

DIC REPORT 2022

The DIC Group Integrated Report



Complete Version

DIC Corporation

"The DIC Way" was formulated to represent the DIC Group's fundamental management philosophy. In line with The DIC Way, the DIC Group will continue to promote efforts aimed at enhancing corporate value and achieving sustainable growth.



The DIC Way

Mission

We create enhanced value and utilize innovation to introduce socially responsible and sustainable products.

Vision

We improve the human condition by safely delivering color and comfort for sustainable prosperity — *Color & Comfort*

Core Values

Enterprising: Lead with a passion for excellence that is evident in the solution-focused actions taken each day to drive value through innovation.*

Integrity: Be honest, forthright, and ethical in all dealings with customers, suppliers, and coworkers.*

Dedication & Loyalty: Take responsibility for performance in the office, laboratory, and factory, by demonstrating commitment to customers, suppliers, and coworkers.*

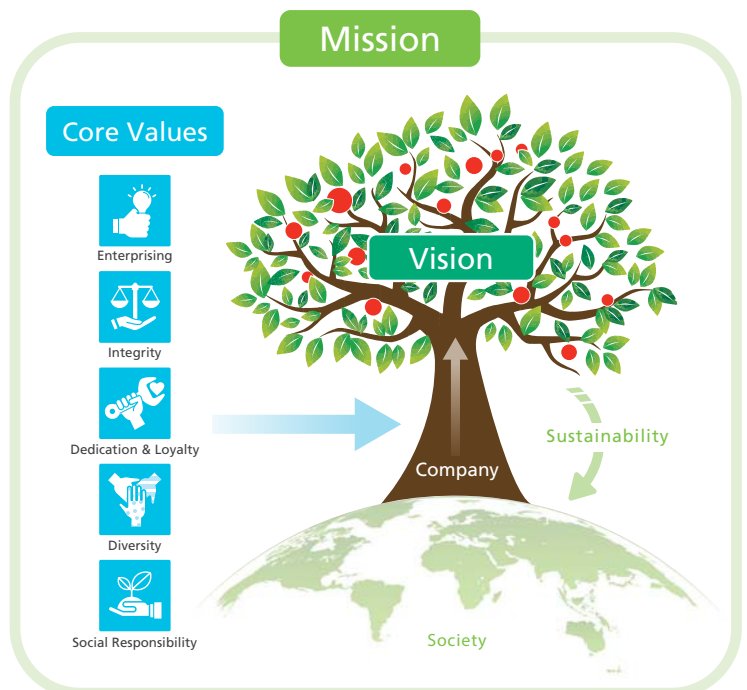
Diversity: Respect other viewpoints and work collaboratively while valuing collective goals over personal interests to achieve excellence; foster communication and cooperation with people from all backgrounds.*

Social Responsibility: Go beyond compliance to promote products and activities that achieve socially responsible and sustainable development that protect the environment.*

*=Annotation

Our Redefined Vision Statement

We have redefined our Vision to express our goals to deliver greater value through broader innovation, improving the human condition and promoting sustainability for a brighter future.



Contents

Connecting the DIC Group and its Stakeholders

DIC Group Communications Tools

The DIC Group uses a variety of tools to promote communication with its many stakeholders to encourage greater awareness of the Group's activities. More detailed sustainability-related information and data can be found on the DIC global website.

Printed/PDF-Form Publications

Reports on activities

DIC Report (summary version)



Summary integrated report (published annually) (printed publication)

DIC Report (complete version)



Complete report (published annually) (PDF-form publication)

DIC Report Financial Section



Report on results of operations and financial condition (published annually) (PDF-form publication)

DIC Global Website

Real-time information

WEB <https://www.dic-global.com/en/>

Umbrella website providing information to the global public about the DIC Group and reports on its various activities; updated as necessary



About this Report

In previous years, the DIC Group published a combined corporate profile and sustainability report with the aim of presenting a clear, easy-to-understand picture of the Group and its sustainability initiatives. Since 2017, the Group has published the DIC Report as an integrated report, which combines financial information, encompassing consolidated operating results and corporate strategies, and nonfinancial (sustainability) information. The Group has published a simplified summary version of the report (printed), which focuses on key highlights, and a more detailed complete version (PDF), which contains extensive quantitative data.

DIC Report (Complete version) (PDF-form publication)

WEB <https://www.dic-global.com/en/csr/annual/>

Note: As used herein, the term "Asia-Pacific region"—a geographic designation that, like "Europe and the Americas" and "Greater China," represents a grouping of companies overseen by a regional headquarters—refers to Asia (excluding Japan and Greater China) and Oceania. The term "Asia and Oceania" refers to Asia (excluding Japan) and Oceania.

Link with the DIC Global Website

The **(WEB)** mark indicates that more detailed information and/or data can be found on the indicated page of the DIC global website.

DIC global website **WEB** <https://www.dic-global.com/en/>

Scope of Reporting

In principle, this report provides information on DIC Corporation and consolidated DIC Group companies worldwide. For information on the scope of reporting for ESH-related initiatives, please visit the pertinent page of the DIC global website.

WEB https://www.dic-global.com/pdf/csr/environment/dic_report_scope_en_2022.pdf

Reporting Period

Fiscal year 2021 (January 1–December 31, 2021)

Date of Publication

June 2022 (The next report is scheduled for publication in June 2023.)

Guidelines Referenced

Guidelines referenced in the preparation of this report were ISO 26000, the International Organization for Standardization's standard for social responsibility, released in 2010; Japan's Responsible Care Code; and the Global Reporting Initiative (GRI)'s GRI Standards.

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Cover Design

The cover of this year's DIC Report takes its inspiration from the natural world, employing brightly colored flowers to evoke DIC's redefined vision statement, which expresses the Company's goals of delivering greater value through broader innovation, improving the human condition and promoting sustainability for a brighter future.

1908 Established as Kawamura Ink Manufactory

Established by Kijuro Kawamura as Kawamura Ink Manufactory; adopts the dragon as its product trademark and begins manufacturing inks.



Dragon product trademark



DIC's founder, Kijuro Kawamura

1925
Begins production of organic pigments
Develops production method for organic pigments and begins production for its own use, the first step in its evolution as a fine chemicals manufacturer.

1940
Commences production of water-based gravure inks
Amid wartime restrictions on use of volatile oils, develops water-based gravure inks—one of several achievements that would later facilitate expansion into synthetic resins.

1952
Makes full-scale entry into the synthetic resins business
Establishes Japan Reichhold Chemicals Inc., then the second-largest joint venture with an overseas firm in the history of the Japanese chemicals industry, and makes a full-scale entry into the synthetic resins business.



Reichhold Chemicals' San Francisco plant

1962 Changes Company name to Dainippon Ink and Chemicals

Embarks on a new chapter in its history by absorbing Japan Reichhold Chemicals Inc., and changes Company name to Dainippon Ink and Chemicals Incorporated (DIC).



DIC's previous corporate symbol

1968
Commences sales of the DIC Color Guide®
Launches the *DIC Color Guide®*, which becomes the de facto standard for color selection in numerous industries, bolstering recognition of the DIC name.



DIC Color Guide®

1915
Commences production of offset printing inks
Becomes one of the first companies to conduct research in the area of offset printing inks and succeeds in producing a viable product in only one year.

1957
Enters the market for helmets and other molded plastic products
Enters the plastic products business with the aim of becoming an integrated manufacturer with operations encompassing production of everything from plastic raw materials to finished products.

1970
Enters the multilayered films business
Establishes Crown Zellerbach Packaging Materials Japan Co., Ltd., in a joint venture with Crown Zellerbach Corporation of the United States and Nippon Kakoh Seishi Co., Ltd., and enters the multilayered films business.

Promotes expansion of printing inks business

Diversifies operations by building on base in printing inks, organic pigments and synthetic resins

Actively introduces technologies from overseas and promotes further diversification

1973
Establishes the Environment and Safety Response Department
Creates department under the direct supervision of DIC's president to oversee safety and environmental initiatives (today's Responsible Care Department); creates Environment and Safety Management Regulations and Interim Emergency Countermeasures Department and begins promoting decisive efforts, including the implementation of plant safety inspections.

1990
Opens Kawamura Memorial Museum of Art
Located in Sakura, Chiba Prefecture, adjacent to the Central Research Laboratories; established to exhibit works of art collected by DIC and DIC Group companies and now called the Kawamura Memorial DIC Museum of Art.



1995
Declares intention to uphold the principles of Responsible Care
Takes an active role in the Responsible Care movement since the start as one of 74 founding members of the Japan Responsible Care Council (JRCC); reinforces efforts to, among others, reduce negative environmental impact of operations and lower energy consumption.



2006
Becomes signatory to the Responsible Care Global Charter
Signs the CEO's Declaration of Support for the Responsible Care Global Charter, established by the International Council of Chemical Associations (ICCA), as befits its status as a member of the global community of fine chemicals manufacturers.



Certification of DIC as signatory to the Responsible Care Global Charter

1973

Enters the market for LCs

Develops revolutionary high-performance, long-lasting nematic liquid crystals (LCs), commencing its evolution into one of the world's foremost manufacturers of LCs.



Nematic LCs

2008

Changes Company name to DIC Corporation

Marks centennial anniversary by changing Company name to DIC Corporation and adopting a new corporate symbol.



DIC's new corporate symbol

2016

Introduces branding program

Introduces new branding program based on the Group's "Color & Comfort" brand slogan, which sets forth three corporate values, and in October airs a new television advertisement.



Brand advertisement for television

1986

Acquires the graphic arts materials division of Sun Chemical Corporation of the United States

Becomes world's largest manufacturer of printing inks in terms of market share and a leading name in the graphic arts materials business.



Sun Chemical's headquarters

1999

Succeeds in developing 100% soybean oil-based printing ink

Amid rising awareness of environmental issues, develops Japan's first organic solvent-free sheetfed offset ink.

1999

Acquires Coates, the printing inks division of France's TOTALFINA

Establishes presence in India, Central and South America and elsewhere by acquiring the Coates Group from TOTALFINA S.A., France's largest oil company.

2008

Develops groundbreaking series of green pigments for LCD color filters

Develops the G58 series of green pigments for use in color filters for liquid crystal displays (LCDs), which deliver marked increases in brightness and contrast compared with previous products and contribute substantially to reduced energy consumption by LCDs.

2009

Establishes DIC Graphics Corporation

In October 2009, establishes a joint venture with Dai Nippon Printing Co., Ltd., subsidiary The Inctec Inc. and integrates its domestic printing inks business with the printing inks business of The Inctec.

2015

Completes reconstruction of corporate headquarters in Nihonbashi

In May 2015, completes the reconstruction of its corporate headquarters—the DIC Building—in Nihonbashi, Tokyo, the role of which was expanded to include oversight of the global DIC Group.



2017

Enters capital and business alliance with TAIYO HOLDINGS

Concludes capital and business alliance with TAIYO HOLDINGS CO., LTD., one of the world's leading manufacturers of solder resist for printed wiring boards.

2021

Acquires the Colors & Effects business from BASF SE of Germany

Acquired a prominent global manufacturer of high-performance pigments, effect pigments (for cosmetics) and specialty inorganic pigments, based in Europe and with sites around the world, bringing together proprietary technologies and intellectual property that will unleash unparalleled development capabilities and yield exciting new products, as well as improving efficiency by expanding operating scale and reinforcing the DIC Group's position as a leading global pigments manufacturer.

2022

Inaugurates DIC Vision 2030 long-term management plan

Announces redefined vision statement—"We improve the human condition by safely delivering color and comfort for sustainable prosperity—Color & Comfort" and sets forth a new basic policy "Safely delivering Color & Comfort for sustainable prosperity to enhance shareholder value and long-term corporate value."

Seeks to advance globalization of core businesses and diversify into new areas

Takes steps to advance environmental protection and expands global presence

Prepares for a new phase of growth

2007

Launches CSR program

Begins promoting corporate social responsibility (CSR) initiatives; identifies fulfilling its responsibilities as a member of society through its business activities and contributing to the evolution of society as the cornerstones of CSR.

2010

Joins United Nations Global Compact

In December 2010, becomes a signatory to the United Nations Global Compact (UNGC), with the aim of maintaining its reputation as a socially responsible corporate entity.



2014

Changes designation to "sustainability"

Clarifies its overall policy of achieving sustainability in a manner that takes into account, among others, the environment, ecosystems and socioeconomic issues, and changes the designation used across its program from "CSR" to "sustainability."



In-house poster promoting sustainability initiatives

2015

Selected for inclusion in the Dow Jones Sustainability Indices (DJSI) Asia Pacific Index

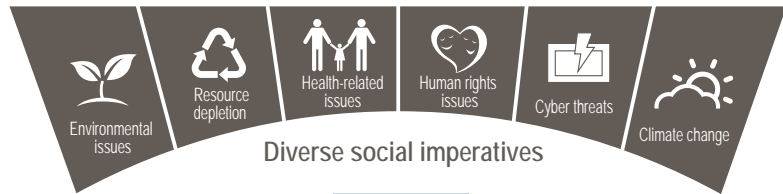
Included for the first time in the DJSI Asia Pacific Index, a global family of indices for socially responsible investing and a benchmark of global sustainability. As of 2021, has been included in the index for seven consecutive years

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

The DIC Group's Approach to Value Creation

Delivering Color & Comfort

Build a business portfolio that helps achieve sustainable prosperity for society



Management capital (Inputs)

Financial capital
Funds essential to the provision of products and services

Manufacturing capital
Facilities and equipment essential to the provision of products and services

Intellectual capital
Accumulated technologies and know-how

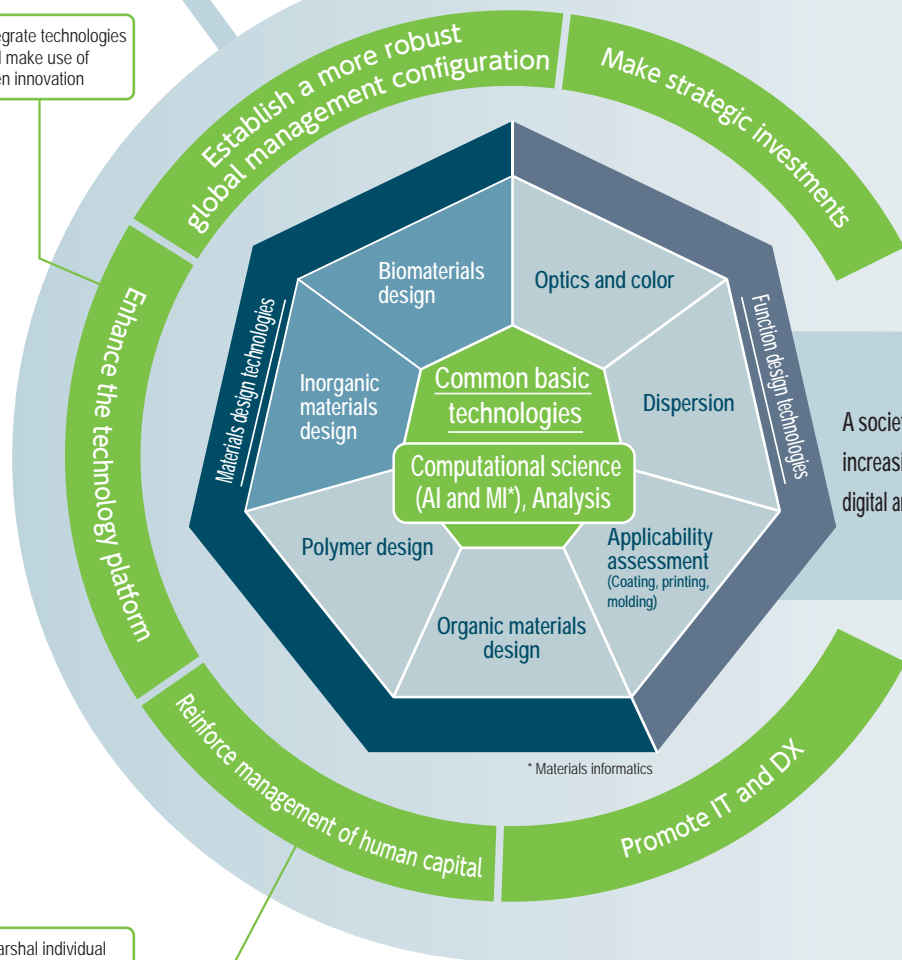
Human capital
Ability to value diversity and to bolster satisfaction and productivity

Natural capital
Carbon neutrality and consideration for biodiversity

Social capital
Cooperation with stakeholders and local communities

Integrate technologies and make use of open innovation

Marshal individual strengths to create organizational dynamism



A society that is increasingly green, digital and QOL-oriented

* Materials informatics

Materiality
(For more information, please see page 56.)

Reinforce ESG initiatives
The DIC Way

With the aim of ensuring a sustainable society, the DIC Group strives to provide products and solutions that respond to the needs of markets and its customers and add color and comfort to life.

Sustainable energy



- Specialty materials that contribute to the realization of the high-performance secondary batteries and fuel cells crucial to an electrified/hydrogen-powered society

e.g. | • Materials for secondary batteries and fuel cells
• Functional organic fillers



Healthcare



- High-performance nutritional supplements that support the health of people of all ages
- Healthcare-related products and services that deliver safety, peace of mind and comfort, contributing to a future in which people enjoy an improved quality of life (QOL)

e.g. | • High-performance nutritional products
• Natural skin-care materials



Smart living



- High-performance materials and solutions that contribute to the realization of a sustainable society that coexists with a healthy global environment
- Chemical solutions for modern lives that have evolved and improved thanks to digitalization

e.g. | • Materials for 5G/6G-enabled devices
• Resins for next-generation semiconductors
• Bonding solutions for heterogeneous materials



Color science



- Color that is sustainable and ecologically sound
- Products with outstanding decorative properties that facilitate the creation of comfortable spaces
- Functional materials that leverage dyeing technologies to deliver convenience, satisfaction, safety and peace of mind

e.g. | • Functional pigments (for light detection and ranging (LiDAR) signal coatings, heat-blocking coatings)
• Biomass pigments
• Natural colorants for cosmetics



Sustainable packaging



- Materials that ensure tastier, more enjoyable and safer merchandise reaches consumers
- Materials that deliver safety, peace of mind and convenience, as well as help reduce food loss
- Product design that contributes to a circular economy, i.e., is conducive to recycling and uses plant-derived and renewable raw materials

e.g. | • Materials with outstanding barrier properties
• Biomass packaging
• Recycling systems (chemical recycling, materials recycling)



SDGs

2

ZERO HUNGER



3

GOOD HEALTH AND WELL-BEING



6

CLEAN WATER AND SANITATION



7

AFFORDABLE AND CLEAN ENERGY



9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



11

SUSTAINABLE CITIES AND COMMUNITIES



12

RESPONSIBLE CONSUMPTION AND PRODUCTION



13

CLIMATE ACTION



14

LIFE BELOW WATER



15

LIFE ON LAND



SDGs Goals

2, 3, 6, 7, 9, 11, 12, 13, 14 and 15

Fiscal Year 2021 DIC Group Topics

Strategic Investments Under the DIC111 Medium-Term Management Plan

The basic concept of the DIC111 medium-term management plan, which guided the DIC Group from fiscal year 2019 through fiscal year 2021, was summarized as “Become a unique global company that is trusted by society by providing value, safety and peace of mind, color and comfort.” Based on this concept, the plan set forth two basic strategies: “Value Transformation,” which focused on strengthening the Group’s corporate structure through qualitative reforms of businesses, and “New Pillar Creation,” which emphasized creating new businesses in response to ESH-related issues and social changes. The plan budgeted a total of ¥250 billion over three years for strategic investments aimed at accelerating growth while also balancing financial health and returns to shareholders.

In fiscal year 2021, the final year of DIC111, investments were made in M&As and start-ups in the pigments business and in a number of new businesses that expanded the Group’s product and technology portfolios.

1. Acquisition of the Colors & Effects Business from BASF

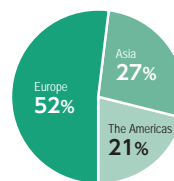
In August 2019, DIC resolved to acquire the shares and assets of the Colors & Effects business from BASF SE of Germany. This acquisition was finalized in June 2021, and we are currently promoting the integration of this business’ pigments portfolio into the Group’s pigments business.

Completion of Acquisition: June 30, 2021

- Purchase price (unadjusted): €1,010 million (approx. ¥128.9 billion) (Exchange rate used for calculation: €1.00 = ¥127.58) (Post-closing adjustments are pending. Accordingly, the actual final price may differ from this amount.)
- Method used to procure funds for acquisition: Bank loans (Thanks to the procurement of ¥60 billion through a subordinated term loan, DIC expects to maintain its debt-to-capital (D/C) ratio at 50% in fiscal year 2021.)
- The acquisition will cement DIC’s position as a leader in the global pigments industry.
- By expanding DIC’s portfolio of high-value-added products and optimizing its operations, this acquisition will accelerate Value Transformation.

Overview of the Colors & Effects Business

- One of the world’s premier manufacturers of high-performance pigments, effect pigments (pearlescent pigments for cosmetics) and specialty organic pigments
- Number of employees: Approx. 2,600
- Production sites: 11
- R&D laboratories: 4
- Operations are centered in Europe; the Colors & Effects business supplies more than 5,000 companies in 120-plus countries and territories worldwide



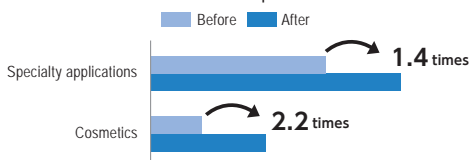
Geographical Breakdown of the Colors & Effects Business' Sales (Based on Results for 2020)

Based in Europe and with sites around the world, Colors & Effects, now a member of the DIC Group, has established itself as a prominent global manufacturer of high-performance pigments, effect pigments (pearlescent pigments for cosmetics) and specialty organic pigments. The business portfolios—including the technologies, products, production facilities, supply chains and customer service capabilities—of Colors & Effects and the Group harmonize well with each other, with little overlap.

Addition of High-Value-Added Products Expected to Boost Profitability

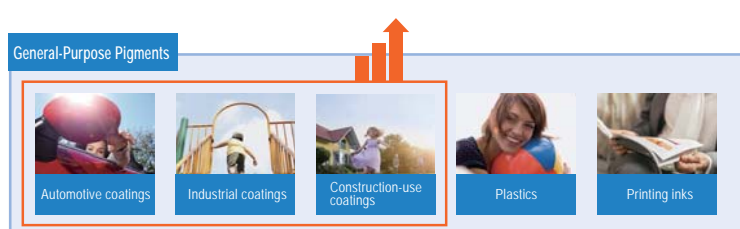
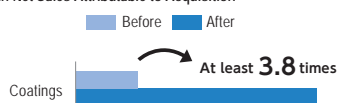
- In the area of functional pigments, the addition of effect pigments (pearlescent pigments for cosmetics) will significantly expand the DIC Group’s portfolio of pigments for cosmetics and specialty applications such as agriculture, which are major growth drivers.

Increase in Net Sales Attributable to Acquisition

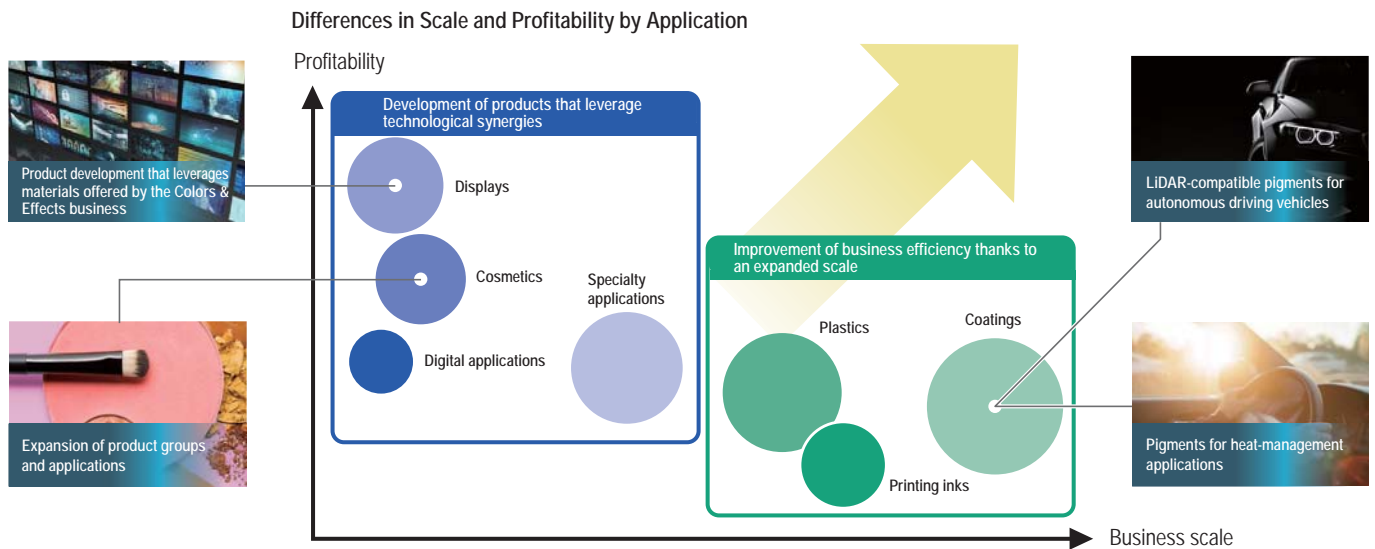


- In the area of general-purpose pigments, sales for use in industrial, construction-use and automotive coatings are increasing. The acquisition of the Colors & Effects business will particularly expand the Group’s presence in the market for pigments for automotive coatings by broadening its product portfolio and improving its product development capabilities.

Increase in Net Sales Attributable to Acquisition



This acquisition, and the integration of the two companies' technologies and intellectual property, will give the DIC Group unparalleled R&D and product development capabilities. The expansion of scale will improve business efficiency, strengthening the Group's position as a leading global pigments manufacturers.



2. Capital Alliance with GSM

In March 2021, DIC entered into a capital and business alliance with Green Science Materials, Inc. (GSM), a green biotech start-up based in Kumamoto, Japan, that has succeeded in commercializing *SACRAN*[™], a polysaccharide extracted from Suizenji nori, an indigenous blue-green algae.

A biotech start-up launched by the Japan Advanced Institute of Science and Technology (JAIST), GSM capitalizes on the research achievements in the extraction of *SACRAN*[™] of JAIST researchers, notably Dr. Maiko Okajima and Professor Tatsuo Kaneko, becoming the first company in the world to successfully commercialize *SACRAN*[™]. A macromolecular polysaccharide extracted from Suizenji nori, *SACRAN*[™] boasts outstanding moisture-retention capacity, anti-inflammatory properties and skin barrier functions, boding well for its use in a wide range of skincare products. GSM is currently working to develop artificial culture and cultivation technologies for Suizenji nori with the aim of facilitating the efficient mass production and global sales of *SACRAN*[™]. The company is also actively engaged in conservation efforts in and around the Kogane River in Asakura, Fukuoka Prefecture, the only place where this algae grows naturally.

The alliance with GSM will enable DIC to share mass cultivation and functional ingredient extraction technologies accumulated in the production of edible blue-green algae *Spirulina* with the goal of helping establish technologies for the artificial cultivation of Suizenji nori. In addition, GSM will work with DIC Group company Sun Chemical Corporation, which oversees Group operations in the Americas and Europe, to expand sales of Suizenji nori and *SACRAN*[™] worldwide, as well as to promote the development of new applications for both.



3. Investment in Vaxa Technologies

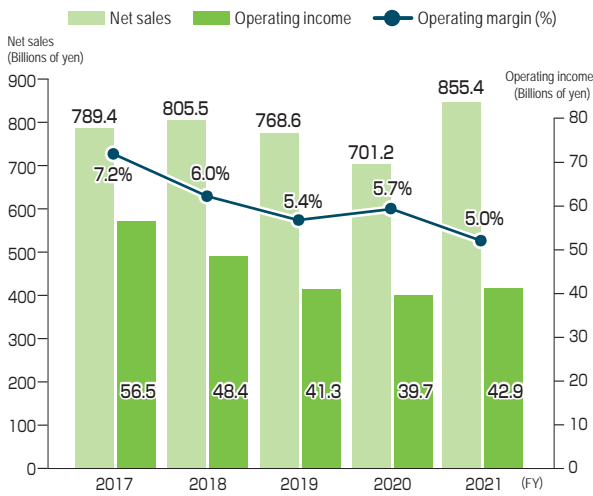
In April 2021, DIC completed investment in Vaxa Technologies Ltd., a biotech start-up headquartered in Israel, as part of a strategic expansion of DIC's health food and other algae-derived products businesses.

Vaxa Technologies possesses unique proprietary light-emitting diode (LED)-illuminated photobioreactors and algae cultivation technologies and is engaged in the development and commercialization of proprietary clean, high-value-added algae products. Vaxa Technologies' cultivation process employs renewable energy, achieving excellent productivity while requiring significantly less land and fresh water than conventional cultivation methods. This process also converts discharged CO₂ into useful materials, making the process carbon negative and thus highly sustainable.

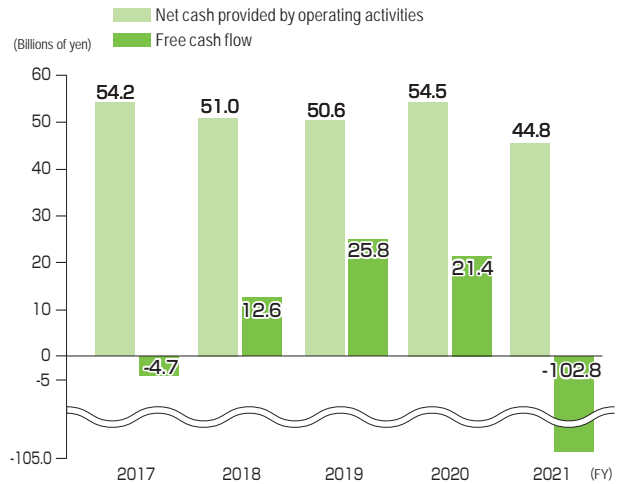


Financial Information

Net Sales, Operating Income and Operating Margin



Net Cash Provided by Operating Activities and Free Cash Flow

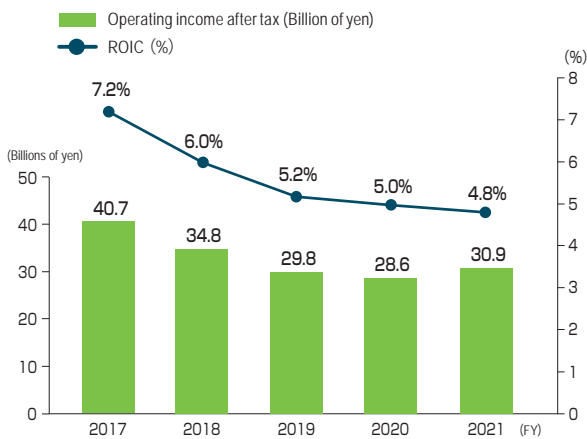


Notes:

*1 Owing to an investment of ¥24.9 billion in TAIYO HOLDINGS CO., LTD., net cash used in investing activities increased in fiscal year 2017.

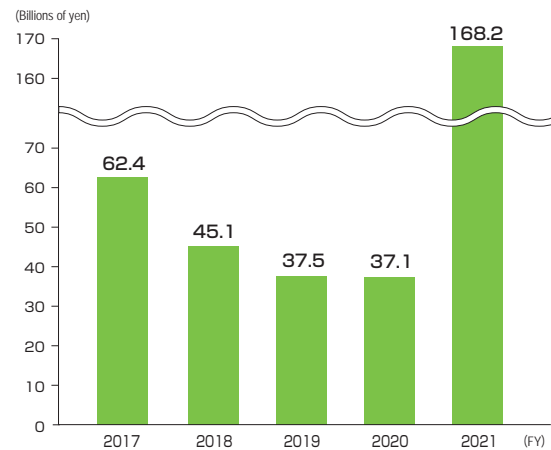
*2 The increase in cash used in investing activities in fiscal year 2021 reflects the impact of DIC's acquisition of the Colors & Effects pigments business from BASF SE (acquisition cost: ¥128.9 billion).

Operating Income after Tax and ROIC*



* ROIC : Operating income x (1 - Effective tax rate of 28%) / (Net interest-bearing debt + Net assets)

Capital Expenditure and Investment

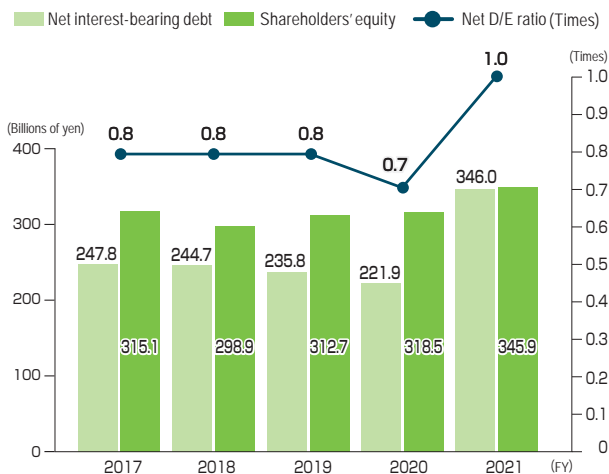


Notes:

*1 Owing to an investment of ¥24.9 billion in TAIYO HOLDINGS CO., LTD., capital expenditure and investment increased in fiscal year 2017.

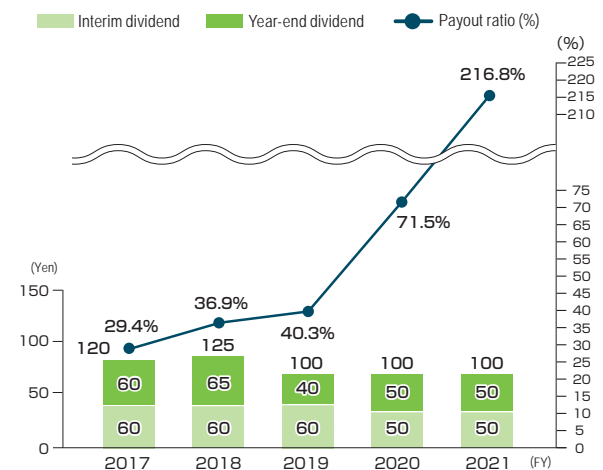
*2 The increase in capital expenditure and investment in fiscal year 2021 reflects the impact of DIC's acquisition of the Colors & Effects pigments business from BASF SE (acquisition cost: ¥128.9 billion).

Shareholders' Equity, Net Interest-Bearing Debt and Net D/E Ratio*



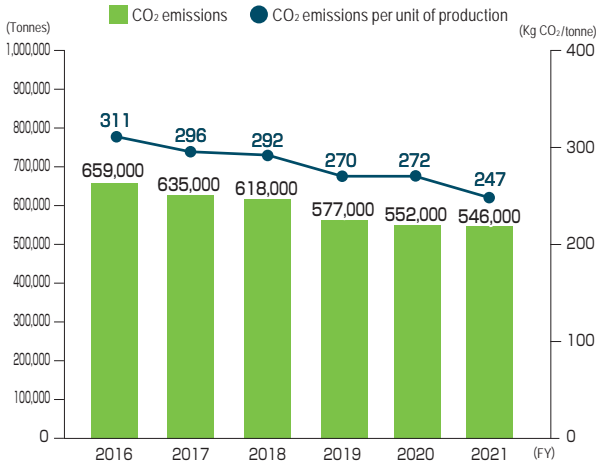
* Net D/E ratio : Net Interest-bearing debt / Shareholder's equity

Returns to Shareholders* (Dividends per Share and Payout Ratio)



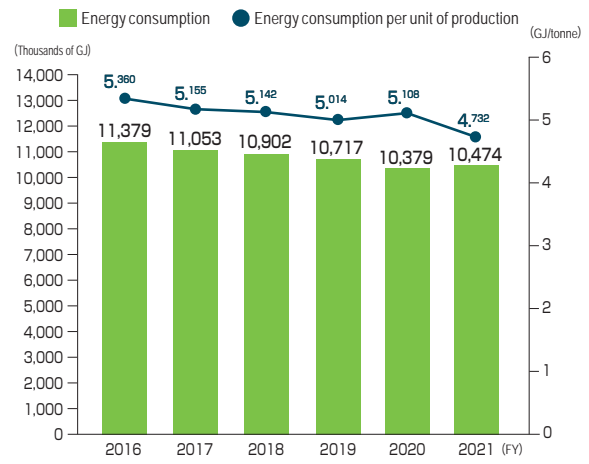
Nonfinancial Information

Global CO₂ Emissions and CO₂ Emissions per Unit of Production (DIC Group)



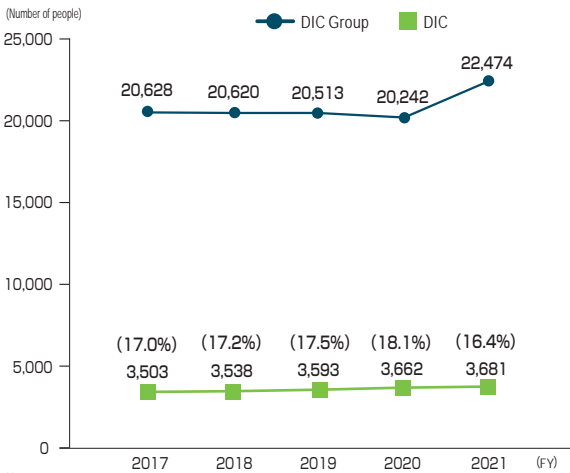
* CO₂ emissions per unit of production is calculated using adjusted production volume (parent company in Japan only). (Notification submitted to Japan's Ministry of Economy, Trade and Industry)

Global Energy Consumption and Energy Consumption per Unit of Production (DIC Group)



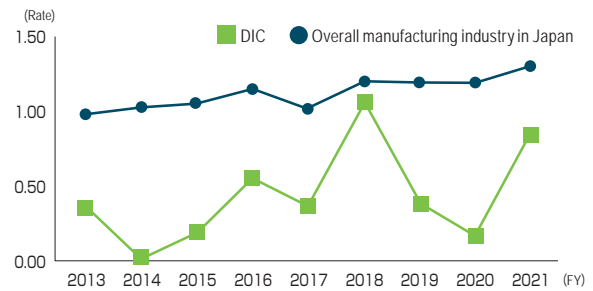
* Energy consumption per unit of production is calculated using adjusted production volume (parent company in Japan only). (Notification submitted to Japan's Ministry of Economy, Trade and Industry)

Number of Employees (DIC Corporation and the DIC Group)



Notes:
 1. Percentage figures in parentheses represent the proportion of DIC Group employees accounted for by employees of DIC Corporation.
 2. Employees numbers for DIC Corporation are calculated based on information in the Company's Annual Securities Report and thus differ from those in the Human Resources Management section of this report.

Occupational Accident Frequency Rate (DIC Corporation)

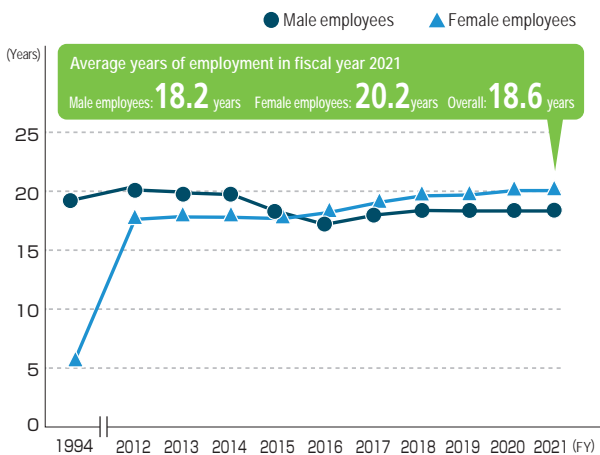


Note: The frequency rate expresses the frequency of accidents resulting in workdays lost in a fiscal year, calculated as the number of deaths or injuries per million work hours.

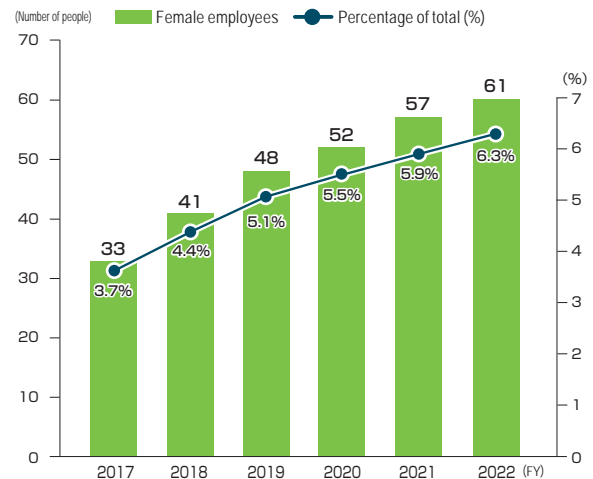
$$\text{Frequency rate} = \frac{\text{Number of deaths or injuries due to occupational accidents}}{\text{Total work hours}} \times 1,000,000$$

A frequency rate of 1.00 means one occupational accident resulting in workdays lost in one year at a site with 500 employees.

Average Years of Employment (DIC Corporation)



Female Employees in Management Positions (DIC Corporation)



The DIC Group: A Global Powerhouse

Corporate Data

Registered name: **DIC Corporation**
 Corporate headquarters: DIC Building, 7-20, Nihonbashi 3-chome, Chuo-ku, Tokyo 103-8233, Japan
 Date of foundation: February 15, 1908
 Date of incorporation: March 15, 1937
 Paid-in capital: ¥96.6 billion
 Number of employees: 20,474
 (Nonconsolidated: 3,345)
 Number of subsidiaries and affiliates: 189 (Domestic: 29, Overseas: 160)

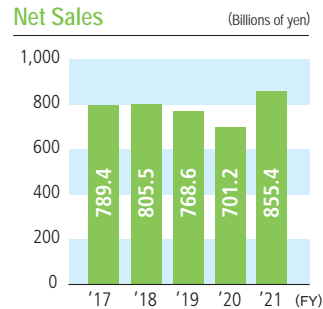


Corporate headquarters (Tokyo)

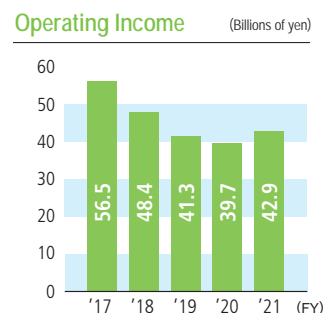
Note: Corporate data is as of December 31, 2021. Net sales and operating income are for fiscal year 2021. The nonconsolidated number of employees refers to individuals registered as employees of DIC Corporation and thus differs from the figure in the annual securities report.



Net Sales



Operating Income

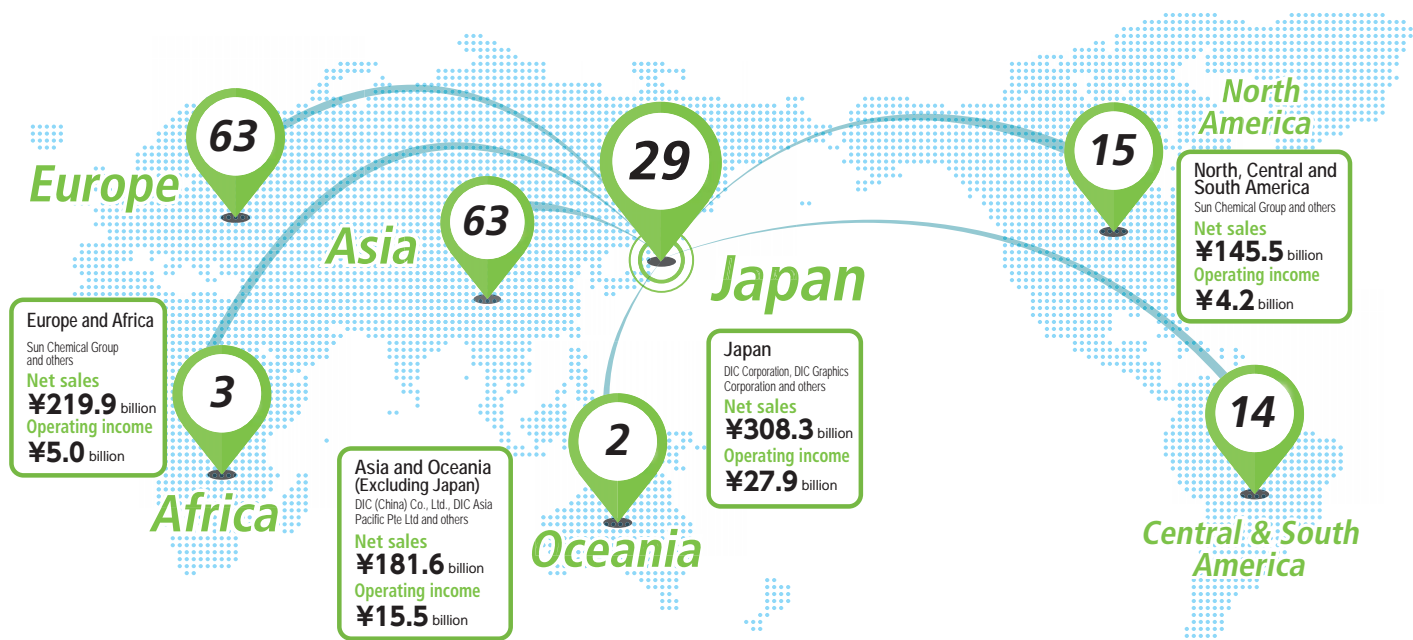


Global Network

DIC has 189 companies in 63 countries and territories around the world.



Sun Chemical Corporation headquarters (United States)

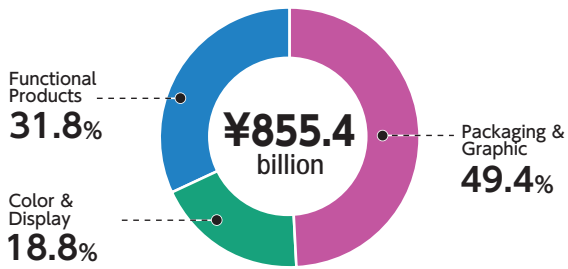


DIC (China) Co., Ltd. (PRC)

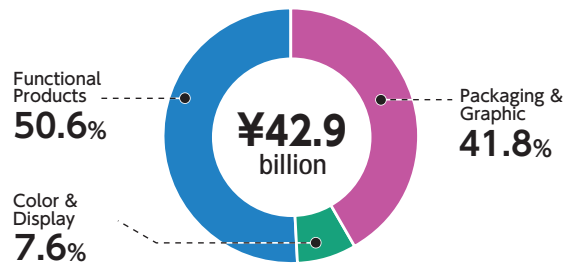


DIC Asia Pacific Pte Ltd (Singapore)

Breakdown of Fiscal Year 2021 Net Sales by Segment

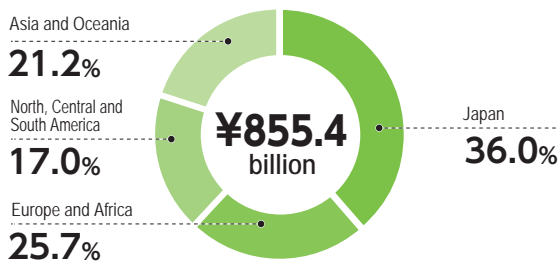


Breakdown of Fiscal Year 2021 Operating Income by Segment

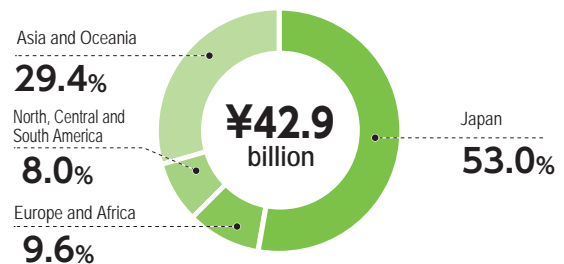


Note: Fiscal year 2021 net sales and operating income as used here include intersegment transactions. For this reason, and because of the existence of transactions classified as "others," which are not attributable to reportable segments, these figures differ from reported net sales and operating income.

Breakdown of Fiscal Year 2021 Net Sales by Region



Breakdown of Fiscal Year 2021 Operating Income by Region



Note: Operating income as used here includes eliminations (approximately ¥7.9 billion). Accordingly, these percentages do not represent shares of reported operating income.

Principal Global R&D Sites



TOP MESSAGE

Kaoru Ino

President & CEO
DIC Corporation

Becoming a unique and
trusted global company
ideally positioned to deliver
sustainable prosperity
for the global economy



We've evolved our Color & Comfort value proposition To secure a brighter future for the planet and humanity

Reflecting on the DIC111 Medium-Term Management Plan

■ Seeking Sustainable Growth By Strengthening Profitable Businesses And Building On Success

Between fiscal 2019 and 2021, the DIC Group promoted our DIC111 Medium-Term Management Plan. Based on the fundamental concept of becoming “a unique and trusted global company” by consistently generating value by safely providing Color and Comfort, we strove to strengthen our business structure through qualitative transformation. Under the two basic strategies of Business Transformation and New Pillar Creation, we created new businesses that respond to social issues and change, recording high sales of 950 billion yen and operating income of 70 billion yen in fiscal year 2021.

Amid growing US-China trade friction, the COVID-19 pandemic, and a series of supply chain disruptions, we experienced sluggish sales and fell significantly short of achieving our plan. However, despite major global trade disruptions, the DIC Group steadily promoted our two basic strategies and achieved measurable gains.

In a major achievement, we instantly established a leading position in organic and inorganic pigments globally by acquiring Germany-based BASF's Colors & Effects pigment business (hereinafter, “C&E pigment business”). We're also keeping pace with rapidly accelerating digitalization. Moreover, we managed to capture 5G-related demand by developing low-dielectric materials that enable high-speed communications.

In addition to added economic value, we accelerated the shift of our printing ink business to high social value packaging inks, contributing to greater sustainability amid the growing attention on the climate crisis and circularity. We continue to steadily advance Value Transformation among our existing businesses, with packaging ink already contributing some 80% of printing ink sales. Among our new businesses, we are announcing new products in each of the four priority areas (electronics, automotive, next-generation packaging, and healthcare), and we can already see a clear path toward our goal of New Pillar Creation.

While we've delivered a level of results under our basic strategy, to make up for any gaps in sales or profit plans, we must continue to tackle challenges in four remaining areas: 1) Further clarify our business portfolio, while achieving sustainable growth via portfolio transformation; 2) Develop synergies in the early stage of acquisitions, including the growth-driving C&E pigment business acquisition, to further improve our performance; 3) Establish new businesses as new business pillars by promoting more key investments and acquisitions; 4) And finally, promote further structural reforms for greater efficiency and business conversion in the shrinking publishing and newspaper ink business, as well as the struggling TFT LCD business—which is now experiencing intense competition.

Long-Term Management Plan DIC Vision 2030 (2022 – 2030)

■ Our Revised Vision: Enhancing Corporate Value by Maximizing Our Social Significance

The global climate crisis has clarified our social goals for the next ten years. Given the introduction of the 2030 Sustainable Development Goals (SDGs) and from the perspective of achieving carbon neutrality by 2050, the world has made great strides toward devising a global solution towards achieving sustainability.

Moreover, COVID-19 has drastically changed people's behavioral patterns: People are now proactive about the so-called “new normal”—what we recognize as the transition to a digital society, including remote work and digital marketing. Unless we take appropriate measures, a failure to adapt to this new normal will affect our corporate competitiveness. In the face of such dramatic social change and paradigm shifts, our typical three-year management plan inevitably felt short-sighted. Thus, I made the decision to shift to a long-term management plan.

What is the proper long-term perspective for a large company like ours? We considered what maximizes our social significance beyond merely maximizing profits. We based our evaluation on the recognition that taking a long-term perspective and improving corporate value favors overall shareholder interests. In other words, we see social interests as inclusive of shareholder interests.

Moving forward, we shall find our purpose in leveraging our company's unique attributes (the reason for our existence) to maximize our social significance, and continuously promote "purpose-driven management" by recognizing this as our mission, sharing our purpose with all of our many stakeholders, beginning with our employees. Here, we have revised our Vision Statement.

Based on our evolved Color and Comfort valued proposition, we've revised Vision Statement as follows:

We improve the human condition by safely delivering color and comfort for sustainable prosperity—*Color & Comfort*

We've evolved our Color and Comfort value proposition to provide a wide range of value beyond chemistry, securing a brighter future for the planet and humanity. Here, we devised the long-term management plan DIC Vision 2030 with a basic policy of "pursuing social benefits that include shareholder interests, striving to enhance long-term corporate, leveraging our evolved Color & Comfort value proposition."

■ The DIC Group in 2030

DIC Vision 2030 sets our sights on building a business portfolio that "contributes to sustainable prosperity" while "contributing to the realization of sustainability for the global environment and for society." Moreover, "to increase the sales ratio of sustainable products from the current 40% to 60% by 2030" and "to achieve carbon neutrality by 2050 (DIC NET ZERO 2050)," we've set a goal to "reduce annual CO₂ emissions by 50% of 2013 levels by 2030" (See Diagram 1).

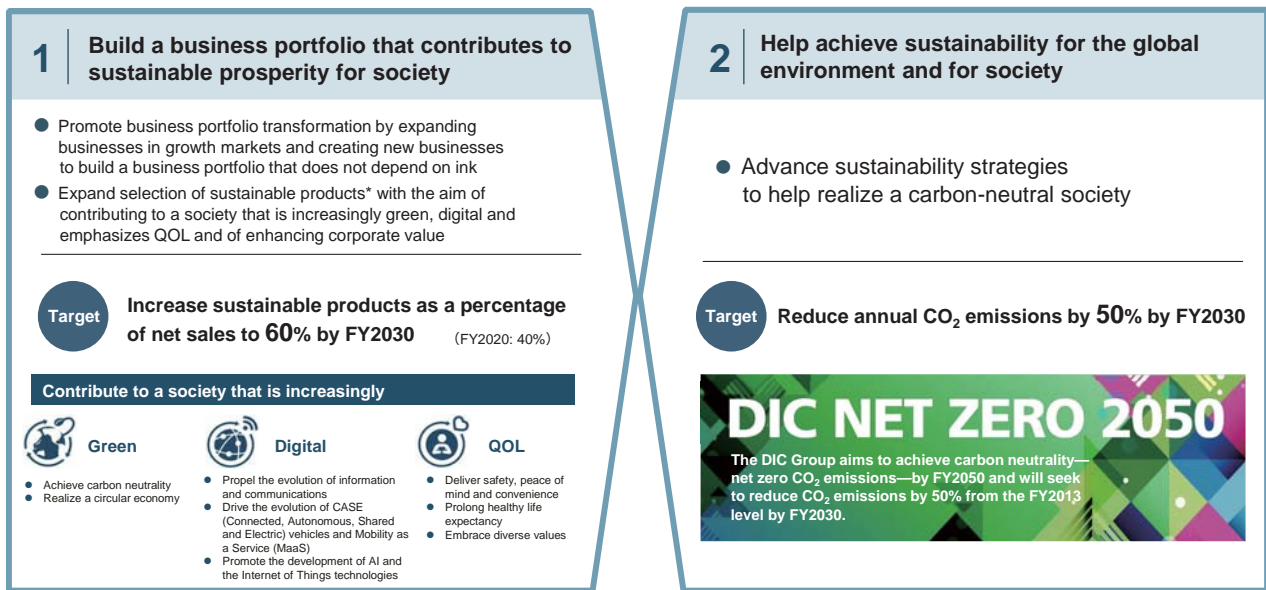


Diagram 1: DIC Vision 2030 Targets

Addressing our business portfolio, we'll seek to avoid an overreliance on our traditional ink products, building a diversified business portfolio by more actively allocating management resources to our five newly established priority business areas to further increase social value. Moreover, to enhance our corporate value through the delivery of more sustainable products, we've identified three key areas in which we are uniquely positioned to contribute to society: Green, Digital, and Quality of Life (QOL).

We created two phases. Phase One, the first four years through 2025, will be a foundation building period, in which management will emphasize investment efficiency and earning power using Return on Invested Capital (ROIC) management. Here, we'll promote business the portfolio transformation we've been promoting since the previous management plan. Phase Two, the next five years through 2030, will be a period of realizing and developing our goals to expand sustainable products that contribute to solving social issues (See Diagram 2).

- Increase weighting of sustainable products*, which help address social imperatives and deliver both social value and economic value
- Adopt return on invested capital (ROIC)** as a metric and seek to improve investment efficiency

* For more information on sustainable products.
 ** ROIC: Net operating income after tax / (Net interest-bearing debt + Net assets)

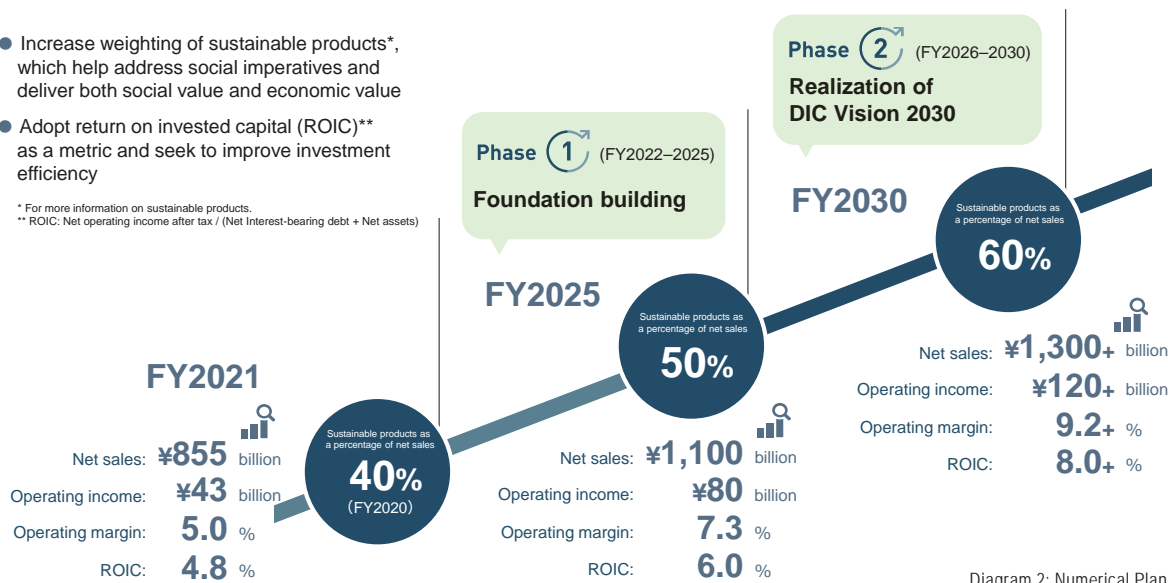


Diagram 2: Numerical Plan

Basic Strategy for Achieving Our Targets

Business Portfolio Transformation: Our Five Priority Business Areas

We've established five priority business areas for promoting business portfolio transformation, maximizing our impacts on market growth and society: Sustainable Energy, Healthcare, Smart Living, Color Science, and Sustainable Packaging. We've determined that these are the five business areas offering us the greatest opportunities to contribute to social issues and demand, leveraging DIC Group strengths.

By concentrating management resources in these five areas, we'll promote the efficiency of our efforts toward Value Transformation and New Pillar Creation. Notably, in Sustainable Energy and Healthcare, we'll leverage DIC Group strengths to deliver products such as next-generation high-capacity and long-life secondary battery materials, and high-performance nutrition based on naturally derived materials. We'll invest in these businesses and grow them into new pillar businesses in high-growth markets.

In Smart Living, Color Science, and Sustainable Packaging, we'll continue expanding our business and maximizing synergies through M&A. In this plan, we've positioned already mature markets like Publishing Inks and TFT LCDs for structural reform projects, and we plan to continue optimizing business operations through right sizing while closely monitoring market conditions (See Diagram 3).

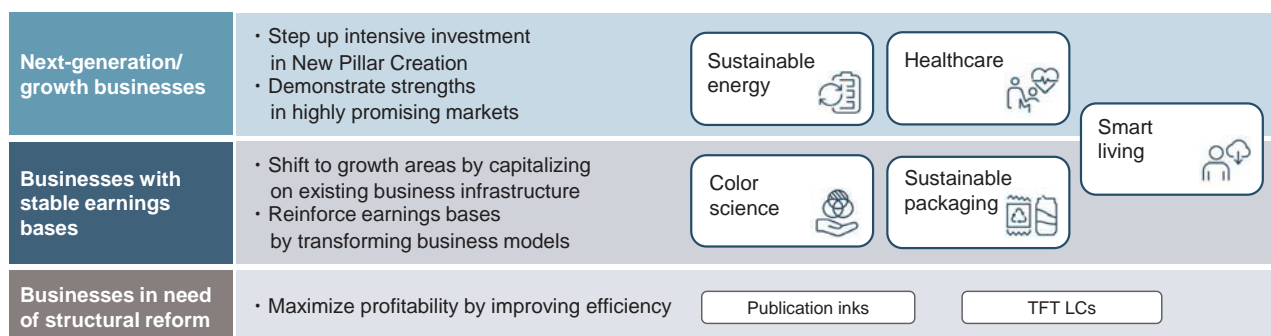


Diagram 3: Five Priority Business Areas

Business Portfolio Transformation: Five Measures Supporting Transformation

In addition to concentrating management resources on five priority business areas, we've also developed five vital measures supporting business portfolio transformation (See Diagram 4).

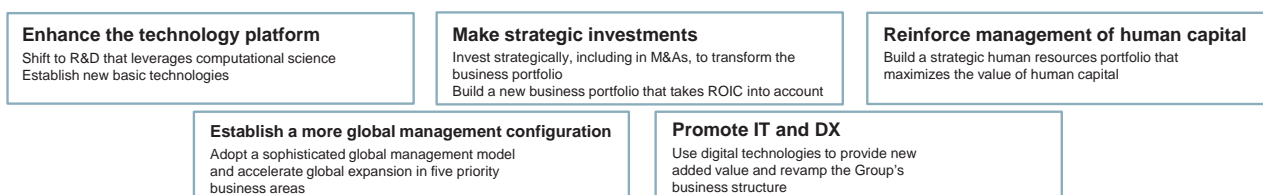


Diagram 4: Five Measures



Among the five measures, strengthening human capital management is one of our most vital strategies. We need all DIC Group members to share our “corporate purpose” to truly become a Group pursuing social value. To that end, we must invest in a global HR system that helps our members maximize their value. As 74% of all DIC Group members (as of December 31, 2021) are employed by affiliates based outside Japan, the DIC Group is truly a global organization. And as our diversity is a major source of our competitiveness, we must continue to promote human resource development, actively acquiring talent from external sources while increasing meaningful roles throughout the Group, regardless of a member’s nationality or gender. Moreover, with an eye toward a post-COVID-19 world, we must also improve member motivation, promote workplace reforms through digitalization, and enhance productivity through process reforms. Moving forward, we must focus on promoting internal communications, both within and outside Japan, fostering a sense of unity through empathy and trust, and promoting the challenges needed for fostering innovation (See Diagram 5).



Diagram 5: Reinforcing Human Capital Management

DIC Corporation is currently developing Work Style Revolution 2020 (WSR2020) promoting work style reform through a committee that I’m chairing myself. This initiative seeks to promote “behavioral changes” by reviewing and radically changing the work style of every member. We believe that senior management must work together with members at all levels to effectively transform our organization together, creating an ideal environment where all members can work effectively, with a sense of challenge, supporting mutual growth, unbound by archaic customs or implicit rules. We seek to transform our culture to create an environment where all can interact freely and say, “I’m glad I joined DIC.”

We’ll conduct internal research to measure how member awareness and behavior changes, and determine necessary course corrections, while maintaining open dialogs with members for flexible responses. Using the opportunity created by the C&E pigment business acquisition, we’re strengthening our global management structure by promoting the global exchange of human resources and information sharing. For example, we made the President of Sun Chemical Corporation—our controlling entity in Europe and the U.S.—an Executive Officer at DIC Corporation—our global headquarters—so we can be involved in reforms in Europe, the U.S., and throughout the entire Group. Moving forward, we’ll continue increasing opportunities for Japanese and non-Japanese members to work together on the same tracks in various departments within DIC Corporation.

For strategic investments, we have established a 2025 strategic investment quota of 230 billion yen to grow the company, transform our business portfolio, and launch new businesses. This investment quota encompasses M&A funds for acquiring new technologies and operations, as well as capital investments for launching new products. For example, we'll make a wide range of investments in Sustainable Energy—which we'll seek to cultivate as a new business pillar—and the five priority business areas, particularly Smart Living. We'll promptly respond to changes in the environment and determine investment targets.

Beside strategic investments, we've planned total 2025 investments of 70 billion yen, including green electricity to reduce CO₂ emissions, technology platform expansions, and promoting IT digitalization. For our technology platforms, we'll shift to research and development utilizing AI and materials informatics* while expanding design technology for inorganic materials and biomaterials acquired in the C&E pigment business acquisition and joint developments with venture capital firms. We'll also strengthen and accelerate our development of new technologies and new products.

*Materials Informatics: Efforts to improve technological development efficiency using informatics (information science) and methods that utilize statistical analysis, etc.



Our Sustainability Strategy

Our sustainability strategy seeks to demonstrate DIC's strengths in the three key areas in which we are uniquely positioned to contribute to society—Green, Digital, and QOL—defining “sustainable products” using our own proprietary sustainability index that balances social contributions and environmental burden reductions as coordinates, as we seek to increase our current sales ratio of sustainable products from 40% to 60% by 2030. By providing new products, such as inks and pigments using biomaterials as raw materials, low-dielectric materials compatible with high-capacity, high-speed communications, such as 5G and 6G, and natural materials that support safe, secure, and convenient living, we believe we can provide a wide range of value beyond traditional chemistry.

Moreover, the DIC Group has been promoting DIC NET ZERO 2050 since 2021. Through Scope 1 and Scope 2 activities, such as promoting the green electrification of production equipment, we aim to reduce annual CO₂ emissions by 50% of 2013 levels by 2030. Furthermore, by further reducing carbon contributions throughout the value chain, including Scope 3—for example, by promoting recycling and biomaterials use—we aim to achieve carbon neutrality by 2050.

Promoting Sustainable Prosperity

The DIC Group's acquisition of the C&E pigment business in 2021 has attracted more diverse human resources, strengthening our global network. We anticipate a significant increase in sales in 2022 as we resolve logistics issues that emerged upon closing the acquisition, expanding business activities with an eye toward the post-COVID-19 world. Conversely, earnings remain uncertain due to the fluid situation amid ongoing geopolitical unrest and the accompanying rise in energy prices.

Given current circumstances, to realize our revised Vision and long-term management plan DIC Vision 2030, we must share our “corporate purpose” with stakeholders, promoting it among all DIC Group members. It is especially vital that we all internalize this approach on a personal level. Since announcing DIC Vision 2030, senior management, including yours truly, has commenced visits to our domestic facilities to discuss our renewed purpose and its significance, enhancing understanding among all members. Moving forward, as conditions allow, I also hope to visit sites outside Japan as well. Senior management must create a common understanding through direct dialogue with all members, engaging in frank discussions to realize our plans.

The DIC Group shall strive to maximize Group profits as well as our social significance, to secure a brighter future for the planet and humanity as expressed in our revised Vision. Recognizing the preciousness of peace, and how the DIC Group can contribute to world, we must work with stakeholders to deliver sustainable prosperity and promote DIC's development as “a unique and trusted global company.”

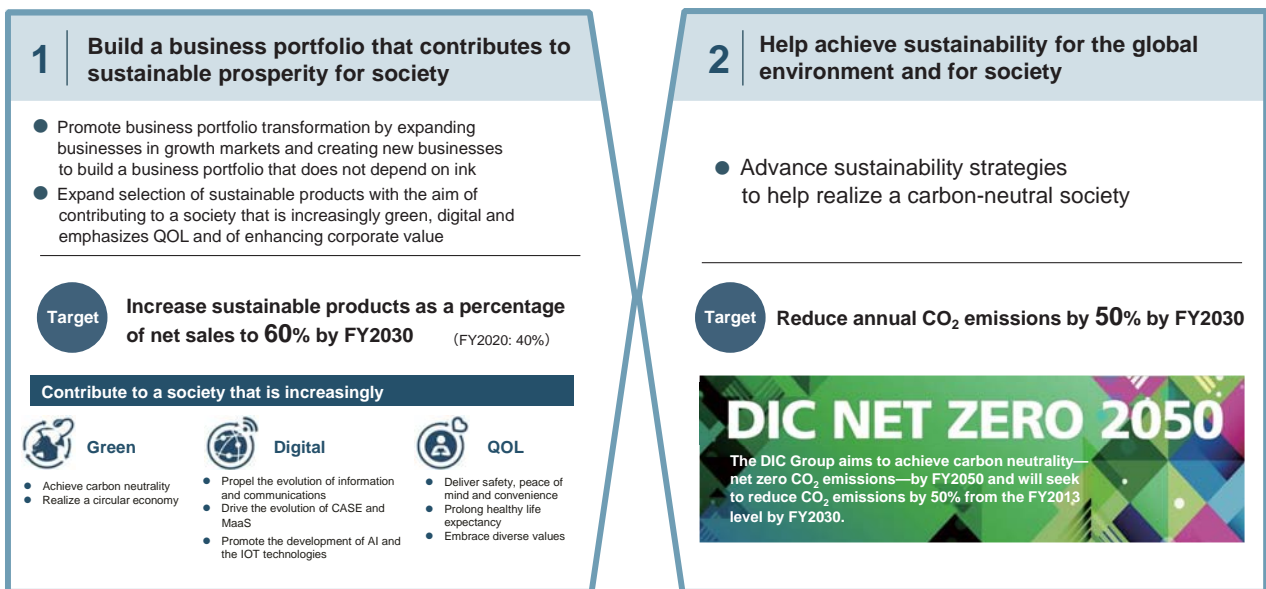
DIC Vision 2030 Long-Term Management Plan

DIC has announced a redefined vision statement, “We improve the human condition by safely delivering color and comfort for sustainable prosperity—Color & Comfort,” and a newly formulated long-term management plan, DIC Vision 2030, to guide it through fiscal year 2030.

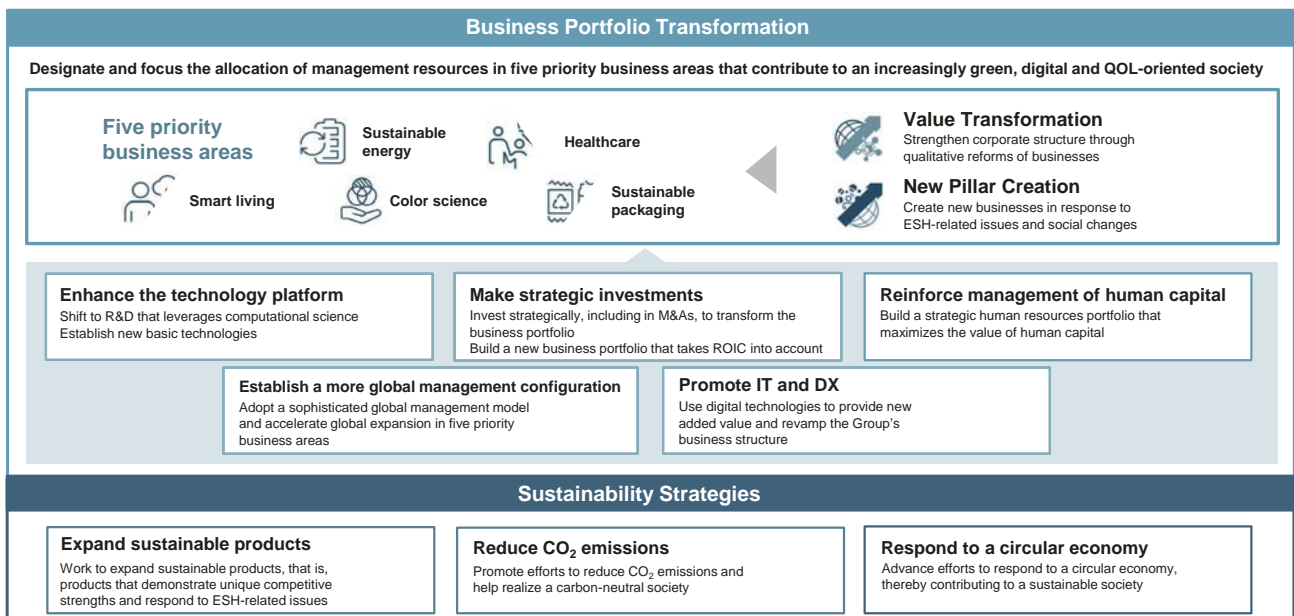
Basic Policy

Safely delivering Color & Comfort for sustainable prosperity
to enhance shareholder value and long-term corporate value
—Establishing a business portfolio beyond ink products and implementing carbon neutrality initiatives—

DIC in the Future








Basic Strategies



1 Business Portfolio Transformation

- Identify and concentrate allocation of management resources in five priority business areas in which DIC can make important contributions to a society that is increasingly green, digital and QOL-oriented.
- Based on market growth potential and degree of impact on society, identify five priority business areas at the intersection of ESH-related issues and DIC's competitive strengths.
 - ▶ Sustainable energy ▶ Healthcare ▶ Smart living ▶ Color science ▶ Sustainable packaging
- Establish sustainable energy and healthcare as new business pillars
- Promote Value Transformation in smart living, color science and sustainable packaging to make these businesses more sustainable

Business Portfolio Transformation: Five Priority Business Areas

<p>Sustainable energy</p> <ul style="list-style-type: none"> ● Specialty materials that contribute to the realization of the high-performance secondary batteries and fuel cells crucial to an electrified/hydrogen-powered society <p>e.g. Materials for secondary batteries and fuel cells Functional organic fillers</p> 	<p>Healthcare</p> <ul style="list-style-type: none"> ● High-performance nutritional supplements that support the health of people of all ages ● Healthcare-related products and services that deliver safety, peace of mind and comfort, contributing to a future in which people enjoy an improved QOL <p>e.g. High-performance nutritional products Natural skincare materials</p> 	
<p>Smart living</p> <ul style="list-style-type: none"> ● High-performance materials and solutions that contribute to the realization of a sustainable society that coexists with a healthy global environment ● Chemical solutions for modern lives that have evolved and improved thanks to digitalization <p>e.g. Materials for 5G/6G-enabled devices, resins for next-generation semiconductors, bonding solutions for heterogeneous materials</p> 	<p>Color science</p> <ul style="list-style-type: none"> ● Color that is sustainable and ecologically sound ● Products with outstanding decorative properties that facilitate the creation of comfortable spaces ● Functional materials that leverage dyeing technologies to deliver convenience, satisfaction, safety and peace of mind <p>e.g. Functional pigments (for LiDAR signal coatings, and heat-blocking coatings,) biomass pigments, natural colorants for cosmetics</p> 	<p>Sustainable packaging</p> <ul style="list-style-type: none"> ● Materials that ensure tastier, more enjoyable and safer merchandise reaches consumers ● Materials that deliver both safety, /peace of mind and convenience, as well as help reduce food loss ● Product design that contributes to environmental soundness, i.e., is conducive to recycling and uses plant-derived and renewable raw materials <p>e.g. Materials with outstanding barrier properties, biomass packaging, recycling systems (chemical recycling, materials recycling)</p> 

Five Strategies to Transform DIC's Business Portfolio

<p>Reinforce management of human capital</p>	<ul style="list-style-type: none"> ● Build a strategic human resources portfolio that maximizes the value of human capital
<p>Make strategic investments</p>	<ul style="list-style-type: none"> ● Invest strategically, including in M&As, to transform the business portfolio ● Build a new business portfolio that takes ROIC into account
<p>Enhance the technology platform</p>	<ul style="list-style-type: none"> ● Shift to R&D that leverages computational science ● Establish new basic technologies
<p>Establish a more robust global management configuration</p>	<ul style="list-style-type: none"> ● Adopt a sophisticated global management model and accelerate global expansion in five priority business areas
<p>Promote IT and DX</p>	<ul style="list-style-type: none"> ● Use digital technologies to provide new added value and revamp the Group's business structure

2 Sustainability Strategies














- Work to expand sustainable products, that is, products that demonstrate unique competitive strengths and respond to ESH-related issues

Target: Increase sustainable products to 60% of net sales by fiscal year 2030 (fiscal year 2020: 40%)

- Promote efforts to reduce CO₂ emissions and help realize a carbon-neutral society

Target: Achieve carbon neutrality by 2050 and reduce annual CO₂ emissions (Scope 1 and 2) by 50% from the fiscal year 2013 level by fiscal year 2030

- Advance efforts to respond to a circular economy, thereby contributing to a sustainable society

The society to which DIC seeks to contribute	Value provided by DIC products	Sustainable product examples	
 Green <ul style="list-style-type: none"> ● Achieve carbon neutrality ● Realize a circular economy 	<ul style="list-style-type: none"> ● Contain renewable materials ● Lower energy use, improve insulation and reduce weight ● Address the issue of marine plastics ● Can be recycled ● Reduce waste ● Prolong product life 	 Sustainable energy  Sustainable packaging  Color science	<ul style="list-style-type: none"> • Materials for next-generation secondary batteries and fuel cells • Functional inorganic fillers • Materials with outstanding barrier properties • Biomass packaging • Biomass pigments • Functional pigments for heat-blocking coatings 
 Digital <ul style="list-style-type: none"> ● Propel the evolution of information and communications ● Drive the evolution of CASE vehicles and MaaS ● Promote the development of AI and IoT technologies 	<ul style="list-style-type: none"> ● Contribute to high-capacity, high-speed communications ● Support the IoT 	 Smart living  Color science	<ul style="list-style-type: none"> • Materials for 5G/6G-enabled devices • Resins for next-generation semiconductors • Functional pigments for LiDAR signal coatings 
 QOL <ul style="list-style-type: none"> ● Deliver safety, peace of mind and convenience ● Prolong healthy life expectancy ● Embrace diverse values 	<ul style="list-style-type: none"> ● Contribute to health and comfort ● Help reduce food loss ● Reduce emissions of volatile organic compounds (VOCs) and enhance safety 	 Healthcare  Color science	<ul style="list-style-type: none"> • High-performance nutritional products • Natural skincare materials • Natural colorants for cosmetics 

Consolidated Results Targets (Fiscal Years 2022–2025)

(Billions of yen)	2021 Actual	2022 Targets	2025 Targets	Change from 2021
Net sales	855.4	950	1,100	+29%
Operating income	42.9	54	80	+37.1
Operating margin	5.0%	5.7%	7.3%	+2.3 pt
Net income	4.4	28	45	+40.6
EBITDA ^{*1}	69.0	88	137	+68
ROIC ^{*2}	4.8%	5.2%	6.0%	+1.2 pt
Net D/E ratio ^{*3} (Net D/C ratio) ^{*4}	1.0 (47.6%)	1.0 (48.7%)	Less than 1 time (Less than 50%)	—

*1 EBITDA = Net income + Total income taxes + (Interest expenses – Interest income) + Depreciation and amortization

*2 ROIC = Net operating income after tax / (Net interest-bearing debt + Net assets)

*3 Net D/E ratio = Net interest-bearing debt / Net worth

*4 Net D/C ratio = Net interest-bearing debt / (Net interest-bearing debt + Net assets)

12-Year Summary

Key Financial Data

Period	113	114	115	116	117	118	119	120	121	122	123	124
Fiscal year	2010	2011	2012	2013 ³	2014	2015	2016	2017	2018	2019	2020	2021
Income												
Net sales (Billions of yen)	779.0	734.3	703.8	784.0	830.1	820.0	751.4	789.4	805.5	768.6	701.2	855.4
Operating income (Billions of yen)	37.2	35.0	38.5	44.1	41.1	51.1	54.2	56.5	48.4	41.3	39.7	42.9
Operating margin (%)	4.8	4.8	5.5	5.6	4.9	6.2	7.2	7.2	6.0	5.4	5.7	5.0
R&D and technology-related expenses ¹ (Billions of yen)	26.3	23.7	23.0	19.8	25.3	26.8	26.2	27.4	28.4	27.9	26.2	28.0
Of which, R&D costs (Billions of yen)	11.0	9.1	8.8	8.8	10.9	12.2	11.2	12.4	12.9	12.5	12.0	13.5
Ordinary income (Billions of yen)	31.7	30.8	35.1	40.9	39.9	49.0	55.8	57.0	48.7	41.3	36.5	43.8
Net income attributable to owners of the parent (Billions of yen)	15.8	18.2	19.1	28.8	25.2	37.4	34.8	38.6	32.0	23.5	13.2	4.4
EBITDA (Billions of yen)	63.7	61.5	65.2	69.1	77.0	94.0	82.6	86.1	81.4	67.4	55.6	69.0
EBITDA margin (%)	8.2	8.4	9.3	9.8	9.3	11.5	11.0	10.9	10.1	8.8	7.9	8.1
Financial Position												
Total assets (Billions of yen)	703.8	675.1	693.0	761.7	803.7	778.9	764.8	831.8	801.3	803.1	818.0	1,071.5
Net assets (Billions of yen)	130.4	124.5	160.7	218.9	276.7	289.9	307.0	344.0	327.3	343.5	351.4	381.0
Equity ratio (%)	15.3	15.1	19.8	25.6	31.1	33.7	36.4	37.9	37.3	38.9	38.9	32.3
Net interest-bearing debt (Billions of yen)	314.7	298.8	293.0	283.6	257.4	244.1	224.0	247.8	244.7	235.8	221.9	346.0
Net D/E ratio (Times)	2.9	2.9	2.1	1.5	1.0	0.9	0.8	0.8	0.8	0.8	0.7	1.0
Net D/C ratio (%)	70.7	70.6	64.6	56.4	48.2	45.7	42.2	41.9	42.8	40.7	38.7	47.6
Cash Flows												
Net cash provided by operating activities (Billions of yen)	30.9	31.2	41.4	33.9	46.4	29.1	62.5	54.2	51.0	50.6	54.5	44.8
Net cash used in investing activities (Billions of yen)	(12.3)	(17.6)	(23.7)	(9.8)	(27.4)	(10.0)	(32.2)	(58.9)	(38.4)	(24.9)	(33.0)	(147.6)
Free cash flow (Billions of yen)	18.6	13.7	17.7	24.0	19.0	19.1	30.3	(4.7)	12.6	25.8	21.4	(102.8)
Net cash provided by (used in) financing activities (Billions of yen)	(26.3)	(7.1)	(26.6)	(32.8)	(26.1)	(24.8)	(26.9)	11.4	(11.8)	(26.8)	6.3	99.5
Cash and cash equivalents (Billions of yen)	22.9	29.6	22.5	15.0	16.4	15.1	16.7	17.7	18.6	16.7	41.4	37.6
Per Share Information²												
Earnings per share (Yen)	175.96	197.90	207.98	292.26	267.81	389.40	366.72	407.56	338.40	248.29	139.81	46.12
Price earnings ratio (PER) (Times)	11.0	8.4	9.5	10.9	10.9	8.5	9.7	10.5	10.0	12.2	18.6	62.8
Dividends per share (Yen)	40	40	60	60	60	80	100	120	125	100	100	100
Payout ratio (%)	22.7	20.2	28.8	20.5	22.4	20.5	27.3	29.4	36.9	40.3	71.5	216.8
Other Indicators												
ROIC (%)	5.8	5.8	6.3	6.1	5.7	6.9	7.3	7.2	6.0	5.2	5.0	4.8
Return on equity (ROE) (%)	15.1	17.3	16.0	16.1	11.3	14.6	12.9	13.0	10.4	7.7	4.2	1.3
Capital expenditure (Billions of yen)	20.8	27.0	26.6	27.1	33.6	32.1	31.3	33.6	32.1	35.0	34.0	38.6
Depreciation and amortization (Billions of yen)	33.0	29.7	27.4	25.9	33.8	32.9	32.4	31.5	32.8	33.1	32.6	37.4
Overseas sales ratio (%)	57.3	58.2	56.7	66.6	63.4	65.1	62.4	63.4	63.6	63.5	64.8	67.3
Average exchange rate (¥/US\$)	87.69	79.77	79.93	97.06	106.32	120.85	109.96	112.33	110.46	109.11	106.37	109.75
Average exchange rate (¥/EUR)	116.63	110.88	103.11	129.25	141.41	134.14	122.06	127.03	130.46	122.13	121.43	129.73
Number of employees	21,572	20,455	20,273	20,034	20,411	20,264	20,481	20,628	20,620	20,513	20,242	22,474

¹ Technology-related expenses are for DIC and DIC Graphics Corporation.

