

DIC REPORT 2021

The DIC Group Integrated Report

Color & Comfort

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

Color & Comfort by Chemistry

We improve the human condition by safely bringing color and comfort into people's lives.*

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.*

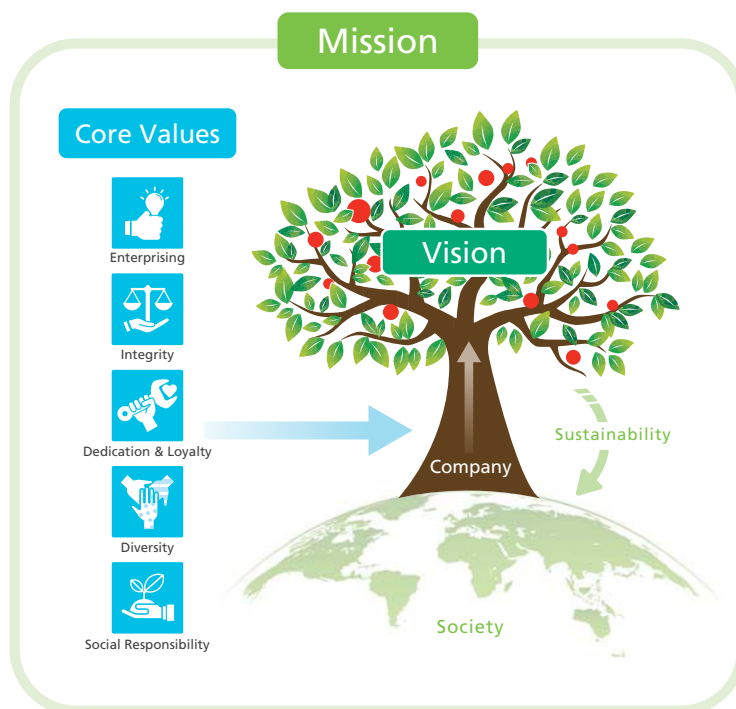
Integrity: Be honest, forthright, and ethical in all dealings with customers, suppliers, and coworkers.*

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 protects the environment.*

*Annotation



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_2021.pdf

Reporting Period

Fiscal year 2020 (January 1–December 31, 2020)

Date of Publication

June 2021 (The next report is scheduled for publication in June 2022.)

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 derives its inspiration from the DIC Group's "Color & Comfort" brand slogan, employing bright colors that evoke the efforts of the Group, a global powerhouse, to enrich and add vibrancy to society and the lives of people everywhere.

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:	20,242 (Nonconsolidated: 3,360)
Number of subsidiaries and affiliates:	173 (Domestic: 29) (Overseas: 144)

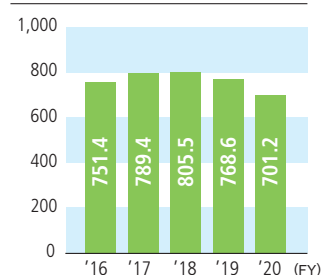


Corporate headquarters (Tokyo)

Note: Corporate data is as of December 31, 2020. Net sales and operating income are for fiscal year 2020.

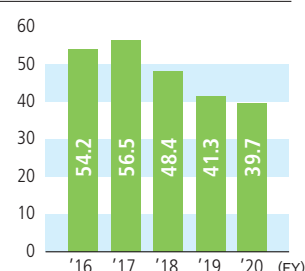
Net Sales

(Billions of yen)



Operating Income

(Billions of yen)

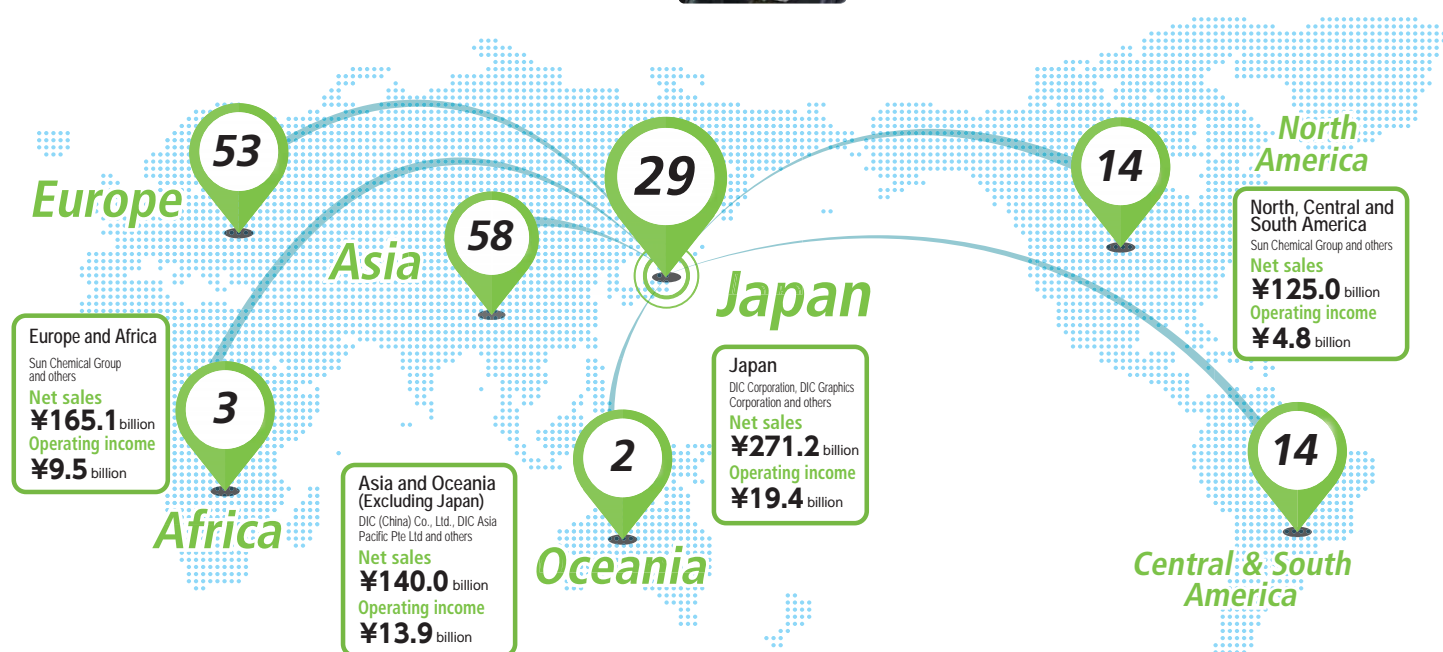


Global Network

DIC has 173 companies in 62 countries and territories around the world.



Sun Chemical Corporation headquarters (United States)

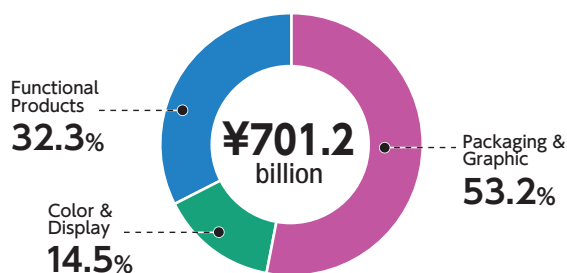


DIC (China) Co., Ltd. (PRC)



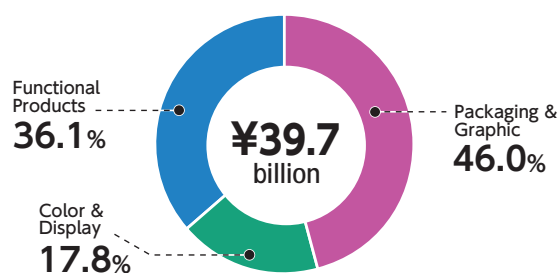
DIC Asia Pacific Pte Ltd (Singapore)

Breakdown of Fiscal Year 2020 Net Sales by Segment

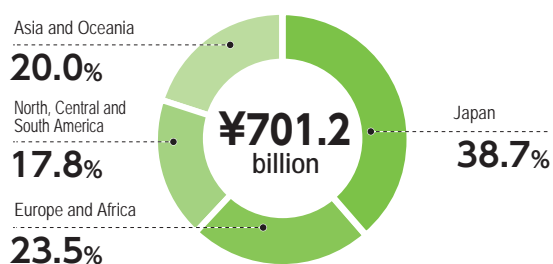


Note: Fiscal year 2020 net sales and operating income as used here include intersegment transactions. For this reason, and because of the existence of transactions classified as "others," which are not attributable to reportable segments, these figures differ from reported net sales and operating income.

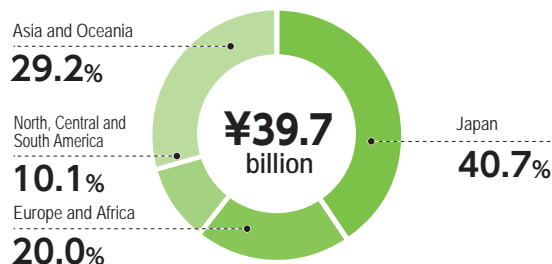
Breakdown of Fiscal Year 2020 Operating Income by Segment



Breakdown of Fiscal Year 2020 Net Sales by Region



Breakdown of Fiscal Year 2020 Operating Income by Region



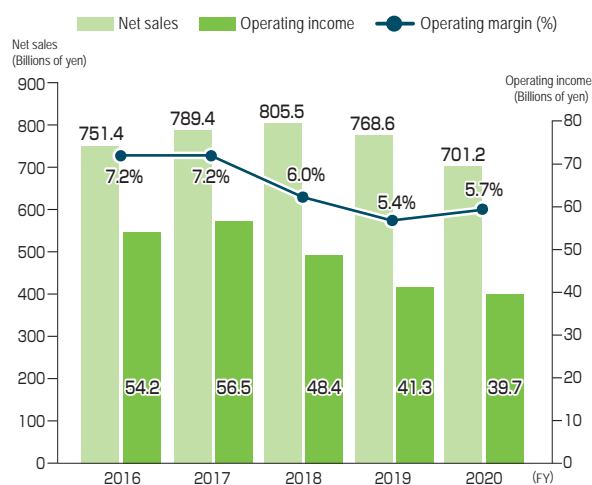
Note: Operating income as used here includes eliminations (approximately ¥7.9 billion). Accordingly, these percentages do not represent shares of reported operating income.

Principal Global R&D Sites

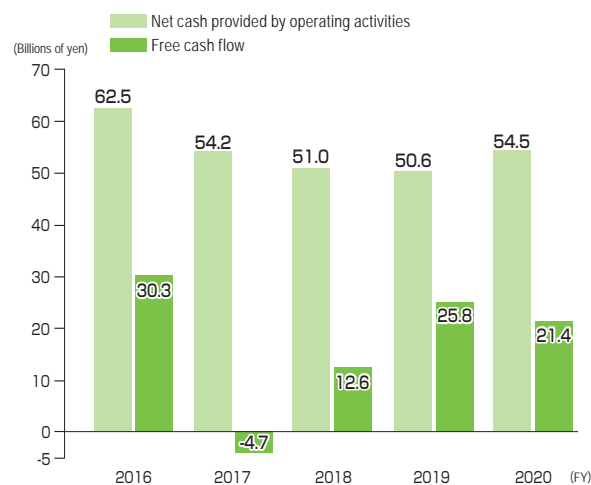


Financial Information

Net Sales, Operating Income and Operating Margin

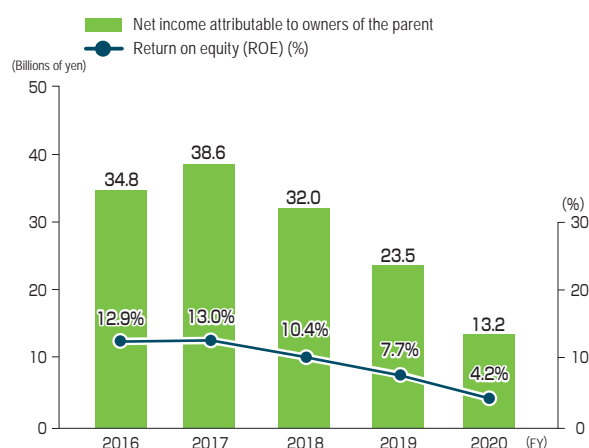


Net Cash Provided by Operating Activities and Free Cash Flow

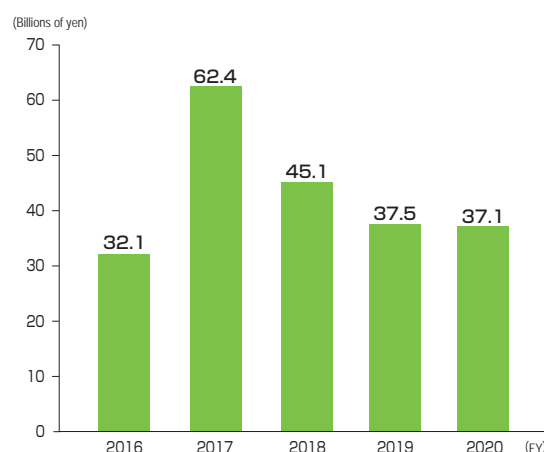


* Owing to an investment of ¥24.9 billion in TAIYO HOLDINGS CO., LTD., net cash used in investing activities increased in fiscal year 2017.

Net Income Attributable to Owners of the Parent and ROE

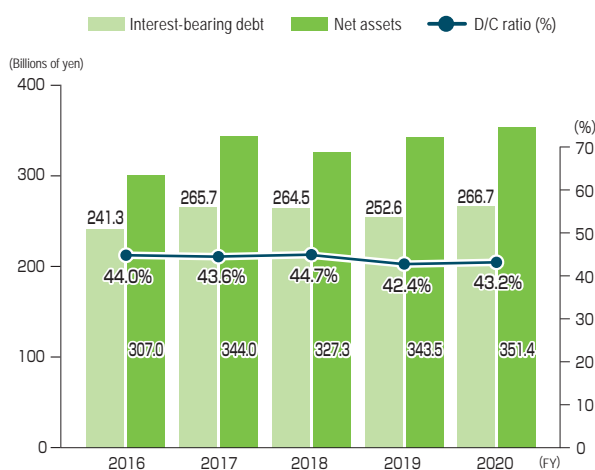


Capital Expenditure and Investment



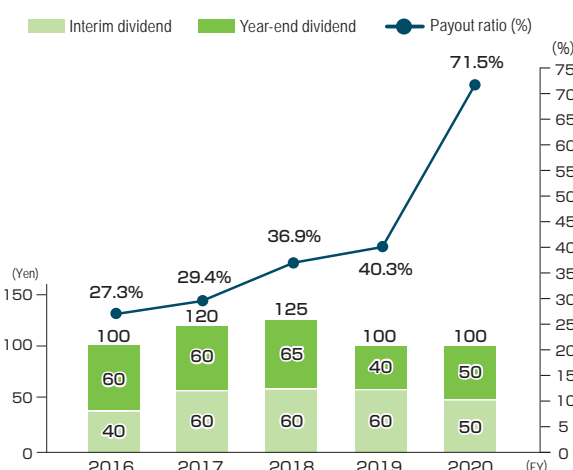
* Owing to an investment of ¥24.9 billion in TAIYO HOLDINGS CO., LTD., capital expenditure and investment increased in fiscal year 2017.

Net Assets, Interest-Bearing Debt and D/C Ratio*



* Debt-to-capital (D/C) ratio: Interest-bearing debt / (Interest-bearing debt + Net assets)

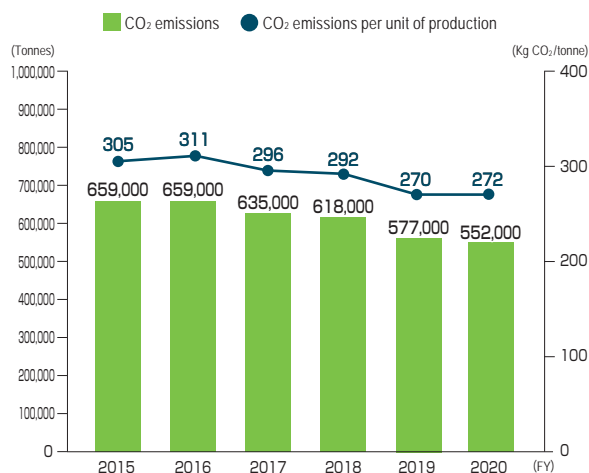
Returns to Shareholders* (Dividends per Share and Payout Ratio)



* Figures have been adjusted to reflect the impact of the consolidation of shares.

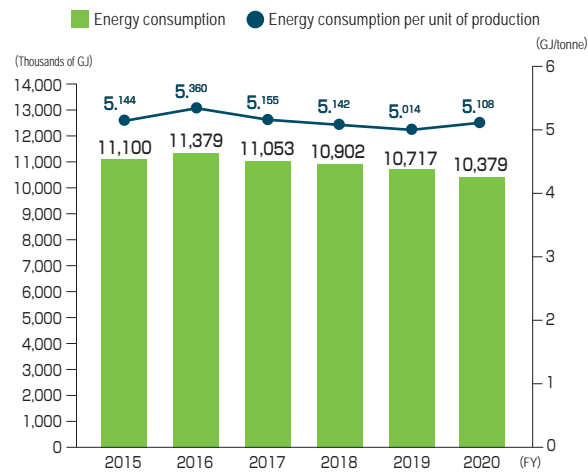
Nonfinancial Information

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



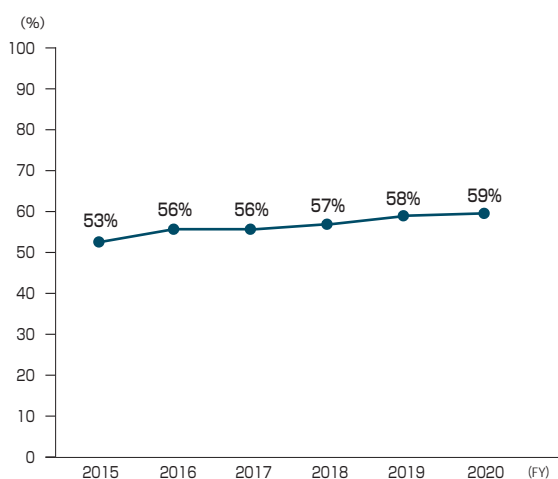
* CO₂ emissions per unit of production is calculated using adjusted production volume (parent company in Japan only). (Notification submitted to Japan's Ministry of Economy, Trade and Industry)

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

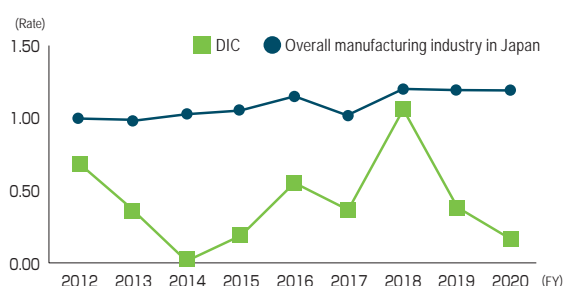


* Energy consumption per unit of production is calculated using adjusted production volume (parent company in Japan only). (Notification submitted to Japan's Ministry of Economy, Trade and Industry)

Environment-Friendly Products as a Percentage of Overall Product Portfolio (DIC Corporation and DIC Graphics Corporation)



Occupational Accident Frequency Rate (DIC Corporation)

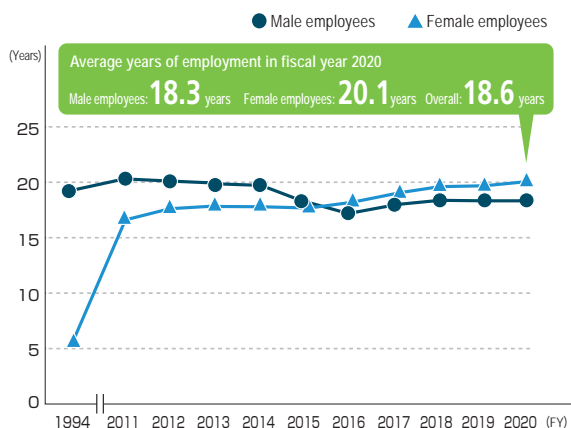


Note: The frequency rate expresses the frequency of accidents resulting in workdays lost in a fiscal year, calculated as the number of deaths or injuries per million work hours.

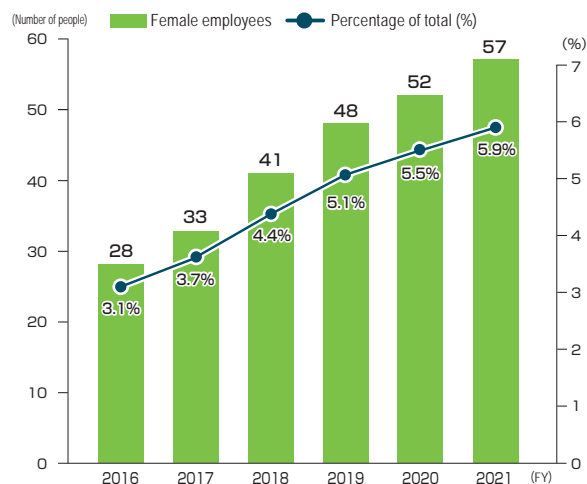
$$\text{Frequency rate} = \frac{\text{Number of deaths or injuries due to occupational accidents}}{\text{Total work hours}} \times 1,000,000$$

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)



A Message from
the President

Kaoru Ino

Representative Director
President and CEO
DIC Corporation

Future vision:
Become a unique global
company that is trusted by
society by providing value
(safety and peace of mind,
color and comfort)



“We are marshaling our capabilities to address increasingly urgent social imperatives and help realize a sustainable society.”

One of the world's leading diversified chemicals companies, DIC is also the core of the DIC Group, a multinational organization comprising 173 companies in 62 countries and territories. The DIC Group is the world's leading manufacturer of printing inks and core printing ink raw material organic pigments, as well as of polyphenylene sulfide (PPS) compounds—major engineering plastics—in terms of global market share. Against a backdrop of rapid global change, the Group continues to marshal its capabilities to promote business portfolio transformation and provide value, positioning it to respond to expectations and earn trust worldwide.

Fiscal Year 2020 in Review

With the spread of COVID-19, fiscal year 2020 forced us to contend with significant changes in society, as well as in our role as a corporate entity. Hindered by the protracted impact of the pandemic, consolidated net sales declined 8.8%, to ¥701.2 billion, while operating income slipped 4.0%, to ¥39.7 billion. Net income attributable to owners of the parent fell sharply, owing to one-time costs and the recognition of an extraordinary loss on the divestiture of a business of U.S. subsidiary Sun Chemical Corporation, both associated with our acquisition of BASF SE's Colors & Effects business. However, thanks to signs of economic recovery beginning in the fourth quarter, the Company projects higher net sales and operating income in all segments in fiscal year 2021.

The DIC Way: Addressing Social Imperatives in an Environment of Dramatic Change

The world today is under pressure to respond not only to the protracted impact of COVID-19 but also to changes in society itself. With the United Nations (UN) adoption of the Sustainable Development Goals (SDGs), related initiatives are underway by countries and regions, as well as by companies and individuals. Youth activism, in particular, is on the rise, underscored by social media-based efforts to engage young people and promote understanding. The spread of capitalism and rapid globalization have intensified wealth inequality around the world. With countries and regions, as well as corporate entities, increasingly striving to build sustainability and environmental, social and governance (ESG) considerations into their social and economic activities, new metrics for analyzing investments have been developed. This has led to the emergence of what has come to be known as ESG investing, which continues to transform the rules whereby the competitiveness of companies is judged. In Japan, Prime Minister Yoshihide Suga has declared that the country will become carbon neutral by 2050. Going green, including by implementing the green recovery plans set forth by countries around the world, and going digital, through efforts to leverage artificial intelligence (AI) and digital transformation (DX), are vital, global challenges that are directly linked to social imperatives. At the same time, both are factors that will drive the global economy in the future.

Amid both of these paradigm shifts, it is important for a company to reconsider its goals, its *raison d'être*. The DIC Way, an articulation of our management approach adopted in 2008, identifies our mission as being to contribute to sustainable development for our customers and society. Our current medium-term management plan, DIC111, which began in fiscal year 2019, outlines our future vision of becoming a unique global company that is trusted by society by focusing our management resources on businesses that deliver social value—i.e., help resolve issues facing society—and that enhance economic value.

Mission (Outlined in The DIC Way):

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

Future vision:

Become a unique global company that is trusted by society by providing value (safety and peace of mind, color and comfort)

At present, manufacturers in such areas as automobiles, renewable energy, semiconductors and food packaging must be able to offer solutions that reduce environmental impact across entire supply chains. Materials producers have a key role to play in the realization of such solutions. As a manufacturer of fine chemicals, we work to lower the environmental impact of our production processes. We also seek to provide products that underpin sustainability for our customers and for markets and in so doing to lower environmental impact at all stages of our supply chains by helping to improve the conditions in which resources are extracted and used, as well as to curb CO₂ emissions and other environmental threats while at the same time driving unceasing innovation to tackle substantive social issues.

Guided by The DIC Way, we will work to develop products and solutions that integrate DIC Group technologies to deliver the social value and enhance the economic value called for in DIC111. By further allocating this economic value to bolster management resources, we will endeavor to create a virtuous circle of growth.

Creating Value: The Road Ahead

The two basic strategies of DIC111 are Value Transformation and New Pillar Creation. In line with these strategies, we will continue working to build a business portfolio focused on environment, safety and health (ESH)-related issues and social changes.

Value Transformation calls for rallying the DIC Group's technological resources to advance qualitative reforms in existing core businesses by promoting a targeted shift toward products that provide greater value to both society and our customers, enabling us to reinforce our business structure. In the Packaging & Graphic segment, for example, our operations have traditionally centered on publication inks, but we have redirected our focus to products used in packaging for food products, including plastic films, adhesives and packaging inks, contributing to safety and peace of mind by helping to ensure food hygiene. Films used in food packaging comprise multiple layers of film laminated together with adhesives. By creating films with outstanding oxygen- and vapor-barrier properties, we help extend the shelf life of food and reduce food loss. Moreover, by improving the recyclability of printing inks and coating agents used on paper packaging for food, we provide solutions that both heighten the performance of said packaging materials and encourage their recycling. In the Functional Products segment, our lineup of products for use in electronics equipment includes epoxy resins compatible with 5G-enabled devices that impart excellent insulation and heat resistance, facilitating high-capacity, high-speed communications. These resins were developed using our proprietary technologies for epoxy resins used in semiconductors and printed wiring boards used in smartphones, personal computers and onboard equipment for automobiles, among others. We have already begun developing epoxy resins for devices compatible with the 6G cellular telecommunications standard. Value Transformation thus translates into the development of innovative products in core businesses that offer added value and help address social imperatives.

New Pillar Creation is the leveraging of DIC Group competencies to create new growth-driving businesses that respond to ESH-related issues and social changes. For example, we have traditionally emphasized the development of products based on organic materials such as organic pigments and synthetic resins. Recently, we have developed inorganic materials technologies that will assist in our efforts to help tackle social issues. Of particular note is a distinctive flake alumina filler, sales of which commenced in January 2021. Alumina fillers are used to help dissipate the heat generated inside automotive and electronics equipment. DIC's new flake alumina filler imparts particularly outstanding heat-dissipating properties, reducing the amount needed and thus the weight of components and improving performance. In the area of healthcare, we provide bioproducts such as the edible blue-green algae *Spirulina*, which we were the first company to succeed in cultivating commercially. We have also marketed phycocyanin, a vibrant blue pigment extracted from *Spirulina*, as *Linablue*, a natural blue food coloring that today is used in food products around the world. With phycocyanin's outstanding moisture-retention capacity recently also garnering attention, we recently commercialized a phycocyanin-based Food with Functional Claims (FFC)* that improves the skin's barrier function.

To underpin our Value Transformation and New Pillar Creation strategies, we recently established the DIC Sustainability Index, a proprietary index that allows us to measure the social value of our products and to assess their environmental impact across the supply chain, thereby clarifying the direction of our efforts to address social imperatives. (For more information on the DIC Sustainability Index and the progress of its deployment, please see page 54.)

* An FFC is a product that is permitted to carry statements about specific health benefits, including scientific evidence on food safety and effectiveness—for which the manufacturer takes full responsibility—on its packaging, in line with government-established rules. Notification must be submitted to Japan's Consumer Affairs Agency before an FFC is marketed.

Building a Robust Management Infrastructure

Owing to COVID-19, fiscal year 2020 brought unprecedented challenges to almost everyone. The pandemic also provided an opportunity to seriously examine social and economic activities, a process that served to illuminate a number of critical problems. Of particular importance, it became very evident that Japan lags behind other economic powers in deploying IT and DX. Companies have also faced challenges on the human resources front with the shift to remote work, namely, the dilution of interpersonal relationships and difficulties in building mutual trust, both arising from feelings of isolation. Society at large and companies in particular are working to adapt to changes wrought by this forced experiment, as well as to overcome the shortcomings it has revealed. With remote work unmistakably the "new normal" for the DIC Group, we are also taking decisive steps to build systems that boost employee productivity and motivation.

■ Human Resources Management

There is a general consensus that many employees will continue to choose telework even after the pandemic, and that systems for remote work will evolve accordingly, meaning that hybrid remote and in-person communication will become standard. This will necessitate changes in the way we approach training. With conventional on-the-job training no longer a viable option, sharpening work skills, forming relationships with colleagues and building trust will require highly effective communication skills. We are pressing ahead with various initiatives to support work style reforms and the expanded use of telework arrangements by DIC Group employees. In January 2021, we established the Data Science Center with the aim of fostering human resources with specialized capabilities in such areas as data science and materials informatics (MI),* which will greatly influence corporate competitiveness in the years ahead.



Having skilled individuals who proactively raise their hands to fill crucial roles and who aspire always to refine their capabilities will help revitalize DIC and will positively impact efforts to reform work styles and transform our business portfolio. Going forward, we will reflect new awareness gained as a result of our experiences during the COVID-19 pandemic in efforts to foster and manage human resources. In so doing, we will endeavor to organically mobilize the diverse individuals who make up our labor force to achieve a strong corporate organization.

* MI applies statistical analysis and other informatics techniques to search large amounts of data for new materials.

■ Digital Transformation

In fiscal year 2020, we established the dedicated DX Promotion Department with the objective not only of lifting operational efficiency but also transforming our businesses, and are working to incorporate DX into our production, technical, marketing and sales departments. At production facilities, we have introduced the Internet of Things (IoT) and are making use of AI technologies to create smart plants that can operate with a minimum number of staff by raising production efficiency through the automation of reaction processes and the remote control of production processes. Looking ahead, we will continue to promote digitalization at our production facilities, positioning us to respond to the demands of customers while at the same time rationalizing and increasing the efficiency of supply chains and creating a crucial new infrastructure of smart facilities that will further improve our competitiveness.

