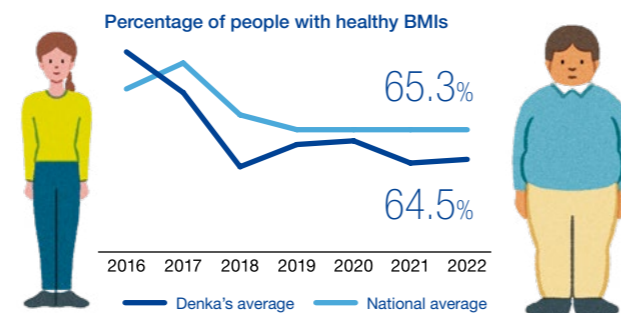


Denka's average continues to be marginally lower than the national average, and while numbers had been improving since 2018, they got significantly worse in 2022. We believe this is due to the increased frequency of eating out, which was lower during the pandemic.

### People with healthy BMIs

Let's try harder ▲

About 35% are too skinny or overweight

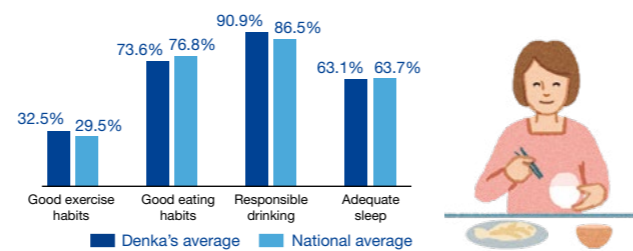


The percentage of Denka's employees with healthy BMIs is slightly lower than the national average. The percentage is lower compared to the data we collected in 2016. This could be due in part to the pandemic reducing the number of opportunities to go out since 2020. We must be careful because obesity can lead to serious health issues, such as arteriosclerosis, heart attacks, and strokes.

### Good habits

Keep up the good work ○

Good exercise, eating, and sleeping habits!



- Exercise:** Walk an hour a day, etc.
- Eating:** Limit eating close to bed-time (within two hours) to less than twice a week, etc.
- Sleep:** Get a sufficient amount of sleep

When it comes to healthy habits, the average number of employees exercising and drinking responsibly exceeds the national average. We hope to see these numbers improve even more in the future!

# Let's Join!

## Activities in health and productivity management

We are making various efforts to strengthen health and productivity management. Let's hear about them from some who partook in the health management activities.

Let me explain!



**Nao Adachi**  
Health Support Office  
HR Dept.

My Health Tips

Go to a boxing gym 2-3 times a week



Why not get it now?!

For iPhone users



For Android users



## Build healthy habits!

### &well: a health app

We started to utilize the health app &well. The app can be downloaded to your smartphone and can be set to match your pace. Modern smartphones can now easily track your steps and heart-beat, but this app makes it even easier to record the status of your health. You can also watch livestreams of light, doable workouts. Currently, approximately 50% of employees have downloaded the app, and we have heard people are using it every day.



I tried it out!



**Rika Tsuchida**  
Advanced Specialty Materials Dept., Electronics & Innovative Products

My Health Tips

Go to the gym 2-3 times a week and/or get off the train one station earlier

Thanks to &well, I developed an interest in health and fitness. As a way to manage steps during the walking tournament, the app would send different supportive messages depending on how well I was doing. This encouraged me to push myself a little harder to do more exercise and I was able to actively enjoy exercising. I also watch exercise livestreams, read and learn from health articles, and use other features. My morning routine has come to include checking &well after I get up.

About 1,480 people participated!

## The 2nd labor and management jointly sponsored walking contest!

In May 2023, we held a walking contest utilizing the &well step tracker. Teams, made of 7-10 volunteers, competed by tracking their average steps over the period of a month. At the end, the top team of each office received a prize. We plan to host it again next year and hope everyone will participate!



**Yuma Tajima**  
Corporate Communications Dept.

I tried it out!



My Health Tips

Eat and sleep well and workout with equipment at home

I walked 7-8 km a day at my old job, but I have recently noticed I don't walk much anymore. On top of that, I saw the people with healthy body weight section of the non-financial KPIs and thought to myself, "oh no! I'm in trouble!" After that, there was an announcement about the walking contest, so I decided to take the challenge. I set a goal of 7,000 steps a day, but I wasn't getting enough steps during my normal daily routine and it felt a bit laborious. However, once I began walking to meet my goal, I was moving my body a good amount and started sleeping better. The contest made me re-think my lifestyle and walking has felt very refreshing due to the recent pleasant breeze. I hope to continue this new habit.