² Per share information has been adjusted to reflect the impact of the consolidation of shares.

³ Effective from fiscal year 2013, DIC and its domestic consolidated subsidiaries changed their fiscal year-end from March 31 to December 31. As a consequence, reported results reflect the fact that for these companies fiscal year 2013 was a transitional, irregular nine-month period. For the purpose of comparison, fiscal year 2013 figures here have been adjusted to represent the 12 months from January 1–December 31, 2013.

A Message from the CFO



With the aim of achieving the goals of DIC Vision 2030, we have adopted ROIC as a metric and are working to realize business portfolio transformation.

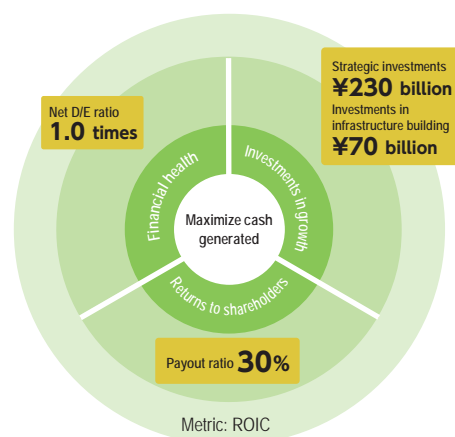
Shuji Furuta

Head of Finance and Accounting Unit, CFO

Basic Approach

With the aim of ensuring we evolve into the organization envisioned in our long-term management plan, DIC Vision 2030, formulated in fiscal year 2022, we have adopted ROIC, which reflects investment efficiency and earning power, as a metric and are promoting the transformation of our business portfolio. Our approach to financial management centers on balancing three priorities: maintaining sound financial health, investing in growth and ensuring returns to shareholders that are commensurate with income growth. We will also actively place sustainability at the center of financing efforts.

In addition to ROIC, under DIC Vision 2030 we will emphasize the net debt-to-equity (D/E) ratio*1 to gauge financial health, the payout ratio to evaluate returns to shareholders, and earnings before interest, taxes, depreciation and amortization (EBITDA)*2 to judge ability to generate cash, as indicators of financial performance and efforts to maximize shareholder value.

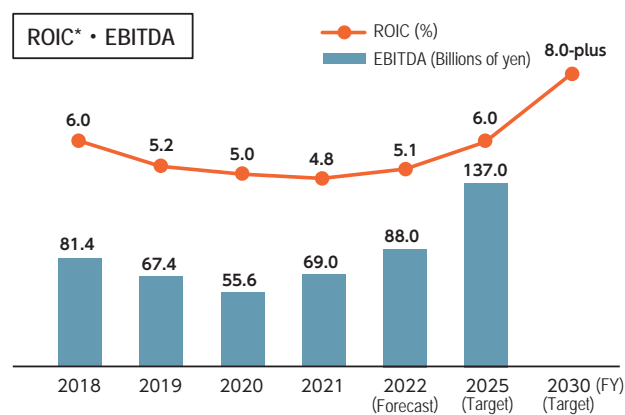
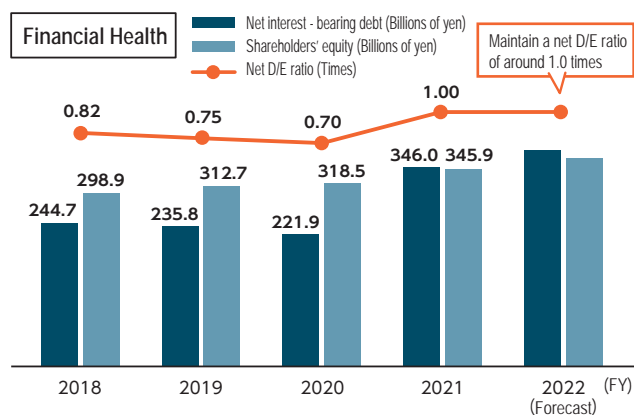


Emphasis on Boosting ROIC and Maintaining Sound Financial Health

We have set a long-term goal of boosting ROIC to 8.0%-plus in fiscal year 2030. To advance the transformation of our business portfolio and further bolster capital efficiency, we are making the most of cash generated in businesses with stable earnings bases through reinvestment in next-generation growth businesses and have established criteria for withdrawing from businesses with low growth potential and profitability.

We employ EBITDA and the cash conversion cycle (CCC) as metrics for cash provided by operating activities. In addition to using EBITDA to measure our ability to generate cash, we monitor the debt-to-EBITDA ratio to assess financial soundness from the perspective of cash flow. We also manage CCC, used to assess working capital, meticulously by, among others, setting regional targets.

Our goal for financial soundness is to maintain our net D/E ratio at around 1.0 times, underscoring our determination to uphold sound financial health while also pursuing an active investment strategy. We will also continue creating safety nets against sudden sharp fluctuations in the operating environment, including by procuring funds through subordinated term loans, a type of hybrid financing recognized by credit rating agencies as having equity credit attributes, establishing a global commitment line and keeping the percentage of total borrowings accounted for by long-term debt at 80%.



* ROIC: Operating income x (1 - effective tax rate) / (Net interest-bearing debt + Net assets)

Investments to Accelerate Growth

To achieve the targets of DIC Vision 2030, we will allocate a total of ¥300 billion to investments—comprising ¥230 billion for strategic investments and ¥70 billion for investments in infrastructure building—over the four years from fiscal year 2022 through fiscal year 2025. Strategic investments will focus on advancing Value Transformation in three of the five priority business areas set forth in the plan (smart living, color science and sustainable packaging) to make these businesses more profitable, and New Pillar Creation in the remaining two (sustainable energy and healthcare) to establish these as new business pillars. Investments in infrastructure building will emphasize contributing to sustainability, including through the reduction of CO₂ emissions, enhancing our technology platform and promoting IT and digital transformation (DX).

Principal Strategic Investments



Promoting Sustainable Finance

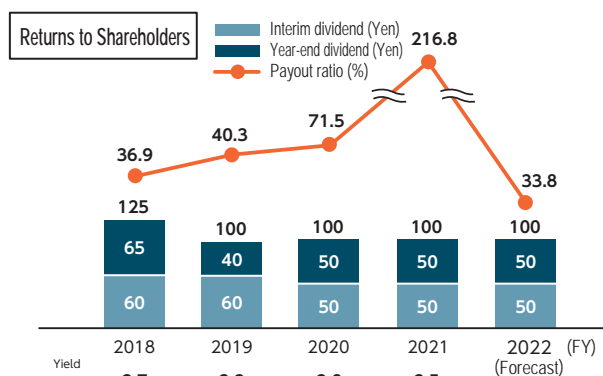
We continue to accelerate efforts to secure sustainable finance with the aim of promoting the sustainability strategies of DIC Vision 2030, as a core category of strategies set forth in the plan. The term “sustainable finance” describes the practice of incorporating ESG criteria—including environmental issues such as climate change and social considerations such as human rights and poverty—into financial services to help bring about sustainable outcomes. We are committed to entering into sustainable finance agreements to advance our sustainability strategies, as well as to contribute to the achievement of the SDGs.

Major Achievements in Sustainable Finance

Timing	Description
September 2019	Becomes first chemicals industry company to sign Mizuho Eco Finance contract with Mizuho Bank, Ltd.
September 2020	Concludes Positive Impact Finance (with unspecified use of funds) loan agreement with Sumitomo Mitsui Trust Bank, Limited
March 2022	Concludes Positive Impact Finance loan agreement with Mizuho Bank, Ltd.
April 2022	Enters into green loan agreement with MUFJ Bank, Ltd.

Stable Returns to Shareholders

With the aim of continuing to ensure stable returns to shareholders, DIC Vision 2030 maintains our existing target for a consolidated dividend payout ratio of 30%, which will serve as a guideline for dividends over the medium term. In fiscal year 2021, we paid a full-term dividend of ¥100.00, comprising an interim dividend of ¥50.00 and a year-end dividend of ¥50.00. We also anticipate an annual dividend of ¥100.00 in fiscal year 2022.



*1 D/E ratio: Interest-bearing debt / Shareholders' equity

*2 EBITDA: Net income attributable to owners of the parent + Total income taxes + (Interest expenses – Interest income) + Depreciation and amortization

* Dividend yield: Annual dividends / Closing price per share at fiscal year-end

Packaging & Graphic

Packaging Materials that Bring Safety and Peace of Mind



Masamichi Sota
Managing Executive Officer
President, Packaging & Graphic Business Group



Main Products

[Printing Materials]

Gravure inks, flexo inks, offset inks, news inks, jet inks, metal decorative inks, printing plates, security inks

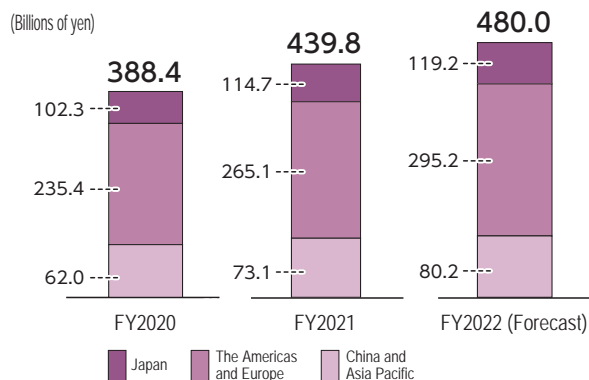
[Packaging Materials]

Polystyrene, packaging adhesives, multilayer films

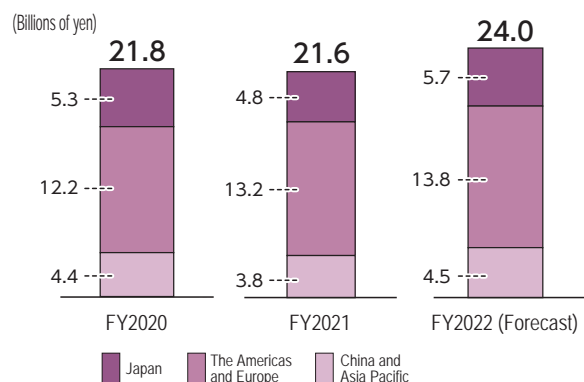
This segment includes not only printing inks but also adhesives, films and a broad range of other packaging materials and solutions, the markets for which continue to see robust growth in Asia and emerging economies.

Segment Operating Results

Net Sales



Operating Income



Note: Graph figures include interregional transactions within the segment. Accordingly, the aggregates of regional net sales and operating income figures for the segment differ from the figures presented above.

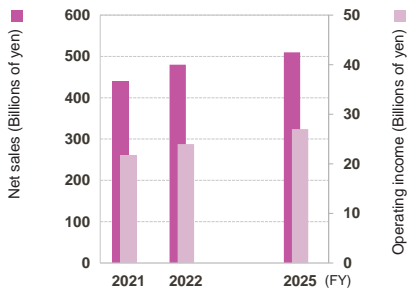
Business Strategies Under DIC Vision 2030

Basic Strategies

- Looking ahead to the realization of a circular economy, work to develop sustainable next-generation packaging materials with the aim of locking in new demand and expanding the packaging materials business
- Take the lead in the market for next-generation sustainable packaging by developing products and proposing solutions compatible with a focus on the "5Rs"^{**}
- Accelerate shift to high-performance, high-value-added products by, among others, expanding specialty products, promoting digitalization and responding to demand for smart packaging
- Build existing businesses into stable revenue sources by securing organic growth and streamlining operations in Asia

* Reuse, Reduce, Recycle, Redesign and Reduce CO₂

Net Sales and Operating Income Targets



Principal Measures

- Develop packaging materials and propose packaging solutions with a focus on the 5Rs**
 - Hasten the global deployment of fast-curing solvent-free adhesive *DUALAM*[®]
 - Add depth to sustainable technologies, including those essential to the push toward paper, mono-material and biomass packaging, as well as those for deinking
 - Build a closed-loop recycling system for polystyrene employing chemical recycling
- Propose packaging solutions that capitalize on Group capabilities and deliver safety, peace of mind and convenience**
 - Develop functional films, including resealable products and peelable offerings for container lid films
 - Capitalize on technologies for reducing foreign matter in packaging materials to improve safety and peace of mind
- Address needs arising from the spread of digitalization**
 - Expand applications for water-based jet inks for industrial printing
 - Respond to increased use of jet inks for printing on packaging (paper containers, corrugated cardboard, labels, etc.) and on textiles

In the Packaging & Graphic business, the DIC Group works to help realize safe, secure and convenient lifestyles by offering packaging materials suitable for a circular economy. With a focus on the 5Rs, the Group will continue striving to add depth to sustainable technologies, including those essential to the push toward paper, mono-material and biomass packaging, as well as those for deinkable, releasable and peelable materials, with the aim of providing market-leading next-generation sustainable products. The Group is also advancing efforts to build a closed-loop recycling system for polystyrene employing chemical recycling, leveraging jet ink technologies to promote digitalization and responding to demand for smart packaging. The Group will seek to build existing businesses into stable revenue sources by locking in demand and streamlining operations in Asia and other promising markets.

Key Development in Fiscal Year 2021

DIC Graphics Expands Its Lineup of SIAA-Certified Antibacterial and Antiviral Varnishes and Environment-Friendly Products Imparting outstanding antibacterial and antiviral properties to packaging for food products and daily necessities as well as a broad range of printed materials

In fiscal year 2021, DIC Group company DIC Graphics expanded its lineup of antibacterial and antiviral varnishes for use with gravure, flexo and offset printing inks that have earned Society of International Antimicrobial Articles (SIAA)^{*} certification and thus bear an SIAA mark.



The COVID-19 pandemic has increased needs related to the disinfection of living spaces, spurring the expanded use of antibacterial and antiviral products to prevent the spread of infection owing to the handling of packaging for food products and daily necessities, as well as printed materials such as catalogs. As part of its drive to expand its lineup of environment-friendly products, the DIC Group is also developing inks made with plant-derived biomass that contribute to effective resource use and do not rely on finite resources, thereby ensuring suitability for a circular economy.

Key announcements by DIC and DIC Graphics during the period under review included the following.

March 2021: Commercialization of the *DICDRY*BM series of biomass-based adhesives for flexible packaging is accelerated

April 2021: Five biomass-based inks for offset printing earn Biomass Mark

May 2021: *GROSSA*BM biomass-based ink for reverse printing and antiviral varnish is launched

August 2021: Biomass-based *FINART*BM gravure inks obtain OK Compost INDUSTRIAL and OK Compost HOME certification

About DIC Graphics' Antibacterial and Antiviral Varnishes

The effectiveness of these varnishes in inhibiting the proliferation of specified bacteria on the surfaces of antibacterial products has been confirmed in tests compliant with JIS Z 2801, the Japanese Industrial Standards' standard for antibacterial activity and efficacy against specific bacteria on plastic, metals, ceramics and other surfaces, while their ability to reduce specified viruses on surfaces has been confirmed in tests compliant with ISO 21702, the International Organization for Standardization's standard for antiviral activity on plastics and other nonporous surfaces. Although antibacterial and antiviral effectiveness has been confirmed, actual performance may differ depending on application, printing environment, processing conditions, substrate or storage conditions.

* The SIAA is an organization of antibacterial agent and product manufacturers and testing bodies, the goal of which is to popularize products that have been safely and appropriately treated. Taking into account the views of not only industry but also consumer representatives, experts and government authorities, the SIAA creates criteria for the quality and safety of antibacterial products and administers the SIAA Mark labelling program for products it certifies as complying with these criteria.

Color & Display

Color and Display Materials that Make Life Colorful



SDGs Goals 3 and 13



Yoshinari Akiyama
Managing Executive Officer
President, Color & Display Business Group



Main Products

[Color Materials]

Pigments for printing inks, pigments for coatings and plastics, pigments for specialty applications, pigments for color filters, pigments for cosmetics, health foods

[Display Materials]

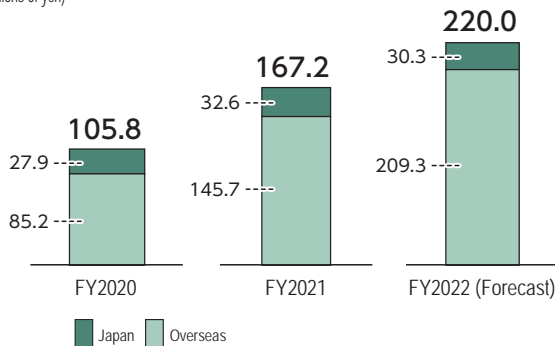
Thin-film transistor liquid crystal (TFT LC) materials, supertwisted nematic liquid crystal (STN LC) materials

Products in this segment include a wide variety of materials indispensable to digital devices, including LC materials and organic pigments for color filters, as well as pigments for cosmetics, natural colorants and other materials that are safe and gentle for use by people.

Segment Operating Results

Net Sales

(Billions of yen)



Operating Income (Loss)

(Billions of yen)



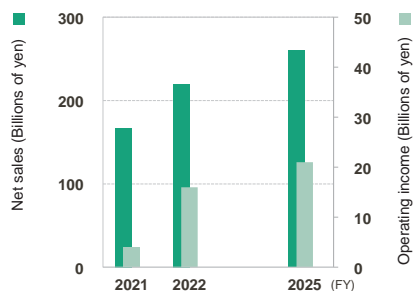
Note: Graph figures include interregional transactions within the segment. Accordingly, the aggregates of regional net sales and operating income figures for the segment differ from the figures presented above.

Business Strategies Under DIC Vision 2030

Basic Strategies

- Establish an unrivaled competitive advantage by swiftly realizing synergies with the Colors & Effects business
- Shift focus to materials with outstanding decorative properties and functionality and increase the weighting of sustainable products that deliver both social value and economic value
- Redefine “Spirulina business” as “healthcare business”
- Redefine “LCs business” as “electronics business”

Net Sales and Operating Income Targets



Principal Measures

- ▶ **Expand selection of sustainable materials, functional materials and materials with outstanding decorative properties**
 - Focus on the expansion of effect pigments with outstanding decorative properties and sustainable color materials that are safe and environment friendly
 - Emphasize functional pigments, including those for LiDAR signal coatings, which are key to autonomous driving vehicles
 - Enter the markets for red and yellow pigments for displays
- ▶ **Enhance pigments for cosmetics business**
 - Expand effect pigments for cosmetics
 - Broaden portfolio of naturally derived products
- ▶ **Reinforce healthcare business by introducing new products**
 - Expand portfolio beyond Spirulina and *Linablue*® by adding new nutritional supplements, natural colorants and cosmetics materials
- ▶ **Create new next-generation businesses, which will join core TFT LCs**
 - Expand presence in the market for products for electronics applications by augmenting portfolio of materials for smart windows, and 5G/6G-enabled devices, among others

The Color & Display business saw the scope of its operations expand significantly in fiscal year 2021 with DIC’s acquisition of the Colors & Effects business from BASF, as a result of which the Company became one of the world’s leading pigments manufacturers, boasting diverse technologies ranging from organic synthesis to inorganic material design.

By integrating Colors & Effects’ technologies and intellectual property with its own, DIC will leverage the resulting unparalleled development capabilities to shift its focus to functional pigments, including pigments with outstanding decorative properties and pigments for automotive coatings that do not interfere with autonomous driving vehicles’ ability to detect LiDAR signals, and swiftly realize synergies to establish a presence unrivaled by any of its competitors.

The DIC Group will also broaden the emphasis of its Spirulina business to healthcare overall, encompassing naturally derived nutritional supplements, natural colorants and cosmetics materials. In the area of LC materials, the Group will expand its presence in the market for products for electronics applications by augmenting its portfolio of materials for smart windows, and 5G/6G-enabled devices, among others.

Key Development in Fiscal Year 2021

Sun Chemical Introduces the “What’s IN Asia” Trends Program

Providing insights into trends in the Asia–Pacific region’s cosmetics market

In fiscal year 2021, U.S. Group company Sun Chemical introduced “What’s IN Asia,” a program offering insights into trends in the Asia–Pacific region’s cosmetics market alongside sample formulations. This semi-annual online program will continue to inspire customers around the world by providing information straight from Asia on the latest colors, textures and market directions. Volume 1: Fall 2022, the first installment of this program highlighted *Guochao* (“national trend”)—a movement centered on modern consumer goods infused with Chinese cultural elements—in the People’s Republic of China (PRC), top-selling beauty products in Japan and the trend toward “simple and subtle” beauty in the Republic of Korea (ROK), providing multiple sample formulations for each. Particularly notable, and evocative of the needs of consumers wanting to try something novel in a post-pandemic return to using makeup, was an innovative lip mud that offers a thick texture with a unique velvety finish. This is achieved by leveraging Sun Chemical’s newly expanded pigments portfolio, drawing on both a conventional organic pigment and the pearlescent *Redflecks*™ *MultiDimensions Shifting Sapphire* G680D pigment from Colors & Effects to deliver a look that is both matte and sparkling thanks to the interference color travel effect created with the latter, which provides a flash of blue and a touch of sparkle to the deep red background color.



Redflecks™ *MultiDimensions Shifting Sapphire* G680D

Functional Products

Functional Products that Add Comfort



SDGs Goals 6, 12 and 13



Takashi Ikeda
Managing Executive Officer
President, Functional Products Business Group



Main Products

[Performance Materials]

Synthetic resins for inks and coatings, molded products, adhesives and textiles (polyester resins, epoxy resins, polyurethane, acrylic resins, plasticizers, phenolic resins), papermaking chemicals, alkylphenols, sulphur chemicals, fiber and textile colorants, metal carboxylates, surface modifiers for electronics materials

[Composite Materials]

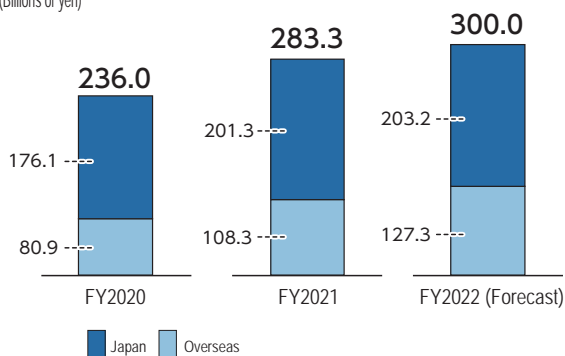
Polyphenylene sulfide (PPS) compounds, plastic colorants, interior housing products, industrial adhesive tapes, hollow-fiber membranes and modules, high-performance optical materials, plastic pallets, containers, decorative boards

This segment provides coating and composite materials with diverse functions that address environmental issues and are used widely in state-of-the-art electronics products.

Segment Operating Results

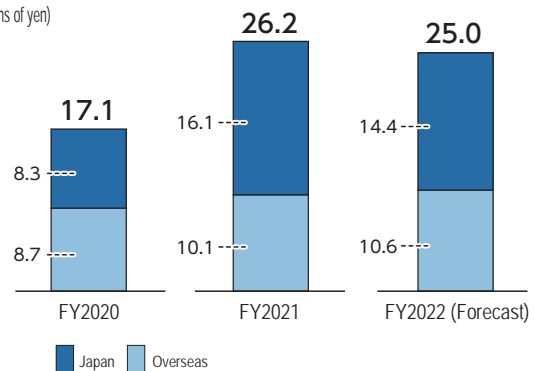
Net Sales

(Billions of yen)



Operating Income

(Billions of yen)



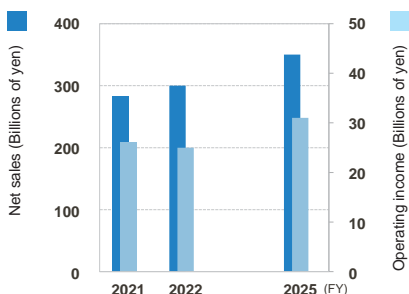
Note: Graph figures include interregional transactions within the segment. Accordingly, the aggregates of regional net sales and operating income figures for the segment differ from the figures presented above.

Business Strategies Under DIC Vision 2030

Basic Strategies

- Ensure the timely provision of functional materials that support digital innovation
- Contribute to a carbon-neutral society by promoting a shift to biomaterials
- Cultivate demand by directly communicating the appeal of materials, devices and services to consumers and society
- Supply polymers that help reduce environmental impact and impart functionality widely across Asia

Net Sales and Operating Income Targets



Principal Measures

- ▶ **Propose high-performance products for the semiconductor fabrication and mobility fields**
 - Extend functional materials portfolio with forward-looking offerings for an increasingly digital society, including low-dielectric resins, organic-inorganic hybrid resins and resins for optical materials
 - Augment lineup of industrial adhesive tapes and PPS compounds, and offer bonding and disassembly solutions, for CASE vehicles
- ▶ **Develop sustainable products**
 - Launch and expand sales of new environment-friendly waterborne resins
 - Develop and offer bio-based polymers
- ▶ **Increase selection of products that contribute to an improved QOL**
 - Augment portfolio of molding materials for medical applications
- ▶ **Expand operations in promising geographic areas**
 - Concentrate efforts to expand coating resins business in the PRC and the Asia-Pacific region on M&As

The Functional Products business will strive to offer forward-looking low-dielectric resins and other functional materials essential for an increasingly digital society, as well as promote a shift to biomaterials with the aim of contributing to the realization of a carbon-neutral (green) society, enabling it to not only provide materials but also cultivate demand by directly communicating the appeal of materials, devices and services to consumers and society.

In the PRC and the Asia-Pacific region, both of which continue to see strong market growth, DIC will promote efforts to expand its operations, particularly in the area of coating resins, including by securing new bases through M&As. In molding materials, the Company will seek to increase its selection of high-performance products for medical and other applications that will help realize a society with an improved QOL, as well as to leverage its diverse compounding, dispersion, mixing and other technologies to provide solutions for a post-pandemic new normal.

Key Development in Fiscal Year 2021

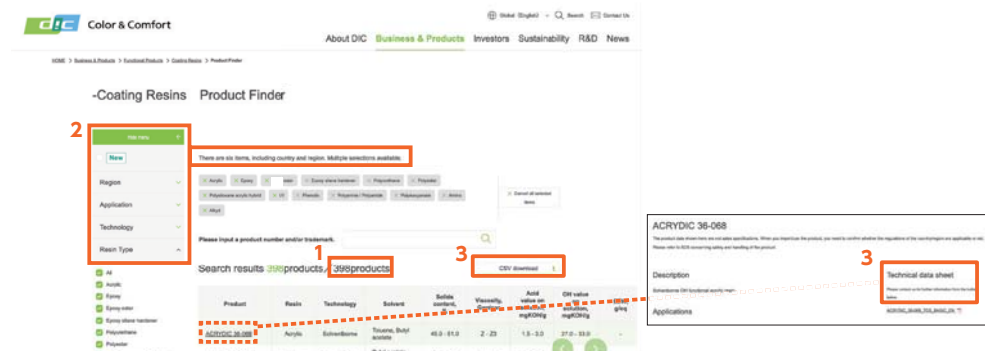
DIC Launches Global Common Coating Resins Product Finder

Allowing the timely provision of information and enhancing search convenience in Japanese, English and Chinese

In July 2021, DIC launched a new common coating resins product finder, which is available in Japanese, English and Chinese, on its global website. The new product finder makes it easy for users to identify the right product for their needs from among DIC's lineup of coating resins and to confirm recommended applications, key features and other basic product information.

Owing to the accelerated digitalization of businesses, web-based research and communications have become more prevalent. The coating resins market is no exception, with purchasing managers and technology developers increasingly using corporate websites when searching for products that satisfy performance requirements. Evolving market trends are also driving the diversification of customer needs. In response to these and other changes in its operating environment, DIC has built a global common coating resins product finder that facilitates the provision of relevant information in a timely and easy-to-understand manner. The three principal attributes of the new product finder are as follows:

- More than 300 products manufactured at sites around the world are included;
- Searches can be narrowed down to suit customer needs using six criteria, including region/country of use, application, resin type and features; and
- Technical materials—including technical data sheets—and search results can be downloaded.



Going forward, DIC will add new products developed and manufactured at DIC Group sites around the world, while at the same time working to further enhance product and technical information on its core coating resins. Through its global website, the Company will also continue to propose solutions that help address social imperatives and challenges faced by its customers.

New Business Development

New Businesses Created from the Perspective of ESH-Related Issues and Social Changes



Kiyofumi Takano
 Managing Executive Officer
 General Manager, New Business Development
 Headquarters

The New Business Development Headquarters, established in fiscal year 2019, has identified four new priority business areas where ESH-related issues and social changes intersect with the DIC Group's competencies. The Group is making active use of external resources to secure access to new technologies with the aim of creating new businesses with the potential to become mainstays.

Key achievements to date include the launch of *Hatte Totte*[®] flexible wireless sensors in electronics (for more information, please see page 155), and *CeramNex*[™], a flake alumina filler that imparts heat-dissipating properties to electronic components and is expected to contribute to the proliferation of CASE-vehicles and 5G-enabled devices, as well as thermoplastic composites for 3D printers with antiviral and antibacterial functions in the automotive area.

In next-generation packaging, DIC commercialized *PASLIM*[®], an adhesive with oxygen-barrier properties that facilitates the manufacture of thinner and lighter laminated films for food packaging by reducing the number of film layers. (For more information, please see page 50.)

In the area of healthcare, DIC continued conducting joint R&D with biotech start-ups. Of note, the Company is working with Green Earth Institute Co., Ltd., to develop a naturally derived aspartic acid using an innovative fermentation technology that absorbs CO₂, and a biodegradable aspartic acid-based waterborne superabsorbent polymer. In collaboration with Checkerspot, Inc., DIC is creating new ink binders, packaging adhesives and other products made with Checkerspot's novel biomass (algae)-based polyols.

Business Strategies Under DIC Vision 2030

Basic Strategies

- Create businesses that reflect the dynamics of socioeconomic systems, including those for distributed energy and packaging materials recycling
- Accelerate the creation of new businesses by actively using CVC and M&As to secure new technologies

Net Sales and Operating Income Targets for Fiscal Year 2025



Principal Measures

- ▶ **Electronics**
 - Expand sales of silver seed film developed to reduce transmission loss in high-band communications
 - Bolster sales of flexible wireless sensors (*Hatte Totte*[®])
- ▶ **Automotive**
 - Commercialize materials for next-generation secondary batteries and fuel cells that support the move to clean energy-powered automobiles
 - Develop new inorganic fillers and expand sales of existing offerings for use in automotive electronics and carbon fiber-reinforced plastic (CFRP) materials that help reduce vehicle weight
- ▶ **Next-generation packaging**
 - Realize the practical implementation of materials recycling for flexible packaging films and commercialize recycled plastics
 - Develop and launch high-performance barrier films
- ▶ **Healthcare**
 - Develop and boost sales of nutritional supplements (docosahexaenoic acid (DHA), next-generation omega-3 fatty acids)
 - Expand portfolio of biomaterials, including natural colorants and skincare materials

DIC Vision 2030 outlines DIC's intention to leverage new basic technologies, namely, inorganic materials design and biomaterials design, to support its efforts in its four new priority business areas and create businesses that reflect the dynamics of socioeconomic systems, including those for distributed energy and packaging materials recycling.

DIC is also working to secure new technologies and build production facilities necessary to commercialize materials for next-generation secondary batteries and fuel cells that support the move to clean energy-powered automobiles.

Other principal measures include realizing the practical implementation of materials recycling for flexible packaging films, leveraging algae cultivation technologies to expand the DIC Group's portfolio of biomass-based healthcare products, and expanding sales of silver seed film developed to reduce transmission loss in high-band communications. (For more information, please see page 153.)

Sun Chemical's Activities



Sun Chemical grows while navigating the pandemic

Myron Petruch
President & CEO, Sun Chemical Corporation

Despite the challenges of operating in the ever-changing world of pandemic-induced health, safety, product supply and distribution issues, Sun Chemical demonstrated that our commitment to customers, employees and business growth are at the forefront of our strategy. Our focus remains on contributing to sustainable prosperity for society and creating attractive value propositions for our customers.

In 2021, we continued to expand our product portfolio to include sustainable solutions that improve the quality of life. Our focus on Value Transformation and New Pillar Creation is evident in many of our 2021 success stories!

■ New Technologies Strengthened our Portfolio and Enhanced Our Business

In 2021, DIC acquired the Colors & Effects business of BASF, adding a world-class pigments portfolio which is now fully integrated with Sun Chemical's previously existing Performance Pigments group to form our Color Materials Division. This business represents the market leader for pigments and supports DIC's strategic priority of color science.

Our teams have worked collaboratively to enhance the value delivered to our customers through a combined portfolio of products and services. We are actively capturing operational synergies while developing brilliant new color technologies. Like many businesses, Color Materials has been dramatically impacted by the pandemic and associated downturns in the automotive and cosmetics markets, as well as supply chain disruptions. Despite these challenges, we leverage our strong market relationships and unparalleled agility to meet market demands and find innovative and socially responsible solutions for our customers.



■ The impact of Navigating Supply Chain Volatility with Focus on Our Customers and Employees

COVID-19 is felt in many parts of society and our business, but perhaps nowhere more strongly than in our supply chains. We face numerous challenges obtaining critical raw materials, as well as rapidly escalating freight and distribution costs as we look to supply our customers. While we have issued price increases in an effort to keep pace with these rising costs, our relentless focus is on our customers' needs, often rapidly developing alternative technical solutions, working with our manufacturing sites to adjust production schedules, and ensuring strong communications throughout the value chain to maintain transparency and reliability.

Our employees have steadfastly and resiliently maintained their singular focus on our customers throughout these compounded challenges, all while dealing with the personal and community impacts of the pandemic. We monitor our safety regularly, comply with environmental, health and safety regulations, and respond to the dynamic markets and communities in which we live, work and serve, while continuing to nimbly support one another.



■ Focus on Safety and Quality at Our Manufacturing Sites

The heartbeat of any manufacturing company is its production lines. All throughout the pandemic, over 7,000 Sun Chemical employees kept our manufacturing plants going throughout the world. Although they have dealt with frequently changing local regulations, supply disruptions and the personal impacts of the pandemic, their focus never wavered and their support for one another and our business inspired us all. We continue to make social and sustainable contributions to our local communities and create a family atmosphere where our team members and their families feel included and warmly supported.



DIC Asia Pacific's Activities



Remaining nimble amid tough market conditions

Paul Koek
Managing Director, DIC Asia Pacific Pte Ltd

Since 2020, DIC Asia Pacific has focused on safety, recovery and stable growth, while facing a growing supply chain crisis, rising raw material prices, ongoing COVID-19 transmissions, and in more recent days the Ukraine crisis which has led to higher energy costs. Despite these disruptions, DIC AP has remained nimble to market changes and focused on delivering quality products and services.

Amid ongoing COVID-19 transmissions, global supply chain woes and raw material suppliers force majeure, DIC Asia Pacific has managed key raw materials and logistics to meet the daily requirements of our customers, while continuing to implement measures to keep members safe and optimize operations.

■ Responding to The DIC Way

Following our redefined vision statement, we are committed to improving the human condition by safely delivering color and comfort for sustainable prosperity. Learning from our past, DIC Asia Pacific is now well-equipped with robust supply chain management, sound financial health, and well-rounded safety protocols to ensure resilience in the face of the uncertain times ahead.

DIC Asia Pacific is focused on becoming the DIC Group's driving force in the Asia-Pacific region. Using digital tools, Team DIC Asia is poised to drive success and engagement with all stakeholders, and ready to take on challenges of 2022 to secure a foundation for the success of DIC Vision 2030.

■ Rising Demand for Sustainable Food Packaging

The Asia-Pacific region has benefitted from strong demand for safer and more sustainable food packaging as consumption behaviors changed. By year-end, we delivered overall volumes above pre-COVID-19 levels, with packaging volumes exceeding the prior year. The region will work toward delivering our commitments to our valued customers.

■ Award-Winning Dedication and Loyalty in Vietnam

In January 2022, DIC (Vietnam) Co., Ltd., was awarded a certificate of appreciation by the Group in recognition for their strong dedication and loyalty to the Company and our customers. During the country's nationwide lockdown between July 2021 and October 2021, 57 members resided in the plant to ensure business and operations continuity, living the vision and values of The DIC Way.

■ Recovering from the Aftermath of the Malaysian Floods

Last year, a massive flood struck Malaysia. Our plant was flooded and personal property damaged. Without losing precious time, the local and regional teams stepped up to strategize the plant's recovery, as well as providing support to all affected members.

■ Securing Member Safety

Our top priority has always been the safety of all employees, whether they are working on-site at the factories or working from home. The high vaccination rates across the regional countries instilled much-needed confidence in our daily operations, as we welcomed most employees back to the plants.

DIC Australia Pty Ltd. and DIC New Zealand Ltd. also achieved its first ISO 45001 safety accreditation. All employees of the two companies are part of this success and this is a great step forward in demonstrating a positive change in DIC's safety culture, that has always been at the heart of our business.



Our heroes in DIC Vietnam



DIC Australia and DIC New Zealand employees holding up the newly received ISO 45001 accreditation certificate.

DIC (China)'s Activities



Sun Tzu said, "He will win whose army is animated by the same spirit throughout all its ranks." DIC (China) seeks to embody this tenet by building an organization in which management and employees are united and focused on the same objectives.

Mao Jianwei
General Manager, DIC (China) Co., Ltd.

In fiscal year 2022, DIC announced the DIC Vision 2030 long-term management plan, introducing a redefined vision statement and a new basic policy, setting forth priority business areas and outlining key strategies. These include making strategic investments, enhancing our technology platform, reinforcing management of human capital, promoting IT and DX and clarifying sustainability strategies. Additionally, with people the world over more and more aware that the evolution of humanity depends on realizing a society that is increasingly green, digital and QOL-oriented, DIC also deployed the DIC Sustainability Index with the aim of playing an active role in this process. Through these and other efforts, the entire DIC Group is striving to deliver greater social benefits that enhance value for all stakeholders, including shareholders, and to build corporate value.

The DIC Group operates in more than 60 countries and territories around the world with different cultures, customs, political systems and economic development levels. To ensure the success of DIC Vision 2030, we must ensure employees have an adequate understanding of our management philosophy, management vision and the plan's basic policy. A well-known quote from Sun Tzu's *The Art of War* is "He will win whose army is animated by the same spirit throughout all its ranks." In other words, an organization in which people of all ranks are of one mind will be victorious. We are confident that aligning the philosophies and goals of management and employees of DIC (China) and the companies of the DIC Group in the PRC, thereby building an organization in which everyone is focused on the same objectives, will enable us to fully demonstrate the Group's comprehensive capabilities.

■ Prioritizing the Ability to Develop Products that Respond to Local Needs

DIC (China) oversees approximately 30 DIC Group companies in the PRC of various sizes operating in diverse environments. Thanks to rapid economic development since the country's economic reform and opening-up, the inland area, in particular, has morphed from a manufacturing center often called "the world's factory" into a consumer spending-fueled powerhouse dubbed "the world's market," a change that has created huge business opportunities. To capitalize on these opportunities, the DIC Group is working to establish integrated global management while at the same time further strengthening its product development capabilities, taking into account regional and market-specific differences in product life cycle. This is positioning us to respond swiftly to local needs and contribute to the growth and development of the overall Group.

■ Improving Labor Productivity through Automated and Intelligent Processes

Owing to robust economic growth and declining birthrates, attributable to the erstwhile one-child policy, labor shortages have become an issue in the production sector. This is encouraging manufacturers to improve labor productivity by actively introducing digital and intelligent technologies. In this environment, DIC (China) recognizes the need to bolster the skills of employees at DIC Group production sites as well as to improve business practices by promoting ongoing improvements to production processes, notably by introducing automated and intelligent solutions. We are confident that such efforts to enhance labor productivity and introduce state-of-the-art technologies will enable us to secure the quality and cost advantages needed to thrive in this intensely competitive market.

■ Bolstering Employee Potential and Maximizing the Value of Human Resources

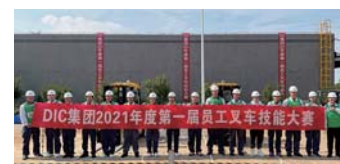
Achieving the goals of DIC Vision 2030 will not be easy. For this reason, it is crucial to bolster the potential of each Group employee and maximize the value of human resources by modifying the DIC Group's product portfolio in response to changes in the operating environment, thereby taking on the challenge of driving innovation and entering new business areas.

In recent years, DIC (China) has placed an increased emphasis on integrating the management of Group companies in the PRC with that of the overall DIC Group and is stepping up efforts to work with employees by increasing management transparency and promoting the standardization and fairness of management practices. Specific measures have included promoting information sharing, employee education and training, and awareness of The DIC Way, as well as working to bolster recognition of the DIC brand. By thus ensuring that employees across the country have a common understanding of DIC's management philosophy and the DIC Group Code of Business Conduct, and share the Group's mission, we will build an organization that is truly "animated by the same spirit throughout all its ranks," with management and employees united and focused on the same objectives.

The announcement of DIC Vision 2030 provides an important opportunity for us to deepen our understanding of DIC's management philosophy and vision, lead Group companies in the PRC in line with concrete basic strategies and contribute to sustainable growth for the entire DIC Group.



Technical presentation at Qingdao DIC Finechemicals Co., Ltd.



National forklift contest winners



DIC Leadership Program participants from DIC (China) take part in a desert walk



20th anniversary celebration at DIC Synthetic Resins (Zhongshan) Co., Ltd.



Employees of DIC (Shanghai) Co., Ltd., on an excursion to Mount Sanqing

A Message from the General Manager of the Production Management Unit



We are working to help achieve the goals of DIC Vision 2030 in the production arena.

Naoyoshi Furuta

Managing Executive Officer
General Manager, Production Management Unit

Underpinning Everything: Safe Operations and Quality Assurance

The DIC Group manufactures a wide range of chemicals and related products in 63 countries and territories around the world and provides these products to customers through a global sales network. As its name indicates, the Production Management Unit, of which I am in charge, oversees the Group's core manufacturing activities. We place a priority on care for the environment, safety and health through Responsible Care initiatives and on ensuring compliance with the aim of supporting the operation of safe and secure production sites.

The Production Management Unit is also responsible for supporting production from the perspective of quality control and quality assurance. We view our mission as being to ensure that the quality of the products we provide meets the requirements of our customers and the market. Despite this, in fiscal year 2021 serious quality-related issues were discovered. These included improprieties in type testing of a foam fire extinguishing agent that resulted in approval of the product being rescinded and the suspension of Underwriters Laboratories' certification of LC polymers, both of which were disclosed publicly. We sincerely regret these incidents and, not satisfied with simply identifying causes and implementing measures to prevent recurrence, we continue working to transform awareness and improve product quality.

The Launch of DIC Vision 2030

The key to attaining the goals of DIC Vision 2030 is ensuring that everyone involved in production grasps the plan's content and direction and that each individual is committed to pressing forward steadily, exerting originality and ingenuity every day, with efforts that will bring the plan's goals to fruition. To this end, it is important to provide clear, concrete explanations of key policies and the plan's main points and promote the implementation of critical measures. We have already inaugurated a number of measures. For example, making bold investments with the goal of, among others, realizing mass production of new products developed in the five priority business areas outlined in DIC Vision 2030, responding to increasingly sophisticated quality requirements, and strengthening human capital by passing down technologies and providing support for digitalization. To create work environments conducive to job satisfaction for all employees, we are also promoting "ho-ren-so" and "o-hi-ta-shi"—mnemonics used widely in management in Japan, with "ho-ren-so" standing for "*hokoku*" ("report"), "*renraku*" ("inform") and "*sodan*" ("consult"), and "o-hi-ta-shi" for "*okorana*" ("do not get angry"), "*hitei shina*" ("do not negate"), "*tasukeru*" ("help") and "*shiji*" ("instruct")—as well as one-on-one meetings. I want employees to feel that the production team is helping drive DIC's efforts to address challenges and at the same time to feel happy and proud of being part of that team and of contribution to the implementation of DIC Vision 2030's strategies.

* "Ho-ren-so" and "o-hi-ta-shi" are also a homonym of *horensou* (spinach) and "*ohitashi*," a side dish of blanched vegetables steeped in a savory broth.



Site evaluation at the Kashima Plant in fiscal year 2022

Climate Change Cannot Wait: Achieving Carbon Neutrality

The Production Management Unit also has a key role to play in meeting DIC's revised target for the reduction of CO₂ emissions, announced in fiscal year 2021, which calls for the Company to achieve carbon neutrality by fiscal year 2050 and reducing CO₂ emissions (Scope 1 and 2) 50% from the fiscal year 2013 level by fiscal year 2030.* Thanks to efforts to date, which have focused on energy-saving initiatives and environmental investments,

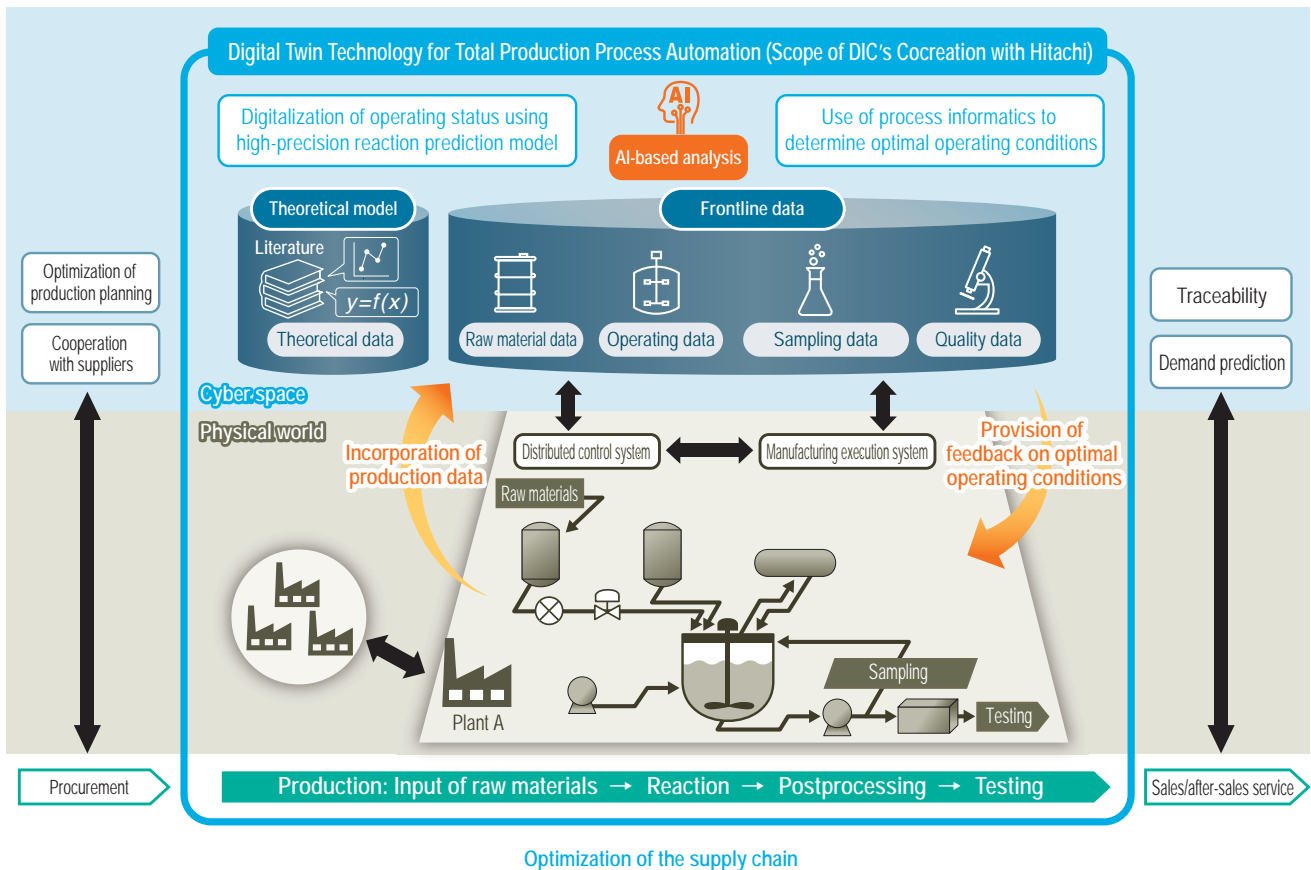
Groupwide CO₂ emissions in fiscal year 2021, at 546,304 tonnes, were down 24.4% from approximately 722,955 tonnes in fiscal year 2013. Going forward, growing the Group, including by expanding production volume, while at the same time lowering CO₂ emissions will require more ambitious measures. To this end, in addition to advancing our own environmental investments, we will further expand our use of green power in Japan and actively employ clean energy globally. Revamping production processes will also be crucial to the Group's ability to curb its CO₂ emissions. Together with introducing an internal carbon pricing system, we will formulate and implement concrete, region-specific action plans. Such initiatives will be funded from the ¥70 billion budgeted for investments in infrastructure building.

* For more information, please see "Strategies for Reducing CO₂ Emissions" on page 115.

Building Smart Factories and Applying Cutting-Edge Technologies

As stated in a press release published in Japanese in December 2021, we are currently collaborating with Hitachi, Ltd., to promote the practical application of digital twin technology to automate batch processing in plastics production. This involves using a high-precision reaction prediction model to digitalize operating status in cyber (virtual) space, together with process informatics* to determine optimal operating conditions and provide feedback to the physical (real) world. This will make it possible to, among others, shorten production times, stabilize quality, improve equipment operators' work efficiency and hasten the commercialization of new products, thereby improving productivity and in so doing helping reduce CO₂ emissions. In fiscal year 2022, we will conduct verification testing using a prototype reaction prediction model to determine optimal operating conditions. Ultimately, we aim to realize the practical application of digital technologies that facilitate automation of the entire production process.

* Process informatics applies statistical analysis and other informatics techniques to optimize conditions for production, among others.



A Message from the General Manager of the Technical Management Unit



We are bringing together diverse capabilities and marshaling the diversity of individuals to realize technologies that position us to go on the offense.

Kiyotaka Kawashima

Managing Executive Officer
General Manager, Technical Management Unit

Amid continued uncertainty and confusion, attributable to dramatic changes to living environments caused by COVID-19 and the threat of borderless wars, we are seeing values change dramatically. Against this backdrop, rather than a conventional three-year management plan, the DIC Group recently formulated DIC Vision 2030, a rolling long-term management plan. The role of our technical departments in this management plan is immense. To ensure the plan's success, we will work to realize technologies that position us to go on the offense, rather than those that are more defensive in nature, as well as to promote technological development that capitalizes on our global presence and maximize individual capabilities.

From Adding Depth to Existing Technologies to Pursuing New Technologies

The DIC Group's ability to add depth to existing basic technologies has led to a wide range of products that contribute to society. Transforming our business portfolio, a key focus of our new long-term management plan, will also require searching for completely new basic technologies, as well as technologies that emphasize sustainability or other new criteria. The Group has thus already begun to allocate significant management and other resources to development that involves not only modifying—i.e., adding depth to—existing technologies but also creating and adopting, that is, searching for, brand new technologies. At the same time, through the marketing efforts of our technical departments, we are also seeking to discover new applications and markets for both existing and new technologies with the aim of helping customers address current issues and issues not yet acknowledged.

Integrating R&D Functions to Create One Global Lab

In fiscal year 2021, the DIC Group welcomed a new member with the acquisition of the Colors & Effects business from BASF, further enhancing its global business structure in the colors, packaging and graphics businesses. DIC and Sun Chemical have long cooperated in the area of R&D, which has led to a number of important achievements. Recognizing that the addition of the Colors & Effects business will create a stronger, three-company R&D configuration to underpin the implementation of the strategies of DIC Vision 2030, the Group is integrating product development, including by promoting joint R&D and the sharing of information, as well as related functions such as patent, analysis, AI and marketing functions.

Creating Work Environments for Technical Personnel that Are Conducive to Job Satisfaction

One of the basic strategies for transforming DIC and the DIC Group enumerated in DIC Vision 2030 is to maximize the value of human capital. No matter how talented our technical people are, unless they feel motivated personally, they—and by extension DIC and the DIC Group—will not be able to contribute to society or make notable achievements. In other words, we need to create a research environment that consistently motivates people, thereby enabling us to marshal the diversity of individuals. What constitutes such a work environment is a question we will continue seeking to answer going forward. We have already begun to implement the following measures:

- Integrate human resources training for DIC and the DIC Group and career paths for individual technical staff;
- Respect autonomy, including by establishing rules for allocating a certain number of work hours for technical staff to conduct their own research and creating a system whereby individuals can propose new research themes anytime and anywhere;
- Actively encourage and support individual external activities such as participation in academic conferences and publication of technical papers; and
- Develop individualized work style care systems that include, among others, counseling and mentoring.

Looking ahead, the DIC Group will continue striving to evolve as an organization that delivers social benefits by reforming work styles for all employees, including technical staff, and improving work environments.

A Message from the General Manager of the R&D Management Unit



Our efforts to expand our technology platform are based on specific aims and targets.

Toshiro Ariga

Executive Officer
General Manager, R&D Management Unit

Our Current Technology Platform

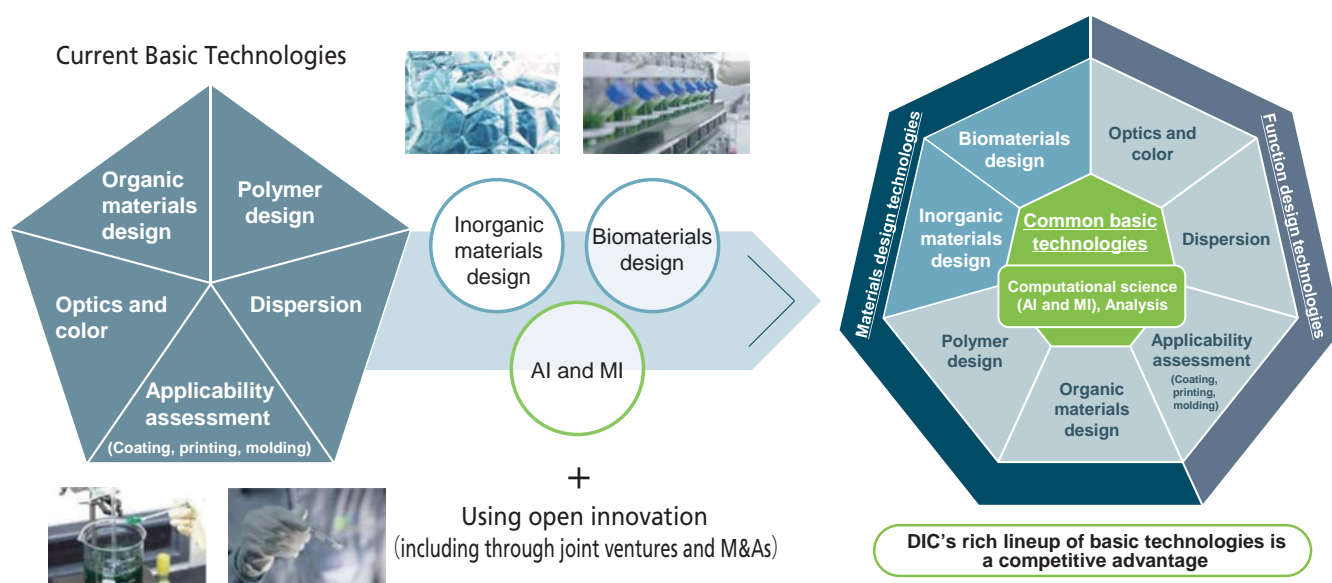
Since its establishment, DIC has sought to simultaneously expand both the operations and technology platform of the DIC Group. Today, our basic technologies are defined as those in the areas of organic molecular design, polymer design, dispersion, optics and color, and applicability assessment.

The Importance of Platform Expansion

To date, the DIC Group has provided distinctive value by adding depth to basic technologies in these five areas and combining them to develop a wide range of products. However, given the diversification of social imperatives and the growing complexity of challenges facing the chemicals industry over the past decade, it became clear that we would find it problematic to address crucial issues going forward with only the technologies we have cultivated in these areas. In light of evolving circumstances, several years ago we began exploring various new technical themes with the objective of securing new basic technologies, as a result of which we sharpened our focus to biotechnology, inorganic materials, and computational science, e.g., AI and MI.

What We Hope to Accomplish

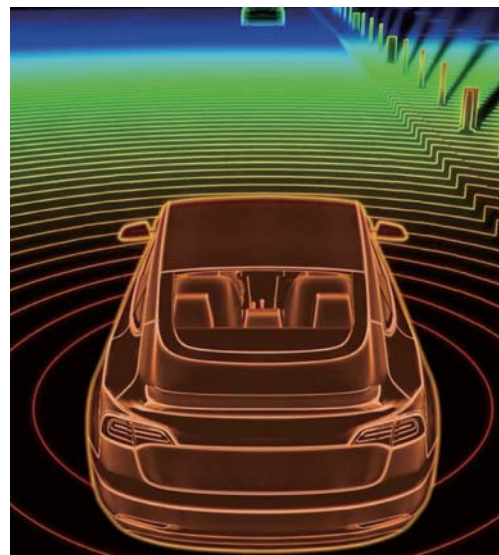
To provide new value in response to social imperatives such as the need to achieve carbon neutrality and realize a society that is both recycling-oriented and digital, we recognize that it is essential to add depth to new technologies in the areas of biomaterials, inorganic materials and computational science and transform them into DIC Group basic technologies, thereby further expanding our technology platform. This will make it possible for us to provide, for example, new biomaterials that do not depend on petrochemicals and highly functional materials that could not be achieved using conventional organic raw materials or polymers. In computational science, AI, MI and simulation technologies will enable us to realize advanced materials design and accelerated development. I am confident that our rich lineup of basic technologies will be a major competitive advantage for the DIC Group.



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Functional black pigments that combine outstanding LiDAR signal response and visual appeal

Spectrasense™ Black EH 8082,
Spectrasense™ Black L 0086 and
Sicopal® Black L 0095



Special Feature Helping Realize Sustainable Mobility Solutions

The DIC Group is working to provide groundbreaking sustainable products that will contribute to the improvements in safety and energy-saving technologies and visual appeal necessary for next-generation mobility.

The world continues seeking to address the challenge of delivering convenient, comfortable mobility, recognizing the importance of transportation that is safe, secure and carbon neutral to the society of the future. Against this backdrop, in fiscal year 2021 the DIC Group introduced a variety of sustainable products that will contribute to the realization of sensing technologies crucial to vehicle safety, as well as help lower energy consumption by reducing vehicle weight. Such products are testament to the Group's distinctive perspective and innovative technological capabilities as a manufacturer of fine chemicals.

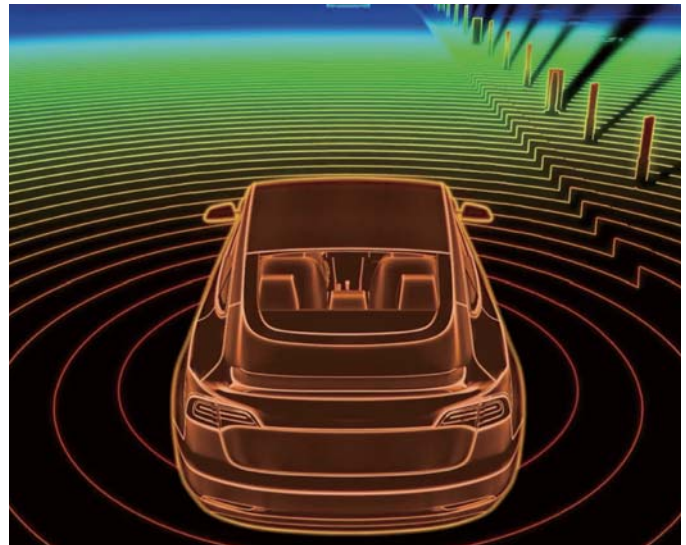


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World's fastest-curing carbon
fiber-reinforced prepreg
DICARBO® LF series

Functional black pigments that combine outstanding LiDAR signal response and visual appeal
Spectrasense™ Black EH 8082, *Spectrasense™* Black L 0086
 and *Sicopal®* Black L 0095

SDGs Goals 9 and 17



The DIC Group has pioneered key NIR-management solutions that will help automotive coating systems ensure safe, secure and richly colored vehicles.

Value Creation

Leveraging functional pigments to assist autonomous driving and enhance visual appeal

The benefits and drawbacks of using carbon black in automotive coatings

Automakers the world over are focused on developing next-generation mobility technologies for the smart society of the future that will facilitate autonomous driving, which will make it possible for anyone and everyone to get around safely and securely. Leading the charge is light detection and ranging (LiDAR), which detects the shape and distance of surrounding objects by irradiating them with a near-infrared (NIR) laser and measuring the light reflected back to the system's detector, enabling autonomous driving vehicles to "see" where they are going and preventing them from bumping into or colliding with other vehicles or obstacles. However, conventional automotive coatings contain carbon black, a material consisting of fine carbon particles, which largely absorbs the NIR wavelengths of LiDAR signals and incident sunlight, causing heat build-up and significant reduction of object detection capabilities.

The obvious question is that if LiDAR object detection capabilities are the priority, why not just use something other than carbon black? Unfortunately, it's not that simple. In addition to providing excellent coverage, carbon black increases the durability and conductivity of coatings, making its replacement with another material difficult. Carbon black also plays an important role in body color, a key consideration

for consumers' decision making when purchasing a vehicle. Without using carbon black, it is difficult to produce dark colors, including deep blacks, greens, blues and reds, or neutral colors such as metallic grays. Accordingly, automakers have faced a challenge in that the more they emphasize LiDAR signal response, the less color design freedom they retain.



The NIR wavelengths of LiDAR signals are absorbed by the carbon black pigment of automotive coatings, significantly hindering signal response.

Developing a color formulation approach that produces clean, deep colors without hindering LiDAR detection

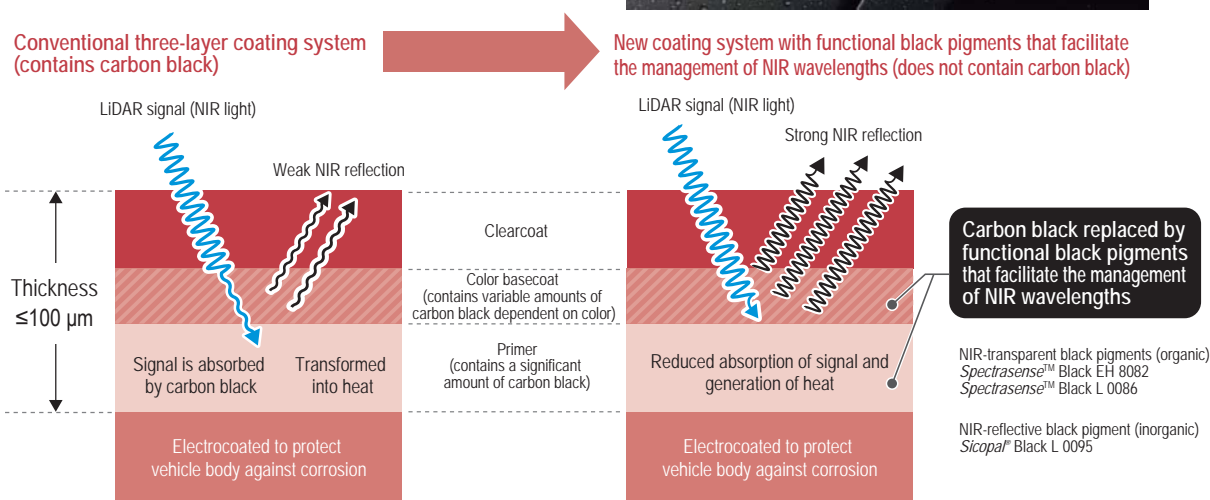
In March 2021, Colors & Effects, the pigments business of Germany's BASF, one of the world's leading chemicals manufacturers, succeeded in developing a color formulation approach that produces clean, deep colors without the use of LiDAR signal-absorbing carbon black. (Colors & Effects was acquired by DIC in July 2021.)

The conventional automotive coating process involves three key layers: A primer, which evens out surface irregularities and protects the electrocoat; a basecoat, which imparts the

main color; and a clearcoat, which seals everything, providing shine and protection against external elements. It is in the primer and the basecoat that carbon black, which absorbs NIR wavelengths in LiDAR signals, is typically used. Similar pigmentation considerations can be used if the paint system omits the conventional primer and instead uses a combination of two modified basecoat layers to fulfill the combined roles of the primer and the basecoat.

Colors & Effects sought to address the problem of carbon black as a pigment in coatings for autonomous driving vehicles by embarking on the development of color formulations that enable the management of NIR wavelengths in automotive coatings by using a primer and a basecoat containing NIR-transparent and NIR-reflective functional black pigments that selectively transmit and reflect back NIR wavelengths while ensuring the high performance required for each coating layer. By using NIR functional pigments as replacement for carbon black—NIR-transparent black pigments from the *Spectrasense™* Black product range (*Spectrasense™* Black L 0086 and the new *Spectrasense™* Black EH 8082) or an NIR-reflective black pigment from the *Sicopa®* Black product range (*Sicopa®* Black L 0095)—formulations were created which allowed LiDAR signals to penetrate through and reflect back, instead of being absorbed, while at the same time achieving the depth of color needed for high-end vehicles.

This new color formulation approach makes it possible for manufacturers of coatings for autonomous driving vehicles, which will be indispensable to the smart society of the future, to break free from dependence on carbon black and deliver both outstanding sensing performance and visual appeal. Because this approach is suitable not only for automobiles but also for a variety of industrial products where sensors are used, potential applications span multiple scenarios.



A Distinctively
DIC Response

Realizing a revolutionary perylene black pigment that improves jetness and enhances neutral colors

An issue that cannot be resolved simply by reflecting NIR

The impetus behind Colors & Effects' efforts to develop a new color formulation approach was a project to develop LiDAR-based positional mapping technologies for use in advanced driver assistance systems (ADAS). A major challenge for developers was of course the presence of carbon black.

The fact that carbon black absorbs and stores NIR light is well known. Colors & Effects had previously developed pigments that reduced the absorption of NIR wavelengths—thus exerting a heat-shielding effect—for coatings used in building materials for roofs and outer walls and enjoyed a significant share of the global market for pigments used in coatings for energy-efficient building materials. However,

simply applying existing technologies would not resolve all the issues for automotive coatings. Automakers and coatings manufacturers alike demanded a coating system that would ensure LiDAR object detection capabilities while at the same time enabling the creation of dark colors with improved jetness, as well as metallic grays and other neutral colors. To this end, it was necessary to develop a new functional black pigment to replace carbon black that was also easy to incorporate into coating systems that take LiDAR transmission, absorption and reflection into account, and was optimized for the composition of automotive coatings.

Helping realize innovative coating systems through the optimal combination of pigments that facilitate the management of NIR wavelengths

Colors & Effects commenced full-scale development in 2018 by thoroughly analyzing and evaluating the impact of carbon black on LiDAR signals, including examining the scattering, absorption and reflection of NIR light and performing colorimetric assays. Narrowing its focus to perylene black, an organic compound that possesses multiple hues, the company developed *Spectrasense™* Black EH 8082, an innovative perylene black pigment that improves transmission of the NIR wavelengths in LiDAR signals and enhances jetness by absorbing visible light better than other NIR management black pigments on the market. By using this new neutral colored black pigment in combination with other NIR reflective or non-absorbing pigments, formulations were created for the primer and basecoat layers which not only provided excellent LiDAR reflectivity but also allowed desirable colors from the whole color palette to be formulated. Due to the neutral color and high jetness of *Spectrasense™* Black EH 8082, for the first time neutral gray and black colors were achievable simply by use of the black pigment in combination with other reduction pigments. No additional tinting or

adjustment is needed unless a color shift is required to achieve the design color.

Completed in March 2021, the new, improved NIR-transparent black pigment, *Spectrasense™* Black EH 8082 immediately earned acclaim from both coatings manufacturers and automakers, for the potential it offers in eliminating dependence on carbon black pigments and opening the way to the realization of a smart society.

DIC's decision to acquire the Colors & Effects business, a business partner of wholly owned U.S. subsidiary Sun Chemical Corporation, was prompted by the German company's advanced pigment development technologies and experience as a key supplier to all the leading global automotive coatings manufacturers, both of which it believes are essential to the realization of the targets it has set, which are outlined under its DIC Vision 2030 long-term management plan. (For more information on DIC Vision 2030, please see page 19.) As this new color formulation approach shows, the acquisition has already proved highly fruitful.

Message

The reaction from automakers and the coatings industry has been tremendous!

Development of a quantitative measuring method through modification of a UV/Vis/NIR spectrophotometer

Colors & Effects had experience dealing with heat-management applications through the development of pigments with heat-shielding functions. Nonetheless, undertaking a project to develop pigments for automotive coatings compatible with autonomous driving systems that would both enhance LiDAR signal responsiveness and improve dark and neutral colors was a major challenge.

In the initial phase of this project, the focus was to understand how LiDAR signals behaved at various angles of incidence when encountering a coating stack comprising three layers formulated with functional pigments. The tools needed to make such measurements were not readily available for experiments under reproducible lab conditions, so assistance was sought from a leading equipment manufacturer. With this company's help, modifications were made to a commercial ultraviolet-visible/NIR (UV/Vis/NIR) spectrophotometer, enabling measurements to be made across a 300–2,500 nm wavelength range while varying the incidence angle of the measured sample. This allowed comparative measurements of coated objects, to determine the degree to which carbon black negatively affects LiDAR signal response at different incidence angles and how much this improves with NIR-transparent black pigments, the outcome of which played a key role in subsequent pigment development efforts.



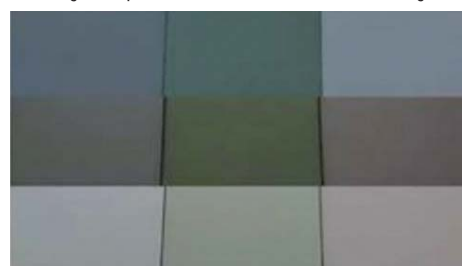
Global Innovation Manager—
Organic Pigments,
Color Materials,
Sun Chemical Corporation
Dr. Paul Brown

The difficulty of producing neutral metallic grays

One of the most difficult tasks when using alternative pigments—including existing commercial NIR-transparent black pigments from the *Spectrasense*[™] Black range—as replacement for carbon black was to facilitate the production of neutral metallic grays. When combining existing *Spectrasense*[™] Black products with neutral pigments such as titanium dioxide, silver mica and aluminum, the color shifts into the green or reddish-blue color space, requiring the addition of other color pigments to counter the undesired undertone.

To overcome this issue, information available in related literature was combined with internal expertise to develop a method for controlling the crystal structure of the perylene, thereby controlling the pigment color. This enabled the development of a new perylene black that produces neutral colors in pigment reductions and fulfills the NIR transparency requirements for LiDAR-detectable color formulations at all viewing angles. Importantly, the approach was effective not only in the laboratory but also when scaled up to commercial production level. This breakthrough makes it possible to achieve NIR-reflective neutral metallic grays (solid and effect shades) without the need for color correction with another pigments.

LiDAR Signal Response: Carbon Black vs. Functional Black Pigments



New perylene black Commercial perylene black Carbon black

Commercialization and production during a global pandemic

Technological development had progressed considerably before COVID-19 spread to Europe and by the time it was declared a pandemic, development was already at the stage where advanced prototypes were being sampled to major customers with whom active nondisclosure agreements were in place. Given the global situation, however, significant challenges remained in finding an effective way to obtain detailed feedback on the testing of the prototypes so that any final adjustments could be made to the pigment prior to commercialization in 2021.

Under normal circumstances, face-to-face meetings with customers, and with pertinent in-house groups, would have taken place. However, given the pandemic all communications had to be conducted via online meetings. In general, limited experience existed in conducting in-depth discussions remotely, but despite some initial frustrations, effective communication was achieved, resulting in successful completion of the project and the subsequent launch in the market in 2021. Everyone involved in the development, commercialization and production of the new pigment, as well as our customers, deserves a big thank you.

Earning the best presentation award at the FOCUS conference

The Detroit Society of Coatings Technology (DSCT) holds an annual Future of Coatings Under Study (FOCUS) conference for the discussion of notable themes and urgent issues. This event is attended by original and contracted coatings manufacturers from around the world, as well as by leading global automakers. More than 250 people took part in the May 2021 conference, which was held remotely to curb the spread of COVID-19. During the conference, Colors & Effects gave a presentation on the reflectivity of coatings and LiDAR detection during which it detailed its success in realizing a method for measuring variable angle intensities of reflected LiDAR radiation and developing a new perylene black pigment with neutral coloristics. The messages delivered in the presentation were well received by the organizing committee and Colors & Effects was pleased to receive the best presentation award.

The extremely positive response to our FOCUS presentation confirms that Colors & Effects' pigments technologies are seen as leaders in the area of pigments for LiDAR-detectable colors. Further R&D will continue in this area with the aim of contributing to increased design freedom.

KEY PERSON from DIC**This new pigment yields a true black and offers great potential.**

When the development personnel first showed me a panel coated with the prototype pigment, I was really excited and recognized that it had the potential to become a massively important new product. We have introduced perylene black to manufacturers of automobile coatings many times in the past, but have not been able to break into the area of color creation for automobiles, which requires the production of clean, deep colors with a coating thickness of only 15 μm . The reaction from customers has always been the same: "It looks black, but it's not a true black."

We have received many favorable and encouraging comments in response to samples of *Spectrasense*[™] Black EH 8082, and the physical characteristics of coatings containing the new pigment have also earned positive reviews. Recently, stricter energy efficiency standards for automobiles have prompted demand for pigments with heat-management capabilities, underscoring our belief in our ability to grow this new business without waiting for the full-scale arrival of autonomous driving. This is a new functional pigment that enables the creation of a true black coating, and I can feel confident in recommending for a wide range of applications.



Manager, Pigment Global Operation Strategy Planning Group, Color Material Products Division, Osaka Branch, DIC Corporation **Shintaro Gomyo**

KEY PERSON from DIC**The potential for pigments that can replace carbon black is unlimited.**

To improve the safety of autonomous driving vehicles, it is essential to ensure that vehicles are able to detect things around them that they could possibly run into, from the clothes worn by pedestrians to bicycles, walls and construction cones. Many such objects feature colorants containing carbon black. In all of these cases, we need to replace carbon black with functional pigments that do not interfere with an autonomous driving vehicles' ability to detect LiDAR signals. The potential applications for Colors & Effects' functional black pigments really are innumerable. Moreover, carbon black absorbs NIR light in incident sunlight, causing heat build-up, so we also expect heat-management applications for these pigments to expand further.



Technical Industry Manager—Automotive, Sun Chemical Corporation **Andre Bendo**

KEY PERSON from DIC**This is another great example of how we advance technical and scientific expertise.**

The influence of color pigments on coatings is not restricted solely to the visual regime. Despite the name, they also impact properties apart from color, defined in regions hidden to the human eye. One of these regions is NIR, which is relevant to both solar heat management and LiDAR. Control over the advanced properties of pigments is a key characteristic underscoring our position as one of the largest pigment producers and a global leader at the forefront of technological understanding and research. Our expertise led to the recent development of an outstanding functional black pigment, offering a multitude of possible usages by enabling targeted tuning of the NIR behavior of coatings. The new *Spectrasense*[™] Black EH 8082 pigment is a clear demonstration of our deep knowledge of pigment chemistry and physics, as well as our highly skilled engineering capabilities.



Team Leader, Colorimetry & Pigment Physics, Color Materials, Sun Chemical Corporation **Dr. Max Mussotter**

KEY PERSON from DIC**Bringing together the know-how, technologies and sales channels of three companies is key to expanding sales of sustainable products.**

With Colors & Effects, the operations of which focus on Europe, becoming a member of the DIC Group, we have implemented a three-pronged global color materials business management framework comprising this company, U.S. subsidiary Sun Chemical and DIC, which oversees Group operation in Asia.

The new functional black pigments featured herein represent a pioneering sensing-related application for pigments that have long been sold for use in heat-management applications. These sustainable products are evidence of Colors & Effects' advanced technologies and marketing capabilities. Looking ahead, we will work not only to expand sales of Colors & Effects' functional color materials through our global sales channels, but also to expand our product portfolio of products that contribute to sustainability by leveraging DIC's R&D capabilities to further enhance added value.



Manager, Color & Display Business Planning Department, DIC Corporation **Mineo Yoda**

World's fastest-curing carbon fiber–reinforced prepreg
 DICARBO® LF series

SDGs Goals 7, 9, 13 and 17



The DIC Group has developed a revolutionary method for producing CFRP—essential to lowering the weight and increasing the durability of vehicles—that significantly reduces CO₂ emissions and energy consumption attributable to production.

Value Creation

Contributing to improved fuel efficiency for vehicles, among others, by improving productivity for CFRP

Production processes that hinder the broad adoption of CFRP, a superior composite material

As its name indicates, carbon fiber–reinforced plastic (CFRP) is a fiber-reinforced composite material containing carbon fibers reinforced with resin. To use reinforced concrete as a metaphor, carbon fiber corresponds to rebar, while resin corresponds to concrete. CFRP's principal properties include its outstanding strength and lightness. Originally used in golf clubs and fishing rods, CFRP today is finding increased application in aircraft, automobiles, buildings, bridges, satellites and wind power generating equipment. In the mobility field, in particular, with fuel efficiency a key theme as the world seeks to decarbonize, CFRP is seeing further growth in demand as a functional material that helps reduce vehicle weight.

One production process for CFRP uses prepreg sheet, a carbon fiber–reinforced sheet-form intermediate material made by spreading bundles of carbon fibers (tows) to create flat sheets and impregnating the sheets with resin (figure 1). The sheets are then layered into a heated mold cavity, compression molded and cured. A major drawback is that conventional prepreg sheet—made with epoxy resin—must be refrigerated or frozen for storage and thawed for use, as a result of which this has traditionally been a costly, complex and low-productivity process (figure 2).

Figure 1: Carbon Fiber–Reinforced Prepreg Sheet

An intermediate material made by spreading carbon fiber tows to create flat sheets and impregnating the sheets with resin

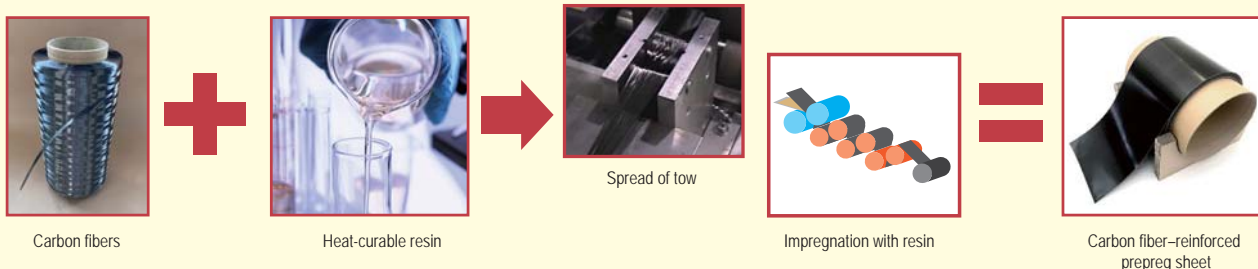
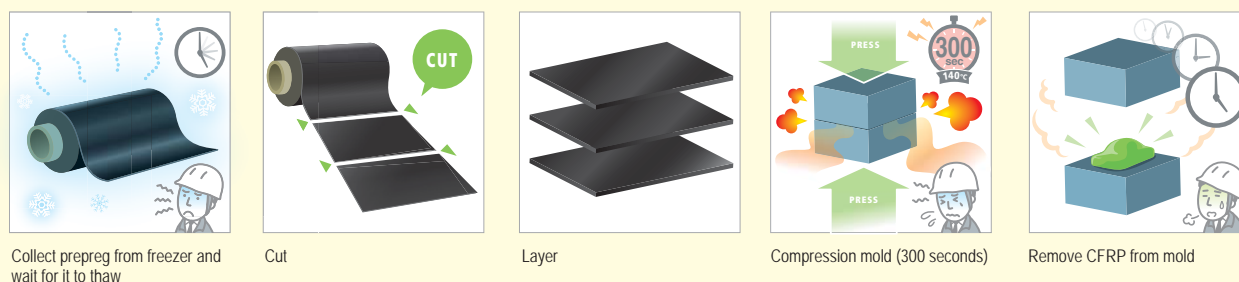


Figure 2: Production of CFRP Using Conventional Prepregs



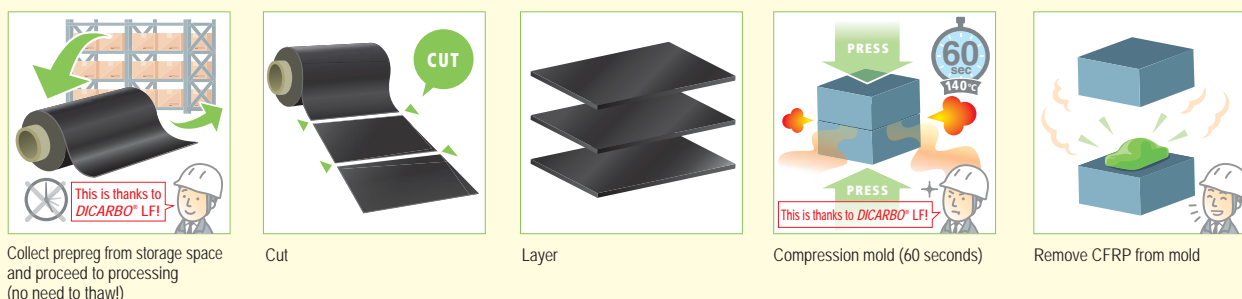
Realizing a fast-curing carbon fiber–reinforced prepreg that greatly improves productivity

With the aim of improving the productivity and cost of CFRP production, in fiscal year 2018 DIC commenced full-scale development of a fast-curing resin for prepreg, leveraging its polymer design technologies, and launched a research project aimed at commercializing fast-curing prepreg sheets made with this resin in partnership with the Industrial Technology Center of Fukui Prefecture, which owns a high-speed tow spreading technology, and Fukui-based comprehensive fibers manufacturer Seiren Co., Ltd., which boasts high-precision impregnation technologies that capitalize on its resin film-forming and coating capabilities. This project was chosen as a major research project by Japan's New Energy and Industrial Development Organization (NEDO) under its Strategic Innovation Program for Energy Conservation Technologies as a practical application development project aiming at commercialization for

automotive applications within three years.