We continue to promote the development of materials by leveraging MI, making full use of unique DIC polymer design technologies and AI technologies to, among others, realize a new molecular structure for phenolic resins for semiconductor resists. We are also actively engaged in research in collaboration with external organizations. Since fiscal year 2020, we have pursued research aimed at developing the materials of the future through quantum computer-based chemical simulation, as well as participated in a consortium of companies, academic institutions and government bodies promoting research in the area of chemical materials that fuses neuroscience and AI.

We are also advancing digital marketing. With face-to-face marketing activities hindered by COVID-19, we stepped up participation in online exhibitions. In addition, we have adopted a variety of new digital tools that enable us to share sales and marketing information with customers—to date generally conducted in person—as well as to facilitate effective remote communication in-house and raise work efficiency. Owing to COVID-19, we currently have no choice but to conduct our business remotely, but I am confident that even in a post-pandemic world we will realize considerable benefits by pursuing a hybrid style of marketing that combines digital and in-person methodologies.

DX is not simply the introduction of new systems. We recognize the importance of DX as a process for fundamentally transforming our management foundation and will continue to accelerate related efforts.

■ Improved Safety and Quality

Safety, quality and environmental concerns are cornerstones of our business as a chemicals company. Drawing on the lessons of fires that have occurred at production facilities in the past, we continue to promote production under a meticulous configuration in a manner that reflects a priority on safety. In particular, we are working to raise awareness to ensure that employees are able to approach their work in a manner that reflects a commitment to ensuring safety and pride in our capabilities as a manufacturer. Of particular note, rather than one-way communications with me simply firing off instructions and leaving it at that, we hold site meetings that facilitate dialogue, allowing me to actually hear employees' voices as well as for them to hear mine. With an eye on our vision for DIC 10 years in the future, we will continue to encourage the frank and

open exchange of views with the aim of securing safety by transforming mindsets, building a safety-oriented corporate culture and boosting job satisfaction.

Quality is an equally high priority for manufacturers. In January 2021, we took corrective actions in light of improprieties that arose in relation to efforts to secure approval for a certain product, causing considerable inconvenience to customers. This involved clarifying the roles of quality assurance and quality control to create a strong, unified quality management system. Efforts to fundamentally revamp our Group quality management framework and restore the trust of stakeholders also included establishing a new quality committee chaired by the CEO, who is now directly responsible for the administration and supervision of quality management Groupwide.



■ Response to Climate Change

Having set a target for reducing CO₂ emissions by 30% from the fiscal year 2013 level by fiscal year 2030, we continue to invest actively in expanding our use of renewable energy, including electric power generated using biomass, solar power and wind power, and have so far achieved reductions well ahead of forecasts. After extensive deliberations in-house, we resolved to revise our target. We now aim to achieve carbon neutrality by fiscal year 2050, as well as to reduce CO₂ emissions by 50% from the fiscal year 2013 level by fiscal year 2030. With many countries reframing emissions reduction targets set with the aim of realizing the goal of the Paris Agreement into milestones on the way to carbon neutrality, we will further strengthen our efforts to ensure our achievement of carbon neutrality. Of note, in addition to expanding renewable energy as a percentage of total energy used by the DIC Group, we intend to adopt internal carbon pricing in preparation for the introduction of carbon border taxes, as well as to promote cooperation with business partners across the supply chain. In addition to initiatives aimed at reducing CO₂ emissions associated with our business activities, we will actively work to expand our lineup of products and services that contribute to decarbonization, thereby helping reduce CO₂ emissions attributable to markets, as well as to society.

A Global Organization that Responds to the Expectations of Society

The DIC Group is committed to allocating management resources to businesses that deliver social value, which in turn enhances economic value. Perpetuating this cycle will lead to further prosperity for society and will ensure that a company enjoys support, appreciation, trust and respect. This is the sort of organization we want to be. At present, a team of mid-tier employees is promoting a project to formulate a concrete vision for the DIC Group of the future. This project was launched with the goal of creating opportunities for those employees who will lead the DIC of the future to articulate their goals for the future and put strategies for realizing that vision into practice. It will also explore novel ways to cultivate and deploy key DIC Group resources in response to evolving trends and needs with a view to eventual commercialization.

The era ahead is one in which organizations that leverage the diverse strengths of individuals will prosper. An organization made up of individuals with varied capabilities can create dynamism. As a multinational organization with operations in 62 countries and territories around the world, 60% of our employees are overseas. The integration of the newly acquired Colors & Effects business will make us even more diverse. Despite the protracted impact of the COVID-19 pandemic worldwide, we will continue working to build social value, as well as to respond to the expectations of society as a whole. In all of our endeavors, I look forward to the ongoing support of all of our many stakeholders.

12-Year Summary

Key Financial Data

Period	112	113	114	115	116	117	118	119	120	121	122	123
Fiscal year	2009	2010	2011	2012	2013 ³	2014	2015	2016	2017	2018	2019	2020
Income												
Net sales (Billions of yen)	757.8	779.0	734.3	703.8	784.0	830.1	820.0	751.4	789.4	805.5	768.6	701.2
Operating income (Billions of yen)	27.8	37.2	35.0	38.5	44.1	41.1	51.1	54.2	56.5	48.4	41.3	39.7
Operating margin (%)	3.7	4.8	4.8	5.5	5.6	4.9	6.2	7.2	7.2	6.0	5.4	5.7
R&D and technology-related expenses ¹ (Billions of yen)	27.1	26.3	23.7	23.0	19.8	25.3	26.8	26.2	27.4	28.4	27.9	26.2
Of which, R&D expenses (Billions of yen)	12.4	11.0	9.1	8.8	8.8	10.9	12.2	11.2	12.4	12.9	12.5	12.0
Ordinary income (Billions of yen)	19.1	31.7	30.8	35.1	40.9	39.9	49.0	55.8	57.0	48.7	41.3	36.5
Net income attributable to owners of the parent (Billions of yen)	2.5	15.8	18.2	19.1	28.8	25.2	37.4	34.8	38.6	32.0	23.5	13.2
EBITDA (Billions of yen)	48.8	63.7	61.5	65.2	69.1	77.0	94.0	82.6	86.1	81.4	67.4	55.6
EBITDA margin (%)	6.4	8.2	8.4	9.3	9.8	9.3	11.5	11.0	10.9	10.1	8.8	7.9
Financial Position												
Total assets (Billions of yen)	749.9	703.8	675.1	693.0	761.7	803.7	778.9	764.8	831.8	801.3	803.1	818.0
Net assets (Billions of yen)	122.8	130.4	124.5	160.7	218.9	276.7	289.9	307.0	344.0	327.3	343.5	351.4
Equity ratio (%)	13.5	15.3	15.1	19.8	25.6	31.1	33.7	36.4	37.9	37.3	38.9	38.9
Interest-bearing debt (Billions of yen)	377.7	337.6	328.5	315.6	299.1	274.2	259.5	241.3	265.7	264.5	252.6	266.7
D/C ratio (%)	75.5	72.1	72.5	66.3	57.7	49.8	47.2	44.0	43.6	44.7	42.4	43.2
Cash Flows												
Net cash provided by operating activities (Billions of yen)	39.5	30.9	31.2	41.4	33.9	46.4	29.1	62.5	54.2	51.0	50.6	54.5
Net cash used in investing activities (Billions of yen)	(12.5)	(12.3)	(17.6)	(23.7)	(9.8)	(27.4)	(10.0)	(32.2)	(58.9)	(38.4)	(24.9)	(33.0)
Free cash flow (Billions of yen)	27.0	18.6	13.7	17.7	24.0	19.0	19.1	30.3	(4.7)	12.6	25.8	21.4
Net cash provided by (used in) financing activities (Billions of yen)	(16.0)	(26.3)	(7.1)	(26.6)	(32.8)	(26.1)	(24.8)	(26.9)	11.4	(11.8)	(26.8)	6.3
Cash and cash equivalents (Billions of yen)	29.5	22.9	29.6	22.5	15.0	16.4	15.1	16.7	17.7	18.6	16.7	41.4
Per Share Information ²												
Earnings per share (Yen)	32.11	175.96	197.90	207.98	292.26	267.81	389.40	366.72	407.56	338.40	248.29	139.81
Price earnings ratio (PER) (Times)	62.9	11.0	8.4	9.5	10.9	10.9	8.5	9.7	10.5	10.0	12.2	18.6
Dividends per share (Yen)	40	40	40	60	60	60	80	100	120	125	100	100
Payout ratio (%)	124.6	22.7	20.2	28.8	20.5	22.4	20.5	27.3	29.4	36.9	40.3	71.5
Other Indicators												
Return on equity (ROE) (%)	2.6	15.1	17.3	16.0	16.1	11.3	14.6	12.9	13.0	10.4	7.7	4.2
Capital expenditure (Billions of yen)	23.6	20.8	27.0	26.6	27.1	33.6	32.1	31.3	33.6	32.1	35.0	34.0
Depreciation and amortization (Billions of yen)	35.4	33.0	29.7	27.4	25.9	33.8	32.9	32.4	31.5	32.8	33.1	32.6
Overseas sales ratio (%)	58.2	57.3	58.2	56.7	66.6	63.4	65.1	62.4	63.4	63.6	63.5	64.8
Average exchange rate (¥/US\$)	93.51	87.69	79.77	79.93	97.06	106.32	120.85	109.96	112.33	110.46	109.11	106.37
Average exchange rate (¥/EUR)	130.91	116.63	110.88	103.11	129.25	141.41	134.14	122.06	127.03	130.46	122.13	121.43
Number of employees	22,583	21,572	20,455	20,273	20,034	20,411	20,264	20,481	20,628	20,620	20,513	20,242

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



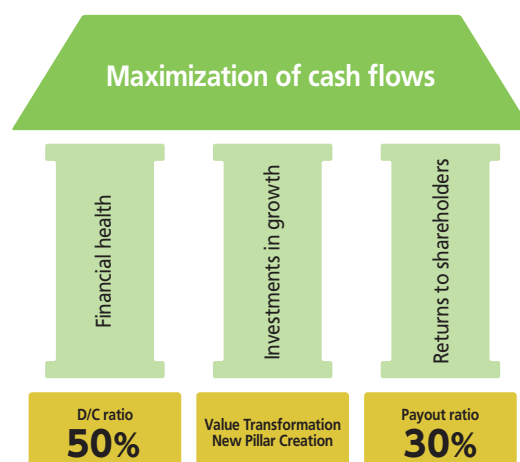
The DIC Group works to maintain sound financial health while promoting determined business strategies. We aim to expedite business portfolio transformation by promoting significant M&A transactions and the creation of new businesses.

Shuji Furuta

Head of Finance and Accounting Unit
CFO

Basic Approach

Our approach to financial management centers on ensuring a balance among three key priorities: maintaining sound financial health, promoting investments in growth to transform our business portfolio and ensuring stable returns to shareholders. As performance indicators, we have adopted debt-to-capital (D/C) ratio¹ to gauge financial soundness, return on equity (ROE) to assess capital efficiency, payout ratio to evaluate returns to shareholders, and earnings before interest, taxes, depreciation and amortization (EBITDA)² to judge our ability to generate cash and maximize shareholder value.

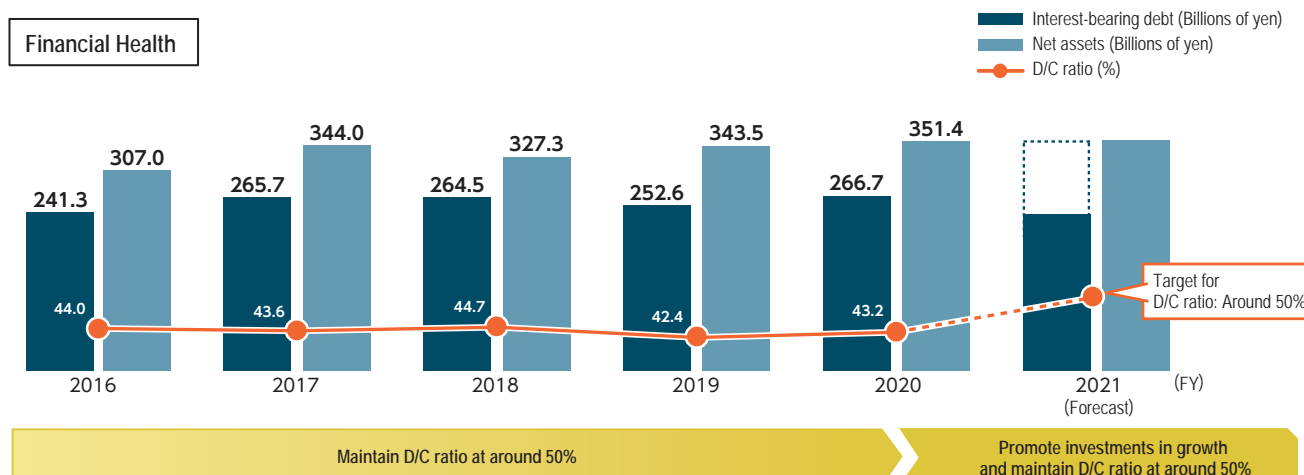


Sound Financial Health

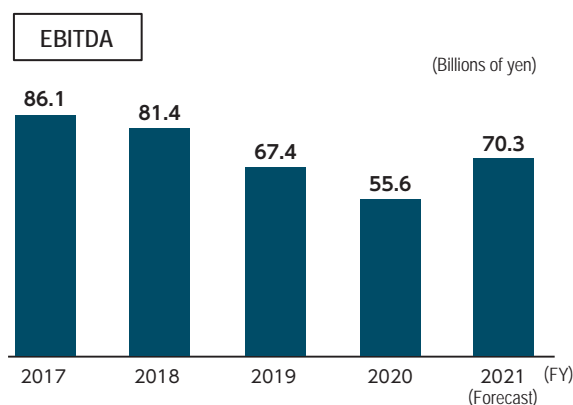
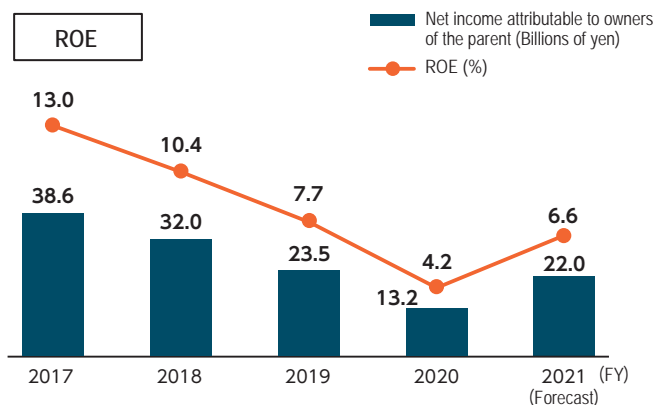
Our goal for financial soundness is to maintain our D/C ratio at or below roughly 50%. As of December 31, 2020, our D/C ratio—which had deteriorated to 73% as of the end of fiscal year 2011—was 43%, an improvement that reflected global efforts to enhance cash efficiency, as well as robust net cash provided by operating activities and accumulated earnings. Owing to the acquisition of BASF's Colors & Effects business, interest-bearing debt as of December 31, 2021, is likely to be higher than a year earlier, but we expect our D/C ratio to remain in the area of 50%. We will also strive to maintain sound financial health by procuring ¥60 billion through a subordinated term loan—a type of hybrid financing that while officially debt has characteristics similar to equity—as well as by divesting assets and reinforcing our management of working capital.

Having chosen ROE as an indicator of capital efficiency, we are working to increase the visibility of return on invested capital (ROIC) in each individual business and to enhance awareness of ROE Groupwide. To advance the transformation of our business portfolio and further bolster capital efficiency, we are promoting investments aimed at driving new growth and have established criteria for withdrawing from businesses, in line with which we are actively divesting assets and retreating from business with low growth potential and profitability.

We employ EBITDA and the cash conversion cycle (CCC) as metrics for our ability to generate cash flows. The addition of EBITDA to our conventional profitability-centered performance indicators and our efforts to shorten the CCC underscore our commitment to conducting management with a greater awareness of cash flow and the need to increase shareholder value.



Note: Forecasts for interest-bearing debt and D/C ratio for fiscal year 2021 assume the completion of DIC's acquisition of BASF's Colors & Effects business.



Strategic Investments to Accelerate Growth

Our current medium-term management plan, DIC111, outlines two basic strategies for transforming our business portfolio: Value Transformation, which emphasizes working to bolster the competitiveness of businesses and generate sustainable cash flow, and New Pillar Creation, which calls for creating new businesses that respond to social changes and help address ESH-related issues. Previous investments that have contributed to Value Transformation include a capital and business alliance with TAIYO HOLDINGS CO., LTD., which was concluded in 2017 under DIC111's predecessor, DIC108, and positioned us well to develop and offer products for the electronics sector. More recent such investments include our acquisition in fiscal year 2018 of a manufacturer of security inks, which are used in the printing of banknotes, and of business engaged in the production of high-purity oxide pigments, which are used extensively in cosmetics.

We have also taken key steps under DIC111 to accelerate growth. In August 2019, we announced that we had reached an agreement to acquire the Colors & Effects business of BASF for an estimated €985 million (approximately ¥124.8 billion)³, our largest-ever acquisition. In 2020, the DIC Group acquired a subsidiary of Sensient Technologies Corporation of the United States engaged in the manufacture of jet inks for printing on textiles. These and other moves will contribute to the strengthening of our corporate structure by facilitating the qualitative reform of our businesses.

Under the New Pillar Creation banner, we have established the New Business Development Headquarters, and have identified four priority business areas, namely, electronics, automotive, next-generation packaging and healthcare. We continue to promote investment via corporate venture capital (CVC) and other efforts designed to expedite the creation of new businesses and gain access to advanced technologies to facilitate open innovation.

Promoting Sustainable Financing

We also continue to conclude loan agreements based on ESG assessments, enabling it to also contribute to the achievement of the SDGs through its financing activities. In September 2019, we entered into a loan agreement with Mizuho Bank, Ltd., under the Mizuho Environmentally Conscious Finance ("Mizuho Eco Finance") scheme, developed by Mizuho Information & Research Institute, Inc. We were the first company in the chemicals industry approved under this scheme, an achievement that reflects the high marks given our global efforts to combat climate change. In September 2020, we concluded a Positive Impact Finance (PIF) (with unspecified use of funds) loan agreement with Sumitomo Mitsui Trust Bank, Limited. PIF is a financing framework designed to facilitate the comprehensive analysis and evaluation of the positive and negative environmental, social and economic impacts of corporate activities and the extension of loans to support these activities on an ongoing basis.

Stable Returns to Shareholders

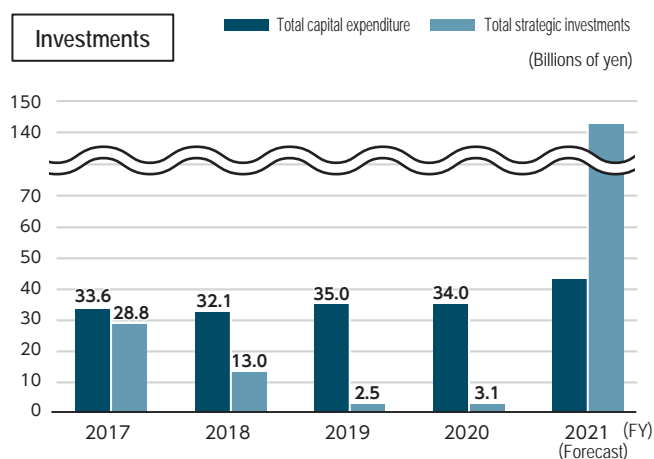
We will continue to pay dividends that are in keeping with profit growth, in line with our commitment to ensuring stable returns to shareholders. DIC111 sets a target for our payout ratio of 30%, which will serve as a guideline for dividends over the medium term. We are proposing a year-end dividend for fiscal year 2020 of ¥50.00. As a consequence, our dividend for the full term, which includes an interim dividend of ¥50.00, will be ¥100.00. We also anticipate an annual dividend of ¥100.00 in fiscal year 2021.

Notes:

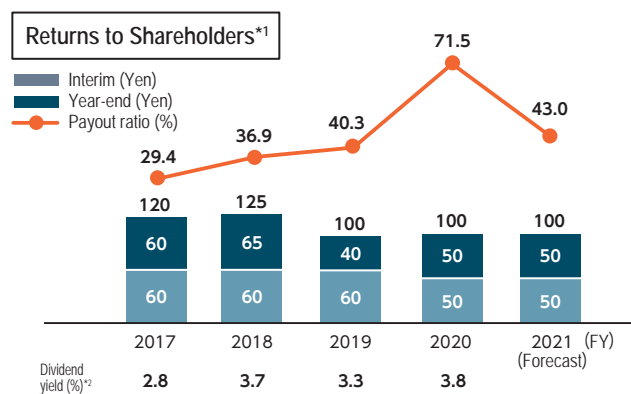
1. D/C ratio: Interest-bearing debt / (Interest-bearing debt + Net assets)

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

3. The figure given for the cost of this acquisition is derived by adjusting the enterprise value of the target business (€1,150 million) to reflect cash and debt as of December 31, 2018. The exchange rate used to translate this amount into Japanese yen is €1.00 = ¥126.75.



Note: Forecasts for interest-bearing debt and D/C ratio for fiscal year 2021 assume the completion of DIC's acquisition of BASF's Colors & Effects business.

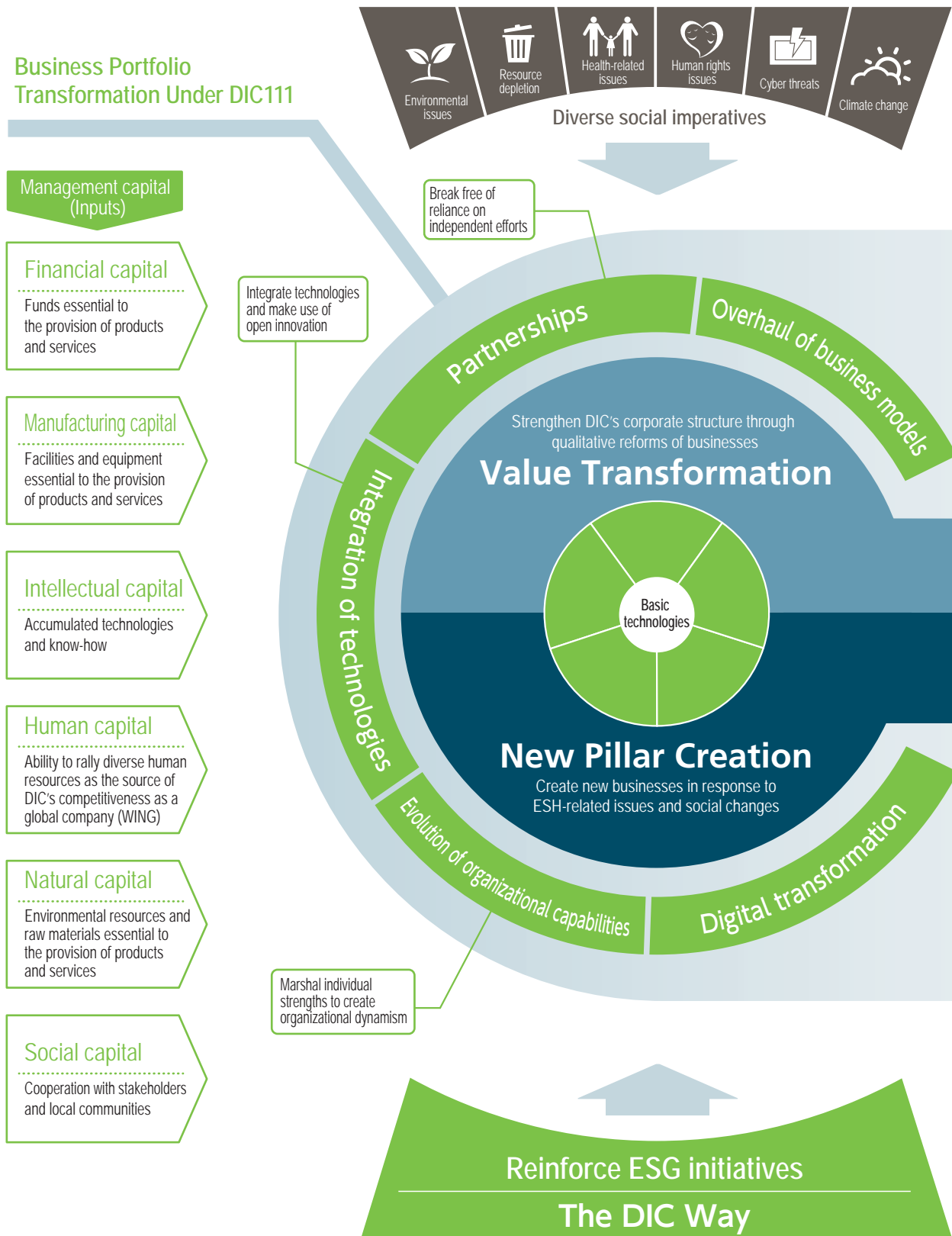


*1 Figures have been adjusted to reflect the impact of the consolidation of shares.







*2 Dividend yield: Annual dividend payments / Closing share price at fiscal year-end





The DIC Group's Approach to Value Creation

Delivering Color & Comfort



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.

Segment	Outputs	Outcomes
 Packaging & Graphic	Next-generation packaging inks and coatings, functional packaging adhesives, industrial-use jet inks, others	Packaging materials that bring safety and peace of mind 
 Color & Display	Pigments for color filters, pigments for cosmetics, effect pigments, natural colorants, LC materials, next-generation display materials, others	Color and display materials that make life colorful 
 Functional Products	Sustainable polymers, environment-friendly PPS compounds for automotive components, high-performance industrial adhesive tapes, others	Functional products that add comfort 

Business area	Outputs	Outcomes
 Electronics	Technologies and functional materials that support the spread of digitization	Provide functional materials that contribute to a digital society
 Automotive	Technologies and functional materials that underpin efforts to transform the automotive industry	Provide composite materials that contribute to a mobility society
 Next-Generation Packaging	Packaging materials that help reduce food loss and support sustainability	Provide packaging solutions that contribute to environmental sustainability
 Healthcare	Microorganism and cell culture technologies with applications extending from food safety to advanced medical care	Provide fine chemicals produced using biotechnological processes that contribute to health and longevity

SDGs



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

DIC Group Initiatives in the Fight against COVID-19 and the Impact of the Pandemic on the Group's Performance

The DIC Group would like to express its sorrow at the loss of lives and extend its deepest sympathies to everyone who has been affected by the COVID-19 pandemic. At this challenging time, the Group is especially grateful to the healthcare professionals around the world who are working tirelessly to alleviate the spread of the virus.

The Group works with customers in diverse industries to achieve innovations that bring "Color & Comfort" to society through chemistry. Even given the difficulties of the current pandemic, DIC Group products play an important ongoing role in safeguarding stable supplies of daily necessities. Accordingly, the entire Group is committed to working as one to help maintain social infrastructure. The Group will continue striving to contribute to society by delivering distinctively DIC products and technologies to support the efforts of a wide range of frontline healthcare facilities and local communities.

Donation of 10,000 N95 and Other High-Performance Masks to Healthcare Facilities

In April 2020, DIC donated 10,000 N95, surgical, ostrich antibody and other high-performance masks from its stockpile to healthcare facilities in Japan.



Provision of "DIC Health Packs" to Senior Care Facilities in Southeast Asia

As a component of a corporate social responsibility (CSR) project in Southeast Asia, DIC Group companies in the region devised the idea of DIC Health Packs, kits containing a variety of COVID-19 protective items. Group companies prepare the DIC Health Packs, which include masks bearing the DIC logo, DIC Spirulina (a health food) and liquid disinfectant, and then donates them to senior care facilities and charitable organizations across the region.



Launch of Special COVID-19 Seals Indicating that Proper Cleaning and Disinfection Has Been Implemented
DIC Color Design, Inc., has developed and commenced sales of special seals to signify that proper cleaning and disinfection has been implemented. These seals are used by hotels, for example, as door seals to indicate to guests that their room has not been accessed after cleaning and disinfection.



Production of Droplet Infection-Preventing Face Shields and Donation to Healthcare Facilities
To curtail the transmission of COVID-19, DIC leveraged proprietary DIC Group technologies to develop face shields, which it has supplied to production sites and other workplaces where masks must be worn. Prioritizing development speed, the Group diverted headbands normally used in helmets manufactured by DIC Plastics, Inc., to the production of face shields. The Group also donated approximately 1,000 of these face shields to healthcare facilities.

Note: For more information, please see page 24.

Provision of Hollow-Fiber Membranes for ECMO

DIC provides hollow-fiber membranes to add oxygen to the blood in extracorporeal membrane oxygenation (ECMO), which is currently being used worldwide to treat critically ill COVID-19 patients.



Business Continuity Initiatives Aimed at Maintaining Social Stability

In an attempt to curb the rampant spread of COVID-19, major cities in countries and territories around the world have implemented stringent lockdowns. Nonetheless, DIC Group production facilities have sustained operations without interruption, with the approval of governments and other public bodies, to respond to demand from customers critical to social infrastructure, including food and pharmaceuticals manufacturers and newspaper publishers. The Group's products thus play an important role in preserving stable supplies of these daily necessities and helping to maintain social infrastructure.

Anticipating a prolonged risk of COVID-19 infection, DIC has formulated and is implementing a policy for operating under pandemic conditions.

- Promote thorough efforts to prevent the spread of COVID-19 and prioritize the health and safety of customers, suppliers, and DIC Group employees and their families;
- Work to maintain DIC Group production and supply activities while minimizing the impact on customers and suppliers; and,
- Support healthcare professionals and promote efforts to contribute to society, with the goal of ensuring DIC remains a company that is loved and respected worldwide.

Note: For information on activities in the Americas and Europe, the Asia-Pacific region and the PRC, please see pages 37, 38 and 39, respectively.



Posters illustrating DIC Group measures to prevent the transmission of COVID-19

Impact on Segment Operating Results

Packaging & Graphic

In the area of materials for food packaging, sales were robust overseas, owing to demand driven by stay-at-home measures, but languished in Japan as a result of sluggish sales to convenience stores, among others, as people refrained from leaving their homes. In products for commercial printing, flagging economic activity prevented a recovery in shipments of inks for advertisements, catalogs, newspapers and other applications. Segment operating income rose significantly, bolstered by cost-cutting efforts, including curbing expenses related to business trips.