# Let's think about our health together!

## Denka's Health Week

From May 29 (Monday) to June 2 (Friday), 2023, seminars were held intensively with a goal to raise health awareness. The five seminars were on topics like oral care and health management in the 100-year-life era, and we also introduced efforts of the Denka Health Insurance Society. The seminar titled "Health advice for the various stages of a woman's life" was a great success with many online participants. We also received the following comment: "The seminar was very educational and I learned how health is affected in different stages of life." We plan to host the event again with more content next year.



# I want to quit smoking!

## Remote smoking cessation counselling

It has been proven refraining from smoking gets easier after successfully abstaining for six months. That said, maintaining motivation throughout six months is not easy. In this program, with an app to support you on your cessation journey, it is easy to stick with it as you can periodically do video calls with your counsellor. You can also receive quit-smoking medicines in the mail. If you are thinking of quitting, why not try out this program?

### Denka's guidelines for smoking cessation activities

- From April 2023: Labor and management from each office began holding meetings and decided to hold a non-smoking day at least once a month (during specified hours). Implemented in early 2023.
- From April 2024: Company-wide non-smoking days (stricter hours) will be held on the 2nd and 22nd of every month.
- From April 2025: No smoking during work hours on company property (except for during breaks).
- From April 2026: Do away with all smoking areas.



I tried it out!

Yuta Iwasaki, General Affairs Div., Administrative Dept., Omi Plant

My Health Tips

Walk 8,000 steps a day and/or play golf or baseball

I was in the habit of smoking 15 cigarettes a day. I took every raise in cigarette prices as an opportunity to quit smoking, but I failed every time. During this time in which the global movement to quit smoking has been growing, I was recommended to go to a smoking cessation clinic. I was unsure whether I was strong-willed enough, but after I told my friends and family, they supported me on my journey to success. My counsellor was a great source of encouragement as I could call them any time I felt the urge to smoke. I believe determination and telling someone were the keys to my success. If you are thinking of quitting, why don't you ask for support from those around you and search for a plan that works for you?

# Do you have questions about your health?

## Use T-PEC's 24-hour phone consultation service



We handed magnets to everyone. Please stick them somewhere easily seen so they can be referenced at any time.

If you have concerns about your health, medicine, caregiving, childcare, mental health, etc., you can use this service to talk to a clinical psychologist or other mental health specialist. Consultations can be done over the phone, online, or in person. Phone consultations are available 24/7, free of charge. The service is run by T-PEC Corporation, and the contents of your consultation will not be shared with Denka.

## I want to learn more about the health insurance society's policies!

The Denka Health Insurance Society offers support in various areas. Check the examples below!



### Examples of available services

- Full-coverage of smoking cessation treatment and quit-smoking medicine fees available via application
- 70% coverage of physical checkup and brain screening fees
- Coverage of cancer screenings and gynecology exams up to 30,000 yen

# Pursuing More Stable Production Management to Provide High-quality Emitters

Emitters are small cones of less than 2 cm that incorporate micron-sized components. They are essential sources of electrons for inspection devices for semiconductor materials and other components. Mogi is a specialist that has been involved with emitter products since joining the company. He is currently responsible for the production management of Denka TFE, one of Denka's flagship products.

"For emitters, we adopt high-mix low-volume production tailored to our customers needs," he explains. "For this reason, we need to constantly monitor the production status and conduct process

management to maintain high efficiency." As there are many tasks that require advanced skills, they are making efforts to introduce production management systems and promote standardization and skill-less processes through automation.

Everything is to meet customer expectations. "I feel a sense of achievement when we are able to quickly provide products that meet the detailed needs of our customers. We will continue striving to provide high-quality emitters and develop them into one of Denka's representative specialty products."

### Emitter

An important component that emits electrons. It is used for electronic microscopes, semiconductor inspection devices, and other products.