The three project partners proceeded with R&D in their respective areas of specialty and cooperated closely to integrate new technologies. In summer 2021, they succeeded in the practical development of a fast-curing prepreg sheet that boasts the world's fastest curing time and can be stored at room temperature (around 23°C). By shortening the minimum curing time to between 1/3 and 1/5 that of conventional prepreg sheet—i.e., to approximately 30 seconds—and eliminating the need to refrigerate or freeze for storage and then subsequently thaw for use, productivity is improved by up to five times. Production costs are also lowered because there is no need to install and maintain refrigerated or frozen storage facilities (figure 3).

Figure 3: Fast-Curing Carbon Fiber–Reinforced Prepreg = Significant Improvement in Productivity



A Distinctively
DIC Response

Developing a radical curing resin that delivers both high-speed curing and normal temperature stability

Many challenges were faced, including the need to control viscosity, achieve thin sheets and ensure suitability to each process

DIC's role in the joint project centered on developing a new resin that cured quickly and could be stored easily. While the Company has extensive experience in the area of molding resins, a number of breakthroughs were necessary to realize a resin conducive to spreading and loosening carbon fiber bundles into single tapes that are then arranged evenly into thin sheets.

DIC's technical staff began by selecting several fast-curing candidate resins it saw as having the potential to boost productivity, but found determining a design and formulation that allowed changes in curing status depending on the process extremely challenging. They realized that what they needed to develop was a resin that reaches a semi-cured state during the process of impregnating each ultrafine carbon fiber and then fully cures at a high speed when heated. In other words, a resin that would reach optimum viscosity during each process, i.e., coating, impregnation, winding, storage and compression molding. Design and

formulation was further complicated by the need to ensure the resin could be stored at room temperature, rather than requiring refrigeration or freezing.

To address these issues, technical staff analyzed changes in physical properties caused by viscosity and resin temperature required at each stage and pressed ahead with polymer design while conducting repeated simulations. At the same time, DIC's Sakai Plant, where the Company conducts resin development, produced multiple prototype resins in a process of trial-and-error to realize the precise resin characteristics as designed. These prototypes were taken to the Industrial Technology Center of Fukui Prefecture, which was in charge of developing tow spreading equipment, and Seiren, which was responsible for resin coating and impregnation equipment, where repeated additional refinements and adjustments were made.

The debut of *DICARBO*® LF, a carbon fiber–reinforced prepreg that boasts the world’s fastest curing time and can be stored at room temperature

Through repeated trial production and constant modification, the project partners succeeded in gradually improving resin characteristics. They also incorporated an original idea into the impregnating process that greatly enhanced prepreg production. In spring 2021, with the NEDO program’s development deadline looming, the partners completed fast-curing carbon fiber–reinforced prepreg *DICARBO*® LF, which not only boasts the world’s fastest curing time but can also be stored at room temperature and is compatible with a wide range of molding methods. The three entities subsequently developed a mass production process for this innovative product, announced simultaneously in July 2021, after which they began providing samples produced using a demonstration plant operated by Seiren. DIC displayed *DICARBO*® LF at the Society for the Advancement of Material and Process Engineering (SAMPE)’s Japan Exhibition 2021 in December 2021. The product was well received across a broad range of industries and the department in charge was busy for weeks responding to inquiries.

Nonetheless, DIC does not see this as the end of the project, believing it has a mission to promote *DICARBO*® LF as a replacement for conventional carbon fiber–reinforced prepreps and to encourage its adoption to facilitate the development of exciting new CFRP products. The Company is confident that the increasing use of *DICARBO*® LF will further advance the popularity of CFRP and in so doing help lower the weight, improve the fuel economy and reduce the energy consumption of finished products in diverse fields.



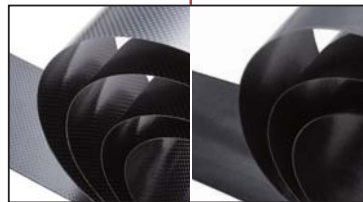
Demonstration plant at Seiren

Suitable for Diverse Molding Methods and a Wide Range of Products

Outer surface of *DICARBO*® LF (before curing)



Example 1 Press molding



Example 2 Double belt press molding

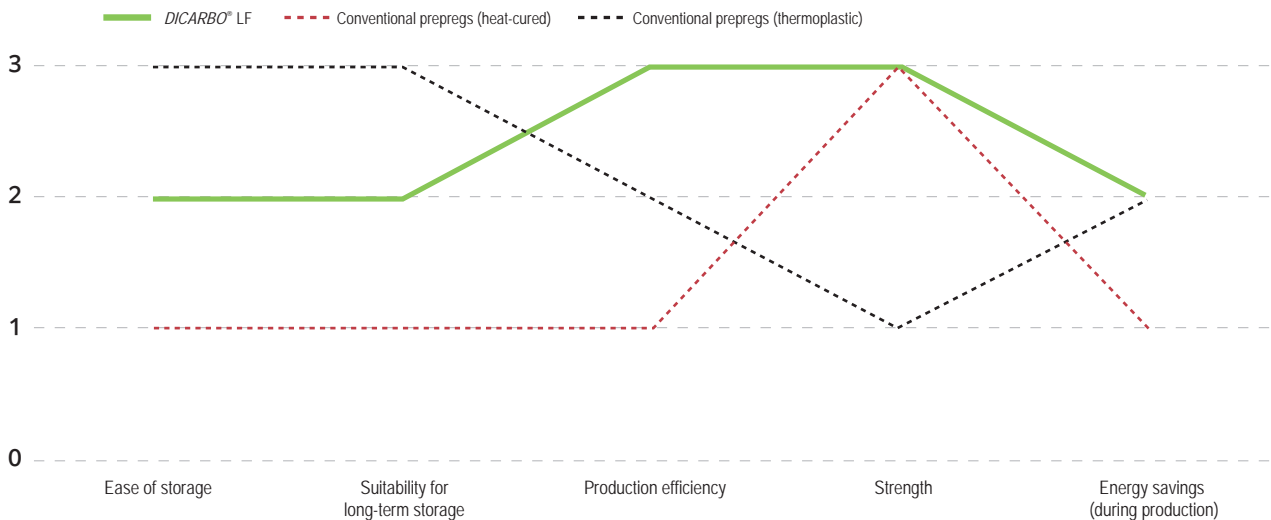


Example 3 Autoclaved molding



Example 4 Sheet winding molding

Performance Comparison of *DICARBO*® LF and Other Carbon Fiber–Reinforced Prepreps



KEY PERSON from DIC

Six years after its proposal, we were able to overcome the biggest obstacle and achieve commercialization.

We put together an in-house proposal for entering the highly promising carbon fiber–reinforced prepreg market as part of a new product planning effort and commenced development. We soon realized that the road to commercialization would be a long one if DIC was to go it alone. We approached the Industrial Technology Center of Fukui Prefecture in 2016 and Seiren in 2017 to undertake a joint project with the aim of accelerating development. Even with two partners, however, the way forward was anything but flat. There even came a point when, staring at the mountain of prototype resins that had come to nothing, I felt pretty bleak about the future of the project. For that reason, I was truly pleased when the work of so many colleagues to make improvements enabled us to begin providing samples in 2021.

Currently, we are working hard to realize the official launch of *DICARBO*® LF, sharing information on challenges faced by customers in multiple industries. I am confident that we will soon be able to show CFRP automotive parts and other products made with *DICARBO*® LF at exhibitions and elsewhere.



Manager, A-1 Project, Automotive Business Unit, Sakai Plant, DIC Corporation **Tomoaki Shinchi**

KEY PERSON from DIC

We are striving to encourage the widespread adoption of CFRP by focusing on reducing energy consumption attributable to production.

The response to our news releases, as well as to our participation in exhibitions and digital marketing efforts, has been immense from both the domestic and overseas markets. In addition to mobility, we are promoting sales to sports equipment, electronics and electrical appliances, civil engineering and multiple other industries. DIC is a latecomer to the market for carbon fiber–reinforced prepreg, so it is not easy for us to encourage companies to switch from conventional products to *DICARBO*® LF, but our customers have generally been interested in saving energy so this is the angle we have used to propose this product.

DICARBO® LF is also a strategic choice for customers who are considering using carbon fiber–reinforced prepreg to develop new CFRP products and we will provide whatever support we can by leveraging the technologies and personal connections we have cultivated in the development of this innovative product. We are determined to clear the obstacles ahead to realize the official launch of *DICARBO*® LF and look forward to the day when it becomes the dominant next-generation carbon fiber–reinforced prepreg.



Manager, A-1 Project, Automotive Business Unit, New Business Development Headquarters, DIC Corporation **Naoko Nakajima**

Stakeholder Perspective



I look forward to this achievement leading to the realization of new molded products made with CFRP.

When DIC approached us, we had been working to develop carbon fiber–reinforced prepreg sheets that leverage our tow spreading technologies for many years but had not done anything in the area of resin development. For this reason, we were pleased with DIC's proposal for producing these sheets with a novel resin and that the joint project would also involve a company based in Fukui Prefecture.

In terms of the resin's behavior, obtaining stable, high-quality prepreg sheets was a challenge, but the researchers involved in the project were tenacious and positive and succeeded in achieving commercialization. On behalf of the Industrial Technology Center of Fukui Prefecture, I am delighted at this achievement. We are confident that this will lead to the realization of a wide range of new molded products made with CFRP.



General Manager,
New Industrial Creation R&D Department,
Industrial Technology Center of Fukui
Prefecture
Kazumasa Kawabe

Contributing to the Realization of a Circular Economy

I Social Imperatives and a Circular Economy

Population expansion and economic growth, together with an improvement in living standards, are heightening issues such as resource depletion and marine plastics. As a result, awareness of the importance of realizing a circular economy is rising, as is the need to establish business models that do not depend on the consumption of resources.

Since the Basic Act on Establishing a Sound Material-Cycle Society came into force in 2000, Japan has taken decisive steps to decrease the volume of waste disposed of and increase the waste recycling rate. In particular, the Act emphasizes minimizing environmental impact by curbing waste generated, as well as by promoting the recycling of underground resources in discarded waste, thereby lowering consumption of such resources.

Worldwide, awareness of the need to reconsider the excesses of capitalism and reevaluate modern society's mass production, mass consumption paradigm has increased rapidly in recent years. This has heightened the urgency of shifting to a new system whereby waste is eliminated and resources are circulated.

In response, in 2019 Japan formulated the Resource Circulation Strategy for Plastics and announced milestone targets for 2030. Under this strategy, specific efforts from April 2022 will focus on the use of plastic materials. To date, a wide range of entities have enforced the Act on Promotion of Resource Circulation for Plastics at all stages, from product design through to disposal, to promote the recycling of plastics.

In 2020, the European Commission announced the European Green Deal, a European Union (EU)-wide economic growth agenda. The concurrently formulated Circular Economy Action Plan—a major building block of the deal, for which a new package of measures was recently introduced—seeks to realize an EU that is more competitive, as well as cleaner, and to advance job creation. This has accelerated efforts to reduce resource consumption and promote decarbonized businesses and spurred efforts by individual EU member countries to put forward related legislation.

Against this backdrop, the DIC Group, a leading global presence in the food packaging market, views advancing efforts to respond to a circular economy as one of its key sustainability strategies, as set forth in the new DIC Vision 2030 long-term management plan. Looking ahead, the Group will step up efforts to develop and implement concrete plans for implementing this strategy.

I Grasping and Reducing Environmental Impact from the Perspective of Product Life Cycles

Effective resource recycling demands an approach that takes into account the entire life cycle of products. For the DIC Group, this means understanding the environmental implications not only of its own business activities but also that of all parties across the supply chain, including suppliers, customers, consumers and recycling companies. Accordingly, the Group is working to grasp the impact of its products from the perspective of product life cycle, advancing initiatives with a focus on the "5Rs" (Reuse, Reduce, Recycle, Redesign and Reduce CO₂*), as well as acting to curtail waste discharged from production facilities and offices, and guarantee environment-friendly procurement practices, with the objective of reducing total environmental impact.

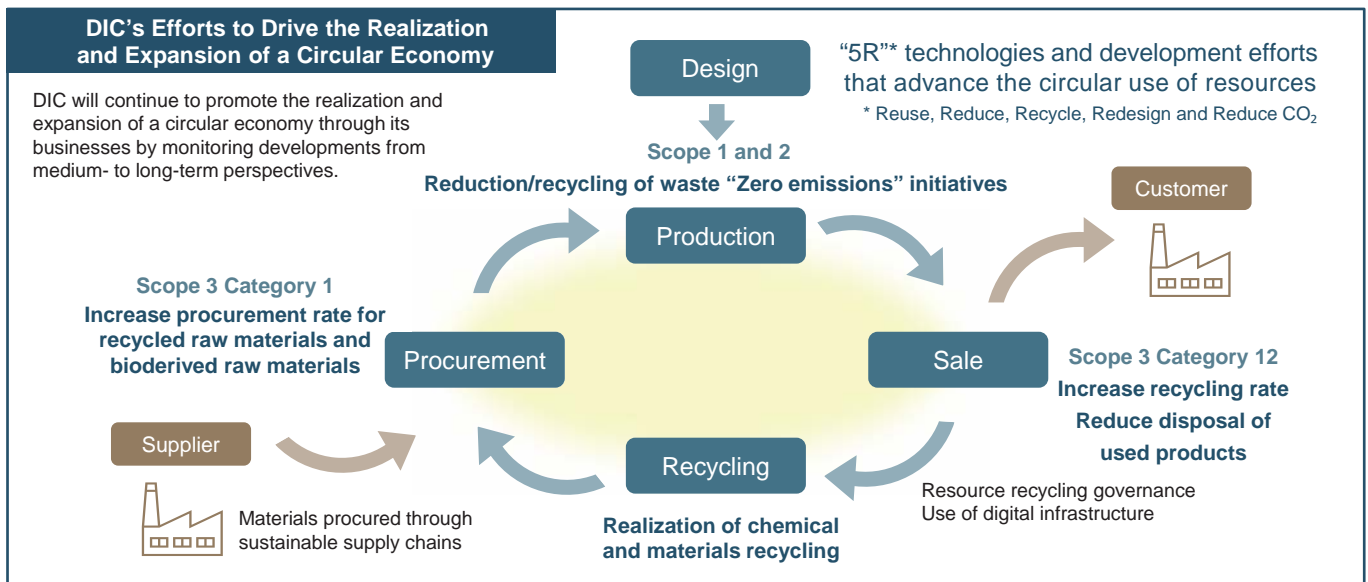
* Group company Sun Chemical defines the fifth "R" as "Renew." The DIC Group as a whole uses the broader "Reduce CO₂."

I Designing Products with Consideration for a Circular Economy




Economic rationality is indispensable to the effective promotion of resource recycling. Rather than treating end-of-life products as waste, it is crucial to take various steps to ensure they are recognized once again as having value. For this reason, manufacturers must endeavor to provide recyclable products at the lowest possible cost, while buyers must be willing to pay a fair price. The DIC Group is incorporating the 5Rs from the product design stage by expanding use of biomass, prolonging useful product life, shifting to mono-materials and emphasizing recyclability. By partnering with customers and recycling companies, the Group is also striving to ensure economically rational product life cycles, including by improving the quality of recycled resources and minimizing costs associated with reuse and recycling, and to build business models with a low environmental impact.

I Collaboration with Stakeholders






Working with partners is essential to reduce the environmental impact of DIC Group products. At the procurement stage, cooperating with suppliers makes it possible to reduce CO₂ emissions and consumption of terrestrial resources, as well as to source low environmental impact raw materials. When products and services are used, it is important to discuss needs with customers and encourage them to choose products that are both economical and have a low environmental impact. To this end, it is necessary to convey information on products in an easy-to-understand manner and join forces with customers to analyze and improve the environmental impact of their operations. It is also critical to encourage national and industry associations to create standards and incentives that take into account the need to lower environmental impact. By thus collaborating with stakeholders, the DIC Group strives to reduce both its own and society's impact on the environment.



The DIC Group's Obligations

<p>Reduce industrial waste (For more information, please see page 93.)</p>	<p>Reduce industrial waste and advance the recycling and reuse of materials by promoting "zero emissions" initiatives</p> <p>The DIC Group in Japan grasps processes for managing industrial waste, from generation to discharge by production facilities, intermediate treatment and final disposal as landfill, and sets targets for volume discharged and resource recycling rate. Viewing the reduction of industrial waste disposed of as landfill as a key challenge, domestic Group companies work actively to recycle cinders, dust and sludge, among others, into roadbed materials and raw materials for cement, use thermal recycling to recover waste heat and minimize production losses by increasing throughput yields.</p> <p>Overseas, DIC Group companies strive to ensure the disposal of industrial waste in a manner that complies with national and regional legal and regulatory requirements, as well as to minimize industrial waste through the voluntary recycling and reuse of materials. Going forward, the Group will also seek to implement common global initiatives.</p>
<p>Manage water resources (For more information, please see page 96.)</p>	<p>Promote the conservation and effective use of water resources</p> <p>With population and economic growth bolstering living standards around the world, global demand for water is expected to rise further going forward, as a result of which areas experiencing water shortages are likely to expand. The DIC Group sees water as essential to its manufacturing processes, that is, to heating and cooling, washing, chemical removal and wastewater drainage facilities. Accordingly, the Group recognizes the management of water resources to be a crucial social imperative and promotes various initiatives designed to ensure efficient water use and appropriate treatment of wastewater, as well as to assess water risks at its production sites around the world, thereby reducing its environmental impact.</p>
<p>Promote initiatives across the value chain</p>	<p> 海洋プラスチック問題対応協議会</p> <p>Japan Initiative for Marine Environment (JalME) was established in September 2018 with the support of five chemical industry associations and comprises 50 of Japan's principal chemicals manufacturers and associations. JalME recognizes that marine plastics is an issue that the chemicals industry should take the lead in addressing in accordance with the spirit of Responsible Care. The DIC Group participates and makes proposals regarding a variety of JalME initiatives, including arranging and disseminating information, addressing trends in the domestic market, engaging in outreach to Asia and accumulating scientific knowledge.</p> <hr/> <p> Japan Clean Ocean Material Alliance</p> <p>In line with the CLOMA Vision, which calls for the building of a platform for accelerating innovation aimed at resolving the issue of marine plastics, the Japan Clean Ocean Material Alliance (CLOMA) is fostering the development of "Japan model" technologies that will decrease such plastics through business matching, as well as supporting the propagation of such technologies in Southeast Asia. The DIC Group has achieved noteworthy results through business matching, collaborating with a customer to commercialize a chemical recycling technology for polystyrene.</p> <hr/> <p> Circular Economy for Flexible Packaging</p> <p>Circular Economy for Flexible Packaging (CEFLEX) is a collaborative European consortium of companies, associations and organizations representing the entire flexible packaging value chain. CEFLEX seeks to create a collection, sorting and reprocessing infrastructure for post-consumer flexible packaging by 2025 with the aim of building a circular economy for this sector. Through the participation of Group company Sun Chemical, the DIC Group will work to ensure a grasp of information and trends pertaining to European collection and sorting systems and regulations, increasingly a subject of debate, with the goal of contributing to the realization of a circular economy.</p>

The DIC Group's Efforts to Contribute to the 5Rs through Its Business Activities

5 R s					Initiative	Example	Outline
Reuse 	Reduce 	Recycle 	Redesign 	Reduce CO ₂ 			
○					Support the easy dismantling of finished products	Easily removable adhesive tape	DIC's specialty double-sided adhesive tape leverages its adhesive materials and coatings technologies to deliver both excellent adhesiveness and easy removability when dismantling finished products, encouraging the reuse of components.
	○				Reduce the volume and weight of materials used in food packaging	Easy-peel film	The use of easy-peel film rather than a conventional molded lid helps reduce the volume and weight of materials used. Nitrogen gas filling ensures a tight seal, extending the life of the food in the container and contributing to the reduction of food loss.
		○			Promote chemical recycling	Polystyrene	In collaboration with FP Corporation (FPCO), DIC is building a closed-loop recycling system for the chemical recycling of waste polystyrene from food packaging. Demonstration testing will begin in 2023, with full-scale operation scheduled for 2025.
		○			Advance materials recycling	Flexible packaging film	DIC is using its deinking technologies for printing to deink and sort waste flexible packaging films to facilitate recycling into white pellets.
		○	○		Shift to mono-materials	<ul style="list-style-type: none"> Mono-material constituents • Adhesives with oxygen-barrier properties • Heat sealing materials • Inks and coatings • Specialty olefin films 	To improve the functionality of films for food packaging composed of simple olefins (mono-material), DIC is working to develop constituent materials and propose total solutions.
		○	○		Promotion of the recycling of paper and paperboard food containers	Water-based water- and oil-resistant coating varnish	This water-based water- and oil-resistant coating varnish is suitable for food-contact surfaces. Unlike conventional food containers laminated with a polyethylene film to impart resistance to liquids, paper or paperboard containers coated with this varnish are themselves liquid-resistant and thus do not require lamination with film. The varnish dissolves together with paper, meaning paper and paperboard containers can be easily recycled, earning them classification as rank A in terms of suitability for recycling from the Japan Federation of Printing Industries.
				○	Use biomass raw materials	Printing inks, polymers and adhesives	Many of DIC's printing inks and adhesives, resins and other products contain biomass raw materials. In addition to curbing CO ₂ emissions over the life cycle of products, biomass raw materials bolster the recycling of plastics by reducing fossil fuel-derived carbon content.

Work Style Reforms: Activities of the WSR 2020 Committee



Message from the Executive Vice President

With efforts to respond to the protracted COVID-19 pandemic, as well as to measures aimed at tackling climate change by realizing carbon neutrality and at ensuring the achievement of the SDGs, increasingly required at the national, regional and corporate levels, the roles that companies are expected to play are undergoing major changes.

With the aim of addressing such key social imperatives, the DIC Group has announced a redefined vision statement—“We improve the human condition by safely delivering color and comfort for sustainable prosperity—*Color & Comfort*”—and a new long-term management plan, DIC Vision 2030.

To fulfill the promise of our redefined vision statement, it is crucial that the employees responsible for driving the Group forward share our vision for the future and work as one to help us evolve as a corporate group that contributes to the realization of a healthy global environment and a sustainable society. To this end, it is essential that we maximize the added value the Group provides by ensuring each and every employee enjoys job satisfaction and is able to reach their full potential. These are the objectives of the Work Style Revolution (WSR) 2020 Committee.

With the aim of achieving the goals of DIC Vision 2030, the Group will further strengthen necessary investments in its human capital, that is, each and every one of its employees, which it recognizes as its most important resource.

Toshifumi Tamaki Executive Vice President,
Chairman, WSR 2020 Committee

| WSR 2020

Fiscal year 2020 marked a major turning point in the DIC Group's exploration of potential new work styles. Positioning the year as the inaugural year of reforms, the Group launched WSR 2020 as a project targeting the development of unique new work styles to enhance job satisfaction and productivity. Specific initiatives include not only revising existing systems and creating new systems and infrastructures but also working to enhance the awareness and conduct of individual frontline employees.

With the aim of fostering diverse employees who are both motivated and productive, the WSR 2020 project was structured around three central themes: Job satisfaction improvement reforms, workplace reforms and process reforms. These three themes and related initiatives are described below.

| Job Satisfaction Improvement Reforms

The ideal DIC Group workplace is one that embodies The DIC Way by encouraging enthusiasm about taking on various challenges, evaluating performance fairly and recognizing personal value. The Group is promoting various reforms to improve job satisfaction in line with key themes: Create work environments that empower employees to reach their full potential, appropriately evaluate employees for taking on challenges and for achievements, and create a system that rewards them to the maximum degree possible; and support career development for individual employees based on a performance-oriented approach. Human capital management, as outlined in DIC Vision 2030, emphasizes the fact that a company's key players are its employees. DIC will continue to roll out measures that support the activities of each of its key players and inspire job satisfaction.

Reforms to Improve Job Satisfaction (Beginning in Fiscal Year 2022)

Theme	Outline	Details
Diversity	Pursue diversity by employing a broad spectrum of individuals without regard to such considerations as age, nationality or gender, maintaining awareness of the importance of inclusion and mutual respect.	In addition to ongoing initiatives to promote career opportunities for women and the hiring of foreign nationals, in fiscal year 2022 DIC will begin implementing initiatives aimed at uncovering individual strengths and talents, foster a corporate culture that emphasizes mutual respect and enhance teamwork.
Inner branding	Nurture a sense of unity and bolster job satisfaction by communicating information on distinctively DIC employee conduct that complies with The DIC Way in an easy-to-understand manner.	Through the dissemination of more in-depth everyday information on, for example, employee activities and internal systems, DIC is working to raise awareness of what makes DIC unique and to evoke a shared sense of being part of the DIC family that motivates employees to act on their own initiative.

Theme	Outline	Details
Communication	Focus on communication between superiors and subordinates, demonstrating that empathy can lead to compromise and how effective methods of communicating can enhance job satisfaction.	Provide training and coaching on one-on-one communication.
Career support	Provide employees with opportunities to design their own careers, thereby boosting both professional skills and job satisfaction.	Introduce "self-career dock" training and make use of external career counselors.
Annual surveys to gauge sense of belonging	Enhance the visibility of and quantify employees' enthusiasm for their work and use this information to promote various internal organizational development efforts.	Conduct an employee engagement survey, analyze results and implement measures to lift employee enthusiasm.
New qualification-based remuneration and evaluation systems (to commence in fiscal year 2022)	Ensure the availability of multiple career paths that accommodate a wide range of duties and roles, thereby creating qualification-based systems that are similar to a job-oriented system.	

VOICE We work to communicate the attractiveness of DIC to improve employee motivation.

As part of our inner branding initiative, we are disseminating information internally under the heading "DIC Value: Better Understanding the Company's Personnel and Employee Welfare Systems." DIC has earned positive evaluations for its human resources and sustainability frameworks from a variety of assessment organizations. However, looking internally there were fears that DIC's appeal was not being communicated adequately. Our goal is thus to provide a range of useful information to employees that will further enhance their appreciation of and affection for the Company. The topic that has received the greatest response to date was a special feature on childcare leave programs for male employees. In addition to introducing leave programs, we included actual comments from employees who have made use of these programs and their partners, which I think employees empathized with.

I look forward to being able to foster a sense of unity by showcasing different themes that underscore DIC's positive features and incorporate actual comments from employees through published articles and online events. I am proud to work for DIC and will continue to provide information aimed at increasing job satisfaction for all of my colleagues.



HR Group, General Affairs and HR Department **Kaori Kanbayashi**

Workplace Reforms

To accommodate the rapidly expanding use of telework arrangements as a result of COVID-19, the DIC Group has taken steps to build an infrastructure, including networks and security devices, to ensure safety and productivity. The Group will continue working to reinforce this infrastructure to help individuals and departments/divisions and to improve employees' practical skills in leveraging digital technologies.

Reforms to Enhance Workplaces (Beginning in Fiscal Year 2022)

Theme	Outline	Details
Office remodeling	Promote an open plan layout at corporate headquarters and the establishment of satellite offices.	Support work styles that enable employees to choose the location, functions and environment that best suit their particular work. Regarding the open plan layout at corporate headquarters, design zone-specific facilities and environments appropriate for a central office and pursue the creation of a central office that is both functional and attractive and that employees will choose as appropriate for in-office work.
Casual dress code	Foster a corporate culture that emphasizes mutual respect and acceptance of diversity by promoting a casual dress code at corporate headquarters, branches and sales offices.	Introduce Casual DIC, a framework that allows each individual to freely choose their work attire within certain parameters and with consideration for time, place and occasion.
Improvement of practical skills in leveraging digital technologies	Further enhance productivity through the use of digital technologies and data.	Develop rank- and role-specific training programs to raise employees' minimal digital skills level. Appoint a DX leader in each business area to promote departmental and Companywide DX initiatives and strengthen the digital capabilities of human resources.

VOICE We are working to create better work environments for employees.

Owing to the pandemic, DIC's corporate headquarters and branch offices shifted to the sort of hybrid work style incorporating remote and on-site work that has become common everywhere. This change provided an opportunity to take a close look at various aspects of Group workplaces, which we had never done before, and rethink the functions that are really needed in today's offices. We asked ourselves what sort of workplace would truly be conducive to our new work style and help bolster productivity.

What was particularly difficult was that the answer to these questions was not simply an extension of efforts we had made to date. We had to start again with a blank slate. So while there were a lot of challenges, at the same time it was an interesting and rewarding experience.

Thanks to the cooperation of colleagues, we are now working to realize offices that make employees want to work on-site. I hope everyone is looking forward to the new offices.



HR Group, General Affairs and HR Department **Masatoshi Tsumanami**

Process Reforms

Alongside efforts to bolster job satisfaction and create workplaces that empower employees to fully demonstrate their capabilities, the DIC Group is advancing a project that involves a thoroughgoing review and simplification of existing work styles and rules to ensure that individual and cross-departmental operations are seamless and automated. The Group is also promoting the standardization of business processes and data, creating a cycle that permanently improves the productivity of individuals, departments/divisions and the Group as a whole. Additionally, efforts are also being aligned with ongoing digitalization measures to maximize the performance of the entire DIC Group.

Theme	Outline	Details
Digital business infrastructure	Build a global digital infrastructure and continuously update business processes and rules.	Realize standardized, automated and seamless operations by simplifying and promoting consistent business processes and rules across all departments.
Stronger competitive foundation	Improve efficiency through the digitalization of operations and promote the optimization of the entire value chain.	Advance digital marketing, smart production facilities and supply management from the perspective of total, rather than department-specific, optimization.
Efficiency of daily operations	Streamline time-consuming daily tasks.	Review approval procedures and approaches to conducting meetings. Improve efficiency and lessen workload by simplifying approval procedures, and by ensuring a quantitative grasp of and setting new rules for meetings conducted.

VOICE Going beyond individual work efficiency, we are working to achieve optimization for the entire Group.

In January 2022, DIC launched the CONNECTUS Project with the aim of building a global digital infrastructure and developing new business processes. The name of this project is meant to encapsulate DIC's commitment, operating in an unpredictable era and a rapidly evolving environment, to adapting flexibly to change by having the optimal combination of human resources with digital capabilities in the right places, thereby ensuring it remains innovative, agile and effective. Until now, I have emphasized improving the efficiency of my own work, viewing digitalization as merely the automation of manual tasks. However, as the person in charge of purchasing under this project I have had to broaden my focus to include asking questions such as "Is this task necessary in the first place?", "What is the relevance of this particular business process?" or "Can we do this the same way overseas?"

Going forward, we will continue working to achieve dramatic improvements in the productivity of individual employees, departments/divisions, companies and the DIC Group as a whole. We will do this by promoting reforms from the perspective of overall optimization, rather than simply seeking to digitalize existing practices and business processes.



CONNECTUS Project, Information Systems Department **Miyuki Tajima**

In fiscal year 2022, the WSR 2020 project was given committee status and renamed the WSR 2020 Committee, to ensure reforms in these three categories are implemented successfully across the entire Group. The committee not only gauges the effectiveness of measures but also discusses the existence of other related issues that need to be addressed or measures that should be implemented, and includes DIC's President and CEO Kaoru Ino, as well as designated executive officers, to ensure initiatives aim to improve job satisfaction and productivity Groupwide.

A Message from the Head of the ESG Unit



We involve all employees in the promotion of sustainability initiatives.

Kuniko Torayama

Executive Officer
Head of ESG Unit, In Charge of Diversity

Beginning in fiscal year 2022, the DIC Group has positioned the promotion of sustainability as a core management strategy, reiterating its commitment to stepping up the implementation of sustainability initiatives in DIC Vision 2030. This plan sets forth two central goals: “Establish a business portfolio that contributes to sustainable prosperity for society” and “Help achieve sustainability for the global environment and for society.” The Group has identified and will concentrate its allocation of management resources in five priority business in which it will leverage its competitive strengths to help realize a society that is green, digital and QOL-oriented.

The DIC Group's Sustainability Program

DIC Vision 2030 also calls for DIC to mature as a unique global company that is trusted by society by reinforcing management of its human capital to boost the value thereof, recognizing its employees as its most important resource. Looking ahead, we will set clear targets for fiscal year 2030 for both environmental and social sustainability. I look forward to the ESG Unit, of which I am in charge, working with the Corporate Strategy Unit to drive sustainability strategies forward in tandem with business strategies. The scale of sustainability initiatives is much greater than in the past, as is enthusiasm for their implementation. We will continue seeking to improve the effectiveness of our efforts by taking on board key social imperatives and involving all DIC Group employees.

Advancing Diversity

The basic policy of DIC Vision 2030 is “Safely delivering Color & Comfort for sustainable prosperity to enhance shareholder value and long-term corporate value.” One result of this new policy is that employees have become more aware of the pursuit of social value as an issue that affects them and have come to have clear expectations regarding the outcome of sincere efforts. Accordingly, with a keen awareness of diversity, at corporate headquarters we are enhancing human capital by supporting employee growth, as well as shifting to work styles that are more flexible and suited to individual needs. Measures such as these, spearheaded by the Work Style Revolution (WSR) 2020 Committee, will also help drive further innovation, which will in turn enable us to contribute to the resolution of social imperatives, thereby creating a continuous cycle of positive outcomes.

The Growing Importance of Sustainability Strategies

As already mentioned, one of the two central goals of DIC Vision 2030 is to help achieve sustainability for the global environment and for society. One way we are attempting to achieve this goal is by working to increase the percentage of products in our portfolio that qualify as sustainable to 60% by fiscal year 2030. (For more information, please see page 19.) In fiscal year 2020, sustainable products accounted for 40% of our portfolio, so our target is still a ways off. At the same time, while this target is easy enough to say, in reality it will involve realizing sustainable alternatives to products in areas ranging from those that support modern lifestyles to those that address new demand spurred by evolution of communications and information processing technologies and respond to the need for safety and peace of mind of people with diverse values. By steadily implementing plans formulated in collaboration with employees at our bases in the Americas and Europe, as well as in Asia, we will continue striving to achieve our 60% target and to support a sustainable society.

Regarding the urgent challenge of addressing climate change, we have set an ambitious target for reducing CO₂ emissions by 50% from the fiscal year 2013 level by fiscal year 2030. We are promoting various related initiatives, including shifting to green power and reviewing production processes, recognizing that achieving a 50% reduction will require ingenuity and leveraging our position as a manufacturer of fine chemicals. In addition, we are promoting efforts to help realize a circular economy. We acknowledge that there are significant differences in efforts being pursued

between Europe, which is engaged in a variety of cutting-edge initiatives, and other regions. We believe that social infrastructure is essential to the achievement of the targets that we have set. DIC Group companies around the world will continue to learn from the examples set by regions pursuing advanced initiatives to steadily expand our efforts.

Finally, we will continue to emphasize disclosure. In December 2021, we held a presentation to introduce Group ESG initiatives. This reaffirmed our awareness of the value of opportunities to communicate directly with stakeholders to, for example, introduce environment-friendly products developed and provided by the DIC Group. Going forward, we will step up efforts to disseminate information and communicate effectively with both internal and external audiences, including through regular related briefings.



Internal discussion regarding Casual DIC

Overview of Materiality

With the aim of ensuring it achieves the targets of its DIC Vision 2030 long-term management plan, which kicks off in fiscal year 2022, the DIC Group has once again identified material issues, that is, issues with the potential to significantly affect its performance.

Abstracting Material Issues and Identifying Priority Materiality Themes

The DIC Group conducted its first materiality assessment in fiscal year 2019. In fiscal year 2021, the Group once again abstracted material issues, referencing GRI's G4 Sustainability Reporting Guidelines—considered the global standard—and items weighed by ESG assessment organizations, and also considering issues delineated in DIC Vision 2030 and The DIC Way, as well as social imperatives. Based on the results of this process, which also involves discussions with objective outside experts, and extensive deliberations by the Sustainability Working Group, which is responsible for the implementation of concrete strategies, and the Sustainability Committee, which functions as an advisory body regarding sustainable management, the Group identified eight material issues.

	Material issues	Principal related initiatives
Material issues (issues with the potential to significantly affect the DIC Group's performance)		
1	Transformation to a business portfolio that contributes to sustainable prosperity for society	Shift to a business portfolio focused on five priority business areas that deliver social value (set forth in DIC Vision 2030) by advancing efforts to reinforce management of human capital, establish a more global management configuration, and promote IT and DX—identified as material issues—and by enhancing the technology platform and making strategic investments.
2	Contribution to the realization of a carbon-neutral society	Work to reduce CO ₂ emissions in Scope 1, 2 and 3 (purchase of raw materials, etc.) and to lower carbon footprint; use the DIC Sustainability Index to promote CO ₂ emissions reductions in the market and provide products and services that contribute to decarbonization.
3	Creation of new businesses with the potential to become mainstays	Identify areas at the intersection of ESH-related issues/social changes and the DIC Group's core competencies and foster new businesses with the potential to become mainstays by enhancing the technology platform and making strategic investments.
4	Promotion of efforts to maximize the value of human capital	Build a strategic human resources portfolio that maximizes the value of human capital through medium- to long-term efforts to foster human resources, ensure mobility, and improve engagement and organizational cohesiveness, as well as ongoing, basic efforts to promote diversity and inclusion, and bolster job satisfaction.
5	Establishment of a more global management configuration	Advance global management governance, efforts to foster and strengthen management personnel, and create a global ERP system.
6	Promotion of DX	Promote transformation of the corporate culture and organization by leveraging digital technologies and data to innovate business processes, work styles and business models.
7	Response to a circular economy	Foster products that contribute to the 5Rs, help reduce CO ₂ emissions in categories 1 and 12 of Scope 3, and advance chemical and material recycling, thereby contributing to the realization of a circular economy.
8	Promotion of efforts to ensure the stable procurement of raw materials	Promote awareness of the current status of various raw materials of concern (i.e., subject to country risk or various supply failure risks, or for which there are issues regarding sustainability, including environmental soundness).
Cornerstones of business continuity		
1	Compliance	
2	Security and disaster prevention, occupational safety and health	
3	Quality management	
4	Respect for human rights	

DIC Group Management Issues Recognized in the Identification of Priority Materiality Themes

The DIC Group has recognized each of the following as management issues with the potential to impact management that will require continuous efforts to strengthen/address through its business activities: Product stewardship,* reduction of environmental impact (emissions into air and water), ability to optimize capital efficiency, strengthening of partnerships, communication with customers and markets, business continuity (business continuity planning (BCP)), political and geopolitical change (country risk), information security, intellectual property strategies, contribution to local communities, response to tax-related risks, response to pandemics, response to currency fluctuations, and realization of colorful and comfortable lifestyles.

* The DIC Group identified product stewardship as a material issue in its fiscal year 2019 materiality assessment. However, thanks to the Group's steady progress in the implementation of the Global Chemical Information Project (GCIP) and the full-scale deployment of the DIC Sustainability Index, it is not among material issues identified in fiscal year 2021.

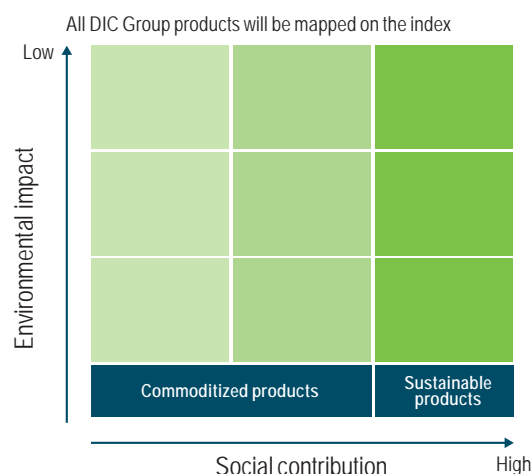
For each material issue identified in fiscal year 2021, the DIC Group has set key performance indicators (KPIs) and reported the progress of related initiatives. The Group will continue working to address material issues from a long-term perspective, positioning it to drive the expansion of its businesses, with the aim of achieving the targets of DIC Vision 2030 and ensuring sustainable growth further into the future.

Sustainability Index

Promoting Steady Business Portfolio Transformation

The DIC Sustainability Index is a tool designed to make its product mix more resilient. From the perspective of building a sustainable society, DIC will clarify the sustainability of its inks, pigments and other products by quantifying social contribution issues (horizontal axis) and environmental impact (vertical axis). Mapping all DIC Group products on the index will make it possible to formulate appropriate measures for the transformation of its business portfolio and at a certain stage elucidate the results thereof. The index will further underpin the Group's efforts to help realize a sustainable society by ensuring it meets the DIC Vision 2030 target of increasing the portion of net sales accounted for by sustainable products to 60%, thereby ensuring its resilience to various changes in the external environment.

DIC Sustainability Index



Comprehensive Efforts to Address the Critical Issue of Climate Change

While a broad range of products have enhanced the convenience and affluence of modern lives, it is also true that the production thereof negatively impacts the global environment. A particularly pressing concern is climate change. It has become increasingly obvious that the earth will not be sustainable unless decisive steps are taken to achieve ambitious targets. In the DIC Group's case, these are a 50% reduction of Scope 1 and 2 CO₂ emissions from the fiscal year 2013 level by fiscal year 2030 and the achievement of carbon neutrality—net zero CO₂ emissions—by fiscal year 2050.














The DIC Sustainability Index expresses the greenhouse gases generated in the manufacturing process as emissions per unit of production, measured as emissions of CO₂ per tonne in kilograms. One trend that became apparent through mapping is that emissions per unit of production are generally higher for items that require a significant amount of energy during production, such as pigments, than for those that use relatively little energy during production, such as inks. This process also revealed that there can be significant differences in results for products depending on production facility. For a particular type of pigment, for example, the difference from one plant to another was as much as 1.5 times. So, even if a product is manufactured using the same process—in other words, the same amount of energy—as at another production facility, emissions per unit of production can be lowered by increasing the use of energy with lower greenhouse gas emissions, such as renewable energy. Taking into account various issues, including the availability of energy with low greenhouse gas emissions, regional differences in access to such energy, and the relocation and consolidation of production facilities, the DIC Group set ambitious reduction targets and will promote comprehensive efforts to ensure their achievement.

Focus on Products that Demonstrate Unique Competitive Strengths

How much does a product contribute to society? The horizontal axis of the DIC Sustainability Index makes it possible to judge a product's contribution to society by determining whether it is a distinctively DIC offering or demonstrates the Group's competitive strengths. The DIC Group believes that all of the products it provides around the world contribute to society in some way. In some instances, however, the availability of other similar products inevitably limits the value—including the degree of its social contribution and the stability and sustainability of supplies—delivered by the Group's offerings. As a manufacturer of fine chemicals, the Group believe that it can contribute to a more sustainable society by focusing on products that demonstrate its unique competitive strengths and by further enhancing such strengths, and has thus related targets under DIC Vision 2030.

Modern life presents a number of complex dilemmas. Climate change is an existential threat that requires urgent action, but in our effort to curb climate change we cannot suspend activities essential to human health and global civilization. The DIC Group believes that it is best positioned to demonstrate its competitive strengths in areas that will make society more green, digital and QOL-oriented—in other words, areas that help address climate change, make technological progress more accessible, and support health and safety. These are the areas in which the Grup can truly leverage its unique capabilities and make important contributions to the resolution of social imperatives.

The DIC Group's sustainable products contribute to society in multiple, overlapping ways, but in a general sense they enhance QOL. These include products that improve the heat shielding and insulating performance of structures will increase accessibility to healthy living environments while at the same time helping reduce greenhouse gas emissions and products that help ensure safety and availability of water—for example, PPS compounds used in public water supply pipes, unsaturated polyester resin used in the repair and maintenance of underground pipes, and hollow fiber membranes used to filter water and extend the life of industrial equipment—support daily life. Going forward, the Group will continue working to provide distinctively DIC products that are both sustainable and contribute to the realization of a sustainable society.

The society to which DIC seeks to contribute	Value provided by DIC products	Sustainable product examples	
 <p>Green</p> <ul style="list-style-type: none"> ● Achieve carbon neutrality ● Realize a circular economy 	<ul style="list-style-type: none"> ● Contain renewable materials ● Lower energy use, improve insulation and reduce weight ● Address the issue of marine plastics ● Can be recycled ● Reduce waste ● Prolong product life 	 Sustainable energy  Sustainable packaging  Color science	<ul style="list-style-type: none"> • Materials for next-generation secondary batteries and fuel cells • Functional inorganic fillers • Materials with outstanding barrier properties • Biomass packaging • Biomass pigments • Functional pigments for heat-blocking coatings 
 <p>Digital</p> <ul style="list-style-type: none"> ● Propel the evolution of information and communications ● Drive the evolution of CASE vehicles and MaaS ● Promote the development of AI and IoT technologies 	<ul style="list-style-type: none"> ● Contribute to high-capacity, high-speed communications ● Support the IoT 	 Smart living  Color science	<ul style="list-style-type: none"> • Materials for 5G/6G-enabled devices • Resins for next-generation semiconductors • Functional pigments for LIDAR signal coatings 
 <p>QOL</p> <ul style="list-style-type: none"> ● Deliver safety, peace of mind and convenience ● Prolong healthy life expectancy ● Embrace diverse values 	<ul style="list-style-type: none"> ● Contribute to health and comfort ● Help reduce food loss ● Reduce emissions of VOCs and enhance safety 	 Healthcare  Color science	<ul style="list-style-type: none"> • High-performance nutritional products • Natural skin-care materials • Natural colorants for cosmetics 

Corporate Governance

Basic Approach to Corporate Governance

The DIC Group defines corporate governance as a mechanism to ensure effective decision making pertaining to its management policy of achieving sustainable corporate growth and expansion through sound and efficient management, while at the same time guaranteeing the appropriate monitoring and assessment of and motivation for management's execution of business activities. With the aim of achieving a higher level of trust with its shareholders, customers and other stakeholders and enhancing corporate value, the Group also promotes ongoing measures to reinforce its management system and ensure effective monitoring thereof.

Policy on Corporate Governance

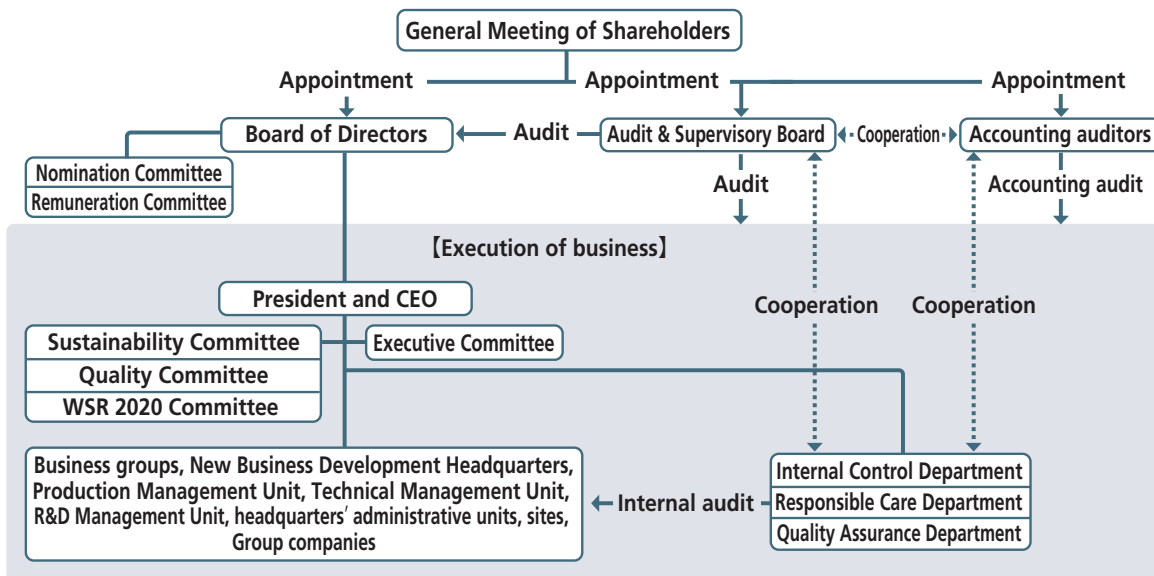
DIC has prepared a Policy on Corporate Governance, which it has published on its global website.

Policy on Corporate Governance https://www.dic-global.com/pdf/ir/management/governance/governance_en.pdf

Corporate Governance System

As a company with internal auditors, DIC has a Board of Directors and an Audit & Supervisory Board. The Company has also instituted an executive officer system and has established a Nomination Committee, Remuneration Committee, Executive Committee, Sustainability Committee, Quality Committee and Work Style Revolution (WSR) 2020 Committee.

Corporate Governance System



1 Board of Directors

From the perspective of making business decisions in a timely manner and reinforcing corporate governance, the Board of Directors consists of nine directors, three of whom are outside directors (one of whom is female). The Board typically meets once monthly to make decisions on matters stated in the regulations for meetings of the Board of Directors, as well as to receive status reports on the execution of business activities and supervise the execution of business.

2 Nomination Committee

To ensure objectivity in the nomination of directors, Audit & Supervisory Board members and executive officers, the Company has established the Nomination Committee, which provides recommendations to the Board of Directors regarding the appointment and dismissal of directors, Audit & Supervisory Board members and executive officers. The committee meets as necessary. At present, three of the committee's five members are independent outside directors, while the position of committee chairman is also filled by an independent outside director.

3 Remuneration Committee

To ensure objectivity in the determination of remuneration for directors, Audit & Supervisory Board members and executive officers, the Company has established the Remuneration Committee, which has been entrusted with responsibility for determining remuneration for directors and executive officers, among others. The committee meets as necessary. At present, three of the committee's five members are independent outside directors, while the position of committee chairman is also filled by an independent outside director.

4 Executive Committee

The Executive Committee was established as a body to advise on important matters related to the execution of business activities. In principle, the committee meets twice monthly. The committee consists of executive officers and others designated by the Board of Directors from among the president and CEO, the executive vice president, the heads of the units, and the general managers of the management units and product divisions. As part of the auditing process, one Audit & Supervisory Board member also attends committee meetings. Details of deliberations at meetings and the results thereof are reported to the Board of Directors.

5 Sustainability Committee

The Sustainability Committee, which functions as an advisory body, meets several times annually to formulate sustainability policies and activity plans, as well as to evaluate and promote initiatives. The committee consists of executive officers and others designated by the Board of Directors from among the president and CEO, the executive vice president, the heads of the units, the general managers of the management units and product divisions, and the managing directors of regional headquarters. As part of the auditing process, one Audit & Supervisory Board member also attends committee meetings. Details of deliberations at meetings and the results thereof are reported to the Board of Directors.

6 Quality Committee

The Quality Committee reports on the status of DIC Group quality management and the progress of related initiatives, as well as deliberates Group quality policies, important measures and key issues. In principle, the committee meets once quarterly to report on the status and progress of quality management. The committee consists of executive officers and others designated by the Board of Directors from among the president and CEO, the executive vice president, the heads of the units, and the general managers of the management units and product divisions. As part of the auditing process, one Audit & Supervisory Board member also attends committee meetings. Details of deliberations at meetings and the results thereof are reported to the Board of Directors.

7 WSR 2020 Committee

The Work Style Revolution (WSR) 2020 Committee was established as a body to deliberate work style reform-related measures and investment plans, among others, with the aim of enhancing Group employee job satisfaction and productivity. In principle, the committee meets once quarterly. The committee consists of executive officers and others designated by the Board of Directors from among the president and CEO, the executive vice president, the heads of the units, and the general managers of the management units and product divisions. Details of deliberations at meetings regarding matters of particular importance and the results thereof are reported to the Board of Directors.

8 Audit & Supervisory Board

The Audit & Supervisory Board comprises four members, including two outside members (one of whom is female). In principle, the Audit & Supervisory Board meets once monthly. Board activities include debating and determining auditing policies and auditing plans. Board members also report on the results of audits conducted, as well as attend important meetings, including those of the Board of Directors, Executive Committee and Sustainability Committee, meet with representative directors on a periodic basis to exchange information and opinions, and collect business reports from directors, executive officers and employees. In addition, the Company has established an Audit & Supervisory Board Members' Office, to which it assigns dedicated personnel to assist the Audit & Supervisory Board members in their duties.

The Company's three full-time Audit & Supervisory Board members have extensive experience in and knowledge of finance and accounting, which they are able to leverage in the performance of their duties. Full-time Audit & Supervisory Board member Hiroyuki Ninomiya oversaw corporate accounts at the Company for many years and was general manager of the Accounting Department and Head of the Finance and Accounting Unit. Outside Audit & Supervisory Board member Michiko Chiba is qualified as a certified public accountant and has engaged in the audit of companies for many years. In addition to providing expertise in corporate law, outside Audit & Supervisory Board member Keita Nagura provides tax accounting services pursuant to Article 51 of the Certified Public Tax Accountant Act.

9 Internal Auditing Department

The internal auditing department is charged with internal auditing, which includes monitoring the effectiveness of internal controls. In the Asia-Pacific region, the PRC, and the Americas and Europe, internal auditing is the responsibility of local auditing teams.

10 Accounting Auditors

The Company has engaged Deloitte Touche Tohmatsu LLC as its independent auditors. The Company strives to ensure an environment that facilitates the accurate disclosure of information and fair auditing. The members of the Audit & Supervisory Board, accounting auditors and the internal auditing department conduct audits from their respective independent positions, but also liaise periodically to facilitate close cooperation, thereby ensuring the effectiveness of auditing activities.

Meeting Data

Number of and attendance at meetings of the Board of Directors, Nomination Committee and Remuneration Committee in fiscal year 2021

Board of Directors: Number of meetings: 16; attendance: 100%

Nomination Committee: Number of meetings: 1; attendance: 100%

Remuneration Committee: Number of meetings: 2; attendance: 100%

Rationale Behind Current Corporate Governance System

The Company has instituted an executive officer system, a move aimed at separating decision making and implementation and thereby accelerating business execution and clarifying responsibilities. The Company has appointed three highly independent outside individuals to its Board of Directors and taken other steps to reinforce its monitoring of management's business execution. The Company also has a Nomination Committee and a Remuneration Committee, each of which includes three independent outside directors, to ensure objectivity in the nomination of, and in determining remuneration for, directors and executive officers. The four-member Audit & Supervisory Board, which includes one attorney and one certified public accountant as outside members, conducts audits in liaison with the accounting auditors and the internal auditing department. This structure ensures the effective functioning of the Company's corporate governance system.

System of Internal Controls

1 Status of the System of Internal Controls and the Establishment and Operation of a Framework for Risk Management

In striving to conduct its operations in accordance with The DIC Way, the DIC Group has prepared and operates a system of internal controls based on the Companies Act of Japan to ensure the appropriateness of its operations. The key components of this system are as follows:

- ① *The Company shall work to set forth the DIC Group Code of Business Conduct as the standard regarding compliance, which directors and employees of the DIC Group shall comply with, and to disseminate the same.*
- ② *The Company shall, as part of its compliance activities, establish an internal notification system as a channel available for the employees of the DIC Group, which has multiple notification channels independent from channels for communication used in the execution of business and provides a structure to quickly respond to domestic and internal notifications.*
- ③ *In order to ensure the duties of directors are performed properly and efficiently within the DIC Group, the Company shall establish regulations regarding company organization and authority.*
- ④ *The Company shall formulate long-term management plans and the annual budget based on management policies and management strategies, and, through dissemination of the same, ensure common goals are shared within the DIC Group. The Company shall make progress reports to the Board of Directors.*
- ⑤ *Information pertaining to the performance of duties by directors shall be recorded, retained and managed appropriately based on the regulations for document management. The Company shall establish regulations for systems of information management and shall prepare a system for preventing leakage of confidential information of the DIC Group.*
- ⑥ *The Company shall formulate a risk management policy and shall identify, assess, prioritize and address any risks that may have a significant impact on management of the DIC Group.*
- ⑦ *The Company shall determine an administrative department for each subsidiary from the standpoints of the conduct of business and business management, and shall supervise business affairs by dispatching a director to each subsidiary.*
- ⑧ *The Company shall clarify important matters, including those pertaining to subsidiaries, that must be approved by or reported to the Company.*

2 Basic Policy Toward Eliminating Demands by Antisocial Elements

This basic policy, which is outlined in the DIC Group Code of Business Conduct, is to stand firmly against antisocial elements and in no way to acquiesce to demands presented by such elements. The General Affairs and HR Department is responsible for coordinating efforts to respond to extortion or other demands presented by antisocial elements, while individuals have been put in charge of efforts at each site and within each Group company. These individuals work in close collaboration with legal counsel and the police to ensure the Company's responses are resolute. The Company has also prepared and distributed a manual on appropriate responses to such demands with the aim of raising awareness among employees.

Outside Directors and Outside Audit & Supervisory Board Members

1 Number and Role of Outside Directors and Outside Audit & Supervisory Board Members

The Company currently has three outside directors and two outside Audit & Supervisory Board members. In addition to attending meetings of the Board of Directors, the three outside directors—who have extensive experience in corporate management—serve as members of the Nomination Committee and the Remuneration Committee, enabling them to provide supervision with an independent point of view, thereby helping to reinforce the Company's corporate management. The two Audit & Supervisory Board members—one a certified public accountant and the other an attorney—advise management of the DIC Group from an expert, multifaceted and independent perspective, thereby helping to reinforce the auditing function.

2 Independence Standards for Outside Directors and Outside Audit & Supervisory Board Members

The Company has established standards for evaluating the independence of individuals to the position of outside director and outside Audit & Supervisory Board member, which are shown below. The Company's outside directors and outside Audit & Supervisory Board members are individuals who, based on these standards, are unlikely to have conflicts of interest with ordinary shareholders and who comply with criteria for the independence of directors and Audit & Supervisory Board members set by the Tokyo Stock Exchange.

Independence Standards for Outside Officers

The Company does not recognize individuals with the connections listed below as being independent in the appointment of independent outside officers.

1. Individuals who are executives of the Company or one of its consolidated subsidiaries (collectively, the DIC Group) at present or have been in the preceding 10 years
2. Individuals to whom any of the following items have applied in the preceding three years:
 - ① A principal business partner of the DIC Group (a business partner with which transactions in a single fiscal year exceed 3% of the DIC Group's consolidated net sales in that year) or an executive of a company to which this description applies
 - ② An individual for which the DIC Group is a principal business partner (a business partner with which transactions in a single fiscal year exceed 3% of the partner company's consolidated net sales in that year) or an executive of a company to which this description applies
 - ③ A shareholder who holds 5% or more of the voting rights in the Company or an executive of a company to which this description applies
 - ④ A principal lender to the DIC Group (a lender from which loans in a single fiscal year exceed 3% of the DIC Group's total assets in that year) or an executive of a company to which this description applies
 - ⑤ An individual who has received contributions from the DIC Group in a single fiscal year that exceed ¥10 million or who belongs to a group to which this description applies
 - ⑥ An accountant who has served as an accounting auditor or accounting advisor for the DIC Group or an individual who is an employee, partner or associate of an audit firm to which this description applies
 - ⑦ Any individual to whom ⑥ does not apply but who has received remuneration from the DIC Group that exceeds ¥10 million in a single fiscal year as a provider of professional services, such as consulting, accounting or legal services, or an individual who belongs to a group that has received remuneration in excess of 3% of its consolidated net sales in that year as compensation for professional services, such as consulting, accounting or legal services
 - ⑧ An executive of another company in the event that an executive of the Company is appointed to an outside officer position at that company
3. Spouses and relatives within the second degree of kinship of individuals indicated in 1 or 2 above
4. An individual whose term as an outside officer of the Company has exceeded eight years

3 Support System for the Outside Directors and Outside Audit & Supervisory Board Members

Prior to meetings of the Board of Directors, relevant materials are distributed to all directors, full-time Audit & Supervisory Board members, outside directors and outside Audit & Supervisory Board members. The officer in charge provides explanations of matters to be discussed to outside directors, while the full-time Audit & Supervisory Board members provide explanations as necessary to outside Audit & Supervisory Board members.

Other Initiatives to Enhance the Corporate Governance System

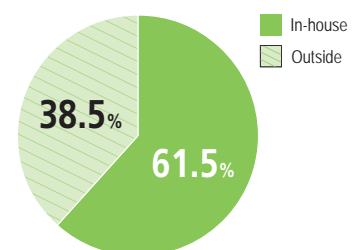
1 Composition of the Board of Directors

To enable the Board of Directors to resolve major operations-related issues as well as to facilitate the effective oversight of management, the Board of Directors comprises outside directors, who maintain independence, and other individuals having a thorough knowledge of the businesses of the DIC Group, with consideration given to ensuring a balance among necessary knowledge, experience and capabilities. In light of the DIC Group's global operations and the need to manage its businesses in a manner that takes diversity into account, the Company also strives to ensure diversity in the Board's composition, including by appointing female directors. One outside director is female, as is one outside Audit & Supervisory Board member.

Composition of the Board of Directors

	In-house	Outside	Total	Percentage of outside members
Directors	6	3	9	33.3%
Audit & Supervisory Board members	2	2	4	50.0%
Total	8	5	13	38.5%

Composition of the Board of Directors



Skills Matrix for Directors and Audit & Supervisory Board Members

To enable the Board of Directors to resolve major operations-related issues as well as to facilitate the effective oversight of management, the Board of Directors comprises individuals having a thorough knowledge of the businesses of the DIC Group, with consideration given to ensuring a balance among necessary knowledge, experience and capabilities. The table to the right is a skills matrix summarizing the knowledge, experience and capabilities of current directors and Audit & Supervisory Board members.

Name	Position	Expertise/Experience									
		Corporate management	Finance/asset building	Legal affairs/risk management	International experience	Sustainability	IT/DX	Personnel/labor	Marketing/sales/purchasing	Technology/R&D	Production/quality
Masayuki Saito	Chairman of the Board of Directors	●	●		●		●	●			
Kaoru Ino	Representative Director President and CEO	●	●	●	●				●		
Toshifumi Tamaki	Representative Director Executive Vice President	●					●	●		●	●
Yoshihisa Kawamura	Director	●			●	●			●		
Takeshi Asai	Director Managing Executive Officer	●	●		●	●					
Shuji Furuta	Director Managing Executive Officer	●	●	●	●						
Kazuo Tsukahara	Outside Director	●		●	●			●			●
Yoshiaki Tamura	Outside Director	●			●	●			●	●	
Kuniko Shoji	Outside Director	●			●	●			●	●	
Hirayuki Ninomiya	Audit & Supervisory Board Member (Full-time)		●	●	●		●				
Akihiro Ikushima	Audit & Supervisory Board Member (Full-time)			●		●		●	●		
Michiko Chiba	Audit & Supervisory Board Member (Independent)		●	●		●					●
Keita Nagura	Audit & Supervisory Board Member (Independent)		●	●		●		●			

2 Remuneration for Directors and Audit & Supervisory Board Members

Remuneration for directors is determined by the Remuneration Committee, which takes into account prevailing market rates, and consists of basic remuneration; bonuses, which are linked to consolidated operating results and achievement of individual targets; and stock compensation, which is linked to the medium- to long-term achievement of performance targets. Directors who serve concurrently as executive officers are eligible for bonuses and stock compensation, while other directors and outside directors are eligible for basic remuneration only. Remuneration for Audit & Supervisory Board members is determined in accordance with internal rules established by the Audit & Supervisory Board, with consideration given to ensuring a balance with remuneration for directors and prevailing market rates.

Remuneration for Directors and Audit & Supervisory Board Members in Fiscal Year 2021

	Total remuneration (Millions of yen)	Composition of remuneration (Millions of yen)			Number of directors and Audit & Supervisory Board members
		Basic remuneration	Bonuses	Stock compensation	
Directors (excluding outside directors)	290	206	68	16	7
Audit & Supervisory Board members (excluding outside Audit & Supervisory Board members)	60	60	—	—	2
Outside officers	72	72	—	—	6

Notes:

- The above data includes that for one outside director and one outside Audit & Supervisory Board member who retired at the conclusion of the 123rd Annual General Meeting of Shareholders held on March 30, 2021.
- The total amount of stock compensation is the total monetary value of shares corresponding to the points granted for fiscal year 2021 based on the Company's performance-based stock compensation plan.

3 Evaluating the Effectiveness of the Board of Directors

The Company analyzes and evaluates the effectiveness of the Board of Directors annually via a self-evaluation conducted by directors and Audit & Supervisory Board members. In fiscal year 2021, all directors and Audit & Supervisory Board members were surveyed regarding self-evaluations, Board administration and other issues, and interviewed on an individual basis, with responses analyzed and evaluated by the Board of Directors.

Owing to the aforementioned efforts, it was confirmed that free and lively discussions had been held, led by outside directors and Audit & Supervisory Board members, and that appropriate deliberations had been conducted by the Board of Directors. In addition, regarding issues identified in the evaluation conducted in fiscal year 2020, it was judged that discussions pertaining to the formulation of the Company's DIC Vision 2030 long-term management plan had been enhanced through improvements such as the creation of multiple opportunities for explanation and deliberation. Accordingly, the effectiveness of the Board of Directors was confirmed.

In fiscal year 2022, the Company will seek to further bolster the Board of Directors' effectiveness by reviewing the progress of priority measures set forth in DIC Vision 2030, as well as by taking steps to strengthen the Board's supervision of internal controls and the risk management system on a global basis, as part of its ongoing effort to promote improvement.

Other Initiatives

1 Ensuring the Diversity of Core Human Resources

With regard to ensuring diversity, the Company states in this integrated report that it “works to foster a corporate culture that draws on its understanding and respect for diversity to produce creative ideas and to incorporate the concept of diversity into management”, thereby creating workplaces that enhance job satisfaction for employees. Respect for diversity and human rights is also stipulated in the Company’s basic sustainability policy.

As measurable targets for ensuring diversity, the Company has set targets for percentage of management positions in Japan occupied by female employees and percentage of its overall labor force in Japan accounted for by foreign nationals, which it publishes in this report, together with actual figures for both of these statistics, as well as for other yardsticks such as mid-career hires as a percentage of total new hires.

The Company’s policy for fostering human resources and creating work environments in a manner that ensures diversity is to “promote efforts to ensure diverse human resources are in the right places and the creation of work environments that enable employees to maximize their capabilities.” An executive officer has been put in charge of diversity to create an effective configuration. In its long-term management plan, the Company identifies “Foster human resources,” “Ensure mobility (hiring, retention and succession)” and “Improve engagement and organizational cohesiveness” as the three priorities of its strategy to reinforce its management of human capital. Given projections for the post-pandemic “new normal,” in 2020 the Company launched Work Style Revolution (WSR) 2020, a project targeting the development of new work styles with the aim of boosting employee productivity and motivation.

2 Sustainability Initiatives

The Company promotes sustainability initiatives in line with key themes that reflect its belief that, as a manufacturer of fine chemicals, it has a responsibility to address ESG-related issues, and discloses the progress thereof in this report.

Regarding human capital, the Company’s long-term management plan sets forth “Reinforce management of human capital” as a basic strategy, further explaining this as “Build a strategic human resources portfolio that maximizes the value of human capital.” Various related initiatives are disclosed in the Human Resources Management section of this report.

Recognizing the effective use of intellectual property as indispensable to the creation of new value, a key management challenge, the Company actively capitalizes on patent landscapes and other intellectual property information, and on the relative strength of its patent portfolio compared to those of its competitors, and has created a configuration whereby business groups and technical and intellectual property teams work as one to advance intellectual property strategies that are in conformance with business strategies. These efforts are also described in the New Value Creation section of this report.

The Company has declared its support for the Task Force on Climate-related Financial Disclosures (TCFD). Taking into account data on carbon pricing, etc., presented in the Sustainable Development Scenario set forth in the International Energy Agency (IEA)’s World Energy Outlook, as well as data on decarbonization technologies, among others, and the Representative Concentration Pathway (RCP) 8.5 greenhouse gas concentration scenario adopted by the Intergovernmental Panel on Climate Change (IPCC), the Company collects and analyzes data on related risks, including from case studies focusing on climate change–related natural disasters suffered by other companies, such as damage to the production sites located in coastal areas and infrastructure failures. The Company also conducts scenario analysis to assess climate change–related risks and opportunities and impact on business activities and profitability and discloses information in line with the recommendations of the TCFD in this report.

Changes Implemented to Enhance Corporate Governance System

Change	Year
Changes term of office of directors from two years to one year	2002
Adopts executive officer system	2004
Abolishes system of retirement allowances for executives	2005
Establishes committee to determine compensation for directors and Audit & Supervisory Board members	2006
Appoints two outside directors	2008
Establishes Remuneration Committee and Compensation Committee	2009
Establishes Sustainability Committee	2014
Formulates Policy on Corporate Governance (including independence standards for outside directors and outside Audit & Supervisory Board members)	2016
Increased number of outside directors from two to three	2017
Adopts system of performance-based stock compensation	2017
Establishes Quality Committee	2020
Establishes WSR 2020 Committee	2021

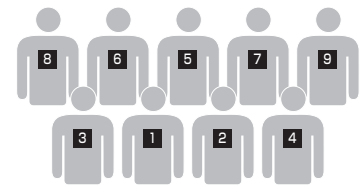
Directors, Audit & Supervisory Board Members and Executive Officers

(As of May 2022)

Directors



- 1** Masayuki Saito
Chairman of the Board of Directors
- 2** Kaoru Ino
Representative Director
- 3** Toshifumi Tamaki
Representative Director
- 4** Yoshihisa Kawamura
Director
- 5** Takeshi Asai
Director
- 6** Shuji Furuta
Director
- 7** Kazuo Tsukahara
Director*
- 8** Yoshiaki Tamura
Director*
- 9** Kuniko Shoji
Director*



* Outside

Audit & Supervisory Board Members



- 1** Hiroyuki Ninomiya
Full-Time Audit & Supervisory Board Member
- 2** Akihiro Ikushima
Full-Time Audit & Supervisory Board Member
- 3** Michiko Chiba
Audit & Supervisory Board Member*
- 4** Keita Nagura
Audit & Supervisory Board Member*

* Outside



Outside Director Profiles

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Kazuo Tsukahara
 April 2008 Director and Managing Executive Officer, IHI Corporation
 April 2012 Representative Director and Executive Vice President, IHI Corporation
 June 2014 Advisor, IHI Corporation</p> | <p>Kuniko Shoji
 June 2004 Executive Officer, Terumo Corporation
 June 2010 Director and Senior Executive Officer, Terumo Corporation
 June 2017 Advisor, Terumo Corporation</p> |
| <p>Yoshiaki Tamura
 January 2007 Executive Officer, Asahi Glass Co., Ltd. (currently AGC Inc.)
 March 2013 Representative Director and Executive Vice President, AGC Inc.
 March 2017 Executive Fellow, AGC Inc.</p> | |

Outside Audit & Supervisory Board Member Profiles

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Michiko Chiba
 October 1989 Joined Showa Ota & Co. (currently Ernst & Young ShinNihon LLC)
 July 2010 Senior Partner, Ernst & Young ShinNihon LLC
 September 2016 Founded Chiba Certified Public Accountant Office</p> | <p>Keita Nagura
 April 1998 Registered as an attorney (Osaka Bar Association). Joined Yodoyabashi Godo Law Office (currently Yodoyabashi & Yamagami Legal Professional Corporation)
 February 2002 Changed registration as an attorney to the Dai-Ichi Tokyo Bar Association</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Executive Officers



Kaoru Ino
President and CEO



Toshifumi Tamaki
Executive Vice President
Assistant to President and CEO



Naoyoshi Furuta
Managing Executive Officer
General Manager, Production
Management Unit



Masaya Nakafuji
Managing Executive Officer
Head of General Affairs and Legal Unit
In Charge of Osaka Branch and Nagoya
Branch



Kazuo Hatakenaka
Managing Executive Officer
Chairman, DIC (China) Co., Ltd.
Chairman, DIC (Shanghai) Co., Ltd.



Kiyotaka Kawashima
Managing Executive Officer
General Manager, Technical Management
Unit



Masamichi Sota
Managing Executive Officer
President, Packaging & Graphic
Business Group General Manager,
Printing Material Products Div.



Kiyofumi Takano
Managing Executive Officer
General Manager, New Business
Development Headquarters



Yoshinari Akiyama
Managing Executive Officer
President, Color & Display Business Group
General Manager, Color Material
Products Div.



Myron Petruch
Managing Executive Officer
President and CEO,
Sun Chemical Corporation



Takeshi Asai
Managing Executive Officer
Head of Corporate Strategy Unit
In Charge of Kawamura
Memorial DIC Museum of Art
Vice Chairman of the Board,
Sun Chemical Corporation



Shuji Furuta
Managing Executive Officer
CFO
Head of Finance and Accounting Unit



Takashi Ikeda
Managing Executive Officer
President, Functional Products
Business Group General Manager,
Composite Material Products Div.



Taihei Mukose
Executive Officer
Head of SCM Unit



Paul Koek
Executive Officer
Managing Director,
DIC Asia Pacific Pte Ltd



Koji Asada
Executive Officer
Head of IT Strategy Unit
General Manager, DX Promotion Dept.



Masahiro Kikuchi
Executive Officer
Deputy Managing Director (AP Region
Non Graphic Business and South Asia),
DIC Asia Pacific Pte Ltd



Yuji Morinaga
Executive Officer
General Manager, Packaging Material
Products Div.



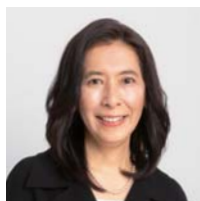
Toshiro Ariga
Executive Officer
General Manager, R&D Management Unit
General Manager, Central Research
Laboratories



Yuji Kikuchi
Executive Officer
General Manager, Performance
Material Products Div.



Tomoyuki Tanaka
Executive Officer
General Manager, Corporate Planning
Dept.



Kuniko Torayama
Executive Officer
Head of ESG Unit
In Charge of Diversity

A Message from an Outside Director



I look forward to DIC employees emphasizing pride, as well as kindness and contentment, to take the Color & Comfort concept to a new level.

Yoshiaki Tamura

Outside Director

March 2013 Representative Director and Executive Vice President, AGC Inc.

March 2017 Executive Fellow, AGC Inc.

A Corporate Culture Rooted in Kindness and Contentment

When I took up the position of outside director in 2018, I was immediately struck by the basic atmosphere of kindness and contentment. Everyone seemed to be animated and to really enjoy what they were doing. I was wondering how a company with a history stretching back more than 100 years had succeeded in creating such a modern corporate culture. I concluded that the answer can be found in the Color & Comfort management vision. A vibrant, worry-free life is something people aspire to no matter where in the world they live. DIC is a company that seeks to provide Color & Comfort, so it makes sense that these concepts are reflected in its own corporate culture. More recently, I have been impressed by how quickly DIC moved to make necessary adjustments to cope with the COVID-19 pandemic.

Emphasizing Pride to Advance to the Next Level

In fiscal year 2021, DIC took the Color & Comfort concept to a new level by seeking to link it to the resolution of social imperatives, looking at whether we couldn't step up efforts to take on the challenge of entering new markets to better respond to ESG-related issues. In addition to recognizing the importance of each and every employee setting ambitious targets and having the fortitude and ability to translate ideas into action to ensure their achievement, the Company also understands the importance of being able to analyze what is lacking, seek assistance from a superior—whether by increasing personnel or budget—to course correct.

Personally, I have always believed in the importance of fun, trust and pride. DIC already has a strong philosophy of fun and trust. Going forward, I would like to see a greater emphasis on pride. By that I mean that I would like to see employees approach their work with pride in their abilities, a desire to show that they can handle whatever is thrown their way and the confidence that they will emerge on top. To this end, it is important for superiors to convey their expectations to their subordinates and clearly define duties, as well as to actively encourage communication.

The Key to the Future

In fiscal year 2021, the Colors & Effects business, formerly the global pigments business of Germany's BASF, and Italian adhesives and polymers manufacturer SAPICI S.p.A. joined the DIC Group. It is my hope that while maintaining its excellent corporate culture DIC will also continue to display leadership in guiding these new members of the team to achieve robust results. Developing a scenario for the Group's global strategies and accelerating the implementation of those strategies is crucial. Much like putting together an intricate jigsaw puzzle, such a scenario will encourage employees to approach their own roles with renewed enthusiasm, which in turn will inspire the active exchange of opinions among the Group's diverse human resources, a process of action and reaction that will yield innovative ideas. Pressing ahead with such efforts is the key to the future and will surely open exciting new doors for the DIC Group to evolve as a unique global company that is trusted by society. I pledge to continue leveraging my own capabilities to support everyone.

Overview of Sustainability

In line with its basic sustainability policy, the DIC Group promotes a variety of sustainability initiatives worldwide and works to maintain an accurate grasp of social imperatives pertaining to ESG-related issues.

Sustainability Program

Amid rising environmental concerns, including climate change, and increasingly urgent social imperatives, companies today face an ever-more diverse array of challenges, including rising awareness of the need to achieve sustainability in a manner that takes into account the environment, ecosystems and socioeconomic issues. The DIC Group launched its CSR program in fiscal year 2007. Having further clarified the overall direction of related initiatives as “sustainable growth,” effective from fiscal year 2014 the Group changed the designation used across its program from “CSR” to “sustainability.” In fiscal year 2018, DIC established the ESG Unit, a specialized department to further expand Group ESG initiatives worldwide. In line with its basic sustainability policy, the DIC Group promotes a variety of sustainability initiatives worldwide and works to maintain an accurate grasp of social imperatives pertaining to ESG-related issues.

Basic Sustainability Policy (Partially revised in March 2019)

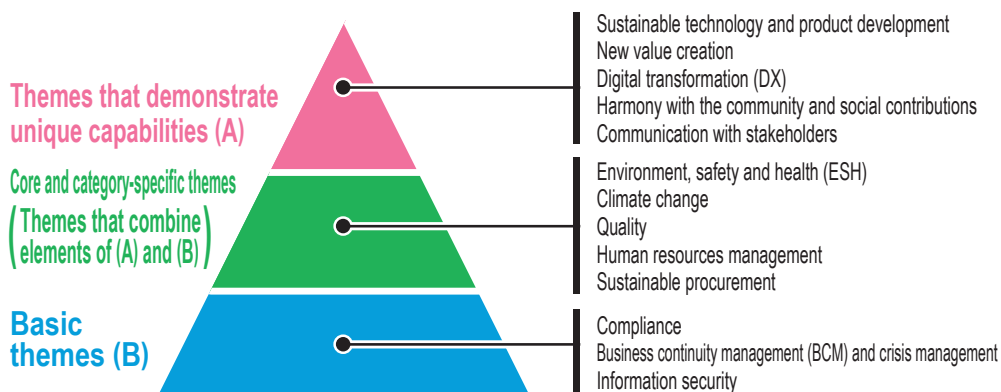
The DIC Group is dedicated to conducting its business while retaining a strong commitment to five key concepts: preserving safety and health, managing risks, ensuring fair business practices and respect for diversity and human rights, maintaining harmony with the environment and advancing its protection, and creating value for society through innovation and contributing to ongoing economic growth. DIC Group employees will continue working to deliver the value that its stakeholders—including its customers, suppliers, local communities, shareholders and investors, and employees—expect, showing ingenuity and a sense of responsibility. The Group itself will strive to remain an organization that contributes to sustainability for society, as well as to the conservation and improvement of the global environment, by capitalizing on its businesses to achieve unfaltering growth, thereby enhancing its own sustainability.

Notes: 1. With the aim of ensuring that it remains a globally trusted corporate citizen with a proud reputation, in December 2010 the DIC Group became a signatory to the UNGC. The Group also takes the guidelines provided by ISO 26000, the International Organization for Standardization's standard for social responsibility, into account in conducting its operations.
2. The global community today recognizes the promotion of ESG management, which seeks to balance sustainable economic growth and the resolution of social imperatives, as critical. This is evidenced by the fact that countries worldwide have ratified the Paris Agreement and the SDGs, both of which were adopted in 2015.

Sustainability Framework and Themes

Themes

The DIC Group's sustainability framework comprises 13 key themes, which are categorized as basic themes, themes that demonstrate unique capabilities and themes that combine elements of the previous two classifications. The Group implements a broad range of global initiatives that take into account its responsibility to ensure proper product stewardship, as well as its position as a leading manufacturer of fine chemicals.



Deployment

In line with its basic sustainability policy, the DIC Group has formulated a medium-term (fiscal years 2022–2025) policy and creates an annual activity plan for each of its key sustainability themes. The Group makes use of the plan-do-check-act (PDCA) cycle in promoting initiatives and reports on its achievements annually in the DIC Report. Individual business groups, product divisions, sites, and overseas and domestic DIC Group companies are charged with pursuing effective sustainability programs by formulating their own activity plans, based on the Group's plan, as well as with ensuring that the Group's policies permeate their organizations and labor forces, and promoting sustainability initiatives that align with business targets.

System for Promoting Sustainability Initiatives

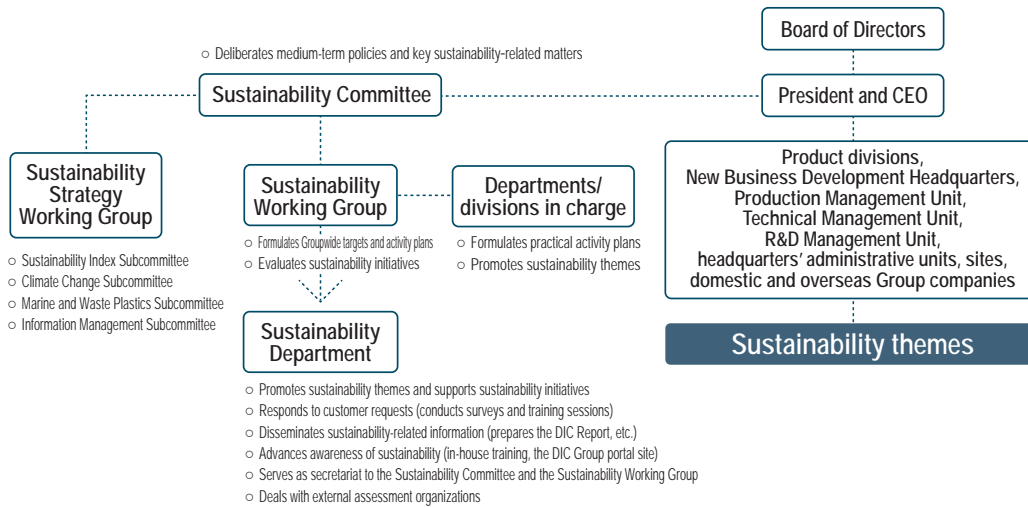
The DIC Group's system for promoting sustainability initiatives centers on the Sustainability Committee, which answers directly to the president and CEO and which met four times in fiscal year 2021. The committee functions as an advisory body, and is responsible for formulating responses to key social imperatives. The Sustainability Committee is also tasked with reinforcing sustainability initiatives and deliberating on critical related matters. Effective from January 2020, the committee is chaired by the president.