Packaging inks



Publication inks

Color & Display

Sales of color materials fell sharply, owing to declining shipments of pigments for cosmetics, as mask-wearing became an ingrained part of daily life worldwide. In display materials, sales rose as increased time spent by consumers at home led to robust demand in the market for liquid crystal displays (LCDs), pushing up shipments of pigments for color filters and thin-film transistor liquid crystals (TFT LCs). Segment operating income dropped, as production adjustments prompted the cutting of operating rates at certain production facilities made it impossible to absorb fixed and other costs.



Pigments for cosmetics and for inks



TFT LCs (uses include LCD televisions)

Functional Products

Demand for materials for automotive applications plunged temporarily. As a consequence, full-term segment sales decreased despite a dramatic recovery in shipments of synthetic resins for use in automotive coatings, epoxy resins for semiconductor devices used in onboard equipment, and PPS compounds—uses for which, underpinned by the trend toward lighter and increasingly electrified vehicles—rallied significantly in the fourth quarter. Segment operating income was down, as lower raw materials prices and cost reductions were insufficient to offset the decline in full-term shipments.



Epoxy resins



PPS compounds (uses include automotive components)

Packaging & Graphic

Packaging Materials that Bring Safety and Peace of Mind



SDGs Goals 12, 13 and 14



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, printing supplies

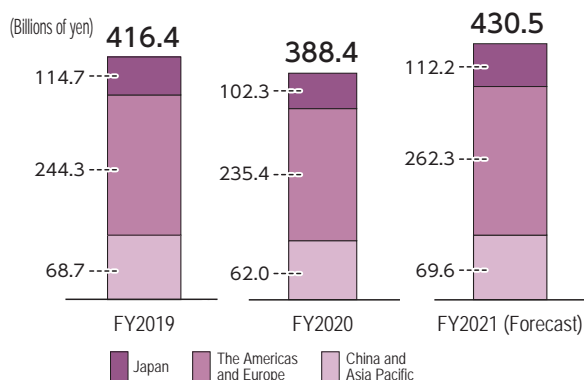
[Packaging Materials]

Polystyrene, packaging adhesives, multilayer films

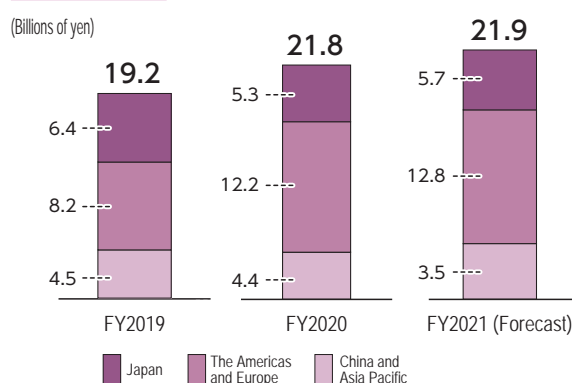
This segment includes not only printing inks but also adhesives, coatings, films and a broad range of other packaging materials and solutions, the markets for which continue to see robust growth in Asia and emerging economies.

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.

Product News

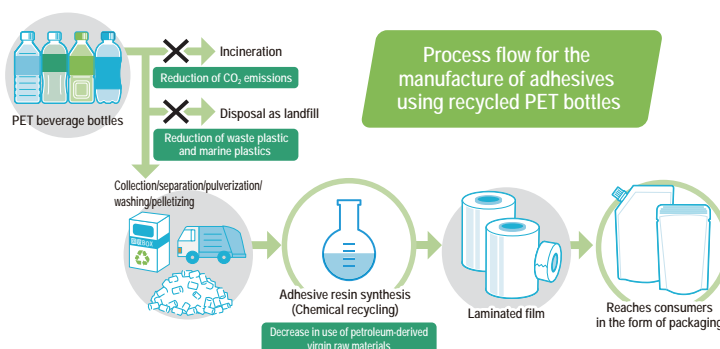
Efforts to Develop Biomass-Based Packaging Inks (Gravure Inks, Flexo Inks) and Compostable Packaging Adhesives

In Japan, the DIC Group has obtained Biomass Mark certification for gravure inks used for printing on general-purpose films, shrink film and paper, and has succeeded in commercializing an antibacterial varnish for use on printed packaging films used for individually packaged protective facial masks. Overseas, the Sun Chemical Group is cultivating markets for compostable packaging adhesives, inks for printing on food-contact materials, inks that facilitate deinking and other high biomass content products, and has also commenced the development of antibacterial coatings.



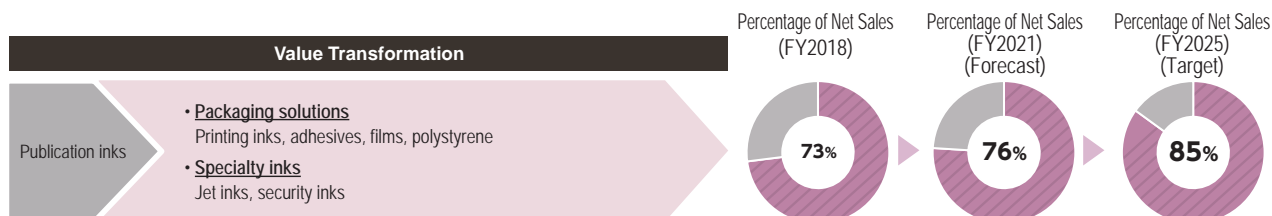
Development of *DICDRY LX-RP* Series of Dry Laminating Adhesives Made from Recycled PET Bottles

DIC recently developed the *DICDRY LX-RP* series of dry laminating adhesives for flexible packaging, which are made from recycled post-consumer polyethylene terephthalate (PET) bottles. While convenience makes plastics the favored material for a wide range of applications, the environmental impact of waste plastic has become an issue of concern and efforts to facilitate the effective use thereof is a global challenge. DIC leveraged its proprietary polymer synthesis technologies to facilitate the chemical recycling of recycled PET bottles into raw materials suitable for use in packaging adhesive. Additionally, by optimizing the resin's composition, the Company has succeeded in realizing a product that is both solvent-soluble and which delivers excellent adhesive properties. Adhesives in the *DICDRY LX-RP* series boast a recycled PET content of 25% (solid content ratio) and, like conventional *DICDRY LX* adhesives, is also suitable for laminating lightweight packaging materials and refill pouches.



Business Strategies Under DIC111

The DIC Group will concentrate resources on high-value-added products in the promising areas of packaging solutions and specialty inks, while accelerating the growth of businesses in the flourishing market for packaging materials through portfolio expansion. In specialty inks, the Group will also seek to achieve high profitability through further global management integration and the horizontal deployment of high-value-added products.



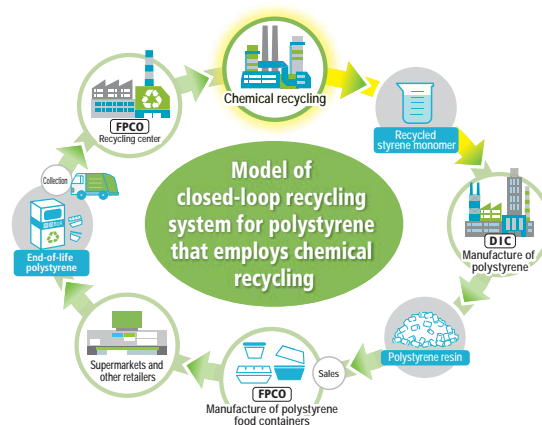
Fiscal Year 2020 Highlights

DIC and FPCO Explore Collaboration in the Practical Implementation of a Closed-Loop Recycling System for Polystyrene that Employs Chemical Recycling

DIC and FP Corporation (FPCO) are exploring the establishment of a collaborative relationship that includes the creation of a chemical recycling joint venture. The two companies plan to introduce third-party technologies for converting polystyrene back into styrene monomer to facilitate the recycling of colored and/or patterned foamed polystyrene containers, which to date could not be transformed into new food containers, with the objective of achieving a closed-loop recycling system for all types of polystyrene products.

The new closed-loop recycling system, which employs chemical recycling, will make use of FPCO's "FPCO-method" circular recycling. In addition, the application of this method will be expanded to allow the collection of used food containers via a network of 9,600 collection centers. Styrene monomer recycled by the DIC-FPCO joint venture from the colored and/or patterned containers will be transformed into polystyrene material by DIC, which will be used by FPCO to manufacture new environment-friendly *Eco Tray* containers.

Note: For more information, please see page 26.



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, effect pigments, pigments for color filters, pigments for cosmetics, health foods

[Display Materials]

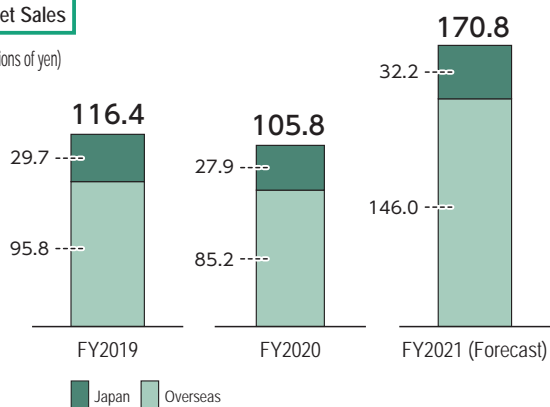
Thin-film transistor liquid crystal (TFT LC) materials, supertwisted nematic liquid crystal (STN LC) materials

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

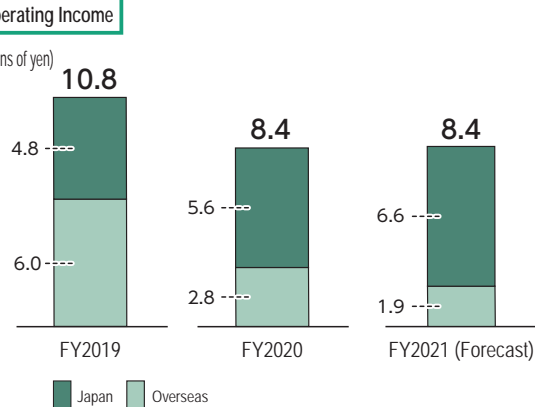
Net Sales

(Billions of yen)



Operating Income

(Billions of yen)

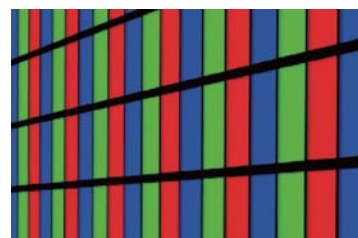


Note: Graph figures include interregional transactions within the segment. Accordingly, the aggregates of regional net sales and operating income figures for the segment differ from the figures presented above.

Product News

DIC Develops New Pigments for Color Filters Used in Next-Generation and Other Products

In the area of pigments, notable achievements by the DIC Group of late include the development of new green and blue pigments for color filters used in next-generation high-definition organic light-emitting diode (OLED) displays. In pigments for cosmetics, the Group also embarked on the development of color materials using unique surface processing technologies. Overseas, Sun Chemical proceeded with the development of natural wax dispersions for use in pigments for cosmetics. In LC materials, DIC launched polymer sustained alignment (PSA) LCs that boast outstanding reliability and response time and sensitivity, for 8K displays. The DIC Group is also applying its LC technologies to the development of smart windows and LC-based antennas.



Pigments for color filters at work

Launch of *PHYCONA*, an FFC that Enhances the Skin's Barrier Function

On October 28, 2020, DIC Group company DIC Lifetec Co., Ltd., launched *PHYCONA Skin Moistlifting* tablets, a new skin-care supplement that enhances the skin's barrier function that has been approved as a Food with Functional Claims (FFC). The principal constituent of this new product is phycocyanin, a blue pigment extracted from Spirulina, an edible blue-green algae, using a patented proprietary process. DIC also conducted a clinical trial of this new product, scientifically demonstrating its ability to improve the skin's moisture retention. While there are many active ingredients that are effective moisturizers, phycocyanin, a pigment-protein complex, is particularly effective in aiding moisture retention, thereby relieving dryness. Patented *PHYCONA* is thus particularly suited to users concerned about dry skin and those interested in advanced skin care, as well as to health-conscious individuals and those who have tried various other moisturizers and seek a new approach.

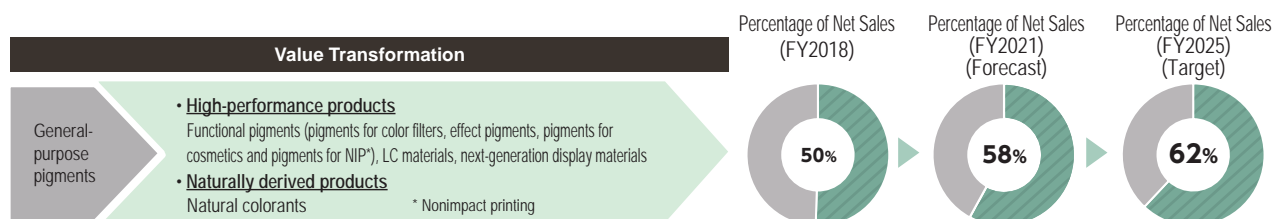


PHYCONA Skin Moistlifting tablets

Note: For more information, please see page 33.

Business Strategies Under DIC111

In addition to seeking to establish a leading global position in the area of functional pigments through M&As, the DIC Group will take steps to reinforce its supply configuration and enter the personal care market. In LC materials, the Group will focus on leveraging patent strategies and on accelerating efforts to cultivate markets in the People's Republic of China (PRC) by developing products for high-end televisions. The Group will also promote the development of quantum dot (QD) inks, which hold promise as next-generation display materials.



Fiscal Year 2020 Highlights

DIC Group Offers Pigments that Comply with Food Safety Laws and Requirements and Extensive Lineup of Pigments for Water-Based Inks

Alongside the global population increase and the aging of society, food loss and food safety are becoming progressively more important social imperatives. The DIC Group strives to help address such imperatives by providing pigments for food packaging inks that comply with various food safety laws and requirements governing the use of chemicals in food-contact materials, including European Union (EU) Resolution AP (89) 1 and the Swiss Ordinance on Materials and Articles, thereby helping ensure food packaging that is both safe and functional.

The printing industry is taking various steps to lower environmental impact, including by eliminating emissions of volatile organic compounds (VOCs), and to improve the work environment for print floor employees. A key move is the shift toward water-based inks. DIC offers an extensive lineup of pigments for water-based inks in markets worldwide. These pigments enable the Company to provide a vast array of colors while also contributing to more sustainable printing.



Functional Products

Functional Products that Add Comfort



SDGs Goals 6, 12 and 13



Takashi Ikeda

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

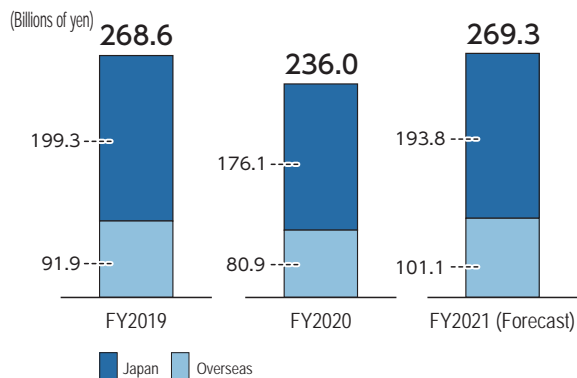
[Composite Materials]

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

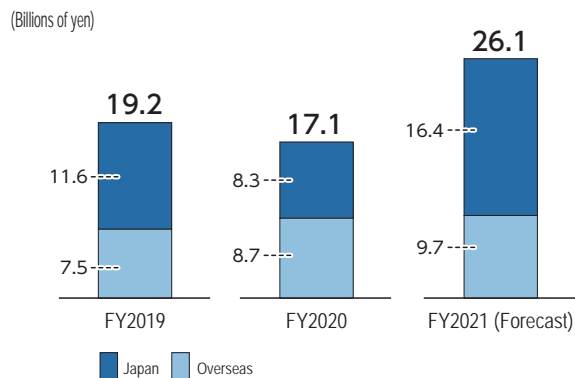
This segment provides coating and composite materials with diverse functions that address environmental issues and are used widely in state-of-the-art electronics products.

Segment Operating Results

Net Sales



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.

Product News

DIC Develops Quick-Acting Driers that Expedite the Curing and Drying of Coatings and Printing Inks

Coatings and printing inks contain driers, that is, metal carboxylates that hasten curing and drying. Metal carboxylates are chemical substances consisting of metal salts and fatty acids and are generally insoluble in water but soluble in organic solvents. Cobalt driers are the most commonly used and the most powerful. However, because cobalt is highly toxic and harmful to the environment, as well as costly, DIC developed the *DICNATE* series of cobalt-free alternatives, which deliver equal or better performance. In addition to excellent drying speed, *DICNATE* driers are environment friendly and cost effective. They are also compatible with both solvent- and water-based inks and coatings, thus addressing a wide range of customer requirements.



Printing inks made with *DICNATE* (sample image)

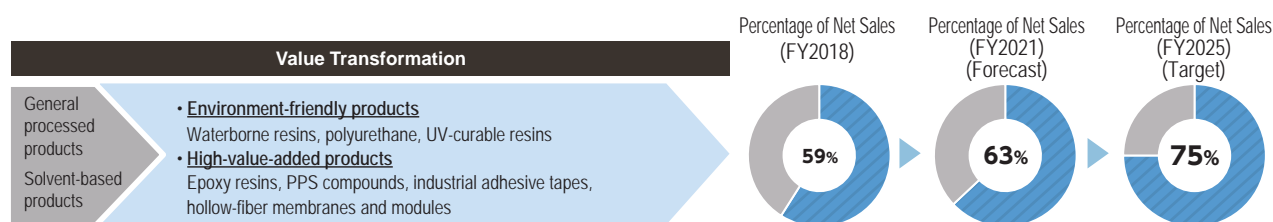
DIC Group Company Develops Face Shield for Industrial Helmets that Helps Prevent Droplet Infection for Pandemic-Era Workplaces

With the risk of transmission a constant in this time of COVID-19, measures to prevent droplet infection are a crucial part of everyday life, as well as being a significant concern in many workplaces. On production floors and worksites where helmets are required, preventing heatstroke while also guaranteeing visibility, durability and performance are important concerns. DIC Group company DIC Plastics responded to such needs by leveraging proprietary technologies to develop *Face Shield Pro*, a face shield that can be attached to industrial helmets. Featuring a shape that extends below the chin, *Face Shield Pro* provides full protection against droplet infection, while at the same time ensuring excellent visibility and performance. The shield has also been treated to prevent fogging and can be flipped up when not in use, enhancing comfort for wearers.



Business Strategies Under DIC111

The DIC Group will invest actively in products that are not only environment friendly but also have a positive impact on markets and society and expand resin production bases in Asia. As well, the Group will provide highly profitable products that meet sophisticated needs in niche markets, introduce next-generation resins for optical and electronics applications, expand sales of industrial adhesive tapes for mobile and automotive applications and make a full-fledged entry into the market for large-scale hollow-fiber membranes and modules.



Fiscal Year 2020 Highlights

DIC Group Enters into Agreement to Establish Strategic Partnership with DuPont in the Water Treatment Business

In fiscal year 2020, the DIC Group entered into an agreement to establish a strategic partnership with DuPont aimed at expanding global sales of degassing modules for water treatment. Through this partnership, DIC grants DuPont's Water Solutions unit exclusive sales rights for its *SEPAREL*® series' large degassing modules for industrial water treatment applications with the goal of increasing sales in Asia, the United States and Europe.

DuPont maintains a globally leading portfolio of water purification and separation technologies, including ultrafiltration, reverse osmosis and ion exchange resins. As DIC's customers in this field, including water treatment equipment manufacturers, often use its degassing modules in combination with DuPont products, this partnership will position the company to extend total solutions and services.



Special Feature

Product Development Designed to Create New Value

The DIC Group is working across its various business groups to provide distinctive solutions that respond to evolving needs related to safety, peace of mind and the environment and that contribute to sustainability.

The DIC Group provides a wide range of products and services that play an important role in a broad range of settings, from everyday life to social infrastructure. The Group views providing timely solutions that only a manufacturer of fine chemicals can offer to a variety of key issues as both the source of the value it provides as well as its obligation to society. Accordingly, it works to offer products and systems that enhance convenience while at the same time contributing to safety and peace of mind, as well as to the environment.



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Employing Chemical Recycling to Realize a Closed-Loop Recycling System for Polystyrene Food Containers



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Nashiji Film Made with Biomass Plastic (DIFAREN® A7440Bio)



Page 33

An FFC that Improves the Skin's Barrier Function from the Inside Out (PHYCONA Skin Moistlifting Tablets)

Employing Chemical Recycling to Realize a Closed-Loop Recycling System for Polystyrene Food Containers

SDGs Goals 3, 7, 12, 13 and 14



Fine chemicals manufacturer DIC and food container manufacturer FPCO collaborate to implement closed-loop recycling system for polystyrene that employs chemical recycling.

Value Creation

Closed-loop recycling of polystyrene to reduce the use of resources and energy, and the discharge of waste

Given the increasingly critical nature of the issue of waste plastic, the need to reinforce recycling systems is an increasingly urgent imperative.

Polystyrene food containers are widely used because they are light and easy to carry, easy to process and color, and protect food by preventing moisture ingress. In Japan, municipalities separate and collect appropriately disposed-of post-consumer polystyrene food containers, turning them over to recycling firms to be transformed back into raw materials, but a significant amount is discarded improperly as general waste and ends up being incinerated or sent to landfills.

Another problem is illegally dumped waste plastic, which often ends up in rivers and the ocean, becoming a major cause of environmental pollution in rivers and oceans, harming ecosystems, disrupting ship navigation, hindering tourism and fishing, and damaging coastal areas. A particular cause for concern is microplastics, fragments of plastics 5mm or less, and superfine nanoplastics,

which are ingested by marine organisms, persisting throughout the food chain to eventually harm the health of humans.

With countries tightening restrictions on waste plastic imports, exports are no longer a disposal route for Japan, which had previously exported a portion of the waste plastic it generates as materials for recycling. Accordingly, establishing an infrastructure for the recycling of waste plastic within the country is an increasingly urgent imperative. Critical to addressing this imperative is reducing the volume of waste plastic generated. To this end, it is necessary to reconsider single-use plastics, promote the development of new plastic resource recycling technologies and systems, and pare consumption of petroleum-derived resources and energy.

Polystyrene Food Containers



Biaxially oriented polystyrene container



White foamed polystyrene container



Colored and patterned polystyrene container

Accelerating Efforts to Tighten Restrictions on Non-Recyclable Packaging in Japan and Overseas

■ Japan

Milestone targets in Japan's plastic resources recycling strategy	
Reduce	▶ Achieve 25% cumulative reduction in use of single-use plastics (e.g., containers and packaging, etc.) by 2030
Reuse/recycle	▶ Make container designs easier to separate and reuse/recycle by 2025 ▶ Achieve reuse/recycle rate of 60% for plastic containers and packaging by 2030 ▶ Achieve a 100% reuse/recycle rate for post-consumer plastics by 2035
Reuse of recycled materials/use of biomass plastics	▶ Double reuse of plastics (use of recycled materials) by 2030 ▶ Maximize use of biomass plastics (to approximately 2 million tonnes) by 2030

Source: Based on *Resource Circulation Strategy for Plastics* published by the Ministry of the Environment

■ Overseas

EU	<ul style="list-style-type: none"> Recycle 75% of container and packaging waste by 2030 (European Strategy for Plastics) Consider taxing non-recyclable plastic packaging (Circular Economy Action Plan)
UK	Introduce Plastic Packaging Tax in April 2022
PRC	Establish life cycle management system for plastic products by 2025

DIC and FPCO: Building a Closed-Loop Recycling System for Polystyrene

DIC was the first company to succeed in developing and mass producing hyperbranched polystyrene, which it markets in Japan under the name *Hybranch*. Approximately 80% of the polystyrene manufactured and sold by the Company is currently used in the production of food containers. At present, DIC is participating in a project to realize advanced plastic resource recycling systems that involves collaboration among industry, government and academia. The Company also conducts research regarding the influence of polystyrene, films, inks, adhesives and other materials on recyclability in an effort to develop products that exert less of an impact on the environment.

FP Corporation (FPCO), based in the city of Fukuyama, Hiroshima Prefecture, is Japan's largest food container manufacturer and a major destination for DIC polystyrene. The company boasts a nationwide network of 9,600 collection centers and three recycling plants, through which it recovers and transforms

post-consumer foamed polystyrene food containers into new food containers using materials recycling. Currently, the company pulverizes and melts these containers into polystyrene pellets, with those from white containers recycled into new environment-friendly *Eco Tray* containers ("tray-to-tray recycling") and those from colored and/or patterned containers recycled into clothes hangers and other household items.

In November 2020, DIC and FPCO announced a new model of circular recycling system that will maximize the two companies' technologies, and collection and recycling configurations, with the aim of achieving the practical implementation of advanced resource recycling. This initiative also seeks to facilitate the use of chemical recycling to transform colored and/or patterned polystyrene, which to date could not be recycled into food containers, facilitating fully closed-loop recycling of all types of polystyrene products.

Simultaneous Promotion of Materials and Chemical Recycling Is Indispensable for the Realization of a Circular Economy

	Recycle flow	Applications
Materials recycling	<p>White trays → Melting → White polystyrene pellets → Molding → Food trays</p> <p>Food trays → Separation → Colored and/or patterned trays → Melting → Black polystyrene pellets → Molding → Molded products</p>	Restricted
Chemical recycling (depolymerization into styrene monomer)	<p>Black polystyrene pellets → Depolymerization into black styrene monomer → Polymerization → Recycled polystyrene → Molding → Food trays</p>	Unrestricted Depolymerization into virgin-quality styrene monomer

A Distinctively
DIC Response

Using depolymerization through chemical recycling to realize closed-loop recycling of polystyrene food containers

Introducing third-party technologies and launching a testing plant in 2022

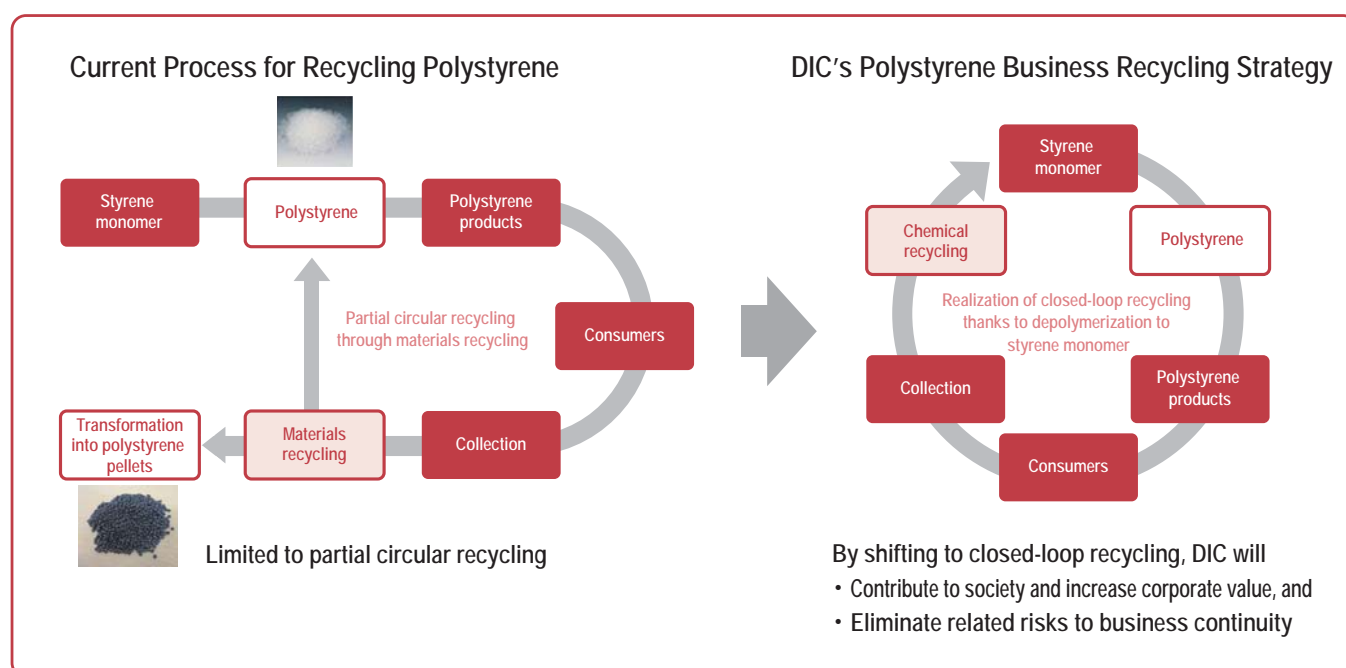
In addition to polystyrene, colored and/or patterned food trays contain ink and adhesives. As a result, using materials recycling, which pulverizes and melts the entire tray, yields black pellets and causes the deterioration of physical properties, so the commercial value thereof is significantly reduced. Such pellets also cannot be used for food-contact surfaces. In contrast, polystyrene is suited to chemical recycling because it can be easily depolymerized back into its precursor—styrene monomer—with only minimal energy using pyrolysis, also known as thermal degradation. Because polystyrene made with chemically recycled styrene monomer delivers the same performance and safety levels as that made with petroleum-derived virgin raw material, there are no limits to potential applications.

DIC thus plans to introduce third-party technologies and equipment for depolymerizing polystyrene back into styrene monomer and to build a testing facility at its Yokkaichi Plant, in Mie Prefecture, the Company's principal polystyrene production facility. The testing facility is expected to begin operations in 2022. Through this, the Company aims to establish control

technologies that increase yields by evaluating depolymerization efficiency, energy consumption and cost, among other factors, at annual production levels of several thousand tonnes.



DIC's Yokkaichi Plant

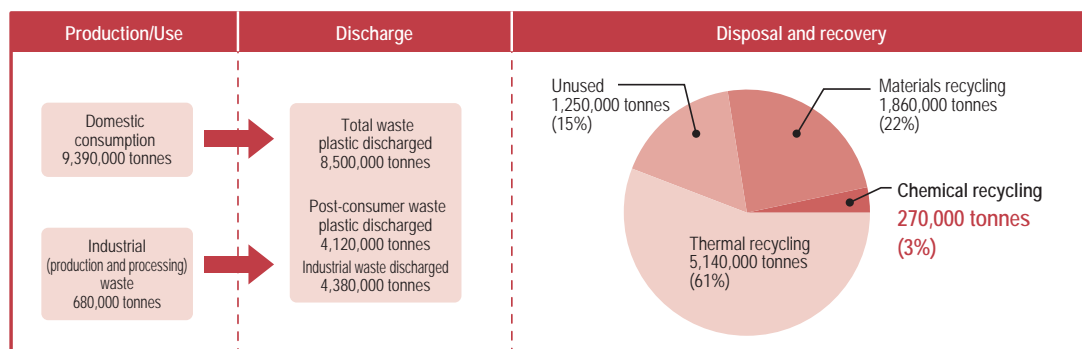


The challenge of chemical recycling: A process with outstanding potential

Materials recycling is the principal method used to recycle plastics in Japan. The use of chemical recycling, which leverages a chemical reaction to recycle resources, remains rare. However, given the limits of materials recycling, the progress and expansion of chemical recycling is essential to realizing the sort of advanced recycling-oriented society envisioned by people around the world. The new closed-loop recycling system launched

by DIC and FPCO can be said to be a litmus test of the potential of chemical recycling in the future. The DIC team expects the establishment of new technologies for depolymerizing polystyrene into styrene monomer to facilitate expansion of the initiative's focus to include biomass inks and adhesives and is thus committed to boldly taking the steps necessary to ensure commercialization as quickly as possible.