### Specialist

## Katsunori Mogi

Emitter Group, Emitter Section, Functional Material Department, Shibukawa Plant

Joined the company in 1989. Involved in the production of emitter products, as well as improvement and R&D efforts. He is currently in charge of post-process production management for Denka TFE, one of Denka's flagship products.

# Board of Directors (as of June 22, 2023)

Here is the board of directors as of June 22, 2023.

## Chairman and Director



**Manabu Yamamoto**

## Representative Director, President, Chief Executive Officer (CEO)



**Toshio Imai**

## Managing Executive Officers



**Nobuyuki Yoshino**

Chief Scientific Officer (CSO)  
New Business Development



**Kazuya Tokumoto**

President of  
Denka Performance  
Elastomer LLC



**Hideki Takahashi**

Life Innovation



**Rimiru Hayashida**

Accounting Dept.,  
Finance Dept.

## Representative Director, Senior Managing Executive Officer



**Kazuo Takahashi**

Chief Technical Officer (CTO)  
Chief Compliance Officer (CCO)  
Purchasing Dept., Logistics Dept.,  
Production & Process Technology Dept.,  
Engineering Dept., Digital Strategy & Innovation Dept.

## Director and Managing Executive Officer



**Ikuo Ishida**

Chief Human Resource Officer (CHRO)  
Corporate Planning Dept., HR Dept.,  
Corporate Communications Dept.,  
DCU, DCG, Chinese Business

## Executive Officers



**Yasuo Nakatomi**

Gosen Site



**Yukio Sasagawa**

Omuta Plant



**Hideki Toya**

Assistant to New Business  
Development  
Innovation Center



**Masanobu Kosaka**

Supervisor of Environmental  
Measures Promotion  
Environment and Safety Dept.,  
Sustainability Promotion Dept.,  
Quality Assurance Dept.

## Directors



**Yoshiyuki Fukuda**

Outside



**Mizuhiro Uchida**

Audit Committee Member



**Toishio Kinoshita**

Outside  
(Audit Committee Member)



**Michio Kawamura**

Managing Director, DCHA,  
DSPL, DAPL



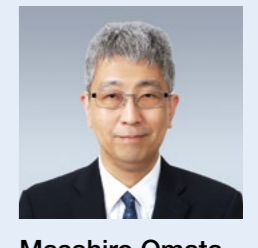
**Masahiro Kawai**

Chiba Plant



**Takeshi Hagiwara**

Omi Plant



**Masahiro Omata**

Elastomers & Infrastructure  
Solutions



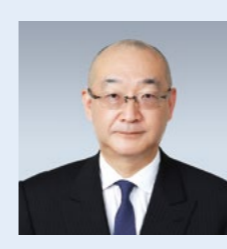
**Akio Yamamoto**

Outside  
(Audit Committee Member)



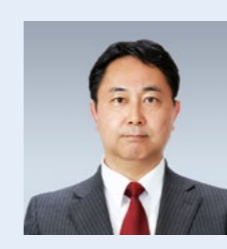
**Miyuki Matoba**

Outside  
(Audit Committee Member)



**Kei Hara**

Polymer Solutions



**Ken Watanabe**

Administrative Dept., Legal  
Dept., Internal Control Dept.,  
Secretary Dept.



**Hiroto Horiuchi**

Electronics & Innovative  
Products



**Tetsuo Noguchi**

Shibukawa Plant



# My Vision

Denka's Future as Envisaged by Each of Us

Part 1:

“ What kind of specialist do you aspire to be? ”

We will ask employees from various positions, generations, and workplaces about the future they envision for Denka, changing the theme in each issue.



Deep knowledge and a wide perspective



Smile & Ecology



Continuous improvement on site and problem solving capabilities



Taking on unknown challenges in an enjoyable way



Consideration and empathy



Leveraging my experience and knowledge to build trust

**Yasushi Kondo**  
Engineering Group, Engineering Sect., Organic Products Dept. No.2, Omi Plant

**Honoka Yokota**  
Ultra High Purity Acetylene Black Group, Ultra High Purity Acetylene Black Sect., Production Dept. 4, Chiba Plant

**Yoshihiko Takagi**  
Toyokalon Group, Toyokalon Sect., Production Dept. No.2, Ofuna Plant

**Takaki Matsuo**  
General Affairs Section  
Osaka Branch

**Tsukasa Harigai**  
General Affairs Section  
Nagoya Branch

**Kazuhisa Tatebayashi**  
Environmental Material Section  
Fukuoka Branch



Flexible service



Helping customers reduce CO<sub>2</sub> emissions



Plant Biotech Innovator



A sales specialist who contributes to the backbone of technological advancements.