In January 2019, DIC established the Sustainability Strategy Working Group, which is responsible for formulating and advancing the implementation of concrete strategies for promoting sustainability, and oversees the activities of four subordinate working groups—Sustainability Index, Climate Change, Marine and Waste Plastics, and Information Management. The Sustainability Strategy Working Group also reports on key initiatives to the Sustainability Committee.

Members of the Sustainability Committee

President and CEO, Executive Vice President, Head of the Finance and Accounting Unit, Head of the Corporate Strategy Unit, Head of the General Affairs and Legal Unit, Head of the ESG Unit, Head of the SCM Unit, Head of the IT Strategy Unit, Presidents of the business groups, General managers of the product divisions, General Manager of the Production Management Unit, General Manager of the Technical Management Unit, General Manager of the R&D Management Unit, General Manager of the New Business Development Headquarters, General Manager of the Corporate Planning Department, CEOs of overseas regional headquarters, presidents of key domestic Group companies, and Members of the Audit & Supervisory Board

As of May 2022



Ensuring DIC Remains a Globally Trusted Corporate Citizen with a Proud Reputation

Leveraging its Position as a Global Manufacturer of Fine Chemicals to Support the UNGC

Seeking to fulfill its responsibilities as a member of the international community in a more proactive manner, in December 2010 the DIC Group became a signatory to the United Nations Global Compact (UNGC) and pledged its support for the Ten Principles of the UNGC.

Inaugurated in 2000, the UNGC is a voluntary initiative for companies that seek to achieve sustainable development. Companies and organizations worldwide have pledged their support for the UNGC in the belief that global sustainable development is possible if companies align their business practices with, and fulfill their social responsibilities in, 10 globally accepted principles in the areas of human rights, labor, the environment and the prevention of corruption.



Applying the Ten Principles of the UNGC

The DIC Group Code of Business Conduct conforms with the Ten Principles of the UNGC. The Group is capitalizing on its participation in this program to advance its operations around the world, while at the same time giving ever-greater consideration to the environment and human rights, with the aim of ensuring sustainability for global society.

Complying with ISO 26000

The DIC Group operates in a manner that is consistent with ISO 26000, released in November 2010, which provides businesses and organizations guidelines for operating in a socially responsible manner.

Ten Principles of the UNGC (Official Version)

Human rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and
	Principle 2	make sure that they are not complicit in human rights abuses.
Labour	Principle 3	Businesses should uphold the freedom of association and effective recognition of the right to collective bargaining;
	Principle 4	the elimination of all forms of forced and compulsory labour;
	Principle 5	the effective abolition of child labour; and
	Principle 6	the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges;
	Principle 8	undertake initiatives to promote greater environmental responsibility; and
	Principle 9	encourage the development and diffusion of environmentally-friendly technologies.
Anti-corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.

Themes	DIC Sustainability Themes	Relevant UN SDG Icons
Themes that demonstrate unique capabilities (A)	Sustainable technology and product development	  SDGs Goals 9 and 12
	New value creation	   SDGs Goals 8, 9 and 11
	Digital transformation (DX)	  SDGs Goals 3 and 4
	Harmony with the community and social contributions	 SDGs Goal 17
	Communication with stakeholders	
Core and category-specific themes (Themes that combine elements of (A) and (B))	Environment, safety and health (ESH)	       SDGs Goals 3, 6, 7, 12, 13, 14 and 15
	Quality	     SDGs Goals 3, 4, 5, 8 and 10
	Human resources management	 SDGs Goal 12
	Sustainable procurement	
Basic themes (B)	Compliance	
	Business continuity management (BCM) and crisis management	 SDGs Goal 16
	Information security	

The 2030 Agenda for Sustainable Development

At the UN Sustainable Development Summit in September 2015, a proposal titled “Transforming our world: the 2030 Agenda for Sustainable Development,” later summarized as the Sustainable Development Goals (SDGs), was adopted with the participation of more than 150 UN member states. The agenda, which succeeded the Millennium Development Goals (MDGs), encompasses 17 goals and 169 targets. All UN member states are expected to mobilize efforts to attain the 17 goals, essential to sustainable development for the planet, by 2030. The DIC Group pledges to contribute through its business activities to the success of the SDGs.



For more information on the SDGs, please visit:
WEB <https://www.un.org/sustainabledevelopment/development-agenda/>

Compliance

Toward Fair and Transparent Corporate Activities

SDGs Goal 16



Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objectives of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Enhance awareness of compliance.	<ul style="list-style-type: none"> Achieve target for percentage of employees participating in the e-learning program (95%). Implement legal training. If COVID-19 remains an issue, opt for a remote format. 	<ul style="list-style-type: none"> Excluding regions where people were unable to gather because of COVID-19, the percentage of employees participating in e-learning exceeded 95%. Legal training was implemented in Japan for DIC executives and the presidents of domestic Group companies, among others. 	★★	<ul style="list-style-type: none"> Achieve target for percentage of employees participating in the e-learning program (100%). Implement legal training focused on compliance and corporate governance. (Determine most appropriate format.)
Conduct business fairly.	Achieve target of zero violations of antitrust and anti-corruption laws.	Zero violations of antitrust and anti-corruption laws were reported.	★★	Achieve target of zero violations of antitrust and anti-corruption laws.

Basic Approach to Compliance

Compliance in the DIC Group encompasses not only obeying laws but also acting in a manner that is in keeping with social norms and the expectations of customers, communities and other stakeholders. With the aim of ensuring sustainable growth for businesses that are both fair and transparent, DIC formulated the DIC Group Code of Business Conduct, a unified set of guidelines the adherence to which it considers to be the foundation of compliance. DIC compels all DIC Group employees to conduct themselves in accordance with the code.

The DIC Group Code of Business Conduct

The DIC Group completed the DIC Group Code of Business Conduct in July 2014. The code not only mandates compliance with national laws and international rules but also presents 10 principles essential to the professional conduct of DIC Group employees. The Group held presentations for all existing Group employees at the time of release, while new employees receive training at point of hire. The goal of such training is to ensure employees worldwide share values cherished by the Group and approach their responsibilities with a sense of responsibility and a commitment to doing the right thing.

DIC Group Code of Business Conduct [WEB https://www.dic-global.com/pdf/csr/philosophy/compliance/code_of_business_conduct_en.pdf](https://www.dic-global.com/pdf/csr/philosophy/compliance/code_of_business_conduct_en.pdf)

10 Principles Essential to Professional Conduct

- 1 Your Rights as an Employee: Respect, Dignity, Privacy
- 2 Environment, Safety and Health
- 3 Your Responsibility to Avoid Potential Conflicts of Interest and to Protect Group Property
- 4 Anti-Corruption and Anti-Bribery Policy
- 5 Your Relationship with Governments and Government Officials
- 6 Your Relationship with Customers, Suppliers, and External Third Parties
- 7 Money Laundering and Anti-Terrorism
- 8 Forced Labor, Child Labor, Conflict Minerals
- 9 Insider Trading
- 10 Proper Accounting and Internal Controls Relating to Financial Reporting

Initiatives to Promote Compliance

The DIC Group promotes compliance through the following initiatives:

- 1 Legal training focused on improving compliance awareness is provided for employees at point of hire, when promoted and before transfer overseas. In addition, to promote awareness of the DIC Group Code of Business Conduct, e-learning related to the code, as well as to compliance, is provided in Japan, at DIC Asia Pacific and DIC (China), and in the Americas and Europe. In fiscal year 2021, legal training could not be implemented for Group employees because of COVID-19, but training regarding corporate governance and other themes was implemented in Japan for DIC executives and the presidents of domestic Group companies, among others.

Compliance E-Learning Program

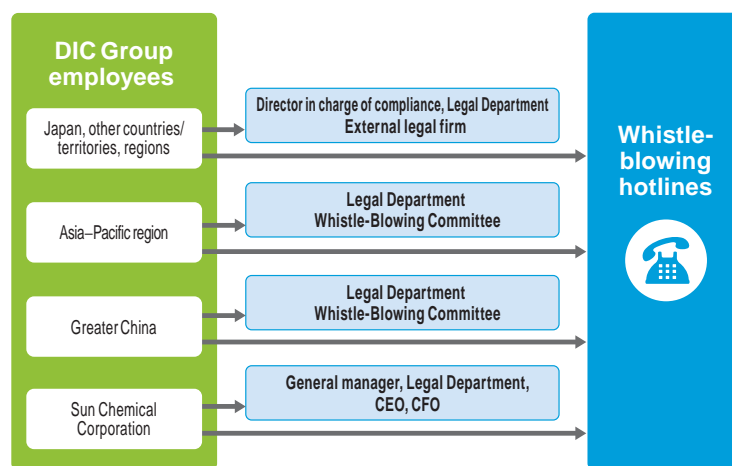
- Preventing corruption and bribery (2017)
- International antitrust legislation (2018)
- Avoiding conflicts of interest (2019)
- Preventing harassment (2020)
- Insider trading (2020)
- Trademarks and intellectual property (2020)
- Information security and the protection of personal information (2020)
- Adhering to laws and regulations pertaining to compliance (2020)
- The DIC Group's whistle-blowing system (2020)
- Adhering to laws and regulations pertaining to compliance (product quality) (2021)
- Information security and the 2021 revision of Japan's Act on the Protection of Personal Information, etc. (2021)

- ② Compliance officers are appointed at all regional headquarters—DIC in Japan, Sun Chemical (the Americas and Europe), DIC (China) (PRC) and DIC Asia Pacific (Asia and Oceania)—to spearhead global compliance efforts. The DIC Group vows that it will not violate the principles of the DIC Group Code of Business Conduct, even if such a violation would appear to profit the Group. As a corporate citizen, the Group also pledges to respect social norms and act in a sound and socially acceptable manner. In fiscal year 2021, there were no serious violations of compliance laws.

Establishing and Operating a Whistle-Blowing System

The DIC Group has established a compliance whistle-blowing system independent from channels for communication used in the conduct of business. (This system also encompasses external hotlines that can handle reports of compliance-related issues and questions in the languages of more than 160 countries.) The Group has also devised strict rules under this system to protect whistle-blowers from retaliation and works to ensure the system functions in a proper manner.

When a report is received, the Group responds swiftly and appropriately, giving due consideration to pertinent laws while also incorporating internal and external opinions, to identify and correct violations and where necessary to take disciplinary action. Details of reports and steps taken in response are reported to the Board of Directors. The Group will continue to use its whistle-blowing system to ensure the prompt discovery and correction of misconduct. In fiscal year 2021, approximately 44 reports were received on compliance issues and labor-related matters such as power harassment and discrimination, but none were judged to be serious. DIC also provided e-learning focused on the Group's whistle-blowing system from fiscal year 2020 through fiscal year 2021.



Antitrust and Anti-Corruption Legislation

The DIC Group has formulated a basic policy to comply with antitrust legislation and made Groupwide efforts to ensure fair business practices. The DIC Group Code of Business Conduct includes rules for complying with antitrust legislation and prohibits involvement in corruption. Since fiscal year 2014, the Group has held more than 160 presentations regarding antitrust and anti-corruption legislation to ensure strict compliance with the laws of the countries in which it operates.

Promoting Compliance with Legislation Regarding the Timely Payment of Subcontractors

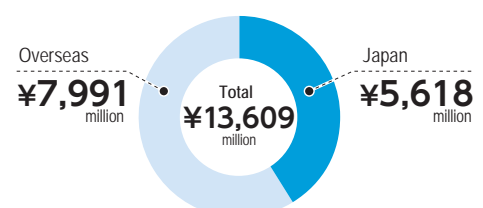
With the aim of enhancing understanding of the importance of appropriate and fair transactions with subcontractors, the Legal Unit held presentations on legislation regarding the timely payment of subcontractors, incorporating case studies, for the purchasing departments of domestic DIC Group companies, and offered e-learning, principally for employees in charge of subcontractors. In addition, DIC has prepared the Manual for Internal Auditing of the DIC Group's Compliance with Japan's Act Against Delay in Payment of Subcontract Proceeds, Etc., to Subcontractors and created a framework for conducting audits in a more efficient manner. The Group also encourages employees in related positions to participate in programs sponsored by external organizations, including a workshop promoting adherence to the Act sponsored by the Japan Fair Trade Commission and the Small and Medium Enterprise Agency.

Taxation Compliance

In November 2017, the DIC Group formulated an official approach to tax. As an organization with global operations, the Group engages in fair and appropriate tax planning that reflects the nature of its businesses. The Group is also aware of risks associated with transfer price taxation and the use of tax havens, and of its obligation to pay appropriate taxes in the proper jurisdictions as appropriate for its operations. The chart to the right shows a breakdown of the Group's income taxes in Japan and overseas in fiscal year 2021.

The DIC Group's Approach to Tax [WEB https://www.dic-global.com/en/csr/philosophy/management/tax.html](https://www.dic-global.com/en/csr/philosophy/management/tax.html)

Income Taxes-Current* in Fiscal Year 2021



BCM and Crisis Management

Reducing Business Risks and Preventing the Recurrence of Incidents

Goals and Achievements of Major Initiatives Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Ensure the continuity of DIC Group businesses.	<ol style="list-style-type: none"> Periodically revise BCPs and reinforce cooperation among product divisions and sites. Strengthen efforts to create a global crisis management configuration and promote BCP initiatives. 	<ul style="list-style-type: none"> A periodic revision of BCPs was conducted, as scheduled. To reinforce cooperation among the headquarters task force, product divisions and sites, a system for sharing information in the event of an accident or disaster was introduced and launched. Joint initial response training with multiple sites using this system was conducted as part of headquarters task force training. In addition, after launch the system was put to practical use to collect information from sites when an earthquake registering 5 Upper on the Japanese Seismic Intensity Scale struck. The headquarters task force manual for responding to infectious diseases was revised significantly based on experience gained dealing with COVID-19. Revisions were made to the manual prepared for use by Company representatives taking up new overseas posts. 	★★	<ol style="list-style-type: none"> Periodically revise BCPs and reinforce cooperation among product divisions and sites. Strengthen efforts to create a global crisis management configuration and promote BCP initiatives.

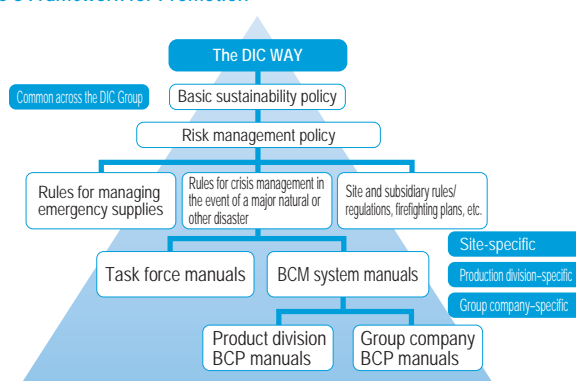
Basic Approach to BCM and Crisis Management

The DIC Group accounts for all risks with the potential to interrupt business continuity through BCM, including those related to natural disasters such as major earthquakes, typhoons and floods; influenza and other pandemics; and explosions, fires, leaks and other facility accidents. The Group comprehensively estimates the probability of each risk and its impact on management, prioritizing response measures for more significant risks. The Group has also established a task force framework encompassing a headquarters task force, business task force and on-site task forces, as well as prepared risk-specific manuals for use Groupwide, and continues to promote efforts that include producing and revising business continuity plans (BCPs) for key products, formulating BCM and crisis management countermeasures, and updating information.

Framework for Promoting BCP

Having prepared crisis management rules and risk-specific manuals for use across the DIC Group in the event of a major disaster, DIC has formulated BCPs for individual product divisions. The Group also recognizes the need to ensure it can fulfill its supply responsibilities in the event of damage to its facilities from a large-scale natural disaster and thus incorporates this perspective into its BCPs. Specifically, the Group formulates BCPs for key products with a view to fulfilling its social responsibility and responding to customer requirements. DIC also conducts BCP-focused joint production division–site exercises assuming the implementation of these BCPs to confirm the effectiveness of manuals, identify issues and implement ongoing improvements.

DIC's Framework for Promotion



BCM in Fiscal Year 2021

While fiscal year 2021 was the second consecutive year in which the DIC Group did not suffer significant damage from natural disasters, decisive steps were once again required to curb the spread of COVID-19 and the Group continued working to implement effective measures in response to evolving circumstances.

Responding effectively to accidents and disasters depends on employees having a correct understanding of BCM and of how to properly execute DIC's BCPs. This in turn requires education and training. In an average year, training includes conducting workshops and map-based simulation exercises—originally developed for senior management—for headquarters task force members under the supervision and guidance of experts, as well as BCP-focused joint production division–site exercises.

In fiscal year 2021, DIC fully deployed the DIC BC Portal, a dedicated portal system to allow the sharing of information among the headquarters task force, production divisions and sites in the event of an accident or disaster. The year's headquarters task force training was based on a scenario assuming the widespread use of telework arrangements, making it necessary for the task force to operate exclusively via online meetings, and involved linking the task force with multiple production facilities, branches and other sites and using the Group's web conferencing system in tandem with the DIC BC Portal to ensure the smooth online sharing of information in the event of a disaster.

Improving the Effectiveness of BCPs and Preventing Them from Becoming Mere Formalities

The DIC Group works to refine the format of its BCPs to prevent them from becoming mere formalities. In fiscal year 2021, the Group adjusted its BCP format, taking into account the future evolution of Group companies, to comply with the requirements of ISO 22301, the International Organization for Standardization's standard for business continuity management systems. With the aim of bringing its BCPs closer in line with the ISO standard, the Group incorporated measures to counter issues that obstruct business continuity.

The DIC Group also conducts annual status update meetings attended by relevant executives to verify that the content of individual product division BCPs to ensure they remain relevant. The fiscal year 2021 status update meeting included examining measures for countering issues that obstruct business continuity and confirming updates.

Conducting Emergency Response Exercises and Drills

In addition to annual headquarters task force–led training, the DIC Group has developed and works to maintain a system designed to ensure its ability to minimize damage in the event of a disaster, as well as to facilitate the swift restoration of operations. This system includes a wide range of exercises and drills, including employee safety confirmation report drills, site-to-site emergency radio warning drills and site-specific comprehensive disaster drills. The aforementioned headquarters task force–led training used a scenario involving a disaster occurring at a time when many officers and employees were making use of telework arrangements, with all corporate headquarters–based executive officers participating online, to ensure the headquarters task force's ability to function even in a situation where telework is the norm. The Group is also currently developing a program to train site employees in the use of the newly deployed DIC BC Portal to facilitate its incorporation into drills conducted at sites.



Comprehensive disaster drill at corporate headquarters



Task force map-based simulation exercise



BCP training at corporate headquarters



Crisis Management

Efforts to Reinforce Safety Measures Overseas

Owing to the expansion of its global operations, the DIC Group continues to establish new overseas bases and to expand the number of employees being assigned to overseas posts or traveling overseas on business. Given the increasing risk posed by terrorist attacks, insurgencies and infectious disease outbreaks, among others, the Group has prepared a manual for use by employees taking up new overseas posts. The Group recently revised this manual, focusing on sections related to responding to infectious diseases, to assume various new outbreaks.



Safety training for employees prior to taking up new overseas posts



Safety training for individuals prior to traveling overseas on business



Safety handbook for individuals taking business trips overseas



Safety handbook for Company representatives posted overseas

I Community Efforts to Cope with Major Disasters

Japan is one of the most earthquake-prone countries in the world and has been struck multiple times by devastating seismic activity. As a consequence, ensuring earthquake readiness, that is, the ability to prevent and mitigate the impact of earthquakes, is recognized as a critical challenge for society as a whole. Tokyo's Nihonbashi district, home to DIC's corporate headquarters, is noted for its tightly clustered large commercial complexes and office buildings. A comprehensive neighborhood disaster drill is conducted annually on an empty lot near the DIC Building, but given the rapid spread of COVID-19 in 2021 the drill was replaced by disaster response training, provided by the fire department in charge of the drill, with the aim of maintaining existing know-how and skills.

The DIC Building, designed with state-of-the-art earthquake-resistant technologies, has been designated as a temporary shelter for people stranded in Chuo-ku, the ward in which Nihonbashi is located, while DIC, as a member of Chuo-ku's management council for emergency shelters for stranded individuals, promotes a variety of initiatives aimed at assisting people stranded in the wake of a serious earthquake or other disaster. The Company also participates in drills in collaboration with local authorities designed to guarantee the effective sharing of information regarding evacuations, among others, even in the midst of post-disaster chaos. DIC will continue to play an active role in community-based efforts to reinforce local disaster preparations. In doing so, the Company aims to help ensure Tokyo's disaster resilience.



Emergency training in the use of AEDs and hemostasis



Training in the use of fire hydrants to extinguish fires



Exhibit of DIC Building temporary shelter for people stranded in Nihonbashi



Map-based training conducted as part of a community disaster drill

I Responding to New Infectious Diseases

DIC has prepared a headquarters task force manual and product division BCPs for responding to infectious diseases to guarantee it is fully prepared to respond to pandemics when they occur. However, because these assumed outbreaks of new strains of influenza they proved inadequate in dealing with COVID-19. Accordingly, the headquarters task force manual was revised significantly, as was the format for BCPs, to include general and universal measures designed to cope with new infectious diseases other than influenza.

In fiscal year 2021, DIC continued to promote actions designed to help thwart the further spread of COVID-19 and protect employees from infection. These included maintaining its prohibition on business trips worldwide; encouraging employees to make use of telework arrangements, including by normally ineligible temporary staff; staggering working hours for those employees whose work requires them to be on-site; mandating individuals remain at home when they or any of the people they live with feel unwell; and avoiding holding meetings and events.

 **Comment** **We built an internal information sharing and communication system that will ensure the smooth communication of instructions in the event of a disaster or accident.**

Infocom Corporation's crisis management business offers the BC Portal information management portal system, a communication tool that addresses the need to swiftly and accurately grasp and share information on damage suffered in the event of a disaster or accident, to companies and municipalities across Japan. After signing an agreement with DIC in 2020 to develop a customized version of this system, the DIC BP Portal system became fully operational in 2021.

In building the DIC BC Portal system, we paid particular attention to needs engendered by the Company's far-flung network of production bases and operational rules. We sought to customize the system from the user's perspective, including by adjusting the home screen and tailoring order of input fields, to ensure superior practicality. Management participated actively in the subsequent headquarters task force-led training incorporating the DIC BC Portal system to ensure its effective deployment and I found myself impressed by the high level of crisis management awareness throughout the entire Company. I look forward to seeing DIC expand deployment of this system and that it will help further bolster the Company's crisis management capabilities in the years ahead.



Certified Business Continuity Specialist Grade II, Crisis Management Department, Infocom Corporation **Yukikazu Hayasaka**

Information Security

Initiatives to Ensure Information Security

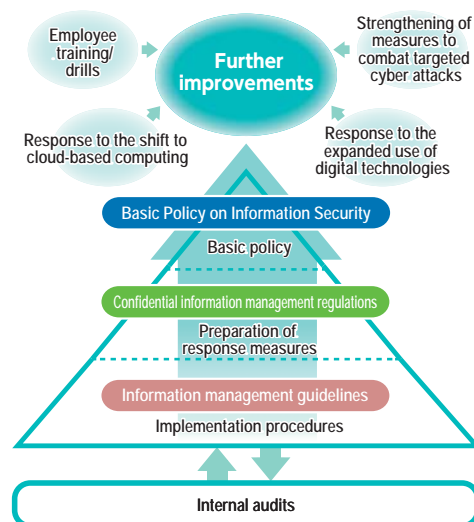
Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Establish a global information security framework.	Reinforce the security infrastructure and set or update various standards in preparation for the full-scale transition to a cloud-based information system.	<ul style="list-style-type: none"> Efforts to reinforce the security infrastructure to improve convenience while ensuring security in remote access environments were completed. Site networks were strengthened and expanded in response to the expansion of remote and hybrid work arrangements. An information security risk assessment was conducted by a third-party organization. The effectiveness of steps taken in response to the expansion of cloud-based information systems and diverse work styles, including remote work, was confirmed and a road map was devised based on an analysis of risks. 	★★	In light of the results of the information security risk assessment, formulate and implement security measures, BCPs and emergency response drills appropriate for a cloud-based information system.

Basic Approach to Information Security

The DIC Group has positioned information security as a key management priority and established a Basic Policy on Information Security, which is founded on its recognition that protecting information assets that belong to or are managed by the Group is essential to its ability to conduct business. In line with this policy, DIC has formulated and implemented confidential information management regulations and information management guidelines. The DIC Group works to ensure that directors and employees use the Group's information assets appropriately in the course of business and appropriately handle confidential information. The Group also pursues continuous improvements by conducting internal audits to confirm current issues and identify risks.



Globally Maintaining and Enhancing Information Security

The DIC Group's approach to information security management rests on four pillars: Regulations and guidelines, management framework, infrastructure, and employee education and training. To ensure swift responses to increasingly diverse cyber threats, the Group currently plans to deploy measures implemented in Japan to reinforce information security by enhancing its intranet security infrastructure and updating endpoint security systems in key overseas markets (the Asia-Pacific region, the PRC, Taiwan and the ROK.)

Regulations and Guidelines

In line with its Basic Policy on Information Security, the DIC Group updates its confidential information management regulations, which stipulate the scope of management and related standards, rules and responsibilities, as well as its information management guidelines, which outline implementation procedures, on a regular basis and as required to ensure its ability to address new security risks in a timely manner.

The Group also creates new and revises existing rules as appropriate in response to the increasing prevalence of digital technologies and the shift to cloud-based computing. In fiscal year 2021, in response to widespread moves to discontinue the practice of sending password-protected encrypted attachments in an email and then sending a password to unzip the file in a second email (dubbed "PPAP"*), a security measure previously popular with Japanese companies, the Group revised related measures and corresponding guidelines. Enforcement of the new measures and guidelines commenced in January 2022.

* PPAP is an acronym for "Password-protected file," "Password," "Angoka" ("encryption" in Japanese) and Protocol." Japanese companies have been encouraged to discontinue the practice for security reasons.

Management Framework

The Information Security Committee, which is led by the head of the IT strategy unit, meets regularly (twice annually) as part of a system to facilitate the timely update of rules and guidelines to accommodate new technologies and risks, and to ensure changes are communicated effectively across the DIC Group. The committee formulates annual targets and initiatives for strengthening information security with the approval of the Sustainability Committee and manages the progress of related efforts. The Group is currently exploring the idea of establishing a system for ensuring information security for the entire global DIC Group, including Sun Chemical.

Infrastructure

Against a backdrop of increasingly active and sophisticated cyber attacks, including ransomware and targeted threats, the DIC Group is working to respond to rapid changes in working environments attributable to work style reforms, including the expansion of remote work and the increased use of cloud-based services. In fiscal year 2021, the Group contracted a third-party organization to conduct a risk assessment to evaluate the effectiveness and comprehensiveness of its information security measures from a multifaceted perspective. Based on the results of this assessment, the Group will formulate a road map for information security with the aim of responding flexibly and appropriately to emerging cyber risks, thereby permanently reducing risks to its businesses and management.

Employee Education and Training

The DIC Group offers an information security e-learning program to employees in Japan, the Asia-Pacific region, and the Americas and Europe, in which more than 90% of eligible employees take part. The Group also provides training dealing with targeted email attacks to increase employees' awareness of security. In response to the post-pandemic "new normal," the Group is currently formulating guidelines that accommodate new work styles, notably telework, which it will work to disseminate to employees worldwide.



Policies, Targets and Framework

Basic Approach

The DIC Group promotes a broad range of ESH initiatives through its Responsible Care program.

Initiatives to Date

As a global organization that manufactures and sells chemical substances, the DIC Group promotes a broad range of ESH initiatives through its Responsible Care program. Having established its Principle and Policy for the Environment, Safety and Health in 1992, in 1995 DIC pledged to implement the precepts of Responsible Care. Since reaffirming its support for Responsible Care management in January 2006 by signing the CEO's Declaration of Support for the Responsible Care Global Charter, the Company has promoted constant improvements. Today, the Group manages its Responsible Care program in a uniform manner using standardized codes, guided by its Environment, Safety and Health Policy, and works to implement initiatives that exceed regulatory requirements, in line with annual Responsible Care activity plans, and to fully disclose the results thereof.

Note: Responsible Care describes voluntary management initiatives undertaken by companies that manufacture or otherwise handle chemical substances, in line with the principles of autonomous action and self-assessment, pledging in their management policies to protecting the environment and ensuring health and safety across the entire life cycle of products, from development to manufacturing, distribution, use and end-of-life disposal, as well as to disclosing related information and promoting improvements.



DIC is a signatory to the International Council of Chemical Associations (ICCA)'s Responsible Care Global Charter.

Environment, Safety and Health Policy

As a responsible corporate citizen and as a company that manufactures and sells chemical substances, DIC recognizes that care for the environment, safety and health is fundamental to the management of the Company. DIC is committed to the concept of sustainable development in all aspects of its businesses and contributes to the global environment, including biodiversity, by creating environmentally sound products and technologies.

- ① We take responsibility for the environmental, safety and health implications of products throughout their life cycles.
- ② We continuously set goals and targets for environmental, safety and health improvements.
- ③ We comply strictly with laws, regulations and agreements relative to the environment, safety and health. For countries lacking such laws, we prioritize safe operations and protection of the environment.
- ④ We systematically provide education and training on the environment, safety and health.
- ⑤ We prepare systems and audit internally to benefit the environment, safety and health.

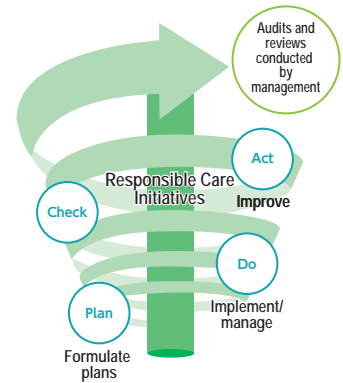
We disclose these policies internally and externally and ask that all DIC Group companies observe them. The abovementioned "safety" also encompasses security and disaster prevention.

Responsible Care Codes

The DIC Group manages its Responsible Care program in accordance with seven codes:* "Occupational safety and health" (protection of the safety and health of employees), "disaster prevention" (prevention of fires, explosions and the discharge of chemicals), "environmental protection" (continuous reduction of chemical emissions and the discharge of waste), "safety in logistics" (reduction of chemical risks associated with the distribution of chemicals), "chemical substance safety" (management of risks associated with chemicals), "dialogue with society" (communication with local communities regarding ESH) and "management systems" (systems that ensure the uniform administration of the first six codes). The Group applies the PCDA cycle to ensure ongoing improvements, while also conducting annual internal audits and management reviews.

* The seven Responsible Care codes were developed by the Japan Responsible Care Council (JRCC), which is part of the Japan Chemical Industry Association (JCIA), as a framework for Responsible Care programs with the goal of helping achieve a society that supports efforts to address ESH-related initiatives.

- 1 Occupational safety and health (protection of the safety and health of employees)Page 82
- 2 Disaster prevention (prevention of fires, explosions and the discharge of chemicals)Page 87
- 3 Environmental protection (continuous reduction of chemical emissions and the discharge of waste)Page 88
- 4 Safety in logistics (reduction of chemical risks associated with the distribution of chemicals).....Page 99
- 5 Chemical substance safety (management of risks associated with chemicals)Page 102
- 6 Dialogue with society (communication with local communities regarding ESH).....Page 108
- 7 Management system (ensure the uniform administration of the above six codes)Page 109



Message from the President

DIC’s president prepares a message for employees for Environment Month and National Safety Week.

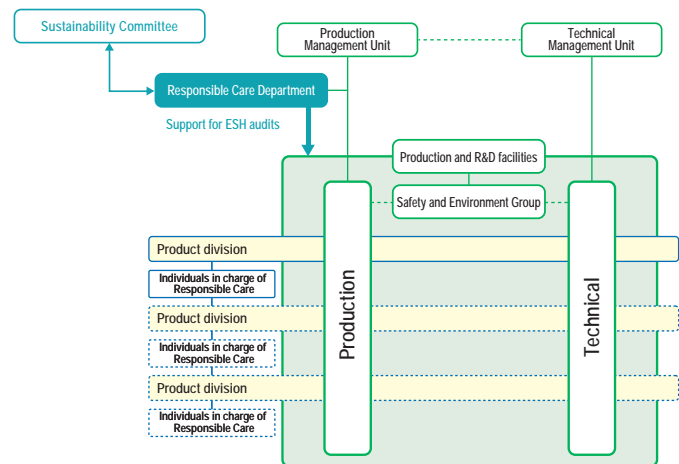
Responsible Care Education

As a company that manufactures and sells chemical substances, DIC incorporates education regarding the importance of Groupwide Responsible Care efforts into training for new employees (both new graduates and mid-career hires). Ongoing education is provided as part of rank-specific training for newly promoted employees.

Framework for Promoting Responsible Care

The Sustainability Committee, which answers directly to the president and CEO, is responsible for setting Responsible Care initiatives. Currently chaired by the president and CEO, the committee includes business group presidents, administrative unit heads, CEOs of regional headquarters and members of the Audit & Supervisory Board. The committee formulates Groupwide sustainability targets and policies, as well as deliberates and evaluates medium-term sustainability policies and annual sustainability initiatives. The PDCA cycle is used to evaluate voluntary Responsible Care initiatives implemented by Group companies, plants and R&D facilities in collaboration with the Safety and Environment Group. The Responsible Care Department provides support to ensure the smooth progress of these initiatives and conducts audits to ensure compliance and improve safety and environmental performance.

Framework for Promoting Responsible Care



Deployment of Responsible Care Initiatives at Group Companies

The Responsible Care Department provides wide-ranging support to DIC Group companies in Japan and overseas, regardless of operating scale, with the goal of enhancing Responsible Care initiatives Groupwide. Of particular note, the department assigns representatives to assist regional headquarters overseeing Group operations in Greater China and the Asia–Pacific region, as well as supports local initiatives to foster human resources.

1 Initiatives in Japan

The DIC Group has 12 companies and 35 sites in Japan. Safety and Environment groups have been established at each site, which are overseen by the Responsible Care Department. DIC and DIC Graphics hold GM conferences, which are gatherings of ESH officers from principal sites who have been appointed group managers (GMs), four times a year. Other domestic Group companies participate in twice-annual Responsible Care conferences. These various conferences facilitate the discussion of efforts to prevent accidents and disasters, share information on environmental challenges and ensure common awareness of Groupwide rules.

2 Initiatives in the Asia-Pacific Region

The DIC Group has 17 companies and 23 sites across the Asia-Pacific region. DIC has installed ESH country heads (individuals in charge of ESH initiatives) in 10 countries and territories in the region under the supervision of a regional ESH director, who has been installed at DIC Asia Pacific, the Group's regional headquarters, in Singapore. An annual conference and regular quarterly meetings involving the Responsible Care Department in Tokyo, the regional ESH director and the ESH country heads are held to ensure effective communication. The Responsible Care Department has also dispatched an ESH manager from corporate headquarters to provide on-site guidance. Country heads hold country- and territory-specific meetings periodically to consider initiatives, targets and challenges.

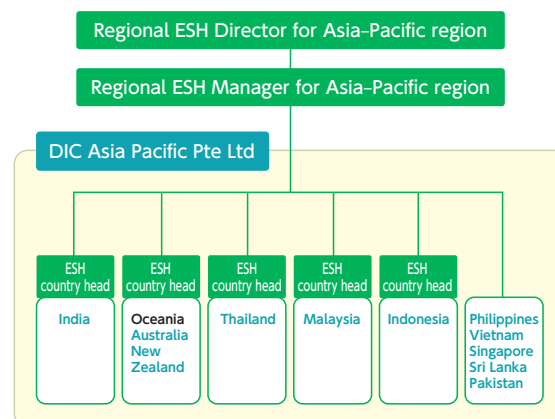
The 2021 edition of the DIC Asia-Pacific Region Annual ESH Conference was held in December, but rather than gathering in Singapore as usual ESH country heads, site ESH officers, the regional ESH director and Responsible Care Department staff congregated online. Participants discussed ESH policies, targets and challenges, as well as energy-saving investments for fiscal year 2022.

3 Initiatives in Greater China

In Greater China, the DIC Group has 17 companies and 18 sites. DIC has installed a regional ESH director at DIC China, the Group's regional headquarters, in Shanghai. The Company has also reinforced its regional ESH framework by assigning ESH coordinators to oversee efforts in the southern and eastern parts of the country. An annual conference and regular teleconferences involving the Responsible Care Department in Tokyo, the regional ESH director and the ESH coordinators are held to ensure effective communication. The Responsible Care Department has also dispatched an ESH manager from corporate headquarters to provide on-site guidance.

The 2021 edition of the Greater China Annual ESH and Energy Conservation Conference was held in November. Because of COVID-19, the conference was held online. Participants, which included general managers from regional Group companies, site ESH officers and Responsible Care Department staff, confirmed the progress of Responsible Care initiatives and discussed challenges and future directions.

Framework for Promoting ESH in the Asia-Pacific Region



TOPICS

DIC (China) Conducts Seminar to Improve DIC Group Safety Management Across Greater China

From November 10–12, 2021, DIC (China)'s ESH team conducted a seminar at DIC Synthetic Resins (Zhongshan) Co., Ltd., as part of an ongoing effort to build a culture of safety and improve leadership and skills in the area of safety management. The fiscal year 2021 seminar comprised courses under three headings: "Management and communication," "environmental management" and "experiences implementing ESH management best practices."

In the management and communication course, in particular, efforts focused on group discussions and role playing with the aim of ensuring the effectiveness of management processes. The environmental management course provided detailed explanations of arcane related laws and regulations to deepen understanding of strategies for and key aspects of environmental management over the life cycle of production equipment. The third course, which looked at ESH management best practices, centered on risk management, the securing of work permits, contractor administration and other day-to-day ESH activities, reaffirming the importance of leadership to safety management. Going forward, the DIC Group in Greater China pledges to continue working to improve safety management capabilities across the region.



Participants in the safety management seminar at DIC Synthetic Resins (Zhongshan)

4 Initiatives in the Americas, Europe and Africa

The Sun Chemical Group oversees all Responsible Care initiatives by DIC Group companies in the Americas, Europe and Africa. With the aim of ensuring that the DIC Group's ESH policy and its values are shared by all, the Responsible Care Department in Tokyo holds periodic online conferences and ESH manager meetings with local Responsible Care staff. The Responsible Care initiatives of the Colors & Effects Group, the acquisition of which was completed in July 2021, are also overseen by the Sun Chemical Group.

Annual Activity Plans

The DIC Group formulates an annual Responsible Care Activity Plan and oversees Groupwide initiatives. Based on the Group's annual plan, which is prepared by the Responsible Care Department, regional headquarters develop their own region-specific activity plans, while individual Group companies, in line with the concept of management by objectives (MBO), translates these plans into reality by promoting a variety of Responsible Care initiatives.

The DIC Group's Annual Responsible Care Activity Plans for Fiscal Year 2021

1 Occupational safety and health

The DIC Group's fundamental objective remains the achievement of an accident-free workplace. With this in mind, set regional targets for total recordable incident rate (TRIR)*¹ in fiscal year 2021 and implement related initiatives.

2 Disaster prevention

Encourage the horizontal deployment of measures based on the lessons learned from past major accidents and take steps to prevent their recurrence.

- (1) Advance measures to cope with static electricity and manage dangerous goods (including installing firefighting and security equipment.)
- (2) Promote subcontractor and project management initiatives.

3 Environmental protection

- Respond to climate change-related challenges (prevent global warming)
 - (1) Achieve target for the reduction of CO₂ emissions. Implement the following measures with the aim of achieving DIC's global target for the reduction of CO₂ emissions (Scope 1 and 2) (30% from the fiscal year 2013 level by fiscal year 2030).
 - (a) Step up energy-saving initiatives at sites.
 - (b) Further encourage the use of energy from renewable sources.
 - (c) Make active use of and firmly establish the Group's new internal carbon pricing system. (Apply the new internal carbon price (¥8,000/tonne of CO₂) to the aforementioned measures.)
 - (2) Strive to ensure a grasp of CO₂ emissions across the supply chain (Scope 3).
 - (3) Consider setting a long-term reduction target that is in line with the goal of limiting the increase in global average temperature to below 1.5°C above pre-industrial levels.
- Maintain/lower the impact of production activities on air and wastewater quality.
- Reduce the generation of and maintain/increase the resource recycling rate*² for industrial waste.
- Continue to assess water risks affecting production activities.
 - (1) Advance understanding of material flows relating to water use (including water recycling).
 - (2) Explore methods for determining risks related to the withdrawal of fresh water and the discharge of wastewater.

4 Safety in Logistics

- Continue to provide information pertinent to the safe transport of chemicals.

5 Chemical substance safety

- Promote the creation of a new global system for managing chemical substance information.
- Further expand deployment of the Weracs and Atrion at DIC Group companies overseas.

6 Dialogue with society

Continue to publicize the results of Responsible Care activities.

7 Management system

- Make use of the ESH data collection system.
- Reinforce ESH management systems at regional headquarters (Greater China and the Asia-Pacific region) and provide engineering support (Asia-Pacific region).
- Improve environment- and safety-related management capabilities.
- Promote environment- and safety-related education.

*1 TRIR is calculated as: (Number of casualties due to occupational accidents resulting in workdays lost + Number of casualties due to occupational accidents not resulting in workdays lost) / Million work hours

*2 Resource recycling rate is calculated as: (Volume of industrial waste recycled (material recycling) + Waste heat recovered) / Volume of industrial waste generated

Occupational Safety and Health/Disaster Prevention

Occupational Safety and Health

Goals and Achievements of Major Initiatives Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objectives of initiatives	Scope of target	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Ensure occupational safety and health.	Global	Reduce incidence of occupational accidents. TRIR targets: DIC Group in Japan: 1.80 PRC: 1.00 Asia-Pacific region: 1.50 Americas and Europe: 8.00 (Global DIC Group: 4.35)	DIC Group in Japan: 3.60 PRC: 1.94 Asia-Pacific region: 0.90 Americas and Europe: 5.33 (Global DIC Group: 3.69)	★	Reduce incidence of occupational accidents. TRIR targets: DIC Group in Japan: 2.40 PRC: 1.00 Asia-Pacific region: 1.10 Americas and Europe: 8.00 (Global DIC Group: 4.36)
Prevent disasters.	Global	<ul style="list-style-type: none"> Continue working to prevent major accidents (e.g., fires resulting in the gutting of structures). Further promote the calculation of process safety accidents in accordance with ICCA guidelines. 	<ul style="list-style-type: none"> Number of major accidents: 0 Process safety accidents in Japan were calculated. 	★★	<ul style="list-style-type: none"> Continue working to prevent major accidents. Further promote the calculation of process safety accidents.

Policies

Basic Approach

Viewing the prioritization of operational safety as a core management tenet, the DIC Group works tirelessly to prevent accidents and disasters and to boost the level of ESH initiatives.

The DIC Group recognizes operational safety both as fundamental to its businesses and the core component of Responsible Care. The Company thus promotes active occupational safety and health, security and disaster prevention measures to foster a "Safety First" philosophy Groupwide and on the part of every employee.

Because its operations span diverse fields, the DIC Group has numerous processes that use hazardous and toxic materials and rotating devices, including ones that do not involve chemical reactions. Any accident involving such materials or devices has the potential to significantly impact society in general and damage the health of Group and partner company employees and local residents. With the aim of preventing such accidents, the Group has earned the International Organization for Standardization's Occupational Safety and Health Management System (OSHMS) certification and, based on the results of stringent risk assessments, places a high priority on reducing risks in the workplace by enhancing awareness of *Principles of Safe Conduct* and by training highly perceptive safety personnel. The Group also strives to enhance safety through efforts to reinforce its safety infrastructure and create a safety-oriented corporate culture.



Workplace safety poster featuring DIC's president and CEO in three languages for use at sites in Japan and overseas

Framework for Promotion

Under the supervision of the Sustainability Committee chair (DIC's president and CEO), the Safety and Environment groups of DIC Group companies, plants and R&D facilities collaborate to promote a variety of initiatives. In Japan, the Responsible Care Department meets regularly with site ESH officers to confirm the status of priority issues and the achievement of targets, as well as to manage the progress of related efforts. Overseas, the Group sets individual regional targets, while the Responsible Care Department and regional headquarters work together to conduct Group company-specific risk assessments, analyze accidents and promote remedial measures to ensure the continuous improvement of occupational safety and health overseas. (For more information, please see "Policies, Targets and Framework" on page 78.)

TOPIC

Management's Commitment

Believing that it is important for management to take the lead in promoting the idea of "Safety First," managing executive officer Naoyoshi Furuta, General Manager of the Production Management Unit, prepares a monthly memo for distribution to all sites, including those of Group companies, as part of a campaign dubbed "Learning from the Past and Implementing Practical Solutions." Each memo presents a recent actual occupational accident or introduces occupational accidents that are likely to occur at specific times—e.g., heatstroke in summer or static electricity-related accidents in winter—with an analysis of causes and suggestions for countermeasures. This memo is also read out once a month at a morning assembly at each site to promote awareness among employees and encourage a common understanding.



Principal Initiatives in Fiscal Year 2021

The DIC Group promotes a variety of initiatives around the world with the aim of eliminating occupational accidents. Of particular note, the Group sets targets for total recordable incident rate (TRIR)—calculated as the number of casualties (i.e., fatalities and injuries) due to occupational accidents, both those resulting in workdays lost and those not resulting in workdays lost, per million work hours—for the DIC Group in Japan, the PRC, the Asia-Pacific region, and the Americas and Europe.

In fiscal year 2021, the TRIR for the global DIC Group was 3.69, well below its 4.35 target. None of the occupational accidents at global Group sites resulted in fatalities. A total of 74 injuries resulting in workdays lost were reported, while injuries not resulting in workdays lost numbered 71. Looking ahead, the Group will continue working to analyze the causes of occupational accidents resulting in workdays lost and to reflect its findings in concrete improvements with the goal of preventing such accidents in the future.

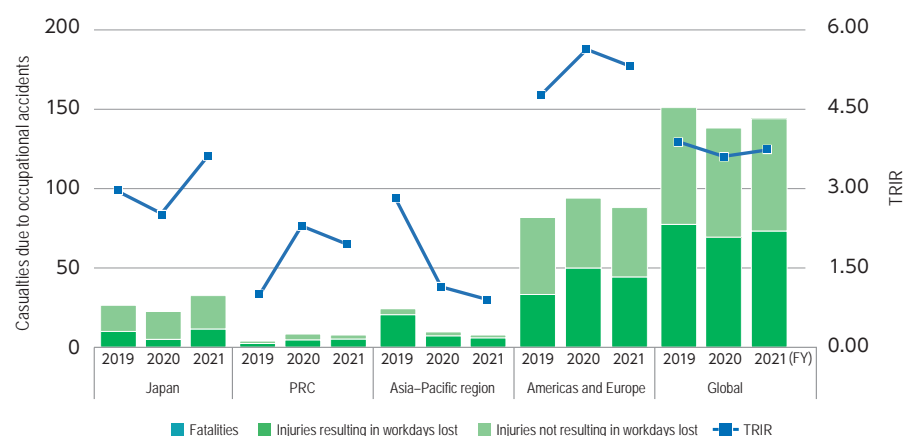
1 DIC Group in Japan

In fiscal year 2021, the DIC Group in Japan achieved a TRIR of 3.60, falling significantly short of its target of 1.80 and up from 2.51 in the previous fiscal year. No occupational accidents resulting in fatalities were reported. There were a total of 12 injuries resulting in workdays lost and 21 injuries not resulting in workdays lost. At 1.31, the frequency rate of occupational accidents was higher than the average for the manufacturing industry in Japan and for member companies of the Japan Chemical Industry Association (JCIA). The severity rate was lower than the average for manufacturers in Japan and in line with that of JCIA member companies. Going forward, the Group will work to reduce injuries by strengthening risk assessment and engineering-based responses.

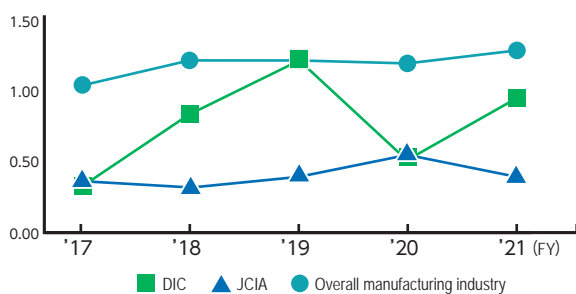
2 DIC Group Overseas

The TRIR for the DIC Group in the Asia-Pacific region in fiscal year 2021 was 0.90, while that for the Americas and Europe (the Sun Chemical Group) was 5.33, both well below regional targets. The DIC Group in the PRC reported a TRIR of 1.94, an improvement from fiscal year 2020 but short of its target. No occupational accidents resulting in fatalities were reported. There were a total of 62 injuries resulting in workdays lost and 50 injuries not resulting in workdays lost. (For more information, please see page 110.)

TRIR and Casualties Due to Occupational Accidents (FY2019–2021)



Frequency Rate

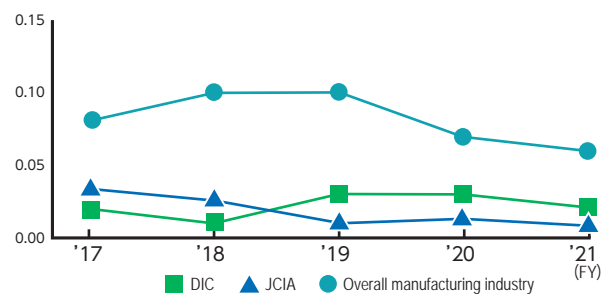


Note: The frequency rate expresses the frequency of accidents resulting in workdays lost in a fiscal year, calculated as the number of deaths or injuries per million work hours.

$$\text{Frequency rate} = \frac{\text{Number of deaths or injuries due to occupational accidents}}{\text{Total work hours}} \times 1,000,000$$

A frequency rate of 1.00 means one occupational accident resulting in workdays lost in one year at a site with 500 employees.

Severity Rate



Note: The severity rate expresses the number of workdays lost due to occupational accidents per 1,000 work hours.

$$\text{Severity rate} = \frac{\text{Total number of workdays lost due to occupational accidents}}{\text{Total work hours}} \times 1,000$$

A severity rate of 0.10 means 100 workdays lost in one year at a site with 500 employees.

Infrastructure for Preventing Occupational Accidents

1 Monthly Occupational Safety and Health Data

The DIC Group conducts its diverse businesses in accordance with a wide range of national and regional legal systems, working conditions and practices. However, to raise the level of occupational safety and health of the entire Group, it is crucial to establish common standards and benchmarks and to align regional initiatives.

The DIC Group promotes the sharing of information related to occupational safety and health across the global Group by aggregating regional statistical data on a monthly basis. Specifically, data is gathered by DIC (China) for Greater China, DIC Asia Pacific for the Asia-Pacific region, and Sun Chemical for the Americas and Europe, while the Responsible Care Department collects and analyzes data for Japan. This makes it possible to objectively compare and evaluate the operational safety of individual Group companies, establish precise targets for individual countries and regions, and formulate programs to achieve improvements. In fiscal year 2019, the Group introduced the DIC ESH Data Collection System (DECS), a cloud-based system for recording data. (For more information, please see page 109.)

Statistical Occupational Safety and Health Data

- Number of employees
- Number of casualties due to occupational accidents resulting in workdays lost and not resulting in workdays lost
- Number of workdays lost
- TRIR
- Total work hours
- Number of accidents involving fires/explosions
- Occupational accident frequency rate

2 Principles of Safe Conduct

Using resources such as case studies of accidents and disasters in the past, DIC has created rules and codes of conduct to ensure operational safety, which it has compiled as a guidebook titled *Principles of Safe Conduct*, the fifth edition of which was published in fiscal year 2019. English- and Chinese-language versions have also been prepared for use by DIC Group companies overseas.

3 Conducting Risk Assessments

By understanding potential risks in production processes, facilities and devices, and the hazards of chemical substances, the DIC Group systematically prepares initiatives to prevent accidents and occupational injuries. In Japan, the Group has formulated guidelines for conducting risk assessments when deploying new or modified equipment or changing production processes to identify and evaluate the impact on employees and the community from design through to operation.

With the aim of reducing risks associated with chemical substances in Japan, since fiscal year 2015 the DIC Group has created a framework to facilitate the methodical implementation of risk assessments in line with the policy set by the Ministry of Health, Labour and Welfare. Of particular note, in fiscal year 2016 the Group formulated proprietary assessment guidelines, including for assessment procedures, and is considering measures to evaluate hazards and toxicity and lower risks associated with chemicals set forth in Japan's Poisonous and Deleterious Substances Control Act.

4 Analyzing Accidents and Disasters and Providing Information in a Timely Manner

DIC promptly analyzes the causes of internal accidents and disasters and implements appropriate countermeasures, as well as promotes the horizontal deployment of such countermeasures at sites and Group companies to prevent reoccurrence. The Company has also compiled such information to create Accident Case Studies and Occupational Accident Case Studies databases. These databases—which include easy-to-understand explanations of the causes of accidents and breakdowns, points to be checked to ensure safety, and countermeasures—are incorporated into safety education for DIC and DIC Group companies in Japan and overseas.

5 Promoting E-Learning–Based Safety and ESH Training

To enhance its capabilities in the area of occupational safety and health, and in disaster prevention, the DIC Group recognizes the importance of ensuring that all of its employees gain a broad understanding of chemical substances, production processes, and pertinent laws and regulations. In fiscal year 2016, the Group introduced an e-learning program.

Initially structured around laws and regulations pertinent to the operational safety of production facilities, including Japan's Fire Service Act, Air Pollution Control Law and High Pressure Gas Safety Act, the e-learning program's focus was later expanded to include static electricity as a non-regulatory component, with the appropriateness of the program's training materials verified from the perspective of Responsible Care Department specialists, site ESH officers and production departments. Employees are able to take up to 16 classes and are required to score above 80 points to earn certification. As of December 31, 2021, the cumulative number of participants in the program since fiscal year 2017 had reached 700.



Web-based animated version of *Principles of Safe Conduct*



Hands-On Safety Training

The DIC Group's full-fledged hands-on safety training program began in fiscal year 2012 with the introduction of a mobile initiative using equipment transported from site to site using a 10-tonne truck. Since fiscal year 2013, the Group has installed permanent training equipment at six sites in Japan, as well as expanded deployment globally, including in the PRC and the Asia–Pacific region. This program has helped to almost halve the occupational accident frequency rate at Group sites in Japan. By simulating common production floor accidents—including those involving entanglement in rotating devices, falls from high places and incised wounds caused by cutting equipment—based on actual previous examples, the Group's hands-on safety training seeks to reduce employees' willingness to take risks and foster their ability to recognize danger. In doing so, the Group seeks to transform the mindset of employees by encouraging them to think and act on their own to protect themselves and each other from latent risks.

In fiscal year 2021, COVID-19 forced the DIC Group to cancel hands-on safety training. However, the Group used the period to review and revise equipment and procedures to facilitate implementation even during the pandemic. Training has in fiscal year 2022. As of December 31, 2021, the cumulative number of employees participating in hands-on safety training had exceeded 9,000 in Japan and reached approximately 6,000 overseas.

Number of Hands-On Safety Training Participants

	DIC Group in Japan	DIC Group overseas (Greater China: 4 companies, Asia–Pacific region: 4 companies)	Total
Cumulative total (FY2012–2021)	9,214	5,850	15,064

1 Initiatives in Japan

In fiscal year 2014, the DIC Group opened the Saitama Hands-On Safety Center, a facility boasting equipment that allows the simulation of an array of accidents, with the goal of fostering skilled safety personnel by incorporating hands-on safety training in new employee and rank-specific training programs. In the same year, DIC and DIC Graphics began including hands-on safety training and Kiken Yochi Training (KYT) (“hazard prediction training”) in the training curricula for new employees. The Chiba, Sakai, Hokuriku, Kashima and other plants have also established their own hands-on safety training equipment and curricula to further embed safety into the Group’s culture. In fiscal year 2015, the Group downsized six types of hands-on training equipment for lending to individual sites as part of a mobile training initiative. The Responsible Care Department places a high emphasis on fostering employee hands-on training instructors for this initiative and has established an instructors licensing system.



Training for new employees at the Saitama Plant



Hands-on safety training simulating an accident involving a fall

2 Initiatives at Overseas Group Companies

Group companies overseas are also deploying hands-on safety training. In Greater China, hands-on safety training equipment has been installed at Nantong DIC Color Co., Ltd., DIC Graphics (Guangzhou) Ltd. and Changzhou Huari New Materials in the PRC and DIC Graphics Chia Lung Corp. in Taiwan. In the Asia–Pacific region, equipment has been installed at DIC Compounds (Malaysia) Sdn. Bhd., PT DIC ASTRA Chemicals in Indonesia, Thailand’s Siam Chemical Industry and DIC India’s Noida Plant. These companies provide hands-on safety training for employees across their respective regions, as well as for instructors.

Efforts to Foster a Safety-Conscious Corporate Culture

1 Safe Corporate Climate Cultivation Working Groups

In line with the its “Safety First” philosophy, the DIC Group works to foster a safety-conscious corporate culture. In fiscal year 2011, personnel in charge of safety at plants belonging to DIC and subsidiary DIC Graphics created Safe Corporate Climate Cultivation working groups. In addition to meeting regularly to discuss and exchange proposals regarding safety policies and measures, these working groups advise the Sustainability Committee and other bodies and promote a variety of key initiatives.

Fiscal Year	Working Group Initiatives
2012	Working groups presented recommendations on safety policies and produced warning stickers to enhance awareness of workplace hazards.
2013	Working groups prepared safety posters featuring the president and CEO and started reading out key passages from <i>Principles of Safe Conduct</i> in workplaces with the aim of making the practices therein routine.
2014	Working groups prepared an illustrated version of <i>Principles of Safe Conduct</i> for reading out in workplaces.
2015	Working groups edited <i>Principles of Safe Conduct</i> into a tear-off calendar version for workplace reading circles, which was distributed to sites. The calendar version was also translated into English and Chinese.
2016	Working groups in the PRC began reading out key passages from <i>Principles of Safe Conduct</i> to foster a culture of safety.
2017	Working groups updated <i>Principles of Safe Conduct</i> .
2018	Working groups published the fifth edition of <i>Principles of Safe Conduct</i> .
2019	Working groups commenced production of a version of the fifth edition of <i>Principles of Safe Conduct</i> for workplace reading circles.
2020	The publication of a version of the fifth edition of <i>Principles of Safe Conduct</i> for workplace reading circles was scheduled, but was postponed until 2021 as a result of COVID-19.
2021	Site meetings were held at production facilities, with the president and vice present of DIC and the general manager of the Production Management Unit visiting each site to meet with frontline employees. A version of the fifth edition of <i>Principles of Safe Conduct</i> for workplace reading circles was published.



A tear-off calendar version of *Principles of Safe Conduct* for workplace reading circles (available in Japanese, English and Chinese)



Reading out passages from *Principles of Safe Conduct*

2 Initiatives at Overseas Group Companies

DIC has declared September 6 as DIC Safety Pledge Day, when all DIC employees pledge to ensure safe operations and to not repeat past serious accidents and disasters. On this day, each employee pledges their commitment to safety by writing their personal declaration on a special card.



2021 safety declaration card

Disaster Prevention

1 Policies

Basic Approach

In addition to establishing a security management system to prevent major accidents, the DIC Group implements prompt, effective countermeasures in the event an accident occurs.

Any fire, explosion or leak of a hazardous substance at a chemicals plant could have a tremendous impact on local residents and the rest of the community and damage the health of employees, including those of our partner companies. As well as operating and maintaining its facilities in line with pertinent laws and regulations, the DIC Group regularly conducts emergency drills and has earthquake and other response measures in place in the event a major accident occurs.

2 Framework for Promotion

Under the supervision of the Sustainability Committee chair (DIC's president and CEO), the Safety and Environment groups of DIC Group companies, plants and R&D facilities collaborate with the Responsible Care Department to promote a variety of initiatives. The Responsible Care Department holds meetings regularly with site Safety and Environment groups to exchange information, as well as to confirm the status of priority issues and the achievement of targets, and to manage the progress of related efforts. (For more information, please see "Policies, Targets and Framework" on page 78.)

3 Principal Initiatives in Fiscal Year 2021

1 Process Safety Management

The International Council of Chemical Associations (ICCA) formulated criteria for chemical process safety accidents that require reporting in fiscal year 2017. Since fiscal year 2018, the DIC Group has calculated process safety accidents for the Group in Japan in line with these standards. In fiscal year 2021, the Group reported seven process safety accidents. The process safety accident frequency rate—the number of such accidents per 200,000 work hours—was 0.128.

Note: Under the ICCA criteria, a process safety accident that requires reporting has occurred—primarily due to a fire, explosion or leak related to a production process—when the following four conditions are met:

1. A chemical substance or chemical process is directly involved;
2. The incident occurred in production, distribution, storage, utility or a pilot plant;
3. There was a release of material or energy (e.g., fire, explosion or implosion) from a process unit; and
4. One or more of the following have occurred:
 - occupational accident,
 - facility damage,
 - shelter in place/evacuation order, or
 - release of material that meets a Globally Harmonized System of Classification and Labeling of chemicals (GHS) reporting threshold

	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Number of ICCA process safety accidents	10	6	4	7
Process safety accident frequency rate	0.175	0.110	0.073	0.128

2 Risk Assessments at Chemicals Production Facilities

The DIC Group's production facilities have an array of application-specific equipment, ranging from units where chemical reactions are conducted to machine presses and other processing equipment. In 2013, the Group formulated the DIC Process Risk Management (PRM) Guidelines, which it uses to conduct systematic risk assessments at individual sites. These guidelines outline timetables and implementation frameworks for assessing the handling of chemical substances, production processes, production formulas, machinery and work practices with the aim of comprehensively identifying and steadily reducing risks associated with production and R&D processes.

Since fiscal year 2020, the DIC Group also uses hazard and operability (HAZOP) studies developed to assess the risk of accidents (i.e., leaks, fires and explosions) at chemicals production facilities. Specifically, the Group deploys the HAZOP studies to assess risks at facilities that have chemical reaction equipment, including the Yokkaichi, Chiba and Kashima plants.

3 Third-Party Assessments by the Safety Competency Enhancement Center

In 2013, DIC introduced an assessment system as a means of objectively evaluating and enhancing its safety competency.* This system was developed by the Japan Society for Safety Engineering (JSSE), together with chemicals industry engineers, as a common industry benchmark and is currently used by all companies in Japan that are members of the Safety Competency Enhancement Center. Assessments have been conducted at all DIC plants: the Kashima Plant in 2014, the Yokkaichi and Saitama plants in fiscal year 2017, the Komaki and Sakai plants in fiscal year 2018, the Chiba and Tatebayashi plants in fiscal year 2019, and the Hokuriku Plant in fiscal year 2020. These facilities have used assessment results to promote further improvements. The Yokkaichi Plant, for example, subsequently launched a HAZOP study-based risk assessment. In December 2019, DIC asked the Safety Competency Enhancement Center to provide the Company's president and CEO with an overall report on the results of assessments conducted to date at six production facilities, facilitating the sharing of understanding regarding safety and disaster-related issues across the management team.

* The assessment system encompasses questions about safety infrastructure (technical considerations) and culture of safety (operation and management of organizational culture).

TOPICS

DIC Kitanihon Polymer's Hokkaido Plant Receives Award from Tomakomai Fire Marshals' Association

In November 2021, DIC Kitanihon Polymer Co., Ltd.'s Hokkaido Plant received an award as an excellent site from the Tomakomai Fire Marshals' Association at the association's annual meeting for 2021. Article 27 (Awards) of the bylaws of the Tomakomai Fire Marshals' Association defines an "excellent site" as one with fire prevention practices that serve as a model for other business establishments that has worked toward the same target for more than five consecutive years under the guidance of a fire marshal* and achieved outstanding results. Awards are approved by the association's Board of Directors. DIC Kitanihon Polymer's Hokkaido Plant was judged to have fulfilled these criteria and selected to receive a fiscal year 2021 award.

* Representative: Keizo Yukishige, General Manager, Hokkaido Plant

Fire marshal: Satoshi Tsuchida (took over from predecessor on February 22, 2016)

Encouraged by the award earned by DIC Kitanihon Polymer's Hokkaido Plant, DIC Group production facilities will step up collective efforts to further improve safety management.



Emergency Response Drills

In addition to daily security patrols and periodic equipment checks, the DIC Group conducts regular emergency response drills based on BCPs, at production sites in Japan and overseas.



Comprehensive disaster drill at the Sakai Plant, a designated special disaster protection area



Comprehensive disaster drill at the Tokyo Plant

Environmental Protection

Policies

Basic Approach

The DIC Group regards global environmental issues as being of primary importance and continues to promote initiatives aimed at reducing its environmental footprint with the aim of contributing to the realization of a sustainable society.

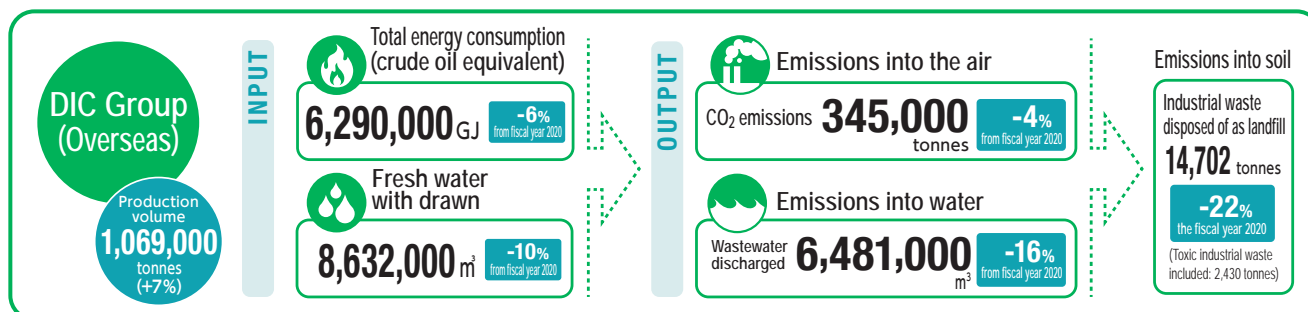
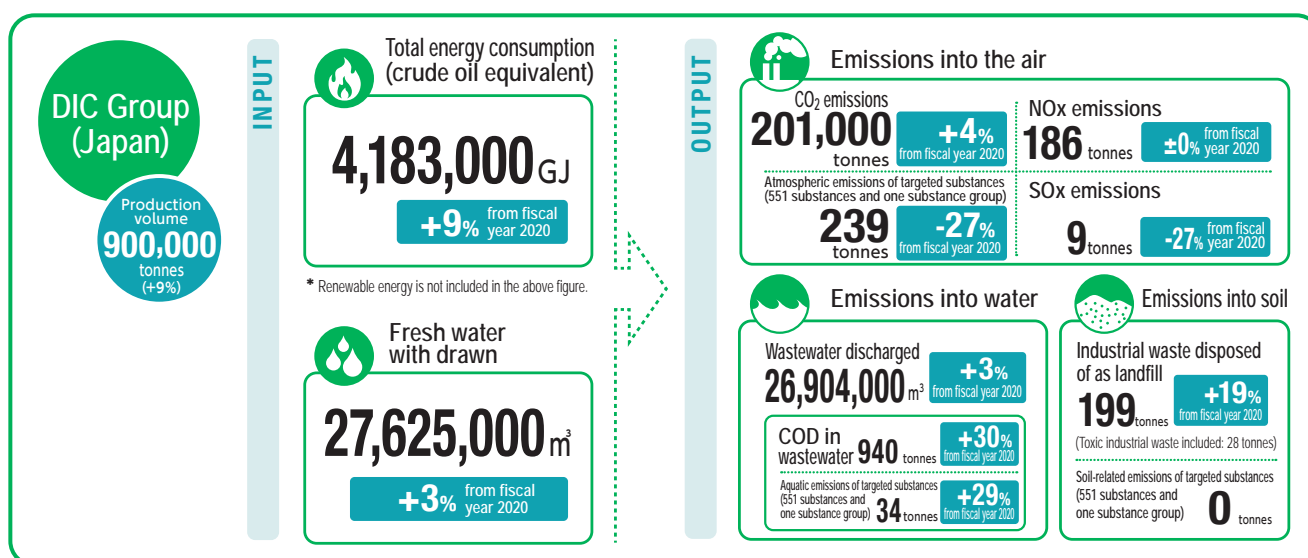
Environmental protection is among the most important of corporate sustainability activities. The DIC Group's efforts focus on a number of areas, including preventing environmental pollution, climate change, managing industrial waste (responding to a circular economy), managing water resources and biodiversity. As a manufacturer of fine chemicals with operations around the world, the Group's environmental protection with a global perspective.

Groupwide Environmental Performance

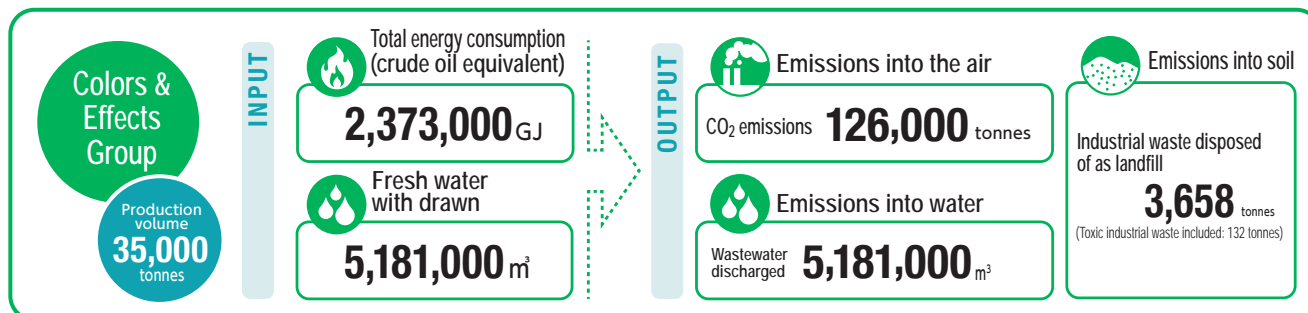
The DIC Group quantifies the environmental inputs (consumption of energy and other resources) and outputs (emissions into the environment) of its operating activities, and uses its findings to formulate comprehensive and efficient strategies for reducing its environmental footprint.

The chart below is a comprehensive illustration of the environmental impact of the DIC Group's operating activities in Japan and overseas in fiscal year 2021. The chart shows environmental impact for two input items (total energy consumption and total water consumption) and three output items (emissions into the air, emissions into water and emissions into soil) in the following categories: CO₂ emissions, wastewater discharged, industrial waste disposed of as landfill, emissions of targeted substances into the air (551 chemical substances—including those targeted under Japan's PRTR*¹—and one substance group*²) (Japan only), emissions of NO_x, emissions of SO_x and COD in wastewater.

Because data for the Colors & Effects Group, which was acquired in July 2021, could only be collected for six months (July–December 2021), it is not included in the DIC Group data for fiscal year 2021 but rather is presented separately for reference. Colors & Effects Group data will be included in the scope of data collection beginning in fiscal year 2022.



Reference: Environmental Impact of Colors & Effects Group Environmental Initiatives (July–December 2021)



*1 A PRTR is a scheme for assessing, aggregating and disseminating data on the source of hazardous chemicals, amounts released into the environment and amounts transferred off-site from industrial establishments via waste products.

*2 The "551 substances and one substance group" comprises 462 chemical substances designated by Japan's PRTR and 89 PRTR-designated substances (other than class 1) and one substance group (chain hydrocarbons with up to 4–8 carbon atoms) targeted for study by the JClA.

Preventing Environmental Pollution

Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Scope of target	Goal for fiscal year 2021	Achievement in fiscal year 2021	Evaluation	Goal for fiscal year 2022
Reduce emissions of VOCs into the air.	Japan	DIC Group (Japan): 345 tonnes (essentially level with fiscal year 2020)	DIC Group (Japan): 239 tonnes	★★	DIC Group (Japan): 325 tonnes (essentially level with fiscal year 2020; down 70% from fiscal year 2000)

Policies and Organization

Basic Approach

The DIC Group works to grasp the environmental impact of its operating activities and promotes systematic measures to reduce its environmental footprint. The Group also advances efforts aimed at preventing environmental pollution.

Since chemicals companies handle a considerably greater volume and more diverse range of chemical substances than companies in other industries, they must be extremely vigilant to prevent discharges of substances into the environment. Against this backdrop, the DIC Group promotes systematic efforts to prevent environmental pollution. In Japan, the Group has worked since fiscal year 2005 to reduce emissions into the air, water and soil of substances designated under pertinent laws and regulations in Japan—including the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof, the Soil Contamination Countermeasures Act, the Pollutant Release and Transfer Register (PRTR) Law, the Ozone Layer Protection Law, the Act on Rational Use and Proper Management of Fluorocarbons and the Law Concerning Special Measures for Promotion of Proper Treatment of PCB Wastes—and of substances targeted for management under a voluntary scheme created by the Japan Chemical Industry Association (JCIA.*)

* The JCIA is a general incorporated association. As one of Japan's major industry organizations, the JCIA is a member of the ICCA and pursues the healthy development of the chemicals industry with other chemical-industrial organizations around the world.

Framework for Promotion

The chair of the Sustainability Committee (the president and CEO) oversees the planning and promotion of environmental conservation initiatives by the Responsible Care Department and by production and R&D site Safety and Environment groups. The Responsible Care Department monitors legal and regulatory trends worldwide to ensure sites are able to comply promptly and effectively.

Principal Initiatives in Fiscal Year 2021

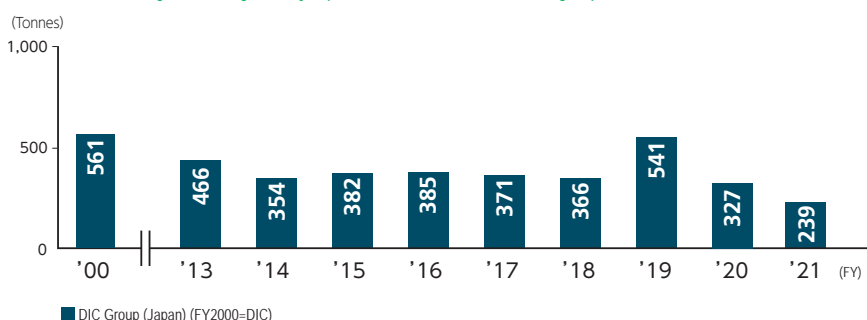
1 Reducing Emissions of VOCs

The DIC Group in Japan succeeded in achieving its voluntary target for reducing emissions of VOCs into the air for fiscal year 2010-30% from the fiscal year 2000 level—in fiscal year 2007. Domestic Group companies continue to pursue steady annual reductions through facility improvements and emissions management.

In fiscal year 2021, DIC Group companies in Japan reported total emissions of VOCs of 239 tonnes, a decrease of 27% from fiscal year 2020. The principal factor behind this result was the divestiture of Group company DIC Kako, Inc., a significant emitter of VOCs, as a result of which it was excluded from the scope of calculation. Overseas, Group companies in Greater China and the Asia-Pacific region continued to carefully monitor emissions. In the PRC, in particular, the Group is updating equipment and stepping up emissions management practices in response to the tightening of pertinent local regulations.

Emissions of VOCs (Targeted Chemical Substances) into the Air

(551 substances, including those designated by Japan's PRTR,*1 and one substance group*2)



*1 A PRTR is a scheme for assessing, aggregating and disseminating data on the source of hazardous chemicals, amounts released into the environment and amounts transferred off-site from industrial establishments via waste products.

*2 The "551 substances and one substance group" comprises 462 chemical substances designated by Japan's PRTR and 89 PRTR-designated substances (other than class 1) and one substance group (chain hydrocarbons with up to 4-8 carbon atoms) targeted for study by the JCIA.

In fiscal year 2021, the DIC Group in Japan monitored discharges of 462 class 1 chemical substances designated by the country's PRTR and 89 PRTR-designated chemical substances (other than class 1) and one substance group (chain hydrocarbons with up to 4–8 carbon atoms) targeted for study by the JCIA. During the period, DIC and the DIC Group in Japan used and/or produced a combined total of 133 of these substances in amounts exceeding 1.0 tonne.

Number of Targeted Chemical Substances Used and/or Produced in Japan in Amounts Exceeding 1.0 Tonne in Fiscal Year 2021



Environmental Emissions of VOCs (Targeted Chemical Substances) (551 Substances, Including Those Designated by Japan's PRTR, and One Substance Group) in Japan in Fiscal Year 2021

	DIC Group (Japan)
Emissions into the air	239 tonnes
Emissions into water	34 tonnes
Emissions into soil	0 tonnes
Total	273 tonnes

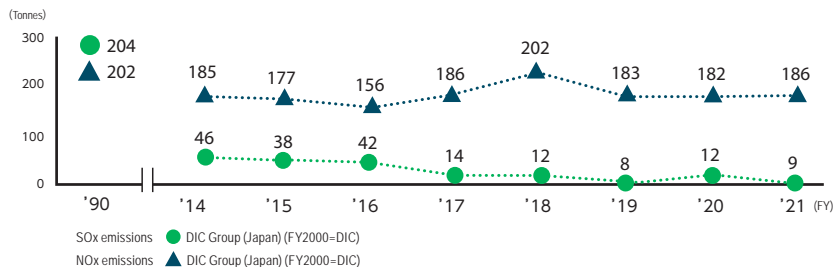
Targeted Chemical Substances for Which Emissions Exceeded 10.0 Tonnes in Fiscal Year 2021

Substance	DIC Group (Japan) Emissions into the environment
Ethyl acetate	100 tonnes
Toluene	35 tonnes
Methyl ethyl ketone	23 tonnes
Propyl alcohol	12 tonnes
<i>N</i> -methylpyrrolidone	15 tonnes
1,3-Butadiene	10 tonnes

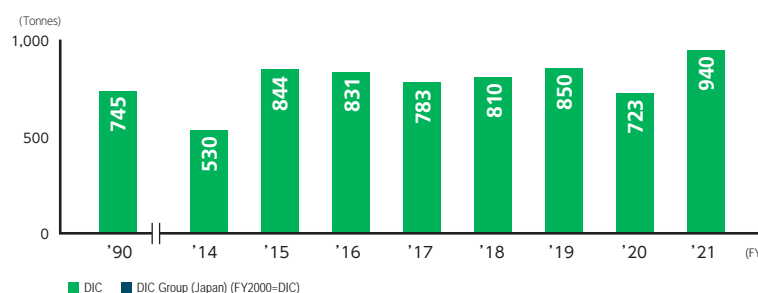
2 Reducing SOx, NOx and COD

Taking fiscal year 1990 as the base year, the DIC Group in Japan has worked to reduce SOx and NOx—key causes of acid rain—from boilers. The Group has also worked to reduce COD, an indicator of environmental impact, in wastewater, particularly by installing biomass boilers and modifying production processes. In fiscal year 2021, emissions of SOx by domestic Group companies were 9 tonnes, a decline of 96% from fiscal year 1990, while emissions of NOx were 186 tonnes, down 8% from the base year. In contrast, the domestic DIC Group's COD, which has remained on an uptrend since fiscal year 1990, amounted to 940 tonnes, with principal contributing factors including an increase in production volume and changes in the composition of the Group's product portfolio. The Group will continue taking steps to reduce COD by enhancing water quality management.

SOx and NOx Emissions Volumes in Japan



COD in Japan



Overseas, DIC Group companies are switching from diesel to natural gas, and from diesel- and heavy oil-fired boilers to biomass boilers, at sites with appropriate infrastructure. To reduce COD, the Group is promoting the reuse of water and the installment of environment-friendly closed-loop recycling and wastewater treatment systems that purify wastewater to a level that exceeds that mandated by law.

3 Complying with Regulations Governing Emissions of Dioxins

The DIC Group monitors emissions of dioxins from facilities in Japan that produce these byproducts, in accordance with the Act on Special Measures Against Dioxins (Act No. 105 of 1999). At present, the Group has six such facilities. Continuous efforts to reduce emissions levels have enabled the Group to achieve results that greatly surpass standards set forth in the Act.

Dioxin Concentrations in Waste Gas and Wastewater Emissions from DIC Group Incinerators in Japan

Site	Waste gas		Wastewater	
	Standard (ng-TEC/Nm ³)	Emissions reported in fiscal year 2021 (ng-TEC/Nm ³)	Standard (pg-TEC/l)	Emissions reported in fiscal year 2021 (pg-TEC/l)
Chiba Plant (DIC)*	10	0.66	10	0.02
			10	4.9
Hokuriku Plant (DIC)	5	0.00	10	0.00
DIC Interior Co., Ltd.	10	1.90	NA	—
Hokkaido Plant (DIC Kitanihon Polymer Co., Ltd.)	10	0.00	NA	—
Tohoku Plant (DIC Kitanihon Polymer Co., Ltd.)	10	0.00	NA	—
Harima Plant (SEIKO PMC CORPORATION)	10	0.00	NA	—

4 Ensuring the Appropriate Collection and Storage of PCBs

In Japan, the DIC Group continues working to ensure the appropriate collection, storage and management of equipment containing polychlorinated biphenyls (PCBs), including older-model transformers, capacitors and stabilizers, in accordance with the Law Concerning Special Measures for Promotion of Proper Treatment of PCB Wastes (Law No. 65 of 2001). The Group also ensures that equipment containing PCBs is disposed of in accordance with the practices of Japan Environmental Storage & Safety Corporation (JESCO). The Group also manages and disposes all other PCB waste in an appropriate manner.

5 Responding to Asbestos Risks

The DIC Group in Japan takes care to respond to potential risks associated with asbestos during demolition or when retrofitting equipment, as outlined in the Ordinance on the Prevention of Health Impairment due to Asbestos (Ministry of Health, Labour and Welfare Ordinance No. 21 of 2005) and the revised Air Pollution Control Law.