Plastic Material Flows in Japan in Fiscal Year 2019 (Excerpt)



(Source: Materials produced by the Plastic Waste Management Institute)

Enhancing chemical recycling is an urgent challenge

KEY PERSON from DIC

A sense of crisis shared by both DIC and FPCO led to this initiative.

Over many years working together, DIC and FPCO have come to share an awareness of key imperatives. We launched this initiative because of a shared sense of crisis derived from the recognition that given the overall trend toward resource recycling, the survival of related businesses in the future depends on moving away from single-use food containers. Depolymerization back to styrene monomer is key to the closed-loop recycling of polystyrene. The ability to achieve closed-loop recycling will be a critical measure of fine chemical manufacturers' corporate value. We look forward to building an optimal chemical recycling-based model system that contributes to a substantial reduction of waste and CO₂ emissions by choosing and integrating superior basic technologies.

Manager, Polystyrene Sales Group, Packaging Material Products Division, DIC Corporation **Kensuke Shinya**

KEY PERSON from DIC

We are working to make the best use of the existing collection and recycling infrastructure to achieve early commercialization.

A number of chemicals manufacturers have begun to explore chemical recycling of polystyrene. The fully closed-loop model that we are working on makes the best use of the infrastructure built by FPCO in 1990 for what it calls "FPCO-method" circular recycling, which involves the collection and transformation of post-consumer containers using materials recycling. We are enhancing this already essentially complete recycling system by adding chemical recycling. Decomposing colored and/or patterned polystyrene into styrene monomer to facilitate the efficient recovery of resources is not an easy proposition, but we are committed to mobilizing DIC's extensive know-how to facilitate the practical implementation of a system that helps resolve plastics-related environmental issues.

Manager, Polystyrene Sales Group, Packaging Material Products Division, DIC Corporation **Ryou Minakuchi**

Stakeholder Perspective

COMMENT

We look forward to the early establishment of chemical recycling technologies that balance greenhouse gas emissions reduction and economic efficiency.

Using "FPCO-method" circular recycling, we collect post-consumer foamed polystyrene containers and transform them into new food containers. We also recycle colored and/or patterned foamed polystyrene into a variety of other items. Our desire to be able to recycle these latter containers inspired efforts to begin research in the area of chemical recycling.

The challenge with chemical recycling technologies is that they will not be sustainable unless they help reduce greenhouse gas emissions as well as make sense economically. We are confident that DIC will be able to clear both of these hurdles to swiftly establish the best and most appropriate technologies.

Currently, colored and/or patterned polystyrene food containers are not the only type currently in use that cannot be recycled into food containers. With this in mind, we look forward to increasing the range of input materials we can recycle to bolster consumer recognition of the fact that polystyrene is an easy-to-recycle, environment-friendly plastic and in so doing to expand the market for such containers.

Executive Director,
Executive General Manager of
Purchasing Division, FP Corporation
Hiroshi Ogawa

Nashiji Film Made with Biomass Plastic
(DIFAREN® A7440Bio)

SDGs Goals 12 and 13



DIC has developed a new food packaging film that is refined and visually appealing while at the same time reduces CO₂ emissions.

Value Creation

Expansion of applications for biomass plastics to advance decarbonization

DIC is taking decisive steps to help Japan become carbon neutral by 2050.

Curbing global warming is an urgent challenge facing the world. Japan has set a target for reducing overall greenhouse gas emissions to zero by 2050. The country's government has positioned the creation of a mass production configuration to advance the popularity of biomass plastics as a key theme in its plan for achieving this goal and is encouraging the industrial sector to promote related efforts.

The plants that account for a portion of the raw materials used in biomass

plastics capture atmospheric CO₂ through photosynthesis during their growth, so even incineration after use, which releases CO₂, does not essentially increase CO₂ in the atmosphere. By leveraging the carbon-neutral nature of biomass plastics, we are working to reduce our dependence on petroleum resources, as well as to contribute to the prevention of global warming and accelerate resource recycling.

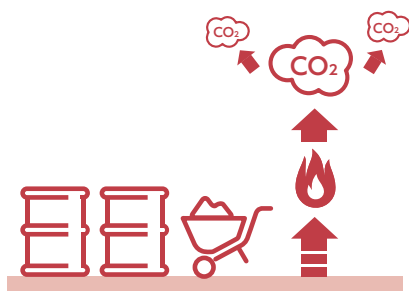
Biomass helps prevent global warming

As a carbon-neutral resource, biomass curbs CO₂ emissions

What does "carbon neutral" mean?

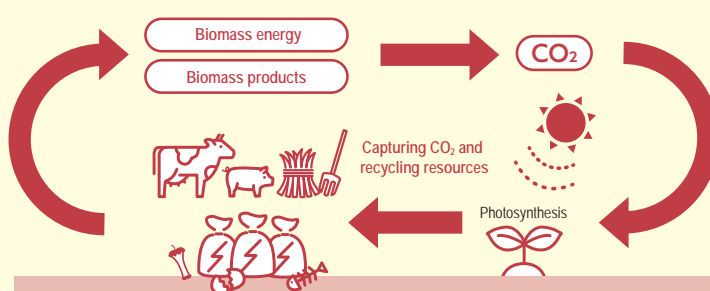
The plants used in biomass plastics capture atmospheric CO₂ through photosynthesis during their growth, so even incineration after use, which releases CO₂, does not essentially increase CO₂ in the atmosphere.

Fossil fuel dependency: The world of the past



Advance of global warming Non-circular

Employing biomass: The world of the future



Prevention of global warming Sustainable and circular

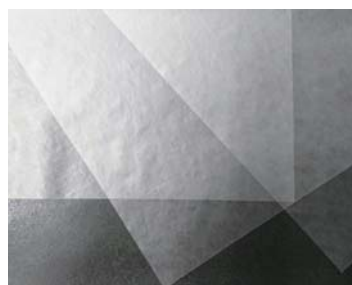
Source: Biomass Nippon, Japan Organics Recycling Association

Developing *DIFAREN*® A7440Bio, which boasts a 20% biomass content

In addition to protecting contents and offering suitability for packaging, films used in food packaging must deliver, among others, heat resistance, heat sealability, rigidity, flexibility, cold resistance, and easy-peel and easy-open properties.

In 1970, DIC developed coextruded multilayer films for packaging in which multiple resins with different characteristics are laminated together in a single process. Using the same manufacturing process, the Company has also developed the *DIFAREN*® A7440 series of *Nashiji* (pear-skin textured) highly attractive embossed matte films with a surface feel reminiscent of traditional Japanese paper, which has earned high marks in the area of food packaging. A recent addition to this lineup, developed in line with our commitment to promoting decarbonization, is *DIFAREN*® A7440Bio, made with biomass plastic

and resin. This new film, the first in the *DIFAREN*® lineup to be certified from the Japan Organics Recycling Association, was launched in August 2020.



DIFAREN® A7440Bio *Nashiji* biofilm



バイオマス
使用部位:フィルム
No.200031

Biomass Mark showing biomass content

The Biomass Mark is an environment-friendly product labeling program in Japan that certifies biomass-derived products compliant with key laws, regulations and standards for quality and safety.

A Distinctively DIC Response

Achieving a visually appealing film with a 20% biomass content using existing production equipment

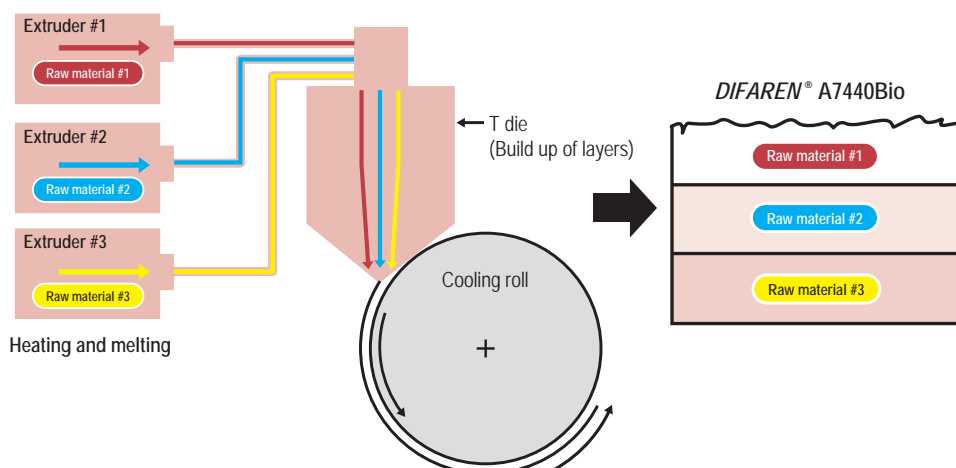
Pursuing a balanced combination of the physical properties of petroleum-based and biomass plastics

Nashiji film has a surface feel reminiscent of paper, but produces no paper dust and so is hygienic, as a result of which it is attracting a great deal of attention not only in Japan but also across Asia, the Americas and Europe. Unfortunately, producing *Nashiji* film with biomass plastics and maintaining its performance properties and visual appeal has proven difficult. Adding biomass to principal petroleum-based raw materials upsets the balance of properties, causing a variety of issues. To overcome this, DIC engineers studied the microstructure of the film and searched for the optimal resin-biomass formulation through a process of trial and error. Then, making full use of multilayer film forming technology cultivated over many years of collaboration with CAST FILM JAPAN CO., LTD., DIC succeeded in producing *DIFAREN*® A7440Bio, which boasts a 20% biomass content. The Company also achieved mass

production of this *Nashiji* film, made with biomass, which delivers the same functionality and texture as petroleum-based *Nashiji* film, without having to modify existing equipment in any way.



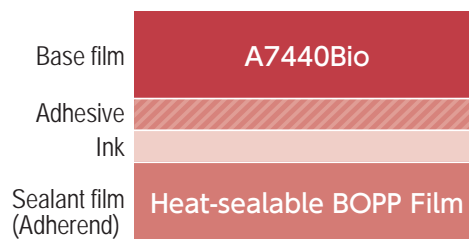
DIFAREN® A7440Bio Production Method and Composition (Example)



Increasing biomass content of packaging material by using environment-friendly inks and adhesives

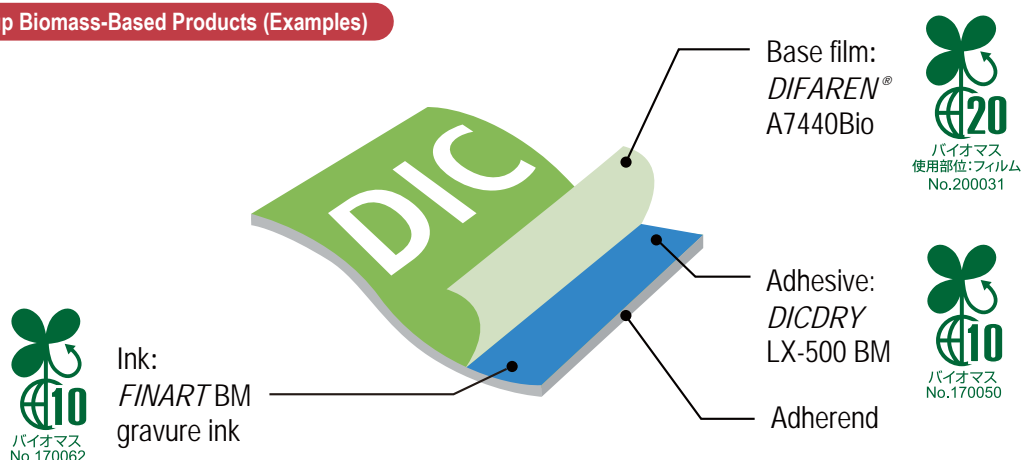
In addition to *DIFAREN*® A7440Bio, numerous other environment-friendly DIC Group products have earned certification from the Japan Organics Recycling Association. These include biomass inks, including *FINART* BM gravure inks for lamination developed by DIC Graphics, and adhesives such as *DICDRY* LX-500 BM, underscoring DIC's ability to provide inks, adhesives and films that support environment-friendly packaging. Use of heat-sealable biaxially oriented polypropylene (BOPP) sealant film, inks and adhesives made with biomass-derived raw materials on a *DIFAREN*® A7440Bio base makes it possible to create a packaging film with an even higher overall biomass content. The ability to provide a full range of biomass packaging materials is a distinctive

competitive strength enjoyed by the DIC Group, which develops and manufactures inks, adhesives and films for packaging applications.



Example of *DIFAREN*® A7440Bio-based packaging material

DIC Group Biomass-Based Products (Examples)



KEY PERSON from DIC

This is a groundbreaking product that responds to the needs of customers who want to differentiate their products in terms of environment-friendly performance.

Food products manufacturers and other customers are constantly conducting research to uncover packaging materials that differentiate them from other companies. To date, DIC has earned high marks for its refined and visually appealing *Nashiji* films. I am particularly pleased at the addition to our lineup of *DIFAREN*® A7440Bio, which uses biomass plastic. The reaction to this new product at a recent packaging materials exhibition was tremendously positive. Initially, I had thought it would be difficult to raise biomass content, so I am particularly grateful to technology and manufacturing teams for their work to make this possible. I look forward to building on this groundbreaking product to actively promote our environment-friendly offerings both in Japan and overseas.



Manager, Films Sales Group, Packaging & Graphic Business Group, DIC Corporation Masaharu Ito

KEY PERSON from DIC

Building on this biomass *Nashiji* film to expand the use of biomass-derived materials will be a key challenge going forward.

The project to replace petroleum-derived raw materials with bioplastics while recreating the *Nashiji* texture was a series of stumbling blocks. Everything would be fine at the lab level, but on the production line problems would arise. And this didn't happen just once or twice, but many times. So, when we finally achieved stable production it was pretty emotional! That said, we are not resting on our laurels. There are many environment-friendly raw materials in the world and it is our mission as a manufacturer of fine chemicals to master their use. Another challenge in the years ahead will be to reduce the thickness of this film below 1μm, which will contribute to the reduction of waste. Both are high hurdles, but we will capitalize on our experience to strive for an even higher level of sustainability.



Packaging Materials Technical Group 4, Packaging Materials Technical Division, DIC Corporation Tomohisa Kida

An FFC that Improves the Skin's Barrier Function from the Inside Out (PHYCONA Skin Moistlifting Tablets)

SDGs Goals 3 and 12



DIC has developed a new “edible” skin-care product, made with phycocyanin extracted from Spirulina blue-green algae, that addresses various skin problems.

Value Creation

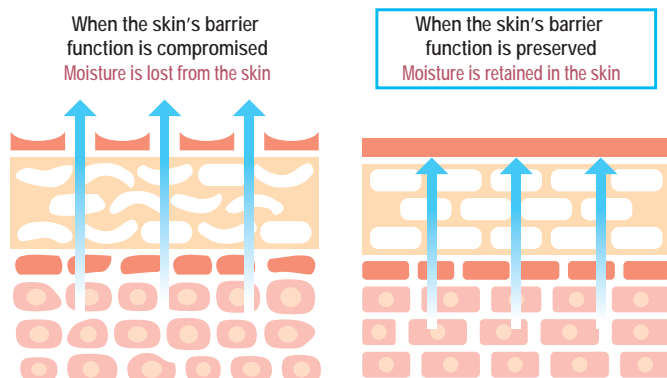
Edible skin care: A new approach to increasing skin's moisture retention

DIC's new *PHYCONA* supplement offers a safe alternative for individuals who feel that there are limits to the benefits of topical skin-care products.

Youthful and healthy skin is the earnest desire of many people—women in particular. However, the reality is that most people see their skin begin to lose moisture in their 40s. This is because the skin's barrier function, which prevents moisture in the skin from evaporating, deteriorates with age. When the skin's barrier function is compromised, whether due to age, irregular lifestyle or poor nutrition, skin becomes dry. For this reason, many people feel that

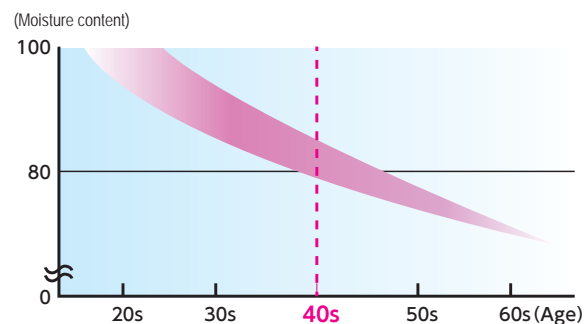
there are limits to the benefits of topical skin-care products and that dry skin is the main problem they face regardless of the season. The DIC Group, which seeks to support healthy and comfortable lifestyles, has applied its experience in the cultivation of Spirulina, which is already used widely in dietary supplements and food products, recognizing the potential of this edible nutrient-rich blue-green algae to improve skin's moisture retention.

What is the skin's barrier function?



The skin's moisture level decreases sharply after 40

Changes in the skin's natural moisture content

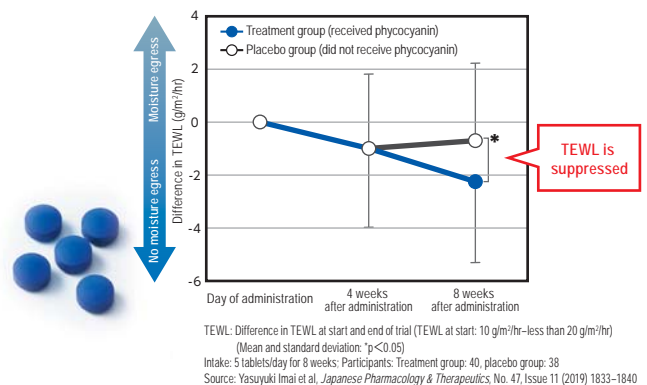


Source: Graph of relative value assuming 20s=100 adapted from *Journal of the Society of Cosmetic Chemists of Japan*, Vol. 23, No. 11989, and *Journal of Japanese Cosmetic Science Society*, Vol. 24, No. 1 (2000) 7-13

Developing *PHYCONA*, a skin-care supplement that enhances the skin's barrier function from the inside out

Focusing on the action on the skin of phycocyanin, a pigment-protein complex found in *Spirulina*, when consumed, DIC found that it improves the skin's barrier function, which suppresses transepidermal water loss (TEWL). Capitalizing on its patented high-yield extraction technologies for high-grade C-phycocyanin and allophycocyanin from *Spirulina*, DIC succeeded in commercializing a new skin-care supplement, dubbed *PHYCONA*. In a world first, the Company also conducted a clinical trial to verify the effects of this new supplement as a food product with phycocyanin as an ingredient, scientifically demonstrating its ability to enhance the skin's moisture retention. As a consequence, an application to have *PHYCONA* approved as the first *Spirulina*-derived Food with Functional Claims (FFC) was accepted and in October 2020 DIC launched *PHYCONA Skin Moistlifting* tablets.

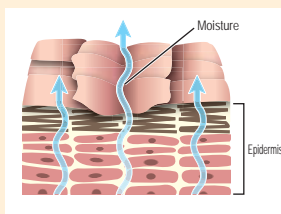
Suppressing the Evaporation of Moisture and Preventing TEWL



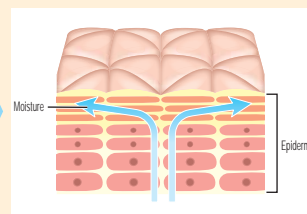
How Phycocyanin Affects the Skin

【Skin lacks moisture】

The skin's barrier function is compromised by various factors, including lifestyle, stress and age. As a result, the skin loses moisture and its ability to suppress the ingress of foreign substances.



Phycocyanin acts to improve the skin's barrier function from the inside out, protecting moisture from escaping.



【Skin is sufficiently moisturized】

The barrier function of the stratum corneum protects the skin from external stimuli such as UV light. Because it holds sufficient moisture, the skin is firm and lustrous.

PHYCONA's principal raw material is *Spirulina*, which DIC has cultivated for half a century

In the 1960s, amid concerns that rapid population growth worldwide would lead to a food crisis, researchers actively explored the production of food-grade yeast by feeding it petroleum byproducts. Against this backdrop, the efforts of DIC, which entered the biochemicals business with the objective of developing new sources of protein, led it to *Spirulina*, an edible blue-green algae containing more than 50 nutrients and other health-boosting constituents, including amino acids, vitamins and minerals, that grows naturally in many tropical regions of the world. DIC commenced research into the cultivation of *Spirulina* in 1970 and in 1977 became the world's first successful commercial mass producer of the algae.

In subsequent years, DIC established the world's largest *Spirulina* farms in the United States and the PRC, where it produces high-grade *Spirulina* under quality control systems that satisfy stringent global standards. In addition to nutrients and other health-boosting constituents, the Company also extracts natural colorants made with phycocyanin, a blue

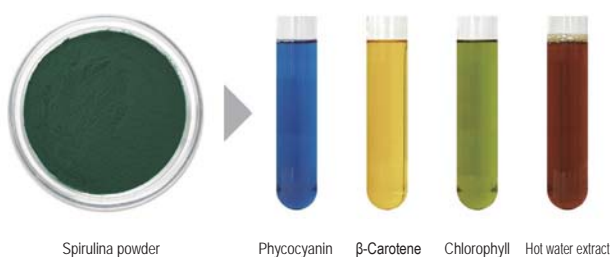
pigment found in the algae. In 1999, DIC established wholly owned subsidiary DIC Lifetec to further strengthen its production and sale of *Spirulina*-based products.

Today, *Spirulina*—commonly referred to as “the king of superfoods” thanks to its superb nutritional balance—is used extensively in nutritional supplements, food products, food colorings, animal feed and cosmetics and has become the most produced algae in the world.



Raceway ponds at the farm operated by DIC Group company Earthrise Nutritionals, LLC in the U.S. state of California

Natural pigments found in *Spirulina*



DIC *Spirulina* has earned a variety of key global certifications.



A Distinctively
DIC Response

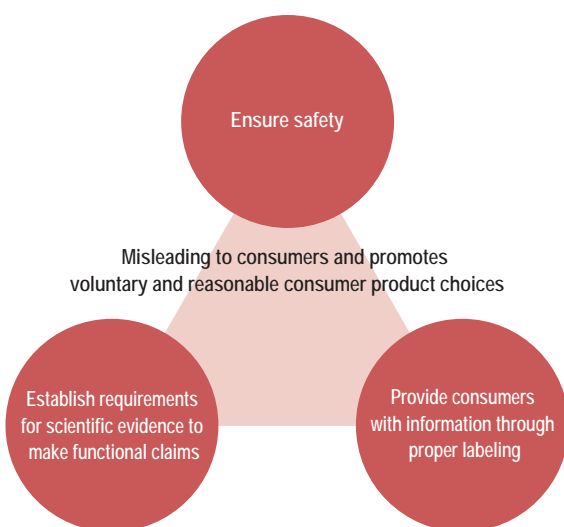
Launching the world's first Spirulina-derived FFC

Properly communicating evidence-based functions and product value

In commercializing *PHYCONA*, DIC emphasized demonstrating the product's scientifically proven functionality and correctly communicating the commercial value that sets it apart from ordinary health food products. The Company thus sought to obtain approval of *PHYCONA* as an FFC, a designation that falls under the jurisdiction of Japan's Consumer Affairs Agency. Traditionally, labeling of food functionality in Japan had been limited to Foods for Specified Health Uses (FOSHU), which are approved

by the government on a one-by-one basis, and Food with Nutrient Function Claims (FNFC) products, which comply with national standards. The FFC designation was created in 2015 with the goal of expanding choice. To be approved as an FFC, a product must comply with standards set by the government, while manufacturers must prove safety and effectiveness based on scientific evidence, establish rigorous production and quality control systems, and collect information on adverse health events.

Basic Approach of the FFC System



Source: Based on materials published by Japan's Consumer Affairs Agency



Verifying functionality through clinical trials of the finished product

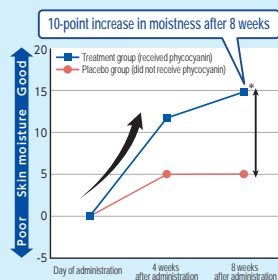
An important consideration once an application for FFC status has been accepted is how to verify functionality. Two methods can be used: Systematic literature review, whereby functionality is estimated based on existing research reports, and clinical trials of the finished product, whereby trial data is compiled into an academic paper and submitted. DIC and DIC Lifetec chose the latter method. There are still few studies on phycocyanin and as a result still not enough research reports to count as scientific evidence. Accordingly, although clinical trials are more laborious and costly than a systematic literature review, the companies resolved that this was the best way to accurately confirm functionality and to market *PHYCONA* with confidence in its performance.

In 2019, the two companies conducted a clinical trial using *PHYCONA* manufactured on an experimental basis using an actual production line. A total of 96 subjects (all female) aged 20–60 with dry skin were divided

into a treatment group, which received phycocyanin, and a placebo group, which did not. Changes in TEWL—an indicator of the skin's barrier function—were monitored over a period of eight weeks. Trial results showed that the *PHYCONA* group saw a significant decrease in TEWL. Trial data was compiled into an academic paper and in July 2020 the appropriate applications were submitted, resulting in *PHYCONA* becoming the first FFC containing Spirulina-derived phycocyanin. In February 2021, DIC became the first company to obtain a use patent for “a food product containing phycocyanin as an active ingredient that has skin moisture-improving and other beneficial properties.” A use patent is granted for an existing substance when a previously unknown use is discovered yielding new applications. This newest patent will enable DIC to realize a considerable competitive advantage in the development and sales of phycocyanin-based skin-care and related food products.

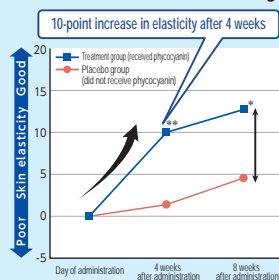
Clinical Research into the Benefits of Phycocyanin

1 Hydrating action helps the skin retain moisture Skin Moisture



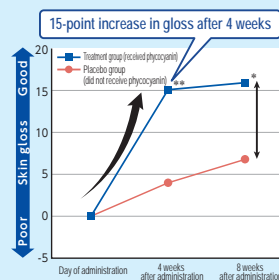
Moistness is explained as representing the combination of hydration and smoothness. The trial showed a gradual improvement in moistness for the treatment group. After eight weeks, the difference was significant.

2 Firmness creates a youthful appearance Skin Elasticity



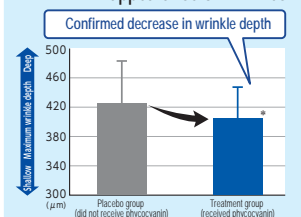
Sagging skin and deepening nasolabial folds are telltale signs of aging. In other words, the internal factors that keep skin firm and supple and are key to a youthful appearance. The treatment group saw a sharp increase in firmness after four weeks.

3 Skin health is key to a translucent complexion Skin Gloss



Gloss is a sign of healthy skin, indicating moistness, elasticity and vitality. The treatment group saw a 15-point increase in gloss after four weeks.

4 A major factor behind how old one looks Improvement in the appearance of wrinkles



Dryness is a major cause of wrinkles. After eight weeks, a difference in maximum wrinkle depth measured using the replica method was discernible between the two groups.

Fine vertical lines on the temples became less visible, making the skin look smoother.

Clinical trial: Changes in moisture, elasticity and gloss were measured using the Visual Analog Scale (subjective evaluation) from the day of administration (average value ± standard deviation) **P<0.01 *P<0.05
Source: Yasuyuki Imai et al., *Japanese Pharmacology & Therapeutics*, No. 47, Issue 11 (2019) 1833–1840

KEY PERSON from DIC Our goal was to offer something entirely new.

It was exciting to introduce the world's first product in the skin-care field containing an extract of *Spirulina*, which DIC has studied for more than 50 years. To ensure understanding of just how amazing this product really is, we recognized the need to boost general awareness of its main ingredient, phycocyanin. We are currently working to increase recognition through the media. The level of interest from both men and women in their 60s and older has been much higher than expected, underscoring the fact that proper skin care is of interest to people of all ages. Looking ahead, we will continue striving to gain a better grasp of customer needs, while at the same time expanding our operations in the healthcare field—an important goal under our current medium-term management plan—with a view to expanding into Asia, as well as into the Americas and Europe.



Product Manager, Health Care Products Group, Color Material Products Division, DIC Corporation Taro Ichimoto

KEY PERSON from DIC Our research into skin aging led us to discover the potential of phycocyanin in this area.

The development of *PHYCONA* resulted from our research into skin aging, which confirmed the excellent anti-inflammatory and antioxidant properties of phycocyanin. We had to overcome a number of issues before achieving commercialization. In particular, we struggled to establish a technology for converting phycocyanin, which is sensitive to heat and alcohol, into a tablet form and coating it to make it easy for people to take while at the same time ensuring solubility and absorption. Perfecting technologies to facilitate the stable mass production of a natural material also was not easy. I feel that the acceptance of our application to have *PHYCONA* approved as an FFC is a reflection of the expertise we have built up through our years of *Spirulina* research, as well as the extensive production technologies we have accumulated as a manufacturer of fine chemicals.



Manager, Health Care Products Business Planning & Development Group and Health Care Technical Group, Color Material Products Division, DIC Corporation Yasuyuki Imai

Sun Chemical's Activities



Sun Chemical powers through the pandemic.

The devastating global impact of COVID-19 made 2020 a year unlike any other—a year with unprecedented business challenges. Despite these obstacles, Sun Chemical showed agility in its ability to pivot business operations to implement crucial health and safety procedures for its employees while complying with all regulations and maintaining unmatched support for customers across the globe.

By prioritizing customers, employees and local communities, Sun Chemical successfully adapted to meet the many challenges introduced by COVID-19.