A high level of professional sensitivity and cognition



Focus and persistence

**Yu Ishimura**  
Tohoku Sales Office

**Bengt Schwemann**  
Denka Chemicals G.m.b.H

**Stefan Werner**  
Icon Genetics G.m.b.H  
Head of Research

**Takuya Ichikawa**  
Denka Corporation Sales and Marketing

**Liu Rim**  
Denka Inorganic Materials (Tianjin) Co., Ltd.

**Lee Gyeonghae**  
Denka Electronics Materials (Dalian) Co., Ltd.



Learning more to enrich my life



Continuous innovation through challenges with confidence and courage



Keen insight towards financial data



The ability to meet challenges



Dedication has no limits



Challenge, improvement, and growth

**Tan Yeechun**  
Denka Chemicals Development Suzhou Co., Ltd.

**Goo Lee**  
Denka Advanced Materials (Suzhou) Co., Ltd.

**Shen Xiaoching**  
Administrative Dept.  
Denka Chemicals Shanghai Co., Ltd.

**Liu Yishin**  
Denka Taiwan Corporation

**Kadir Binti Abd Nuryazmin**  
Continuous Improvement Department  
Denka Construction Solutions Malaysia Sdn Bhd.

**Van Dinh Nguyen**  
Quality Management Section  
Denka Advanced Materials Vietnam Co., Ltd.

4-6

Apr. Jun.

Pick Up

May

## Facilitating training for endoscopic treatment Launch of simulators developed through an industry-academia collaboration

Denka project members

Advanced Materials Research Dept.,  
Denka Innovation Center

New Business Exploration Dept.,  
Life Innovation



Yuko Fukuda

**Development**  
Based on the clinicians' advice, we strived to produce a realistic tactile experience by integrating sensory factors into the material design.



Manami Narukawa

**Development**  
We couldn't see the actual treatment, but we shared some internal assessment videos with the clinicians to get a better idea of the techniques used.



Yan Wang

**Overseas sales**  
At an exhibition of the medical society, we conducted a demonstration using an actual endoscope device. Since it is a medical product, we prioritized accuracy.



Yuka Murata

**Domestic sales**  
I once again realized the significance of our product when I heard clinicians expressing their desire to practice with it until they overcome their nervousness.

An ulcer model made with Denka's special soft materials. It offers a realistic tactile experience similar to an internal organ. It also has four holes that can simulate bleeding.



Simulated practice. Just like in an actual endoscopic surgery, the doctors perform hemostasis while watching images on the monitor.

Based on joint research with Tohoku University, Denka has developed a simulator for learning endoscopic hemostasis techniques (using clips or cautery forceps) with endoscopes and other medical tools. This is a first step of the Medical Rising Star<sup>®</sup> Project, and Denka commenced test sales on May 1, 2023.

When digestive organs like the stomach and intestines experience bleeding, doctors often perform endoscopic hemostasis. However, opportunities for doctors and students to learn these techniques were limited to actual surgeries or practice using pig stomachs. In the aftermath of the Great East Japan Earthquake in 2011, there was a sudden surge of gastric ulcer patients in the disaster area, and it became crucial for as many doctors as possible to master advanced hemostasis techniques. Under these circumstances, Denka introduced its soft materials to Tohoku University, and the joint development of a medical simulator was initiated. This collaborative effort resulted in the creation of a product that accurately replicates the injured parts.

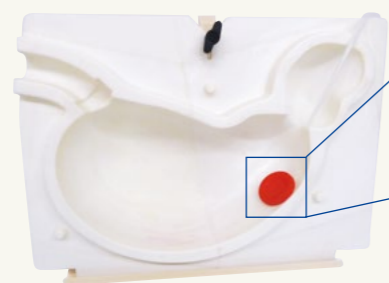
In the future, the product lineup will be expanded to facilitate social implementation. With

the anticipated growth of the medical simulator sector, Denka is poised to contribute through its unique products.