6 Soil and Groundwater Pollution

In addition to complying strictly with the Soil Contamination Countermeasures Act, the DIC Group implements soil and groundwater surveys and countermeasures as necessary and assesses related risks. In fiscal year 2019, a warehouse fire at the Saitama Plant resulted in a section of the plant site being designated under the Act as an “Area for which Changes to Form or Nature Require Notification.” Subsequent soil remediation efforts resulted in this designation being lifted in January 2022. In addition, a voluntary survey conducted at a third site belonging to the Hokuriku Plant resulted in the site being designated as an “Area which Requires Measures.” Purification measures are currently being implemented in line with the Act, as well as with pertinent regulations.

Managing Industrial Waste

Goals and Achievements of Major Initiatives Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objectives of initiatives	Scope of target	Goal for fiscal year 2021	Achievement in fiscal year 2021	Evaluation	Goal for fiscal year 2022
<ul style="list-style-type: none"> Reduce industrial waste disposed of as landfill (achieve zero emissions). Reduce industrial waste generated by production facilities. 	Japan	<ul style="list-style-type: none"> Reduce industrial waste disposed of as landfill. DIC Group (Japan): 206 tonnes (same as for fiscal year 2020) Reduce industrial waste generated by production facilities. DIC Group (Japan): 33,894 tonnes (same as for fiscal year 2020) 	<ul style="list-style-type: none"> Industrial waste disposed of as landfill DIC Group (Japan): 199 tonnes Industrial waste generated by production facilities. DIC Group (Japan): 30,541 tonnes 	★★★	<ul style="list-style-type: none"> Reduce industrial waste disposed of as landfill. DIC Group (Japan): 200 tonnes (same as for fiscal year 2020; down 95% from fiscal year 2000) Reduce industrial waste generated by production facilities. DIC Group (Japan): 45,000 tonnes (same as for fiscal year 2020)
Promote recycling.	Japan	Target for resource recycling rate at DIC Group companies in Japan: 90%	Actual resource recycling rate at DIC Group companies in Japan: 89%	★★	Target for resource recycling rate at DIC Group companies in Japan: 90%

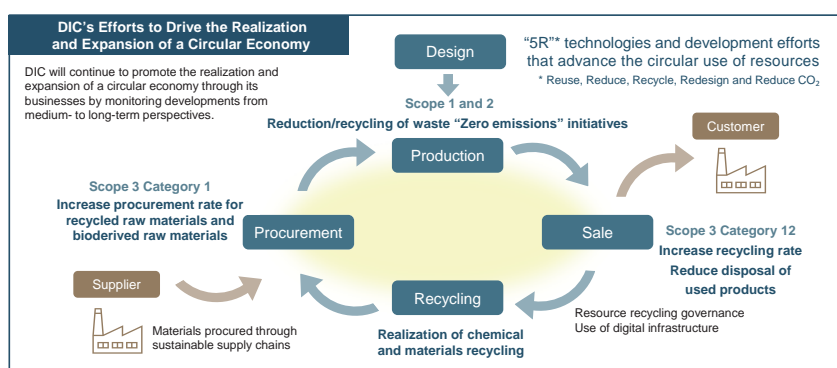
* Resource recycling rate is calculated as: (Volume of industrial waste recycled (material recycling) + Waste heat recovered) / Volume of Industrial waste generated

Policies and Organization

Basic Approach

To promote the realization of a circular economy, the DIC Group strives to use resources effectively, as well as to reduce the impact of its disposal of industrial waste.

In seeking to promote the realization of a circular economy, the DIC Group is stepping up efforts to encourage the reuse, reduction and recycling of industrial waste and minimizing production losses by increasing throughput yields. The Group also works to fully grasp and manage industrial waste from generation at production facility through to discharge, intermediate treatment and final disposal as landfill and to reduce its disposal of industrial waste as landfill by increasing its recycling rate through the expansion of material and chemical recycling, and the recovery of waste heat from incineration. To ensure strict compliance, the Group has implemented a comprehensive waste management system compatible with Japan's Electronic Manifest (e-Manifest) system, thereby ensuring traceability. The Group also conducts on-site checks to ensure the practices of subcontracted waste disposal companies.



Principal Initiatives in Fiscal Year 2021

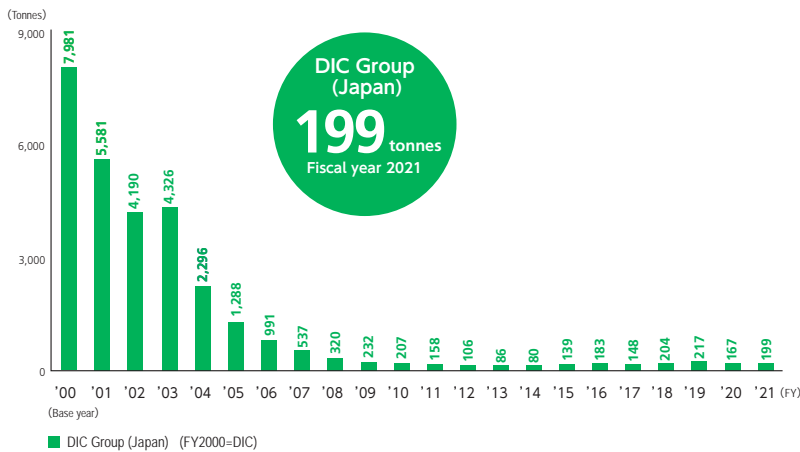
1 Initiatives by the DIC Group in Japan

The DIC Group in Japan has long promoted emissions initiatives with the aim of reducing the total volume of industrial waste disposed of as landfill by 95% from the fiscal year 2000 level, a target it actually achieved in fiscal year 2010. With efforts to shift toward a circular economy intensifying in recent years, the Group is now also working to reduce waste generated and waste discharged by Group production facilities as well as to curb waste disposed of as landfill.

In fiscal year 2021, the total volume of industrial waste generated by DIC Group production facilities in Japan amounted to 30,541 tonnes, down from 33,894 tonnes in fiscal year 2020 and fiscal year 2019, thanks to robust initiatives at each facility to curb waste emissions. Industrial waste disposed of as landfill by Group companies in Japan totaled 199 tonnes, below the average for the past three years (206 tonnes). Going forward, the Group will continue to reinforce its zero emissions initiatives.

DIC Group companies also continued working to ensure the appropriate disposal of equipment containing polychlorinated biphenyls (PCBs), as well as to promote the rigorous management of unprocessed waste, including that from transformers, capacitors and stabilizers, through proper collection and storage in warehouses.

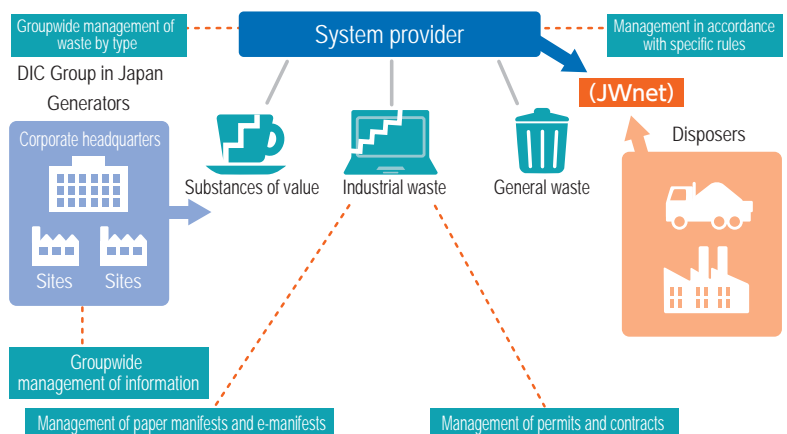
Industrial Waste Disposed of as Landfill



2 Deployment of a Comprehensive Industrial Waste Management System

In Japan, the e-Manifest system manages the movement of industrial waste by facilitating the electronic transmission of manifest information and tracking the flow of waste from transport to disposal. Unlike paper manifests, the e-Manifest system offers easy data input and eliminates the need for administrative reporting and storage by waste generators. In fiscal year 2016, the DIC Group in Japan introduced GENESYS ECO, a comprehensive industrial waste management system for use with the e-Manifest system. Deployment of GENESYS ECO at all Group production sites in Japan was completed in fiscal year 2019, an achievement that has helped to both save labor and ensure legal compliance containing PCBs, as well as to promote the rigorous management of unprocessed waste, including that from transformers, capacitors and stabilizers, through proper collection and storage in warehouses.

Comprehensive Industrial Waste Management System



3 Initiatives by the DIC Group Overseas

In addition to ensuring that disposal of industrial waste complies with national and regional legal and regulatory requirements, the DIC Group's production facilities overseas work to minimize industrial waste through the voluntary recycling and reuse of materials. At production facilities in the Americas and Europe, Greater China and the Asia-Pacific region, the Group is introducing new waste treatment facilities and promoting the horizontal deployment of best practices, including those aimed at improving production processes.

In fiscal year 2021, industrial waste generated by DIC Group production sites overseas dipped 4%, to 57,186 tonnes, while industrial waste disposed of as landfill by these sites decreased 23%, to 14,702 tonnes. Looking ahead, the Group's overseas regional headquarters will focus on reinforcing compliance with local laws and regulations, as well as on curbing the generation of industrial waste and the disposal thereof as industrial waste.

TOPIC

DIC Graphics (Thailand)'s Amata Plant Receives Gold Level in AFS' 2021 Best Waste Management Awards

On January 31, 2022, DIC Graphics (Thailand) Co., Ltd.'s Amata Plant received a Gold Level award in the 2021 Best Waste Management Awards, which are presented by Amata Facility Services Company (AFS), Thailand's largest industrial estate development and management company.

The Best Waste Management Awards are given to companies with operations at its Amata City industrial estates that exhibit excellence in the reduction of waste disposed of as landfill and handling of other waste, in line with the "3Rs" of waste management, namely, reduce, reuse and recycle. Through this awards program, AFS aims to raise awareness of the importance of effectively managing industrial waste across all of its estates. "DIC Graphics (Thailand)'s Amata Plant first participated in this program in 2019," explains the company's Chief Operating Officer Chaiyasit Adchariyaporn. "In 2020, we were unable to take part as responding to COVID-19 took precedence. In the year ahead, we will further strengthen waste management efforts with the aim of achieving zero disposal of waste as landfill and earning a Platinum Level award in 2022."

In 2021, 78 participating production facilities were assessed and recognized in the Best Waste Management Awards program's Silver, Gold and Platinum Level categories.



Kanitta Mahasamut, ESH supervisor (left) and Siwapol Yangthong, factory manager (center), of DIC Graphics (Thailand)'s Amata Plant

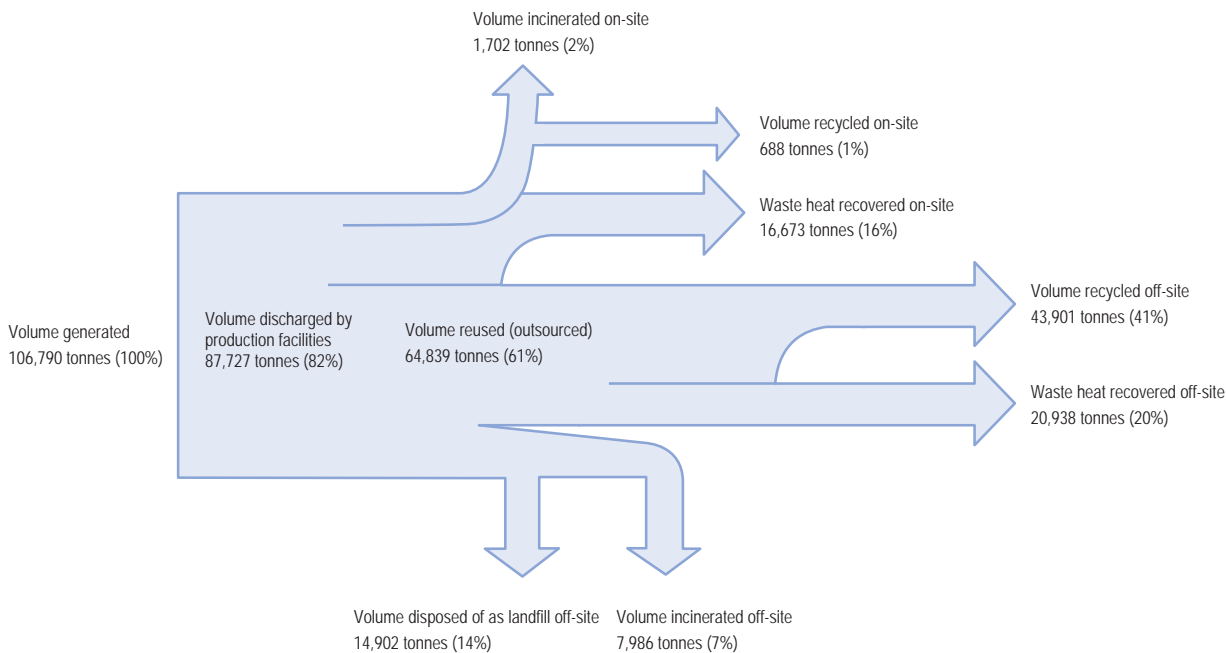


4 Generation and Disposal of Industrial Waste by the Global DIC Group

The definition of “industrial waste”—including whether it encompasses both toxic and nontoxic substances, and both hazardous and nonhazardous substances—varies in different countries and regions, as do the methods used to dispose of such waste. The DIC Group works to ensure the management of industrial waste in a manner appropriate for the degree of danger posed and in compliance with the laws of the countries and territories in which its sites are located. The Group works to fully grasp and manage industrial waste on a global basis, from generation at production facility through to discharge, intermediate treatment and final disposal as landfill.

The chart below illustrates the generation and disposal of industrial waste by the global DIC Group in fiscal year 2021. Data on industrial waste collected by the Group encompasses volume generated, volume discharged by production facilities, volume recycled (material recycling and chemical recycling), waste heat recovered (from boilers and incinerators, among others), waste heat not recovered (including from incineration) and volume disposed of as landfill.

Industrial Waste Generated and Disposed of by the Global DIC Group in Fiscal Year 2021



Note: Percentages in parentheses indicate portion of volume generated

Managing Water Resources

Goals and Achievements of Major Initiatives Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Scope of target	Goal for fiscal year 2021	Achievement in fiscal year 2021	Evaluation	Goal for fiscal year 2022
Asses and manage water risks at production facilities.	Global	Conduct water risk assessments; target implementation rate for countermeasures at high-risksites of 20%.	The implementation rate for countermeasures at high-risk sites was 24%.	★★★	Target implementation rate for countermeasures at high-risk sites of 50%.

Policies and Organization

Basic Approach

The DIC Group maintains a firm grasp of water risks relevant to Group operations and promotes a variety of initiatives to ensure the effective use of water resources.

Finding effective ways to conserve and manage water resources is a crucial global challenge. The DIC Group withdraws fresh water (tap water and industrial water) for use in production processes and air conditioning and for drinking, among others. The Group also discharges wastewater—after purifying it in accordance with voluntary internal standards that exceed official standards in the countries and territories in which it has operations—into rivers and other fresh water bodies. In addition to evaluating water risks at each of its production sites around the world and implementing countermeasures, the Group works to protect and ensure the effective use of water resources.

Principal Initiatives in Fiscal Year 2021

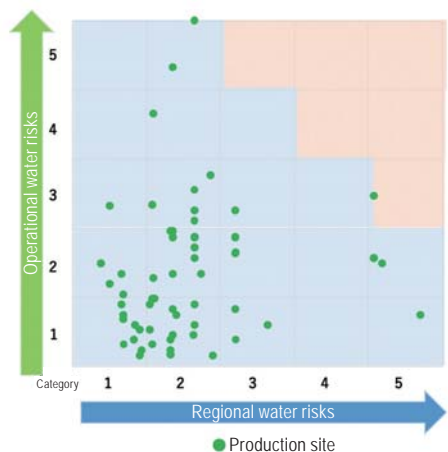
1 Assessing Water Risks

In recognition of the fact that water risks, which include drought, floods and water quality, vary greatly from region to region, companies are increasingly expected to set targets that take into account local water conditions in line with the World Wide Fund for Nature (WWF), which has stepped up efforts to help formulate such targets, publishing *Setting Site Water Targets Informed by Catchment Context: A Guide for Companies*. In fiscal year 2018, the DIC Group began using the Aqueduct Water Risk Atlas,* the preferred water risk assessment tool, to map risks at its production sites around the world. However, Aqueduct assesses only regional water risks, that is, risks associated with a site's location, which are caused by external factors, and do not take into account operational water risks, which are attributable to internal factors. Accordingly, under the guidance of a third-party organization the Group established a consistent global framework for assessing water risks arising from both local water conditions and site operations, which it deployed to screen sites in Japan, the PRC and the Asia-Pacific region.

The Group began by classifying water risks into categories such as drought, floods and water quality, and mapping them using two scales, namely, “regional water risks” and “operational water risks,” and classifying those sites that register at the upper end of both scales as being high risk. Regional water risks were assessed using Aqueduct, while operational water risks were evaluated using a questionnaire developed in-house. Screening identified 17 sites as being high risk.

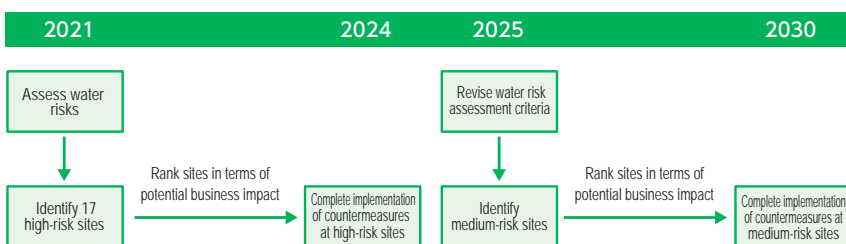
The Group then ranked production sites in terms of potential business impact, designating four that account for approximately 90% of projected impact as priority sites. In fiscal year 2021, the Group implemented and confirmed the effectiveness of a variety of countermeasures for these priority sites under the auspices of the aforementioned third-party organization. (The implementation rate for countermeasures was 24%.) The Group aims to complete its implementation of countermeasures at all high-risk sites by fiscal year 2024. In fiscal year 2025, the Group will further tighten its water risk assessment criteria to identify sites with somewhat lower risk levels, which will be designated medium risk. Between then and fiscal year 2030, the Group aims to also gradually implement countermeasures at these medium-risk sites.

* The DIC Group uses the World Resources Institute (WRI) Aqueduct Water Risk Atlas to map water risks, including water stress, drought and floods, at 186 sites worldwide.



Mapping of regional water risks and operational water risks

Water Risk Assessment Road Map (Fiscal Years 2021–2030)





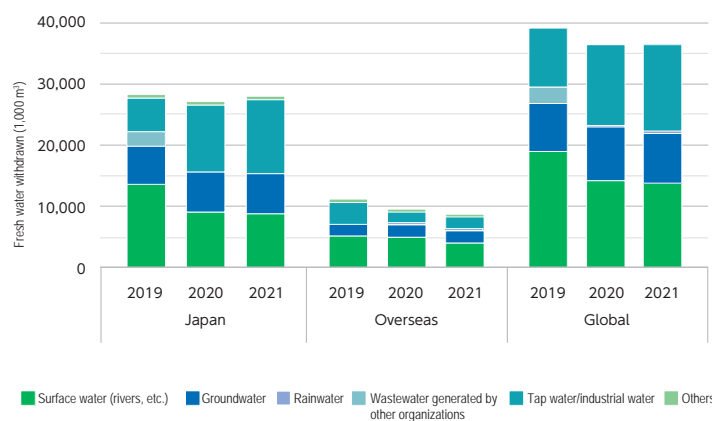
Assessment of regional water risks using Aqueduct

2 Managing the Withdrawal and Discharge of Water at Sites

Since fiscal year 2017, the DIC Group has used the Global Reporting Institute (GRI) guideline* for collecting data on fresh water withdrawn and wastewater discharged at each of its sites. In fiscal year 2021, the DIC Group in Japan withdrew 27,625,000 m³ of fresh water and discharged 26,094,000 m³ of wastewater, both up 3% from fiscal year 2020. In contrast, the DIC Group overseas withdrew 8,632,000 m³ of fresh water and discharged 6,481,000 m³ of wastewater, down 10%, and 16%, respectively. As a consequence, fresh water withdrawn by the global DIC Group in fiscal 2021 amounted to 36,257,000 m³, while wastewater discharged by the global DIC Group totaled 32,574,000 m³, both down 1%.

* This guideline is included in the GRI's G4 Sustainability Reporting Guidelines.

Total Fresh Water Withdrawn (Fiscal Years 2019–2021)



3 Efforts to Reduce Water Use

Most of the water used by the DIC Group is for the cooling of equipment. Accordingly, the Group works to recycle water using towers, among others. In addition, DIC's Central Research Laboratories in Chiba, Japan, and subsidiary Siam Chemical Industry Co., Ltd. in Thailand have achieved zero emissions of wastewater and are working to reduce their respective impact on water resources.

At DIC's Central Research Laboratories, groundwater is used to supply the approximately 60 m³ of water consumed by the site daily, of which two-thirds is for "domestic" (general) use and one-third is for "research" (industrial) use. Domestic wastewater (graywater) is recovered, treated using a combined septic system and reused as non-potable water for flushing toilets, while industrial wastewater is biologically or physically/chemically treated, purifying it to a level comparable with tap water, and then reused in research for, among others, cooling and the washing of instruments. Residual water is disposed of into the atmosphere using an evapotranspiration device, the final component of a fully closed system that means all water is treated, reused or disposed of on-site. Looking ahead, the Central Research Laboratories will continue working to reduce the amount of water it withdraws by promoting the introduction of purification equipment to improve the quality of reused wastewater.



4 Reporting to the CDP's Water Security Program in 2021

The CDP is an international non-profit organization that operates a global disclosure system that seeks to promote greenhouse gas emissions reductions, water resources management and forest conservation. The CDP works on behalf of institutional investors around the world to collect and evaluate information on corporate initiatives to address environmental issues. In fiscal year 2021, DIC received a score of B in the CDP's Water Security program. Going forward, the Company will continue working to strengthen its water security initiatives and earn a higher evaluation.

Biodiversity

Basic Approach

The DIC Group works to grasp the impact of its operating activities on biodiversity and to use land and natural capital in a sustainable manner.

Preserving Biodiversity

1 Protecting *Satoyama** Areas

The DIC Group recognizes the preservation of biodiversity as a critical challenge. As part of DIC Management School, the Group's training module for senior management in Japan, in January 2011 a lecture was given by an outside expert on the relationship between corporate activities and biodiversity. The lecture was attended by executives from corporate headquarters, as well as from plants and Group companies across the country, and prompted the launch of a wide range of related initiatives. For example, the same year brought the launch of an initiative designed to ensure an effective grasp of the relationship between the Group's operating activities and biodiversity at all stages of its products' life cycle, from R&D and the procurement of raw materials through to end-of-life disposal or recycling. In April 2011, experts from the Chiba Biodiversity Center, a prefectural government organization, observed the natural forest and gardens on the 30-hectare site in Sakura, Chiba Prefecture, occupied by the Central Research Laboratories and the Kawamura Memorial DIC Museum of Art, giving DIC's biodiversity management efforts high marks and offering advice for future initiatives.

From the beginning, DIC has used a closed system for circulating and reusing groundwater for the Central Research Laboratories and hired a waste processing firm to ensure no wastewater escaped from the site. The site's *satoyama* landscape makes it an ideal home for numerous tree and flower varieties, as well as for an abundance of other wildlife, including birds and insects. Loved by the local community, the site has welcomed approximately 200,000 visitors annually since the opening of the Kawamura Memorial DIC Museum of Art in 1990.

* *Satoyama* is a Japanese term applied to the area between mountain foothills and arable flat land.



The forest and gardens of the site occupied by the Kawamura Memorial DIC Museum of Art are always alive with seasonal flowers and foliage.

2 Use of FSC-Certified Paper

DIC prints the DIC Report, its convocation notice, interim report (in Japanese only), pamphlets for its production facilities and the Central Research Laboratories, and The DIC Way Handbook on paper certified by the Forest Stewardship Council (FSC).

3 Participation in JBIB

In April 2022, DIC joined the Japan Business Initiative for Biodiversity (JBIB). JBIB is a group of Japanese companies committed to preserving biodiversity that works actively to collect the latest information and network with other members. The DIC Group is conducting study sessions with outside experts and companies from other industries with the objective of promoting more ambitious efforts to preserve biodiversity,

Biodiversity Initiatives at the Kawamura Memorial DIC Museum of Art

At the Kawamura Memorial DIC Museum of Art, located adjacent to the Central Research Laboratories on the same expansive site, 300 broadleaf tree seedlings are being planted in a corner originally occupied by a cedar forest. This effort is being undertaken as part of a three-year plan (continuing until 2023) to create a thicket of trees, with attention given to ensuring an ecosystem that would support coexistence with wild birds and small animals.

In this originally *satoyama* area, grafting was historically used to grow cedars for processing into lumber. While grafting leads to swift growth, the resulting trees can be prone to disease. After this part of the site became the property of the Kawamura Memorial DIC Museum of Art, these grafted cedars were not harvested for lumber and simply left to grow for much longer than they would otherwise have been, as a consequence of which the trunks of many weakened from within. For the past several years, the museum has been thus forced to cut the trees down to prevent them falling, leaving an area of unsightly stumps. In 2021, the museum planted 100 seedlings of 10 different trees, including sawtooth oak, beech, Chonowski's hornbeam, kobus magnolia and *yamazakura*, a variety of wild cherry.



Museum staff take part in planting seedlings

Safety in Logistics

Responsible Logistics

Goals and Achievements of Major Initiatives Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Scope of target	Goal for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goal for fiscal year 2022
Reduce CO ₂ emissions attributable to logistics.	Japan	Reduce energy consumption per unit of production attributable to logistics by 1% by promoting modal shift and improving transport efficiency.	1. Energy consumption per unit of production attributable to logistics was down from fiscal year 2020. 2. CO ₂ emissions attributable to logistics declined 1%.	★★ ★★	Reduce energy consumption per unit of production attributable to logistics by 1% by promoting modal shift and improving transport efficiency.

Basic Approach

The DIC Group works with logistics partners to minimize risks, including by supplying information needed for the safe shipping/transport of its products.

Policies and Framework for Promotion

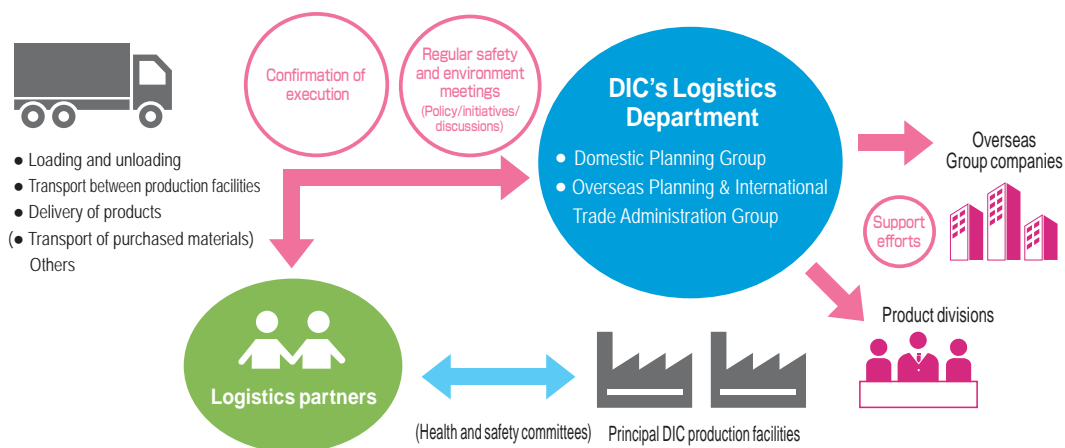
Having positioned the reduction of CO₂ emissions attributable to the transport of its products as a key aspect of its commitment to promoting Responsible Care, DIC sets annual targets and promotes relative initiatives on an ongoing basis. DIC's logistics configuration—components of which include transport between production facilities, the transport of products to customers and international logistics—previously centered on a dedicated subsidiary established in 1999, which operated under the direct supervision of DIC. Since then, the Company has worked closely with this and other partner firms to improve the safety of, and to reduce CO₂ emissions attributable to, logistics. With the aim of responding better to social imperatives associated with the transport of chemicals over the medium term, in January 2016 DIC combined logistics components of its various departments to create the independent Logistics Department.

The Logistics Department, which consists of the Domestic Planning Group and the Overseas Planning & International Trade Administration Group, is charged with advancing initiatives to enhance the safety and reduce the environmental impact of logistics. The Domestic Planning Group, as a consignor, coordinates with logistics partners—third-party logistics (3PL*) firms—to formulate logistics policies and promote plans designed to enhance the efficiency of domestic logistics. The Overseas Planning & International Trade Administration Group is charged with planning and devising strategies to optimize logistics across Asia, promoting Groupwide efforts to capitalize on export controls and free trade agreements (FTAs)** in line with the Foreign Exchange Law and implementing measures to reduce import-export costs.

*1 3PLs are firms that provide partial or complete outsourced logistics services.

**2 FTAs are agreements between two or more countries or customs territories to eliminate trade barriers for a set period of time, thereby encouraging trade.

DIC's Logistics Configuration



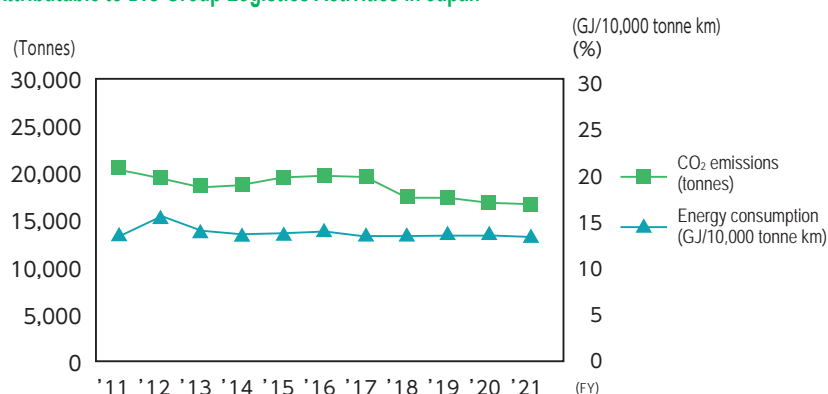
I Reducing Environmental Impact and Supporting White Logistics

The operating environment for Japan's logistics industry continues to recover from a temporary decrease in shipment volume attributable to COVID-19, but the issue of driver shortages persists, owing to the growing popularity of e-commerce and restrictions on drivers' working hours resulting from a legal amendment dubbed the "2024 issue." In addition, the Japanese government's target for achieving a 46% reduction of greenhouse gas emissions by fiscal year 2030, announced in April 2021, obliged companies to step up efforts to lower the burden of logistics activities on the environment.

Against this backdrop, DIC continues to promote the transport of products using modes qualifying as "modal shift" in Japan with the aim of reducing the environmental impact of the transport of its products. In fiscal year 2021, the Company began using larger trucks and took decisive steps to improve loading efficiency, as a result of which it achieved declines in energy consumption and CO₂ emissions attributable to logistics of 4% and 1%, respectively.

DIC also continues to support the White Logistics Movement, an initiative put forward by three government ministries—the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of Agriculture, Forestry and Fisheries—to improve working environments in the logistics industry. By implementing measures in line with its own declaration of voluntary action, the Company also works to strengthen cooperation with logistics partners and transport companies to ensure business continuity. In fiscal year 2021, the Company succeeded in reducing the work associated with pallet transshipment in some areas at production facilities using returnable pallets. The use of returnable pallets has contributed to a decrease in CO₂ emissions resulting from the disposal of one-way pallets. DIC Group companies overseas also continue to actively advance the use of returnable pallets and other initiatives to lower the environmental impact of their logistics activities.

CO₂ Emissions and Energy Consumption per Unit of Production Attributable to DIC Group Logistics Activities in Japan



Working with logistics partners to increase load-carrying efficiency

I Safety Management in Logistics

Safety Management Initiatives

The firms to which the DIC Group outsources logistics use containers that comply with the Fire Service Act and other transportation laws, as well as with related UN standards. The Group supplies information needed to display labels complying with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS^{*1}) and provides safety data sheets (SDSs^{*2}) and other documentation to ensure safe shipping whether in Japan or overseas. The Group also holds in-house presentations regarding transport of products requiring UN numbers (i.e., hazardous substances) by sea and air to facilitate the sharing of information, including alerts.

In Japan, the Logistics Department cooperates with logistics partners, meeting regularly to discuss measures for improving the safety of both loading and transport work. Of particular note, logistics quality issues that cause trouble for customers—including leaks, undelivered cargo and delivery errors—are designated as incidents for priority attention and targets, number of incidents, causes and countermeasures are confirmed at monthly meetings. The department is also promoting a variety of steady efforts, including initiatives aimed at ensuring past accidents are not forgotten and regular logistics safety campaigns. In addition, members of plant health and safety committees attend each other's meetings, as well as meetings of logistics partners' site general managers across Japan, to exchange information and encourage on-site safety improvement initiatives.

The Logistics Department inspects the offices of logistics partners located on-site at its main domestic production facilities. In fiscal year 2021, issues were pointed out at four of these offices, after which improvements were confirmed. In addition, DIC endeavors to maintain and enhance safety by requiring transport personnel to carry Yellow Cards.^{*3}



Regular meetings with logistics partners



Yellow Card carried by transport personnel

*1 The GHS was formally adopted by the UN in 2003 to facilitate the uniform global classification and labeling of hazard information for chemicals.

*2 SDSs contain information on the hazards of chemicals to ensure their safe handling.

*3 Yellow Cards are part of activities recommended by the Japan Chemical Industry Association (JCIA). These cards contain information about the correct actions to take if an accident occurs. They provide contact details to ensure proper responses by transportation companies, firefighters and police officers if an accident occurs during the transport of chemical substances. Transport personnel must carry these cards at all times.

TOPIC

Environment, Safety and Quality Meetings in the Era of COVID-19

During fiscal year 2021, the COVID-19 pandemic made it necessary for DIC to take environment, safety and quality meetings with 3PLs located on-site at its domestic production facilities online. Despite the restrictions of the online format for safety training, the Company reiterated the importance of robust safety awareness and learning from past accidents, both of which it believes played a key role in reducing the process accident frequency rate for the period.



Online environment, safety and quality meeting

VOICE **Recent years have underscored the importance of logistics in times of crisis.**

Despite robust consumer demand worldwide, shipping capacity remained tight in 2021, the second year of COVID-19, reminding us once again of the importance of logistics. The Olympic and Paralympic Games Tokyo 2020, delayed by the pandemic, proceeded without major disruption, as Japan succeeded in maintaining the stability of logistics throughout the year, but the worsening situation in Ukraine since early 2022 has begun to negatively affect domestic logistics, as well as imports and exports.

In this fraught environment, the Logistics Department remains keenly aware of the importance of prioritizing safety and environmental concerns. As such, we work closely with logistics firms and shipping companies to reduce both the environmental impact of our logistics activities and logistics-related accidents with the goal of contributing to the realization of a sustainable society. Going forward, we will continue to cooperate with our logistics partners to promote modal shift and support the White Logistics Movement.



General Manager, Logistics Department, DIC Corporation **Kenichi Tsuruta**

Ensuring the Safety of Chemical Substances

Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objectives of initiatives	Scope of target	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
<ul style="list-style-type: none"> Enhance functions of comprehensive chemical substance information management systems. Continue to expand deployment of the Weracs and Atrion at DIC Group companies overseas. 	<ul style="list-style-type: none"> Japan PRC Asia-Pacific region 	<ul style="list-style-type: none"> Launch the new comprehensive global chemical substance information management system in Japan. Promote deployment of the Weracs and Atrion at DIC Group companies overseas. 	<ul style="list-style-type: none"> The new CIGNAS system was launched in Japan in November 2021. Preparations for deployment at Group companies in Greater China proceeded. 	<p>★★★</p> <p>★★★</p>	<ul style="list-style-type: none"> Launch the new comprehensive global chemical management system in the PRC. Promote deployment of the Weracs and Atrion at DIC Group companies overseas.
<ul style="list-style-type: none"> Review business flow to ensure compliance with laws and regulations around the world. Comply with laws and regulations overseas. 	<ul style="list-style-type: none"> Japan PRC Asia-Pacific region 	<ul style="list-style-type: none"> Verify new business flow to and make necessary amendments. Address revisions to China REACH. Promote compliance with Taiwan's TCSCCA. 	<ul style="list-style-type: none"> The review process was completed and the new business flow was implemented in Japan. Notification procedures for new chemical substances were amended and a post-declaration management process for declared substances was established and is now in use in Japan and the PRC. One chemical substance was registered in advance. The registration plan is now being reviewed in response a legal amendment that extended the registration deadline. 	<p>★★★</p> <p>★★★</p> <p>★★★</p>	<ul style="list-style-type: none"> Deploy new business flow in Greater China. Address revisions to K-REACH. Address revisions to labeling and reporting-related laws and regulations in the PRC.

Policies and Framework for Promotion

Basic Approach

The DIC Group continues working to provide appropriate information to stakeholders to ensure the appropriate handling of its products over their entire life cycle.

In 2002, countries and territories participating in the World Summit on Sustainable Development (WSSD) in Johannesburg, South Africa, including the United States, European Union member states and Japan, agreed on a goal for the management of chemical substances to minimize the impact thereof on human health and the environment by 2020. In 2015, the UN General Assembly set the SDGs, a collection of common goals designed as a blueprint for global society.

As a comprehensive chemicals manufacturer with operations around the world, the DIC Group created uniform standards for managing chemical substances that exceed legal and regulatory standards well before the WSSD. In line with its Environment, Safety and Health Policy (established in 1992), the Group views product stewardship* as the foundation of Responsible Care and works to provide stakeholders with information on the appropriate handling of its products over their entire life cycle. The Group has also promoted efforts to eliminate substances of high concern specified in the Montreal Protocol on Substances that Deplete the Ozone Layer, the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, as well as to develop alternatives that exert less of an impact on the environment. To this end, the DIC Group has established bases in the PRC and the Asia-Pacific region, better positioning it to disseminate information to Group companies around the world.

* Product stewardship is a philosophy that emphasizes assessing product-specific risks and sharing findings and information on appropriate handling with stakeholders with the aim of reducing the ESH impact of products over their entire life cycle, i.e., from the development of chemical substances through to procurement, production, transport, sale, use and disposal or recycling.

Managing Chemical Substances

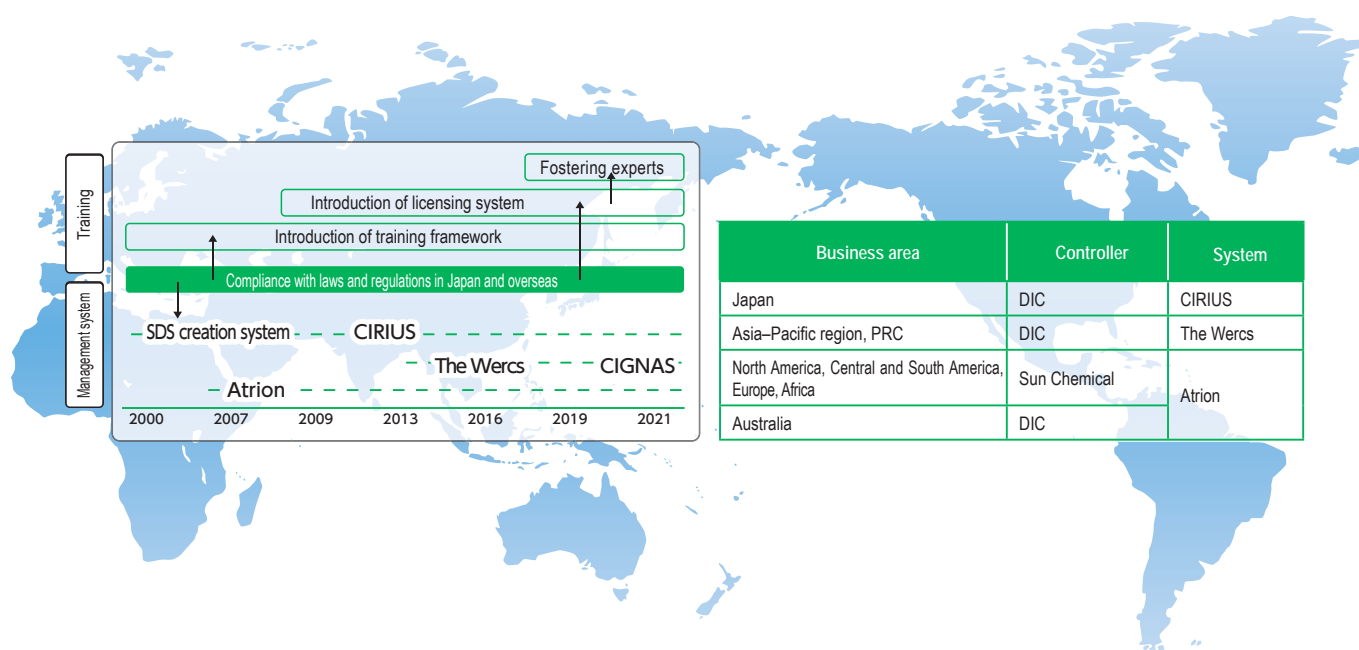
In 2003, the UN Economic Commission for Europe (UNECE) issued the first edition of the GHS. Many countries have since introduced the GHS, including Japan, which in 2006 compelled use of the system in the Industrial Safety and Health Act. As part of its effort to ensure effective product stewardship, the foundation of Responsible Care, and to emphasize the management of chemical substances across its entire supply chain, DIC sought to respond to this development, as well as to provide customers with crucial hazard-related information.

Concurrent with the enforcement of the Industrial Safety and Health Act in 2006, DIC began providing GHS-compliant SDSs. In 2009, the Company developed CIRIUS (Chemical Substance Information Comprehensive Management System), a proprietary system that centralizes the management of information on chemical substances in raw materials and products, as well as automatically checks various laws and regulations—including the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.—to facilitate swift responses to customers' requests for information. In 2013, DIC began using the Weracs, an SDS and label creation system that facilitates the translation of data into 46 languages, for products destined for overseas markets, while in 2015

it also began deploying the Wercs at overseas Group companies. At present, the system is in use at 23 companies in 11 countries and territories. DIC also continues to advance the creation of a new comprehensive global chemical substance information management system, CIGNAS (Chemicals Information Global Network Access System), which integrates CIRIUS and the Wercs. In addition, in fiscal year 2021 the Company launched CIGNAS in Japan. Current plans are to also begin using the new system at DIC Group companies in the PRC in fiscal year 2022 and in the Asia-Pacific region thereafter, with the aim of achieving full global deployment in fiscal year 2024. The Sun Chemical Group has used Atrion International Inc.'s chemical substance management system since 2006, enabling it to provide highly accurate information to its customers worldwide.

Recognizing the importance of specialized expertise in the manufacture, import and handling of chemical substances in accordance with applicable laws and regulations, in 2000 DIC began training employees providing related training. Since 2007, the Company has had a proprietary licensing system designed to maintain and enhance the skills of its in-house chemical substance management experts.

The DIC Group's Global Chemical Substance Information Management Systems



Creating a New Comprehensive Global Chemical Substance Information Management System and Framework

DIC's Global Chemical Information management Project (GCIP), established to develop the CIGNAS system, encompasses not only system design and development but also reviewing and standardizing procedures to be used globally for gathering information to ensure smooth operations. In late 2019, project team members visited 11 Group companies in three countries to learn about their procedures for managing chemical substances and reflected their findings in the items to be considered as part of the project. In fiscal year 2021, the project team conducted online interviews with 12 DIC Group companies in five countries to clarify what they expect of the new system.

Designing and Developing a New Global System

DIC is applying capabilities, experience and expertise accumulated in the design, development and operation of CIRIUS and the Wercs to designing and developing its new global system. The Company also recognizes that a unified global system for managing chemical substance information will enhance its operational efficiency and thus create a framework for data integration with its SAP system.

Individual divisions and departments make use of chemical substance information in its particular work. Accordingly, the system will be used not only by experts in the management of chemical substances but also by diverse other employees across the global DIC Group. The Group is thus aware of the importance of designing the interface so that even non-experts can use the system with ease. The new system will store confidential information on, among others, the chemical composition of products and raw materials. For this reason, and because of the wide range of individuals using the system, meticulous attention to security is a key consideration in system design and development.

A Global Framework

Techniques used to manage chemical substance information vary greatly depending on country/territory and site, as does the quality of management. Given the expected further tightening of laws and regulations governing chemical substances and the increasing number and changing nature of substances used, implementing an organized global approach is essential. The Group recognizes that introducing a new system is only part of the solution, and so it has also commenced efforts to establish a new information management framework to support administration of the new system after creation and deployment. By the time the new system goes into operation, the Group will have implemented the new framework in the PRC and the Asia-Pacific region, as well as in Japan, its principal operating bases, leveraging know-how accumulated in Japan to integrate information management, thereby ensuring consistent quality, securing compliance and strengthening governance. In fiscal year 2019, the Chemical Substance Information Management Group was established at DIC's corporate headquarters in Tokyo oversee this process. In April 2020, the Group also began promoting initiatives in Shanghai.

I Complying with Laws and Regulations

1 Complying with Laws and Regulations in Japan

DIC recognizes legal and regulatory compliance as central to risk management. In Japan, this includes fulfilling without exception obligations related to the reporting of new chemical substances set forth in the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., and the Industrial Health and Safety Act, and to the keeping of records on manufacturing, importing and sales laid out in the Poisonous and Deleterious Substances Control Act. To enhance the reliability of its compliance efforts, the Group is promoting diverse initiatives, from collecting and analyzing information to formulating guidelines, promoting awareness among Group companies and customers and advancing deployment of CIGNAS.

The Food Sanitation Act, which was amended in fiscal year 2018, stipulates the adoption of a Positive List system, which allows only substances that have been evaluated for safety to be used in utensils, containers and packaging for food. DIC manufactures a wide range of polymers, including polystyrene, inks and other raw materials used in food packaging. Accordingly, the Company is proceeding with efforts to gather information and gain authorization in cooperation with pertinent industry organizations. There were no violations of domestic laws requiring the registration or reporting of chemical substances by the Group in Japan in fiscal year 2021.

Outlook for Principal Initiatives in Fiscal Year 2022

Japan's Industrial Safety and Health Act will be promulgated in fiscal year 2022. The revised act emphasizes the transition to a regulatory system for chemical substances based on autonomous management, notably on establishing a system for implementing autonomous management and strengthening the communication of information on the hazards and toxicity. A significant number of new chemical substances will be added to the Appended Table 9 of the Order for Enforcement of the Industrial Safety and Health Act. It will also be possible to obtain SDSs without seeking approval of the other party simply by, for example, checking and scanning 2D barcodes printed on containers or viewing the appropriate website product page. The DIC Group in Japan will continue working to ensure it manages chemical substances, as well as prepares and distributes SDSs, in compliance with the revised Industrial Safety and Health Act. DIC will also take decisive steps to address the WSSD goal that will supersede the goal for 2020, which was expected to be discussed at the International Conference on Chemicals Management (ICCM) but was delayed due to COVID-19, paying close attention to how the new goal is reflected in policies, laws and regulations.

2 Complying with Overseas Laws and Regulations

Recent years have brought the establishment and amendment of major laws and regulations governing chemical substances across East Asia. Key examples include revisions to the ROK's Act on the Registration and Evaluation of Chemicals (K-REACH) in fiscal year 2019 and the PRC's China REACH legislation in fiscal year 2020. Other countries that currently do not have chemical substance registration systems, including Thailand, Vietnam, Turkey, Russia and Eurasian Economic Community member countries, are also moving in this direction, but in many cases progress is behind schedule.

Deployment of the GHS has been made mandatory in most countries, with latecomer India now taking steps toward enacting a law obliging GHS compliance. DIC gathers the latest information on chemical substances in overseas markets through local consultants, as well as through its global network, which includes Sun Chemical and other DIC Group companies, ensuring its ability to respond effectively to revisions to laws and regulations and to provide information to Group companies and customers. As a leading member of the JCIA working group charged with collecting Japanese companies' opinions and proposals regarding the enactment and revision of laws and regulations, DIC conducts dialogue with government authorities, playing a leading role in ensuring the legal and regulatory compliance of JCIA member countries. There were no violations of overseas laws requiring the registration or reporting of chemical substances by the DIC Group in Japan in fiscal year 2021.

Outlook for Principal Initiatives in Fiscal Year 2022

The DIC Group will press ahead with preparations to re-register chemical substances as required under the ROK's revised K-REACH legislation, prioritizing substances with large volumes that are close to the re-registration deadline. The Group will also continue to gather information and take steps to register chemical substances to ensure compliance with newly introduced registration systems in other countries and territories. Additionally, the Group will keep abreast of developments surrounding India's move to mandate GHS compliance and will submit opinions and proposals through relevant industry associations.

I Training and Systems

In line with the principles of product stewardship, the DIC Group recognizes the importance of greater employee awareness and knowledge to ongoing efforts to improve the safety of chemicals and manufactured goods. The Group places considerable emphasis on training for individuals involved in the manufacture, import and handling of chemical substances in accordance with applicable laws and regulations and endeavors to improve employees' awareness and knowledge of applicable laws and regulations in Japan and overseas, which it provides through its program to foster experts and its proprietary licensing system.

1 Fostering Experts

As a comprehensive global chemicals manufacturer, DIC recognizes legal and regulatory compliance as central to risk management and promotes training designed to foster experts in this area. The Company began offering an entry-level course on laws and regulations governing chemical substances in fiscal year 2014. In fiscal year 2021, DIC switched to an online format to make it easier for employees in the target group—mainly employees at sites with technical departments—to participate in training. A cumulative total of 209 individuals have taken part in this training to date. In fiscal year 2022, the Company will continue to provide training on the legal handling of chemical substances and will expand participation in this training to include employees of DIC Group companies.

DIC is also currently working to design courses and prepare study materials to facilitate the creation of a practical program focused on various chemicals-related laws and regulations and high-level course program that will impart advanced knowledge about key laws and regulations such as the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., and the Poisonous and Deleterious Substances Control Act in Japan.

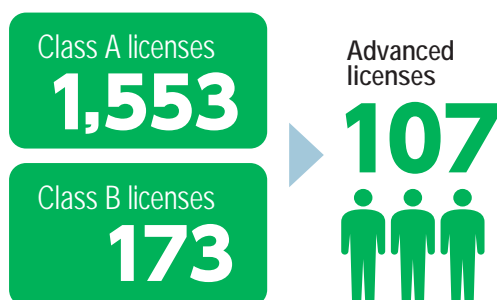
2 Licensing System in Japan

Under its proprietary licensing system, DIC provides mandatory specialized training for individuals in Japan engaged in the export and import of chemical substances and issues licenses to employees who have completed training and passed in-house examinations. The period of validity is two years for export licenses and three years for import licenses. Training for individuals involved in exporting and importing chemical substances focuses on the Foreign Exchange and Foreign Trade Act, while that for individuals involved exclusively in importing centers on the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., the Industrial Safety and Health Act and the Poisonous and Deleterious Substances Control Act. To renew a license, an employee must once again go through training and pass the in-house examination.

In fiscal year 2021, training and examinations were provided online because of COVID-19. As of the fiscal year-end, 332 employees held an import license; 173 held a Class B export license, requiring general knowledge; and 1,553 held a Class A export license, which requires high-level specialized expertise, while a further 107 employees had completed an advanced license course, an achievement requiring superior capabilities.

In fiscal year 2022, DIC will further enhance the content of this training. The Company is also creating a licensing system for employees who prepare certificates of origin based on economic partnership agreements. The importance of such certificates has increased in recent years, owing to, among others, the entry into force of the Regional Economic Partnership (RCEP).

Export Licenses



Import Licenses



3 Training at Overseas Group Companies

In the PRC, revised China REACH legislation came into force on January 1, 2021, while requirements regarding environmental protection and the prevention of pollution have been tightened considerably. DIC (China)'s Corporate ESH Department worked closely with the Responsible Care Department, exchanging pertinent information, to ensure all local Group companies were able to comprehend the revised legislation and respond appropriately, as well as held a presentation to explain relevant measures to be taken by the DIC Group.

To deepen relevant parties' understanding of managing chemical compliance, DIC held an online presentation on safety labels, SDSs and new chemical substances. The presentation was recorded and used for e-learning. Looking ahead, the Group will continue to share information and the latest legal and regulatory developments through presentations and seminars with the objective of enhancing chemical compliance management.



Presentation by Yundan Zhao of DIC (China)'s Corporate ESH Department on safety labels, SDSs and new chemical substances

VOICE We continue to provide legal compliance training.

My name is Yundan Zhao and I am in charge of chemical regulatory affairs at DIC (China). Countries around the world, increasingly concerned with sustainability, are constantly working to perfect their relevant legal and regulatory frameworks. Owing to economic globalization, amendments to chemical substance-related laws in one country may significantly impact not only that country's chemical substance compliance management but also its exports and imports. To respond to such legal and regulatory changes, it is important to promptly secure and share pertinent information and to improve understanding on the part of all involved. This makes it possible to swiftly formulate and implement effective countermeasures.

As an officer responsible for matters pertaining to chemical laws and regulations at DIC (China), I will continue working to swiftly grasp and digest laws and regulations that require chemical substance management, conduct training and assist problem solving at all DIC Group companies in the PRC. In so doing, I hope to help lift the level of compliance management across the entire Group. I am grateful to all my colleagues for their ongoing support.



Corporate ESH Department, DIC (China) Co., Ltd. **Yundan Zhao**

I Assessing and Managing Risks

The DIC Group promotes efforts to manage product-specific ESH risks and share related information with stakeholders with the aim of reducing the impact of products over their entire life cycle, i.e., from the development of chemical substances through to procurement, production, transport, sale, use and disposal or recycling.

The most important challenge in risk management is to assess risks in a manner that provides insight into trends related to, among others, the evolution of laws and regulations governing chemical substances and changing product life cycles. To accurately assess the risks associated with a product, it is crucial to secure information on the degree of exposure for people and the environment when the product is used, as well as to examine SDS and chemSHERPA* hazard and toxicity information. To facilitate the more efficient gathering and dissemination of information necessary for the assessment of risks, the Group is currently creating a new comprehensive global chemical substance information management system (for more information, please see page 103) and has formulated the DIC Sustainability Index (see page 57), and is working with technology, production and sales departments to enhance the accuracy of assessments. By thus ensuring the appropriate disclosure of information necessary to assess risks, the Group is confident that it will be able to provide a safer environment for the stakeholders using these products.

* chemSHERPA is a scheme designed to facilitate the accurate and efficient sharing of information on chemical substances in products across the entire supply chain. DIC began using chemSHERPA in late fiscal year 2017.

I Responsible (Green) Procurement

In line with the DIC Group Universal Purchasing Policy, DIC formulated the DIC Group Green Procurement Guidelines, which prohibit the procurement of materials containing hazardous substances in the seven categories below. The guidelines mandate the submission of a DIC Raw Materials Survey, an SDS and a chemSHERPA, as well as a DIC Group Green Procurement Guidelines Survey, when purchasing raw materials, thereby creating a system for eliminating substances of concern. Submission of a Conflict Minerals Survey is also required.

- ① Substances the production of which is prohibited, as outlined in Article 55 of Japan's Industrial Safety and Health Act;
- ② Substances designated as class-1 specified chemical substances in Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.;
- ③ Substances designated for monitoring under Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.;
- ④ Chemical substances the production of which is already prohibited, as detailed in Japan's Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures (ozone-depleting substances listed in the Montreal Protocol);
- ⑤ Specified particulates denoted in Japan's Air Pollution Control Act;
- ⑥ Specified poisonous substances indicated in Japan's Poisonous and Deleterious Substances Control Act; and
- ⑦ Specified substances detailed in the Stockholm Convention on Persistent Organic Pollutants.

| Position on the Use of Animals in Testing

In line with the "3Rs" of animal use in research ("Replacement, Reduction, Refinement"), which are guidelines designed to ensure the more ethical use of animals in testing, the DIC Group actively promotes safe evaluation using quantitative structure–activity relationship (QSAR) models, which do not employ animals, and alternatives to animal testing.

| Safe Product Transport

The DIC Group has created Yellow Cards containing simplified SDSs. This provides critical information to transport personnel, facilitating the appropriate responses in the unlikely event of an accident to protect the environment and ensure safety. (For more information, please see page 100.)

Engaging with Society

Basic Approach

DIC actively discloses information and publicizes its Responsible Care initiatives, as well as endeavors to disseminate knowledge regarding ESH-related issues and respond appropriately to public concerns.

Information Disclosure and Engaging with Society

The DIC Group strives to increase the transparency of its activities through the active disclosure of information and at the same time promotes dialogue with stakeholders by, among others, providing safety- and environment-related data through Group websites, the DIC Report and other media, as well as by holding environmental presentations for local residents at production facilities.

The DIC Group also promotes a variety of efforts to deepen its engagement with society. In Japan, such efforts include preparing site reports, inviting junior and senior high school students in for hands-on lab lessons, participating in community disaster drills and providing assistance for local festivals and other local events. Overseas Group sites seek to advance dialogue and interaction with local communities by participating in tree plantings and other activities aimed at helping prevent global warming and preserve biodiversity. In fiscal year 2021, many of these efforts were suspended as a consequence of COVID-19. The Group looks forward to resuming active engagement with society as soon as possible.



Bon Odori event at DIC Graphics' Tokyo Plant (2018)



Site report



Comprehensive disaster drill for the Sakai-Senboku Special Disaster Protection Area hosted by the Sakai Plant (2019)

Management System

Basic Approach

The DIC Group operates management systems for environmental protection, safety and disaster prevention, occupational safety and health, logistics safety, chemical and product safety, and dialogue with society.

Management Systems Certified Under ISO Standards

1 Certification Under ISO 14001

As of December 31, 2021, DIC Group companies responsible for 80% of the Group's production volume had acquired certification under ISO 14001, the International Organization for Standardization's standard for environmental management systems.

2 Certification Under OHSAS 18001 and/or ISO 45001

The DIC Group's principal sites around the world have acquired certification under OHSAS 18001, the internationally accepted standard for occupational health and safety management systems and/or ISO 45001, the International Organization for Standardization's standard for occupational health and safety management systems. In the Asia-Pacific region, for example, the Group has 17 companies in 10 countries and territories. In addition to diverse customs and languages, a key challenge from an operational perspective is differences in awareness regarding occupational health and safety. For this reason, it was crucial to establish common safety standards and work to ensure their effective implementation regionwide. As of December 31, 2021, 19 DIC Group sites in the Asia-Pacific region had earned certification under OHSAS 18001 and/or ISO 45001, giving the Group in the region a certification rate of 98%.

Introduction of the DECS

In fiscal year 2019, the DIC Group introduced the DIC ESH Data Collection System (DECS), a cloud-based system for gathering occupational safety and health, climate change, water resources, waste and other pertinent ESH-related data to facilitate the centralized management thereof. The system targets more than 70 Group sites in Japan, the PRC and the Asia-Pacific region. In addition to making the collection process more efficient and less labor-intensive, the DECS helps improve the reliability of data submitted for third-party verification.

ESH Audits

1 Framework for Promotion

The DIC Group regularly conducts ESH audits to ensure the effectiveness of Responsible Care initiatives at Group companies, plants and R&D facilities. Because these audits assess a variety of factors, they are carried out by teams composed of Responsible Care Department specialists, the executive officer responsible for production, production and R&D site administrators, and labor union-endorsed union members. Audits also look at the implementation of safety initiatives and the progress of remedial measures undertaken in response to issues cited in the previous year's audit. DIC's president also takes part, underscoring senior management's active engagement in efforts to ensure ESH-related concerns are addressed. In fiscal year 2021, however, auditing teams were limited to Responsible Care Department specialists and site administrators as a result of COVID-19. Overseas, regional headquarters' ESH officers conduct audits together with Responsible Care Department specialists and local site administrators to ascertain the progress of initiatives with the aim of enhancing Responsible Care at individual sites.

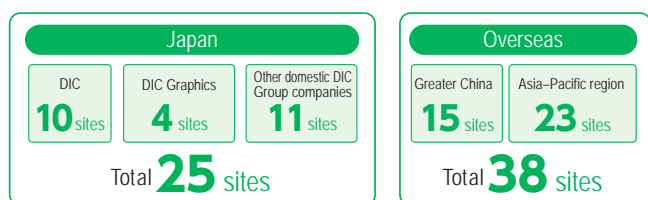
2 ESH Audits in Fiscal Year 2021

In Japan, Responsible Care Department specialists lead ESH audits not only at DIC but also at DIC Group companies to certify initiatives and support efforts to improve performance. In fiscal year 2021, audits were conducted at the Group's principal domestic sites, 10 belonging to DIC and four to subsidiary DIC Graphics. These consisted of systems audits, designed to verify the management level of production facilities; site inspections, which focus on frontline facilities; and compliance audits conducted by a third-party consulting firm. These audits helped improve the level of safety and environmental management, identify hazards and improve legal compliance at these key sites. ESH audits were also implemented at 10 sites belonging to eight other domestic DIC Group companies. The objective of the audits, which centered on systems audits and site inspections at 11 sites belonging to eight companies, was to enhance environmental management.

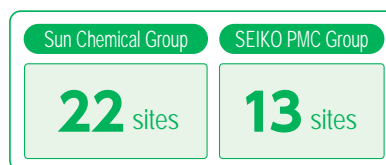
Overseas DIC Group companies also undergo ESH audits. In fiscal year 2021, audits were carried out at 23 sites belonging to 17 companies in the Asia-Pacific region. As a result of COVID-19, these audits were performed by the sites themselves. In Greater China,

audits were conducted at 15 sites belonging to 14 companies, including at three sites in Taiwan that were implemented autonomously, owing to COVID-19. In the Americas, Europe and Africa, ESH audits were implemented at 22 sites belonging to Sun Chemical Group companies and 13 sites belonging to the SEIKO PMC Group, which manufactures chemicals for paper production and resins for printing inks and reprographic products. The SEIKO PMC audits were conducted online as a consequence of COVID-19.

Outline of ESH Audits Implemented in Fiscal Year 2021



Audits Conducted at Subsidiaries' Sites in Fiscal Year 2021



Administrative Penalties

In fiscal year 2021, one violation of Responsible Care–related regulations with a significant financial penalty* was reported overseas and one violation of environmental regulations with such a penalty was reported overseas. The DIC Group responded by swiftly implementing and confirming the effectiveness of remedial measures.

* A penalty in excess of \$10,000

Key Data

Theme	Item	Unit	Boundary	Third-party verification	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Occupational safety and health	TRIR	Persons/million hours	Japan	✓	2.95	2.51	3.60
			PRC	✓	0.98	2.29	1.94
			Asia-Pacific region	✓	2.80	1.13	0.90
			Americas and Europe	—	4.76	5.63	5.33
			Global*	—	3.82	3.56	3.69
	Frequency rate for occupational accidents resulting in workdays lost	Persons/million hours	Japan	✓	1.20	0.55	1.31
			PRC	✓	0.74	1.27	1.45
			Asia-Pacific region	✓	2.35	0.91	0.79
			Americas and Europe	—	1.95	2.96	2.70
			Global*	—	1.96	1.79	1.89
	Fatalities due to occupational accidents	Persons	Japan	✓	0	0	0
			PRC	✓	0	0	0
			Asia-Pacific region	✓	0	0	0
			Americas and Europe	—	0	0	0
			Global*	—	0	0	0
	Injuries due to occupational accidents resulting in workdays lost	Persons	Japan	✓	11	5	12
PRC			✓	3	5	6	
Asia-Pacific region			✓	21	8	7	
Americas and Europe			—	34	50	45	
Global*			—	78	70	74	
Injuries due to occupational accidents not resulting in workdays lost	Persons	Japan	✓	16	18	21	
		PRC	✓	1	4	2	
		Asia-Pacific region	✓	4	2	1	
		Americas and Europe	—	49	45	44	
		Global*	—	74	69	71	
Safety and disaster prevention	Process accidents	Events	Japan	✓	6	4	7
	Frequency of process accidents	Events/200,000 hours	Japan	✓	0.110	0.073	0.128
Environmental pollution	Emissions of VOCs	Tonnes	Japan	—	541	327	239
	Emissions of PRTR-designated chemical substances (into the air, water and soil)	Tonnes	Japan	—	572	354	273
	Emissions of NOx	Tonnes	Japan	—	183	182	186
	Emissions of SOx	Tonnes	Japan	—	7.9	12.1	8.8
	COD	Tonnes	Japan	—	850	723	940

* Global = Japan, PRC, Asia-Pacific region, Americas and Europe, and other regions

Theme	Item	Unit	Boundary	Third-party verification	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Total waste (toxic and nontoxic)	Volume generated	Tonnes	Japan	✓	63,202	43,900	42,689
			Overseas	—	69,119	64,846	64,101
			Global	—	132,320	108,745	106,790
	Volume discharged by production facilities	Tonnes	Japan	✓	51,673	32,564	30,541
			Overseas	—	62,828	59,792	57,186
			Global	—	114,501	92,355	87,727
	Volume recycled	Tonnes	Japan	✓	39,437	19,034	17,733
			Overseas	—	24,972	24,595	26,856
			Global	—	64,409	43,630	44,589
	Waste heat recovered	Tonnes	Japan	✓	20,356	20,598	20,210
			Overseas	—	13,226	13,458	17,402
			Global	—	33,582	34,057	37,612
	Waste heat not recovered (including from incineration)	Tonnes	Japan	✓	3,192	4,100	4,548
			Overseas	—	10,687	7,735	5,140
Global			—	13,879	11,835	9,688	
Volume disposed of as landfill	Tonnes	Japan	✓	217	167	199	
		Overseas	—	20,233	19,058	14,702	
		Global	—	20,450	19,224	14,902	
Resource recycling rate	%	Japan	✓	95%	90%	89%	
		Overseas	—	55%	59%	69%	
		Global	—	74%	71%	77%	
Toxic waste (subject to special control)	Volume generated	Tonnes	Japan	✓	8,116	7,170	7,660
			Overseas	—	29,925	33,832	37,938
			Global	—	38,042	41,002	45,597
	Volume discharged by production facilities	Tonnes	Japan	✓	6,570	5,583	6,136
			Overseas	—	23,709	28,820	31,068
			Global	—	30,279	34,402	37,203
	Volume recycled	Tonnes	Japan	✓	3,152	2,623	2,522
			Overseas	—	8,631	14,415	16,214
			Global	—	11,784	17,038	18,736
	Waste heat recovered	Tonnes	Japan	✓	4,667	4,291	4,212
			Overseas	—	10,691	11,515	15,671
			Global	—	15,359	15,806	19,883
	Waste heat not recovered (including from incineration)	Tonnes	Japan	✓	281	234	898
			Overseas	—	8,031	5,856	3,623
Global			—	8,312	6,090	4,521	
Volume disposed of as landfill	Tonnes	Japan	✓	16	22	28	
		Overseas	—	2,572	2,046	2,430	
		Global	—	2,587	2,068	2,458	
Nontoxic waste	Volume generated	Tonnes	Japan	✓	55,085	36,730	35,030
			Overseas	—	39,194	31,014	26,163
			Global	—	94,279	67,744	61,193
	Volume discharged by production facilities	Tonnes	Japan	✓	45,103	26,981	24,406
			Overseas	—	39,119	30,972	26,118
			Global	—	84,222	57,953	50,524
	Volume recycled	Tonnes	Japan	✓	36,285	16,412	15,211
			Overseas	—	16,341	10,180	10,642
			Global	—	52,626	26,592	25,853
	Waste heat recovered	Tonnes	Japan	✓	15,688	16,308	15,998
			Overseas	—	2,535	1,943	1,732
			Global	—	18,223	18,251	17,729
	Waste heat not recovered (including from incineration)	Tonnes	Japan	✓	2,911	3,866	3,650
			Overseas	—	2,657	1,879	1,517
Global			—	5,567	5,745	5,167	
Volume disposed of as landfill	Tonnes	Japan	✓	201	144	171	
		Overseas	—	17,661	17,012	12,272	
		Global	—	17,863	17,156	12,444	

Theme	Item	Unit	Boundary	Third-party verification	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Fresh water withdrawn	Surface water	1,000 m ³	Japan	✓	13,754	9,168	8,922
			Overseas	—	5,353	5,195	4,372
			Global	—	19,107	14,364	13,293
	Groundwater	1,000 m ³	Japan	✓	6,214	6,585	6,505
			Overseas	—	1,776	1,799	1,840
			Global	—	7,990	8,383	8,345
	Rainwater	1,000 m ³	Japan	✓	0	0	0
			Overseas	—	3	129	191
			Global	—	3	129	191
	Wastewater generated by other organizations	1,000 m ³	Japan	✓	2,295	0	0
			Overseas	—	0	0	0
			Global	—	2,295	0	0
	Tap water/industrial water	1,000 m ³	Japan	✓	5,642	11,134	12,178
			Overseas	—	3,926	2,427	2,153
Global			—	9,568	13,562	14,331	
Others	1,000 m ³	Japan	✓	20	15	20	
		Overseas	—	29	70	77	
		Global	—	49	85	96	
Total	1,000m ³	Japan	✓	27,925	26,902	27,625	
		Overseas	—	11,087	9,621	8,632	
		Global	—	39,012	36,524	36,257	
Wastewater discharged	Rivers	1,000m ³	Japan	—	15,684	15,371	15,126
			Overseas	—	2,253	2,013	2,204
			Global	—	17,937	17,384	17,330
	Oceans	1,000 m ³	Japan	—	6,882	6,763	7,341
			Overseas	—	2	0	1
			Global	—	6,884	6,763	7,342
	Wastewater treatment plants	1,000 m ³	Japan	—	3,665	3,084	3,627
			Overseas	—	1,578	832	888
			Global	—	5,243	3,915	4,515
	Below ground	1,000 m ³	Japan	—	3	2	1
			Overseas	—	8	6	7
			Global	—	11	8	8
	Third parties	1,000 m ³	Japan	—	0	0	0
			Overseas	—	0	0	0
Global			—	0	0	0	
Others	1,000 m ³	Japan	—	0	0	0	
		Overseas	—	5,326	4,867	3,380	
		Global	—	5,326	4,867	3,380	
Total	1,000 m ³	Japan	—	26,235	25,220	26,094	
		Overseas	—	9,166	7,717	6,481	
		Global	—	35,401	32,937	32,574	
ISO 14001	Acquisition of certification	%	Global	—	79%	79%	80%

Climate Change

Preventing Global Warming

SDGs Goals 7 and 13



Basic Approach

The DIC Group works to reduce CO₂ emissions over the entire life cycle of its products and, through its business activities, to lower risks associated with climate change.

Efforts to Prevent Global Warming

Recognizing climate change as a critical social imperative, the DIC Group is working to reduce emissions of CO₂ from its sites with the aim of achieving carbon neutrality. In May 2019, the Group declared its support for the Task Force on Climate-related Financial Disclosures (TCFD),* pledging to disclose climate-related information in line with TCFD recommendations.

*The TCFD was established under the auspices of the Financial Stability Board and announced in June 2017 with the objective of mitigating climate change-related instability and risk in financial markets, which has the potential to affect performance over the long term.

Principal Efforts

- ① Undertake energy-saving initiatives Groupwide.
- ② Promote DX to optimize energy management for production and utility equipment.
- ③ Actively establish energy-efficient facilities, including cogeneration systems and net zero-energy buildings (ZEBs).
- ④ Employ energy from renewable sources—e.g., biomass boilers, wind power and net solar power—at suitable sites.
- ⑤ Conduct energy-saving analyses and deploy energy-saving initiatives at DIC Group companies, including those overseas.
- ⑥ When installing or expanding facilities, purposefully select energy-efficient options and formulate related rules, including for investment in environmental value and the introduction of internal carbon pricing.

Note: A total of 16 of the DIC Group's 31 sites and 22 offices and R&D facilities in Japan have earned certification under the country's Designated Energy Management System.

Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Reduce CO ₂ emissions at sites (Scope 1 and 2).	DIC Group (global): Reduce CO ₂ emissions at DIC Group sites (Scope 1 and 2) by 50% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 3.5%).	CO ₂ emissions: 546,304 tonnes • Down 1.1% from fiscal year 2020 (552,123 tonnes) • Down 24.4% from fiscal year 2013 (722,955 tonnes)	★	DIC Group (global): Reduce CO ₂ emissions at DIC Group sites (Scope 1 and 2) by 50% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 3.5%).
	DIC Group (Japan): Reduce energy consumption per unit of production by 17.0% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 1.0%). (Comply with Japan's Act on the Rational Use of Energy.)	Energy consumption per unit of production: 3.656 GJ/tonne • Down 2.1% from fiscal year 2020 (3.733 GJ/tonne) • Down 12.3% from fiscal year 2013 (4.170 GJ/tonne)	★★★	DIC Group (Japan): Reduce energy consumption per unit of production by 17.0% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 1.0%). (Comply with Japan's Act on the Rational Use of Energy.)

Reference:

CO₂ emissions per unit of production in fiscal year 2021:

DIC Group (global): 246.8 kg/tonne

• Down 9.2% from fiscal year 2020 (271.7 kg/tonne)

• Down 24.5% from fiscal year 2013 (327.0 kg/tonne)

DIC Group in Japan: 176.0 kg/tonne

• Down 7.2% from fiscal year 2020 (189.6 kg/tonne)

• Down 24.0% from fiscal year 2013 (231.7 kg/tonne)

Framework for Promotion

In fiscal year 2021, DIC established the Climate Change Subcommittee, which is responsible for discussing and debating responses to climate change-related issues, within the Sustainability Committee's Sustainability Strategy Working Group. With a membership that spans multiple areas, from production and purchasing to corporate planning, the Climate Change Subcommittee considers a variety of themes, including climate change targets and initiatives, and makes proposals to be deliberated and determined by the Sustainability Committee, which answers directly to the president and CEO.

DIC and DIC Group companies in Japan have established an Energy-Saving Promotion Committee at each site. Committee activities include confirming the progress of initiatives, engaging in discussions and conducting patrols. An Energy-Saving Working Group has also been set up at each site that comprises members chosen by

the site itself, to foster the exchange of information and research pertaining to new items, as well as to promote the horizontal deployment of effective measures across the Group. This combination of site- and Group-level initiatives forms the framework under which the DIC Group endeavors to reduce its CO₂ emissions. Overseas, DIC Group companies promote a wide range of independent energy-saving initiatives that align with related Group policies. The Production Management Unit provides support on multiple fronts, including the deployment of management systems and the training of employees.

Disclosures in Line with TCFD Recommendations

With the aim of helping institutional investors grasp climate-related risks and opportunities and make investment decisions, the TCFD has structured its recommendations around four thematic areas that represent core elements of how organizations operate—governance, strategy, risk management, and metrics and targets.

Having acknowledged the disclosure of information on efforts to address climate change as an imperative for companies today, the DIC Group has resolved to do so in line with TCFD recommendations. Accordingly, the Group is enhancing its efforts to respond appropriately to risks and capitalize on opportunities associated with climate change with the objective of earning the trust of stakeholders through improved resilience and the proactive dissemination of information.

TCFD Recommendations for Financial Disclosures

Governance	Strategy	Risk management	Metrics and targets
Governance around climate-related risks and opportunities	Actual and potential impacts of climate-related risks and opportunities on businesses, strategy and financial planning	Processes used to identify, assess and manage climate-related risks	Metrics and targets used to assess and manage relevant climate-related risks and opportunities

1 Governance

The DIC Group recognizes climate change as a key management challenge. Important matters, including the setting of medium- and long-term targets for the reduction of CO₂ emissions, are deliberated and determined by the Sustainability Committee, which meets four times annually and answers directly to the president and CEO, and the details are reported to the Board of Directors, in line with the rules governing the Board of Directors. (In principle, the Sustainability Committee reports to the Board of Directors on all of its deliberations.) A system is thus in place that ensures appropriate supervision of the Sustainability Committee is provided by the Board of Directors.

To appropriately assess and manage climate change-related risks and opportunities, thereby ensuring the effective management of its operations, the Sustainability Committee consists of the president and CEO, the general managers of the Production Management Unit and Technical Management Unit, and the heads of the Corporate Strategy Unit, General Affairs and Legal Unit, Finance and Accounting Unit and ESG Unit, as well as the presidents of the business groups and the general managers of the product divisions.

2 Strategy

With pressure on the global community to achieve carbon neutrality by 2050 intensifying rapidly, changes to rules governing competitiveness are expected to transform the socioeconomic system going forward. DIC is promoting sustainable business strategies, recognizing the importance of risks and opportunities associated with climate change. Because the impacts of climate change are likely to surface over the medium to long term, the Company is working to enhance its understanding of the principal climate-related risks and opportunities (transition as well as physical) that are likely to have a financial impact over the medium to long term.

Based on scenario analysis conducted in fiscal year 2020, the Company will work to raise its awareness of foreseeable opportunities and risks from a medium- to long-term perspective and at the same time to formulate and execute effective strategies on an appropriate time line. In fiscal year 2020, DIC also established the Climate Change Working Group, which is tasked with helping facilitate the achievement of net zero CO₂ emissions by fiscal year 2050. The activities of the working group are reported to and debated by the Sustainability Committee.

Key Risk Management Perspectives

- Should carbon pricing or carbon border taxes be introduced in the future, there is a risk that raw materials, fuel and electric power prices will rise and/or that taxes will be imposed on exported products, making CO₂ emissions a factor that directly affects costs.
- Should the Group be unable to respond to any sudden changes in demand resulting from the shift to a circular economy to advance decarbonization, there is a risk of a significant decline in profits generated by its businesses (climate change-related transition risk).
- Should climate-related disasters arising from the increasing seriousness or frequency of extreme weather events occur, resulting in product supplies becoming impossible or being delayed due to the suspension of operations at production facilities and the instability of raw materials supplies, there is a risk that it will cause a significant decline in profits generated by Group businesses or threaten business continuity (extreme physical risk).

Principal Issues Deliberated by the Sustainability Committee in Fiscal Year 2021

Fiscal year	Issues deliberated
2021	<ul style="list-style-type: none"> Report on and evaluation of sustainability initiatives in fiscal year 2020 Progress of initiatives promoted by the Climate Change Subcommittee*
	<ul style="list-style-type: none"> Target of achieving carbon neutrality by fiscal year 2050
	<ul style="list-style-type: none"> Scope 3 emissions, science-based targets and carbon footprint Initiatives to reduce the carbon footprint of products
	<ul style="list-style-type: none"> CO₂ reduction plans under DIC Vision 2030

* After deliberation by the Sustainability Committee, medium-term sustainability policies are discussed and determined by the Board of Directors.

Principal Climate-Related Risks

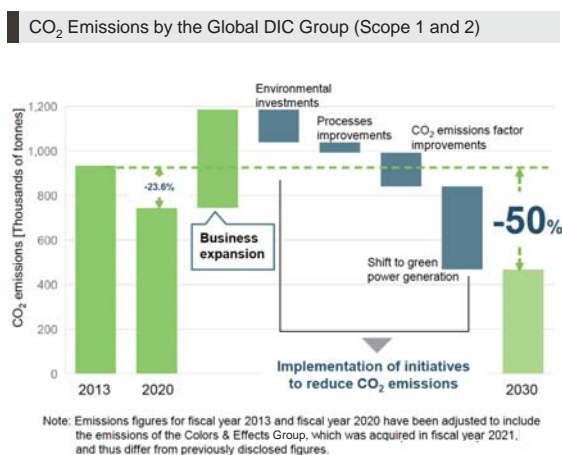
Type	Description
Emerging regulations (Transition)	There is a risk that emerging regulations (e.g., the introduction of carbon pricing) will increase direct costs and impact on the operating environment/profitability (e.g., facility costs and raw materials prices).
Technology (Transition)	With technological innovations, there is a risk of products and services becoming obsolete and demand declining.
Market (Transition)	There is a risk that an insufficient grasp of evolving customer/consumer preferences will mean the loss of market opportunities. There is also a risk that businesses will shrink if demand related to the realization of a circular economy cannot be met.
Market (Transition)	There is a risk that businesses will be affected, including through the loss of commercial rights, if rapidly expanding market/customer demand for products with a reduced carbon footprint cannot be met.
Reputation (Transition)	If DIC's attitude toward and ability to respond to climate change is seen by external observers as insufficient for a manufacturer of fine chemicals, there is a risk that its reputation will suffer.
Acute (Physical)	Should extreme weather events become more frequent, there is a risk that operations at production sites will be affected.
Chronic (Physical)	If temperatures remain persistently high, there are risks of increased production site maintenance and operating costs and of damage to health.
Upstream (Physical)	In addition to a risk of uncertainty regarding the supply of raw materials monopolized by certain suppliers, there are BCP risks and risks that costs may increase due to, among others, rising prices for fuel and electric power, or to the imposition of taxes on exported products.

Principal Climate-Related Opportunities

Type	Description
Emerging regulations (Transition)	With emerging regulations, there is an opportunity to establish new business models that demonstrate the superiority of DIC's businesses.
Technology (Transition)	Technological innovation provides opportunities to create new low-carbon/decarbonized businesses that respond to climate change and to increase product cost competitiveness through the use of revolutionary technologies to improve processes.
Market (Transition/physical)	Accurately grasping evolving customer/consumer preferences—e.g., shift to low-carbon business models, chance that certain existing businesses will be avoided—provides the opportunity to develop new products and services that anticipate lifestyle changes.
Upstream/downstream (Transition/physical)	Addressing climate change (adaptation and mitigation) over products' entire life cycles through organic collaboration with customers and suppliers provides the opportunity to create new businesses and systems.

Strategies for Reducing CO₂ Emissions

As a company with a CO₂ emissions reduction target, the DIC Group will promote a variety of related initiatives as outlined below.



Initiatives Aimed at Reducing CO₂ Emissions

Internal emissions reduction initiatives (Scope 1 and 2)

- Advance environmental investments, process improvements and energy-saving initiatives
- Advance the electrification of production equipment
- Actively employ green power generation
- Introduce an internal carbon pricing system

Emissions reduction initiatives across the supply chain (Scope 3)

- Promote supplier engagement
- Encourage the use of recycled and bioderived raw materials
- Increase the recycling rates of and reduce the disposal of used products by customers
- Leverage proprietary technologies to improve the efficiency of materials recycling
- Contribute to reduction through business activities

The Group currently plans to make environmental investments of approximately ¥15 billion in Japan between fiscal year 2022 and fiscal year 2030.