Myron Petruch
President and CEO, Sun Chemical

■ Managing Volatile Supply Chains to Deliver for Customers

The pandemic caused significant disruption in global supply chains as well as price volatility in some key raw material categories. Shifting demand away from industrial applications to healthcare needs exerted pressure on solvents. Additionally, the global supply of pigments, pigment intermediates and various specialty chemicals were threatened by compromised distribution channels and limited available labor.

All regions of the world experienced a heavy impact in their supply chains this year, many of which are still seeing challenges. Although Sun Chemical monitors supply chain needs in all regions of the world, COVID-19 triggered the organization to monitor purchase orders and supply positions daily, especially as the situation changed rapidly and as supplies were impacted by regional COVID-19 outbreaks.

Through its strong global footprint, Sun Chemical responded to the constant shifts in the industry to best support customers with a reliable supply. Much of Sun Chemical's portfolio supports essential businesses and Sun Chemical focused its efforts to support those areas throughout the pandemic and beyond.

■ Prioritizing the Safety of Employees and their Families

In addition to meeting the supply needs of customers, Sun Chemical equally prioritized the safety of its employees.

Sun Chemical quickly modified its operations in response to the pandemic. On-site work was greatly reduced as non-lab and non-manufacturing personnel began to work remotely to reduce the population density in all laboratories and production sites. The employees who transitioned to working from home were provided the necessary tools and safety guidance to work remotely.

Additionally, custodial staff increased disinfection and concentrated on frequently touched objects to protect on-site employees.

Sun Chemical continues to monitor safety regulations, as well as the changing economic and health landscape to better understand what is best for customers and employees.



Masking up: Exceeding customer requirements, while keeping employees safe

■ Meeting the Needs of the Community

Sun Chemical cares deeply about the health and well-being of employees, customers and partners, as well as the communities in which they live and work around the world. After learning about the lack of personal protective equipment due to increased demand, Sun Chemical's Carlstadt facility in New Jersey produced hand sanitizer for various locations across North America.

Our talented and dedicated employees have spent the last year working extremely hard, either at our manufacturing plants, our labs or remotely from their homes, to make sure that we continue to provide the quality products and services that our customers have come to depend upon from Sun Chemical.

We care deeply about the health and well-being of our customers and partners, as well as the communities in which they and their employees live and work around the world.



Carlstadt: New safety protocols and sanitation stations on-site

DIC Asia Pacific's Activities



DIC Asia Pacific is focused on safety and stable growth.

The pandemic has taught us all not to take safety for granted. Though initially ill-prepared, focused on safety, our DIC Asia Pacific team managed to curb the spread of COVID-19 and secure safe working environments. While the pandemic did cause disruptions and confusion, DIC Asia Pacific entities remained focused on delivering quality products and services.

Paul Koek
Managing Director, DIC Asia Pacific Pte Ltd

■ Tackling the Pandemic

The year 2020 was truly unprecedented. While many nations are now rolling out vaccination programs, and over 2.45 billion people have received at least one dose, COVID-19 will likely persist for some time, affecting both our personal lives and the economy.

The virus reached pandemic status alarmingly fast, infecting over 177 million, taking over 3.83 million lives and pummeling the global economy. And just as we thought the virus was under control, new variants lead to second and third waves, resulting in further lockdowns and plant closures.

■ Prioritizing Employee Safety and Stable Growth

The pandemic has taught us all to be constantly vigilant and not take safety for granted. Though initially ill-prepared, focused on safety, our DIC Asia Pacific team has worked tirelessly to draft new management guidelines and practices, effectively disseminated, and implemented. Thus, we managed to curb the spread of COVID-19 and secure safe working environments. While the pandemic did cause disruptions and confusion, DIC Asia Pacific entities have remained focused on delivering the quality products our customers depend on.

Despite the pandemic, DIC Asia Pacific had to make some difficult but necessary decisions. Sadly, we had to transition the Australian and New Zealand news inks business from a manufacturing to a trading model. We did so successfully and ahead of plan.

In India—where a steep decline in publishing wiped away 70% of normal average volumes—Team DIC has managed operating profits month-on-month since April 2020. We accomplished this through value engineering, effective cost mitigation and working capital management. Moreover, DIC India Ltd. was the first to initiate digitalization, introducing the Ink Master Mobile Application to address day-to-day customer queries.

■ Meeting our Customers and Community Needs

In Thailand, through strong relationships with Global Key Account partners, our DIC colleagues at Siam Chemical Industry Co., Ltd., managed to secure a large new contract. In Malaysia, even with virus cases spiking, all entities performed well. Exemplifying DIC CSR, the region participated in the first regionally coordinated CSR program, with many employees taking time to distribute DIC Health Packs to the underprivileged and essential workers. This was The DIC Way in action.

■ Safety First

Overall, the pandemic impact has been severe, but through our actions, particularly in-plant, production teams, in-plant technicians, quality control and lab members, and safety officers helped grow revenue by 6% month-on-month since May 2020. Together with team members working remotely to coordinate the support functions, DIC Asia Pacific has maintained an exemplary safety record.

Of course, we had failures. However, we were not disheartened and continued to work even harder. The Asia-Pacific region managed to achieve a total recordable injury rate (TRIR) of 0.86—the lowest in the DIC Group and a major achievement, given that our score was over 2.0 the past two years. We achieved this by focusing on Safety First at all levels, with over 90% of employees participating in safety e-learning programs.



DIC India



DIC Compounds (Malaysia)



Siam Chemical Industry

DIC (China)'s Activities



Despite COVID-19, DIC (China) continues working to ensure a stable supply of products and services while prioritizing the safety and health of its employees.

In fiscal year 2020, drastic changes in the operating environment brought about by COVID-19 reinforced understanding of the importance of the ability to respond swiftly and appropriately. To prevent the spread of infection within the DIC Group, DIC (China) Co., Ltd., took prompt, decisive steps to protect the safety of workplaces across the PRC. In addition to establishing a framework for safeguarding employee well-being, the company focused on securing supply chains to ensure the reliable delivery of products and services to its customers. Despite harsh conditions, DIC (China) and the companies of the DIC Group in the PRC continue working to fulfill their responsibilities as members of society.

Mao Jianwei

General Manager, DIC (China) Co., Ltd., and DIC (Shanghai) Co., Ltd.

■ Putting the Health and Safety of Employees and their Families First

The PRC's 2020 Lunar New Year holiday began on January 23. While the holiday was originally scheduled to end on January 30, signs of the emergence of a novel coronavirus prompted the Chinese government to extend the holiday until February 9 in a bid to contain the outbreak. During this period, DIC (China) formulated guidelines for measures to be implemented, which were communicated to Group companies under its supervision together with instructions for restarting operations in a manner that guaranteed compliance. These guidelines comprised detailed directions for prohibiting overseas business trips and curtailing domestic business travel, as well as for encouraging telework where possible, meticulously staggering working hours for employees required to be on-site, conducting temperature screenings at plant and office entrances, implementing mandatory mask-wearing and thorough hand washing, enforcing social distancing in the workplace, disallowing use of air conditioning, stepping up disinfection and installing partitions in staff cafeterias, restricting outsider access and precisely recording data on visitors, and forbidding multiperson gatherings and dining in groups. DIC (China) also conducted company-by-company checks of adherence to these guidelines to protect the safety of DIC Group workplaces across the region. Since the beginning of the pandemic, no infections have been reported among Group employees or their families in the PRC.

■ Ensuring a Stable Supply of Products and Services

In addition to establishing a framework for safeguarding employee well-being, DIC (China) focused on securing supply chains to ensure the reliable delivery of products and services to its customers. To guarantee sufficient access to raw materials despite the pandemic, the company provided demand information to suppliers and adjusted inventories of those raw materials for which supplies were likely to fall short. On the production front, employees were moved around as necessary to avoid the excessive concentration of production personnel at particular sites and facilitate the responsiveness necessary to facilitate on-time production. Steps were also taken to enhance the safety of logistics, including disinfecting the cargo boxes of transport trucks to dispel customer concerns and using designated logistics firm drivers, who were provided with training on infection prevention and given weekly polymerase chain reaction (PCR) tests. With the expectation that transport could be delayed, customers were asked in advance to secure inventories. By grasping possible vulnerabilities and implementing preventative measures, the DIC Group in the PRC was able to achieve annual sales of a level comparable to 2019, evidence of the success of its efforts to maintain deliveries of products and services to its customers.

■ Working Together to Meet Community Needs

The experiences of the past year under COVID-19 also served to reinforce the understanding of DIC Group companies in the PRC of the importance of valuing the ties that bind people together. In addition to masks, companies distributed Spirulina extract to employees to help strengthen their immune systems. In the early months of the pandemic, when masks and other essentials were difficult to come by, shipments of such items from Japan helped ensure business continuity in the PRC. When the virus began spreading in Japan, DIC Group companies returned the favor, dispatching shipments of masks and other items to corporate headquarters in Tokyo, as well as to individual production sites. These companies also worked to contribute to local communities. For example, 97 employees of Changzhou Huari New Material Co., Ltd., volunteered to donate blood to help replenish supplies depleted by the pandemic. Changzhou Huari New Material also donated 20 modular baths to a temporary hospital in Hubei Province.

Although vaccination rollouts have begun around the world, when the COVID-19 pandemic will come to an end remains uncertain. DIC (China) and the companies of the DIC Group in the PRC pledge to continue working as one to assist their customers, as well as to contribute to society as a whole.



Partitions installed in the employee cafeteria at Qingdao DIC Liquid Crystal Co., Ltd.



Employees at Shenzhen-DIC Co., Ltd. participate in a socially distanced morning assembly



Employees of Changzhou Huari New Material who volunteered to donate blood



Truck delivering modular baths donated by Changzhou Huari New Material to a temporary hospital in Hubei Province

Corporate Governance

Basic Approach to Corporate Governance

The DIC Group identifies the purpose of corporate governance as being 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 on the part of shareholders, customers and other stakeholders and enhancing corporate value, the DIC Group also promotes ongoing measures to reinforce its management system and ensure effective monitoring thereof.

Policy on Corporate Governance

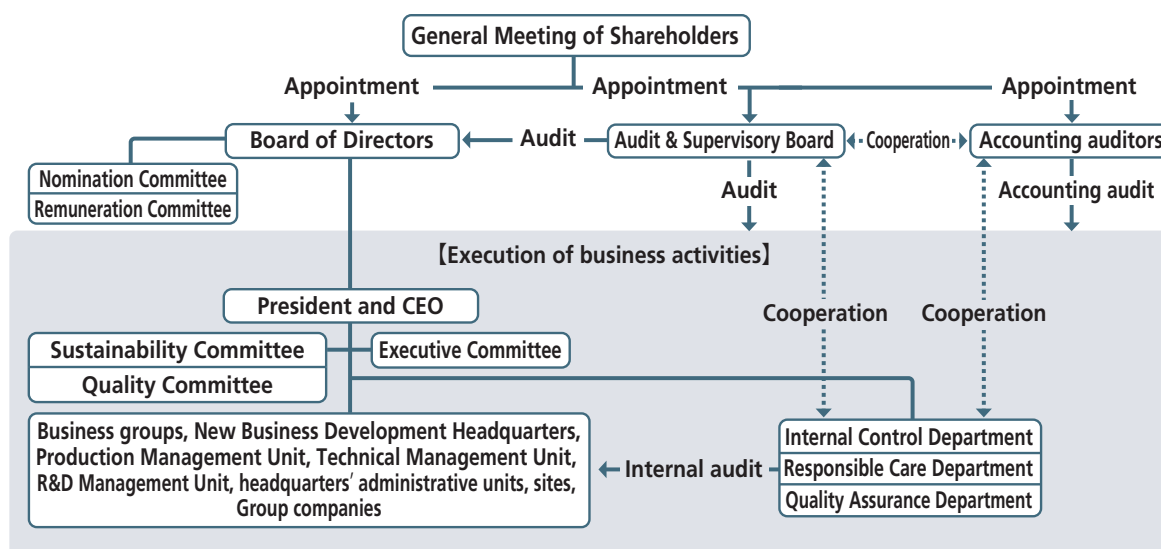
DIC has prepared a Policy on Corporate Governance, which it has published on its global website.

Policy on Corporate Governance [WEB https://www.dic-global.com/pdf/ir/management/governance/governance_en.pdf](https://www.dic-global.com/pdf/ir/management/governance/governance_en.pdf)

Corporate Governance Organization

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, a Remuneration Committee, an Executive Committee, a Sustainability Committee and a Quality Committee.

Corporate Governance Organization



1 Board of Directors

To accelerate decision making and reinforce corporate governance, nine directors have been elected to the Board of Directors. Of the nine, three are outside directors (one of whom is female). In principle, the Board meets once monthly. The Board of Directors is responsible for making decisions on matters stipulated in the Companies Act of Japan, and in DIC's own regulations, as requiring Board-level approval, as well as for monitoring the execution of business activities, as reported by the executive officers.

2 Nomination Committee

The Nomination Committee was established as an internal committee of the Board of Directors with the aim of ensuring objectivity in the nomination of candidates for the position of director, Audit & Supervisory Board member or executive officer, and the dismissal of serving directors, Audit & Supervisory Board members and executive officers. The committee, which submits proposals to the Board of Directors, meets as necessary. At present, three of the committee's five members are independent outside directors, while the position of committee chairman is filled by an independent outside director.

3 Remuneration Committee

The Remuneration Committee was established as an internal committee of the Board of Directors with the aim of enhancing the objectivity of procedures for determining executives' remuneration. The committee, which has been entrusted with responsibility for determining the salaries and bonuses of directors and executive officers, meets as necessary. At present, three of the committee's five members are 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 deliberate issues related to the execution of business activities. In principle, the committee meets twice monthly. The Executive Committee consists of executive officers designated by the Board of Directors from among the president and CEO, the executive vice president and the general managers of the management units, New Business Development Headquarters and product divisions. As part of the auditing process, one Audit & Supervisory Board member also attends Executive 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 Sustainability Committee consists of executive officers designated by the Board of Directors from among the president and CEO, the executive vice president, the general managers of the management units, New Business Development Headquarters and product divisions, and the managing directors of regional headquarters. As part of the auditing process, one Audit & Supervisory Board member also attends Sustainability Committee meetings. Details of deliberations at meetings and the results thereof are reported to the Board of Directors.

6 Quality Committee

The Quality Committee is a body that deliberates Group quality policies, important measures and key issues. In principle, the committee meets once each quarter to report on the status and progress of quality management. The Quality Committee consists of executive officers designated by the Board of Directors from among the president and CEO, the executive vice president and the general managers of the management units, New Business Development Headquarters and product divisions. As part of the auditing process, one Audit & Supervisory Board member also attends Quality Committee meetings. Details of deliberations at meetings and the results thereof are reported to the Board of Directors.

7 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, the Executive Committee and the 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, DIC has established an Audit & Supervisory Board Members' Office to which it assigns dedicated personnel to assist the members in their duties.

DIC's three outside Audit & Supervisory Board members also have extensive experience in and knowledge of finance and accounting, which they are able to leverage in the performance of their duties as outside directors of DIC. Full-time Audit & Supervisory Board member Hiroyuki Ninomiya oversaw corporate accounts at the Company for many years and previously served as general manager of the Accounting Department and Head of the Finance and Accounting Unit. Outside Audit & Supervisory Board member Michiko Chiba is a certified public accountant and has extensive experience in corporate auditing. Outside Audit & Supervisory Board member Keita Nagura provides tax accounting services pursuant to Article 51 of the Certified Public Tax Accountant Act and as an attorney has broad experience in the field of corporate law.

8 Internal Auditing Department

The internal auditing department is charged with internal auditing, which includes monitoring the effectiveness of internal controls at DIC and domestic DIC Group companies. For DIC Group companies in Asia and Oceania, the PRC, and the Americas and Europe, internal auditing is the responsibility of local internal auditing teams.

9 Accounting Auditors

DIC has engaged Deloitte Touche Tohmatsu LLC as its independent auditors. DIC 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 2020

Board of Directors: Number of meetings: 17; attendance: 100%

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

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

I Rationale Behind Current Corporate Governance Organization

DIC has instituted an executive officer system, a move aimed at separating decision making and implementation and thereby accelerating business execution and clarifying responsibilities. As well as appointing three highly independent outside individuals to its Board of Directors, the Company has taken steps to reinforce its monitoring of business execution. DIC also has a Nomination Committee and a Remuneration Committee, which include the three 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, liaises with the accounting auditors and the internal auditing department. This structure ensures the effective functioning of DIC's corporate governance system.

I System of Internal Controls

1 Status of the System of Internal Controls

The DIC Group maintains a keen awareness of four key objectives, which are to ensure the effectiveness and efficiency of its businesses, uphold the reliability of its financial reporting, comply with laws and regulations relevant to its business activities, and safeguard its assets. To this end, DIC has prepared and operates a system of internal controls, key components of which are summarized below, based upon the Companies Act of Japan and the Financial Instruments and Exchange Act of Japan. The Board of Directors hears annual reports on the status of the system of internal controls, a synopsis of which is included in the Company's official report on its business activities. The following is summary of the synopsis:

- 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 establish an internal notification system as a channel available for the employees of the DIC Group and set up multiple notification channels for communication used in the conduct of business. The Company shall prepare a structure that can 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 medium-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 properly 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 pertaining to subsidiaries that require reporting to the Company.*

2 Basic Policy Toward Eliminating Demands by Antisocial Elements

DIC's basic policy, as 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 demand 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 lawyers and the police to ensure the Company's responses are resolute. DIC has also prepared and distributed a manual on appropriate responses to such demands, with the aim of raising awareness among employees.

I Outside Directors and Outside Audit & Supervisory Board Members

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

DIC currently has three outside directors and two outside Audit & Supervisory Board members. In addition to attending meetings of the Board of Directors, the 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 DIC's corporate governance. The two outside 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 Standards Used to Evaluate the Independence of Outside Directors and Outside Audit & Supervisory Board Members

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

Independence Standards for Outside Officers

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

1. Individuals who are executive officers of DIC or of one of its consolidated subsidiaries 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 officer of a company to which this description applies
 - ② An individual for which the DIC Group is a principal business partner (a company with which the DIC Group's transactions in a single fiscal year exceed 3% of the company's consolidated net sales in that year) or an executive officer of a company to which this description applies
 - ③ A shareholder who holds 5% or more of voting rights in DIC or an executive officer 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 exceeds 3% of the DIC Group's total assets in that year) or an executive officer of a company to which this description applies
 - ⑤ An individual who has received contributions in a single fiscal year that exceeds ¥10 million or belongs to a group to which this description applies
 - ⑥ An accounting auditor, an accountant who has served as an accounting auditor for the DIC Group or an individual who is an employee, partner or associate of an audit firm to which this description applies
 - ⑦ An individual to whom ⑥ above does not apply but who has received remuneration from the DIC Group in excess of ¥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 A corporate executive of another company in the event that an executive officer of DIC is appointed to an outside officer position at that company
3. A spouse or relative within two degrees of kinship of individuals listed in section 1 or 2 above
4. An individual whose term in office as an outside officer of DIC has exceeded eight years

③ Framework for Supporting the Efforts of 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. In addition, directors bringing matters before the Board provide explanations in advance to outside directors, while full-time Audit & Supervisory Board members provide explanations as necessary to outside Audit & Supervisory Board members.

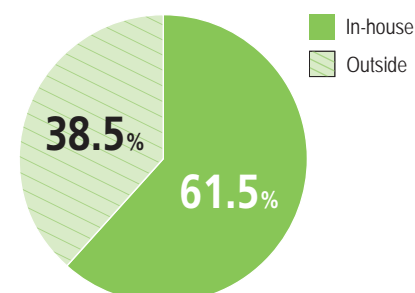
Other Initiatives to Enhance the Corporate Governance Organization

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, DIC also strives to ensure diversity in the Board's composition.

One member of the Board of Directors is female, as is one member of the Audit & Supervisory Board.

Composition of the Board of Directors



Composition of the Board of Directors and the Audit & Supervisory Board

	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%

2 Remuneration for Executives

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 the degree of achievement of individual targets; and stock compensation, which is based on medium- to long-term operating results. Directors who serve concurrently as executive officers are eligible for bonuses and stock compensation. Other directors and outside directors are eligible for basic remuneration only. Remuneration for Audit & Supervisory Board members consists of basic remuneration only and is determined through discussion involving all Audit & Supervisory Board members, in accordance with internal rules established by the Audit & Supervisory Board, with consideration given to ensuring a balance with remuneration for directors and to prevailing market rates.

Remuneration for Directors and Audit & Supervisory Board Members in Fiscal Year 2020

	Total remuneration (Millions of yen)	Composition of remuneration (Millions of yen)			Number of directors and Audit & Supervisory Board members
		Basic salary	Bonus	Stock compensation	
Directors (excluding outside directors)	264	200	49	15	6
Audit & Supervisory Board members (excluding outside Audit & Supervisory Board members)	60	60	—	—	3
Outside officers	69	69	—	—	5

Notes:

1. The above data includes that for one outside director, one in-house Audit & Supervisory Board member and one outside Audit & Supervisory Board member who retired at the conclusion of the 122nd Annual General Meeting of Shareholders held on March 26, 2020.

2. The total amount of stock compensation is the total monetary value of shares corresponding to the points granted for fiscal year 2020 based on the Company's performance-based stock compensation plan.

3 Evaluation of the Board of Directors' Effectiveness

DIC analyzes and evaluates the effectiveness of the Board of Directors annually via a self-evaluation conducted by the directors and Audit & Supervisory Board members. In fiscal year 2020, the Company surveyed all directors and Audit & Supervisory Board members regarding self-evaluations, Board administration and other issues, responses to which were 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 were conducted by the Board of Directors. In addition, regarding issues identified in the evaluation conducted in fiscal year 2019, it was judged that discussion regarding the implementation of priority measures set forth in the Company's DIC111 medium-term management plan and the risk management system had been enhanced. Accordingly, the effectiveness of the Board of Directors was confirmed.

In fiscal year 2021, DIC will seek to further bolster the Board's effectiveness by reviewing the implementation status of priority measures set forth in DIC111 and by taking steps to enhance discussion regarding, among others, the content of the next medium-term management plan and the strengthening of internal controls and the risk management system, as well as of the monitoring thereof by the Board of Directors, as part of its ongoing effort to promote improvements.

A Message from an Outside Director



I sincerely believe that DIC, with its emphasis on integrity, sincerity and goodness, has an excellent corporate culture.

Kazuo Tsukahara

Outside Director

April 2008 Director and Managing Executive Officer, IHI Corporation

April 2012 Representative Director and Executive Vice President, IHI Corporation

June 2014 Advisor, IHI Corporation

A Rich Corporate Climate

When I was appointed as an outside director in 2017, I was immediately attracted to DIC's Color & Comfort by Chemistry management vision. To my mind, this truly unique vision lines up perfectly with our understanding of the meaning of "affluence," which has shifted, in line with the evolution of civilization, from material to spiritual wealth. To achieve this vision, we are probing ever more deeply to formulate management strategies that more clearly align our technologies and businesses—for example, our polymerization technologies and pigments business—to further grow our operations. I find this approach to be extremely encouraging. The driving force behind our efforts to put this strategy into practice is a rich corporate climate, which, as shown by our ESG management initiatives, reflects the flexibility with which we seek to address social imperatives and the seriousness with which we conduct operations that arose from a corporate culture that emphasizes delivering safety and quality.

A Highly Functional Corporate Governance Organization

DIC's Board of Directors engages in lively discussions, and I give it high marks for effectiveness. I am constantly impressed by directors' willingness to accept harsh criticisms from outside directors and apply them to management. The Company was early to establish a Nomination Committee and a Remuneration Committee, both of which are chaired by an outside director. Outside directors also comprise the majority of the members on these committees, evidence that our corporate governance organization is functioning appropriately.

The Next Step Forward

DIC recognizes the importance of acknowledging changes in our operating environment—notably the decline in demand related to publishing and advertising media—and of searching for new businesses that will enable us to shift the focus of our business portfolio away from printing inks. We have strong marketing and technological capabilities, so if we are able to effectively promote measures based on our two core strategies—Value Transformation and New Pillar Creation—we are well positioned to continue being a company that is able to contribute to society. On this point, there are two things to which we need to pay particular attention.

The first is that our efforts to promote DX are currently limited to fragmented and business-specific initiatives. Given that DX will be an integral part of the world in which we live in the future, I think it is important that we promote comprehensive and systematic efforts to change the way we conduct business. The second is that while we are good at unearthing new opportunities in existing domains, we need to take a greater interest in trends in other industries and seek to broaden our focus. The growing importance of electric vehicles (EVs), autonomous driving and robots that utilize AI are garnering tremendous attention. We have our ears in the automobile industry, but we should also heed what is going on in robotics and other machinery- and engineering-related industries. I believe strongly that there are many business opportunities—in, for example, nursing care and medical care—for robots that work alongside humans.

Becoming a Company that Offers Something a Little Different

DIC is a company that boasts a proud history stretching back more than a century, as well as outstanding technological and sales capabilities. Nonetheless, all companies must change with the times. We are actively promoting ambitious M&A initiatives that are breathing new air into the Company. I am excited to see what kind of organization we evolve into as a result of these moves as we gradually shed our identity as primarily a printing inks manufacturer. I look forward to us being seen as a chemicals company that produces distinctive products that offer something a little different from our competitors. This is the aspiration captured by Color & Comfort by Chemistry. I pledge to continue leveraging my own experience and expertise to support the realization of this vision.

Promoting Digital Transformation

Introduction

In fiscal year 2017, DIC began advancing digitalization in technical and production departments. In fiscal year 2020, the Company established the DX Promotion Department, a dedicated department charged with advancing DX, and began advancing data coordination among multiple departments in addition to department-specific efforts. The first challenges the new department will address are to improve the efficiency of Companywide business processes and to step up efforts to foster human resources, after which it will turn its attention to transforming the DIC Group's business format and business models.

Initiatives in Technical and R&D Departments

Technical and R&D departments introduced an automated machine learning platform in fiscal year 2017 and since fiscal year 2018 have deployed AI and MI* in some areas of materials development. In January 2021, DIC established the Data Science Center, which houses data scientists and AI engineers, to facilitate the introduction of AI and MI into the development of products and technologies, and embarked on full-scale initiatives to bolster business process efficiency Companywide that leverage AI.

Going forward, DIC will step up efforts to foster human resources in-house. The Company will also work with third-party organizations and make AI infrastructure-related investments to expand and enhance the Data Science Center with the aim of halving the development stage for new products and doubling the number of development themes underpinning its two core strategies: Value Transformation, that is, strengthening corporate structure through qualitative reforms of businesses, and New Pillar Creation, or the creation of new businesses in response to ESH-related issues and social changes.

* MI applies statistical analysis and other informatics techniques to search large amounts of data for new materials.

Production Department Focus: Creating Smart Production Facilities

Production departments will advance use of factory automation (FA) to automate production systems, in addition to pursuing collaboration both in-house and with external organizations to realize "smart factories,"* and improve the manufacturing infrastructure by building an operational technology (OT) control network environment. The Company is also taking decisive steps to innovate key processes through digitalization, as well as using AI to assist efforts to pass on expert skills. To further advance DX in production, DIC recently inaugurated the Production Division Digitization Working Group with the goal of rallying its collective strengths in the drive to create smart factories.

* A smart factory is a highly digitalized production facility where equipment and devices on production lines, which are linked via the IoT and networks, collect and share various information, enhancing the visibility of product quality and equipment status, among others, making it possible for the facility to optimize and improve production processes.

Key Process Innovations and Other Elements Essential to the Realization of Smart Factories

Key process innovations	Use of the IoT for electronic documentation and process management	Sensing/Automation	Digitalization of maintenance
Innovation of key processes using digital twin and simulation technologies, resulting in shorter lead times and improved yields	Semi-automation of work confirmation thanks to systems support / availability of digital tools (paperless offices, augmented reality (AR) navigation, remote monitoring) / centralized management and use of data	Use of soft sensors facilitates automated process analysis, a bottleneck to the reduction of labor requirements; automatic formulation of optimal production plans thanks to systems support	Predictive maintenance made possible by sensing and systematization; reduction of losses due to equipment failure and optimization of repair costs
Data-driven process management	Data-driven quality control	Centralized monitoring	Passing on of skills to the next generation
Use of simulation function, which is based on real-time process data, makes it possible to predict reaction end-point and gauge appropriate timing for the addition of raw materials, reducing variations in quality and processing times	Allows analysis of the correlation between actual quality and quality parameters; sensing technologies enable precise control according to degree of influence, improving and reducing variations in product quality	Allows monitoring of production staff at sites in Japan and overseas from a single centralized monitoring room staffed by professionals; helps in creating a production configuration that ensures high product quality and stable operations with minimal staff	Makes use of 3D site data and AR navigation; AI technology enables the transfer of employees' formal knowledge into data, creating a positive environment for fostering the next generation of human resources

Automation that Leverages AI Technologies and Increased Production Data Visualization to Improve the Efficiency of Operations

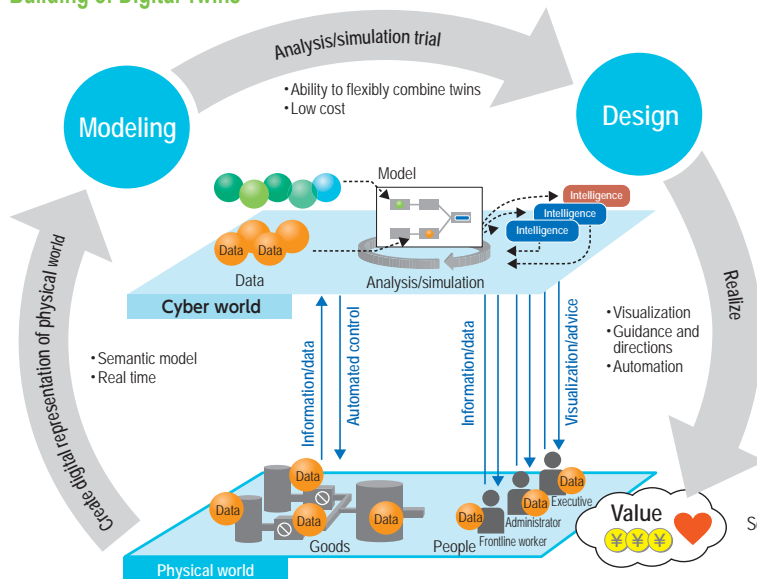
For the creation of production schedules, a task usually performed using Excel or by hand, DIC has introduced production schedulers at some sites in Japan and overseas and have begun to analyze the benefits, which have included the systematization of scheduling skills and a shortening of work hours. DIC is also striving to improve the efficiency of operations, including going paperless, i.e., using electronic documentation and dashboards to visualize operating status and facilitate the smooth handing over of work duties.