\*Denka's registered brand. STAR stands for "Simulator Training model for Advanced high Risk endoscopic therapy."

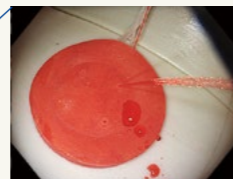
### How medical simulators work

An upper digestive tract model that accurately reproduces the esophagus, stomach, and duodenum



This model was produced using 3D human body data. It can be opened or closed (It is open in this photo).

An ulcer model that replicates the injured organ



To simulate bleeding, pseudo blood flows through pipes attached to the back of the model



"Bleeding" stopped with clips

Apr.

### Company entrance ceremony for FY2023 held

On April 3, the company entrance ceremony for FY2023 was held. A total of 160 new employees, including 73 G-section members and 87 M-section members, joined the company this year. During the ceremony, President Imai gave a congratulatory speech, followed by the introduction of new members by business site. A representative from the new members remarked, "We are committed to embracing Denka's Core Values: Initiative, Integrity, and Empathy. We will endeavor to become valuable human resources that society truly needs."



Apr.

### Enhancing production capacity of the G47Δ for cancer treatment

Denka has decided to strategically invest approximately 12 billion yen in strengthening the business foundation for the G47Δ for cancer treatment and enhancing supply capacity in light of future demands. This involves constructing a new manufacturing facility at the Gosen Site Niigata Plant. The production of G47Δ involves working with live viruses, which necessitates large-scale virus culture and specialized testing technologies. Denka's extensive expertise and know-how in the development and manufacturing of vaccines and diagnostic reagents for viral infections are being utilized in this endeavor.



Apr.

### Exhibiting at the CHINAPLAS 2023, Asia's largest plastic and rubber exhibition

Denka's Performance Plastics Dept. exhibited at "CHINAPLAS 2023" international plastic and rubber exhibition, which was held from April 17 to 20 at the Shenzhen World Exhibition & Convention Center in China. Recognizing the Chinese market as the largest market for performance plastic products, the department aimed to expand its customer base and applications, inquire about needs, and exchange opinions with primary users. The department also introduced new products and promoted environmental initiatives such as chemical recycling and the production of MS, SBC, and IP using sustainable styrene monomer.



May

### Reached an agreement with Transform Materials on the establishment of a low-carbon acetylene chain

With the objective of developing technology for acetylene production with reduced carbon emissions, Denka has entered into an agreement with Transform Materials, a U.S. start-up, for joint research and the implementation of demonstration facilities. The signing ceremony took place on May 23. Denka plans to introduce production facilities into the Omuta Plant by incorporating Transform Materials' acetylene and hydrogen manufacturing technology. The agreement is aimed at contributing to achieving carbon neutrality by reducing CO<sub>2</sub> emissions associated with Denka's mainstay products, such as chloroprene rubber and acetylene black, and by utilizing hydrogen, a by-product of the manufacturing process.



May

### Groundbreaking ceremony for a new building at the Gosen Site Kagamida Plant

On May 30, a groundbreaking ceremony was conducted for the construction of a new manufacturing building at the Gosen Site Kagamida Plant, which is a manufacturing site for test reagents including antigen test kits. This new building is being constructed for the purpose of expanding Denka's healthcare business by bolstering production capacities and improving digitalization. The ceremony was attended by Toshio Imai, President, and Kazuo Takahashi, Senior Managing Executive Officer, as well as the Governor of Niigata Prefecture and the Mayor of Gosen City. During the ceremony, Shinto rituals, such as a groundbreaking and the offering of tamagushi, were performed, and all participants prayed for a safe construction.



Jun.

### Launch of QuickNavi Reader<sup>TM</sup>2, a medical tool for diagnosing infectious diseases

On June 8, Denka began selling the QuickNavi Reader<sup>TM</sup>2 densitometry analyzer to medical institutions across Japan. The product is compatible with six products from the QuickNavi<sup>TM</sup> series, which are rapid diagnostic testing kits for detecting novel coronavirus and influenza antigens. In comparison to its predecessor, the QuickNavi Reader<sup>TM</sup>, the new version not only detects the influenza virus but also the novel coronavirus, adenovirus, respiratory syncytial virus, and mycoplasma.