Scenario Analysis

Scenario information	2°C scenario	4°C scenario
Scenario details	Based on the International Energy Agency (IEA)'s World Energy Outlook (WEO) Sustainable Development Scenario and Energy Technology Perspectives (ETP) 2017 2°C Scenario	Based on the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathway (RCP) 8.5
Time frame	2030	2030
Carbon price assumption	¥8,000/tonne	—

Results of Scenario Analysis



	Implications for society and the business environment	Risk and opportunity assessment		DIC Group countermeasures
2°C scenario: Strengthening of policies and regulations	Introduction of carbon pricing (direct implications for manufacturing and the procurement of raw materials)	Possible direct impact on manufacturing costs: ¥5.03 billion* (Annual CO ₂ emissions in fiscal year 2018: 617,964 tonnes)	 	<ul style="list-style-type: none"> Take steps to maintain cost competitiveness, assuming global introduction. Promote enhanced functionality to minimize the impact of carbon pricing in key businesses, including products for automotive, electronics and display applications and for healthcare, as well as pigments for cosmetics.
		Reference: Possible impact on procurement costs: ¥11.8 billion (Annual CO ₂ emissions (Scope 3, Category 1) in fiscal year 2018: 1,480,561 tonnes)		
2°C scenario: Changes in demand attributable to circular economy	Global movement to minimize use of one-way plastics and efforts by brand owners seeking to reduce packaging	Demand for some plastics (one-way plastics) will decrease, but increased demand for plastic alternatives will mean only a negligible impact on materials suitable for applications other than plastics.	 	<ul style="list-style-type: none"> Promote core products as appropriate for use with both plastics and plastic-alternative materials; differentiate with barrier and other functions. Foster businesses that respond to demand for materials that are biodegradable and/or use bioderived raw materials.
	Increase in production and sales of recycled plastics	While it is unclear what will happen vis-à-vis demand changes, a failure to launch commercial distribution will mean the loss of future market opportunities.		
2°C scenario: Reduction of CO ₂ emissions attributable to manufacturing	Introduction of energy-saving and renewable energy equipment	Annual investment in energy-saving and renewable energy equipment is estimated at ¥2.0 billion (direct impact on manufacturing costs). Ongoing efforts to reduce CO ₂ emissions attributable to production will also be necessary.	 	<ul style="list-style-type: none"> Continue investing in energy-saving and renewable energy equipment with the aim of achieving the target for reducing Scope 1 and 2 emissions by 30% from the fiscal year 2013 level by fiscal year 2030. The reduction of CO₂ emissions is expected to reduce costs by an average of ¥2.31 billion annually between fiscal years 2013 and 2030 (estimated annual emissions reduction: 289,000 tonnes).
	Shift of focus to the achievement of net zero CO ₂ emissions by fiscal year 2050	Efforts to reduce CO ₂ emissions enough to keep the increase in global average temperature over the current century to 1.5°C from the preindustrial level are already underway. There is an increased risk that this target will be imposed across entire supply chains.		
4°C scenario: Risk that supply chains will be interrupted due to an increase in climate-related disasters	Suspension of production at suppliers' facilities due to frequent climate-related disasters	<ul style="list-style-type: none"> Stable procurement risks affect certain businesses, i.e., those dependent on raw materials procured overseas or monopolized by certain suppliers. For most products, coordination among departments will facilitate the use of alternative raw materials. 		<ul style="list-style-type: none"> For key raw materials, promote two-company shared procurement in multiple regions and enhance BCP responses. For key products, ensure ample inventories of raw materials and products.
	Suspension of supplies of plant-derived raw materials			
4°C scenario: Risk that operations at production facilities will be interrupted due to an increase in climate-related disasters	Suspension of production at own facilities due to frequent climate-related disasters	<ul style="list-style-type: none"> Production sites are scattered across the globe, so impact on overall operations is limited. Certain products for which production is concentrated at certain facilities may be affected. Countermeasures are required in areas where there are concerns that water-related risks will increase. 		<ul style="list-style-type: none"> Locate printing inks and other production facilities around the world to ensure complementary capabilities and cooperate with other companies to minimize the impact in the event port facilities are damaged due to storm surges or flooding. Strengthen measures for sites located in coastal areas. Reinforce the effectiveness of BCPs by providing related training. Implement measures to address water-related risks.
	Depletion of groundwater resources			
4°C scenario: Response to changes in lifestyles attributable to rising temperatures	Increases in non-life insurance fees	Insurance premiums may increase.	 	<ul style="list-style-type: none"> Bolster profitability by reinforcing and expanding portfolio of sustainable products.
	Changes in lifestyles and consumption patterns attributable to rising temperatures and resulting changes in demand	<ul style="list-style-type: none"> Demand for certain products may be affected by changing consumption patterns attributable to rising temperatures, but because demand sources are diverse the risk to overall business is low. The potential for increases in new demand as a consequence of changes in lifestyles attributable to rising temperatures is high. 		

* These figures are based on results in fiscal year 2018, the year the scenario analysis was conducted. As CO₂ emissions in fiscal year 2021 amounted to 546,304 tonnes, the impact of carbon pricing under the same conditions would be as much as ¥4.37 billion.

Initiatives for Fiscal Years 2020–2022

- Introduce internal carbon pricing.
Quantify climate change risk and provide economic incentives for reducing CO₂ emissions to accelerate the promotion of investments and innovations to further advance emissions reductions. In fiscal year 2021, introduce internal carbon pricing for new investment projects as an internal framework for factoring the cost of related CO₂ emissions into estimates of investment benefits.
- Promote full-scale collaboration with FP Corporation (FPCO) in the practical implementation of a closed-loop recycling system for polystyrene, used in plastic containers for food products, among others.
- Establish the Climate Change Subcommittee, implement various measures and announce new targets for achieving carbon neutrality by fiscal year 2050.
- Raise funds by issuing sustainability-linked bonds (SLBs).
In March 2022, DIC signed an agreement to issue SLBs, which are bond instruments for companies that set ambitious environmental targets and actively tackle climate change. The achievement of these targets is a condition for receiving preferential interest rates.
- Build ZEBs.
Group company DIC Kyushu Polymer Co., Ltd., completed a new office building that employs ZEB-compliant construction methods. The new building has earned certification under the highest of four ZEB series' ranks.
- Embark on efforts to reduce the carbon footprint of products.

3 Risk Management

Processes Used to Identify and Assess Climate Change-Related Risks

DIC recognizes risks related to its response to climate change—a key component of its framework of sustainability themes, the foundation of its sustainability activities—and it works to evaluate, address and manage them effectively. While up to fiscal year 2021, the Company positioned climate change-related risk as a component of ESH, beginning in fiscal year 2022 it will treat climate change as an independent theme. The Sustainability Working Group, a subsection of the Sustainability Committee, is charged with identifying and debating priority risks. Risks designated as priorities are submitted for consideration to the Sustainability Committee.

4 Metrics and Targets

In light of accelerated global efforts to decarbonize, the DIC Group has set new targets for the reduction of its CO₂ emissions and pledged to step up related efforts. DIC now aims to achieve carbon neutrality—net zero CO₂ emissions—by fiscal year 2050 and will seek to reduce CO₂ emissions by 50% from the fiscal year 2013 level by fiscal year 2030.* The Group will continue to disclose the results of its various initiatives and obtain third-party verification of its CO₂ emissions data.

* Targets are for Scope 1 and 2 emissions.

Fiscal year 2050	Achieve carbon neutrality (Scope 1 and 2)
Fiscal year 2030	Reduce CO ₂ emissions 50% from the fiscal year 2013 level (Scope 1 and 2)

Principal Initiatives in Fiscal Year 2021

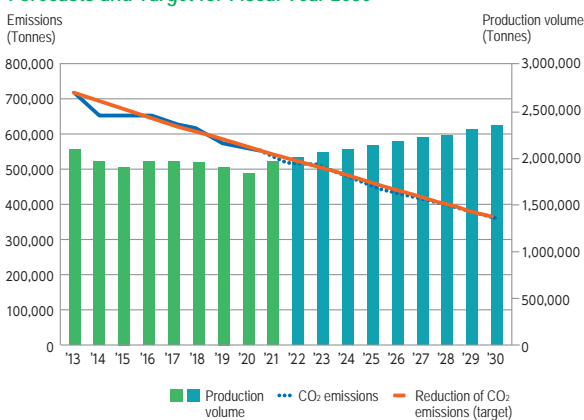
1 Energy Consumption and CO₂ Emissions (Scope 1 and 2) by the Global DIC Group

Energy consumption by the global DIC Group in fiscal year 2021 edged up 0.9% from fiscal year 2020 and 16.1% from the fiscal year 2013 base year. CO₂ emissions by the global DIC Group amounted to 546,304 tonnes, down 1.1% from fiscal year 2020 and 24.4% from fiscal year 2013, while CO₂ emissions per unit of production (Scope 1 and 2), at 246.8 kg/tonne, were down 9.2% from fiscal year 2020 and 24.5% from the base year.

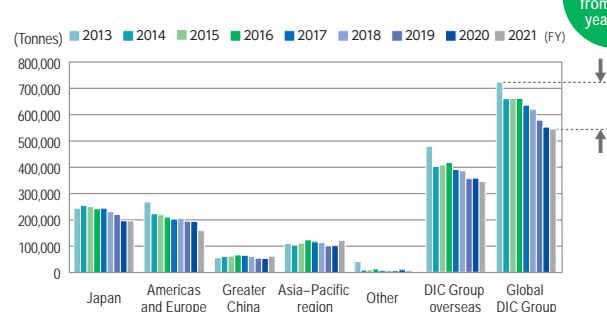
The DIC Group's diverse product portfolio includes printing inks, polymers, pigments, LCs, engineering plastics and compounds. Recent years have seen an uptrend in the output of energy-intensive fine chemicals and a downtrend in the output of general-purpose items, the production of which is comparatively energy efficient. Against this backdrop, the reason the Group fell short of its goal for reducing the volume of CO₂ it emits worldwide but succeeded in lowering CO₂ emissions per unit of production was efforts by Group companies worldwide to break down the target set forth in the three-year medium-term management plan that concluded in fiscal year 2021—a 50% decrease from the fiscal year 2013 level by fiscal year 2030—into an annual average decrease of 3.5% from the fiscal year 2018 level—and the promotion of ambitious energy-saving and decarbonization initiatives, including the incorporation of an internal carbon pricing system into capital investment projects. Some of these initiatives are outlined below.

Going forward, the Group will continue to implement a variety of energy-saving measures, including introducing highly efficient facilities, promoting process improvements and boosting capacity utilization rates, while at the same time further advancing its use of renewable energy by shifting to biomass and other clean fuels and installing solar power facilities.

Global CO₂ Emissions (Scope 1 and 2): Results, Forecasts and Target for Fiscal Year 2030

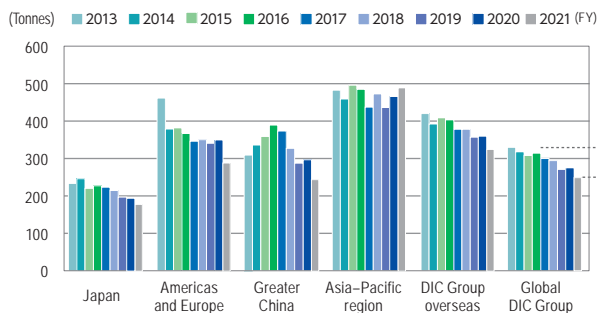


Global CO₂ Emissions



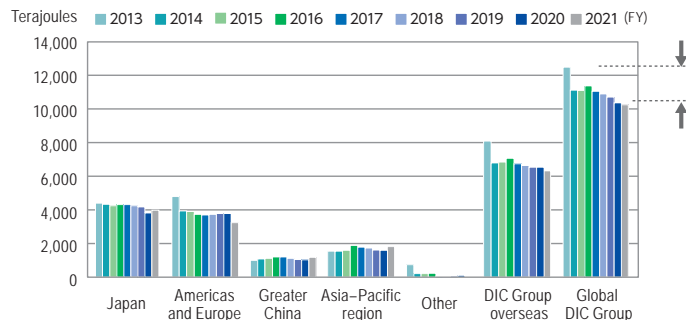
Global CO₂ Emissions per Unit of Production

-24.5%
from fiscal
year 2013



Global Energy Consumption

-16.1%
from fiscal
year 2013

Factors Contributing to Change in Global CO₂ Emissions

Factors		Impact on CO ₂ emissions (tonnes)		Decrease (%)
DIC Group in Japan	Decline in production volume	14,369	7,009	-1.3%
	Other factors	1,387		
	Implementation of 473 energy-saving initiatives at sites	-5,934		
	Impact of change in electrical power supplier	-2,813		
DIC Group overseas	Asia-Pacific region: Increase in production volume (+10.6% from fiscal year 2020)	13,707	16,944	2.4%
	Asia-Pacific region: Energy-saving initiatives and increased productivity	-2,202		
	Asia-Pacific region: Change in product mix and in energy consumption not directly attributable to production	2,067		
	Asia-Pacific region: Other factors	3,372		
	Greater China: Increase in production volume (+38.6% from fiscal year 2020)	20,716	7,365	
	Greater China: Energy-saving initiatives and increased productivity	-7,572		
	Greater China: Change in product mix and in energy consumption not directly attributable to production	1,073		
	Greater China: Other factors	-6,851		
	Sun Chemical Group: Increase in production volume (+1.2% from fiscal year 2020)	1,579	-34,166	
	Sun Chemical Group: Impact of energy-saving initiatives and increased productivity	-1,947		
	Sun Chemical Group: Change in product mix and in energy consumption not directly attributable to production	-19,557		
	Sun Chemical Group: Other factors	-14,242		
Other: Change in product mix and energy consumption not directly attributable to production	-2,966	-2,966		
Change in CO ₂ emissions (tonnes)		-5,815		
Decline in CO ₂ emissions (%)		1.1%		
Global CO ₂ emissions in fiscal year 2020		552,123		
Global CO ₂ emissions in fiscal year 2021		546,304		

2 Grasping CO₂ Emissions Across the Supply Chain (Scope 3)

The DIC Group recognizes the importance of reducing emissions of greenhouse gases across its supply chain and works to ensure a grasp of emissions in all categories of Scope 3. The Group has also revised its calculation for emissions in category 1 (Purchased goods and services) with the aim of refining data reported in this category.

Greenhouse Gas Emissions Across the Supply chain in Fiscal Year 2021

Category number	Category	Emissions
1	Purchased goods and services	4,455,628
2	Capital goods	75,419
3	Fuel- and energy-related activities (not included in Scope 1 or 2)	98,408
4	Upstream transportation and distribution	284,569
5	Waste generated in operations	50,707
6	Business travel	1,461
7	Employee commuting	5,848
12	End-of-life treatment of sold products	1,205,246

3 Principal Initiatives in Fiscal Year 2021

Renewable Energy as a Percentage of Total Energy Used in Japan: 14.4%

The bulk of renewable energy used by DIC Group companies in Japan is natural energy generated by a biomass boiler and wind and solar power facilities at the Kashima Plant. In fiscal year 2021, DIC Group companies in Japan used 703,000 GJ renewable energy (equivalent to 18,143 kl of crude oil), up 2.4% from fiscal year 2020 and representing 14.4% of total energy (steam and electric power) consumed by these companies. The increase in renewable energy use was attributable to a variety of factors, including the fact that new biomass boilers (producing electric power, heat and steam) gradually came on line at the Kashima Plant, where priority was given to steam generation to improve efficiency.

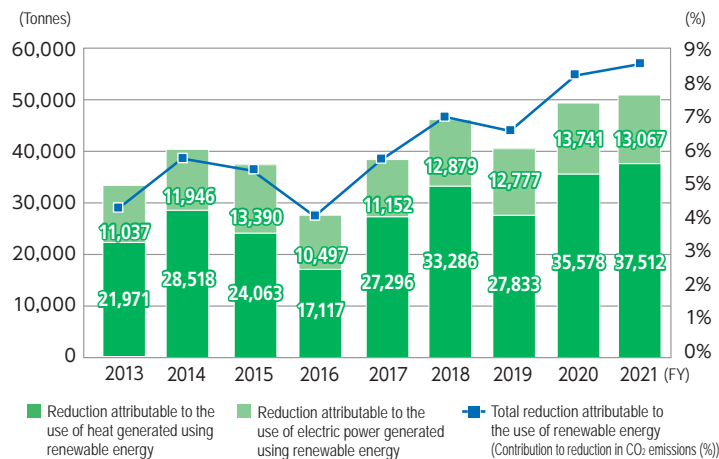
The use of renewable energy by DIC Group companies in Japan in fiscal year 2021 accounted for a reduction in CO₂ emissions of 44,881 tonnes, or 18.2%, from the previous fiscal year. Going forward, DIC will continue to take decisive steps to advance its use of renewable energy with the aim of achieving its DIC NET ZERO 2050 target.

Adoption of Renewable Energy by the DIC Group Overseas

Against a global trend toward decarbonization, including by popularizing the use of renewable energy, DIC Group companies in the Asia-Pacific region, Greater China, and the Americas and Europe are making use of government subsidies and support to, for example, install biomass boilers and solar power facilities.

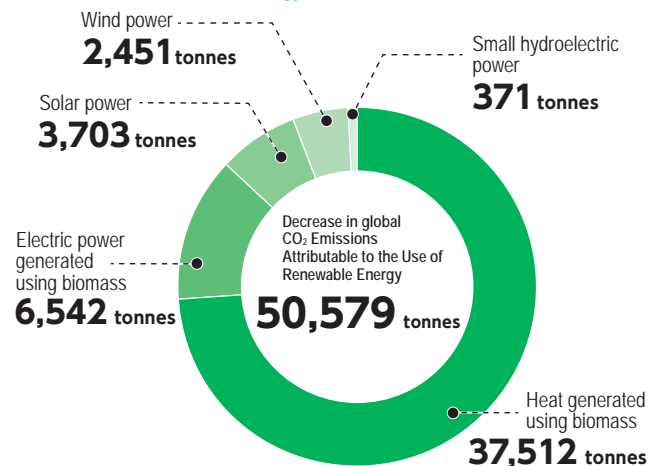
In fiscal year 2021, the global DIC Group used a total of 796,291 GJ of renewable energy, an increase of 1.9% from 781,542 GJ in fiscal year 2020. The use of renewable energy accounted for a reduction in the Group's global CO₂ emissions of 50,579 tonnes.

Reduction in Global CO₂ Emissions Attributable to the Use of Renewable Energy



Note: For more information on these figures, please see "Reduction in Global CO₂ Emissions Attributable to the Use of Renewable Energy (Tonnes/%)" below.

Breakdown of Reduction in Global CO₂ Emissions Attributable to the Use of Renewable Energy in Fiscal Year 2021 (50,579 Tonnes)



Reduction in Global CO₂ Emissions Attributable to the Use of Renewable Energy (Tonnes/%)

	2013	2014	2015	2016	2017	2018	2019	2020	2021
Reduction attributable to the use of heat generated using renewable energy	21,971	28,518	24,063	17,117	27,296	33,286	27,833	35,578	37,512
Reduction attributable to the use of electric power generated using renewable energy	11,037	11,946	13,390	10,497	11,152	12,879	12,777	13,741	13,067
Total reduction attributable to the use of renewable energy	33,008	40,464	37,453	27,614	38,448	46,166	40,611	49,319	50,579
Reduction attributable to the use of renewable energy (%)	4.4%	5.8%	5.4%	4.0%	5.7%	7.0%	6.6%	8.2%	8.5%
Total global CO ₂ emissions	722,955	657,456	658,811	659,378	634,741	617,964	577,056	552,123	546,304

	2018	2019	2020	2021	Change from previous fiscal year
Reduction attributable to the use of heat generated using biomass	33,286	27,833	35,578	37,512	5.4%
Reduction attributable to the use of electric power generated using biomass	7,936	7,847	7,739	6,542	-15.5%
Reduction attributable to the use of solar power	1,984	2,956	3,574	3,703	3.6%
Reduction attributable to the use of wind power	2,690	1,765	2,025	2,451	21.0%
Reduction attributable to the use of small hydroelectric power	270	209	403	371	-7.8%
Total reduction attributable to the use of renewable energy	46,166	40,611	49,319	50,579	2.6%

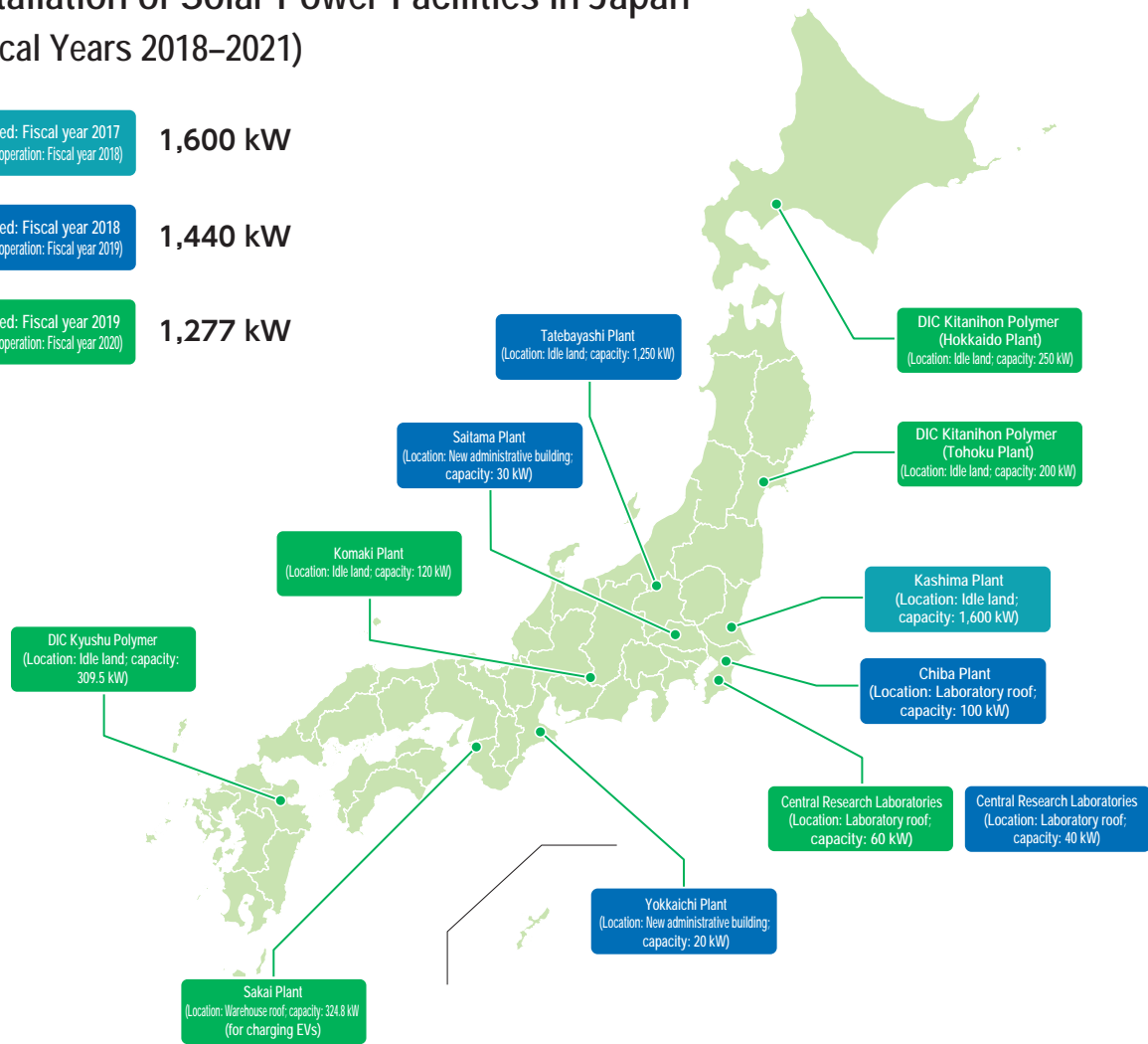
The use of renewable energy in fiscal year 2021 accounted for an 8.5% reduction in global CO₂ emissions by the DIC Group. This is calculated by dividing the total reduction in CO₂ emissions attributable to the use of renewable energy by the aggregate of global CO₂ emissions plus the total reduction in CO₂ emissions attributable to the use of renewable energy, or 50,579 tonnes / (546,304 tonnes + 50,579 tonnes).

Installation of Solar Power Facilities in Japan (Fiscal Years 2018–2021)

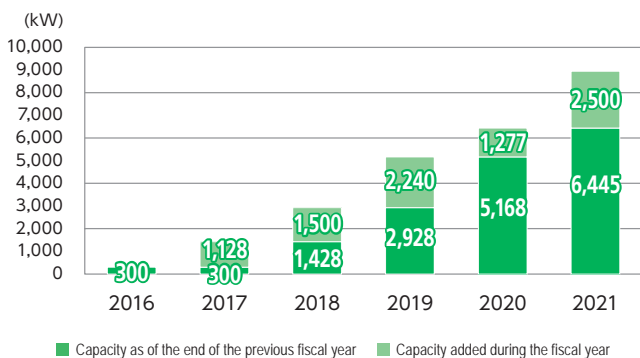
Installed: Fiscal year 2017
(Start of operation: Fiscal year 2018) **1,600 kW**

Installed: Fiscal year 2018
(Start of operation: Fiscal year 2019) **1,440 kW**

Installed: Fiscal year 2019
(Start of operation: Fiscal year 2020) **1,277 kW**

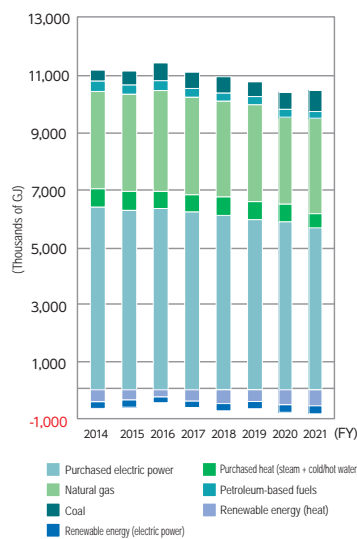


The DIC Group's Global Solar Power Generating Capacity (For Internal Consumption)

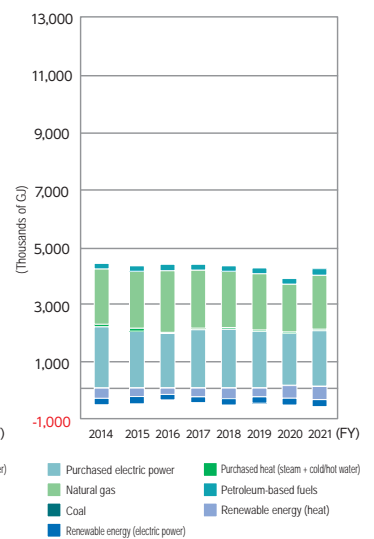


Energy Mix

DIC Group Overseas



DIC Group in Japan



Initiatives in Areas Other than Production (Offices and Research Facilities)

In fiscal year 2021, energy consumed by the DIC Group's 21 offices and research sites in Japan (excluding the Central Research Laboratories) rose 1.0%. Principal energy-saving initiatives implemented include replacing aged light fixtures and air conditioning equipment with newer, high-efficiency models that satisfy standards set by the Energy Conservation Center, Japan (ECCJ) for its Top Runner program, turning off lights when not needed and implementing mandatory 22°C winter and 28°C summer air conditioning settings, working with facility management companies to implement diligent energy-saving measures and instituting a year-round no-jacket/no-tie dress code under the WSR 2020 project.

In a brand-new initiative for fiscal year 2021, Group company DIC Kyushu Polymer Co., Ltd., resolved to build a new office building that incorporates ZEB^{*1} construction, which aims to achieve virtually zero energy consumption.

The new office building was designed with a variety of energy-saving equipment and fixtures, including solar power generation facilities, heat insulation materials and LED lighting fixtures, to achieve a reduction in primary energy consumption (energy saving + energy creation) of 104%, earning it certification as a top-rank ZEB^{*2} building.

In addition, DIC Kyushu Polymer applied to participate in the 2021 ZEB demonstration project conducted the Ministry of Economy, Trade and Industry's Agency for Natural Resources and Energy, earning certification as a ZEB Leading Owner.^{*3}

DIC Kyushu Polymer is the first DIC Group company to pursue such an initiative. The DIC Group will continue working actively on building ZEB-compliant offices.

*1 A ZEB is a building with considerably reduced annual energy consumption by saving as much energy as possible via better heat insulation, solar shading, natural energy and high-efficiency equipment as well as creating energy (e.g., with photovoltaic power generation), while maintaining comfortable environments.

*2 The ZEB series consists of four ranks based on net reduction in primary energy consumption achieved: ZEB (net energy saving of 100% or more), Nearly ZEB (net energy saving of 75% or more), ZEB Ready (net energy saving of 50% or more) and ZEB-oriented (buildings with a floor space in excess of 10,000 m² that achieve net energy saving of 40% or more).

*3 A ZEB Leading Owner is an owner of a ZEB building that publicly discloses its targets for promoting awareness of ZEB, introduction plans and implementation results, as well as the results of related efforts.



Procurement Initiatives

Based on the DIC Group Sustainable Procurement Guidelines, DIC formulated the DIC Group Sustainable Procurement Guidebook, version 3 of which was published in February 2020, which it uses to survey suppliers with the aim of reducing suppliers' emissions of greenhouse gases. With the objective of better understanding and lowering the carbon footprint of DIC products, the Group is also making provisional calculations of the carbon footprint of the raw materials it uses, as well as seeking to expand its use of bioderived and recycled raw materials. The Group is further working to reduce greenhouse gas emissions using common tools such as EcoVadis.

Logistics Initiatives

In Japan, DIC is using fewer, larger trucks and taking decisive steps to improve loading efficiency, as well as promoting the use of modal shift and the efficient combination of truck, rail and marine transport. Overseas, DIC Group companies are advancing initiatives tailored to circumstances in individual countries and territories. Over the long term, the Group expects that the expanded use of next-generation vehicles and LNG carriers will further help reduce greenhouse gas emissions attributable to logistics.

Internal Carbon Pricing System

In fiscal year 2021, DIC introduced an internal carbon pricing system. Instituting its own internal price places a monetary value on greenhouse gas emissions (Scope 1 and 2) that the Company can then factor in cost-benefit assessments. This will allow more accurate capital investment decisions by making it possible to quantify the impact of emissions reductions while also raising awareness of the relationship between capital investments and CO₂ emissions. With the goal of expanding applications for its internal carbon pricing system, DIC will also look at using internal carbon pricing to factor the cost of emissions into calculations for energy procurement and rationalization efforts.

DIC Sustainability Index

The DIC Sustainability Index was established as a yardstick for measuring the social value of DIC Group products. The index's vertical axis quantifies each product's contribution to the reduction of environmental impact, which the DIC Group is working continuously to reduce. As it works to achieve its emissions reduction goals for fiscal years 2030 and 2050, the Group's efforts to lower environmental impact focus on greenhouse gas emissions (Scope 1 and 2).

Calculating Products' Carbon Footprint

To lower greenhouse gas emissions across its supply chain, the DIC Group calculates and works to minimize emissions associated with its products from the sourcing of raw materials through to provision to the customer. The Group is currently developing a scheme to calculate each product's carbon footprint, which it believes will assist its efforts to promote dialogue with suppliers and to respond to customer expectations and social imperatives.

Avoided Emissions

The term “avoided emissions” refers to greenhouse gas emissions that can be avoided through the use of a product. Examples include products that contribute to improving fuel efficiency by reducing vehicle body weight and products that help reduce energy used for heating and cooling energy by improving insulation. The DIC Group is working to appropriately calculate avoided emissions and quantify the contribution thereof to the reduction of emissions across the supply chain, recognizing this as a key component of the value its products deliver.

Innovation

As part of its drive to achieve carbon neutrality, the DIC Group is promoting development efforts aimed at recovering CO₂, as well as recycling and converting recovered CO₂ into new raw material. The Group recognizes that active efforts to recover and reuse CO₂ will reduce its dependence on fossil fuels, contributing to decarbonization and the achievement of the target it has set for fiscal year 2050 under DIC NET ZERO.

The 2021 Excellent Energy Management Business Awards’ Ishikawa Prefectural Governor’s Award

In February 2022, DIC’s Hokuriku Plant received the Ishikawa Prefectural Governor’s Award in the fiscal year 2021 Excellent Energy Management Business Operator Awards, sponsored by the Japan Electric Association’s Hokuriku Region Rationalization of Electric Power Use Committee, in recognition of its outstanding achievements in the rationalizing energy use.

The Hokuriku Region Rationalization of Electric Power Use Committee works with a number of relevant organizations and other bodies, as well as with the Toyama, Ishikawa and Fukui Prefectural Rationalization of Electric Power Use Committees, to nominate and commend business operators in the region for excellence in the effective use of energy. This program is part of a larger effort to promote effective energy use and regional industrial development.

DIC sees the Hokuriku Plant’s award as the result of the facility’s steady, ongoing efforts. Looking ahead, the DIC Group will continue to apply the related know-how it has cultivated to date at its sites in Japan and overseas as it steps up its efforts to promote effective energy use and achieve its DIC NET ZERO target for fiscal year 2050.

Protecting the Ozone Layer

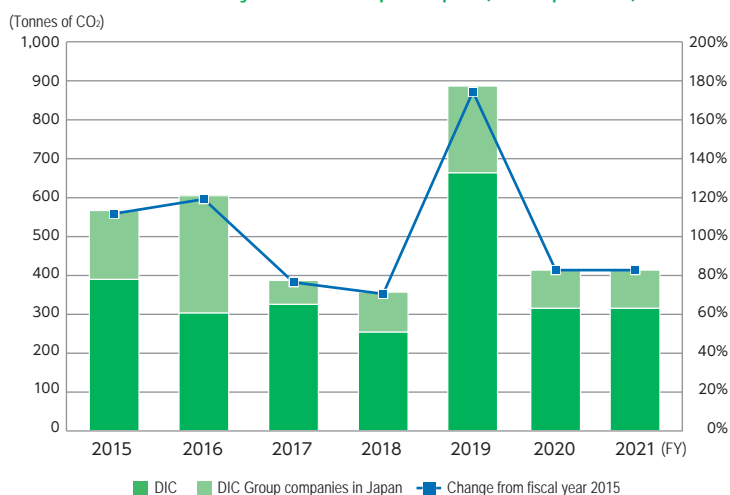
Hydrofluorocarbons (HFCs) are used widely as refrigerants in equipment and facilities. While not an ozone-depleting substance (ODS), HFCs have a warming potential 100–10,000 times that of CO₂ and their use is expected to account for a 0.5°C increase in the global average temperature by the end of the 21st century. At the 28th Meeting of the Parties in Kigali, Rwanda, held in October 2016, the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer reached an agreement to phase out the production and use of HFCs (the Kigali Amendment). Japan subsequently amended its Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures in line with the amendment, which as of November 10, 2021, had been ratified by 129 Parties. (Having surpassed the condition of ratification by at least 20 Parties, the Kigali Amendment entered into force on January 1, 2019.)

In April 2015, Japan also revised its Fluorocarbons Recovery and Destruction Law. The same month, the Act on Rational Use and Proper Management of Fluorocarbons entered into force, compelling stakeholders to ascertain and report leaks of fluorocarbons from commercial equipment and facilities.

In fiscal year 2021, leaked fluorocarbons from DIC Group sites were equivalent to 418 tonnes of CO₂. (Leaks in excess of 1,000 tonnes per site or per company must be reported to the Japanese authorities.)

The Company has worked to effectively manage fluorocarbons since the enforcement of the Act on Rational Use and Proper Management of Fluorocarbons entered into force and has managed to keep leaks below the level requiring reporting. In fiscal year 2021, the Group’s efforts to comply with laws governing leaked fluorocarbons were recognized in the Japan Refrigerant and Environmental Organization’s first JRECO Fluorocarbon Rating, which selected it as one of 16 A-rank performers from among 1,350 companies surveyed. Going forward, the DIC Group will continue working to ensure compliance with pertinent laws and regulation, and to reduce leaked fluorocarbons from its sites.

Leaked Fluorocarbons by the DIC Group in Japan (CO₂ Equivalent)



Key Data

Category	Unit	Boundary	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Energy used (converted into GJ)	1,000 GJ	Japan	4,184	3,827	4,183
		PRC	1,056	1,036	1,197
		Asia-Pacific region	1,623	1,606	1,835
		Sun Chemical	3,784	3,791	3,196
		Other	69	118	63
		Global	10,717	10,379	10,474
Energy consumed per unit of production	GJ/tonne	Japan	3.706	3.733	3.656
		PRC	5.574	5.698	4.749
		Asia-Pacific region	6.810	7.151	7.389
		Sun Chemical	6.525	6.757	5.626
		Other	133.440	3.030	108.223
		Global	5.014	5.108	4.732
CO ₂ emissions	Tonnes	Japan	220,776	194,364	201,373
		PRC	54,774	53,672	61,033
		Asia-Pacific region	102,630	103,334	120,278
		Sun Chemical	195,360	194,706	160,540
		Other	3,517	6,048	3,081
		Global	577,056	552,123	546,304
CO ₂ emissions (Scope 1)	Tonnes	Japan	138,611	122,273	135,612
		PRC	14,128	13,260	15,475
		Asia-Pacific region	61,215	64,358	80,698
		Sun Chemical	45,383	44,350	39,926
		Other	1,469	1,361	1,154
		Global	260,807	245,603	272,865
CO ₂ emissions (Scope 2)	Tonnes	Japan	93,417	86,745	89,304
		PRC	40,646	40,412	45,558
		Asia-Pacific region	41,414	38,975	39,580
		Sun Chemical	149,977	150,356	120,613
		Other	2,047	4,686	1,927
		Global	327,501	321,174	296,982
CO ₂ emissions per unit of production	Kg/tonne	Japan	196	190	176
		PRC	289	295	242
		Asia-Pacific region	431	460	484
		Sun Chemical	337	347	283
		Other	6,766	155	5,333
		Global	270	272	247

Quality

Enhancing Product Quality and Customer Satisfaction

Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Secure product quality.	Reinforce the quality management process to prevent improprieties, as well as major quality defects and criticisms.	Quality audits were conducted to analyze the causes of issues and confirm procedures for preventing recurrence, as well as to clarify challenges and effective countermeasures.	★★	Investigate the root causes of improprieties and issues of nonconformance and take decisive steps to prevent recurrence.
	Provide products and services that deliver a level a quality that matches both customer expectations and market requirements.	The approval process for the management of changes was scrutinized and modifications were made, particularly regarding the involvement of sales representatives and other corporate headquarters personnel.	★★	Approach product quality from the perspective of customers and society and guarantee a level of quality that matches requirements.

Basic Approach

In line with The DIC Way and its basic sustainability policy, the DIC Group positions its Environment, Safety and Health Policy and its Quality Policy as two inseparable aspects of its operations. Accordingly the Group works continuously to provide products and services that respond to the needs of customers and society at large.

DIC's Quality Policy

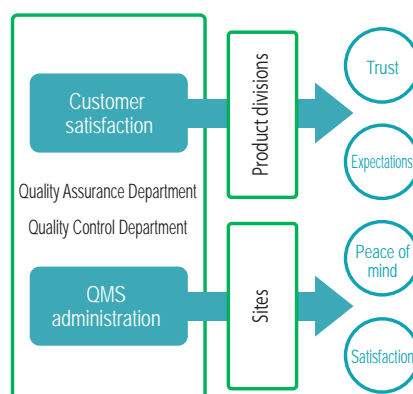
Contribute to the prosperity of customers and society by consistently providing reliable products (Updated in May 2015)

Framework for Promotion

To better leverage its agility and comprehensive capabilities, DIC previously employed a matrix-like quality management configuration with product divisions on the vertical axis and the Technical Management Unit and Production Management Unit on the horizontal axis. In fiscal year 2021, the Company launched a new configuration in which the product division quality assurance groups have been absorbed into the Production Management Unit.

This realignment also involved creating the position of deputy general manager in charge of quality control within the Production Management Unit and integrating the quality assurance groups, previously divided among the product divisions. The goals here were to ensure the independence of the framework for promoting quality assurance to ensure customers' quality requirements; clarify the roles of quality control and quality assurance, ensuring that each fulfills its proper function while monitoring the other; and position the Quality Assurance Department and the newly inaugurated Quality Control Department, using their respective reporting lines, to identify issues facing sites and product divisions and devise the most effective measures in response.

DIC also established a new Quality Committee to enable the president to be directly involved in quality management. In principle, the Quality Committee meets once each quarter to formulate DIC Group quality policies and important quality management measures. At committee meetings, the product division general managers and unit heads are responsible for reporting on the status and progress of quality management measures and summarizing related activities. An especially regrettable incident in fiscal year 2021 involved the temporary suspension of ISO 9001 certification and the cancellation of Underwriters Laboratories' certification for a certain product, which was recognized as a Companywide issue. Toward year-end, DIC reviewed these issues and formulated priority strategies for its DIC Vision 2030 long-term management plan, which was launched in early 2022.



I Quality Assurance and Quality Improvement Initiatives

Under the new quality management configuration, the Quality Assurance Department and the Quality Control Department implement measures deliberated by the Quality Committee and in their respective roles work to improve the overall level of quality management. In the event an issue of nonconformance arises, the departments take corrective measures to prevent recurrence and improve customer satisfaction.

1 Initiatives Aimed at Increasing Customer Satisfaction

The Quality Assurance Department's principal responsibilities are to:

- ① deploy the DIC Group's Quality Policy,
- ② promote measures to improve customer satisfaction,
- ③ ensure the appropriate management and auditing of the Group's quality management system (QMS),
- ④ provide and assist in the appropriate management of information on quality-related laws and regulations, and certification under domestic and overseas standards, and
- ⑤ foster a customer- and compliance-focused mindset.

In addition to conducting regular internal quality audits, the Quality Assurance Department repeatedly monitors and inspects domestic sites to ensure that the QMS is administered effectively, thereby ensuring that an awareness of the need to place customers first remains firmly rooted across the DIC Group.

In fiscal year 2021, quality audits looked at site general managers and other senior management, as well as at the management of changes, focusing mainly on how related departments are involved. As in fiscal year 2020, audits had to be conducted online, but audit teams were able to engage in rigorous dialogue with sites. Regarding senior site management, dialogue focused on the effectiveness of reporting lines to the site general manager and the deployment of policies within sites. Conversations on the management of changes confirmed the effective administration of the QMS and the effectiveness of communication with customers. In the area of compliance, lists of laws, regulations and third-party opinions were drawn up. These lists were used in the management of changes and in design reviews, as well as in the establishment of procedures to ensure compliance with laws and regulations.

2 Initiatives Aimed at Enhancing Product Quality

The Quality Control Department's principal responsibilities are to:

- ① improve the level of quality control (enhance product competitiveness),
- ② enhance the reliability of quality inspections,
- ③ advance the horizontal deployment of best practices, and
- ④ promote DX for business processes related to quality control and quality inspections.

To provide high-quality products that customers feel secure using, the DIC Group promotes a variety of quality improvement initiatives during product planning, design and development, the procurement of raw materials, production and sales, giving consideration to the need for effective product stewardship.

Management of changes to maintain compliance with quality requirements, necessitated by the expansion of facilities to accommodate increased production, the replacement of aged equipment and the transition to new, more cost-competitive products, emphasized preventing the discharge of nonconforming products, a key concern, and fortifying efforts to respond to complaints and criticisms.

The DIC Group is expanding its use of statistical process control (SPC), a quality monitoring and control methodology, and have commenced efforts to manage risks associated with deviation from quality requirements. By illuminating root causes and providing failure mode and effect analysis (FMEA) feedback, the Group is managing quality risks from the raw materials and production stages. The Group is also promoting DX to confirm effectiveness on a daily basis. To further enhance the effectiveness of efforts to prevent the recurrence of issues, as well as to counter the risk of these efforts encouraging negative thinking, the DIC Group is working to advance the recognition of a common vision for the future.

3 Compliance: The DIC Group's Top Priority

Committed to providing products that satisfy its customers and contribute to society, DIC believes that a corporate climate in which each employee works to ensure quality is essential. Nonetheless, in fiscal year 2021 the Company was forced to announce the suspension of ISO 9001 certification for two plants and of Underwriters Laboratories' certification of LC polymers, both consequences of inappropriate conduct.

DIC takes these incidents seriously. During the period, the Company implemented ISO 9001 Top Management Training, initially launched in fiscal year 2020, for technical and sales department leaders, who have many opportunities to communicate with customers. Rather than being conceptual in nature, training under this program in the period under review employed case studies as study materials and emphasized the importance of each individual thinking and acting as if quality is their responsibility even if they are not directly involved in production.

Additionally, an e-learning program on quality compliance was conducted for domestic DIC Group employees, with 100% of eligible employees taking part. The issue of improprieties in type testing of a foam fire extinguishing agent was used as training material to raise awareness of the causes of compliance violations and prevent recurrence. Going forward, the Group will expand training designed to give employees a greater sense of ownership over their own work.

4 Mechanisms for Dealing Appropriately with Issues

In the DIC Group's new quality management configuration, the deputy general manager in charge of quality control conducts Group quality conferences. The purpose of this is to communicate specific measures for implementing the Group's annual quality activity plan to the Quality Committee, which is headed by the president, and to monitor the status thereof. The conference also plays a role in improving quality management across the Group by advancing the horizontal deployment of best practices and case studies illustrating significant issues.

Product division quality conferences, which focus on customer satisfaction, are also held. The product divisions, which propose solutions to customers and spearhead the implementation of business strategies, also lead BCM initiatives, a task of importance to customers. In areas where compliance conflicts are seen as likely to occur, product division general managers take the lead in communicating with customers and seeking to resolve issues. In contrast, the role of site quality conferences, which are conducted by site general managers, is to ensure the appropriate functioning of the Group's QMS and promote improvements. Should an issue of nonconforming products arise, site quality conferences investigate causes, implement corrective measures and take steps to prevent recurrence. In addition to boosting customer satisfaction in terms of product performance, these efforts assist product divisions in formulating plans in line with business strategies and managing the effective execution thereof. Both the Quality Assurance Department and the Quality Control Department participate in these conferences and respond swiftly and appropriately to issues as required.

I Improprieties Related to Underwriters Laboratories' Certification

On May 18, 2021, DIC received notification of the temporary suspension of ISO 9001:2015 certification for its Chiba Plant and the cancellation of Underwriters Laboratories' certification of its LC polymers. On March 1, 2021, a special audit of the plant conducted by Lloyd's Register Quality Assurance Ltd. (LRQA) in connection with improprieties in type testing of a foam fire extinguishing agent also uncovered improprieties related to Underwriters Laboratories' certification of LC polymers. As a result, the plant's ISO 9001:2015 and JIS Q 9001:2015 certification was suspended effective from the date of the notification, which DIC announced together with the Underwriters Laboratories' certification cancellation. DIC takes these incidents seriously and is taking corrective actions to improve its QMS, as well as to prevent recurrence, as well as to restore customer trust. The Company has also expressed its deepest regrets for any anxiety or trouble caused to customers or other related parties.

On September 17, 2021, the temporary suspension of ISO 9001:2015 and JIS Q 9001:2015 certification for the Chiba Plant, as well as for the Hokuriku Plant, resulting from the improprieties involving the foam fire extinguishing agent was rescinded. The agent, *MEGAFOAM IH-101-5*, has been replaced by a new type-approved alternative.

Human Resources Management

Working to Enhance Job Satisfaction

SDGs Goals 3, 4, 5, 8 and 10



Goals and Achievements of Major Initiatives Evaluations are based on self-evaluations of current progress. Key: ★★★★★ = Excellent; ★★★ = Satisfactory; ★ = Still needs work

Objectives of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Foster and endorse the advancement of human resources around the world with the aim of advancing global management.	Foster human resources. <ul style="list-style-type: none"> Promote efforts to foster future management candidates with a view to shifting to a global management system. Provide training aimed at cultivating global human resources at multiple levels. 	<ul style="list-style-type: none"> Steps were taken to foster management candidates. Training aimed at cultivating global human resources was provided for managers and other selected employees. 	★★	<ul style="list-style-type: none"> Consider building a framework for talent management with the expectation of shifting to a global management system. Continue providing training for selected employees.
	Build a human resources infrastructure. Consider the creation of a global Group human resources database and personnel system.	Full-scale consideration of a global personnel system began.	★★	Formulate a vision of the ideal global personnel system and a road map for its establishment.
Support efforts to secure a diverse labor force.	Advance career opportunities for women. Explore and implement measures to advance understanding of diversity.	<ul style="list-style-type: none"> Information was disseminated to advance understanding of diversity. Having grasped and analyzed the current situation, measures were reviewed. 	★★	Advance diversity and inclusion by promoting initiatives focused particularly on the latter.
	Promote the hiring of individuals with disabilities. <ul style="list-style-type: none"> Continue working to reinforce relations with special needs schools. Exchange information with other Companies on the creation of special-purpose subsidiaries. Maintain the percentage of DIC's total labor force accounted for by individuals with disabilities at 2.65%. 	<ul style="list-style-type: none"> To reinforce relations with special needs schools, active steps were taken to recruit trainees. The decision was made to recruit new employees from schools for the deaf. As of December 31, 2021, individuals with disabilities accounted for 2.60% of DIC's total labor force. 	★★★★	<ul style="list-style-type: none"> Continue working to reinforce relations with special needs schools. Provide support to strengthen the retention rate for employees with disabilities. Maintain the percentage of DIC's total labor force accounted for by individuals with disabilities at 2.60%.
Promote measures to protect the human rights and ensure the safety and health of employees.	Guarantee human rights. <ul style="list-style-type: none"> Grasp global trends in human rights-related issues and measures promoted by the UN and individual countries and territories to address such issues. Provide guidance to DIC Group companies worldwide to ensure they do not commit human rights violations. Conduct human rights due diligence in countries and territories where there is a potential risk of human rights violations and provide tailored guidance to reduce the risks that human rights-related issues pose. 	<ul style="list-style-type: none"> Steps were taken to disseminate the DIC Group Human Rights Policy and recent human rights-related initiatives. Human rights due diligence was conducted at DIC Group companies in Malaysia. 	★★	<ul style="list-style-type: none"> Grasp global trends in human rights-related issues and measures promoted by the UN and individual countries and territories to address such issues. Continue to provide guidance to DIC Group companies worldwide. Conduct human rights due diligence at Group companies in India and the PRC.
	Protect employee health. <ul style="list-style-type: none"> Prevent mental health disorders by taking steps to ensure the prompt identification of issues. Implement measures to improve health literacy. 	<ul style="list-style-type: none"> Training was provided in caring for mental health, with sessions led by industrial physicians specializing in the field. Seminars on healthcare were provided in collaboration with a sports club. 	★★★★	<ul style="list-style-type: none"> Prevent mental health disorders and take steps to ensure the prompt identification of issues. Implement measures to improve health literacy.

Basic Approach to Human Resources Management

With the aim of being an organization that empowers all employees to reach their full potential, the DIC Group is committed to respecting human rights and eliminating all forms of discrimination and to creating a work environment that embraces diversity. The Group also strives to support a healthy work-life balance for each employee and create a work environment conducive to job satisfaction, as well as to foster human resources in markets around the world, which it recognizes as essential to ensuring sustainable corporate growth under its current medium-term management plan.

1. Efforts to strengthen management of human capital

1 Building a strategic human resources portfolio that maximizes the value of human capital

In line with The DIC Way, which represents its fundamental management policy, DIC in Japan works with regional headquarters overseeing operations in Greater China, the Asia–Pacific region, and the Americas, Europe and Africa to promote the effective management of human resources. The DIC Vision 2030 long-term management plan, announced in February 2022, recognizes human resources as capital that is crucial to the execution of management strategies. In this plan, the Company identifies three strategic priorities for building a strategic human resources portfolio that maximizes the value of human capital—“Foster human resources,” “Ensure mobility (hiring, retention and succession)” and “Improve engagement and organizational cohesiveness”—and calls for the building of a personnel management platform that underpins these priorities through framework creation, risk management and efforts to enhance its corporate culture.

DIC Vision 2030: Three Strategic Priorities and a Personnel Management Platform



2 WSR 2020

In fiscal year 2021, Work Style Revolution (WSR) 2020, which was launched in the previous fiscal year as a limited-time project to develop new work styles with the aim of boosting employee job satisfaction and productivity, was transformed into an all executive–led committee in which all employees will participate. The rapid advance of digitalization, together with the advent of COVID-19 and projections for the post-pandemic “new normal,” have highlighted the need to revamp work styles to ensure job satisfaction and productivity, a task to which DIC executives have committed themselves. With the shift to a committee status, the project’s existing working groups have been realigned to create the Job Satisfaction Improvement Reform, Workplace Reform and Process Reform working groups, a framework under which executives will work as one to promote decisive measures.

WSR 2020 Committee Reforms and Targets

● Job Satisfaction Improvement Reform

Create workplaces that embody The DIC Way by encouraging enthusiasm about taking on various challenges, evaluating performance fairly and recognizing personal value.

- Establish a foundation that empowers employees to fully exercise their abilities.
- Adopt systems that ensure employees’ challenges and achievements are evaluated appropriately and reflected to the maximum degree possible.
- Support career development for individual employees based on a performance-oriented approach.

● Workplace Reform

Realize working environments that motivate employees to achieve Company, department/division and individual goals, and make it possible for them to work comfortably and productively, anytime and anywhere, in collaboration with team members, colleagues and related parties. To this end, establish an effective remote work system by creating an infrastructure that fully deploys IT technologies and by achieving improved employee IT literacy.

● Process Reform

Dramatically improve the productivity of individuals, departments/divisions and the entire company and reinforce the Group’s competitiveness by leveraging DX to revamp existing work styles and business processes and by building new business models.

3 Basic Personnel Statistics (DIC)

		Fiscal year 2019	Fiscal year 2020	Fiscal year 2021		Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Number of employees	Male	2,640	2,669	2,659	Retention rate (after three years)	Male	97.2%	92.3%
	Female	681	691	686		Female	76.9%	100%
	Overall	3,321	3,360	3,345		Overall	91.8%	94.0%
Average age	Male	42.6	42.7	42.9	Mid-career hires (percentage of total new hires)	Male	71	52
	Female	42.1	42.5	42.8		Female	10	3
	Overall	42.5	42.7	42.8		Overall	44.9%	41.4%
Average years of employment	Male	18.3	18.3	18.2	Separations (voluntary) (number of individuals)	Male	45	33
	Female	19.8	20.1	20.2		Female	16	16
	Overall	18.6	18.6	18.6		Overall	61	49
New graduates hired	Male	44	56	40	Separation rate (voluntary)	Male	1.7%	1.2%
	Female	22	22	18		Female	2.3%	2.3%
	Overall	66	78	58		Overall	1.8%	1.5%

Note: The number of employees refers to individuals registered as employees of DIC Corporation and thus differs from the figure in the annual securities report.

2. Three Priority Strategies

1 Foster Human Resources

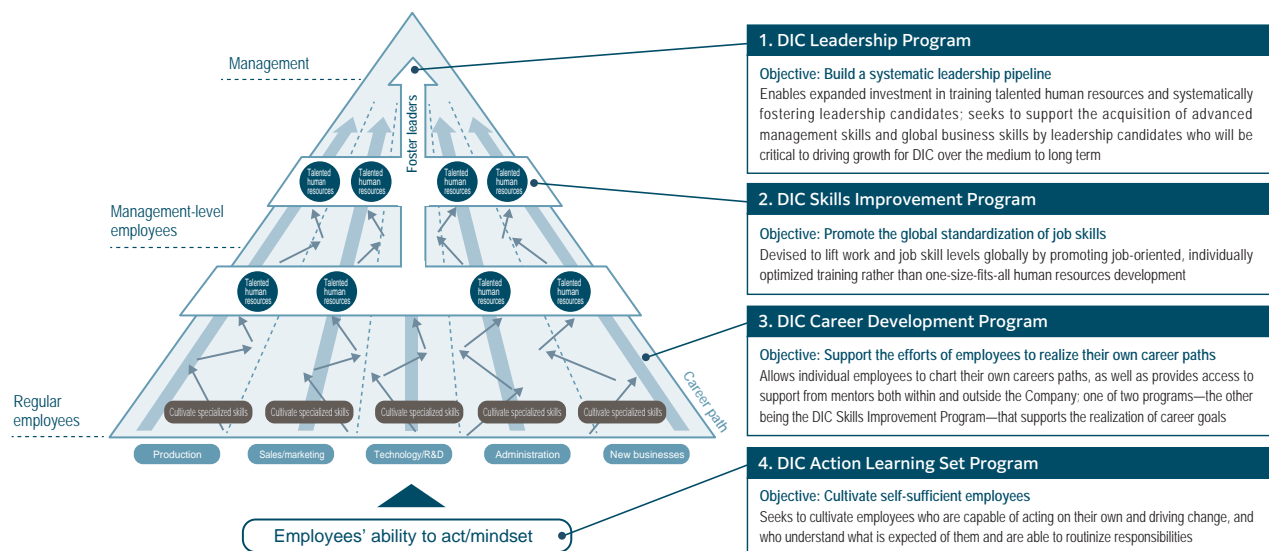
① Global-Based Talent Management

One of the basic strategies outlined in the DIC Vision 2030 long-term management plan for realizing its redefined vision statement is to establish a more robust global management configuration. Guided by this strategy, the Company will work to firmly establish its next management selection process, as well as actively consider various new systems and procedures, with the aim of enhancing its management configuration. These include creating a global talent management committee and establishing selection and monitoring processes for high-potential employees.

② Configuration for Fostering Human Resources

To respond flexibly to dramatic changes in business conditions and continuously create new value, it is crucial to offer working environments that ensure all employees maintain a high level of expertise and empower them to reach their full potential. To realize such environments, in fiscal year 2020 DIC formulated four basic policies for fostering human resources. In fiscal year 2021, the Company explored and implemented specific programs based on these policies and this configuration.

- Policy 1** Build a systematic leadership pipeline. This will enable DIC to identify future management candidates and young prospective leaders and to make focused investments in the training of such individuals.
- Policy 2** Promote the global standardization of job skills. The Company will devise an online learning platform designed to equip individual employees around the world with the specialized skills and know-how required to expertly perform a diverse range of jobs. This platform will facilitate the formulation of an individually optimized learning environment that enables employees to take as many courses as they need.
- Policy 3** Support the efforts of employees to realize career paths. DIC will assist the efforts of employees to design their own careers and provide crucial related support, including by ensuring the right people are in the right places.
- Policy 4** Cultivate self-sufficient employees. The Company seeks to do this by nurturing individuals in various jobs and positions who understand what is expected of them and are able to routinize responsibilities, and by empowering them to make changes.



Principal Training Programs and Content

Program name	Implemented/Under consideration	Details
DIC Leadership Program	Dispatch to external training institution	The International Institute for Management Development (IMD) ^{*1} was added to the slate of selected external training institutions; leadership candidates were dispatched to the IMD in fiscal year 2021.
	Global leader communications training	The existing program was revamped and relaunched as a program focused on the short-term, intensive acquisition of advanced skills.
	Global leader skills training	The launch of a program designed to impart the knowledge and skills critical to management is under consideration.
DIC Skills Improvement Program	Adoption of subscription-based e-learning program	Online courses supporting employee skills improvement and reskilling were launched, facilitating the provision of training anywhere and at any time.
	Global talent development (English-language ability)	<ul style="list-style-type: none"> The existing program was overhauled to include more practical content and relaunched with a focus on global communications training. The introduction of content regarding the importance of English-language ability is under consideration. The Versant^{*2} English Speaking Test was introduced.
DIC Career Development Program	Career training	"Self-career dock" training for employees was offered on a trial basis for employees reaching the age of 50.
DIC Action Learning Set Program	Manager training	Training for managers was newly offered.
	Behavioral change training	Existing rank-specific training was replaced with training timed to coincide with changes in role—due to, for example, promotion—to promote changes in behavior commensurate with new responsibilities.
	Training incorporating one-on-one meetings	Training in how to conduct one-on-one meetings with subordinates was provided for all employees.

*1 The IMD is a business school based in Lausanne, Switzerland.

*2 Versant tests of English proficiency are used by major global corporations and government agencies around the world.

Leadership Training

DIC chooses talented employees with the goal of systematically cultivating the leaders of the future and dispatches them to a variety of external institutions providing training in diverse areas, including liberal arts. In fiscal year 2021, the Company added the IMD to its slate of selected external training institutions and dispatched its first management candidates to the Swiss school, albeit online. Moreover, the Company revised the content and target of the English-language component of its in-house training program, relaunching it as global leader communications training. DIC is also planning global leader skills training designed to impart the knowledge and skills critical to management with a view to launch in fiscal year 2022.

Global Talent Development

DIC places significant emphasis on global talent development, that is, training to improve English-language ability. Having positioned its existing global communications training program as an important part of its new configuration for fostering human resources, the Company revamped the program's content and format and relaunched it with practical content and a focus on the short-term, intensive acquisition of global standard advanced communications skills. DIC has traditionally used TOEIC as the benchmark to evaluate English-language proficiency, but in fiscal year 2021 the Company also began using the Versant English Speaking Test to gauge speaking ability, which is particularly important in actual business situations. DIC also continued to enhance the content of the English-language study and self-development support programs.

Overseas Trainee and GCD Programs

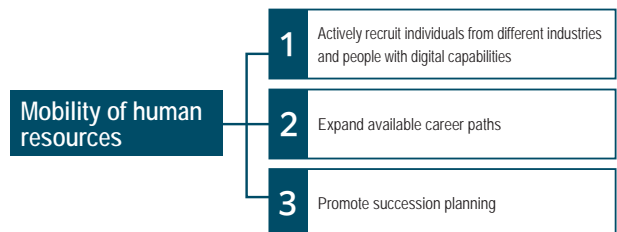
The Overseas Trainee Program was established with the aim of cultivating human resources capable of functioning in global business environments. Under this program, DIC dispatches young employees from Japan to work at an overseas DIC Group company, helping them to improve their language and communications skills through local on-the-job training. Under the Global Capability Development (GCD) Program, employees from overseas are sent to work at Group companies in Japan for a specified period to gain experience and develop a more international mindset. Unfortunately, owing to COVID-19 no employees are currently participating in either program and new applications are not being accepted. DIC looks forward to restarting both programs as soon as possible once the pandemic situation improves.

Reskilling to Maximize Human Resources

DIC provides support for career building that allows individual employees to design their own careers and provides an arena for them to continuously expand and polish their skills. As part of this endeavor, in fiscal year 2021 the Company offered “self-career dock” training for employees on a trial basis for employees reaching the age of 50. Additionally, as part of its reskilling strategy the Company introduced a new e-learning self-help program that was unlike other programs it offers, including GLOBIS Unlimited and Udemy for Business, is subscription-based, allowing employees to freely choose the courses they need from a wide selection.

2 Ensure Mobility

With the objective of diversifying its Group human resources portfolio and managing it effectively and in accordance with its business needs, DIC recognizes the need to create a human resources system that bolsters mobility within the Group, enabling employees to fully exercise their abilities beyond national, regional and departmental boundaries. To this end, DIC has identified three key courses of action: Actively recruit individuals from different industries and people with digital capabilities, expand available career paths and promote succession planning.



① Actively Recruit Individuals from Different Industries and People with Digital Capabilities

To accelerate the diversification of its human resources portfolio, DIC is stepping up efforts to recruit experienced individuals, primarily from different industries. For the past three years, the percentage of new recruits that were experienced mid-career hires has remained steady at 40%-plus. (Calculation: Experienced mid-career hires / (New graduates + Experienced mid-career hires)). The Company is also intensifying efforts to hire people with digital capabilities to secure the human resources necessary to spearhead the DIC Group's digital transformation. Of note, in addition to seeking experienced mid-career individuals who it expects will be able to hit the ground running, in fiscal year 2023 DIC will adopt recruitment by job category for new graduates, underscoring its medium- to long-term perspective toward growing and raising the overall level of its human resources portfolio.

② Expand Available Career Paths

Beginning in fiscal year 2022, DIC scrapped its one-size-fits-all career path format whereby all employees became generalists and established a new format that includes paths for specialists and professionals who wish to forge a career in areas requiring particular expertise and/or qualifications. The expansion of career paths available to employees allows for the assignment of individuals to positions that leverage their strengths, broadening the scope for employees to achieve self-realization in their careers while at the same time facilitating the allocation of human resources in a manner that responds to the Company's needs.

③ Promote Succession Planning

Since fiscal year 2018, DIC has defined the principal management positions for the DIC Group and promoted succession planning, including systematic, long-term efforts to foster talent and elevate the leaders of the future. Going forward, the Company will work to expand the positions and eligible employees included in its succession plan, as well as increase mobility and ensure it has the right people in the right places across the Group.

3 Improve Engagement and Organizational Cohesiveness

In fiscal year 2021, DIC conducted a survey of domestic Group companies as part of the WSR 2020 project's efforts to improve engagement and organizational cohesiveness. Based on the results, the Company explored a variety of responses and resolved to implement the formalization of a system of one-on-one meetings and promotion of the taking on of business-related challenges as measures to improve engagement.

① Promote Communication and Use Empathy and Trust to Cultivate Solidarity

One issue highlighted by the fiscal year 2021 survey to improve engagement was a lack of communication between superiors and subordinates. In response, the Company made the decision to introduce a system of one-on-one meetings beginning in fiscal year 2022 with the aim of promoting communications between these two key groups. As well as the concrete moves necessary to establish a system of one-on-one meetings in the period under review, DIC developed a management communications training program for employees at that level, as well as training for all employees in how to conduct one-on-one meetings for subordinates as a prerequisite to higher office. In fiscal year 2022, the Company plans to further invigorate communication in-house by implementing a variety of new measures that go beyond enhancing that between managers and subordinates to focus on building the capabilities of individual employees.

② Advance Innovation by Encouraging Enthusiasm about Taking on Challenges

Early in fiscal year 2022, DIC substantially revamped its personnel system. This included replacing its existing qualification-based compensation system for regular employees, which is predicated on experience, with a system that emphasizes exercise of abilities, among others. The Company's system for evaluating performance was also revised, with business goals clarified and quantified, and the weighting of performance and process amended so that performance is given more emphasis at the time of evaluation. In addition, DIC has introduced a system whereby points are added to the evaluations of both regular and management-level employees who have taken on challenges in their work.

3. Framework Creation: Personnel System, Global Human Resources System and Work Style Reform

1 Promote Personnel System Reforms to Facilitate Autonomous, Multitrack Career Building

In January 2022, DIC revised its personnel system for both management-level and regular employees with the objective of enhancing organizational capabilities to support the advance of qualitative reforms in existing core businesses and the successful commercialization of new businesses. In revising these systems, the Company identified seven key policies for improving organizational capabilities that are designed to improve added value and productivity, encourage a performance- and challenge-oriented focus, and support career building, in line with which it dramatically revamped its qualification-based remuneration and evaluation systems. Going forward, DIC will continue working to ensure the proper administration of these systems, as well as to cultivate a corporate culture that further encourages employees to take on challenges and seeks to realize growth for the Company through the growth of its people.

① Qualification-Based Remuneration System: Encouraging Autonomous Career Building and Maximizing Performance

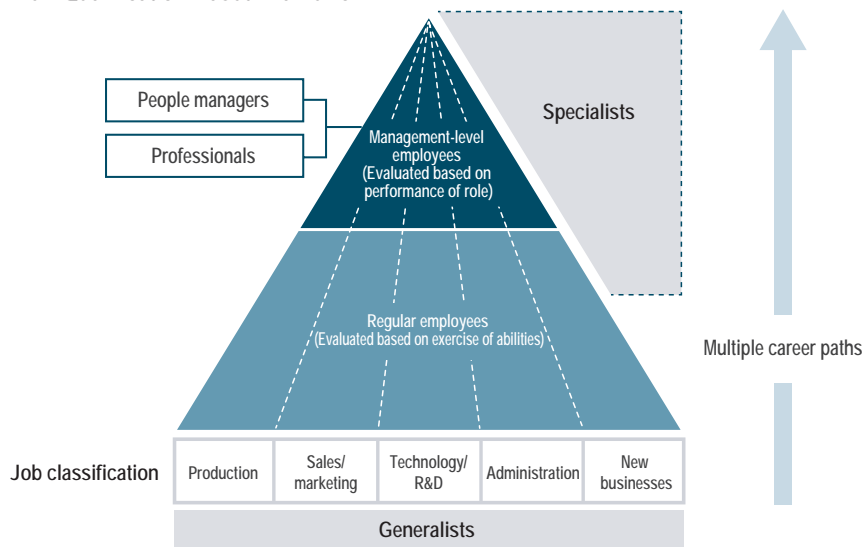
● Job- and Performance-Oriented Qualification-Based Remuneration System

To ensure employees clearly understand DIC's mission and are able to fully realize their potential, the Company defined rank- and job-specific roles, necessary abilities, and performance expectations for management-level and regular employees. At the same time, DIC revised its qualification-based remuneration system, making it more job-oriented, disclosing the roles and abilities expected of higher-ranking employees to make it possible for individual employees to map out their own career prospects. The new system also places greater emphasis on performance, making it possible to reward employees who have achieved significant results at an earlier stage of their career than ever before.

● Multitrack Career Building

As part of the revision of its qualification-based remuneration system, to facilitate multitrack career building DIC introduced a system for fostering specialists, that is, employees with highly specialized or unique capabilities, to accompany its existing system which seeks to cultivate generalists. As well, the Company created a scheme that divides management-level employees, depending on their particular role/job, into either people managers or professionals, facilitating promotion in accordance with individual strengths and aptitudes.

New Qualification-Based Framework



② Evaluation System: Inspiring Employees to Achieve Results and Take on Challenges

● Revision of Systems to Enhance the Performance-Oriented Nature of Evaluations

To further advance its emphasis on performance and evaluate the challenges taken on by employees, DIC partially revised its approach to setting targets and completing evaluation sheets, creating a mechanism to facilitate a more quantitative assessment of performance, and reviewed conduct and process assessment procedures to encourage more autonomous action. To further encourage employees to take on challenges, the Company will introduce a mechanism whereby points are added to the evaluations of employees who have taken on challenges that yield results over the medium to long term, as well as those with short-term benefits.

● Adoption of Career Goal Sheets

DIC recently adopted a career goal sheet for regular employees to plan and track their own career development. Using these sheets allows individuals to take stock of their own careers at present and envision where they want to be in the future by setting goals for one year and three years ahead. This enables individual employees to design their own careers and set appropriate goals with the assumption that their superiors will comment on career goal sheets and incorporate them into one-on-one meetings to assist employees in building fulfilling careers. Career goal sheets will also be used in planning of job rotations and training programs.

● Introduction of Meetings with Evaluators

Beginning in fiscal year 2022, the individuals responsible for evaluating performance will hold meetings with regular employees with the aim of ensuring the integrity of evaluations and increasing the visibility of standards used to identify talented human resources. In addition to promoting the fair and impartial administration of the evaluation process in each department and division, these evaluator meetings will be used to support the planning of job rotations and training programs.

2 Create a Global Human Resources System and a Standardized Group Framework

With the rapid expansion of its global operations, DIC recognizes that securing and fostering human resources around the world and ensuring the right people are in the right places across the DIC Group are essential to bolstering the value of Group human capital and effectively carrying out management strategies, and has sought to integrate global human resources management. To this end, the Company has promoted the adoption of harmonized personnel systems and management approaches. In January 2018, DIC and DIC Graphics unified qualification standards for their approximately 1,300 management-level—i.e., manager and above—employees, replacing traditional ability-based standards with role-based standards. As a consequence, consistent duty- and role-based standards are now used for the majority of such employees in the Americas and Europe, the Asia-Pacific region, the PRC and Japan. In contrast, with a few exceptions that manage Group human resources, human resources systems have not been integrated. Addressing this issue—which DIC sees as critical to the achievement of global human resources management—will require considerable effort going forward.

With the growth of ESG investment, DIC is also increasingly expected to provide accurate disclosure regarding human capital, as a key component of the nonfinancial information investors demand. This further underscores the importance of centralizing the management of human resources information within the Group. Looking ahead, DIC will continue working to build a global human resources system and achieve a standardized Group framework.

3 Step Up Work Style Reforms to Enhance Job Satisfaction and Productivity

① Implement Reforms to Improve Job Satisfaction

The WSR 2020 Committee—originally launched in fiscal year 2020 as a limited-time project to develop new work styles with the aim of boosting employee job satisfaction and productivity—has since been transformed into an all executive-led committee in which all employees will participate. The committee is charged with creating workplaces that embody The DIC Way by encouraging enthusiasm about taking on various challenges, evaluating performance fairly and recognizing personal value. To this end, the committee's Job Satisfaction Improvement Reform Working Group is spearheading the implementation of a variety of measures to improve workplaces from five perspectives, namely, "diversity," "inner branding," "communication," "career support" and "sense of belonging." (For more information on the WSR 2020 Committee, please see page 51.)



A Message from Executive Officer
Toshiro Ariga
"Let's forge a new path!"

One key inner branding initiative, dubbed "Dreams of the Challengers," involves a regular series of video messages to employees from executives and other Group management leaders about experiences that gave them true job satisfaction and motivation. This has been well received as an initiative that encourages employees to really think about and feel the unique satisfaction that comes with working for DIC.

② Increase Productivity through Workplace Reforms

In January 2018, DIC launched the DIC Telework System, which is available to all employees regardless of position of workplace. In response to the emergence of COVID-19 in fiscal year 2020, the DIC Telework System's limit of two days per week was abolished and telework encouraged wherever possible to help prevent the spread of the virus. This remains in effect in recognition of the reality of COVID-19 as a permanent part of life.

With an eye to life in a post-pandemic world, in fiscal year 2021 the Office Reform Working Group was established under the umbrella of the WSR 2020 Committee with the aim of realizing diverse work styles. To facilitate a shift to highly functional, rational new work styles, DIC embarked on various office reforms, beginning with its corporate headquarters in Tokyo. The concept behind these reforms was to incorporate advanced office design elements suitable for a facility serving as a corporate headquarters with the goal of facilitating highly autonomous work styles that enable employees to choose the workplace that they find most comfortable and which is best suited to their jobs. Moreover, by promoting efforts to go paperless, which is essential to such a flexible work environment, the Company is also encouraging smart business processes with the objective of improving one of the key intangibles that underpins the job satisfaction felt by employees. With the debut of its new corporate headquarters offices in fiscal year 2023, which will truly allow employees to choose the most appropriate location, functions and work environment, DIC also aims to further improve productivity.



4. Diversity and Inclusion

Promoting Diversity, a Source of DIC's Competitiveness, and Inclusion, Essential to Making Diversity a Competitive Advantage

The DIC Group actively pursues diversity by employing a broad spectrum of individuals without regard to such considerations as gender, nationality, physical limitation or age. The Group works to foster a corporate culture that draws on its understanding and respect for diversity to produce creative ideas and to incorporate the concept of diversity into management. Specifically, through the WSR 2020 Committee the Group is promoting measures to encourage communication and providing career support, thereby fostering a sense of unity through empathy and trust and creating workplaces that enhance job satisfaction for all employees. In fiscal year 2021, DIC conducted a Groupwide survey to enhance the visibility of engagement with employees. Analysis of the survey results enabled the Company to gauge the status of efforts to engage and reflect this when formulating plans for diversity initiatives in fiscal year 2022. Specifically, while to date DIC has focused on bringing diversity to the workplace, survey results reiterated the fact that inclusion is essential to further instilling awareness of diversity, as well as to improving productivity and job satisfaction. Accordingly, initiatives going forward will focus on advancing inclusion.

In its DIC Vision 2030 long-term management plan, DIC identifies diversity and inclusion as a key component of its personnel management platform, and vows to nurture inclusion, recognizing this as essential to making diversity a competitive advantage. As part of its ESG management initiatives, DIC has set, and discloses information regarding, quantitative targets not only for the diversity of executives and employees but also for key aspects of work-life balance such as childcare leave for male employees, which it recognizes as essential to the promotion of diversity overall. This includes establishing KPIs designed to measure diversity awareness. The Company's DIC111 medium-term management plan, which concluded in fiscal year 2020, included ambitious targets for the percentage of the management team accounted for by women. While the absolute number of female managers has risen gradually, the percentage of management positions occupied by female employees remains below the target level. Similarly, the percentage of employees accounted for by foreign nationals remains short of the target level, hindered by the spread of COVID-19. In formulating DIC Vision 2030, DIC has reset these targets and will step up efforts to ensure their achievement by reinforcing awareness of diversity and inclusion through measures focused particularly on the later.



DIC		Achievements			Targets	
1	Percentage of directors and Audit & Supervisory Board members accounted for by women and/or foreign nationals	January 2022	15.4%	→	January 2026	20.0%
2	Percentage of executive officers accounted for by women and/or foreign nationals		13.6%	→		20.0%
3	Percentage of management positions occupied by women		6.3%	→		8.0%
4	Percentage of new recruits accounted for by foreign nationals	Fiscal year 2021	1.5%	→	Fiscal year 2025	5.0%
5	Percentage of new recruits accounted for by women		31.0%	→		Maintain at 30%
6	Percentage of mid-career hires accounted for by women		9.9%	→		30.0%
7	Percentage of male employees using the Childcare Leave Program		3.8%	→		30.0%
8	Percentage of employees using the Leave to Assist with Parenting Program		72.6%	→		90.0%
9	Percentage of total labor force accounted for by individuals with disabilities		2.6%	→		In excess of the legally mandated level

VOICE The DIC Group and diversity

As of December 31, 2021, the DIC Group had a total global labor force of 22,474 employees, of which 3,345, or approximately 15%, are employed by the parent company. With operations in 62 countries and territories, the Group's labor force is highly diverse. With the aim of tapping into this diversity to power innovation, we promote a variety of exchanges among Group employees.

Female employees account for a significantly smaller percentage of DIC Group's labor force than men. In many regions, including Japan, women represent only about 20% of Group employees. In terms of the percentage of management positions occupied by women, most regions are above 20%, but DIC in Japan lags sharply behind. While we have set a target of 6.3% for this particular metric for fiscal 2022, we will do whatever we can to exceed this level.



Executive Officer; Head of ESG Unit, In Charge of Diversity, DIC Corporation **Kuniko Torayama**

1 Diversity Road Map

Road Map for Promoting Diversity

Diversity Initiatives

Fiscal years 2022–2023

- Expand focus to encompass the many characteristics that make people unique**
- Transform mindsets and corporate culture by encouraging cross-cultural understanding, awareness of unconscious biases, etc.
 - Support career advancement by dispatching employees to external training institutions
 - Support a healthy work–life balance/promote work style reform through the WSR 2020 Committee

Fiscal years 2022–2023

- Global deployment**
- Organize diversity teams at Group companies worldwide
 - Promote diversity across the global DIC Group

Fiscal years 2019–2021

- Implement measures to promote career opportunities for foreign nationals**
- Establish a new personnel system/conducive work environments
 - Transform awareness of inclusion
 - Create support systems

Efforts to manage diversity and make work environments conducive to innovation

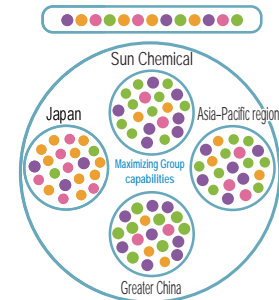
Fiscal years 2016–2018

- Target the expansion of career opportunities for women**
- Transform mindsets and corporate culture
 - Support career advancement
 - Support a healthy work–life balance/promote work style reform

Initiatives to create work environments that enable employees to maximize their capabilities

Measures to promote awareness and acceptance of diversity, career opportunities for female employees, work style reform measures and establishment of a framework

Putting the right people in the right places around the world
In-house directors and executive officers

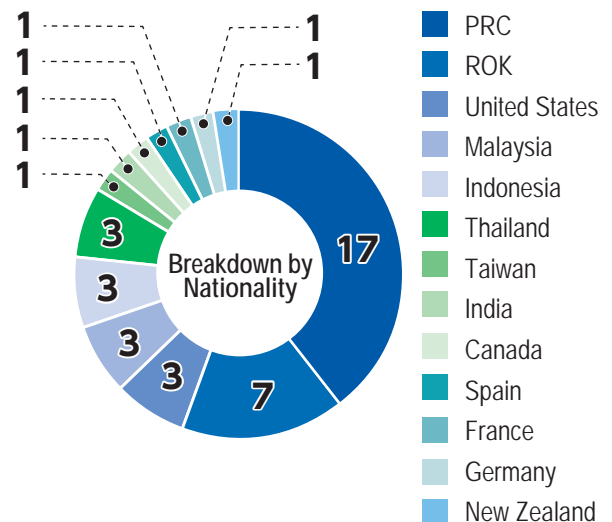


- Male Japanese nationals
- Female Japanese nationals
- Male foreign nationals
- Female foreign nationals

2 Hiring Foreign Nationals

With the objective of securing talented individuals with advanced specialized capabilities, global perspectives and language capabilities, DIC actively promotes the hiring of international students completing undergraduate or graduate studies at Japanese universities, as well as Japanese and foreign nationals who are completing undergraduate studies at overseas universities or have extensive specialized experience and expertise. At present, 43 foreign nationals are employed in various capacities at DIC. To support the careers of employees who are foreign nationals, DIC translates key in-house materials into English. The Company also holds networking conferences to foster ties among non-Japanese employees and provide information on the personnel system, employment conditions and efforts to improve workplace environments. DIC will continue to regularly conduct surveys of and meet directly with these employees to ensure their views and actual workplace conditions are reflected in measures implemented. In fiscal year 2022, the Company plans to also step up efforts focused on enhancing awareness of the importance of inclusion.

Nationalities of Foreign Employees (Full-Time, Part-Time and Temporary)



Number of Foreign Nationals Currently Employed by DIC

Sales positions	Technical positions	Department/division administration	Posted overseas	Production	Total
1	27	1	7	7	43

VOICE I look forward to helping address social imperatives with a desire to grow personally and take on new challenges.

When I was looking for employment after graduation, my goal was to find a job in finance and accounting at a global company. I found DIC attractive because of its extensive network of overseas bases and its significant global market share in a number of specific areas and decided to accept their offer. Since joining the Company, I have gained diverse experience, as well as met colleagues from Japan and overseas with various backgrounds, thanks to assignments not only in the area of finance but also in the Marketing Management Unit and the New Business Development Headquarters. All of this has enabled me to learn and grow every day. Additionally, various measures in recent years, including the promotion of flextime and telework, the introduction of an in-house job challenge system, and the creation of networking opportunities for non-Japanese employees, have made for increasingly comfortable work environments for foreign nationals, as well as for female employees striving to balance the demands of their career and childcare. The revision of the personnel system this year has also made it possible for young employees and employees returning from childcare leave to take examinations for promotion early. These efforts have definitely improved employees' job satisfaction and intensified their desire to take on new challenges, as well as provided greater opportunities for them to exercise their abilities.



P-1 Project, Next-Generation Packaging Business Unit, New Business Development Headquarters, DIC Corporation **Xin Zhou**

Initiatives to advance the hiring of foreign nationals (fiscal years 2019–2021)

- Establishment of dedicated help desks
- Holding of periodic networking conferences to foster ties among non-Japanese employees
- Translation of in-house materials into English
- Support for Japanese-language training

TOPIC

Networking Conference for Non-Japanese Employees

In July and December 2021, DIC held a networking conference to foster ties among non-Japanese employees. Both of these conferences included a study session regarding the careers of employees who are foreign nationals, during which presentations were given by three non-Japanese employees about their own careers, after which the floor was opened for a free discussion on efforts to encourage cross-culture understanding at workplaces, the preparation of welcome packages designed to promote inclusion, and the issue of unconscious biases. Feedback was largely positive, with participants commenting that they had gained information that would be helpful in formulating their own career plans and that the conferences were a good opportunity to deepen mutual understanding.