Using Digital Twins to Optimize Small-Lot, Diversified Batch Processes

At a polymer production facility, DIC is enhancing the infrastructure by building an OT network aimed at facilitating a centralized monitoring system that ensures stable production with minimal staff. The objective of these measures is to reduce labor requirements, as well as to improve productivity and quality. At the same time, the Company is working with third-party organizations to optimize small-lot, diversified batch processes by making use of digital twins* with advanced simulation capabilities employing AI and IoT technologies to realize key process innovations and establish technologies for optimized automated operations.

* A digital twin is a virtual/digital replica of an actual physical environment. The creation of digital twins facilitates realistic simulations.

Building of Digital Twins



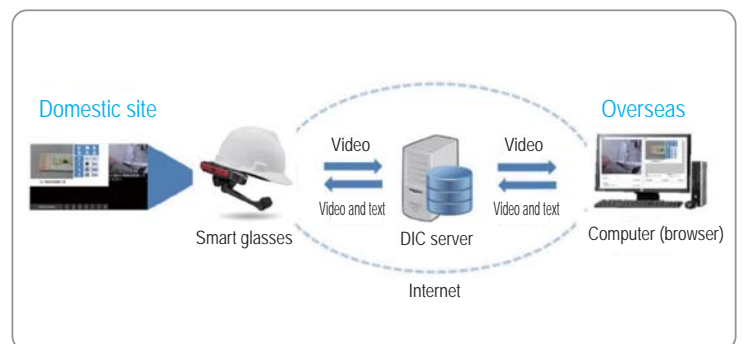
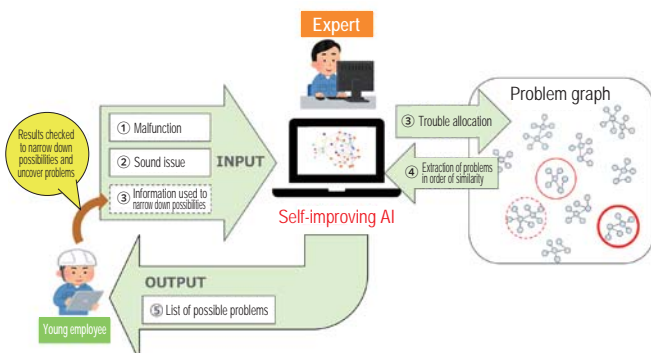
Fusing the Tacit Knowledge of Experts and AI to Pass Knowledge on to Future Generations

DIC has selected a pigments production facility as a model factory and is working to leverage open innovation to “generalize”^{*} the tacit knowledge of experts cultivated over years of experience using self-improving AI. This initiative is designed to ensure such knowledge is effectively passed on to future generations. In addition, smart glasses are being used to support the inauguration of a new production line at the Shiga Plant, allowing access to hands-free remote support from overseas equipment manufacturers.

^{*} In this context, “generalize” means to transform the exclusive, specialized knowledge of experts into an easy-to-understand form that is easy for subsequent generations to understand.

Use of Self-Improving AI to Pass On Knowledge

Use of Smart Glasses to Provide Remote Support



Sales and Digital Marketing Initiatives

In sales and marketing, DIC is capitalizing on marketing automation (MA) to hold online exhibitions in an effort to promote efficient sales and marketing initiatives in this era of COVID-19. In February 2021, the Company had a booth and held a virtual exhibition as part of its participation in TOKYO PACK 2021, a key packaging materials industry trade show held online, as well as debuted a virtual trade show platform introducing approximately 50 packaging-related products and solutions, which has since been visited by a wide range of customers. In the area of sales, the DIC Group seeks to visualize and streamline related activities, expedite customer service and increase the contract conclusion rate through information sharing, collaborating to conduct various initiatives, as well as to analyze and deploy accumulated sales data. To these ends, the Group is exploring the introduction of a sales force automation (SFA) system.

^{*} MA uses tools and software to support marketing efforts, including the securing of new customers and the cultivation of prospective customers.

Initiatives in the Area of 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 in the effective use of data. The former aims to expand the number of data scientists on staff by 2023 through internal and external training. For the latter, DIC has established a framework that seeks to improve data literacy at all levels and ranges from seminars and tailored training for management-level employees to a rank-specific curriculum for regular employees.

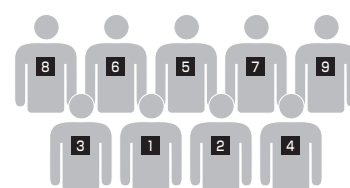
Directors, Audit & Supervisory Board Members and Executive Officers

(As of May 2021)

Directors



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

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

Yoshiaki Tamura

January 2007 Executive Officer, Asahi Glass Co., Ltd.
March 2013 Representative Director and Executive Vice President, Asahi Glass Co., Ltd.
March 2017 Executive Fellow, Asahi Glass Co., Ltd.

Kuniko Shoji

June 2004 Executive Officer, Terumo Corporation
June 2010 Director and Senior Executive Officer, Terumo Corporation
June 2017 Advisor, Terumo Corporation

Outside Audit & Supervisory Board Member Profiles

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

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

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 Diversity, 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.



Taihei Mukose
Executive Officer
Head of Purchasing and Logistics Unit
Head of ESG Unit



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



Myron Petruch
Executive Officer
President and CEO,
Sun Chemical Corporation



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



Koji Asada
Executive Officer
Head of SCM Unit



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.



Shuji Furuta
Executive Officer
Head of Finance and Accounting Unit
CFO



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



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



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



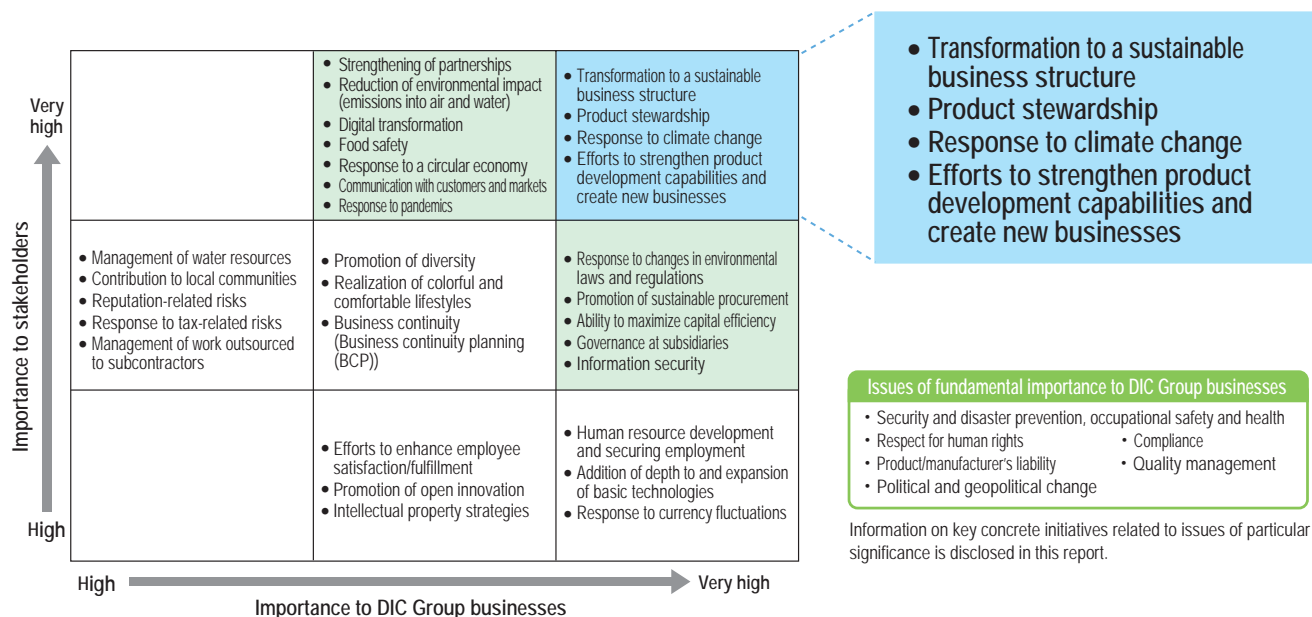
Tomoyuki Tanaka
Executive Officer
General Manager, Corporate Planning Dept.

Materiality Analysis

Identifying Priority Materiality Themes

Guided by its DIC111 medium-term management plan, launched in fiscal year 2019, the DIC Group once again abstracted and analyzed material issues, that is, issues with the potential to negatively affect its performance, from which it identified four themes of primary importance to the Group that it designated priority materiality themes.

The DIC Group's Materiality Matrix



Process for Abstracting Material Issues

Members of the Sustainability Committee and its various working groups, site general managers and senior management from Group companies around the world assessed abstracted issues based on, among others, the GRI's G4 Sustainability Reporting Guidelines, social imperatives, risk management and issues delineated in DIC111. Based on the results of this process, and of extensive subsequent deliberations, issues of primary importance were determined.

Priority Materiality Themes

1 Transformation to a sustainable business structure

Reason for identification	Shifting from businesses that are vulnerable to changes in the macroenvironment to more differentiated high-value-added businesses is essential. There is also a need to shift to businesses that create social value, i.e., businesses that take into account factors such as value to customers and markets, as well as sustainability.
Targets/KPIs	Set forth policies for implementing the Value Transformation strategy in each business and determine concrete measures. Manage the progress and verify the benefits of each measure on a regular basis using the plan-do-check-act (PDCA) cycle.
Status	Despite the impact of COVID-19, measures formulated for each business for fiscal year 2020 were implemented. In addition to steadily reaping the benefits of these measures, in fiscal year 2021 DIC will promote the formulation of new initiatives that anticipate changes in the operating environment with the aim of accelerating portfolio transformation.

2 Product stewardship

Reason for identification	Collaboration with other industries will be increasingly important to the appropriate management of chemicals over their entire life cycles. Recognizing that the creation of a global operating system that facilitates the disclosure of product safety information and ensures smooth communication with customers is the foundation of product stewardship,* DIC has established a chemical substance information management system that facilitates the management of chemical substance information and has begun using a proprietary sustainability index, one purpose of which is to evaluate its efforts to minimize the environmental impact of products from the design stage.
Targets/KPIs	<ol style="list-style-type: none"> 1. Implement the Global Chemical Information management Project (GCIP) (For more information, please see page 107.) <ol style="list-style-type: none"> (a) Fiscal year 2021: Begin using the new chemical substance information management system at DIC Group companies in Japan. (b) Fiscal year 2024: Expand deployment to overseas Group companies other than Sun Chemical. 2. Complete and introduce the proprietary sustainability index. (For more information, please see page 54.) <ol style="list-style-type: none"> (a) Fiscal year 2020: Begin use at DIC on a trial basis. (b) Fiscal year 2021: Promote full-scale deployment at Group companies.
Status	<ol style="list-style-type: none"> 1. Implementation of the GCIP <ul style="list-style-type: none"> • Prelaunch tests were commenced for a new global chemical substance information management system, Chemicals Information Global Network Access System (CIGNAS), that reflects the outcome of a review of business processes. Deployment of the system is scheduled for July 2021, beginning in Japan. • In fiscal year 2020, a promotional team was set up within a DIC Group company in the PRC and began working toward expanding deployment to that country. 2. Prelaunch tests of the proprietary sustainability index to identify issues and confirm final format <ul style="list-style-type: none"> Two new key phrases—"DIC Group strengths" and "key social imperatives"—were introduced; evaluation procedures were modified, final product assessments were carried out and the focus of portfolio transformation was clarified.

* Product stewardship is a philosophy that emphasizes assessing product-specific ESH risks and sharing findings, together with information on appropriate handling, with stakeholders, with the aim of reducing the ESH impact of products over their entire life cycles, i.e., from the procurement of raw materials through production, sale and disposal.

3 Response to climate change

Reason for identification	The DIC Group recognizes that responding to climate change is increasingly important to a company's ability to conduct business and will work to reduce CO ₂ emissions attributable to production, promote low-carbon businesses and satisfy Task Force on Climate-related Financial Disclosures (TCFD) requirements.
Targets/KPIs	<ol style="list-style-type: none"> 1. Reduction in CO₂ emissions attributable to production: 30% from the fiscal year 2013 level by fiscal year 2030 (Scope 1 + Scope 2 reduction) (6.3% over the three years of DIC111) 2. Promotion of low-carbon businesses 25% increase in sales from the fiscal year 2018 level by fiscal year 2021 3. Response to the TCFD Conduct scenario analysis and disclose in line with the recommendations of the TCFD (Help minimize and respond to climate change) <p>Note: Creation of an energy-saving and decarbonization framework → Introduction of internal carbon pricing and strengthening of efforts to address Scope 3 emissions</p>
Status	<ul style="list-style-type: none"> • In fiscal year 2020, the DIC Group resolved to introduce an internal carbon pricing system (a system for placing a monetary value on CO₂ emissions) with the aim of quantifying climate change risk and offering incentives to reduce CO₂ emissions. In fiscal year 2021, we introduced an internal carbon pricing system, beginning with new investment projects, and built a system that can factor CO₂ reduction costs into the impact of capital investments. • DIC began formally exploring the practical implementation of a closed-loop recycling system for polystyrene used in plastic containers for food products, among others. • DIC announced a new target for reducing CO₂ emissions. The Company now aims to achieve carbon neutrality—net zero CO₂ emissions—by fiscal year 2050 and will seek to reduce CO₂ emissions 50% from the fiscal year 2013 level by fiscal year 2030. • The DIC Group's CO₂ emissions in fiscal year 2020 (Scope 1 and 2) were as follows:

	Change from previous fiscal year	Change from fiscal year 2013
Global	-4.3%	23.6%
Japan	-12.0%	-20.5%
Overseas	+ 0.4%	-25.2%

4 Efforts to strengthen product development capabilities and create new businesses

Reason for identification	The DIC Group views areas at the intersection of ESH-related issues and social changes and its core competencies and new businesses that contribute to the resolution of as priorities.
Targets/KPIs	Operating income of ¥10.0 billion in fiscal year 2025
Status	In fiscal year 2020, DIC applied its organic chemical structure technologies to launch compounds for use as materials for stereolithography 3D printing for dental applications. The Company also developed a distinctive flake alumina filler that imparts heat dissipating properties to components for electronics equipment, among others, positioning it to expand into new businesses using inorganic materials.

A Message from the Head of the ESG Unit



We are reinforcing sustainability initiatives that help increase social value with the aim of ensuring sustainable, long-term growth.

Taihei Mukose

Executive Officer, Head of ESG Unit, DIC Corporation

A variety of social imperatives have become increasingly evident in recent years owing to, among others, environmental issues, widening economic inequalities arising from mounting resource constraints and human rights issues across supply chains. One of the most immediately obvious is climate change, an increasingly urgent challenge. Recognizing these as issues that need to be addressed by the international community through mechanisms such as the SDGs, set forth by the UN and adopted by its member states, the DIC Group works to contribute through its business activities to the realization of a sustainable global society. In fiscal year 2018, we established the ESG Unit, a specialized department, and are accelerating initiatives aimed at responding to sharply increasing expectations pertaining to related issues.

Sustainable Management at DIC

Important sustainability-related management matters are deliberated and determined by the Sustainability Committee, a key body that answers directly to the president and CEO. This committee, which meets four times annually, is chaired by the president. In my capacity as head of the ESG Unit, I serve as vice chairman, with other members including other administrative unit heads, as well as business group presidents and the CEOs of regional headquarters. While our focus at present is on deliberating measures to get the Sustainability Strategy Working Group, a key subsection of the committee, on track to reinforce sustainability initiatives, we also emphasize discussions aimed at ensuring a firm grasp of matters of consequence from a governance perspective. Given the global scale of rising sustainability-related expectations, it is vital that participation in the Sustainability Committee is not limited to the DIC Group in Japan. Accordingly, the committee includes individuals from the Group's overseas bases. Members change, of course, so at any one time overseas members may be from, for example, the United States, the PRC and Singapore, as well as the United Kingdom and France. This ensures that committee discussions are spirited and reflect a broad understanding of major global trends.

To promote greater agility in executing sustainability initiatives, we have also established the Sustainability Working Group, which is responsible for overseeing practical implementation, as a subsection of the committee. Since the DIC Group launched its sustainability program in 2007 (using the designation “CSR program” until 2013), the Sustainability Working Group and its members have overseen efforts to incorporate sustainability themes into everyday operations. As head of the ESG Unit, I chair this working group. With the direct participation of pertinent departments, the Sustainability Working Group continues to deploy initiatives in line with a variety of themes, including the environment and safety, quality, human resources management, business models that respond to social imperatives, and social activities and contributions to society, formulating an annual activity plan for the Group and using the PDCA cycle to evaluate efforts. In particular, in the area of raw materials procurement we have inaugurated a system that places importance on creating a framework for the procurement of raw materials centered on respect for the human rights of individuals involved in this process. In addition, we have launched Work Style Revolution (WSR) 2020, a project targeting the development of new work styles, which prioritizes the “social” component of ESG.

The DIC Sustainability Index and DIC's Future Vision

The basic concept of our DIC111 medium-term management plan is to foster businesses that deliver both social value and economic value, guided by two strategies, Value Transformation and New Pillar Creation, an approach that we see as central to realizing our future vision. It was with the aim of accurately measuring the social value of our products that we developed the DIC Sustainability Index. This index—which was drafted to help answer the essential question of how our products, and by extension our businesses, can help address social imperatives related to concerns such as climate change, food safety and marine plastics—positions products that both leverage key DIC capabilities and benefit society as “sustainable.” We are confident that the DIC Sustainability Index will continue to serve as a useful tool for employees in all areas, from product development to raw materials procurement, production and sales, to expand our selection of products that offer sustainable solutions.

Going forward, we will continue working to enhance both social value and economic value of our businesses, as well as to capitalize on the DIC Sustainability Index to advance the prudent yet bold management of our business portfolio, strengthening the sustainability of our businesses, and by extension our ability to contribute to society, and helping to ensure continuous growth.

Achieving Carbon Neutrality

A total of 16 of the DIC Group's sites and offices in Japan have earned certification under Japan's Designated Energy Management Factory system. We have long promoted systematic efforts to reduce our energy consumption and were early to announce a target for lowering our emissions of CO₂, calling for a reduction of 30% from the fiscal year 2013 level by fiscal year 2030. Having recognized responding to climate change as an increasingly critical challenge for companies, in May 2019 we declared our support for the TCFD and began to disclose related information in line with TCFD recommendations. Focusing on risks and opportunities associated with climate change, the Sustainability Committee is proceeding with deliberations on how to best tie these considerations into Group business strategies.

In January 2021, a Climate Change Response Subcommittee was created within the Sustainability Strategy Working Group to enable production, procurement, logistics, R&D, management planning and other departments to conduct a cross-functional review of related initiatives. As a result, the decision was made to revise our climate change-related targets. We now aim to achieve carbon neutrality by 2050, as well as to reduce CO₂ emissions by 50% from the fiscal year 2013 level by fiscal year 2030, a midway point in our drive to eliminate emissions entirely. Also in January, we introduced internal carbon pricing as a first practical new measure toward attaining these targets. In preparation for the expected introduction of carbon taxes, we have since put a mechanism in place to encourage employee awareness of the costs associated with CO₂ emissions and to increase incentives for reductions realized. Looking ahead, we will work to formulate and promote the horizontal deployment of measures to accelerate environmental investments across the entire DIC Group, working as one to reduce our impact on the global environment.



October 2019 meeting of the Sustainability Committee (Owing to COVID-19, Sustainability Committee meetings in 2020 were conducted remotely.)

Responding to a Circular Economy: The Next Phase of Sustainability

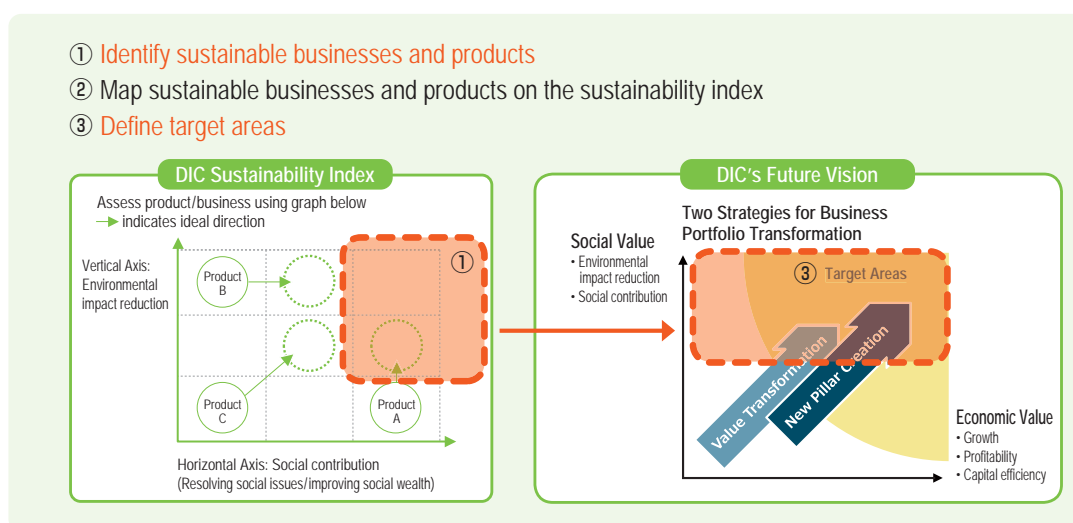
The issue of marine plastics is one of particular concern to us as an organization that manufactures a wide variety of polymer products. In an initiative aimed at responding effectively to the shift to a circular economy, as well as to market changes propelled by evolving demand patterns, we are currently promoting the creation of a system for the chemical recycling of polystyrene. More broadly, we will also increase efforts to search for bioderived and recyclable materials, which we are approaching as a medium- to long-term endeavor. While we acknowledge that developing the materials and technologies necessary to ensure the practicality of recycling will require us to address daunting challenges, we are committed to contributing to this next phase of sustainability for the world and for ourselves.

Sustainability Index

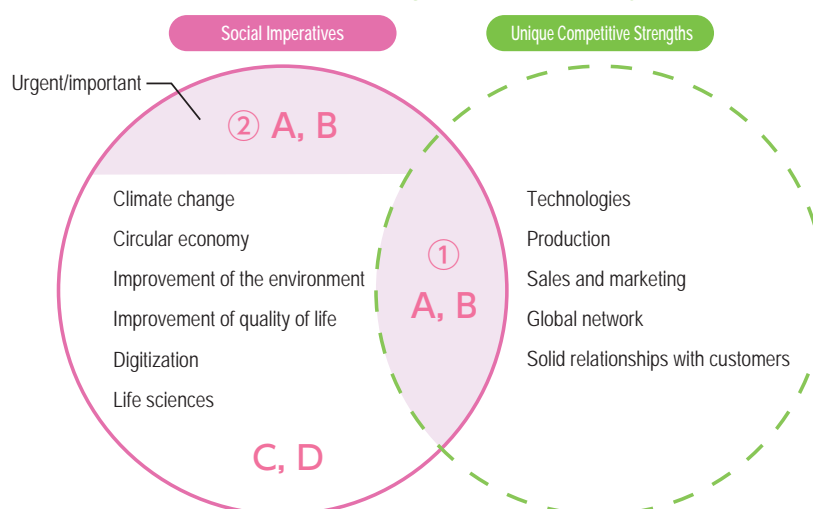
Sustainable Products Are Those that Deliver Outstanding Social Value

The DIC Group defines “sustainable products” as products that deliver outstanding social value and which the Group is uniquely positioned to offer to help ensure a better society in the future. These are products endowed with distinctively DIC features and value. The Group has thus designated products that both demonstrate its unique competitive strengths and have the potential to improve society going forward as “sustainable.” These products will help the Group contribute to the resolution of social imperatives arising from ESH-related issues and social changes, including climate change, food safety and marine plastics.

Given the increasing intensity of the changes sweeping global society, the DIC Group will also focus on positioning itself to address the social imperatives that will arise in the years ahead. Recognizing that in some cases the unique skills necessary to meet these challenges may still be in their infancy, the Group will take bold steps to reinforce its unmatched capabilities, thereby ensuring it can continue providing value.



Businesses and Products Designated Sustainable by the DIC Group

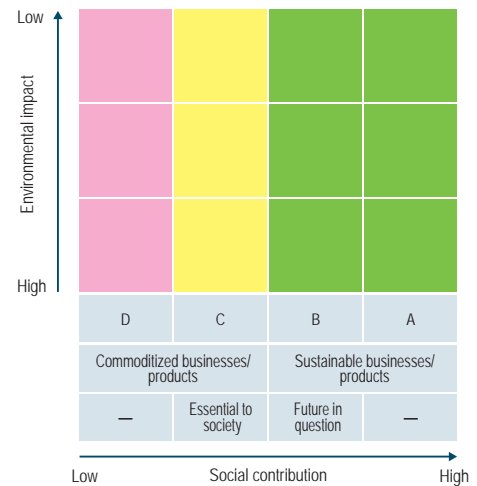


Assessing the Sustainability of All DIC Group Products

Guided by the DIC Sustainability Index, which was established with the goal of measuring the social value it provides, the DIC Group is advancing the transformation of its business portfolio by focusing on businesses that balance this and economic value. Aware that expanding into the areas it is targeting will require the effective allocation of limited resources, the Group will use the index to evaluate all DIC Group products to determine whether they are sustainable or not, enabling it to make appropriate decisions regarding the use of resources for portfolio transformation.

Assessment using the DIC Sustainability Index will result in products being classified as “sustainable,” indicated in green; “competent,” indicated in yellow; and “challenged,” indicated in pink. As noted above, the DIC Group uses the designation “sustainable” for products that both demonstrate its unique competitive strengths and have the potential to improve society going forward. From the perspective of sustainable value, the Group has positioned these as the products that it must strengthen in the years ahead.

“Competent” products are essential to society today. These are products that boast important performance features that, for example, enhance convenience or support modern lifestyles, but that fall somewhat short when evaluated in terms of perspective of future sustainability. Products assessed as “challenged” are those that are neither “sustainable” nor “competent.” How to, or whether to, proceed forward with these particular products will require serious consideration.

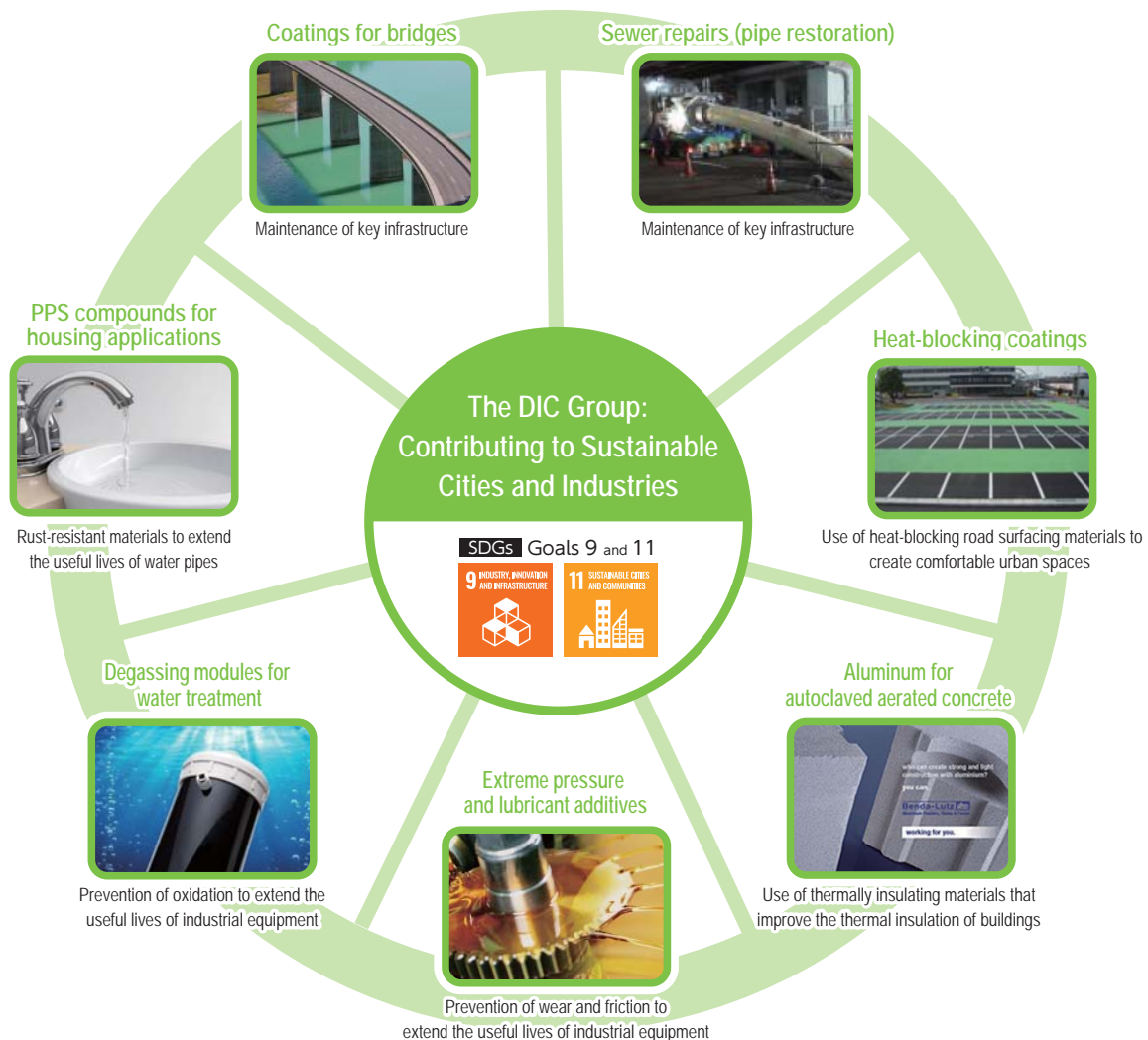


Reducing Environmental Impact: The Vertical Axis

The DIC Sustainability Index’s vertical axis quantifies each product’s contribution to the reduction of environmental impact. Having built up a wealth of related data, the DIC Group is committed to avoiding the use of harmful substances, as well as to conducting lifestyle assessments. The Group is also cognizant of the fact that reducing its impact on the environment will require comprehensive measures to improve the performance of its production facilities and other sites, including by modifying production processes, reducing CO₂ emissions attributable to energy use and ensuring the proper management of water resources.

The DIC Group acknowledges the expectations and needs of its customers, and of society at large, in terms of lowering its environmental impact, as represented by CO₂ emissions and other key benchmarks, and pledges to continue advancing forward-looking, long-term efforts to reduce its environmental impact.

Contributing to Sustainability by Providing Safety and Peace of Mind, Color and Comfort



Support for the TCFD

In May 2019, the DIC Group declared its support for the Task Force on Climate-related Financial Disclosures (TCFD). Recognizing climate change as a critical factor affecting its businesses, 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.

A New Target for the Reduction of CO₂ Emissions

In June 2021, the DIC Group revised its target for the reduction of CO₂ emissions. The Group now aims to achieve carbon neutrality—net zero CO₂ emissions—by fiscal year 2050 and will seek to reduce CO₂ emissions 50% from the fiscal year 2013 level by fiscal year 2030. (The range of this target is Scope 1 and 2 emissions.)

The DIC Group will also continue working to expand its portfolio of products and services that contribute to decarbonization with the goal of playing an active role in lowering CO₂ emissions in markets and across society.

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.

Principal Issues Deliberated by the Sustainability Committee in Fiscal Year 2020

Fiscal year	Issues deliberated
2020	<ul style="list-style-type: none"> • Medium-term sustainability policies^{*1} • Report on and evaluation of sustainability initiatives for fiscal year 2019 • Annual sustainability activity plans and key performance indicators (KPIs) for fiscal year 2020 • Report on the progress of efforts to determine priority materiality themes^{*2} • Introduction of an internal carbon pricing system • Matters pertaining to the Climate Change Working Group

^{*1} After deliberation by the Sustainability Committee, medium-term sustainability policies are discussed and determined by the Board of Directors.

^{*2} "Response to climate change" was newly identified as a priority materiality theme in fiscal year 2019. Deliberations continued in fiscal year 2020.

2 Strategy

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.

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.
Reputation (Transition)	If DIC's attitude toward and ability to respond to climate change are 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 the operations of 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.

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.












Scenario Analysis

In fiscal year 2020, the DIC Group conducted scenario analysis using both the 2°C scenario and the 4°C scenario for core businesses, as shown in the following table:

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			
	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.

Results of Scenario Analysis



	Implications for society and the business environment	Risk and opportunity assessment		DIC Group countermeasures
4°C scenario: Response to changes in lifestyles attributable to rising temperatures	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. 		<ul style="list-style-type: none"> Rising temperatures present an opportunity in the form of increased demand for thermal barrier-related products. Given that dietary preferences are also expected to change, capitalize on expanding demand from beverage manufacturers and for materials used in frozen foods. Take advantage of higher demand in the health foods and life sciences fields attributable to increasing health consciousness.

Note: Figures are based on 2018 results at the time of scenario analysis. As CO₂ emissions in fiscal year 2019 amounted to 577,057 tonnes, the impact of carbon pricing under this condition would be as much as ¥4.62 million.

Initiatives for Fiscal Years 2020 and 2021 (Following Scenario Analysis)

- 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 Working Group and set new targets for achieving carbon neutrality by fiscal year 2050 and reducing CO₂ emissions by 50% from the fiscal year 2013 level by fiscal year 2030.

3 Risk Management

Processes used to identify and assess climate-related risks

The Sustainability Working Group, which was established in June 2018 as a subsection of the Sustainability Committee, is charged with identifying and assessing priority risks and opportunities from the perspective of potential to negatively impact the DIC Group's financial standing, that is, with identifying and assessing materiality. The assessment of priority risks and opportunities (materiality assessment) is deliberated and determined by the Sustainability Committee, which reports its findings to the Board of Directors. In fiscal year 2019, as part of its newly revised process for assessing and abstracting material issues, DIC identified climate change as one of four priority materiality themes, recognizing it as a critical challenge from the perspective of both adaptation and mitigation.

Pressure on the global community to achieve carbon neutrality by fiscal year 2050 continues to intensify rapidly and changes to rules governing competitiveness are expected to transform the socioeconomic system. While the Group has set a target for reducing CO₂ emissions 30% from the fiscal year 2013 level by fiscal year 2030 and is promoting a variety of emissions reduction measures, it recognizes the following climate change-related risks as having the potential to negatively impact its performance:

- 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); and,
- 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).

These three risks are seen as highly likely to manifest over the medium term (three to four years) or the long term (five years or more). They are also recognized as being in one of two categories, namely, externally caused risks that are beyond the Group's control or business risks that should be handled by the relevant divisions/departments.

Processes used to manage climate-related risks

The DIC Group has identified "Response to climate change" as one of four priority materiality themes. Accordingly, the progress of initiatives is deliberated periodically by the Sustainability Working Group, with the results of deliberations reported to and approved by the Sustainability Committee. The working group looks at success in reducing CO₂ emissions compared with the target set, the evolution of efforts to manage risk compared with TCFD requirements and grasp of Scope 3 emissions. As part of its effort to satisfy TCFD requirements, the Group conducts scenario analysis using both the 2°C scenario and the 4°C scenario to assess transition and physical risks.

4 Metrics and Targets

The DIC Group's DIC111 medium-term management plan includes a commitment to reducing emissions of greenhouse gases from its sites. The Group discloses the results of such initiatives and obtains third-party verification of its CO₂ emissions data.

Environmental Targets Set Forth in DIC111

Environment

- Reduce CO₂ emissions attributable to production.
- Supply products and solutions that contribute to sustainability.

Target: Reduce CO₂ emissions 30% from the fiscal year 2013 level by fiscal year 2030.

- Install solar power systems and implement energy-saving measures.
- Introduce a proprietary sustainability index based on environmental impact reduction and social contribution.
- Utilize recycled materials and adopt biomass-derived raw materials.

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)

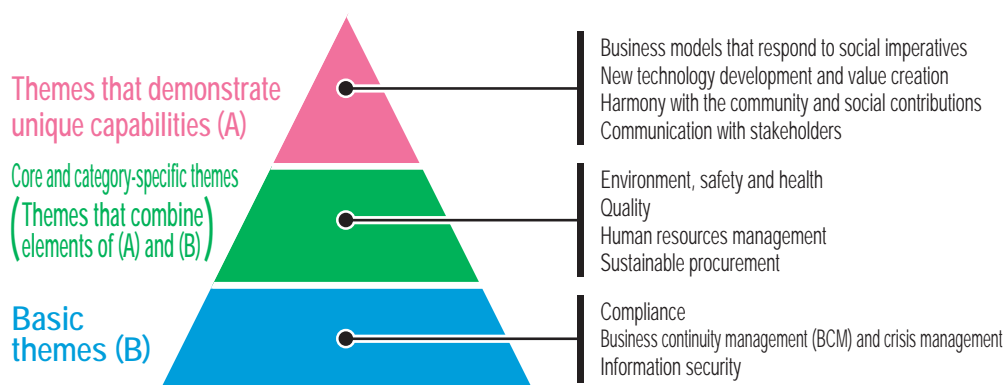
The DIC Group is dedicated to conducting its business while retaining a strong commitment to five key concepts: preserving safety and health, managing risks, ensuring fair business practices and respect for diversity and human rights, maintaining harmony with the environment and advancing its protection, 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

To foster concrete measures, in fiscal year 2007 the DIC Group identified 12 key themes as a framework for implementing its CSR program. Subsequently, the Group partially revised these themes in response to changes in the external environment and the progress of its efforts. Today, the Group's sustainability framework comprises 11 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.



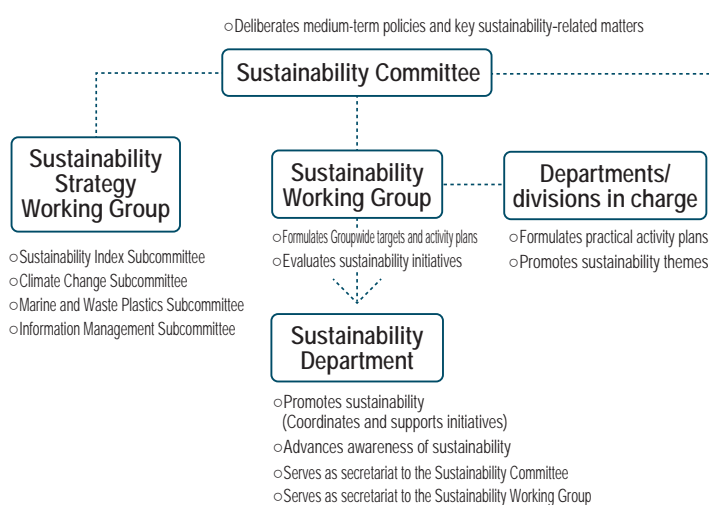
Deployment

In line with its basic sustainability policy, the DIC Group has formulated a medium-term (fiscal years 2019–2021) policy and creates an annual activity plan for each of its key sustainability themes. The Group makes use of the 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.

I 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 2020. 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 Purchasing and Logistics Unit, Head of the ESG Unit, Head of SCM 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

I 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 that demonstrate unique capabilities (A)

Business models that respond to social imperatives

New technology development and value creation

Harmony with the community and social contributions

Communication with stakeholders



SDGs Goals 8, 9 and 11



SDGs Goals 9 and 12



SDGs Goals 3 and 4



SDGs Goal 17

Core and category-specific themes (Themes that combine elements of (A) and (B))

Environment, safety and health

Quality

Human resources management

Sustainable procurement



SDGs Goals 3, 6, 7, 12, 13, 14 and 15



SDGs Goals 3, 4, 5, 8 and 10



SDGs Goal 12

Basic themes (B)

Compliance

BCM and crisis management
Information security



SDGs Goal 16

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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
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 for DIC executives (once), executives of Group companies in Japan (once) and at DIC Group companies in six countries overseas. 	<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 employees assigned to overseas posts. 	★★	<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.
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 Training focused on legal issues to improve 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 and compliance, in fiscal year 2020 e-learning was implemented in Japan and at DIC (China), DIC Asia Pacific and Sun Chemical, which oversee operations in, respectively, Greater China, the Asia-Pacific region, and the Americas and Europe.

Legal training focused on governance-related issues was also implemented in Japan (twice for DIC executives, once for the presidents of Group companies in Japan and once for domestic employees assigned to overseas posts).

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)

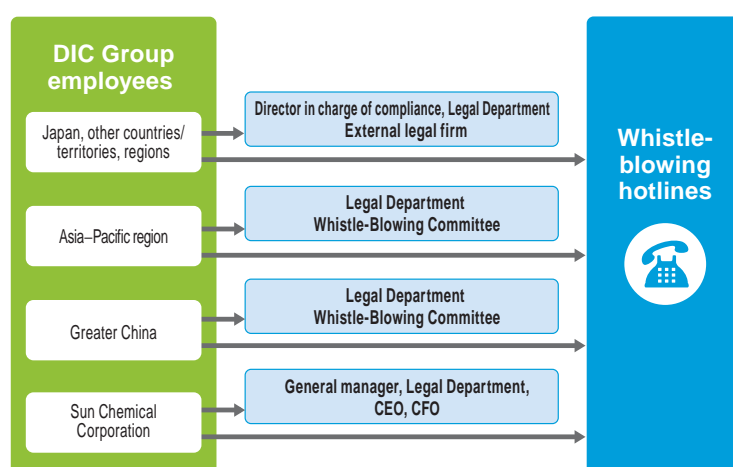
- ② Compliance officers are appointed at all regional headquarters—DIC (Japan), Sun Chemical (the Americas and Europe), DIC (China) (the PRC) and DIC Asia Pacific (Asia and Oceania)—to spearhead global compliance efforts.

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 2020, 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 encompasses hotlines that can handle reports of compliance 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 2020, approximately 25 reports were received on compliance issues and labor matters such as power harassment and discrimination, but none were judged to be serious. DIC began providing e-learning focused on the Group's whistle-blowing system in December 2020.



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 for relevant employees to ensure strict compliance with the laws of the countries in which it operates.

Promoting Compliance with Legislation Regarding the Timely Payment of Subcontractors

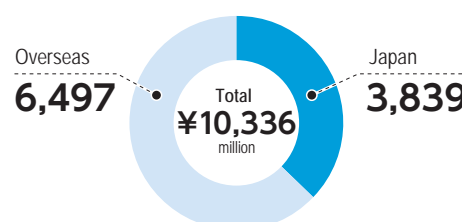
With the aim of enhancing understanding of the importance of appropriate and fair transactions with subcontractors, the Legal Unit held presentations on legislation regarding the timely payment of subcontractors, incorporating case studies, for the purchasing departments of domestic DIC Group companies, 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 taxes in Japan and overseas in fiscal year 2020.

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)

Accrued Taxes in Fiscal Year 2020



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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Ensure the continuity of DIC Group businesses.	<ol style="list-style-type: none"> Periodically revise BCPs and reinforce/expand 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. The decision was made to introduce a system for sharing information in the event of an accident or disaster to reinforce cooperation among the headquarters task force, product divisions and sites. A demonstration of the use of this system in joint initial response training with sites was conducted as part of training for the headquarters task force. The preparation of eight risk-specific manuals for Company representatives assigned to overseas posts (including a revised version of the manual on responses to infectious diseases incorporating responses to COVID-19) was completed. 	★★	<ol style="list-style-type: none"> Periodically revise BCPs and reinforce/expand cooperation among product divisions and sites. Strengthen efforts to create a global crisis management configuration and promote BCP initiatives.

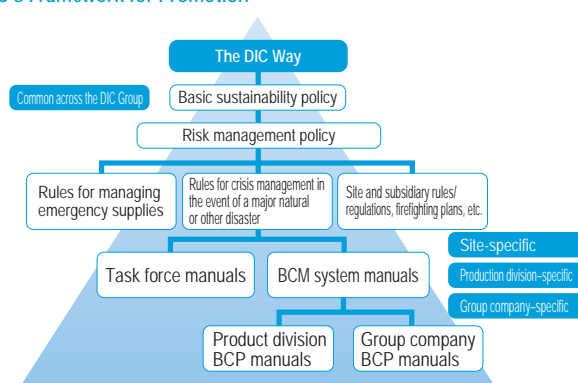
Basic Approach to BCM and Crisis Management

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 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 2020

While fiscal year 2020 was fortunately a year in which the DIC Group did not suffer significant damage from natural disasters, additional decisive steps were required to curb the spread of COVID-19, including the shipment of masks and noncontact thermometers to Group sites worldwide. Moreover, because the existing pandemic BCPs were premised on a novel influenza virus, they were not compatible with the measures required for a novel corona virus, as a result of which DIC recognized the need to create new pandemic manuals that are not limited to responses tailored to one specific infectious disease. Accordingly, the Company aims to revise its pandemic BCPs with a focus on common, universal measures appropriate for all types of infectious disease.

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 fiscal year 2020, we continued to focus on training for and efforts to enhance awareness among individuals involved in BCP across the DIC Group. In an average year, training includes holding 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 conducting BCP-focused joint production division–site exercises.

In fiscal year 2021, DIC plans to fully deploy the DIC BC Portal, a dedicated portal system to allow the sharing of information among the headquarters task force, product divisions and sites in the event of an accident or a disaster. In fiscal year 2020, headquarters task force training included a trial of this portal system based on a scenario involving an accident at the Tokyo Plant, after which the headquarters task force set up communications with the Tokyo Plant, allowing the latter to share information regarding the imagined accident.

Going forward, DIC plans to use the DIC BC Portal in conjunction with its web conferencing system to facilitate the sharing of information simultaneously between the headquarters task force and multiple sites.

Preventing BCPs from Becoming Empty Formalities

The DIC Group holds annual status update meetings, attended by relevant executives, to verify that the content of BCPs that have been formulated is current and to prevent them from becoming empty formalities. DIC recognizes the need to ensure that divisions and departments share a common crisis awareness to enable the prompt restoration of operations using limited resources in the event a production site is damaged by a disaster or other event. The aforementioned BCP-focused joint production division–site exercises, which are held annually, are designed to confirm the effectiveness and functionality of product division BCPs through disaster prevention and mitigation exercises based on hypothetical scenarios. They also seek to improve responsiveness to newly recognized issues with the aim of enhancing initial responses in the event of a disaster and of improving site restoration, complementary production strategies, supplier management and local responses. Despite having to pause this initiative temporarily in fiscal year 2020 because of COVID-19, DIC plans to continue conducting these joint exercises going forward.

Conducting Emergency Response Exercises and Drills

In addition to annual headquarters task force–led training and BCP-focused joint production division–site exercises, 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 smooth restoration of operations. This system includes a wide range of exercises and drills, including employee safety confirmation report drills, emergency radio warning drills between sites and site-specific comprehensive disaster drills. In fiscal year 2020, the headquarters task force also conducted a drill using 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.



Comprehensive disaster drill at corporate headquarters



Task force map-based simulation exercise



BCP training at corporate headquarters



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 increase the number of employees being assigned to overseas posts or traveling overseas on business. Given the rising frequency of terrorist acts and the dangers posed by infectious disease outbreaks and other such incidents in various locations, the Group has prepared manuals for use in the event of, for example, a natural disaster, pandemic or automobile accident, as well as reinforced measures to help employees evade danger. The Group has also taken steps to advance awareness among related individuals and to reinforce corporate headquarters' ability to respond effectively in an emergency situation by establishing an emergency overseas contact network, providing risk information to overseas bases, distributing safety handbooks, providing safety training to employees prior to taking up new overseas posts or embarking on overseas business trips, preparing crisis management manuals and conducting exercises based on hypothetical scenarios.



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

DIC Corporate Headquarters' Emergency Pocket Books

Approximately 1,400 employees of the parent company and various domestic Group companies work at the corporate headquarters in Tokyo. DIC has prepared *Emergency Pocket Books*, pocket-sized booklets that provide instructions on appropriate actions—both autonomous and in cooperation with others—in the event of a disaster for distribution to these employees and their families. The booklets also detail corporate headquarters' overall emergency response framework and the responsibilities of individual floors and departments in an emergency situation, as well as provide space for employees and their families to provide contact information. The compact size of the booklets ensures portability.



Emergency Pocket Books

Community Efforts to Cope with Major Disasters

Japan, which is one of the most earthquake-prone countries in the world, 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. Every year, a comprehensive neighborhood disaster drill is conducted on an empty lot near the DIC Building.

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, where 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

Responding to Pandemics

DIC prepares product-specific pandemic BCPs in non-emergency times to guarantee it is fully prepared to respond to pandemics when they occur. To ensure preparedness for the concurrent infection of multiple employees, the Company has also developed response plans for individual production lines at each of its production sites. Having recognized that because different infectious diseases behave in different ways, responses tailored to one particular disease may not be effective for all pandemics. Accordingly, the Company plans to revise its pandemic BCPs with a focus on common, universal measures appropriate for all types of infectious disease.

In response to the emergence of COVID-19 in fiscal year 2020, DIC has focused on carrying out actions designed to help thwart the further spread of the virus and to prevent employees from becoming infected. These include prohibiting business trips worldwide; instituting telework arrangements, including for 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 with whom they live feel unwell; and encouraging the avoidance of meetings and events.

The DIC Group remains keenly aware of the potential significant impact of risks related to pandemics and other large-scale disasters in terms of the interruption of its supply chain and overall impact on materials industries. Accordingly, the Group is working to develop BCPs that take its supply chains into account.

Information Security

Initiatives to Ensure Information Security

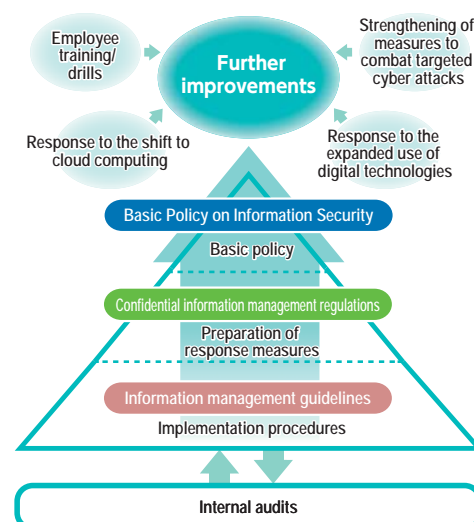
Goals and Achievements of Major Initiatives

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

Objective of initiatives	Goals for fiscal year 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Establish a global information security framework.	<ul style="list-style-type: none"> Prepare and reinforce guidelines for the use of cloud-based services and cloud computing. Strengthen the security environment for mobile devices and investigate and assess technologies for integrating information and execution network technologies. Formulate and strengthen information security rules and frameworks, provide training and encourage awareness in a manner that responds to new information security threats and risks. Create emergency response system to address incidents when they occur. 	<ul style="list-style-type: none"> A thorough evaluation was conducted and directions were prepared to guide decisions regarding the use of cloud-based services. Standard mobile devices were provided and the communications infrastructure improved to accommodate the rapidly expanding use of telework arrangements. Endpoint security systems for computers and other devices was updated. 	★★	<ul style="list-style-type: none"> Reinforce the security infrastructure and set or update various standards in preparation for the full-scale transition to 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. The Group is deploying measures in Japan and across the Asia-Pacific region and is promoting similar efforts in the Americas and Europe.

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, 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 addition, the Group has established separate rules for handling personal information and customer information in its information management guidelines, which it is working to disseminate among employees. In fiscal year 2020, the DIC Group reported no breaches of customer privacy or losses of customer data.

Management Framework

The Information Security Committee, which is led by the chief information officer (CIO), 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.

To ensure it is prepared in the unlikely event of an information security-related incident, the Group has created a task force operational manual to ensure effective initial responses to incidents when they occur.

Infrastructure

In preparation for the full-scale transition to a cloud-based information system and the expanded use of telework arrangements, in fiscal year 2020 the DIC Group took steps to reinforce its internet security infrastructure and updated endpoint security systems. The Group also proceeded with the construction of a maintenance system to promptly detect information security risks and address incidents when they occur in collaboration with an external partner.

On another front, the DIC Group continued to conduct inspections of its information security management system, regulations, infrastructure, maintenance measures, and employee education and training, from a third-party organization. This helps to clarify issues and challenges and ensure they are reflected in remedial measures.

Employee Education and Training

The DIC Group offers an annual e-learning information security program to employees in Japan and the Asia-Pacific region, in which 90% of eligible employees take part. In fiscal year 2019, this program was broadened to include the protection of personal information. The Group has also provided training dealing with targeted email attacks since fiscal year 2017, working continuously to ensure more practical content to increase employees' awareness of security. The Group has offered employee training in both information security and in dealing with targeted email attacks in the Americas and Europe since fiscal year 2018.

In response to the emergence of a "new normal" in fiscal year 2020 and the expanded use of telework arrangements, the DIC Group is currently formulating guidelines that accommodate various work styles, which it will work to disseminate across the Group.

Environment, Safety and Health (ESH)

Toward the Achievement of a Sustainable Society

SDGs Goals 3, 6, 7, 12, 13, 14 and 15



Management System

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 Management System

The DIC Group manages its Responsible Care program in accordance with seven codes.* The first, summarized as "management system," aims to facilitate the uniform administration of six other codes: "occupational safety and health" (protection of the safety and health of employees), "disaster prevention" (prevention of fires and 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 and product safety" (management of risks associated with chemicals) and "dialogue with society" (communication with local communities regarding ESH). The Group has augmented these codes with an additional internally devised code, and applies the PDCA 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 Management system (for unifying the following codes as a system)Page 69
- ② Occupational safety and health (protection of the safety and health of employees)Page 75
- ③ Disaster prevention (prevention of fires and explosions and the discharge of chemicals)Page 79
- ④ Environmental protection (continuous reduction of chemical emissions and the discharge of waste)Page 82
- ⑤ Safety in logistics (reduction of chemical risks associated with the distribution of chemicals).....Page 102
- ⑥ Chemical and product safety (management of risks associated with chemicals).....Page 105
- ⑦ Dialogue with society (communication with local communities regarding ESH).....Page 111



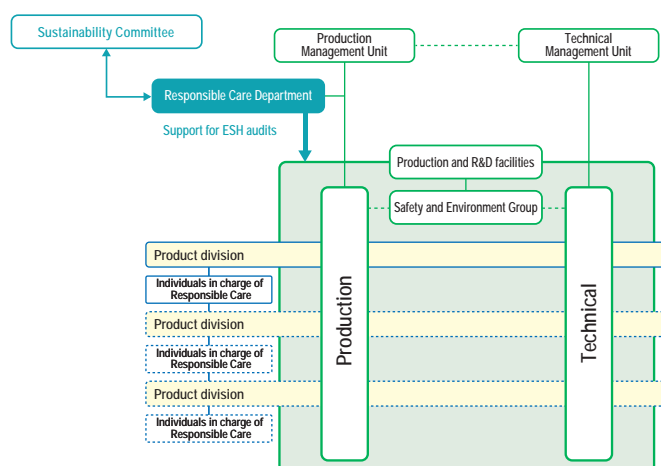
Introduction of the DECS

In fiscal year 2019, the DIC Group introduced the DIC ESH Data Collection System (DECS), a cloud-based system for recording and storing occupational safety and health, climate change, water resources, waste and other pertinent data to facilitate centralized management. 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.

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



Annual Activity Plans

The DIC Group formulates annual Responsible Care activity plans and implements Groupwide initiatives. Based on Group activity plans for fiscal year 2020, regional headquarters developed their own region-specific activity plans, while individual Group companies, in line with the concept of management by objectives (MBO), sought to translate these plans into reality by promoting Responsible Care initiatives and working to contribute through production activities to the realization of an environment-oriented society.

| The DIC Group's Annual Responsible Care Activity Plans for Fiscal Year 2020

① Management system

- Raise environmental and safety management levels Groupwide.
- Promote environment- and safety-related education.
- Reinforce the ESH management systems of regional headquarters (Greater China and Asia-Pacific region) and provide support for engineering efforts (Asia-Pacific region).
- Utilize the new system for collecting Responsible Care data.

② Occupational safety and health

In line with the DIC Group's fundamental objective, which remains the achievement of an accident-free workplace, set regional targets for reducing the incidence of occupational accidents in fiscal year 2020.

③ Disaster prevention

Promote the horizontal deployment of lessons learned from major disasters and work to prevent recurrence.

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

④ 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 the DIC 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 the promotion of energy-saving initiatives at sites.
 - (b) Promote the use of energy from renewable sources.
 - (2) Strive to ensure a grasp of CO₂ emissions across the supply chain (Scope 3).
 - (3) Conduct scenario analysis to formulate climate change strategies.
- Maintain/lower impact of production activities on air and wastewater quality.
- Maintain/increase industrial waste recycling rate.
- Promote the management of 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.

⑤ Safety in logistics

Continue to promote the provision of information pertinent to the safe transportation of chemicals.

⑥ Chemical and product safety

Promote the creation of a new global system for managing information on chemical substances.

⑦ Dialogue with society

Continue to publicize the results of the DIC Group's Responsible Care activities.

Note: Activity plans are as of December 2020.

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.

Deployment at DIC Group Companies

Support for Group Company Responsible Care Initiatives

The Responsible Care Department provides wide-ranging support to DIC Group companies in Japan and overseas, regardless of operating scale (a total of 75 sites), 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.

Acquisition of Certification Under ISO 14001

As of December 2020, DIC Group companies responsible for 79% of the Group's production volume had acquired certification under ISO 14001, the International Organization for Standardization's standard for environmental management systems.

Principal Initiatives in Fiscal Year 2020

Initiatives in Japan

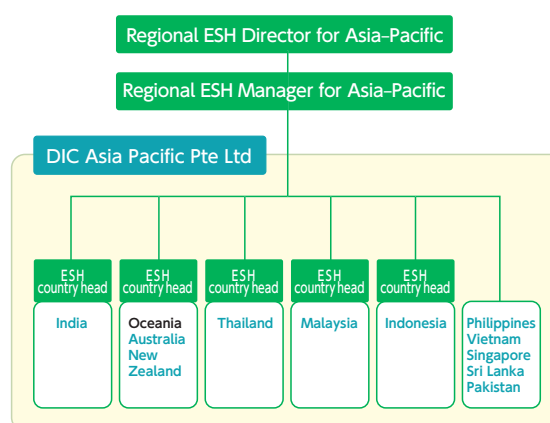
In Japan, a lack of success in reducing occupational accidents and disasters continues to underscore the need to further reinforce the Group's domestic Responsible Care framework and step up preventative measures. DIC and DIC Graphics hold GM conferences, which are gatherings of ESH officers from principal sites who have been appointed group managers (GMs). GM conferences were held four times in fiscal year 2019. Other Group companies in Japan 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.

Initiatives in the Asia-Pacific Region

DIC has installed ESH country heads (individuals in charge of ESH initiatives) in 10 countries and territories in the Asia-Pacific region under the supervision of a regional ESH director in Singapore and has also dispatched an ESH manager for the region from corporate headquarters. Country heads hold country- and territory-specific meetings periodically to discuss ESH policies, targets and challenges.

The 2020 edition of the Asia-Pacific region's annual conference was held in November 2020, 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 to discuss ESH policies, targets and challenges, as well as energy-saving investments, for fiscal year 2021.

Framework for Promoting ESH in the Asia-Pacific Region



Regional OHSAS and ISO Certification

The DIC Group in the Asia-Pacific region comprises 17 companies with 23 sites in 10 countries and territories. In addition to diverse customs and languages, a key challenge from an operations perspective is differences in awareness regarding occupational safety. To resolve such differences, it was crucial for the Group to establish common occupational safety standards and work to ensure the effective implementation thereof at all regional Group companies. DIC Asia Pacific, which oversees regional Group operations, has acquired certification under OHSAS 18001, the internationally accepted standard for occupational health and safety management systems, and provides encouragement and support for companies in the region seeking to obtain certification. Since the introduction of ISO 45001, the International Organization for Standardization's standard for occupational safety and health, in December 2019 the Group has also supported regional Group companies' efforts to earn this certification. As of December 31, 2020, 19 sites in the region had earned certification under both OHSAS 18001 and ISO 45001, giving the Asia-Pacific region a certification rate of 93%.

Initiatives in Greater China

DIC's efforts to reinforce its ESH framework in Greater China include dispatching an ESH manager from corporate headquarters to serve as regional ESH director and assigning ESH coordinators to oversee efforts in the southern and eastern parts of the country. Teleconferences involving corporate headquarters and the regional headquarters are held frequently to facilitate the prompt resolution of issues. The 2020 edition of Greater China's annual regional ESH and energy conservation conference was held in November 2020. Participants, including general managers from regional Group companies and production facilities, ESH officers and the director in charge of Responsible Care at corporate headquarters, gathered online to confirm the progress of Responsible Care initiatives and also discuss challenges and future directions.

TOPIC

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

In August 2020, DIC (China)'s ESH team conducted a seminar on advanced safety management principles and safety management tools at Qingdao DIC Finechemicals. Because of COVID-19, representatives from Hong Kong and Taiwan participated online. Local participants numbered 42 and included ESH officers and managers from the production and facility, equipment and ESH departments, underscoring increasing interest in safety management.