Because of COVID-19, both networking conferences were conducted online. However, recognizing the importance of face-to-face contact for individuals who may be feeling alienated or lonely, DIC looks forward to returning to a live format in the future to facilitate more effective communication.



3 Expanding Career Opportunities for Women

In line with its commitment to promoting diversity, DIC implements a variety of initiatives to expand career opportunities for female employees. Having established a full-scale program to support employees in balancing the demands of a career and childcare in 2007, since fiscal year 2016 the Company has pushed ahead with measures to transform employee mindsets and its corporate culture, as well as to provide training designed to encourage the drive and determination of female employees and broaden the range of jobs open to women. While efforts in fiscal year 2021 were curbed as a result of the pandemic, DIC introduced various systems whereby it seeks to support diverse work styles, provided training and information to support career advancement for female employees, and conducted joint training with companies in other sectors with the objective of encouraging the building of personal contacts. In fiscal year 2022, the Company will implement measures to resolve issues that have come to light through employee surveys as part of its commitment to actively expanding career opportunities for women.

① Broadening the Scope of Positions Available to Female Employees

Since first assigning four female employees to line shift jobs at the Chiba Plant in 2008, DIC has gradually increased the number of female employees in production and utility control groups across Japan. At present, there are 27 female employees—including five performing shift jobs—on 14 production lines at seven sites in Japan. The Company has already made changes to improve site working environments, including establishing break rooms and locker rooms for women, and will continue taking similar steps with the goal of further broadening the scope of positions available to female employees.

2008 **4 at 1 site** ▶ 2015 **12 at 2 sites** ▶ 2018 **8 at 2 sites** ▶ 2020 **24 at 6 sites** ▶ 2022 **27 at 7 sites**

Female employees on the corporate ladder at production sites: Management level: 1, assistant manager: 4, team leader: 6 (As of January 1, 2022; parent company only)

Site	Production Group	Utility Control Group
Chiba Plant	9	2
Saitama Plant	7	0
Sakai Plant	3	0
Komaki Plant	1	0
Kashima Plant	1	1
Hokuriku Plant	0	2
Yokkaichi Plant	1	0
Total	22	5

② Initiatives Aimed at Expanding Career Opportunities for Women

2016 and beyond	Transform corporate culture and the mindset of management-level employees	● Messages from the president
		● Seminars to promote awareness
		● Identical uniforms for male and female employees
		● Training for female employees in administrative positions
	Encourage the drive and determination of female employees	● Awareness training for female employees
		● Introduction of role models
		● Seminars to promote awareness among female employees
		● Women in DIC Forum
		● Leadership development program for female employees
		● Joint leadership development program with companies in other sectors
	Broaden the scope of positions available to female employees	● Assignment of female employees to production, as well as to sales and other positions involving work outside the Company
		● Inclusion of female employees in the regular system of transfers, reassignments and job rotations
		● Increased hiring of women
	Establish systems to support a healthy work-life balance and encourage the use thereof	● Establishment of systems to support a healthy work-life balance
		● Publication of the Libra work-life balance support guide and introduction of e-learning program for employees taking childcare leave
		● Introduction of system allowing management-level employees to limit the locations to which they will accept transfers
● Launch of telework		
● Expansion of eligibility for flextime system		
Create an executive-led support system	● Diversity seminars for executives and line supervisors	
	● Executive-led lunch seminars for female employees	
	● Executive roundtable discussions	

③ DIC Recognized as Nadeshiko Brand for Fiscal Year 2021, Earning Selection for the Fourth Consecutive Year

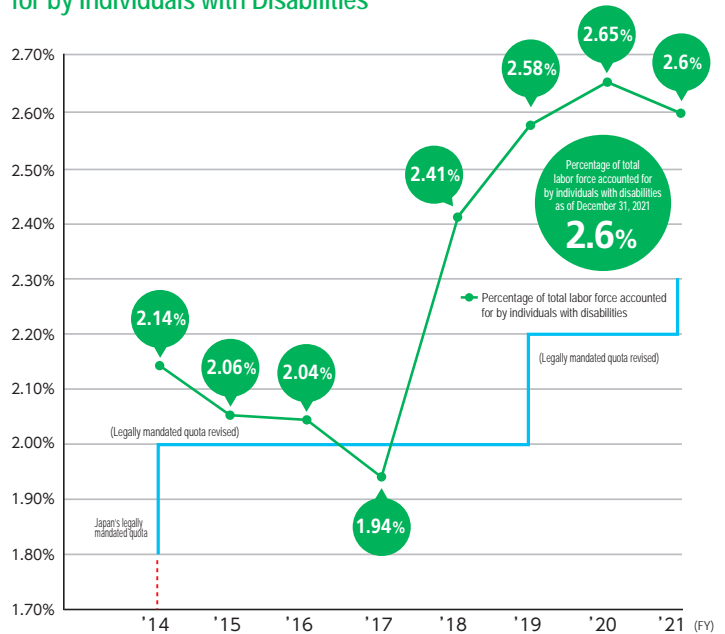
In recognition of its superb achievement in expanding career opportunities for women, DIC was selected as a Nadeshiko Brand for fiscal year 2021, the fourth time it was honored under this program, which is sponsored by Japan's Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange (TSE). The Nadeshiko Brand initiative aims to introduce TSE-listed companies judged to be outstanding in terms of efforts to empower women in the workplace as attractive stocks for investors who emphasize medium- to long-term improvements in corporate value with the objective of accelerating such efforts. The initiative assesses approximately 3,700 companies across all TSE sections based on what they do to promote diversity-conscious management and on their disclosure of related information, and selects Nadeshiko brands in each industry category. In fiscal year 2021, 50 companies were selected for this honor, including four from the chemicals sector.



④ Advancing the Employment of Individuals with Disabilities

DIC is committed to creating inclusive work environments that help individuals with disabilities enjoy active and fulfilling careers. One initiative is an internship program, organized in collaboration with special needs schools, that is designed to transition into full-time employment. In fiscal year 2021, both regular hiring in April as well as needs-based hiring at individual sites met with success. As of December 31, 2021, individuals with disabilities accounted for 2.6% of DIC's total labor force, noticeably above Japan's legally mandated quota of 2.3%. An additional three individuals with disabilities are expected to join DIC as part of the Company's regular hiring in April 2022. Going forward, DIC will continue working with the Japanese government's Hello Work public employment offices, as well as with special needs schools and organizations that promote the hiring of individuals with disabilities, and will take further steps to enhance work environments to increase workplace accessibility.

Percentage of DIC's Total Labor Force Accounted for by Individuals with Disabilities



VOICE I look forward to further broadening the scope of my work and challenging myself to take on new job responsibilities.

While I was in school, I took part in two on-site training sessions at DIC's Sakai Plant and on April 1, 2019, I was hired to work in the Polymer Production Planning Section of the plant's Production Group 1. To do well at work, you must first be healthy. In addition to an early-to-bed, early-to-rise lifestyle, I eat breakfast every day in the company cafeteria and work continuously to improve my physical fitness. As a result, I am always able to approach my work with energy. At first, my main job was container cleaning, but now I assist with a variety of tasks, including refilling tanks, as well as organizing and storing documents. I am a stickler for adhering to *Principles of Safe Conduct* and for using the process of *ho-ren-so** for all matters, no matter how small, to prevent quality issues. I'm very lucky to be surrounded by grandfatherly individuals who have been reemployed after reaching retirement age who are always happy to help me with anything, as well as bosses and colleagues I can always approach for advice.

Recently, I have begun training in the preparation of standard operating procedures (SOPs) on a computer, which will enable me to do desk work as well as on-site jobs. My future goals are to master the use of computers to prepare SOPs that are clear and easy to understand and that can be used by anyone. I also hope to expand the scope of my tank refilling work.

**Ho-ren-so*, a mnemonic acronym in Japanese business culture, is an abbreviation of *hokoku* (report), *renraku* (inform) and *sodan* (consult), a basic rule for smooth workplace communication.



Polymer Production Planning Section, Sakai Plant Production Group 1, DIC Corporation **Seigo Hirao**

TOPIC

DIC Gives Presentation at Employment Support Forum for Individuals with Disabilities

On July 29, 2021, DIC Estate Co., Ltd., gave a presentation as part of a webinar-format employment support forum for individuals with disabilities sponsored by Tokyoto Business Service Co., Ltd., and Ricoh Japan Corp., that focused on leveraging case studies to develop a framework for hiring individuals with disabilities. DIC Estate, which is based at DIC's corporate headquarters in Tokyo, has earned high marks for creating a framework that enables employees with disabilities to enjoy active and fulfilling careers. The company's presentation, titled "Personal Growth and Organizational Expansion: Diversity and Inclusion in the Era of COVID-19," outlined the use of video manuals to introduce businesses, as well as current efforts to promote business expansion and foster human resources, to the audience of 65 company and school representatives. In addition to an animated Q&A session, audience members asked many other questions in a survey they were requested to complete after the presentation, underscoring a high level of interest in DIC Estate's efforts.

⑤ Reemployment after Retirement and Support for Retirement Planning

DIC has deployed a system that facilitates the reemployment until age 65 of individuals reaching retirement age (60) and wishing to remain with the organization. With available options including full-time work, short-time work and work sharing, this system enables reemployed individuals to maximize their experience and make full use of their accumulated technological capabilities and specialized expertise, thereby contributing to sustainable growth for the DIC Group and the training of subsequent generations.

DIC also offers classes for employees within a year of retirement that helps them prepare for life after their careers. These classes provide assistance with retirement planning and education regarding the national pension system, as well as offer retirement lifestyle simulations.

Number of Reemployed Individuals

	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Number of retirees (A)	69	89	96	92	103
Individuals seeking reemployment	55	74	81	80	87
Number of individuals reemployed (B)	55	70	77	79	84
Reemployment rate (B) / (A)	79.7%	78.7%	80.2%	85.9%	81.6%

5. Management of Governance and Compliance Risks

1 Reinforcing Human Resources Governance

To strengthen its human resources governance, DIC's corporate headquarters is involved in making decisions defining principal management positions for the DIC Group, as well as for clarifying authority for nominations and dismissals, evaluating performance and determining remuneration. The Group divides its operations into four regions—Japan, Greater China, the Asia-Pacific region, and the Americas and Europe. The parent company, which is directly responsible for Group operations in Japan, works with regional headquarters in each of the other three regions to reinforce human resources governance across the entire Group.

Human Resources Governance for Principal DIC Group Management Positions		
Authority for nominations and dismissals	Authority for performance evaluations	Authority for determining remuneration
From the perspective of ensuring the sustainability of its operations, corporate headquarters is involved in decisions regarding nomination and dismissal.	From the perspective of ensuring the DIC Group meets the target of its management plan, corporate headquarters is involved in decisions regarding target setting and performance evaluations.	Corporate headquarters is involved in decisions regarding remuneration to ensure the adequacy and fairness of compensation, as well as the transparency of the decision-making process.
↓	↓	↓
Rules governing authority/succession committee	Evaluation review committee	Regional remuneration committees
<ul style="list-style-type: none"> DIC's rules governing authority stipulate that authority regarding appointments and dismissals lies with corporate headquarters. The promotion process is monitored through the succession committee to determine succession. 	The establishment and administration of evaluation review conferences facilitates monitoring of efforts to standardize personnel evaluation systems, and to ensure the appropriateness and fairness of target setting and performance evaluation.	The establishment and administration of regional remuneration committees facilitates monitoring of the appropriateness and fairness of remuneration.

2 Respect for Human Rights

The DIC Group actively supports global codes governing human rights,^{*1} in line with which in fiscal year 2018 it formulated the DIC Group Human Rights Policy and began promoting related initiatives. The DIC Group Code of Business Conduct, which outlines standards that DIC Group employees are expected to observe, lays down provisions prohibiting human rights violations and requiring respect for diversity, two philosophies that are the foundation of the Group's corporate activities. DIC Group employees are obliged to understand and provide written pledges to abide by the code.

In fiscal year 2010, DIC became a signatory to the UNGC, pledging its support for the Ten Principles of the UNGC, which includes tenets regarding human rights and labor. The Company continues to implement related initiatives in all areas of its corporate activities to reinforce respect for human rights in the human resources management practices of all Group companies and prevent the occurrence of violations.

In response to the Modern Slavery Act 2015,^{*2} DIC is reinforcing training regarding human rights due diligence,^{*3} cognizant of the issue of human trafficking and the risks it poses to companies with operations in the United Kingdom. The Company also promotes awareness among DIC Group company executives and enhances corporate headquarters' inspection and monitoring structure as part of an ongoing effort to bolster Group management capabilities.

^{*1} The International Bill of Human Rights, comprising the Universal Declaration of Human Rights and the International Covenants on Human Rights (the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights); the International Labour Organization (ILO)'s Declaration on Fundamental Principles of Rights at Work; the UN's Guiding Principles on Business and Human Rights; and the Ten Principles of the UNGC.

^{*2} Under the Modern Slavery Act 2015, an Act of the Parliament of the United Kingdom, companies with operations in the United Kingdom must report on the existence/nonexistence of slavery, human trafficking or other critical violations of human rights in their supply chains, related risks and steps they are taking to address such practices. "Modern slavery" encompasses debt bondage, forced labor and servitude; human trafficking; and exploitation (including sexual exploitation and forced organ donation).

^{*3} Human rights due diligence is an ongoing risk management process that a company needs to follow in order to identify, prevent, mitigate and account for how it addresses its adverse human rights impacts.

① The DIC Group Human Rights Policy

As a member of society that recognizes the importance of respect for human rights and respects the basic human rights of all stakeholders, including its customers, suppliers and employees, the DIC Group has formulated a human rights policy. Based on this policy, DIC works to increase the human rights awareness of its executives and employees and to conduct its business activities in a manner that shows respect for human rights.

1. Positioning

This policy, which is in accordance with global human rights codes, articulates DIC's fundamental stance on respect for human rights.

2. Scope of application

This policy applies to all executives and employees of the DIC Group. The Company shall also encourage its business partners and suppliers to adhere to this policy and cooperate with them to advance respect for human rights.

3. Responsibility to respect human rights

The Company shall strive to fulfill its responsibility to respect human rights by ensuring that its business activities do not result in violations of the human rights of stakeholders, as well as by preventing human rights abuses in the course of its business. In the event that its business partners or suppliers cause adverse human rights impacts through their businesses, products and services, the Company—while not directly complicit—shall use its influence to encourage the responsible parties to cease the practices responsible for such impacts.

4. Human rights due diligence

To fulfill its responsibility in regard to respect for human rights, the Company has created a human rights due diligence system, which it shall employ on an ongoing basis to identify and address human rights risks.

5. Corrective/remedial actions

Should the Company cause adverse human rights impacts or should it become evident that it has been complicit in causing such impacts, the Company shall take appropriate corrective/remedial actions in response.

6. Compliance with applicable laws

The Company shall comply with applicable laws in the countries and territories in which it operates. The Company shall also respect international human rights principles and work actively to promote these principles.

7. Disclosure and education/training

The Company shall periodically report publicly on the progress of initiatives implemented in line with this policy. To ensure the effectiveness of this policy, the Company shall also provide appropriate training to its executives and employees.

8. Dialogue and discussion

The Company shall engage with stakeholders regarding initiatives implemented in line with this policy by creating opportunities for dialogue and promoting discussion in good faith.

9. Identifying principal human rights challenges

The Company has separately identified principal human rights challenges. In line with this policy, the Company shall use due diligence as appropriate. Recognizing this as an ongoing process, the Company shall also continue to revise and amend these challenges to reflect social change, business trends and other factors.

DIC Corporation

② Initiatives in Fiscal Year 2021

A total of 58 DIC Group companies in Japan and overseas implement voluntary human rights and labor practices inspections. In fiscal year 2021, initiatives focused on promoting awareness of the DIC Group Human Rights Policy across the Group. Having analyzed and verified the results of voluntary inspections conducted to date, the Group implemented supplementary surveys in priority areas while at the same time conducting surveys and providing guidance as necessary regarding making improvements and promoting efforts to raise awareness. The DIC Group also conducted human rights due diligence at three Group companies in Malaysia. This confirmed the absence of issues and enabled the Group to provide guidance on points to consider in order to curb the manifestation of risks.

③ Principal Human Rights Challenges Facing the DIC Group

Based on key global standards regarding human rights, the DIC Group has identified the following as the principal human rights challenges it faces and promotes appropriate human rights diligence in accordance with its human rights policy. The Group will review these challenges on a regular basis, taking into consideration factors such as social change and business trends.

(1) Eliminate discrimination

The DIC Group prohibits all types of discrimination, harassment and other practices that undermine the dignity of any individual. Potential targets of such discrimination include Group employees, women, children, indigenous peoples, migrant workers, business partners and communities.

(2) Prevent child labor and forced labor

The DIC Group prohibits the use of child labor, forced labor, slave labor and labor resulting from any form of human trafficking.

(3) Respect basic labor rights

The DIC Group respects basic labor rights, including freedom of association and employees' rights to organize and to engage in collective bargaining.

(4) Address the issue of conflict minerals

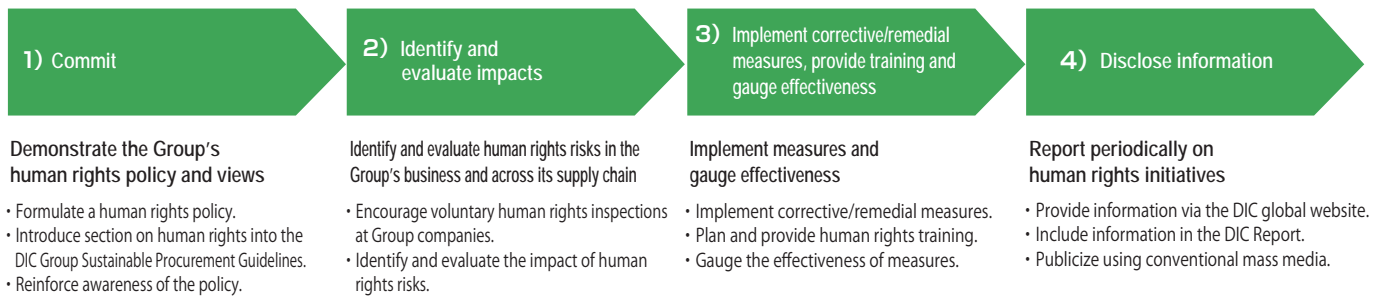
The DIC Group prohibits the use of conflict minerals. Should any raw materials purchased from third-party suppliers be found to contain conflict minerals, the Group will respond by, among others, immediately terminating the procurement thereof.

(5) Respect the concept of equal pay for equal work

In principle, the DIC Group provides equal pay for equal work to both male and female employees.

④ The DIC Group's Human Rights Due Diligence System

The DIC Group has created a human rights due diligence system, which it employs on an ongoing basis.



⑤ Due Diligence Initiatives to Address Principal Human Rights Challenges

① Promotion of supply chain due diligence by the Purchasing Department

To ensure that its extended supply chain functions in a socially responsible manner, the Company established the DIC Group Universal Purchasing Policy in 2008, based on which it also formulated purchasing management regulations and the *DIC Group Sustainable Procurement Guidebook*, version 3 of which was published in February 2020. Using the policy and guidelines, the Company promotes sustainable procurement, as well as advances respect for human rights and takes comprehensive steps to address human rights risks such as conflict minerals, across its supply chain.

② Initiatives to help realize a sound, viable mica mining industry in India

Mica, which has a broad range of industrial applications, including coatings, cosmetics and electronics materials and cutting fluids, is mined around the world. The use of child labor in the mining of mica in India, a leading producer, has been identified as a critical issue for users. DIC Group company Sun Chemical, which oversees the Group's printing inks, resins and pigments for cosmetics businesses in the Americas and Europe, is a founding member of the Responsible Mica Initiative, a unique global collaboration established in February 2017 to eradicate child labor in the mica mines of India. Through participation in this initiative, materials producers and cosmetics companies around the world are working to contribute to the realization of a sound, viable mica mining industry in India.

③ Implementation of human rights due diligence in Indonesia and Malaysia

DIC has conducted human rights due diligence in Indonesia (fiscal year 2020) and Malaysia (fiscal year 2021). This process revealed no serious violations. Guidance was provided to on points to consider in order to curb the manifestation of risks.

④ Establishment of whistle-blowing hotlines and corrective measures by the compliance team

The Company has created a channel for Group employees to report to whistle-blowing hotlines. In fiscal year 2021, the Company received 18 reports of power harassment, discrimination and other issues through this system. However, internal investigations revealed no serious violations. Appropriate corrective measures and other initiatives were implemented.

⑤ Contact procedures

The Company has established procedures for suppliers, customers, local communities and other stakeholders to report issues by telephone or through its global website and strives to respond swiftly when comments and complaints are received. No complaints pertaining to human rights issues were received in fiscal year 2021.

③ Building Trust with the DIC Employees' Union

DIC's management and representatives of its employees' union meet regularly with the goal of ensuring healthy industrial relations based on mutual trust. In addition, through labor-management councils and casual management conferences, DIC shares management information and its vision for the future with union representatives and encourages the frank exchange of opinions. A total of 71.7% of parent company employees belong to the DIC Employees' Union (99.2% of eligible employees).

6. Work–Life Balance/Safety and Health

1 Work–Life Balance

DIC views a healthy work–life balance as essential to both self-realization and sustainable corporate growth. Accordingly, from the standpoint of corporate health management,* the Company continues to expand systems intended to facilitate such a balance. In response to falling birthrates, the Japanese government has launched a drive to promote work style reform, with the goal of helping individuals balance the demands of their careers and childcare or nursing care, increasing productivity and ensuring effective corporate health management. Since before such developments, DIC has promoted initiatives meant to enable all employees to achieve both active and satisfying careers and a fulfilling life outside of work, in line with its belief that positive workplaces lead to higher productivity.

* An approach to employee health management that emphasizes a corporate management perspective and the implementation of strategic measures.

① Enhancing Programs that Help Employees Balance the Demands of Work and Home

In 1986, DIC blazed a trail for chemicals manufacturers in Japan by implementing a childcare leave program. Since establishing a program to support employees in balancing the demands of a career and childcare in 2007, the Company has continued promoting measures that make it easier for employees to make use thereof. In 2008, DIC acquired the Kurumin Mark, which recognizes companies that promote initiatives designed to assist employees in raising children. The Company has also deployed a system that gives regular employees the option to accept or refuse transfers requiring relocation and, since 2012, a system that allows management-level employees to limit the locations to which they will accept transfers, making it easier for individuals who are unable to accept transfers that involve relocation because of childbirth, childcare, nursing care or other responsibilities.

Kurumin Mark Certification



In 2008, DIC was accorded the Kurumin Mark, which recognizes companies that actively promote initiatives designed to assist with child rearing, by Japan's Ministry of Health, Labour and Welfare.

② Promoting Measures to Retain Employees with Nursing Care Responsibilities

In Japan, one of the social ramifications of falling birthrates and lengthening life spans is an increase in the number of people requiring nursing care, as a result of which more people find themselves having to leave their jobs to take care of family members.

Steps taken by the government to help address these issues include revising the Child Care and Family Care Law in 2016 to make it easier for individuals to take leave or time off and increasing benefits for temporary absences from work. To encourage use and promote knowledge of its related leave programs, in June 2017 DIC began distributing the *Childcare and Nursing Care Handbook*. DIC has also revised the rules of these programs, including making it possible to break up nursing care leave, as well as to extend the period over which they may shorten their workday from one year to three years, thereby making them easier for employees to use.



③ Significantly Expanding the Flextime System

To facilitate flexible work styles, in fiscal year 2017 DIC resolved to significantly expand its flextime system and in April 2018 made the system applicable to all areas of operations other than production floors. The system makes it possible for employees to determine the time at which they end their working day to the extent that it does not hinder business efficiency, as well as to simultaneously make use of telework, with the goal of promoting the independent execution of duties and enhancing self-management capabilities.

④ Introducing a Leave to Accompany Spouse Overseas System

To ensure its ability to secure and retain talented human resources and enhance employees' work–life balance, in January 2019 DIC introduced a system allowing employees to take leave to accompany spouses on overseas work assignments. Programs such as this help employees balance their careers and private lives without having to leave their jobs.

⑤ Establishing a System to Help Employees Balance Medical Treatment and Work

In January 2020, DIC introduced a system to support employees undergoing medical treatment who wish to continue working. To guarantee this system functions effectively, the Company formulated guidelines to ensure employees making use of this system receive the ongoing support necessary to balance medical treatment and work through job-related accommodations and considerations.

⑥ Programs that Help Employees Balance the Demands of Work and Home

Childcare Leave Program	The maximum length of leave is until the child reaches the age of 2 years and 6 months, which is one year longer than the legally mandated leave period.
Paid leave programs for pregnancy and childcare	Outpatient care leave: Employees can take leave for outpatient care, including regular medical examinations and health guidance.
	Special maternity protection leave: Female employees take up to 10 days of special leave during pregnancy or the year after giving birth to protect the health of both mother and child.
	Leave to Assist with Parenting Program: Male employees can take five consecutive days of paid leave during the eight weeks following their child's birth to assist with parenting.
	Pediatric nursing care leave: Employees can take leave to provide nursing care for a child until the end of the child's third year of elementary school, which is beyond what is mandated by law. This includes up to five days of paid leave per fiscal year.
Childcare While Working Program	Employees can shorten their workday by up to three hours until the end of a child's third year of elementary school. Employees can also stagger their working hours to accommodate childcare schedules.
Economic support system	This system enables employees on unpaid childcare leave to borrow a portion of their bonuses in advance to pay for, among others, fertility treatment or infant care facility fees.
Return to previous (or equivalent) position	Employees returning from childcare leave must be allowed to return to their previous position or to a position equivalent thereto.
Information sharing to promote program participation	DIC's views on support for work and childcare balance, as well as a guide to its various available systems and how to make use of them, are posted on the Company's website and intranet.
Nursing care leave system	Employees can take such leave for up to one year, exceeding the statutory maximum of 93 days. As of January 2018, employees may also break up leave into a maximum of six units.
Nursing Care While Working Program	Employees not wishing to take leave while providing nursing care can shorten their workday by up to two hours for a maximum period of three years. As of January 2018, employees may also request to be excused from doing overtime without restriction.
Leave to accompany spouse overseas	Employees can take leave in the form of a temporary overseas assignment to accompany a spouse who is scheduled to be abroad for more than one year. The period of the leave must be more than one year, with a maximum length of three years. Employees may make use of this system once during their careers.
Relocation limitation system	Management-level employees may limit the locations to which they will accept transfers that involve relocating because of childbirth, childcare, nursing care or other responsibilities.
System to help employees balance medical treatment and work	Employees undergoing medical treatment who wish to keep working can access necessary support in the form of job-related accommodations and considerations.
Half-day and hourly annual paid leave system	Employees may take annual paid leave in half-day units. They may also take up to five days of annual paid leave in one-hour units.
Saved paid leave system	Expiring annual paid leave can be saved for up to 30 days and used for a variety of purposes, including injury or illness, nursing care for a family member, care for a sick child and fertility treatment

⑦ Use of the Childcare Leave and Leave to Assist with Parenting Programs

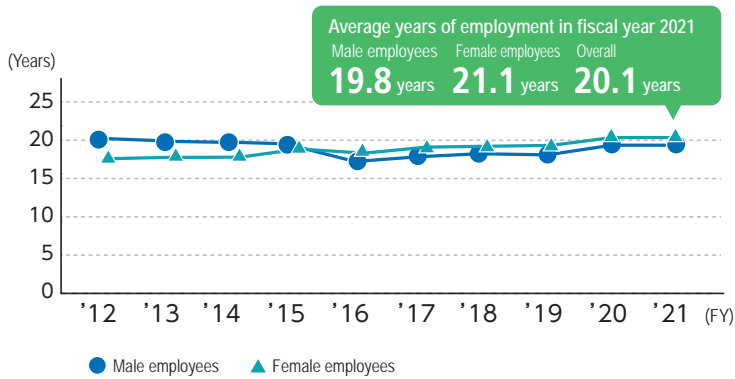
Owing to the introduction of various programs to help employees in balancing the demands of work and home and the creation of an environment that encourages employees to take advantage of such thereof, the percentage of DIC employees who return to work after making use of the Childcare Leave Program is currently 100%. In addition, the number of individuals using the Leave to Assist with Parenting Program, which enables male employees to take time off in the weeks after the birth of a child to assist their partner, has risen.

Thanks to efforts to enhance these systems, the average years of employment for female employees has increased and continues to exceed the average for male employees. Beginning in fiscal year 2022, the Company will encourage male employees to more actively make use of the Childcare Leave and Leave to Assist with Parenting programs.

	Fiscal year 2016	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Number of employees using the Childcare Leave Program	35 (0)	35 (0)	21 (4)	28 (4)	22 (3)	25 (4)
Number of employees using the Leave to Assist with Parenting Program	62	77	81	86	84	77

Note: Figures in parentheses are the number of male employees included in the total number of employees using the Childcare Leave Program.

⑧ Average Years of Employment (Including Individuals Seconded to Group Companies)



⑨ Reducing Extreme Overwork and Encouraging Employees to Take Annual Paid Leave

DIC has deployed an electronic management system that tracks employee working hours based on sign in/sign out data extracted from IC cards. To prevent extreme overwork, if an employee appears likely to exceed the overtime limit (including weekends) agreed upon by labor and management, or if their monthly overtime has exceeded 70 hours, their supervisor and the senior executive in charge are automatically notified. The supervisor is required to submit a report outlining the employee's work responsibilities and factors behind the excessive hours, and presenting specific measures to ameliorate the situation, which is shared with the DIC Employees' Union. This process is designed to curb/reduce excessively long working hours.

The Company has also instituted a mandatory "no overtime day" every Wednesday and on payday, which in Japan is once a month at month-end, in a bid to encourage efficient work practices and further bolster productivity. (Sites can opt to switch to a different day as appropriate.) In addition, employees are encouraged to take annual paid leave, with sites recommending appropriate timing for leave and having employees plan dates for such leave.)

⑩ Average Monthly Overtime Hours Worked and Annual Paid Leave Taken

	Fiscal year 2016	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020	Fiscal year 2021
Average monthly overtime hours worked per employee	12.3 hours	12.2 hours	12.0 hours	10.8 hours	10.1 hours	12.3 hours
Average annual paid leave granted	19.1 days	18.8 days	18.6 days	18.7 days	18.7 days	18.9 days
Average annual paid leave used	12.0 days	12.0 days	12.5 days	13.3 days	11.8 days	12.1 days
Usage rate for annual paid leave	62.8%	63.8%	67.2%	70.9%	63.1%	64.0%

② Employee Safety

① Measures to Prevent the Spread of COVID-19

Between February 2020, when COVID-19 first emerged, and December 31, 2021, a total of 31 internal notifications were sent under the heading "Measures to Prevent the Spread of COVID-19." Efforts ranged from promoting internal initiatives to prevent infection to detailed instructions regarding individual employee behavior.

② Pandemic Countermeasures Implemented by the Corporate Headquarters' Employee Cafeteria

The employee cafeteria at corporate headquarters in Tokyo took a variety of steps to prevent the spread of COVID-19 and ensure peace of mind for users.

Examples of Employee Cafeteria Countermeasures

- Installed acrylic partitions, in line with public health standards, to separate patrons
- Provided sanitizer at tables and encouraged the cooperation of patrons in disinfecting before use
- Promoted staggered use time to prevent crowding
- Insisted patrons wash and sanitize their hands before entering the cafeteria
- Temporarily closed the self-serve deli corner
- Attached antiviral tape to high-touch points such as buttons on tea dispensers

③ Corporate COVID-19 Vaccination Clinics

Between June and August 2021, vaccination clinics for DIC Group employees were conducted at corporate headquarters in Tokyo, as well as at several other sites, with the aim of protecting employees from infection and helping curb the spread of the virus and prevent those who do become infected from suffering severe illness. Approximately 2,800 employees chose to take advantage of these clinics for both their first and second vaccinations.



③ Corporate Health Management

① Corporate Health Management Initiatives

In line with its Health Management Declaration, the DIC Group works actively to support the physical and mental health of its employees, as well as to create a work environment conducive to job satisfaction. Looking ahead, the Group will continue to promote imaginative and original health management measures, recognizing that the health of its employees is essential to the realization of sustainable growth.

Health Management Declaration

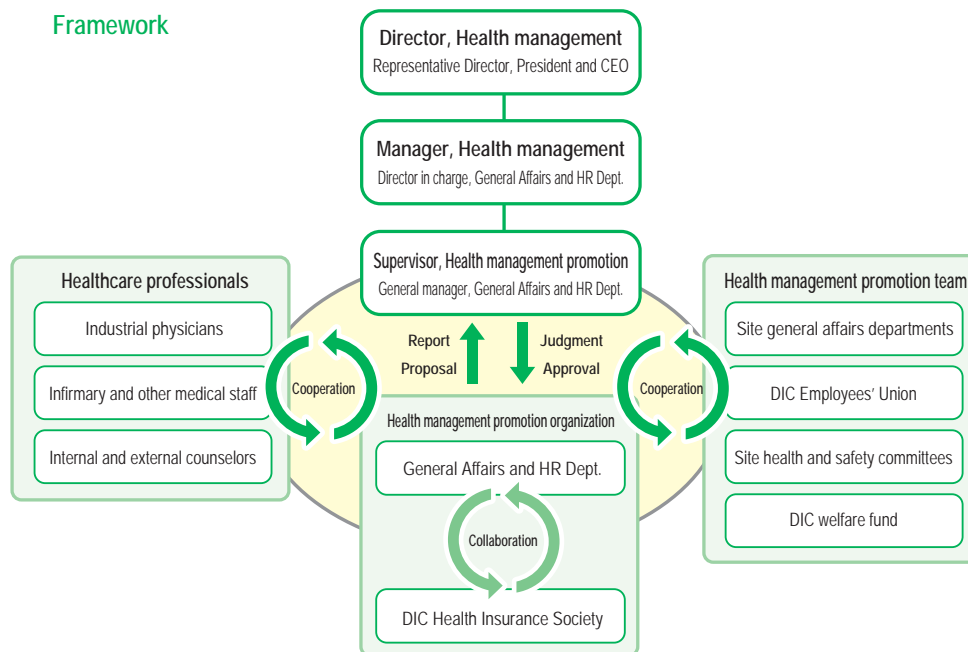
The DIC Group recognizes that the achievement of its mission to create enhanced value and utilize innovation to introduce socially responsible and sustainable products depends on the creation of working environments conducive to the physical and mental health of the employees responsible for the implementation of related initiatives.

The DIC Group declares that it will work as one to maintain or improve the health of its employees, as well as to create a work environment conducive to job satisfaction.

Representative Director, President and CEO
DIC Corporation
Kaoru Ino

② Framework for Promoting Health Management

The DIC Group in Japan promotes health management through a framework that is based on collaboration with the DIC Health Insurance Society and under the supervision of the president and CEO. Going forward, the Group will step up efforts to work with related organizations and promote effective initiatives across the DIC Group.



③ Key Health Management Initiatives

Category	No.	Initiative	Details
Employee health	1	Improve percentage of employees participating in annual physicals	Annual physicals help medical staff grasp changes in physical condition and provide appropriate guidance. Target: 100%; Fiscal year 2020: 99.8%, fiscal year 2019: 100%
	2	Follow-up after annual employee physicals	Based on the results of annual physicals, industrial physicians and nurses extend guidance on health maintenance, encourage further examination in the event of adverse findings and provide directions on the prevention of lifestyle-related diseases.
	3	Physician-led interviews with extremely overworked employees	Efforts are ongoing to prevent the onset of brain and heart disorders by implementing more stringent management of employee working hours than is called for in standards governing long working hours set forth in Japan's Industrial Safety and Health Act.
	4	Collaboration with company responsible for operating employee cafeterias to improve employee eating habits	Active efforts are made to support employee health by offering healthy menu choices and providing dietary education, including information on improving eating habits.
	5	Efforts to prevent lifestyle-related diseases in collaboration with the DIC Health Insurance Society	Based on the results of annual employee physicals, the DIC Health Insurance Society and DIC collaborate to make recommendations to those requiring guidance.
	6	Staging of various events	Various events are staged to promote health maintenance and improvement, including sports tournaments, vascular age measurement events, walks and family site tours.
	7	Antismoking initiatives	Antismoking initiatives seek to prevent exposure to passive smoke, promote awareness of the risks of smoking and support employee efforts to quit smoking with the goal of reducing the percentage of employees who are smokers. Target for percentage of employees who are smokers: 15% (Fiscal year 2020: 23.4%, fiscal year 2019: 25.3%)
Mental health	8	Education aimed at the prevention and early detection of mental health issues	Industrial physicians actively conduct rank-specific and self-care training designed to prevent and swiftly detect mental health issues.
	9	Systematic stress checks and the provision of follow-up guidance	Stress checks are conducted even at Group companies not legally required to do so. Following checks, individuals discovered to have a high level of stress meet with doctors and where appropriate participate in training provided by industrial physicians specializing in mental health, among others. Target for percentage of employees undergoing stress checks: 97% (Fiscal year 2020: 96.2%, fiscal year 2019: 96.4%) Target for percentage of employees with a high level of stress: 10% (Fiscal year 2020: 11.4%, fiscal year 2019: 15.4%)
Establishment of systems	10	Promotion of use of annual paid leave	Efforts are ongoing to create an environment that makes it easy for employees to take paid leave, and include recommending appropriate timing for leave and having employees plan leave dates.
	11	Reduction of overtime hours through the institution of a "no overtime day"	A mandatory "no overtime day" has been instituted every Wednesday and on payday (once monthly at month-end in Japan) with the objective of curbing overtime and encouraging physical and mental reset.
	12	Efforts to encourage use of childcare and nursing care leave systems	Efforts are ongoing to acquire the next-generation Kurumin Mark and to publish and distribute a handbook on balancing work and nursing care responsibilities, among others.
	13	Establishment of a system to help employees balance medical treatment and work	A system has been established to support employees undergoing medical treatment who wish to continue working, along with guidelines for use of the system. Efforts to promote the system's use are ongoing.
Other	14	Initiatives to prevent the transmission of infectious diseases	Efforts are ongoing to prevent the transmission of infectious diseases, including the implementation of mass influenza vaccination clinics and the provision of a related e-learning program.
	15	Dissemination of health-related information through health-focused newsletter	Nursing staff from DIC's Healthcare Office and infirmary issue health-related newsletters and work to disseminate health management information that reflects the unique characteristics of each site.
	16	Establishment of help desks to provide follow-up services	Permanent internal and external help desks have been set up that enable employees to report or seek advice on mental health, harassment or other issues and actively follow up on reported matters.

④ Mental Health Management Initiatives

DIC takes steps to create environments in which employees feel physically and mentally supported and works to ensure that its labor management practices comply with relevant laws. The Company places a high priority on caring for psychological and emotional well-being and has established a comprehensive mental health program, highlights of which include engaging an in-house occupational psychologist, promoting initiatives aimed at warding off mental health problems and extending support to ensure a smooth return to work for employees taking leave. In particular, access to counseling provided by an occupational psychologist has had a considerably positive impact in terms of ensuring employees get treatment and are able to return to work as quickly as possible.

DIC has also offered voluntary stress checks since fiscal year 2013, well before the passage of related legislation in Japan in fiscal year 2016, and promotes active, systematic efforts with the goal of preventing mental health disorders. Of note, the Company conducts seminars led by an in-house physician for employees who have scored above a certain level in stress checks and offers counseling meant to help employees improve communications with supervisors, colleagues and family members and at enhancing stress tolerance through self-care. In fiscal year 2021, DIC organized online self-care training on the theme of stress management and sleep seminars in collaboration with a sports gym. DIC will pursue the continued systematic promotion of these initiatives going forward.

Mental Health Initiatives

- Guidance from an in-house occupational psychologist
- Internal and external help desks
- Line care training* for supervisors
- Mental health self-checks as part of training for new employees
- Distribution of the *Kokoro no Kenko* ("Psychological Health") self-check handbook to all employees
- Flexible process to support employees returning to work after taking leave

* Line-care training: Training for supervisors to help them recognize promptly when an employee is unwell and respond appropriately by, for example, recommending guidance or counseling or making workplace improvements.



Kokoro no Kenko
self-check handbook

TOPIC

DIC Earns White 500 Certification for the Fifth Consecutive Year

DIC earned certification in the large enterprise category of the 2022 Health & Productivity Outstanding Entities Recognition Program (dubbed the "White 500"), which is organized by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.*¹ This is the fifth consecutive year the Company has been certified under this program, which seeks to shine a spotlight on outstanding enterprises working to advance health and productivity management, creating an environment that ensures such enterprises gain enhanced public recognition—i.e., from employees, jobseekers, related companies and financial institutions—as organizations that approach employee health and productivity from a management perspective and promote strategic initiatives.

In addition to looking at whether enterprises stipulate health management in their corporate mission and disclose pertinent information, the White 500 program assesses performance based on grasp of employee health-related issues and consideration of actions, establishment of a foundation for the practical implementation of health and productivity management measures and work engagement,*² promotion of efforts to help ensure the physical and mental health of employees, quality of initiatives, and evaluation and improvement.

DIC will continue to implement measures designed to promote physical and mental health as part of its commitment to creating work environments that empower employees to reach their full potential.

*¹ Nippon Kenko Kaigi ("Japan Health Council") is an organization that liaises with private companies, with the full backing of the government, to put effective measures in place to prolong the healthy life expectancy of citizens and to ensure sound medical services in Japan.

*² A concept used to measure employees' mental health, work engagement is described as a positive, fulfilling work-related state of mind that is characterized by vigor, dedication and absorption. "Vigor" is taking pride and experiencing a sense of satisfaction in one's work; "dedication" is feeling strongly involved in and focused on one's work; and "absorption" is being actively engrossed in one's work.

⑤ Initiatives to Support Employee Health

DIC analyzes the results of employees' annual physicals and provides assistance to employees for whom lifestyle improvements have been recommended by providing introductions to hospitals and clinics, and individual guidance on lifestyle improvements. With the aim of promoting healthy eating, the employee cafeteria at DIC corporate headquarters in Tokyo has introduced a new healthy cafeteria menu dubbed "DIC Irodori Care+" ("DIC Colorful Care+"). DIC's General Affairs and HR Department, the Healthcare Office and the company responsible for the operation of the cafeteria collaborated to develop this menu based on the health needs of employees. The Company also devised innovative ways of presentation, including producing distinctive signage that encourages recognition and names that clearly communicate the health benefits of menu selections, such as reduced calories or low cholesterol. In addition, DIC Irodori Care+ makes use of familiar meal components such as *kobachi* (small bowl) side dishes, transformed into a nutrient-packed "Supplement Bowl," to promote greater awareness of food's role in improving overall health.

DIC will continue implementing measures designed to help ensure the physical and mental health of its employees as part of its commitment to creating a work environment in which all employees can fully exercise their abilities.



DIC Irodori Care+



A healthy cafeteria menu selection

Sustainable Procurement

Promoting Socially Responsible Procurement Across the Supply Chain

SDGs Goal 12



Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objective of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Promote sustainable procurement.	Reduce procurement-related risks by closely inspecting the impact of the tightening of regulations and consolidation of chemical industrial parks in the PRC and India on manufacturers of key raw materials, as well as the status of such manufacturers' sustainability efforts.	A written sustainability survey was conducted of approximately 50 manufacturers of key raw materials in the PRC and India and confirmed the status of efforts by such manufacturers in the PRC to acquire new permits and licenses from relevant administrative authorities to accommodate increasingly stringent regulations.	★★	Promote initiatives aimed at expanding the use of sustainable raw materials over the medium to long term (calculate the carbon footprint of raw materials and continue to search for bioderived and recycled raw materials).
	Use the revised <i>DIC Group Sustainable Procurement Guidebook</i> (DIC) and the EcoVadis* tool (Sun Chemical) to conduct assessments for suppliers and ensure a grasp of their overall ESG initiatives.	Assessments using the revised <i>DIC Group Sustainable Procurement Guidebook</i> were conducted by DIC at approximately 150 suppliers, which together account for more than 70% of its procurement spending. Assessments by Sun Chemical using the EcoVadis tool were completed for suppliers that together represent approximately 90% of its procurement spending.	★★	Continue conducting assessments to better ascertain the sustainability of DIC and Sun Chemical suppliers and ensure a grasp of their overall ESG initiatives.

Basic Approach to Sustainable Procurement

Having recognized the increasing importance of addressing global issues related to human rights, climate change and water risk, among others, as social imperatives, the DIC Group promotes socially responsible procurement practices. To ensure its extended supply chain functions in a socially responsible manner, in 2008 the Group established the DIC Group Universal Purchasing Policy, based on which it later formulated purchasing management regulations and clarified issues it expects suppliers to address. Using the *DIC Group Sustainable Procurement Guidebook*, revised in February 2020, the Group promotes sustainable procurement across its supply chain by ensuring that all suppliers implement improvements and initiatives as necessary. Group companies in Japan, the Americas and Europe, Greater China and the Asia-Pacific region collaborate to ensure sustainable procurement on a global basis.

For more information, please visit <https://www.dic-global.com/en/csr/stakeholder/partner.html>

The DIC Group Universal Purchasing Policy

Guided by an action policy established to realize the DIC Group's basic sustainable procurement principles, the Purchasing Department adheres to the following guidelines in dealing with suppliers:

1 Fair and transparent business practices

The DIC Group will implement fair and open purchasing activities with suppliers based on global perspectives, without the constraints of conventional commercial customs.

2 An appropriate purchasing process and the building of relationships of mutual trust

The DIC Group, as a good partner for suppliers, will build long-lasting, mutually trusted relationships with suppliers and work together with them for mutual harmony and benefit, while complying with relevant regulations/social norms, domestic and overseas, and pursuing adequate quality and prices.

3 Satisfying environmental/safety needs

The DIC Group will take responsibility as an exemplary corporate citizen for environmental affairs, occupational safety, human health and product quality, always take into account changes in society and implement environment-friendly purchasing activities.

4 Challenge the creation of new value

In order to respond at a high level to a new value sought by society, the DIC Group will proactively challenge the creation of such value together with suppliers, with whom the same goal can be shared, and strive to grow together with them in a sustainable manner.

The DIC Group Sustainable Procurement Guidelines

- 1 Compliance with laws/social norms
- 2 Human rights and work environments
- 3 Safety and health
- 4 Consideration for the environment
- 5 Information security
- 6 Appropriate quality and safety and technological improvements
- 7 Stable supplies and flexible responses to change
- 8 Promotion of sustainability and sustainable procurement initiatives

Encouraging Sustainable Procurement

Based on the DIC Group Universal Purchasing Policy and incorporating requirements contained in guidebooks put out by external organizations, including the Japan Electronics and Information Technology Association (JEITA), in 2010 DIC formulated the DIC Group CSR Procurement Guidelines. To address increasingly urgent and evolving expectations regarding the sustainability of companies' procurement practices, these guidelines were recently modified and renamed the DIC Group Sustainable Procurement Guidelines. Notable revisions were made to sections on the formulation of a human rights policy, the management of chemical substances, minimization of impact on the environment, the efficient use of water resources and energy, the establishment of medium-term targets for reducing greenhouse gas emissions, and the formulation of BCPs to guarantee stable supplies. With the aim of compelling suppliers to observe these guidelines, as well as to comply with social imperatives outlined by the Responsible Business Alliance (RBA) and the TCFD, the Group has also prepared the *DIC Group Sustainable Procurement Guidebook*, version 3 of which was published in February 2020.

The Group uses the guidebook to conduct assessments and on-site inquiries, as well as to promote awareness among suppliers worldwide and encourage improvements. A separate mechanism exists for taking the results of sustainability assessments into account when selecting new suppliers. The Group has also formulated the DIC Group Green Procurement Guidelines, in line with which it obliges suppliers to ensure the stringent management of chemical substances. In addition, the Group entreats suppliers to develop and release products that have less of an impact on the environment, promote green procurement and lower the environmental impact of the materials they procure—and the packaging and transport, production and engineering thereof—by reducing resources and energy used, decreasing the weight and expanding the useful lifespan of, and reducing CO₂ emissions from, such materials.

The DIC Group Green Procurement Guidelines

In line with the DIC Group Universal Purchasing Policy, DIC formulated the DIC Group Green Procurement Guidelines, which prohibit the procurement of materials containing hazardous substances in seven categories.*¹ The guidelines mandate the submission of a DIC Raw Materials Survey, an SDS and a chemSHERPA,^{*2} as well as a DIC Group Green Procurement Guidelines Survey, when purchasing raw materials, thereby creating a system for eliminating substances of concern. Submission of a Conflict Minerals Survey is also required.

*1 (1) Substances the production of which is prohibited, as outlined in Article 55 of Japan's Industrial Safety and Health Act; (2) Substances designated as class-1 specified chemical substances in Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; (3) Substances designated for monitoring under Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; (4) Chemical substances the production of which is already prohibited, as detailed in Japan's Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures (ozone-depleting substances listed in the Montreal Protocol); (5) Specified particulates denoted in Japan's Air Pollution Control Act; (6) Specified poisonous substances indicated in Japan's Poisonous and Deleterious Substances Control Act; and (7) Specified substances detailed in the Stockholm Convention on Persistent Organic Pollutants.

*2 chemSHERPA is a scheme designed to facilitate the accurate and efficient sharing of information on chemical substances in products across the entire supply chain. DIC began using chemSHERPA in late fiscal year 2017.

Advance Assessment of New Suppliers

In addition to requiring submission of the four mandatory documents listed above, as well as a Conflict Minerals Reporting Template (CMRT) and an Extended Minerals Reporting Template (EMRT), DIC conducts comprehensive advance assessments of major new suppliers, including from the perspective of sustainability.

Supplier Self-Evaluations

In accordance with the *DIC Group Sustainable Procurement Guidebook*, the DIC Group asks suppliers to evaluate themselves by completing a questionnaire, which it uses to ascertain the status of suppliers' sustainable procurement practices. The questionnaire further segments the Group's eight procurement guidelines into 45 issues, including consideration for human rights and work environments, acquisition of certification under ISO 14001, implementation of green procurement and promotion of sustainable procurement to secondary suppliers.

DIC Group Sustainable Procurement Guidebook (Version 3, published in February 2020) (English)

WEB https://www.dic-global.com/pdf/about/purchase/dic_sc_csr_en.pdf

Analyzing the Results of Questionnaires

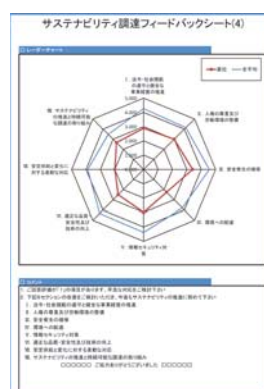
Between June 2020 and February 2022, the DIC Group used version 3 of the *DIC Group Sustainable Procurement Guidebook*, which was published in February 2020, to conduct assessments for 348 suppliers, accounting for more than 70% of its procurement spending. In addition to analyzing and assessing questionnaire responses, the Group provided feedback and where necessary requested corrective measures, using written comments or remote interviews because of COVID-19.

Note: Between November 2013 and December 2019, assessments were conducted using version 1 and then version 2 of this guidebook for a cumulative total of 764 companies.

Cumulative Number of Suppliers Assessed (June 2020–February 2022)

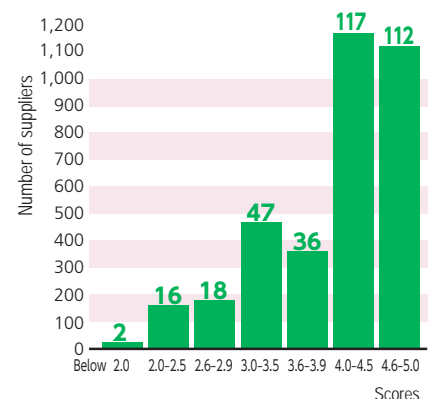
348

Equivalent to more than 70% of procurement spending



Feedback sheet

Assessment Distribution Chart (348 Suppliers)



Low → High

Note: Based on DIC's analysis of questionnaire responses, 88% of suppliers assessed to date scored 3.0 or higher on the Group's 5.0-point scale.

| Conducting On-Site Inquiries

From fiscal year 2011 through fiscal year 2019, the DIC Group provided feedback through on-site inquiries or written comments to 102 suppliers. In an on-site inquiry, the Group and the supplier confirm the self-evaluation provided via the questionnaire and discuss corrective measures. Other efforts include introducing examples of DIC Group ESG initiatives to assist the efforts of suppliers to promote sustainability. In fiscal years 2020 and 2021, on-site inquiries were not conducted due to COVID-19. Separately, the Group did conduct an independent survey of suppliers of key raw materials in the PRC and India regarding the tightening of local environmental regulations.

| Global Procurement Initiatives

In fiscal year 2021, the DIC Group continued working to disseminate and fortify understanding among certain Group companies using version 3 of the *DIC Group Sustainable Procurement Guidebook*, published in February 2020, and to conduct assessments of key suppliers. Sun Chemical continued to use the EcoVadis tool, completing assessments for suppliers that represent approximately 90% of its procurement spending. Going forward, DIC and Sun Chemical will continue to exchange views on addressing evolving social imperatives related to sustainable procurement at meetings of the Sustainability Committee, among others.

On another front, Group company Siam Chemical Industry achieved a silver medal in the EcoVadis assessment for the third consecutive year.

| Ensuring the Sustainable Procurement and Use of Raw Materials

The DIC Group promotes the sustainable procurement and use of raw materials from a medium- to long-term perspective. This includes giving consideration to a wide range of factors, including climate change and resource conservation, as well as calculating the carbon footprint of raw materials—including associated Scope 3 emissions—and continuing to search for bioderived and recycled raw materials. Looking ahead, the Group will expand the global application of its sustainable raw materials procurement initiatives.

| Responsible Procurement of Minerals

The DIC Group has formulated a Basic Approach to the Responsible Procurement of Minerals, recognizing the importance of procuring these critical resources in a responsible manner and engaging with suppliers to address this challenge across its supply chain.

Basic Approach to the Responsible Procurement of Minerals

To avoid any complicity in the funding of armed groups, or in child labor or other human rights abuses, in areas of conflict—including the Democratic Republic of Congo and its neighboring countries—or high-risk areas,* the DIC Group surveys suppliers of minerals such as tin, tantalum, tungsten and gold to ensure the responsible procurement thereof across its entire supply chain. Should it discover the use of minerals mined in conditions of conflict or as a result of human rights abuses, the Group will take immediate corrective actions.

* The EU Conflict Minerals Regulation defines "high-risk areas" as areas in a state of armed conflict, fragile post-conflict areas or areas with weak or nonexistent governance and security, such as failed states, all of which are characterized by widespread and systematic violations of international law, including human rights abuses.

In line with this approach, the DIC Group employs the current version of the Responsible Minerals Initiative (RMI)'s CMRT, for tin, tantalum, tungsten and gold, across its supply chain. As of February 28, 2022, responses had been secured from suppliers accounting for more than 90% of such materials procured by the DIC Group in Japan. Assessments using the CMRT are ongoing. The Group also uses the RMI's EMRT for cobalt and mica, to evaluate suppliers of these materials. Going forward, the Group will take additional steps to respond to evolving social imperatives, including further expanding the scope of supplier surveys.

| Promoting Awareness In-House

The DIC Group provides regular training for in-house purchasing personnel, including at point of hire, when transferred and prior to meeting with customers. The Group has also posted the revised version of the *DIC Group Sustainable Procurement Guidebook* on the DIC intranet to promote awareness and organizes related presentations at overseas Group companies.

Comment Sojitz and DIC are working together to promote sustainable development.

Sojitz Corporation has supplied DIC with raw materials for resins for some time. We have established Sustainability Challenge, a long-term sustainability vision that will guide our efforts until 2050, and declared our commitment to contributing to the realization of a decarbonized society and expanding step-by-step initiatives to respect human rights, including within our supply chains.

Improving respect for human rights in one's own supply chains requires the understanding and cooperation of our business partners, so DIC, which has been working to do just that since 2008, is an encouraging presence. While an increasing number of companies have established sustainable procurement guidebooks and are conducting supply chain inquiries on an ongoing basis, not many go so far as to provide feedback to their business partners.

With social imperatives that impact companies' entire supply chain expected to continue gathering steam, we look forward to collaborating further with DIC to create shared value and promote sustainable development.



Specialty Chemicals Department, Sect. 3, Chemicals Division, Sojitz Corporation **Di Liu**

New Value Creation

Cultivating Next-Generation Businesses

SDGs Goals 8, 9 and 11



Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Goals and Achievements of Major Initiatives (Fiscal Year 2021)				Goals of Major Initiatives (Fiscal Year 2022)	
Objective of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Objective of initiatives	Goals for fiscal year 2022
Propose solutions-oriented businesses that respond to social imperatives.	Leverage core competencies to increase the probability of success for next-generation businesses from the perspective of both social and economic value, and help establish new social ecosystems that will contribute to the achievement of a circular economy.	New products were launched that will contribute to the resolution of social imperatives—including 3D printing materials, soft wireless sensors, new types of CFRP and heat-dissipating fillers—were launched and preparations for the practical implementation of a plastic packaging recycling project proceeded.	★★★	Create businesses with the potential to become new pillars.	Designate areas at the intersection of ESG-related issues/social changes and DIC's core competencies as priorities and establish next-generation businesses that contribute to the resolution of social imperatives.
	Participate in exhibitions in Japan and overseas and leverage digital technologies to identify latent customer issues and propose related solutions-oriented businesses.	Participation in exhibitions such as the Sustainable Material Expo (SUSMA) and marketing automation facilitated the cultivation of diverse channels for communicating with customers and led to the discovery or deepened understanding of latent issues.	★★★		Promote open innovation (through CVC, collaboration with academic institutions and M&As) and strategic investments with the aim of enhancing the DIC Group's technology platform and driving the creation of new businesses and products.

Creating New Value

The DIC Group's redefined vision statement, introduced in its new long-term management plan, expresses the Company's goals of delivering greater value through broader innovation, improving the human condition and promoting stability for a brighter future. Seeing its mission as being to achieve sustainable growth for itself and society, the Group is pursuing various initiatives aimed at helping realize carbon neutrality, in line with its basic policy of providing greater social benefits that enhance shareholder value and build long-term corporate value.

Seeking to fulfill its mission, the DIC Group set a target in its DIC Vision 2030 long-term management plan of increasing sales of sustainable products to 60% of its net sales by expanding businesses in growth markets and creating new businesses to promote portfolio transformation. Through the initiatives set forth in the plan, the Group pledges to contribute to the creation of a society that is increasing green, digital and quality of life (QOL)-oriented.

Portfolio Transformation

The COVID-19 pandemic has created a new normal that is expected to significantly accelerate the transition to a digital society and fundamentally altered consumer behavior. Recent years have also heightened corporate awareness of the importance of achieving carbon neutrality by 2050. Amid these paradigm shifts, the DIC Group has identified five priority business areas at the intersection of ESH-related issues and its own competitive strengths: Sustainable energy, healthcare, smart living, color science and sustainable packaging.

The New Business Development Headquarters is charged with commercializing products in next-generation and growth businesses, while the R&D Management Unit is in charge of establishing inorganic materials design and biomaterial design technologies as new basic technologies essential to the creation of new businesses. A seamless framework for cooperation between the two will further drive portfolio transformation by facilitating the swift establishment of new businesses.

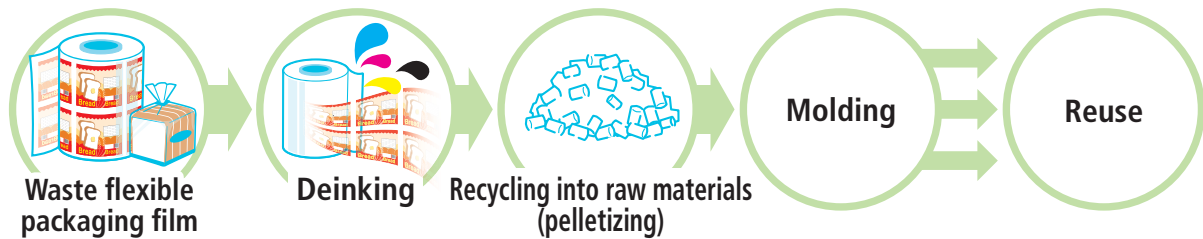
Next-generation and growth businesses are highly competitive and evolve rapidly. In addition to strengthening internal cooperation to promote the commercialization of new products in such areas, the Group will make active use of external resources by promoting open innovation by, among others, leveraging corporate venture capital (CVC) and connections in other industries, investing in start-ups, collaborating with academic institutions and working with other companies.

1 Verification Testing of Material Recycling Process for Waste Flexible Packaging Film that Uses Deinking Technology

With finding solutions to the issue of waste plastics and marine plastic an increasingly urgent social imperative, efforts to find sustainable ways to use plastics are progressing rapidly around the world. In Japan, a new Plastic Resource Recycling Promotion Law came into force on April 1, 2022, a development that is expected to further accelerate the drive to realize sustainable plastics.

Recognizing the reduction of waste plastic and marine plastics as a challenge that, as a manufacturer of fine chemicals, it has a responsibility to address, DIC has identified the areas in which it can best contribute as inks, adhesives and films in its sustainability strategies. In one initiative currently underway, DIC is collaborating with a major bread manufacturer and a recycling firm in the development of a materials recycling process for waste flexible packaging film that uses deinking technology for which verification testing has recently begun. Because of inks used on waste flexible packaging film, the color and physical properties of film recycled using materials recycling processes has traditionally limited its uses. The use of deinking technology in this new process yields significant improvements in both color and physical properties, greatly expanding potential uses for the resulting recycled film. Looking ahead, the DIC Group expects the broad practical application of this new process will play a major role in increasing the recycling of waste flexible packaging film.

Recycling Process for Waste Flexible Packaging Film



2 Algae-Derived DHA Oils

Algae, which absorbs CO₂ and produce useful substances through photosynthesis, is attracting more and more attention against a backdrop of evolving requirements for companies to ensure sustainability, notably the need to achieve carbon neutrality and reduce consumption of petroleum-derived resources. The DIC Group recently signed a sales agency contract with Fermentalg S.A., a leader in the development of microalgae-derived food ingredients based in Libourne, France, and in July 2021 began marketing Fermentalg's *DHA ORIGINS*TM-510 series of highly concentrated docosahexaenoic acid (DHA) oils, which are derived from a proprietary microalgae strain (*Schizochytrium sp.*), for use in dietary supplements.

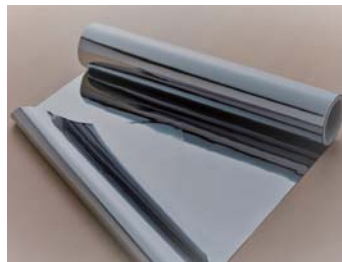
DHA is a type of omega-3 fatty acid only very small amounts of which are produced in the human body, meaning it must be acquired from food. The health benefits of DHA are recognized around the world and backed by significant evidence. Unlike DHA from fish, Fermentalg's microalgae-derived DHA is extracted directly from cultured algae, responding to concerns regarding marine pollution and the depletion of fishery resources. It also has scarcely any perceptible odor and contains absolutely no animal products, making it suitable for vegetarian and vegan diets. Free from allergens and genetically modified organisms (GMOs), and extracted without the use of organic solvents, these oils also deliver safety and peace of mind. In addition, they comply with both the European Union's Novel Food safety standards and the U.S. Food and Drug Administration's Generally Recognized as Safe (GRAS) standards.

Grown in a clean environment using Fermentalg's outstanding technology for cultivating *Schizochytrium sp.* in fermentation tanks, eliminating the influence of climate and the risk of contamination, *DHA ORIGINS*TM-510 products realize highly concentrated (51%) DHA without any artificial concentration processes. The DIC Group will continue to reinforce its algae cultivation technologies as part of its commitment to contributing to the realization of a sustainable society and an improved QOL for people everywhere.

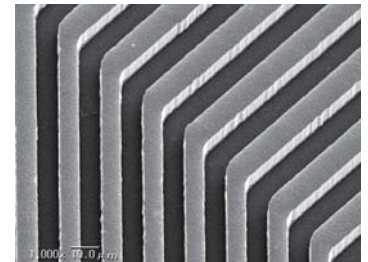
3 New Seed Film for Fabricating Wiring on High-Frequency PWBs for High-Speed Data Transmission

With the progress of digitalization and the rising need for high-speed, large-capacity communication infrastructure, copper wiring technologies that minimize transmission loss in high-frequency bands are taking on increased importance. DIC and Taiyo Ink Mfg. Co., Ltd. collaborated to develop a new seed film for fabricating wiring on high-frequency printed wiring boards (PWBs) that enables the formation of extremely smooth diagonal and vertical wiring.

This new film was developed by DIC and Taiyo Ink as a new application for DIC's metallic nanoparticles in the fabrication of flexible PWBs. The metallic nanoparticle-coated film is used as a conductive seed layer in the formation of copper wiring using a semi-additive process. This ensures the copper wiring adheres extremely evenly and that the pattern can be etched without thinning. This leaves a finely patterned, extremely smooth surface, greatly reducing transmission loss in high-frequency bands. DIC looks forward to providing an increasing variety of high-performance films that contribute to the realization of a high-speed, high-capacity communications infrastructure.



New seed film for fabricating wiring on high-frequency PWBs



Copper wiring formed from the new seed film (thickness: 8 μm)
Diagonal wiring L/S: 10/10 μm, vertical wiring L/S: 8/8 μm

TOPICS

Investment in and Collaboration with Biotech Start-Ups Yields New Businesses

In fiscal year 2016, DIC established a CVC unit, tasking it with searching the globe for start-ups boasting unique technologies, compelling business models or disruptive innovations with the potential to contribute to society and the DIC Group. The focus of such efforts is start-ups in the biotechnology field, which continues to grow in importance against expanding concern for sustainability. In fiscal year 2018, DIC invested in bioventure Checkerspot, Inc., in the United States, while in fiscal year 2021 it invested in Israeli biotech start-up Vaxa Technologies Ltd. Vaxa Technologies possesses unique proprietary LED-illuminated photobioreactors and algae cultivation technologies and is engaged in the development and commercialization of clean, unparalleled high-value-added algae products. The Company has also teamed up with U.S. firm Debut Biotechnology, Inc., to conduct R&D aimed at realizing new methods for synthesizing natural pigments. The combination of Debut Biotech's advanced knowledge of enzyme reactions and process design and DIC's technologies in the field of color materials will lead to the development and commercialization of unprecedented sustainable, high-value-added natural colorants. Going forward DIC will continue to make use of open innovation, including through CVC, to build partnerships that will help contribute to sustainability by facilitating the creation of new businesses that help address key social imperatives.

For more information on endeavors 1 and 3, as well as other initiatives of the New Business Development Headquarters, please see page 31.

Sustainable Technology and Product Development

Proposing Solutions that Leverage Core Technologies



Goals and Achievements of Major Initiatives

Evaluations are based on self-evaluations of current progress. Key: ★★★ = Excellent; ★★ = Satisfactory; ★ = Still needs work

Objectives of initiatives	Goals for fiscal year 2021	Achievements in fiscal year 2021	Evaluation	Goals for fiscal year 2022
Enhance ability to develop products and technologies that facilitate contribution to a sustainable society.	<ul style="list-style-type: none"> Accelerate collaboration among global technology bases in the development of strategic products and new technologies. Make use of compounding technologies, open innovation and AI to hasten the development of technologies that create added value. 	<ul style="list-style-type: none"> Various facilities collaborated to promote R&D. Steps were taken, to foster specialists in AI, including the establishment of the Data Science Center, and to promote collaborate with specialized third-party AI firms. 	★★	<ul style="list-style-type: none"> Accelerate collaboration among global technology bases in the development of strategic products and new technologies. Make use of compounding technologies, open innovation and AI to hasten the development of technologies that create added value.
Accelerate efforts to develop products that contribute to sustainability.	Accelerate efforts to develop products that contribute to sustainability.	<ul style="list-style-type: none"> Efforts led to the launch of multiple new biomass products, including printing inks and adhesives for flexible packaging. 	★★	Accelerate efforts to develop products that contribute to sustainability.

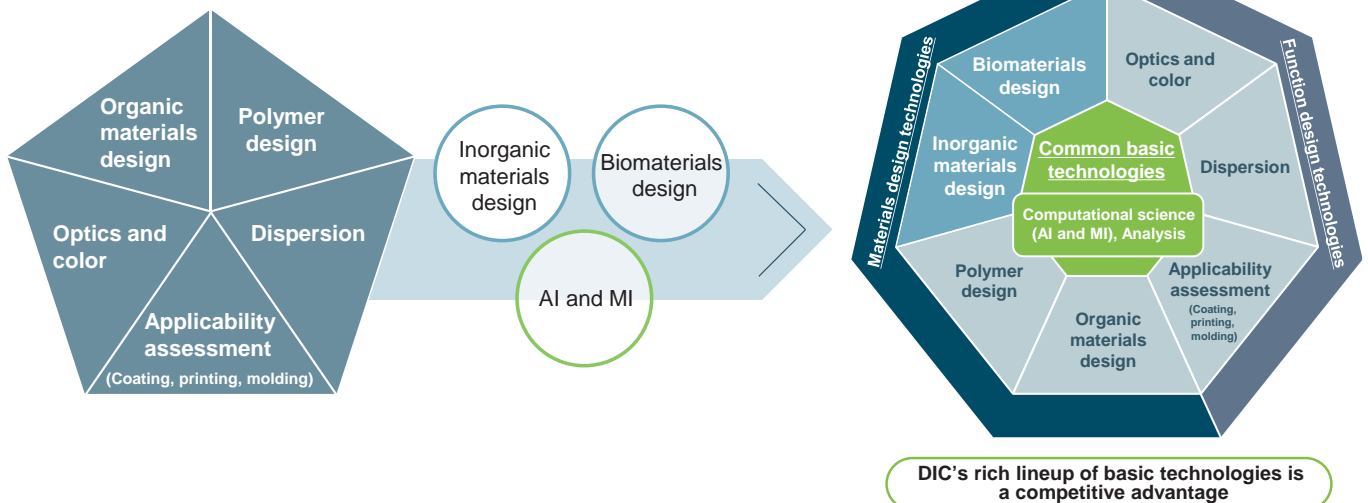
Achieving Sustainable Growth

With the aim of realizing its redefined its Color & Comfort brand statement management vision, the DIC Group is leveraging its basic technologies, including those in the areas of optics and color, organic materials design, polymer design and dispersion, and its core technologies in such areas as polymer synthesis, compounding and formulation, and surface treatment, to develop high-value-added products that contribute to a sustainable society. The Group is also building a portfolio of next-generation products and new technologies by integrating technological resources originating across the Group, as well as actively promoting open innovation, including through collaboration with academic institutions, and CVC to drive sustainable growth.

Enhancing the Technology Platform

Accelerating portfolio transformation by combining basic technologies—including recently added inorganic materials design and biomaterials design technologies—with AI and MI

Current Basic Technologies



| Specific Initiatives and Achievements

The DIC Group is advancing the development and use of clean technologies. This includes promoting the development of materials for the packaging and graphics, color materials, electronics and other customer industries that improve the environmental performance of the products in which they are used, making the use of DIC products a way customers can contribute to addressing global environmental issues. In Japan, the Group devotes approximately 54% of its technological resources to the development of such products.

| Products for Packaging and Graphics Applications

Recent achievements in the area of packaging materials include the launch of biomass gravure inks for surface printing that provide high resistance to oils such as butter and alcohol-based disinfectants for surface printing on films for packaging bread and other food products, and an antibacterial varnish that delivers excellent alcohol, heat and oil resistance. The *FINART*[®] BM series of gravure inks for reverse printing earned OK compost INDUSTRIAL and OK compost HOME certification—global endorsements of the biodegradability of plastics—becoming the first gravure ink sold in Japan to be certified under this program. The *FINART*[®] BM series of overprint varnishes also earned the Biomass Mark, which is granted by the Japan Organics Recycling Association. In the area of adhesives for flexible packaging, the Group launched a biomass adhesive that delivers a comparable performance to conventional petroleum-based products. During the period, the Group also commenced collaboration with a major bread manufacturer in the development of a materials recycling process for waste flexible packaging film used in bread packaging. Overseas, Group company Sun Chemical brought a variety of sustainable products for packaging applications to market, including polyvinyl chloride (PVC)-free laminating ink, compostable coatings for paper and film, water-based inks and coatings with high biomass content, and an ink that can be removed from printed articles.

| Color Materials

In the area of displays, the DIC Group continued to develop pigments for use in color filters. In light of growing awareness of sustainability and an increasing preference for natural products in the area of cosmetics, the Group explored the use of *Linablue*[®] natural blue pigments and promoted the development of UV care products containing polysaccharide *SACRAN*[™], extracted from Suizenji Nori blue-green algae in collaboration with a Japanese biotech venture. Against a backdrop of growing awareness of environmental issues, Sun Chemical extended its track record with NIR-reflective and NIR-transmissive pigments that reduce cooling costs and improve the efficiency of plastics recycling.

| Products for Use in Electronics Equipment

New products in the area of products for use in electronics equipment included a low dielectric material for electronic circuit boards for devices to be used in 5G cellular telecommunications, the buildout of which is proceeding apace, and a thin industrial adhesive tape for smartphones that combines excellent adhesion and easy removability and an adhesive tape for computers that delivers outstanding reworkability. DIC also registered a trademark for and commenced sales of *Hatte Totte*[®], a new flexible wireless sensor that can be used to detect temperature, humidity and illuminance that is mounted with a double-sided tape that also offers superb removability. In addition, the Company pressed ahead with efforts to create new businesses in collaboration with Taiyo Holdings Co., Ltd., with which it has a capital and business alliance, working with Taiyo Ink mfg., a subsidiary of its alliance partner, to develop a new seed film for fabricating wiring on high-frequency PCBs for the high-frequency bands used for 5G cellular telecommunications,

| A Global R&D Configuration that Underpins Product Development

DIC's R&D organization in Japan comprises the Technical Management Unit, which is responsible for R&D connected directly to businesses; the R&D Management Unit, which is responsible for adding depth to existing and fostering new basic technologies; and the New Business Development Headquarters, which is charged with creating strategic new businesses and commercializing business units' next-generation product groups. These entities promote the global development of products and technologies in collaboration with the R&D components of DIC Group companies around the world. These include DIC Graphics; the Sun Chemical Group's research centers in the United States, the United Kingdom and Germany; Qingdao DIC Finechemicals Co., Ltd., which conducts comprehensive R&D tailored to market needs in the PRC; printing inks technical centers, polymer technical centers, solid compound technical centers and pigment technical centers in the PRC and the Asia-Pacific region; the Fine Chemical Technical Center-Korea; and an algae research center in the United States. In fiscal year 2021, DIC established the Data Science Center with the aim of facilitating the strategic introduction of AI and ML into R&D themes and reinforcing the training of AI specialists, thereby increasing the efficiency of R&D.

| Accelerating the Expansion of Sustainable Products

DIC recently introduced the proprietary DIC Sustainability Index. (For more information, please see page 57.) This index is used to simultaneously assess all DIC Group business and products from the perspectives of environmental impact reduction and social contribution. The DIC Group defines products that will help it address key social imperatives as sustainable and promotes their expansion. The index will also be used in R&D to determine the focus of research and product development themes, including the modification of products to reduce environmental impact.

Product Stewardship

The DIC Group views product stewardship as a key aspect of its operations. The Group has established a global product stewardship team for printing inks, adhesives and other products used in food packaging, which it supplies to customers around the world. The team shares information on regulations and relevant topics from various markets, as well as advances awareness thereof and provides training. Knowledge thus gained is incorporated into product design and is used to produce compliance certificates across the supply chain, which are required by customers worldwide.

The DIC Group also strives to maintain a solid grasp of laws and regulations in different countries and territories, and of trends in environmental initiatives, to ensure its ability to design products that comply with diverse controls on the use of chemical substances. In addition, the Group conducts environmental assessments on a continuous basis.

Innovation through Compounding

Building on its fundamental pigment and resin dispersion and formulating technologies, realized through the production of printing inks, DIC has succeeded in combining materials with different properties and performance characteristics to develop groundbreaking products and create new value. Newly launched products include a PPS alloy compound that responds to needs arising from the increased use of electronic components in vehicles and a non-aluminum compound for vehicle sensors that delivers outstanding electrical insulation. The DIC Group is also developing a wide range of new products, including a high-biomass content plasticizer that improves the flexibility of biodegradable resins containing a large amount of inorganic filler. The Group will continue to harness its distinctive compounding capabilities to transform its diverse technologies into competitive advantages with the aim of driving innovation.

Responding to a Circular Economy

In line with the "5Rs" (Reuse, Reduce, Recycle, Redesign and Reduce CO₂), which seek to advance the circular use of resources, the DIC Group is working to expand its lineup of biomass products, crucial to the achievement of carbon neutrality, shift to recyclable materials, and develop biodegradable and compostable materials. In addition, the Group is promoting the development of production processes using algae and bacteria and biopolymers, as well as the realization of a closed-loop chemical recycling process for polystyrene and an innovative deinking agents. The Group is also taking active steps to help reduce waste plastic and marine plastics, recognizing these as challenges that, as a manufacturer of fine chemicals, it has a responsibility to address.

Intellectual Property

The DIC Group recognizes intellectual property as an important management resource that is indispensable to the development of new technologies and the creation of value creation, a key management challenge, and promotes intellectual property initiatives that conform with its business and technology strategies.

In core businesses, the Group pursues intellectual property portfolio strategies aimed at expanding earnings, including those aimed at building a robust patent portfolio and capitalizing on intellectual property information to cultivate new markets and promote the qualitative transformation of its business. In new business areas, the Group is advancing initiatives designed to lead to the creation of a new generation of core businesses, including making use of patent landscapes in business planning, encouraging the early acquisition of rights for newly acquired technologies, and employing an open and closed strategy. Additionally, the Group is building a configuration for the implementation of global intellectual property strategies by fortifying collaboration with its R&D bases around the world.

DIC's intellectual property initiatives are also attracting notice from external observers. The Company is regularly among the top companies in the chemicals industry in Japan in terms of patent assets owned in a ranking conducted by an independent firm.* While the number of new patents it registers annually is small compared to leading chemicals firms, the Company is rated highly for the overall sale of its patent assets, reflecting the quality and high profile of the patents it holds.

The DIC Group is also emphasizing the improvement of employees' intellectual property literacy to bolster respect for intellectual property rights, in line with its basic policy on compliance, and offers e-learning programs for all employees designed to protect against intellectual property risk. DIC will continue to actively promote the use of intellectual property to ensure sustainable growth in the years ahead.

* Patent Result Co., Ltd.

VOICE We developed an easy-to-remove adhesive tape that aligns with the 3Rs.

In recent years, we have seen increasing demand for DIC to provide solutions that will contribute to the achievement of the SDGs, a critical global challenge. My group developed an easy-to-remove adhesive tape that delivers the outstanding adhesion required in manufacturing and can be removed easily simply by stretching. In addition to ensuring highly reliable adhesion without peeling off when in use, this tape's easy removability helps improve the materials recycling rate for devices in which it is used, aligning with the original 3Rs—Reduce, Reuse and Recycle—for customers and society in general. Adoption by television and mobile device manufacturers continues to increase and we plan to expand our focus to include other markets going forward.



Processing Technical Group 2, Processing Technical Division, DIC Corporation **Daisuke Watanabe**

Digital Transformation

Driving Business Model and Portfolio Transformation

Goals of Major Initiatives for Fiscal Year 2022

Objective of initiatives	Goals for fiscal year 2022
Promote DX.	Establish a framework that balances the need for speed with that for the management of risks.
	Advance DX measures across multiple business units/functional departments.
	Begin exploring business model transformation.

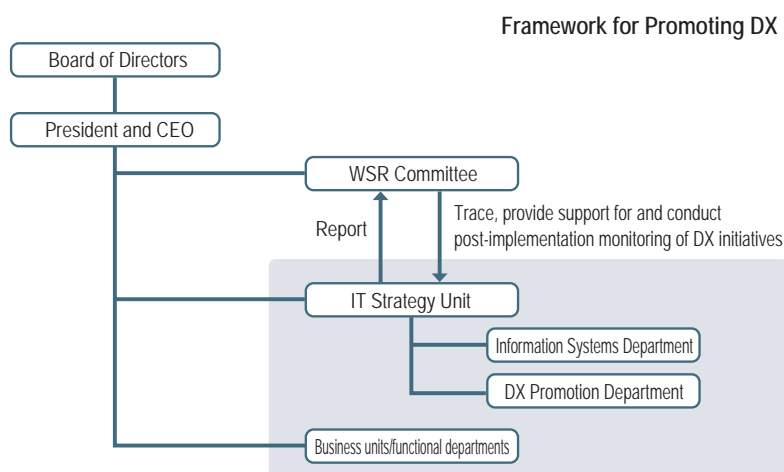
Basic Policy

The DIC Group promotes digital transformation (DX) with the objective of providing new value and reinforcing its corporate structure through the use of digital technologies and data. The Group is advancing initiatives in three key areas: Market,* production and technology, and supply chain management (SCM). The Group is also working to realize a next-generation digital integrated platform and securing and training human resources to establish the infrastructure necessary to advance DX.

* "Market" is used here in the sense of sales and marketing functions.

Framework for Promotion

In fiscal year 2022, DIC created the IT Strategy Unit. This new unit oversees the Information Systems Department and the DX Promotion Department and will leverage data and digital technologies, eliminating boundaries between IT and DX, to promote process optimization, work style reforms and the innovation of business models on a global scale over the short term, as well as the medium to long term. Looking ahead, the Company expects to see an increase in the promotion of independent DX initiatives by individual business units and functional departments. Accordingly, the Work Style Revolution (WSR) 2020 Committee, established in fiscal year 2022, will trace, provide support for and conduct post-implementation monitoring of such initiatives to ensure optimization from a Companywide perspective.



Market

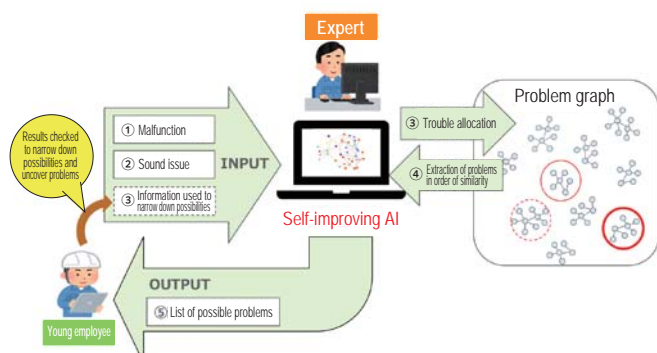
Through DX, DIC seeks to enhance brand strength through the creation of high-level customer experiences and achieve business model transformation. With the increasing use of telework and the accelerating digitalization of operations, the importance of web-based research and communication is growing. The DIC Group recognizes the importance of digital media as a channel for communication with customers. In fiscal year 2021, the Group significantly expanded product-related content on its global website and held online exhibitions with the goal of helping customers resolve issues in specific business areas. In fiscal year 2022, the Group will expand and refine its approach, stepping up the pace in expanding the global website's product-related content and holding online exhibitions in additional business areas and webinars. To advance business model transformation, the Group has begun looking at measures to further strengthen cooperation between business units and the IT Strategy Unit.

Production and Technology

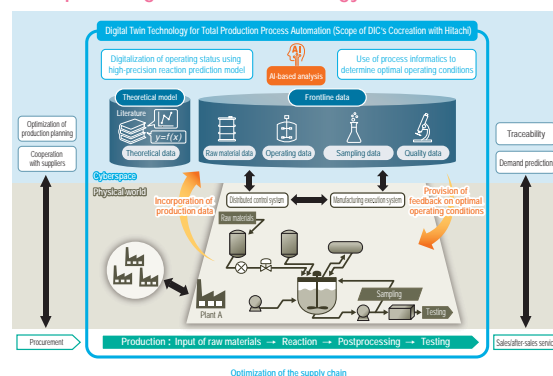
On the production side, DIC is deploying digital technologies widely at production sites with the aim of realizing smart factories that reduce workloads and ensure safe, stable operations. In fiscal year 2021, DIC developed and began using Prism, an AI-based system for production sites with the purpose of handing down the skills and knowledge of experts at production sites, and began work on the practical application of digital twins technology to automate entire resin production processes. On the technology side, the Group sought to expedite the transformation of its business portfolio, as outlined in its DIC Vision 2030 long-term management plan, by shifting the focus of efforts to computational science, which uses AI and MI.* In fiscal year 2021, the Group established the Data Science Center, which houses AI specialists, through which it is working to halve the development stage for new products and double the number of development themes in play.

* MI applies statistical analysis and other informatics techniques to search large amounts of data for new materials.

Use of Self-Improving AI to Pass On Knowledge



Example of Digital Twins Technology



SCM

In addition to improving the visibility of the flows of goods and information through its supply chain, the DIC Group is standardizing and integrating business processes and key performance indicators (KPIs) to promote supply chain reforms designed to improve efficiency and management on a global basis. To this end, the Group is leveraging digital technologies to realize real-time platform linkage between sales and production data and statistical demand forecasting, an initiative it expects to begin rolling out gradually in fiscal year 2022.

Core Business Systems

The DIC Group plans to update core business systems in fiscal year 2024. Seeing this as an opportunity, the Group will respond to changes in its operating environment, business structural reforms and advances in digital technologies to build a global digital platform that will be capable of evolving even 10 years down the road, as well as an operating configuration for this platform. As part of this initiative, the Group will also establish a next-generation digital integration platform that will facilitate flexible and rapid system linkage with external parties, as well as data analysis from multiple perspectives.

Securing and Fostering Human Resources

DIC is also placing a priority on fostering the human resources necessary to advance various efforts. In fiscal year 2020, the Company began offering training for future data scientists and other individuals whose jobs will require the use of data. In fiscal year 2022, the Company began offering tailored "DX leader" training, which emphasizes the use of digital technologies to drive business and operational reforms, to selected candidates from business units and functional departments. The Group will also actively recruit human resources from outside the Company, mainly in such areas as agile development, for positions that cannot be filled by internal human resources.

TOPIC

Efforts to Promote Digital Marketing Are Progressing.

Three years have passed since DIC introduced Salesforce cloud-based services and marketing automation. In fiscal year 2021, the Company held a website content creation support workshop, an initiative that has accelerated the use of these services Companywide. Workshop participants are asked to envision what sorts of solutions DIC can offer its customers and beyond that to its customers' customers, and to create websites from two perspectives: Products and customer value. Using digital means, the Company then conducted surveys via these websites. Participating departments have succeeded in making contact with a steady stream of customers they would not otherwise have access to in the course of normal sales activities.

One advantage of digital technology is that results are quantifiable and timely. Increased visibility means that the individuals in charge in any given business unit will be able to see and understand the numbers, encouraging them to think spontaneously about what can be done next or how can this be followed-up effectively. DIC will continue working to communicate the appeal of its products by encouraging market-driven thinking across the Company.

* Marketing innovation uses tools and software to support marketing efforts, including the securing of new customers and cultivation of prospective customers.



Content creation support workshop

Harmony with the Community and Social Contributions

Adding Color & Comfort to Lifestyles

SDGs Goals 3 and 4



Basic Approach to Social Contribution

Based on its Guidelines for Social Contribution Activities, established in fiscal year 2009, the DIC Group works to ensure harmony with local communities and individuals through activities aimed at building a strong relationship with society.

The DIC Group's Guidelines for Social Contribution Activities

In line with its Color & Comfort by Chemistry management vision, the DIC Group will promote social contribution initiatives in three areas: Business activities, culture and education, and communities and society.

Business activities

The DIC Group will offer products and services that contribute to the development of a sustainable society and protection of the global environment from the viewpoint of "CSR through business activities."

Culture and education

The DIC Group will engage in activities that will contribute to the development and promotion of culture, the arts, science and education, including fostering next-generation human resources in areas such as the culture of color and chemistry.

Communities and society

The DIC Group will strive to coexist harmoniously with local communities to develop a relationship of mutual trust. Moreover, the Group will provide an environment that enables employees to engage in voluntary contribution activities in their respective local communities.

Principal Initiatives

CUD: The Future of Color and Comfort

The DIC Group is actively involved in R&D in the area of color universal design (CUD), as well as in expanding public awareness and understanding of CUD's importance. In 2007, the Group, in cooperation with the Japan Paint Manufacturers Association, the Industrial Research Institute of Ishikawa and the Color Universal Design Organization, embarked on a project to create the *Color Universal Design-Recommended Color Set* under the supervision of the University of Tokyo.

In developing the color set, the organizations conducted repeated verification tests using study participants with various types of color vision to adjust proposed colors, a process that facilitated the creation of a set of colors that are relatively easy to distinguish regardless of ability to see colors and can be reproduced using printing inks, coatings and digital imaging. Taking into account nearly a decade of use, in fiscal year 2018 the project members revised the set's color values to further enhance usability. The organizations also published a guidebook on effective use of the set and has worked to promote understanding and awareness.

From fiscal year 2015 through fiscal year 2017, the DIC Group participated in a joint industry-academic research project. During this period, Chiba University, the Central Research Laboratories and DIC Color Design, Inc., gave presentations on joint research on the color appearance of red spot colors used in printed warnings and other important information on packaging and on the use of color in an aging society at academic conferences in Japan and overseas.

In 2011, DIC began collaborating with the University of Tokyo and architect Kengo Kuma to develop new tactile paving that ensures high visibility for visually impaired individuals and is in harmony with the landscape. In spring 2018, two new color options—a warm orangey yellow and a cool yellowish green—were commercialized by various companies for directional tactile paving, designed to guide people along a specific route, under the registered trademark *Lucida*®. (In astronomy, "lucida" means the brightest star in a constellation.) In fiscal year 2018, DIC also took part in a project to revise the JIS standard for safety colors (JIS Z 9103) with the goal of choosing colors that can be distinguished by people with diverse color vision. As a member of the original drafting committee, DIC was involved in setting recommended CMYK values for process printing, which had not previously been provided, and continues to cooperate in initiatives aimed at promoting awareness.

Since fiscal year 2019, DIC has participated as an expert in the field of color in the verification of safety-related color schemes for applications such as disaster prevention information. Recently, the Company took part in verification for the setting of RGB values for screen displays for a color scheme (five colors) developed to convey heavy rain warning levels in an easy-to-understand manner and announced in May 2020 by Japan's Cabinet Office. In the formulation of CMYK values for the same color scheme, which were announced in March 2021, DIC Graphics cooperated not only by verifying candidate colors but also by printing a color chart for use in the verification process.

In March and April 2022, DIC published a two-part feature on its efforts to contribute to society through color in the Japanese-language space of its global website. The first part focused on the Company's responsibility to society as a manufacturer of colors to support user-friendly color communication, while the second looked at CUD and its increasingly important role in enhancing everyday safety and convenience. The DIC Group continues working to provide stakeholders with information on its initiatives to make society more accessible to people with diverse types of color vision, as well as to introduce key difference makers from both within and outside the Group.



Photos from the DIC global website feature "Contributing to Society through Color"

Left: Kei Ito (Visiting Professor, Tokyo University; Professor, University of Cologne (Germany); Vice-Chairman, Color Universal Design Organization)
Right: Masaaki Nakagawa, General Manager, Corporate Communications Department, DIC Corporation

Visiting Science Lab Program

In line with the Japanese government's efforts to promote career education initiatives, as well as to help curb a decline in the popularity of science among children, DIC and DIC Graphics conduct visiting science labs at public elementary schools. Through this program, the DIC Group seeks to spark children's interest in science and encourage them to realize the close relationship between science and their everyday lives.

Designed with the aim of making science fun for children and helping them understand how science benefits society, the lab entails experiments in synthesizing pigments and planographic printing, that is, printing from a flat surface. Since launching this initiative in 2010, the two companies have provided classes at 42 elementary schools for approximately 3,300 sixth graders. In fiscal years 2018 and 2019, the Group also conducted visiting science labs for elementary school children as part of the Tohoku University Graduate School of Engineering's Science Campus project. The labs were well received by both participating children and their parents.

In fiscal years 2020 and 2021, the DIC Group made the decision to postpone visiting science labs to help prevent the spread of COVID-19. The Group looks forward to restarting this initiative once the pandemic has subsided.



Visiting science lab

Initiatives Led by the Central Research Laboratories

DIC's Central Research Laboratories provides support for education through a variety of initiatives. In fiscal year 2021, these initiatives included backing the 15th Annual Meeting on Scientific Research by High Schools, a program sponsored by Chiba University's Section of Collaboration with High Schools that features research presentations by high schools across the country. Five researchers from the Central Research Laboratories attended this event, listening to a total of 290 presentations, taking part in Q&A sessions and otherwise encouraging the research efforts of participating high school students, who aspire to a career in the sciences.

In addition, the Central Research Laboratories offers programs that leverage DIC's unique capabilities. Particularly notable are lectures for high schools that have earned Super Science High School* designation, including Seishin Gakuen High School in Ibaraki Prefecture and Sakura Senior High School and Funabashi High School in Chiba Prefecture, as well as fashion design workshops for students from Sakura Higashi High School in Chiba Prefecture. In fiscal year 2021, only the design workshops at Sakura Higashi High School were held because of concerns regarding COVID-19, but the Central Research Laboratories continued to assist Super Science High School-designated schools through participation by executive-level employees in the steering committees of Sakura Senior High School and Funabashi High School.

The Central Research Laboratories' initiatives for fiscal year 2021 also included spearheading DIC's participation in the Chiba Museum of Science and Industry's "Now I Get It! Technologies of the Future" exhibition, held to coincide with schools' summer vacation with the aim of nurturing children's curiosity about science and technology and encouraging the next generation's interest in work in the manufacturing sector.

* "Super Science High School" is a designation awarded by Japan's Ministry of Education, Culture, Sports, Science and Technology to high schools that implement curricula focused on the sciences and mathematics that goes beyond the Ministry's official guidelines with the aim of fostering the next generation of talented engineers and scientists.

Initiatives Led by the Kashima Plant

The Kashima Plant, in Ibaraki Prefecture, has accepted trainees in cooperation with Ibaraki Hasaki High School's internship program—dubbed the Hako Dual System—since 2008. In fiscal year 2021, three students from the school's industrial chemistry and information science programs participated in lectures on product knowledge, safety and compliance, and in practical training at the plant, over a period of three months.

Kawamura Memorial DIC Museum of Art

The Kawamura Memorial DIC Museum of Art, located adjacent to the Central Research Laboratories in Sakura, Chiba Prefecture, was established in 1990 to publicly exhibit works of art collected by DIC Corporation and its affiliates. The museum's extensive collection spans numerous genres, encompassing an oil portrait by Rembrandt, a rarity in Japan, as well as works by impressionists such as Monet and Renoir; modern European artists such as Picasso and Chagall; early modern, modern and postwar Japanese artists; and luminaries of late-20th century American art, including Mark Rothko, Cy Twombly and Frank Stella. In addition to a standing exhibit from its permanent collection, the museum stages special exhibitions multiple times a year to promote a deeper understanding of the works in its collection.

Another appealing aspect of the museum is its location on a lushly forested 10-hectare site alive with seasonal flowers and foliage that has been open to the public since the museum's establishment. A total of 250 cherry trees—10 varieties in total—blossom every spring while in summer wildflowers of all colors bloom profusely.

In fiscal year 2022, the museum will celebrate its 33rd anniversary. Two special exhibitions are planned. "Color Fields" introduces approximately 40 "Color Field" paintings from the acclaimed collection of Canada's Audrey and David Mirvish. This is Japan's first-ever exhibition of the most important works in this style of abstract art, which features large canvases dominated by broad expanses of color. "Affections: Objects of Man Ray" will feature around 50 objects produced by Man Ray over his lifetime together with related paintings, photographs, films and other items by the artist.

In fiscal year 2021, the museum was able to restart regularly scheduled guided tours, which it had paused temporarily, after taking extensive steps to prevent the spread of COVID-19. The museum also continued to offer its "mite!" interactive art-viewing experience online. Looking ahead, the Kawamura Memorial DIC Museum of Art will continue to plan and stage exhibitions centered around works from its collection. The museum will also promote social contribution activities and enhance its digital presence with a view to encouraging communication with the community.



Museum entrance hall



Outdoor terrace

*Social Contribution Activities by Overseas Group Companies***DIC Asia Pacific Internships**

Singapore-based DIC Asia Pacific recently launched an internship program for students at major local universities, including the National University of Singapore and Nanyang Technological University, as well as other institutes of higher education such as Singapore Polytechnic. In 2021, the company hired eight interns to provide work experience pertinent to their areas of interest, including procurement, finance and corporate communications. Through this program, the DIC Group aims to help foster human resources capable of playing an active role in global business settings.

Supporting Humanitarian Efforts for Ukraine

In fiscal year 2021, DIC donated approximately US\$300,000 to help provide humanitarian assistance for refugees from the current crisis in Ukraine. In addition to a donation to the United Nations High Commissioner for Refugees (UNHCR)—the UN Refugee Agency—the Company set up a joint fund with Sun Chemical, with both companies contributing approximately €100,000. This fund forwards donations to various nonprofit organizations for the provision of assistance and relief, including housing and gifts for children, to employees of the DIC Group and customer companies who have fled to Poland.

Matching Gift Program

DIC has a matching gift program in Japan whereby it matches the total amount collected through an annual year-end fundraising drive spearheaded by its employees' union. Funds raised through the 2021 drive and matching gift program were donated to 19 children's homes and facilities providing support for disabled individuals.



Communication with Stakeholders

Promoting Disclosure and Communication



Basic Approach to Disclosure and Communication

The DIC Group places a priority on communication with its stakeholders worldwide, as outlined in Article 8 of its Policy on Corporate Governance.

Article 8 (Ensuring Appropriate Information Disclosure and Transparency)

The Company shall ensure transparency and fairness; and in order to gain the correct understanding and trust from stakeholders, shall timely and appropriately disclose information relating to matters such as the DIC Group's management philosophy, management policies, business plans, financial condition and sustainability activities.

Guided by this policy, the DIC Group promotes communication with stakeholders through television advertisements, participation in exhibitions, websites and events. By communicating effectively with stakeholders, the Group strives to ensure an adequate understanding of stakeholder expectations and to reflect such expectations in its business activities. The Group is also expanding its awareness of the concept of stakeholder engagement, a key requirement under ISO 26000.

	Ties with customers	Ties with shareholders and investors	Ties with business partners	Ties with society	Ties with employees	Ties with the media
Basic approach	Build trusting relationships. By incorporating the demands of customers, seek to develop products that enhance customer satisfaction.	Ensure appropriate disclosure and build trusting relationships with shareholders and investors, encouraging both to evaluate DIC as an attractive investment.	Promote socially responsible procurement across the supply chain and build solid relationships that will facilitate sustainable procurement.	Operate in harmony with the community and build positive relationships with local residents that will underpin the long-term sustainability of operations.	Provide workplaces that are conducive to job satisfaction and enable all employees to fulfill their potential. Over the long term, achieve true diversity.	Deepen understanding through effective publicity, advertising and other communications efforts.
Communications tools	<ul style="list-style-type: none"> ● Websites ● Product pamphlets ● Digital marketing ● Corporate profile DVDs ● DIC Report ● Corporate PR film ● News releases ● Television advertisements 	<ul style="list-style-type: none"> ● Websites ● Press conferences ● Quarterly results announcements ● <i>Yuka Shoken Hokokusho</i> (financial disclosure document required of listed companies in Japan) ● Timely disclosure ● Notice of Convocation of the Annual General Meeting of Shareholders ● Shareholder newsletters ● Corporate profile DVDs ● DIC Report ● News releases ● Television advertisements 	<ul style="list-style-type: none"> ● DIC Group Sustainable Procurement Guidelines ● DIC Group Green Procurement Guidelines ● Supplier sustainable procurement questionnaires ● Feedback sheets ● Conflict Minerals Reporting Template ● DIC Report 	<ul style="list-style-type: none"> ● Websites ● Site reports ● Corporate profile DVDs ● DIC Report ● News releases ● Television advertisements 	<ul style="list-style-type: none"> ● <i>DIC Plaza</i> (in-house newsletter) ● Intranet ● <i>DIC Pocket Book</i> (in-house Group data file) ● DIC Report ● Corporate PR film ● News releases ● Television advertisements ● Global linkage ● Branding questionnaire 	<ul style="list-style-type: none"> ● Press conferences ● Interviews with journalists ● DIC Report ● News releases ● Television advertisements
Opportunities for communication	<ul style="list-style-type: none"> ● Sales activities ● Participation in exhibitions ● Lectures on the SDGs for customers 	<ul style="list-style-type: none"> ● Shareholders' meetings ● Results presentations ● IR conferences ● IR meetings ● DIC IR Day ● Individual investor briefings ● ESG Presentations 	<ul style="list-style-type: none"> ● On-site inquiries 	<ul style="list-style-type: none"> ● Production facility tours ● Participation in projects involving collaboration among industrial concerns, government bodies and academic institutions ● Participation in community events ● Environmental monitoring ● Plant <i>Ban Odori</i> 	<ul style="list-style-type: none"> ● Labor-management councils ● Results presentations for employees ● Presentations on the DIC Group Code of Business Conduct ● Sustainability presentations ● DIC Family Day ● Plant tours for employee families ● Caravan workshops 	<ul style="list-style-type: none"> ● Newspapers ● Economic publications ● Industry publications

Ties with Customers

With the aim of becoming a unique global company that is trusted by society, the DIC Group prioritizes and works to strengthen communications with its customers. Principal avenues of communication include participating in exhibitions, events and lectures, providing support for business partners and holding workshops. In fiscal year 2021, the spread of COVID-19 once again encouraged the Group to use an online or hybrid format for exhibitions, presentations and other events. The Group chose a hybrid format for the 2021 Tokyo International Packaging Exhibition (TOKYO PACK 2021), held in February, combining a physical booth and a virtual exhibition. Similarly, for the Cosmetic Ingredients & Technology Exhibition (CITE) Japan 2021 exhibition in May, the Group also opened an online cosmetics materials showroom that included a number of online video presentations. In addition, the Group used social media to introduce examples of product use. For the Sustainable Material Expo (SUSMA), in December, the Group expanded its virtual exhibition for the benefit of people who were unable to attend the exhibition in person.

Sun Chemical of the United States, which oversees Group operations in the Americas and Europe, participated in events such as the virtual INFOFLEX 2021 in May and Innovate 2021 Textile Innovation Week in October, allowing it to present its lineup of sustainable packaging products, as well as its new jet inks for printing on textiles and other products, to a global audience. In November, Sun Chemical began offering "What's IN Asia," an online trends program highlighting the latest inspirations in the Asian beauty industry.

In July 2021, the DIC Group launched a new common coating resins product finder, which is available in Japanese, English and Chinese, on its global website, making it easy for users to identify the right product for their needs from among a range of more than 300 coating resins and to confirm recommended applications, key features and other basic product information.

To measure the benefits of participation in the aforementioned exhibitions, and of efforts to build relationships of trust with customers, the Group continued to employ a system that looks at the portion of sales accounted for by repeat customers, that is, its customer retention rate, which is a key indicator of customer satisfaction. The Company thus continues working unceasingly to bolster its grasp of and improve customer satisfaction.

Digital Marketing

The DIC Group actively promotes digital marketing activities. In addition to significantly expanding the content of its global website, the Group held multiple online exhibitions aimed at helping customers address needs in a variety of specific areas. The Group also sharply increased its use of electronic tools, including email and third-party websites, to communicate with customers. In fiscal year 2022, the Group will continue to enhance the content of its global website, as well as to expand digital efforts to reach customers, including participating in online exhibitions in new areas and holding webinars.

Ties with Shareholders and Investors

The DIC Group has established a policy for promoting constructive dialogue with shareholders and strives to ensure fair, appropriate and timely disclosure and to communicate closely with shareholders and investors, as well as to raise awareness of its ESG initiatives. Views and concerns expressed are shared with management and incorporated into operations as appropriate.

While opportunities for in-person communication with shareholders and investors in fiscal year 2021 were restricted by the pandemic, the DIC Group worked to secure opportunities for remote dialogue. Notable steps included holding financial results presentations for institutional investors and securities analysts four times each fiscal year using teleconferencing and web conferencing systems. For institutional investors in North America, Europe, the PRC and the Asia-Pacific region, the Group held IR meetings via teleconference to encourage greater familiarity with its business strategies. The Group also held its first online ESG presentation for institutional investors and securities analysts to enhance disclosure regarding its sustainability program. Other active efforts to advance communication with domestic and overseas investors included 119 one-on-one meetings conducted in person or by telephone.

The DIC Group also continued to actively provide information for individual investors, posting a video of an online asset management fair, as well as various corporate information videos, to encourage a deeper understanding of the Group's business activities and ESG initiatives among investors of all ages. These videos have been viewed approximately 4,400 times to date.

In addition, the Group continued to actively provide information for investors with whom direct communication was not possible, publishing transcripts and voice recordings of its ESG and financial results presentations on its global website. Indicative of the high marks given these efforts, in fiscal year 2021 DIC won a grand prize in Daiwa Investor Relations Co., Ltd.'s Internet IR Awards and was included in Nikko Investor Relations Co., Ltd.'s Ranking of Japanese Listed Companies' Websites, both for the second consecutive year. The Company also won a grand prize in the newly established Sustainability category of the aforementioned Daiwa Investor Relations' competition.



Grand prize, 2021 Daiwa Investor Relations' Internet IR Awards (Sustainability category)



Grand prize, 2021 Daiwa Investor Relations' Internet IR Awards

Ties with Society

In addition to the business community, the DIC Group strives to communicate effectively with ordinary consumers, including students.

Kawamura Memorial DIC Museum of Art

After a half-year closure for maintenance, the Kawamura Memorial DIC Museum of Art reopened with a special Collection Viewpoint series' exhibition titled "Christo and Jeanne-Claude: Wrap, Pack, Stack." A second special exhibition, "Minimal/Conceptual: Dorothee and Konrad Fischer and the Art Scenes in the 1960s and 1970s," co-organized by Kunstsammlung Nordrhein-Westfalen, the art museum of the German state of North Rhein–Westphalia, began in the autumn. In addition to multiple examples of Minimal and Conceptual art, the exhibition featured valuable materials related to their creation, including letters and instructions, providing an opportunity for visitors to look back at two key trends that had a major impact on present-day art.

In fiscal year 2021, the museum was able to restart regularly scheduled guided tours, which it had paused temporarily, after taking extensive steps to prevent the spread of COVID-19. The museum also continued to offer its "mite!" interactive art-viewing experience online. The new outdoor visitor lounge, completed in fiscal year 2020, provided a welcome space where people can eat and drink and wait for the shuttle buses that run between the museum and local railway stations.

Calendar

In addition to featuring works from the collection of the Kawamura Memorial DIC Museum of Art, DIC's original calendar for 2022—titled simply "Calendar 2022 Roy Lichtenstein"—is designed with a color scheme compatible with CUD, printed with environment-friendly inks and produced in a manner that is environmentally sound and conducive to recycling, thereby leveraging multiple key DIC Group technologies. DIC's calendar received an incentive award (category 1) in the 73rd All Japan Calendar Competition. The Company will continue to plan, design and produce attractive, useful original calendars that earn high marks from stakeholders.

Corporate Advertising

DIC continued to promote active branding initiatives in line with its "Color & Comfort" brand slogan. The Company produced a sixth installment of its brand advertisement for television featuring actress Riho Yoshioka that puts the spotlight on DIC Group products, the value it provides to society and its commitment as a corporate entity. Capitalizing on the increasing diversification of media, DIC also focused efforts on digital advertising.

Website and Social Media

To enhance communication with stakeholders, DIC unified the design and expanded the clearly worded content of DIC Group company websites. As noted in "Ties with Shareholders and Investors" above, the Company's website- and social media-related initiatives continue to be evaluated highly by external organizations. DIC is also working to further improve website accessibility to overseas stakeholders.

The expansion of ESG information is another focus of DIC's website improvement efforts. In addition to explaining its sustainability policy in an easy-to-understand manner, the Company is increasing its publication of related quantitative data in response to requests for information from a variety of stakeholders. In fiscal year 2021, DIC won a grand prize in the new Sustainability category of Daiwa Investor Relations' Internet IR Awards.



DIC's global website

Communication with Local Communities

Despite restrictions on community-focused events due to COVID-19, DIC Group companies promoted a variety of initiatives while taking stringent steps to prevent the spread of infection. Examples included a nutrition education class titled "Exploring the Secrets of the Color of Sweets" offered by DIC Lifetec Co., Ltd., at the Shibuya Children's Science Center Hachi Lab, a facility in Tokyo providing a variety of extracurricular science, technology and mathematics programs. At the Kawamura Memorial DIC Museum of Art, staff continued to plant trees as part of a program to create a wooded area where visitors can relax within an ecosystem that supports the coexistence of wild birds and small animals.

Monetary Contributions and Other Expenditures

The DIC Group conducts its operations while maintaining relationships with a broad range of industry associations and other external organizations.

Monetary Contributions

The DIC Group's monetary contributions in fiscal year 2021 amounted to approximately ¥34 million. In Japan, monetary contributions included a designated donation of roughly ¥9 million to support education and research, and around ¥11 million to specified public service promotion corporations and for other social contribution-related purposes. The Group made no contributions to political organizations during the period.

Participation in Industry Organizations

In its capacity as a manufacturer of fine chemicals, the DIC Group participates in a variety of activities as a member of key industry organizations, including providing specialized information, conducting investigations and collecting materials. In Japan, the Group is a member of organizations ranging from the JCIA, the Keidanren (Japan Business Federation), the Japan Dyestuff and Industrial Chemicals Association (JDICA), the Japan Thermosetting Plastics Industry Association (JTPIA) and the Japan Printing Ink Makers Association (JPIMA) to the Global Compact Network Japan (GNCJ). In fiscal year 2021, expenditures for participation in various external activities (membership dues) across the entire global DIC Group amounted to approximately ¥158 million.

Ties with Employees

The DIC Group continues to promote a variety of initiatives to facilitate active communication with Group employees around the world, including establishing an internal Group chat function, a Group intranet and other new digital channels, thereby enhancing its communications infrastructure.

Global Communications

DIC recently revised The DIC Way, which represents the DIC Group's fundamental management philosophy, to enhance understanding among Group employees overseas. A video was also produced to ensure The DIC Way permeates the entire organization, as well as to encourage a sense of unity. In addition, a new digital communication channel was established to convey information on the outstanding initiatives and actions by employees across the global DIC Group. The Group also compiled branding guidelines to ensure effective control of the DIC brand worldwide, as well as standardized materials templates, a key point of contact with stakeholders around the world.

In-House Newsletter

In January 2021, DIC launched a new digital in-house newsletter titled *Better Tomorrows* with the goal of improving internal communications. With articles not only from DIC in Japan but also from DIC Group companies overseas, *Better Tomorrows* highlights DIC Group technologies, products and businesses, serving as an important way for employees everywhere to share information on their activities, as well as on the Group's corporate culture.

Ties with the Media

DIC is reinforcing its publicity activities as a means of communicating with its many stakeholders, including its customers, shareholders, investors and local communities. This reflects its conviction that promoting active disclosure that facilitates objective media coverage is vital to securing stakeholders' understanding of the DIC Group and its operations, and to promoting a sense of unity among employees. In fiscal year 2021, DIC put out news releases regarding the acquisition of a business, new products, investments in facilities, operating results and sustainability, among others. The Company also disseminated information about the Group's initiatives in the fight against COVID-19, underscoring its commitment as a chemicals manufacturer to help provide safety and peace of mind for people everywhere.

Press conferences held in fiscal year 2021	Interviews with journalists in fiscal year 2021
83	69

External Assessments

In fiscal year 2021, DIC was selected for inclusion in the Dow Jones Sustainability Indices Asia Pacific Index, a leading benchmark for sustainability initiatives in the Asia-Pacific region and part of the Dow Jones Sustainability Indices (DJSI), a global family of indices for socially responsible investment (SRI). This was the seventh straight year that DIC was selected for inclusion.

DIC was also selected as a constituent of the MSCI Japan ESG Select Leaders Index—an ESG investment index of leading Japanese companies—and the MSCI Japan Empowering Women Index (WIN), both developed by U.S.-based MSCI Inc., for the fifth consecutive year, and the FTSE4Good Index and the FTSE Blossom Japan Index for the fourth consecutive year. In addition, DIC was selected for inclusion in the S&P/JPX Carbon Efficient Index, which weights constituents using disclosure of environmental information and carbon efficiency (carbon emissions per unit of revenue) within an industry group, earning the second-highest "2" rating for the latter factor. In March 2022, the Company was chosen for the first time for inclusion in FTSE Russell's FTSE Blossom Japan Sector Relative Index, which comprises Japanese companies demonstrating outstanding ESG practices in their respective sectors.

In fiscal year 2021, DIC was thus once again included in the five ESG investment indices targeting Japanese equities used by Japan's Government Pension Investment Fund (GPIF), which seeks stock indices comprising companies with outstanding ESG performances (MSCI Japan ESG Select Leaders Index, WIN, FTSE Blossom Japan Index, FTSE Blossom Japan Sector Relative Index and S&P/JPX Carbon Efficient Index). DIC's ESG performance also resulted in it being selected for inclusion in the SNAM Sustainability Index, a 300-constituent index that is revised annually and utilized by Sompo Japan Nipponkoa Asset Management Co., Ltd. (SNAM)'s Sompo Sustainability Index.

DIC reports to the CDP, a global nonprofit organization that works on behalf of institutional investors to collect and analyze information on corporate initiatives to address climate change and other environmental issues. In fiscal year 2021, DIC earned a score of B (Management Level) in the CDP program's climate change and water security sectors.

In recognition of its superb efforts to expand career opportunities for women, DIC was selected as a Nadeshiko Brand for fiscal year 2022, the fourth straight year it was honored under this program, which is sponsored by Japan's Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange (TSE).

For the fifth consecutive year, DIC and DIC Graphics earned certification in the large enterprise category of the 2022 Health & Productivity Outstanding Entities Recognition Program (dubbed the "White 500"), which is organized by the Ministry of Trade, Economy and Industry and Nippon Kenko Kaigi ("Japan Health Council").

With the aim of driving sustainable growth, in fiscal year 2021 the DIC Group continued to participate in a number of United Nations Global Compact (UNGC) working groups (ESG, Creating Shared Value (CSV), GC Internal Promotion, Reporting and Environmental Management).

Member of

Dow Jones Sustainability Indices

Powered by the S&P Global CSA

2020 CONSTITUENT MSCI JAPAN
ESG SELECT LEADERS INDEX

2020 CONSTITUENT MSCI JAPAN
EMPOWERING WOMEN INDEX (WIN)



FTSE4Good



FTSE Blossom
Japan



FTSE Blossom
Japan Sector
Relative Index

2021



Sampo Sustainability Index



DIC Report 2022 and the GRI Standards

DIC Report 2022 was prepared in compliance with the GRI Standards' "Core" option.

Standard	Disclosures	Page(s), etc.	Related information/Reasons for omission	ISO 26000
102	General Disclosures			
GRI 102:	General Disclosures 2016			
1	Organizational profile			
102-1	Name of the organization	11 (The DIC Group: A Global Powerhouse)		—
102-2	Activities, brands, products, and services	5–6 (The DIC Group's Approach to Value Creation), 25–31 (The DIC Group's Business Portfolio)		—
102-3	Location of headquarters	11 (The DIC Group: A Global Powerhouse)		—
102-4	Location of operations	11 (The DIC Group: A Global Powerhouse) Overseas subsidiaries and affiliates: https://www.dic-global.com/en/about/overseas.html Domestic subsidiaries and affiliates: https://www.dic-global.com/en/about/subsidiaries.html		—
102-5	Ownership and legal form	11 (The DIC Group: A Global Powerhouse)		—
102-6	Markets served	25–31 (The DIC Group's Business Portfolio), 120 of the Annual Securities Report		—
102-7	Scale of the organization	11 (The DIC Group: A Global Powerhouse), 9 (Financial Information)		—
102-8	Information on employees and other workers	129 (Basic Personnel Statistics (DIC))		6.4 6.4.3
102-9	Supply chain	148–151 (Sustainable Procurement)		—
102-10	Significant changes to the organization and its supply chain	There were no significant changes.		—
102-11	Precautionary principle or approach	78–81 (Environment, Safety and Health (ESH))		6.2
102-12	External initiatives	69 (Ensuring DIC Remains a Globally Trusted Corporate Citizen with a Proud Reputation)		6.2
102-13	Membership of associations	165 (Participation in Industry Organizations)		6.2
2	Strategy			
102-14	Statement from senior decision-maker	13–18 (A Message from the President)		6.2
102-15	Key impacts, risks, and opportunities	56 (Overview of Materiality)		6.2
3	Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	1 (The DIC Way), 68 (Basic Sustainability Policy), 71 (The DIC Group Code of Business Conduct) https://www.dic-global.com/pdf/csr/philosophy/compliance/code_of_business_conduct_en.pdf		—
102-17	Mechanisms for advice and concerns about ethics	72 (Establishing and Operating a Whistle-Blowing System)		—
4	Governance			
102-18	Governance structure	59–60 (Corporate Governance), 69 (System for Promoting Sustainability Initiatives)		6.2
102-19	Delegating authority	69 (System for Promoting Sustainability Initiatives)		—
102-20	Executive-level responsibility for economic, environmental, and social topics	69 (System for Promoting Sustainability Initiatives)		—
102-21	Consulting stakeholders on economic, environmental, and social topics	162–163 (Communication with Stakeholders)		6.2
102-22	Composition of the highest governance body and its committees	59–64 (Corporate Governance)		6.2
102-23	Chair of the highest governance body	65–66 (Directors, Audit & Supervisory Board Members and Executive Officers)		6.2
102-24	Nominating and selecting the highest governance body	59 (Corporate Governance), 65–66 (Directors, Audit & Supervisory Board Members and Executive Officers), 53–57 of the Annual Securities Report		6.2
102-25	Conflicts of interest	57–58 of the Annual Securities Report		6.2
102-26	Role of the highest governance body in setting purpose, values, and strategy	59–60 (Corporate Governance), 69 (System for Promoting Sustainability Initiatives)		—
102-27	Collective knowledge of the highest governing body	98 (Biodiversity), 137 (2. Initiatives Aimed at Expanding Career Opportunities for Women)		—
102-28	Evaluating the highest governance body's performance	63 (3. Evaluating the of the Effectiveness Board of Directors)		6.2
102-29	Identifying and managing economic, environmental, and social impacts		68–70 (Overview of Sustainability), 56 (Overview of Materiality)	6.2
102-30	Effectiveness of risk management processes	17 (A Message from the President), 68 (Overview of Sustainability), 87 (Disaster Prevention), 128 (Human Resources Management), 139 (5. Management of Governance and Compliance Risks)	68–70 (Overview of Sustainability), 56 (Overview of Materiality)	—
102-31	Review of economic, environmental, and social topics	59–64 (Corporate Governance)		6.2
102-32	Highest governance body's role in sustainability reporting	The Sustainability Committee, which includes the representative directors, approves sustainability reporting before it is made public.	68–70 (Overview of Sustainability), 56 (Overview of Materiality)	—
102-33	Communicating critical concerns	72 (Establishing and Operating a Whistle-Blowing System)		6.2
102-34	Nature and total number of critical concerns	—		—
102-35	Remuneration policies	63 (2. Remuneration for Directors and Audit & Supervisory Board Members), 65–69 of the Annual Securities Report		6.2
102-36	Process for determining remuneration	60 (3. Remuneration Committee), 63 (2. Remuneration for Directors and Audit & Supervisory Board Members)		—
102-37	Stakeholders' involvement in remuneration	—		6.2
102-38	Annual total compensation ratio	—	9 of the Annual Securities Report	—
102-39	Percentage increase in annual total compensation ratio	—		—

5 Stakeholder engagement				
102-40	List of stakeholder groups	162 (Communication with Stakeholders)		6.2
102-41	Collective bargaining agreements		141 (Japan: 71.7% of employees belong to a labor union (for eligible employees, the rate is 99.2%)) Overseas: Employees have collective bargaining rights as allowed for by the laws and regulations of the country/territory in which they are employed.	6.3.10 6.4 6.4.3 6.4.4 6.4.5
102-42	Identifying and selecting stakeholders		68 (Basic Sustainability Policy) 162–166 (Communication with Stakeholders)	6.2
102-43	Approach to stakeholder engagement	162–166 (Communication with Stakeholders)		6.2 6.7 6.7.4 6.7.5 6.7.6 6.7.8 6.7.9
102-44	Key topics and concerns raised		162–166 (Communication with Stakeholders) 182(Third-Party Opinion Regarding DIC Report 2022)	6.2
6 Reporting practice				
102-45	Entities included in the consolidated financial statements	11–12 (The DIC Group: A Global Powerhouse)		6.2
102-46	Defining report content and topic boundaries	56 (Overview of Materiality)		–
102-47	List of material topics	56 (Overview of Materiality)		–
102-48	Restatements of information		NA	–
102-49	Changes in reporting	56 (Overview of Materiality)		–
102-50	Reporting period	2 (About this Report)		–
102-51	Date of most recent report	2 (About this Report) (June 2021)		–
102-52	Reporting cycle	2 (About this Report) (Annual)		–
102-53	Contact point for questions regarding the report	Back cover		–
102-54	Claims of reporting in accordance with the GRI standards	2 (About this Report) This report has been prepared in accordance with GRI Standards ("Core" option).		–
102-55	GRI content index	This table		–
102-56	External assurance	179-181 (Third-Party Verification)		7.5.3
103 Management Approach				
GRI 103: Management Approach 2016				
103-1	Explanation of the material topic and its boundary	56 (Overview of Materiality)		–
103-2	The management approach and its components	56 (Overview of Materiality)		–
103-3	Evaluation of the management approach	69 (System for Promoting Sustainability Initiatives)		–
200 Economic Topics				
GRI 201: Economic Performance 2016				
201-1	Direct economic value generated and distributed	80–138 of the Annual Securities Report, 11–12 (The DIC Group: A Global Powerhouse), 172–178 (Management's Discussion and Analysis)		6.8 6.8.3 6.8.7 6.8.9
201-2	Financial implications and other risks and opportunities due to climate change	114–117 (Disclosures in Line with TCFD Recommendations)		6.5.5
201-3	Defined benefit plan obligations and other retirement plans	115 of the Annual Securities Report		–
201-4	Financial assistance received from government	134 of the Annual Securities Report		–
GRI 202: Market Presence 2016				
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Data on entry-level hiring for fiscal year 2023 https://dic.snar.jp/jobboard/detail.aspx?id=ofbXT5utroAqQLbaJlCF_Q		6.4.4 6.8
202-2	Proportion of senior management hired from the local community	—		6.8 6.8.5 6.8.7
GRI 203: Indirect Economic Impacts 2016				
203-1	Infrastructure investments and services supported		159–161 (Harmony with the Community and Social Contributions)	6.3.9 6.8 6.8.3 6.8.4 6.8.5 6.8.6 6.8.7 6.8.9
203-2	Significant indirect economic impacts		159–161 (Harmony with the Community and Social Contributions)	6.3.9 6.6.6 6.6.7 6.7.8 6.8 6.8.5 6.8.6 6.8.7 6.8.9
GRI 204: Procurement Practices				
204-1	Proportion of spending on local suppliers	—		6.6.6 6.8 6.8.5 6.8.7
GRI 205: Anti-Corruption 2016				
205-1	Operations assessed for risks related to corruption		71–72 (Compliance)	6.6 6.6.3
205-2	Communication and training about anti-corruption policies and procedures	71–72 (Compliance)	148–150 (Sustainable Procurement)	6.6 6.6.3
205-3	Confirmed incidents of corruption and actions taken	72	71–72 (Compliance), NA	6.6 6.6.3

GRI 206: Anti-Competitive Behavior 2016				
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		71–72 (Compliance), NA	6.6 6.6.5 6.6.7
GRI 207: Tax 2019				
207-1	Approach to tax	The DIC Group's Approach to Tax https://www.dic-global.com/en/csr/philosophy/tax.html		
207-2	Tax governance, control, and risk management	The DIC Group's Approach to Tax https://www.dic-global.com/en/csr/philosophy/tax.html		
207-3	Stakeholder engagement and management of concerns related to tax	The DIC Group's Approach to Tax https://www.dic-global.com/en/csr/philosophy/tax.html		
207-4	Country-by-country reporting	72 (Taxation Compliance)		
300 Environmental topics				
GRI 301: Materials 2016				
301-1	Materials used by weight or volume	—		6.5.4
301-2	Recycled input materials used	—	156 (Responding to a Circular Economy)	6.5.4
301-3	Reclaimed products and their packaging materials	—		6.5.3 6.5.4 6.7.5
GRI 302: Energy 2016				
302-1	Energy consumption within the organization	89 (Groupwide Environmental Performance)		6.5.4
302-2	Energy consumption outside the organization	—		6.5.4
302-3	Energy intensity	10 (Global Energy Consumption and Energy Consumption per Unit of Production (DIC Group))		6.5.4
302-4	Reduction of energy consumption	10 (Global Energy Consumption and Energy Consumption per Unit of Production (DIC Group))		6.5.4 6.5.5
302-5	Reductions in energy requirements of products and services			6.5.4 6.5.5
GRI 303: Water and Effluents 2018				
303-1	Interactions with water as a shared resource	96 (Managing Water Resources)		6.5.4
303-2	Management of water discharge-related impacts	97 (Managing Water Resources)		6.5.4
303-3	Water withdrawal	112 (Key Data)		6.5.4
303-4	Water discharge	112 (Key Data)		6.5.4
303-5	Water consumption	—		6.5.4
GRI 304: Biodiversity 2016				
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	—		6.5.6
304-2	Significant impacts of activities, products, and services on biodiversity	—	98 (Biodiversity)	6.5.6
304-3	Habitats protected or restored	98 (Biodiversity)		6.5.6
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	—	98 (Biodiversity)	6.5.6
GRI 305: Emissions 2016				
305-1	Direct (Scope 1) GHG emissions	123 (Key Data)		6.5.5
305-2	Indirect (Scope 2) GHG emissions	123 (Key Data)		6.5.5
305-3	Other indirect (Scope 3) GHG emissions	118 (2. Grasping CO ₂ Emissions Across the Supply Chain (Scope 3))		6.5.5
305-4	GHG emissions intensity	123 (Key Data)		6.5.5
305-5	Reduction of GHG emissions	113, 118 (Climate Change)		6.5.5
305-6	Emissions of ozone-depleting substances (ODS)	122 (Protecting the Ozone Layer)		6.5.3 6.5.5
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	91 (Reducing SOx, NOx and COD), 110 (Key Data)		6.5.3
GRI 306: Waste 2020				
306-1	Waste generation and significant waste-related impacts	93–95 (Managing Industrial Waste)		6.5.3
306-2	Management of significant waste-related impacts	93–95 (Managing Industrial Waste)		6.5.3
306-3	Waste generated	95 (Industrial Waste Generated and Disposed of by the Global DIC Group in Fiscal Year 2021), 111 (Key Data)		6.5.3
306-4	Waste diverted from disposal	95 (Industrial Waste Generated and Disposed of by the Global DIC Group in Fiscal Year 2021), 111 (Key Data)		6.5.3
306-5	Waste directed to disposal	95 (Industrial Waste Generated and Disposed of by the Global DIC Group in Fiscal Year 2021), 111 (Key Data)		6.5.3
GRI 307: Environmental Compliance 2016				
307-1	Non-compliance with environmental laws and regulations	110 (Outline of ESH Audits Implemented in Fiscal Year 2021)		4.6
GRI 308: Supplier Environmental Assessment 2016				
308-1	New suppliers that were screened using environmental criteria	149 (Sustainable Procurement)		6.3.5 6.6.6 7.3.1
308-2	Negative environmental impacts in the supply chain and actions taken	149–150 (Sustainable Procurement)		6.3.5 6.6.6 7.3.1
400 Environmental				
GRI 401: Employment 2016				
401-1	New employee hires and employee turnover	129 (Basic Personnel Statistics (DIC))	127–147 (Human Resources Management)	6.4 6.4.3
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	143 ⑥ (Programs that Help Employees Balance the Demands of Work and Home)	127–147 (Human Resources Management)	6.4 6.4.3 6.4.4
401-3	Parental leave	143 ⑦ (Use of the Childcare Leave and Leave to Assist with Parenting Programs)	127–147 (Human Resources Management)	6.4 6.4.3

GRI 402: Labor/Management Relations 2016			
402-1	Minimum notice periods regarding operational changes	A minimum notice period is provided as specified in labor agreements.	6.4 6.4.3 6.4.4 6.4.5
GRI 403: Occupational Health and Safety 2018			
403-1	Occupational health and safety management system	78–79 (ESH), 82 (Occupational Safety and Health)	6.4 6.4.6
403-2	Hazard identification, risk assessment, and incident investigation	83–84 (Principal Initiatives in Fiscal Year 2021), 87 (Disaster Prevention)	6.4 6.4.6
403-3	Occupational health services	146 (3. Corporate Health Management)	6.4 6.4.6 6.8 6.8.3 6.8.4 6.8.8
403-4	Worker participation, consultation, and communication on occupational health and safety	79–80 (Occupational Safety and Health)	6.4 6.4.6
403-5	Worker training on occupational health and safety	84–87 (Occupational Safety and Health), 88 (Disaster Prevention)	6.4 6.4.6
403-6	Promotion of worker health	145–147 (3. Corporate Health Management)	6.4 6.4.6
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	84–87 (Occupational Safety and Health), 88 (Disaster Prevention)	6.4 6.4.6
403-8	Workers covered by an occupational health and safety management system	78–79 (ESH), 82 (Occupational Safety and Health)	6.4 6.4.6
403-9	Worker-related injuries	110 (Key Data)	6.4 6.4.6
403-10	Work-related ill health	110 (Key Data)	6.4 6.4.6
GRI 404: Training and Education 2016			
404-1	Average hours of training per year per employee	—	127–147 (Human Resources Management)
404-2	Programs for upgrading employee skills and transition assistance programs	127–147 (Human Resources Management), 138 (4. Reemployment after Retirement and Support for Retirement Planning)	6.4 6.4.7 6.8.5
404-3	Percentage of employees receiving regular performance and career development reviews	—	132–133 (3. Framework Creation: Personnel System, Global Human Resources System and Work Style Reform)
GRI 405: Diversity and Equal Opportunity 2016			
405-1	Diversity of governance bodies and employees	134 ((2) Executives) 53–57 of the Annual Securities Report 129 (3. Basic Personnel Statistics (DIC))	6.3.7 6.3.10 6.4 6.4.3
405-2	Ratio of basic salary and remuneration of women to men	—	6.3.7 6.3.10 6.4 6.4.3 6.4.4
GRI 406: Non-Discrimination 2016			
406-1	Incidents of discrimination and corrective actions taken	—	71–72 (Compliance), (Establishing and Operating a Whistle-Blowing System)
GRI 407: Freedom of Association and Collective Bargaining 2016			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	—	141 (Building Trust with the DIC Employees' Union)
GRI 408: Child Labor 2016			
408-1	Operations and suppliers at significant risk for incidents of child labor	149 (Sustainable Procurement)	6.3 6.3.3 6.3.4 6.3.5 6.3.7 6.3.10
GRI 409: Forced or Compulsory Labor 2016			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	149 (Sustainable Procurement)	6.3 6.3.3 6.3.4 6.3.5 6.3.7 6.3.10
GRI 410: Security Practices 2016			
410-1	Security personnel trained in human rights policies or procedures	—	6.3 6.3.5 6.4.3 6.6.6
GRI 411: Rights of Indigenous Peoples			
411-1	Incidents of violations involving rights of indigenous peoples	—	NA 6.3 6.3.6 6.3.7 6.3.8 6.6.7

GRI 412: Human Rights Assessment 2016				
412-1	Operations that have been subject to human rights reviews or impact assessments	141 (2. Respect for Human Rights)		6.3 6.3.3 6.3.4 6.3.5
412-2	Employee training on human rights policies or procedures	141 (2. Respect for Human Rights)		6.3 6.3.5
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—		6.3 6.3.3 6.3.5 6.6.6
GRI 413: Local Communities 2016				
413-1	Operations with local community engagement, impact assessments, and development programs	164 (Ties with Society)	162–166 (Communication with Stakeholders)	6.3.9 6.6.7 6.8 6.8.5 6.8.7
413-2	Operations with significant actual and potential negative impacts on local communities	—		6.3.9 6.5.3 6.5.6 6.8.9
GRI 414: Supplier Social Assessment 2016				
414-1	New suppliers that were screened using social criteria		148–150 (Sustainable Procurement)	—
414-2	Negative social impacts in the supply chain and actions taken		148–150 (Sustainable Procurement)	—
GRI 415: Public Policy 2016				
415-1	Political contributions	164 (Monetary Contributions)		
GRI 416: Customer Health and Safety				
416-1	Assessment of the health and safety impacts of product and service categories	124–126 (Quality)		6.3.9 6.6.6 6.7 6.7.4 6.7.5
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	126 (Quality)		6.3.9 6.6.6 6.7 6.7.4 6.7.5
GRI 417: Marketing and Labeling 2016				
417-1	Requirements for product and service information and labeling	100 (Safety Management in Logistics), 102–103, 107 (Ensuring the Safety of Chemical Substances)		6.7 6.7.3 6.7.4 6.7.5 6.7.6 6.7.9
417-2	Incidents of non-compliance concerning product and service information and labeling	NA		6.7 6.7.3 6.7.4 6.7.5 6.7.6 6.7.9
417-3	Incidents of non-compliance concerning marketing communications	NA		6.7 6.7.3 6.7.6 6.7.9
GRI 418: Customer Privacy 2016				
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	NA		6.7 6.7.7
GRI 419: Socioeconomic Compliance 2016				
419-1	Non-compliance with laws and regulations in the social and economic area	71–72 (Compliance), 104–105 (Complying with Laws and Regulations)		6.6 6.6.3 6.6.7 6.8.7

Financial Report for Fiscal Year 2021

Analysis of Results of Operations

Overview of Operating Results

(Billions of yen)

	FY2020	FY2021	Change (%)	Change (%) [Local currency basis]
Net sales	701.2	855.4	22.0%	18.2%
Operating income	39.7	42.9	8.1%	7.1%
Ordinary income	36.5	43.8	20.0%	—
Net income attributable to owners of the parent	13.2	4.4	-67.0%	—
EBITDA*	55.6	69.0	24.1%	—
¥/US\$1.00 (Average rate)	106.37	109.75	3.2%	—
¥/EUR1.00 (Average rate)	121.43	129.73	6.8%	—

* EBITDA = Net income attributable to owners of the parent + Total income taxes + (Interest expenses – Interest income) + Depreciation and amortization

In the fiscal year ended December 31, 2021, consolidated net sales advanced 22.0%, to ¥855.4 billion. If the results of the C&E pigments business (formerly BASF SE's Colors & Effects business), included in the scope of consolidation since July 2021, were discounted, the increase would have been 15.3%. With progress in the drive to vaccinate people against COVID-19 and the effectiveness of vaccinations, the effect of the pandemic on economic activity eased, particularly in developed countries and territories. Against a backdrop of buoyant digital-related demand worldwide, shipments remained robust, including those of high-value-added products such as materials for use in semiconductor devices and in electrical and electronics equipment. Shipments of materials for use in daily necessities such as food packaging stayed firm, while those of pigments for cosmetics showed signs of recovering. While certain products and regions continued to feel the brunt of falling automobile production, a result of semiconductor device shortages, shipments of materials for automotive applications were steady overall.

Operating income, at ¥42.9 billion, was up 8.1%. If the impact of the C&E pigments business was excluded, the gain would have been 31.6%. This was despite the impact of elevated raw materials costs, a consequence of rising crude oil prices, among others, and higher logistics costs, attributable to supply chain stagnation, throughout the period, and was due to solid shipments in all segments, particularly of high-value-added products, and ongoing efforts to reduce the influence of escalating costs by adjusting sales prices. Nonetheless, operating income growth was hindered by flagging sales in the C&E pigments business—reflecting shipment delays attributable to the fact that it took some time to build a logistics configuration following the integration of the new business—as well as by an increase in operating costs to resolve this business' logistics-related issues, among others.

Ordinary income rose 20.0%, to ¥43.8 billion, owing to expanded equity in earnings of affiliates and foreign exchange gains.

Net income attributable to owners of the parent tumbled 67.0%, to ¥4.4 billion. The principal factor behind this steep decrease was the reversal of deferred tax assets in the United States and the recording of an equivalent amount as income taxes—deferred, as detailed in the press release titled “Notice Regarding Revision of Consolidated Operating Results Forecasts for Fiscal Year 2021 and Reversal of Deferred Tax Assets,” published on February 7, 2022.

Earnings before interest, taxes, depreciation and amortization (EBITDA) reached ¥69.0 billion, up 24.1%.

Segment Results

(Billions of yen)

	Net sales				Operating income (loss)			
	FY2020	FY2021	Change (%)	Change (%) [Local currency basis]	FY2020	FY2021	Change (%)	Change (%) [Local currency basis]
Packaging & Graphic	388.4	439.8	13.2%	9.8%	21.8	21.6	-0.7%	-0.2%
Color & Display	105.8	167.2	58.0%	51.7%	8.4	4.0	-53.2%	-49.3%
Functional Products	236.0	283.3	20.1%	17.1%	17.1	26.2	53.2%	49.4%
Others, Corporate and eliminations	(29.0)	(34.9)	—	—	(7.6)	(8.9)	—	—
Total	701.2	855.4	22.0%	18.2%	39.7	42.9	8.1%	7.1%

Packaging & Graphic

	FY2020	FY2021	Change (%)	Change (%) [Local currency basis]
Net sales	¥388.4 billion	¥439.8 billion	13.2%	9.8%
Operating income	¥21.8 billion	¥21.6 billion	-0.7%	-0.2%

Segment sales rose 13.2%, to ¥439.8 billion. In materials for food packaging, sales of packaging inks were bolstered by the continued expansion of shipments in the Americas and Europe, and signs of a recovery in demand in Japan. Sales of publication inks, which center on inks for commercial printing and news inks were also up—despite a decline in demand for the former in Japan, notably for printing pamphlets and event-related printed materials—thanks to higher sales in Asia, bolstered by persistently robust market conditions, and in the Americas and Europe, backed by firm demand. Sales of jet inks for digital printing increased sharply, buttressed by brisk sales throughout the year for industrial applications, including outdoor signage (billboards and posters) and banners, and for commercial printing, as well as by the positive impact of the June 2020 acquisition of a business engaged in the production of jet inks for digital printing on textiles.

Segment operating income edged down 0.7%, to ¥21.6 billion. Notwithstanding ongoing efforts to counter the heightened influence of escalating raw materials costs—a result of rising raw materials prices—worldwide, operating income was down in Japan and Asia, as a consequence of which the overall result remained essentially level with the previous fiscal year.

Color & Display

	FY2020	FY2021	Change (%)	Change (%) [Local currency basis]
Net sales	¥105.8 billion	¥167.2 billion	58.0%	51.7%
Operating income	¥8.4 billion	¥4.0 billion	-53.2%	-49.3%

Segment sales climbed 58.0%, to ¥167.2 billion. If the impact of the C&E pigments business was excluded, the increase would have been 13.9%. Among existing businesses, sales of color materials rose, as shipments of pigments for cosmetics continued showing signs of recovering. In display materials, sales of pigments for color filters were up, with shipments remaining high, supported by steady demand for use in liquid crystal displays (LCDs), although sales of thin-film transistor liquid crystals (TFT LCs) decreased, owing to intensified competition with manufacturers in the People's Republic of China (PRC). In pigments for specialty applications, sales of effect pigments remained on an uptrend, bolstered by higher demand in Europe for autoclaved aerated concrete for construction-related applications. In addition to amplified results in these existing businesses, segment sales were boosted by the inclusion of the results of the C&E pigments business. Sales in the C&E pigments business flagged, reflecting shipment delays attributable to a tight supply–demand situation in the area of maritime shipping arising from a global container shortage, as well as to the fact that it took some time to build a logistics configuration following the integration of this new business.

Segment operating income fell 53.2%, to ¥4.0 billion. If the impact of the C&E pigments business was disregarded, this would have been a gain of 56.8%. Despite a recovery in shipments of pigments for cosmetics and persistently firm shipments of high-value-added products such as pigments for color filters and effect pigments, numerous factors, including sluggish sales in the C&E pigments business, an increase in operating costs to resolve this business' logistics-related issues and one-time costs associated with the integration of this business, combined to push operating income down.

Functional Products

	FY2020	FY2021	Change (%)	Change (%) [Local currency basis]
Net sales	¥236.0 billion	¥283.3 billion	20.1%	17.1%
Operating income	¥17.1 billion	¥26.2 billion	53.2%	49.4%

Segment sales advanced 20.1%, to ¥283.3 billion. Shipments of epoxy resins, the principal application for which is semiconductor devices, were brisk overall for use as sealing materials in electronics equipment. Shipments of industrial-use tapes, used primarily in smartphones and other mobile devices, were firm. Sales of all environment-friendly resins* increased, led by robust shipments of products for a wide range of applications, including electrical and electronics equipment, and building materials, although shipments of certain materials for use in automobiles in Asia flagged. Sales of polyphenylene sulfide (PPS) compounds—uses for which continue to multiply, underpinned by the trend toward lighter and more electrified vehicles—were up in all regions, as orders remained solid, particularly in Japan, although concerns remained over the impact of a shortage of semiconductor devices in the automobile industry.

Segment operating income leapt 53.2%, to ¥26.2 billion. This sharp gain was despite elevated raw materials costs and reflected continued brisk shipments of epoxy resins and other high-value-added products and efforts to adjust sales prices.

* DIC uses the term "environment-friendly resins" to describe strategic resins designed to improve both environmental performance and functionality. These include waterborne, ultraviolet (UV)-curable, polyester, acrylic and polyurethane resins.

Consolidated Financial Statements

Consolidated Balance Sheet As of December 31, 2020 and 2021

(Millions of yen)

	2020	2021
Assets		
Current assets		
Cash and deposits	44,885	38,253
Notes and accounts receivable-trade	197,595	237,916
Merchandise and finished goods	78,273	132,773
Work in process	9,065	9,651
Raw materials and supplies	55,058	91,199
Other	24,294	36,282
Allowance for doubtful accounts	(9,171)	(3,959)
Total current assets	399,997	542,114
Non-current assets		
Property, plant and equipment		
Buildings and structures	262,318	288,987
Accumulated depreciation	(175,432)	(185,949)
Buildings and structures, net	86,885	103,039
Machinery, equipment and vehicles	404,451	461,394
Accumulated depreciation	(337,065)	(351,875)
Machinery, equipment and vehicles, net	67,386	109,519
Tools, furniture and fixtures	65,312	74,041
Accumulated depreciation	(54,844)	(59,111)
Tools, furniture and fixtures, net	10,468	14,930
Land	51,362	64,219
Construction in progress	11,977	15,978
Total property, plant and equipment	228,078	307,684
Intangible assets		
Goodwill	819	20,182
Software	2,963	4,002
Customer-related assets	2,853	3,107
Other	4,877	25,022
Total intangible assets	11,512	52,313
Investments and other assets		
Investment securities	57,201	59,289
Deferred tax assets	32,407	17,320
Net defined benefit asset	63,784	69,715
Other	25,705	23,201
Allowance for doubtful accounts	(734)	(156)
Total investments and other assets	178,363	169,370
Total non-current assets	417,953	529,367
Total assets	817,950	1,071,481

	2020	2021
Liabilities		
Current liabilities		
Notes and accounts payable-trade	95,263	145,816
Short-term loans payable	10,275	10,437
Current portion of long-term loans payable	27,096	37,131
Current portion of bonds payable	—	20,000
Lease obligations	1,061	1,092
Income taxes payable	4,985	5,640
Provision for bonuses	5,480	6,125
Other	53,022	79,334
Total current liabilities	197,181	305,575
Non-current liabilities		
Bonds payable	100,000	140,000
Long-term loans payable	123,766	171,443
Lease obligations	4,543	4,112
Deferred tax liabilities	12,525	10,725
Net defined benefit liability	17,071	35,989
Asset retirement obligations	1,691	7,689
Other	9,809	14,940
Total non-current liabilities	269,405	384,897
Total liabilities	466,586	690,473
Net Assets		
Shareholders' equity		
Capital stock	96,557	96,557
Capital surplus	94,468	94,468
Retained earnings	219,778	214,665
Treasury shares	(1,800)	(1,780)
Total shareholders' equity	409,003	403,910
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	2,903	5,449
Deferred gains or losses on hedges	2,468	92
Foreign currency translation adjustment	(82,321)	(55,456)
Remeasurements of defined benefit plans	(13,562)	(8,067)
Total accumulated other comprehensive income	(90,511)	(57,983)
Non-controlling interests	32,873	35,081
Total net assets	351,364	381,008
Total liabilities and net assets	817,950	1,071,481

Consolidated Statement of Income Years ended December 31, 2020 and 2021

(Millions of yen)

	2020	2021
Net sales	701,223	855,379
Cost of sales	544,430	678,061
Gross profit	156,793	177,318
Selling, general and administrative expenses		
Freightage and packing expenses	12,914	15,870
Employees' salaries and allowances	42,776	48,950
Provision of allowance for doubtful accounts	866	287
Provision for bonuses	2,242	2,431
Retirement benefit expenses	(257)	(552)
Research and development costs	12,029	13,503
Other	46,560	53,935
Total selling, general and administrative expenses	117,130	134,425
Operating income	39,663	42,893
Non-operating income		
Interest income	1,263	1,223
Dividends income	416	401
Foreign exchange gains	—	250
Equity in earnings of affiliates	771	2,943
Other	2,066	2,017
Total non-operating income	4,516	6,835
Non-operating expenses		
Interest expenses	2,225	2,176
Foreign exchange losses	1,384	—
Other	4,117	3,794
Total non-operating expenses	7,726	5,970
Ordinary income	36,452	43,758
Extraordinary income		
Gain on sales of subsidiaries' and affiliates' securities	—	769
Gain on sales of non-current assets	5,226	482
Gain on bargain purchase	1,295	—
Insurance income	531	—
Total extraordinary income	7,052	1,251
Extraordinary losses		
Acquisition-related expenses	4,563	6,911
Loss on disposal of non-current assets	2,903	3,139
Impairment losses	1,251	1,563
Severance costs	924	522
Loss on disaster	—	463
Provision for environmental measures	—	300
Loss on business liquidation	8,762	—
Total extraordinary losses	18,403	12,897
Income before income taxes and non-controlling interests	25,102	32,112
Income taxes—current	10,336	13,609
Income taxes—deferred	(1,651)	12,041
Total income taxes	8,685	25,650
Net income	16,417	6,462
Net income attributable to non-controlling interests	3,184	2,097
Net income attributable to owners of the parent	13,233	4,365

Consolidated Statement of Comprehensive Income Years ended December 31, 2020 and 2021

(Millions of yen)

	2020	2021
Net income	16,417	6,462
Other comprehensive income		
Valuation difference on available-for-sale securities	1,175	2,549
Deferred gains or losses on hedges	1,785	(2,376)
Foreign currency translation adjustment	(9,827)	27,010
Remeasurements of defined benefit plans, net of tax	10,689	5,616
Share of other comprehensive income of associates accounted for using equity method	158	1,334
Total other comprehensive income	3,980	34,134
Comprehensive income	20,396	40,596
Comprehensive income attributable to		
Comprehensive income attributable to owners of the parent	17,368	36,894
Comprehensive income attributable to non-controlling interests	3,028	3,702

Consolidated Statement of Changes in Net Assets Years ended December 31, 2020 and 2021

Fiscal year ended December 31, 2020

(Millions of yen)

	Shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at January 1, 2020	96,557	94,456	218,209	(1,823)	407,398
Change in FY2020					
Dividends from surplus			(8,531)		(8,531)
Net income attributable to owners of the parent			13,233		13,233
Purchase of treasury shares				(5)	(5)
Disposal of treasury shares				28	28
Change of scope of equity method			(3,133)		(3,133)
Change in ownership interest of parent due to transactions with non-controlling interests		12			12
Net changes of items other than shareholders' equity					
Total change in FY2020	—	12	1,569	23	1,605
Balance at December 31, 2020	96,557	94,468	219,778	(1,800)	409,003

(Millions of yen)

	Accumulated other comprehensive income					Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income		
Balance at January 1, 2020	1,676	683	(72,671)	(24,346)	(94,658)	30,757	343,497
Change in FY2020							
Dividends from surplus							(8,531)
Net income attributable to owners of the parent							13,233
Purchase of treasury shares							(5)
Disposal of treasury shares							28
Change of scope of equity method							(3,133)
Change in ownership interest of parent due to transactions with non-controlling interests							12
Net changes of items other than shareholders' equity	1,227	1,785	(9,650)	10,784	4,147	2,116	6,262
Total change in FY2020	1,227	1,785	(9,650)	10,784	4,147	2,116	7,868
Balance at December 31, 2020	2,903	2,468	(82,321)	(13,562)	(90,511)	32,873	351,364

Fiscal year ended December 31, 2021

(Millions of yen)


	Shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at January 1, 2021	96,557	94,468	219,778	(1,800)	409,003
Change in FY2021					
Dividends from surplus			(9,479)		(9,479)
Net income attributable to owners of the parent			4,365		4,365
Purchase of treasury shares				(9)	(9)
Disposal of treasury shares				29	29
Net changes of items other than shareholders' equity					
Total change in FY2021	—	—	(5,114)	20	(5,094)
Balance at December 31, 2021	96,557	94,468	214,665	(1,780)	403,910

(Millions of yen)

	Accumulated other comprehensive income					Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income		
Balance at January 1, 2021	2,903	2,468	(82,321)	(13,562)	(90,511)	32,873	351,364
Change in FY2021							
Dividends from surplus							(9,479)
Net income attributable to owners of the parent							4,365
Purchase of treasury shares							(9)
Disposal of treasury shares							29
Net changes of items other than shareholders' equity	2,546	(2,377)	26,865	5,494	32,528	2,208	34,736
Total change in FY2021	2,546	(2,377)	26,865	5,494	32,528	2,208	29,643
Balance at December 31, 2021	5,449	92	(55,456)	(8,067)	(57,983)	35,081	381,008

	2020	2021
Net cash provided by (used in) operating activities		
Income before income taxes and non-controlling interests	25,102	32,112
Depreciation and amortization	32,581	37,394
Amortization of goodwill	143	656
Loss (gain) on bargain purchase	(1,295)	—
Increase (decrease) in allowance for doubtful accounts	(548)	(1,386)
Increase (decrease) in provision for bonuses	(124)	632
Interest and dividends income	(1,679)	(1,624)
Equity in (earnings) losses of affiliates	(771)	(2,943)
Interest expenses	2,225	2,176
Loss (gain) on sales and retirement of non-current assets	(2,324)	2,657
Impairment losses	1,251	1,563
Loss on business liquidation	8,762	—
Loss (gain) on sales of subsidiaries' and affiliates' securities	—	(769)
Decrease (increase) in notes and accounts receivable—trade	10,781	(15,963)
Decrease (increase) in inventories	10,158	(34,348)
Increase (decrease) in notes and accounts payable—trade	(12,453)	34,261
Other, net	(10,847)	2,676
Subtotal	60,963	57,093
Interest and dividends income received	3,249	3,358
Interest expenses paid	(2,385)	(1,963)
Income taxes paid	(7,366)	(13,676)
Net cash provided by (used in) operating activities	54,462	44,812
Net cash provided by (used in) investing activities		
Payments into time deposits	(8,024)	(402)
Proceeds from withdrawal of time deposits	4,589	3,433
Purchase of property, plant and equipment	(32,719)	(35,935)
Proceeds from sales of property, plant and equipment	5,895	909
Purchase of intangible assets	(1,280)	(2,706)
Purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	(2,817)	(124,095)
Proceeds from sales of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	890	—
Payments for sales of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	(16)	—
Proceeds from sales of subsidiaries' and affiliates' securities	226	11,618
Purchase of investment securities	(51)	(142)
Proceeds from sales and redemption of investment securities	352	1,589
Proceeds from sales of businesses	—	95
Payments for transfer of businesses	(78)	—
Other, net	(3)	(1,975)
Net cash provided by (used in) investing activities	(33,037)	(147,612)
Net cash provided by (used in) financing activities		
Net increase (decrease) in short-term loans payable	(8,866)	(650)
Proceeds from long-term loans payable	42,105	89,070
Repayment of long-term loans payable	(35,325)	(36,277)
Proceeds from issuance of bonds	20,000	60,000
Cash dividends paid	(8,531)	(9,479)
Cash dividends paid to non-controlling interests	(782)	(1,475)
Net decrease (increase) in treasury shares	23	20
Purchase of shares and investments in capital of subsidiaries not resulting in change in scope of consolidation	(114)	—
Other, net	(2,173)	(1,660)
Net cash provided by (used in) financing activities	6,338	99,549
Effect of exchange rate change on cash and cash equivalents	(3,100)	(531)
Net increase (decrease) in cash and cash equivalents	24,663	(3,782)
Cash and cash equivalents at beginning of the period	16,690	41,354
Cash and cash equivalents at end of the period	41,354	37,572

Third-Party Verification



10 May 2022
Opinion No:SGS22/007

Verification Opinion

Mr. Kaoru Ino
Representative Director, President and CEO
DIC Corporation

Objective
SGS Japan Inc. (hereinafter referred to as "SGS") was commissioned by DIC Corporation (hereinafter referred to as "the Organization") to conduct independent verification based on Criteria of Verification (ISO14064-3: 2019 and the SGS verification protocol) regarding the data prepared by the Organization on the scope of verification (hereinafter referred to as "the statement"). The objective of this verification is to confirm that the statement in the Organization's applicable scope has been correctly calculated and reported in the statement in conformance with the criteria, and to express our views as a third party. The organization is responsible for the preparation and fair presentation of the statement.

Scope
The scope of verification is Scope1 and 2 emissions, energy consumption, and Scope3 emissions, amount of water, waste amount, the data of occupational injuries, the data of process accidents and the data of female managers. The period subject to report is from 1 January 2021 to 31 December 2021.
Refer to the attached sheet for the detailed scope of verification.

Procedure of Verification
The statement was verified in accordance with Criteria of Verification, and the following processes were implemented at a limited level of assurance:



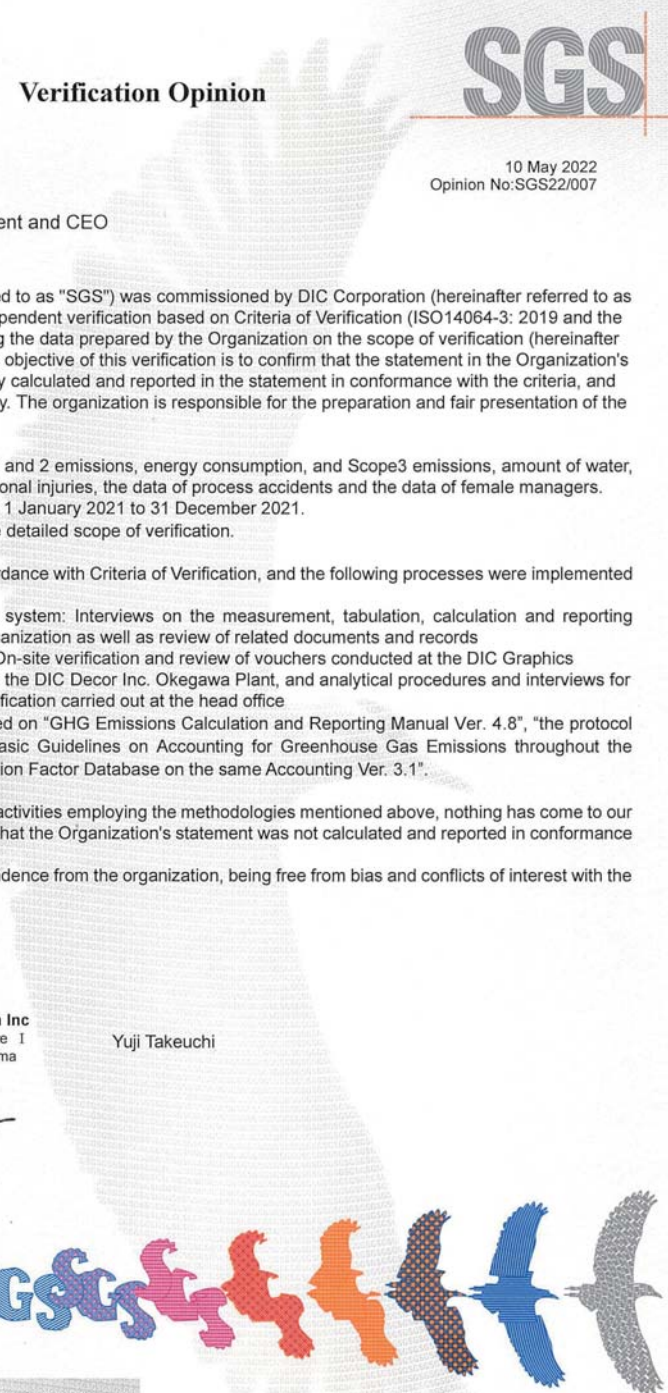
- Verification of the calculation system: Interviews on the measurement, tabulation, calculation and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the statement: On-site verification and review of vouchers conducted at the DIC Graphics Corporation Gunma Plant and the DIC Decor Inc. Okegawa Plant, and analytical procedures and interviews for other sites in the scope of verification carried out at the head office

The criteria for this review are based on "GHG Emissions Calculation and Reporting Manual Ver. 4.8", "the protocol specified by the Organization", "Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain, Ver. 2.3" and "Emission Factor Database on the same Accounting Ver. 3.1".

Conclusion
Within the scope of the verification activities employing the methodologies mentioned above, nothing has come to our attention that caused us to believe that the Organization's statement was not calculated and reported in conformance with the criteria.
SGS Japan Inc. affirms our independence from the organization, being free from bias and conflicts of interest with the Organization.

For and on behalf of SGS Japan Inc
Yokohama business Park North Square I
134, Good-cho, Hodogaya-ku, Yokohama
Senior Executive & Director
Knowledge

Yuji Takeuchi



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The DIC Group commissioned SGS Japan Inc. to conduct third-party verification of its data for greenhouse gas emissions, discharge of industrial waste and number of occupational accidents (including number of accidents leading to workdays lost).

Third-Party Verification



attached sheet

10 May 2022
Opinion No:SGS22/007

The details of the scope of verification

The scope	The boundary	The statement
1	The performance data Scope1 and 2 include energy related greenhouse gas emissions. Energy consumption	The DIC Group *The consolidated subsidiaries in the securities report
	The performance data Scope 1 (non-energy related CO2)	Scope1: 248,378t-CO2 Scope2: 296,982t-CO2
	DIC Corporation and Japanese consolidated companies Production and laboratory sites (12 companies, 33 sites)	Scope1: 24,487t-CO2
2	Scope 3 (Category5)	The DIC Group *The consolidated subsidiaries in the securities report Excluding non-production and non- laboratory sites in Japanese consolidated companies
		50,707 t-CO2
3	Amount of hazardous waste *including valuables	DIC Corporation and Japanese consolidated companies Production and laboratory sites (12 companies, 33 sites)
		Generation amount:7,660 t Emission amount from facilities: 6,136 t Recycled amount: 2,522 t Energy recovery incineration amount: 4,212 t Simple incineration amount: 898 t landfill amount: 28 t
	Amount of non-hazardous waste *including domestic and valuables	DIC Corporation and Japanese consolidated companies Production and laboratory sites (12 companies, 33 sites)
		Generation amount: 35,030t Emission amount from facilities: 24,406 t Recycled amount: 15,211 t Energy recovery incineration amount: 15,998t Simple incineration amount: 3,650 t landfill amount: 171 t
4	Amount of water	DIC Corporation and Japanese consolidated companies Production and laboratory sites (12 companies, 33 sites)
		Surface water: 8,922km ³ Ground water: 6,505km ³ Municipal water: 281km ³ Industrial water: 11,897km ³

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Third-Party Verification



			Other: 20km ² Total: 27,625km ²
5	The data of occupational injuries	The DIC Group *The consolidated subsidiaries in the securities report Excluding Sun Chemical Corporation and non-production and non-laboratory sites	Japan DIC Group (including DIC) Number of injuries workdays lost: 12 Number of injuries non-workdays lost: 21 Number of deaths: 0 Lost time injury rate: 1.31 Total recordable injury rate (TRIR): 3.60 China DIC Group Number of injuries workdays lost: 6 Number of injuries non-workdays lost: 2 Number of deaths: 0 Lost time injury rate: 1.45 Total recordable injury rate (TRIR): 1.94 AP DIC Group Number of injuries workdays lost: 7 Number of injuries non-workdays lost: 1 Number of deaths: 0 Lost time injury rate: 0.79 Total recordable injury rate (TRIR): 0.90
6	The data of process accidents	DIC Corporation and Japanese consolidated companies Production and laboratory sites (12 companies, 33 sites)	Number of accidents: 7 Rate to process accidents: 0.128
7	The number and rate of female managers	DIC Corporation 1 January 2022	Number: 61 Rate: 6.3%

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Counselor,
The Japan Research Institute, Limited
Eiichiro Adachi

In his current capacity, Eiichiro Adachi is responsible for research and policy proposals related to sustainable finance. A member of the Market Evolution and Corporations in the 21st Century working group organized by the Keizai Doyukai (Japan Association of Corporate Executives), Mr. Adachi was involved in the preparation of The 15th Corporate White Paper on "Market Evolution" and CSR Management: Toward Building Integrity and Creating Shareholder Value." From March 2005 to May 2009, he also served as a national expert within the Japanese delegation to the ISO 26000 working group. In March 2019, he was appointed a national expert within the Japanese delegation to the ISO/TC322, the International Organization for Standardization's technical committee for sustainable finance. Since January 2021, he has also been a member of the Financial Services Agency's Expert Panel on Sustainable Finance. Mr. Adachi is also known as the author of several books, including *Environmental Management: A Beginners' Guide*, *ESG Handbook for Investors and Businesses* and *The Business Person's Guide to the SDGs* (published in Japanese).

This third-party opinion reflects my view of the sustainability initiatives and related disclosure of DIC and its consolidated subsidiaries in Japan and overseas, as understood from reading this report. It is not intended as a comment on whether or not the information herein has been measured and calculated accurately to conform with commonly accepted standards for the preparation of environmental or other reports or as a judgment on whether the report covers relevant important matters in full.

Once again this year, I had the honor of reviewing the DIC Report. My attention was particularly drawn to the redefinition of the well-established "Color & Comfort by Chemistry" vision statement to embrace the provision of value beyond the realm of "chemistry" to improve the human condition and the global environment, for a brighter future. I also found the fact that DIC Vision 2030 comes right out and declares that DIC aims to establish a business portfolio that does not depend solely on its inks business. It is not common in general for the messages of Japanese companies to say the company is going to *not* do something! This certainly left no doubts regarding DIC's resolve to expand its presence in growth markets and create new businesses.

With environmental and social degradation increasingly apparent, and constraints on economic activity impossible to ignore, the dilemmas facing corporate management today are many. In its description of the DIC Sustainability Index, the Company states that "modern life presents a number of complex dilemmas." For companies with products in "hard to abate" sectors, steering management toward carbon neutrality while at the same time securing earning power and financial soundness is certainly one of these dilemmas.

I believe that what stakeholders, including investment firms and investors, want to know is whether DIC has both the will and the strategies necessary to overcome this dilemma. This is where the "integrated" in "Integrated Report" comes from. In the past, the typical environmental report, CSR report and sustainability report has been an omnibus of data comparing the result of various initiatives with various norms and stakeholder expectations. A number of wide-reaching global changes have forced a rethink of this approach.

First, sustainability challenges and ESG-related issues are intertwined and increasingly threaten people's livelihoods, if not their lives. In February 2022, the United Nations Development Programme (UNDP) released a special report titled *New threats to human security in the Anthropocene: Demanding greater solidarity*, which estimates that the number of people around the world forced to migrate in 2020 because of threats to their safety from weather-related disasters was approximately 30 million. It is becoming more and more difficult to perceive the "environmental" and "social" components of ESG as independent concepts. In a world in which human security is so easily threatened, the onus is on companies to determine what they can do and what they should not do and to communicate this unambiguously.

The second issue encouraging companies to reassess the omnibus approach is the rapid systematization of sustainability-related disclosure. The IFRS Foundation recently established the International Sustainability Standards Board (ISSB), which is expected to develop a comprehensive global baseline of sustainability- and climate-related disclosure standards later in 2022. In line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), the Tokyo Stock Exchange has requested that Prime Market-listed companies disclose climate-related business risks in accordance with international frameworks, broadening the scope of disclosure. Heading into fiscal year 2023, the Financial System Council's Working Group on Corporate Disclosure will add a new section for sustainability information to annual securities reports and require that all companies include information on governance and risk management, while leaving the decision regarding disclosure of strategies and metrics/targets up to the individual companies.

It is thus conceivable that from 2023 the content and organization of the DIC Report will need to be revised significantly. In other words, it might be worth considering transferring information on individual initiatives to a separate data book and focusing the DIC Report on materiality initiatives, risks and opportunities, and value creation. This is just an idea, but one I hope that the Company will take into consideration.

(Contact)

DIC Corporation

Corporate Communications Dept.
Sustainability Dept.

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