The seminar focused on the philosophy of advanced safety management, deciphering the elements of process safety management and mechanical integrity, as well as best practices of leading PRC-based chemicals companies and related safety management tools and methods. Lecturers included Shi Honglin, senior expert and deputy chief engineer at the China Chemical Safety Association; Li Zhuxing, a global partner of sustainability consultancy ERM, who had served as general manager of the risk management department of DNV GL in the PRC; a veteran manager from DuPont; and safety management training specialists from prominent local chemicals companies. DIC (China)'s ESH team will continue to monitor the level of safety management across the DIC Group in Greater China and plans to conduct seminars aimed at improving capabilities in this area on a periodic basis.



Participants in the seminar at Qingdao DIC Finechemicals

Initiatives in the Americas, Europe and Africa

The Sun Chemical Group oversees all Responsible Care initiatives by Group companies in the Americas, Europe and Africa. With the aim of sharing overall DIC Group Responsible Care policies and values, and to facilitate close cooperation with the Sun Chemical Group, ESH officers at DIC corporate headquarters in Tokyo hold periodic ESH conferences.

ESH Auditing

Framework for Promotion

The DIC Group regularly audits Responsible Care initiatives at Group companies, plants and R&D facilities. Because of COVID-19, auditing teams in fiscal year 2020 were limited to corporate headquarters' Responsible Care specialists and site administrators. Audits assessed a variety of factors, including the progress of remedial measures implemented in response to issues cited in 2019 audits. Overseas, Responsible Care Department specialists and regional headquarters' ESH officers use self-assessment checklists to ascertain the progress of efforts with the aim of enhancing Responsible Care initiatives at individual sites.

Principal Initiatives in Fiscal Year 2020

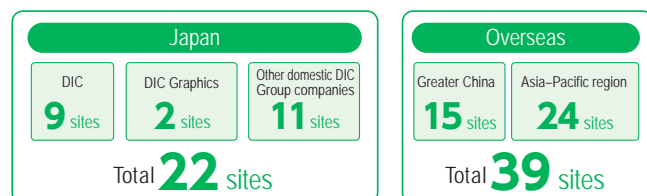
On-Site Audits Conducted at Sites to Enhance Safety

In Japan, Responsible Care Department specialists conduct audits not only at DIC but also at domestic DIC Group companies since fiscal year 2014 to verify initiatives and support improvement activities. As usual, in fiscal year 2020 audits were conducted at DIC's nine principal sites and DIC Graphics' two sites. These included a third-party safety audit at one facility and a legal inspection by a third-party consulting firm at two facilities as an objective way to identify issues. In addition, audits centering on rigorous site inspections were conducted at 11 sites belonging to nine other domestic Group companies with the aim of improving the level of environmental and safety management.

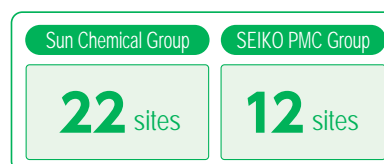
Similar efforts are also promoted overseas, with audits becoming more stringent every year. In fiscal year 2020, the Group conducted Responsible Care audits at 24 sites belonging to 17 companies in the Asia-Pacific region. Owing to COVID-19, these audits were conducted by the sites themselves. In Greater China, audits were conducted at 15 sites belonging to 14 companies, including third-party audits at three sites in Taiwan. The audits in Taiwan were conducted by the sites because of COVID-19. In the Americas, Europe and Africa, Responsible Care audits were conducted at 22 sites belonging to Sun Chemical Group companies and 12 sites belonging to the SEIKO PMC Group, which manufactures chemicals for paper production and resins for printing inks and reprographic products, although unlike in other years the SEIKO PMC audits were also implemented online owing to COVID-19. Two violations of Responsible Care-related regulations with financial penalties* were reported overseas in the period under review, in response to which prompt remedial measures were swiftly implemented.

* Penalties in excess of \$10,000

Outline of ESH Audits Implemented in Fiscal Year 2020



Audits Conducted at Subsidiaries' Sites in Fiscal Year 2020



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	Goals for fiscal year 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Ensure occupational safety and health.	Reduce frequency of occupational accidents resulting in workdays lost. DIC Group in Japan: 1.80 Greater China: 1.20 Asia-Pacific region: 2.00 Americas and Europe: 8.00 (Global DIC Group: 4.51)	Reductions achieved: DIC Group in Japan: 2.51 Greater China: 2.29 Asia-Pacific region: 1.13 Americas and Europe: 5.63 (Global DIC Group: 3.56)	★	Reduce frequency of occupational accidents resulting in workdays lost. DIC Group in Japan: 1.80 Greater China: 1.00 Asia-Pacific region: 1.50 Americas and Europe: 8.00 (Global DIC Group: 4.35)
Prevent disasters.	<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 and Organization

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 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 posters 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 (president and CEO), the Responsible Care Department and the Safety and Environment groups of Group companies, plants and research laboratories collaborate 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 achieve targets and manage the progress of related efforts. To ensure the continuous improvement of occupational safety and health overseas, the Responsible Care Department and regional headquarters work together to conduct Group company-specific risk assessments, analyze occupational accidents and promote remedial measures.

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 prepares a monthly memo for distribution to each individual employee 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—and based thereupon suggests possible 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 2020

Status of Occupational Accidents

The DIC Group sets targets for occupational accidents and promotes a variety of initiatives around the world with the aim of eliminating such accidents. Of particular note, the Group sets domestic and overseas targets for total recordable incident rate (TRIR), calculated as the number of casualties (i.e., persons injured or killed) due to occupational accidents—both those resulting in workdays lost and those not resulting in workdays lost—per million work hours. In fiscal year 2020, the Group's domestic TRIR was 2.51, down 14% from the previous fiscal year and exceeding its target of 1.80 for the period. The TRIR for the global DIC Group was 3.56, down 7% and significantly better than its 4.51 target. The number of casualties due to occupational accidents resulting in workdays lost at Group sites outside Japan was 70. None of the occupational accidents reported by the DIC Group sites in Japan and overseas in fiscal year 2020 involved fatalities. 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.

Notes:

- DIC aggregates and reports data on full-time, part-time and contract employees.
- TRIR was previously defined as the number of occupational accidents per million work hours. In fiscal year 2020, the definition was revised to the number of casualties due to occupational accidents per million work hours. Figures for fiscal years 2018 and 2019 in the accompanying table have been restated.

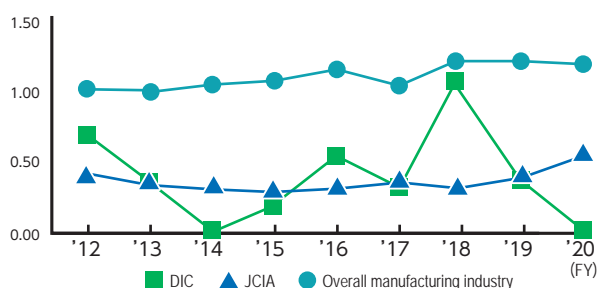
Occupational Accidents Resulting in Workdays Lost (FY2018–2020)

	DIC			DIC Group (Japan)			DIC Group (Global)		
	2018	2019	2020	2018	2019	2020	2018	2019	2020
Number of accidents resulting in workdays lost	6	2	1	8	11	5	91	78	70
Frequency rate	1.071	0.363	0.180	0.848	1.200	0.545	2.211	1.963	1.793
Severity rate	0.015	0.003	0.000	0.009	0.032	0.026	-	-	-
TRIR*	2.50	1.63	1.44	2.86	2.95	2.51	4.71	3.82	3.56

* 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

Note: Because the definition of "severity rate" varies depending on the country/territory, overall rates for the global DIC Group are not given.

Frequency Rate

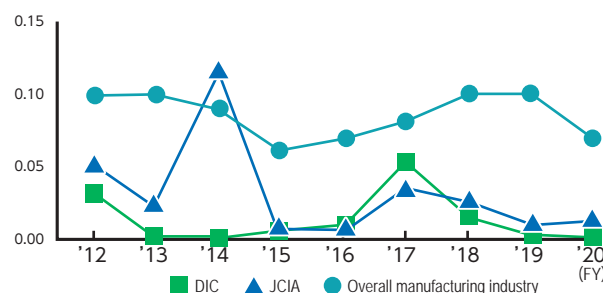


Note: The frequency rate expresses the frequency of accidents resulting in workdays lost in a fiscal year, calculated as the number of deaths or injuries per million work hours.

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

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.

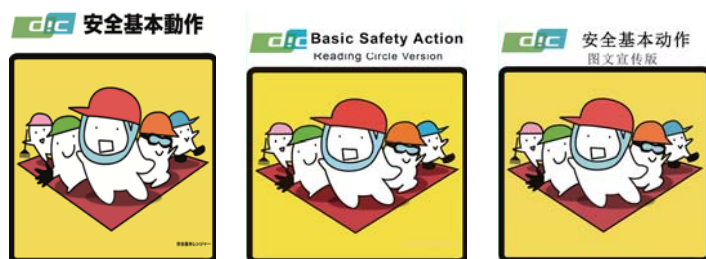
$$\text{Severity rate} = \frac{\text{Total number of workdays lost due to occupational accidents}}{\text{Total work hours}} \times 1,000$$

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

Efforts to Foster a Safety-Conscious Corporate Culture

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 distribution at all workplaces. The calendar version was 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.



Pages from an illustrated version of *Principles of Safe Conduct* for workplace reading circles (available in Japanese, English and Chinese)



Reading out passages from *Principles of Safe Conduct*

Basic Initiatives Aimed at Preventing Occupational Accidents

Aggregating and Publishing Occupational Safety and Health Data as a Monthly Report

The DIC Group conducts its diverse businesses in accordance with a wide range of national and regional legal systems, working conditions and practices. The risk of accidents and disasters varies from one industry to another because of differences in the facilities, machinery and raw materials used. For the entire Group to work as one to improve occupational safety and health, it is therefore crucial to establish appropriate benchmarks for each region.

DIC promotes the sharing of statistical data on accidents, disasters and reporting procedures for each region, as well as the gathering and sharing of statistical information related to occupational safety. This approach 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 improvement programs.

In fiscal year 2015, the DIC Group established a system for aggregating pertinent occupational safety and health data for individual Group companies in Greater China and the Asia-Pacific region and is publishing it as a monthly report. This made it easier to more swiftly identify and compare working hours, the number of accidents resulting in workdays lost, occupational accident frequency rate and other monthly data for these regions, thereby further enhancing Groupwide management and regional performance. In fiscal year 2019, the Group introduced the DECS, a system for recording and storing this data in the cloud to facilitate centralized management. (For more information, please see page 70.)

Statistical Occupational Safety and Health Data	
• Number of employees	• Total work hours
• Number of occupational accidents resulting in workdays lost and not resulting in workdays lost	• Number of accidents involving fires/explosions
• Number of workdays lost	• Workdays lost before restart of operations
• Occupational accident frequency rate	• Occupational accident severity rate

Monthly report

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.

TOPIC

DIC Graphics' Kyushu Production Group Wins Special Prize in the JCIA Safety Awards

The Kyushu Production Group of DIC Graphics' Tokyo Plant won a special prize for safety excellence in the 44th JCIA Safety Awards. The JCIA gave high marks to the Kyushu Production Group's dedicated efforts to ensure occupational safety, as a result of which at the time of the award it had achieved 50 years and nine months of accident-free operations and expressed its hope that the unit would maintain this record going forward.

Accident-Free Operations

Start of operations: December 1958

Accident-free operations: Hours: 3,362,000 hours

Years: 50 years and nine months

Comment by Kyushu Production Group Representative

We are delighted to have received this award for safety excellence from the JCIA. This award is evidence of the determined efforts of everyone who has worked in the Kyushu Production Group to ensure occupational safety. In addition to expressing our gratitude to those who came before us for their dedication, which has made it possible for us to achieve 50-plus years of accident-free operations, this award provides an opportunity for all of us to reaffirm our understanding of the importance of occupational safety and our commitment to "Safety First" in all we do to maintain accident-free operations going forward.



Employees of the award-winning Kyushu Production Group



Education and Training

Promoting E-Learning-Based Training for Employees

To enhance its ESH and disaster prevention capabilities, 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, having verified the appropriateness of educational materials from the program from the perspective of Responsible Care Department specialists, site ESH officers and production departments. The program, which is structured around laws and regulations pertinent to the operation of production facilities, including the Fire Service Act, the Air Pollution Control Law and the High Pressure Gas Safety Act, was introduced formally for DIC Group companies in Japan in fiscal year 2017, with participants able to take up to 16 classes and required to score above 80 points to earn certification. As of December 31, 2020, the cumulative number of employees participating in the program had reached 700. In fiscal year 2020, the program's focus was expanded to include static electricity.

Training Skilled Safety Personnel

To foster skilled safety personnel, the DIC Group provides regular safety education and training on how to handle chemical substances using online resources such as the *Principles of Safe Conduct* guidebook and the Group's Occupational Accident Case Studies database, as well as its *Environment and Safety Guidelines for the R&D Department* and safety data sheets (SDSs). *Principles of Safe Conduct* has been translated into several languages for use by overseas Group companies and is used widely in Greater China and the Asia-Pacific region. The fifth edition of the guidebook, which is updated every 10 years, was published in fiscal year 2018. An animated version based on the fifth edition was also launched in the same year, the Chinese- and English-language versions of which are currently being used as educational tools overseas.

The DIC Group also focuses on Kiken Yochi Training (KYT) ("hazard prediction training") and hands-on safety training on a global basis. In addition to expanding use of KYT, a constructive technique to further increase safety awareness, to all Group companies in Japan, the Group is accelerating deployment in Greater China and the Asia-Pacific region.



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



Disaster Prevention

Policies and Organization

Basic Approach

Any fire, explosion or leak of hazardous substances from 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 partner companies. In addition to establishing a security management system to prevent such accidents, the DIC Group operates and maintains its facilities in line with pertinent laws and regulations. The Group regularly conducts emergency drills and has earthquake and other response measures in place.

To ensure the safety of production equipment, the DIC Group undertakes risk assessments at every stage, from development through to disposal. In 2013, the Group also formulated the DIC Process Risk Management (PRM) Guidelines,* which consist of four assessment techniques and implementation timetables for each and is used to facilitate risk assessments at individual sites. Since identifying priority risks in fiscal year 2016 to aid in effective BCP, the DIC Group has taken steps to reinforce emergency response drills and other initiatives.

* The DIC PRM 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.

Framework for Promotion

Under the supervision of the Sustainability Committee chair (president and CEO), the Responsible Care Department and the Safety and Environment groups of Group companies, plants and research laboratories collaborate 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 achieve targets and manage the progress of related efforts.

Principal Initiatives in Fiscal Year 2020

Process Safety Management

Since fiscal year 2019, DIC has calculated process safety accidents at DIC Group sites in Japan in accordance with ICCA guidelines. The Group reported four process safety accidents in fiscal year 2020. The process safety accident frequency rate—the number of such accidents per 200,000 work hours—was 0.073.

Facility Safety Assessment

Assessment Procedures

DIC Group production facilities have an array of application-specific equipment, ranging from units where chemical reactions are conducted to machine presses and other processing equipment. When modifying processes or upgrading/replacing equipment, the Group assesses safety at every stage, from process design and construction through to operation, maintenance and final disposal, in line with risk assessment guidelines for reaction formulas, processes and equipment, to ensure higher safety levels for new processes and facilities. In fiscal year 2015, DIC revised risk assessment guidelines for machinery and equipment and prepared educational materials to prevent electrostatic accidents.

Accident and Disaster Analysis and Timely Information

DIC collects and compiles information on internal and external accidents, disasters and problems into its Occupational Accident Case Studies and Accident Case Studies databases. After identifying the causes of accidents or problems, establishing points to be checked and formulating countermeasures, the Company incorporates database information into safety education for DIC and DIC Group companies in Japan and overseas.

Assessment by the Safety Competency Enhancement Center

A company's safety competency can be defined as its ability to maintain safety levels at its various sites. In fiscal year 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) and engineers in the chemicals industry as a common benchmark and is currently used by companies in Japan that are members of the Safety Competency Enhancement Center. Assessments have been conducted at all DIC plants—the Kashima Plant in fiscal year 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—with each facility using assessment results to implement further improvements. 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 the seven inspections conducted to date, facilitating the sharing of information regarding safety and disaster prevention across the management team.

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

TOPIC

DIC Graphics' Gunma Plant Receives Award as Excellent Hazardous Materials–Related Site

In June 2016, DIC Graphics' Gunma Plant received an award as an Excellent Hazardous Materials–Related Site from the Japan Association for Safety of Hazardous Materials. A total of 49 facilities across Japan were recognized, with DIC Graphics' plant being the only one in Gunma Prefecture. The award is one of several given out at a national conference devoted to hazardous materials safety every June. To prevent the spread of COVID-19, however, the June 2020 conference was canceled. Instead, the award was presented by Chief Fukuchi of the Gunma Prefectural Tatebayashi Fire Department. This award underscores the solid evaluation given the safety protocols of the Gunma Plant, which handles a large volume of hazardous materials, encouraging employees to continue working as one to further enhance the site's ability to handle hazardous materials safely.

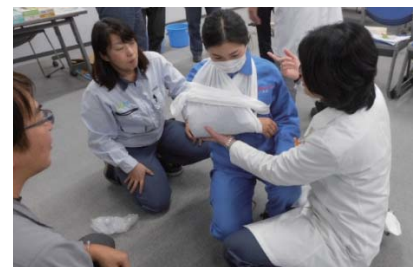


Emergency Response Drills

In addition to daily security patrols and periodic equipment checks, the DIC Group conducts regular emergency response drills based on BCPs, particularly 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

Hands-On Safety Training

The DIC Group's full-fledged hands-on safety training program began in 2012 with the introduction of a mobile initiative using equipment transported from site to site. Since fiscal year 2013, the Group has installed permanent training equipment in Japan (six sites), the PRC (three sites), Taiwan, Malaysia, Indonesia, India and Thailand. Over the past few years, these and other initiatives have helped to almost halve the occupational accident frequency rate at DIC Group sites in Japan. The Group's hands-on safety training simulates 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 with the aim of reducing employees' willingness to take risks and fostering 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.

Although a training session was held for instructors in February 2020, the pandemic forced the Group to cancel hands-on safety training in fiscal year 2020. Looking ahead, DIC will also explore the possibility of preparing a video version of the program. As of December 31, 2020, the cumulative number of employees participating in hands-on safety training had exceeded 9,000 in Japan and 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 (FY2012–2020)	9,121	5,850	14,971

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 KYT in the training curricula for new employees. The Chiba, Sakai, Hokuriku, Saitama, 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

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 plant in Noida. These companies provide hands-on safety training for employees across their respective regions, as well as for instructors.

Climate Change

Basic Philosophy

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.

Initiatives Aimed at Preventing Global Warming

Recognizing climate change as an issue of the utmost importance to society and a critical factor affecting its businesses, the DIC Group is working as one to reduce energy consumption and promote decarbonization and in its DIC111 medium-term management plan, announced in fiscal year 2019, has pledged to reduce greenhouse gas emissions from its sites. As a manufacturer of fine chemicals with a global presence, the Group is also leveraging its technological capabilities to develop products that will contribute to the realization of a low-carbon society.

At the 2015 United Nations Climate Change Conference (the 21 annual session of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC)), participants adopted the Paris Agreement, a move aimed at accelerating efforts to tackle this urgent challenge. In May 2019, the DIC Group declared its support for the TCFD,* which was announced in 2017, pledging to disclose climate-related information in line with TCFD recommendations going forward.

* The TCFD was established under the auspices of the Financial Stability Board (FSB) and announced in 2017 with the aim of mitigating climate change-related instability and risk in financial markets, which has the potential to affect performance over the medium to long term.

Basic Approach to Preventing Global Warming

Global warming—a principal cause of climate change—is an increasingly pressing issue for the entire world. Believing that measures to prevent global warming are critical to effective management for a chemicals manufacturer, the DIC Group is actively promoting a variety of efforts, as outlined below.

- ① Undertake energy-saving initiatives worldwide
- ② Deploy effective strategies through working group activities
- ③ Operate energy-saving cogeneration systems (combined heat and electric power generating facilities)
- ④ Employ energy from renewable sources (biomass boilers, wind power and 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 equipment and formulate related rules (investment in environmental value)

Note: A total of 16 of the DIC Group's 32 sites and 20 offices and research facilities in Japan have earned certification under the country's Designated Energy Management Factory 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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
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 30.0% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 2.1%).	CO ₂ emissions: 552,123 tonnes • Down 4.3% from fiscal year 2019 (577,057 tonnes) • Down 23.6% from fiscal year 2013 (722,955 tonnes)	★★★★	Reduce CO ₂ emissions at DIC Group sites (Scope 1 and 2) by 30.0% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 2.1%).
	DIC Group (Japan): 1. In line with the global target, reduce CO ₂ emissions (Scope 1 and 2) at DIC Group sites in Japan by 30.0% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 2.1%).	1. CO ₂ emissions: 194,364 tonnes • Down 12.0% from fiscal year 2019 (220,776 tonnes) • Down 20.5% from fiscal year 2013 (244,337 tonnes)	★★★★	1. In line with the global target, reduce CO ₂ emissions (Scope 1 and 2) at DIC Group sites in Japan by 30.0% from the fiscal year 2013 level by fiscal year 2030 (average annual decrease of 2.1%).
	2. 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.)	2. Energy consumption per unit of production: 3.733 GJ/tonne • Up 0.8% from fiscal year 2019 (3.705 GJ/tonne) • Down 10.5% from fiscal year 2013 (4.170 GJ/tonne)	★★	2. 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 (global DIC Group) in fiscal year 2020: 271.7 kg/tonne

- Up 0.6% from fiscal year 2019 (270.0 kg/tonne)
- Down 16.9% from fiscal year 2013 (327.0 kg/tonne)

CO₂ emissions per unit of production (DIC Group in Japan) in fiscal year 2020: 189.6 kg/tonne

- Down 3.1% from fiscal year 2019 (195.6 kg/tonne)
- Down 18.2% from fiscal year 2013 (231.7 kg/tonne)

Framework for Promotion

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. DIC has also set up an Energy-Saving Working Group at each site, comprising members chosen by the site, to foster the exchange of information and research pertaining to new items and 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 the Group's policy. The Production Management Unit provides support on multiple fronts, including the deployment of management systems and the training of employees. Critical initiatives are debated by and the progress thereof is reported on by the Sustainability Committee, which answers directly to the president and CEO.

Principal Initiatives in Fiscal Year 2020

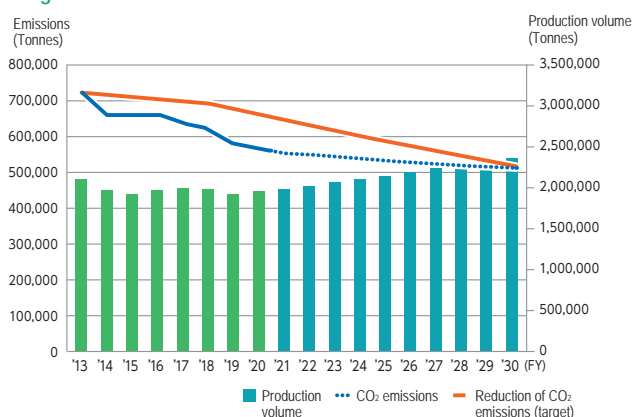
1 Energy Consumption and CO₂ Emissions by the Global DIC Group

Energy consumption by the global DIC Group in fiscal year 2020 declined 3.1% from fiscal year 2019 and 16.9% from the fiscal year 2013 base year. CO₂ emissions by the global DIC Group amounted to 552,123 tonnes, down 4.3% from fiscal year 2019 and 23.6% from fiscal year 2013, while CO₂ emissions per unit of production, at 271.7 kg/tonne, edged up 0.6% from fiscal year 2019 but fell 16.9% from the base year.

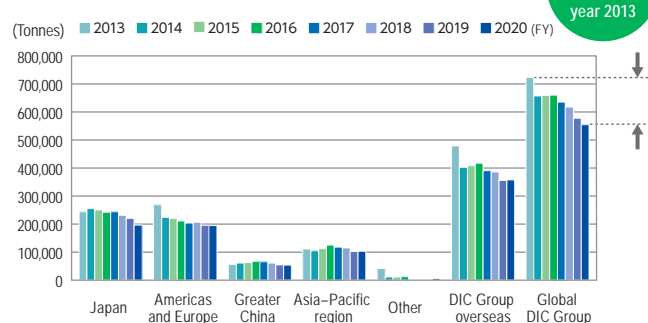
The DIC Group's diverse product portfolio includes printing inks, polymers, pigments, LCs, engineering plastics and compounds. Recent years have seen an uptrend in the output of energy-intensive fine chemicals and a downtrend in the output of general-purpose items, the production of which is comparatively energy efficient. Against this backdrop, the Group's success in achieving a reduction in the volume of CO₂ it emits worldwide in excess of its target for the year included a decline in production volume due to COVID-19, as well as efforts by companies worldwide to break down the target—an average annual decrease of 2.1% from fiscal year 2018—set forth in the DIC111 medium-term management plan to ensure achievement of its long-term target of a 30.0% reduction from the fiscal year 2013 level by fiscal year 2030. This achievement also reflected the promotion of energy-saving and decarbonization initiatives beyond what had been necessary to achieve its previous annual reduction target of 1.0%. 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.

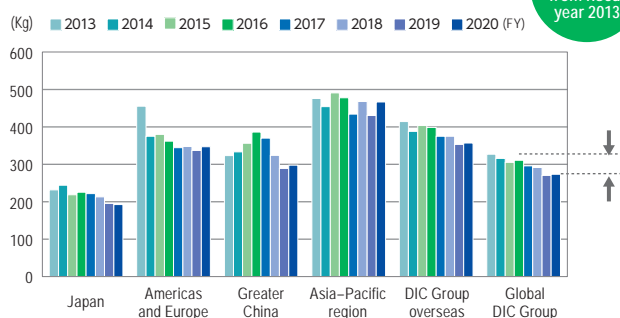
Global CO₂ Emissions: Results, Forecasts and Target for Fiscal Year 2030



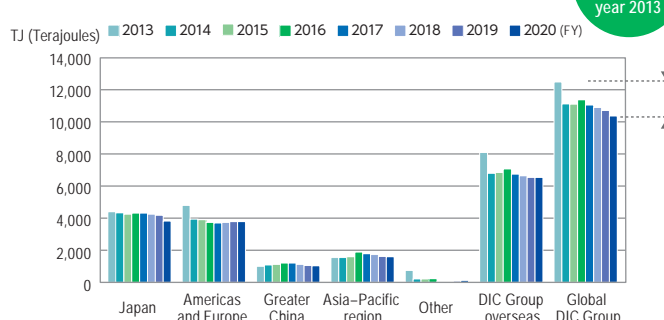
Global CO₂ Emissions



Global CO₂ Emissions per Unit of Production



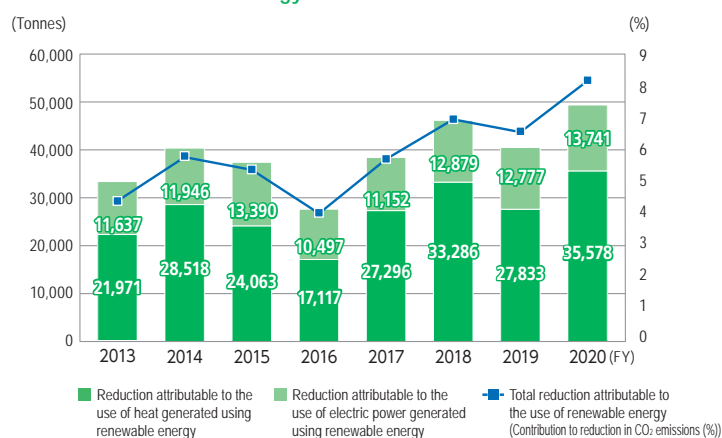
Global Energy Consumption



Factors Contributing to Change in Global CO₂ Emissions

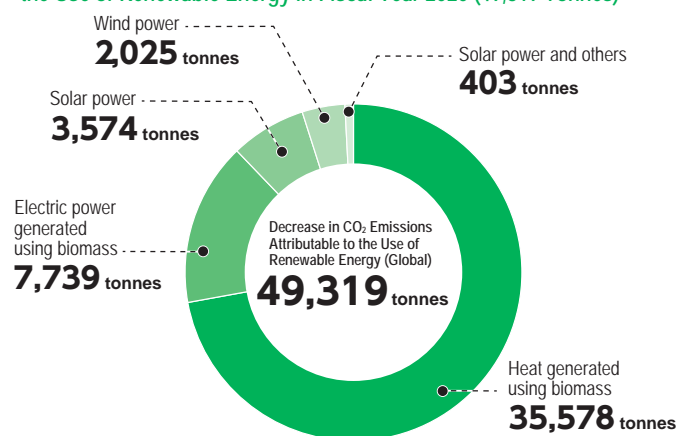
	Factors	Impact on CO ₂ emissions (tonnes)	Decrease (%)	
DIC Group in Japan	Decline in production volume	-10,852	-26,412	4.6%
	Decrease in incineration of waste oil and waste plastic (particularly at the Chiba Plant and DIC Decor)	-5,218		
	Implementation of 468 energy-saving initiatives at sites, including installation of new solar power facilities (1,277 kW)	-4,489		
	Decrease attributable to other efforts to increase efficiency	-20,745		
	Impact of change in electrical power supplier	12,746		
	Stoppage of cogeneration system at the Gunma Plant	2,145		
DIC Group overseas	Asia-Pacific region: Decline in production volume (-10.0% from fiscal year 2019)	-10,020	705	-0.3%
	Asia-Pacific region: Energy-saving initiatives and increased productivity	-829		
	Asia-Pacific region: Change in product mix and in energy consumption not directly attributable to production	2,053		
	Asia-Pacific region: Other factors	9,501		
	Greater China: Decline in production volume (-4.8% from fiscal year 2019)	-2,629	-1,102	
	Greater China: Energy-saving initiatives and increased productivity	-994		
	Greater China: Change in product mix and in energy consumption not directly attributable to production	1,095		
	Greater China: Other factors	1,426		
	Sun Chemical Group: Decline in production volume (-3.3% from fiscal year 2019)	-4,160	-654	
	Sun Chemical Group: Impact of energy-saving initiatives and increased productivity	-1,954		
	Sun Chemical Group: Change in product mix and in energy consumption not directly attributable to production	4,179		
	Sun Chemical Group: Other factors	1,280		
	Other: Changes in energy sources used at two overseas sites (operated by Group companies in the PRC and Taiwan, respectively)	2,531	2,531	
Change in CO ₂ emissions (tonnes)		-24,933		
Decline in CO ₂ emissions (%)		4.3%		
CO ₂ emissions in fiscal year 2019		577,057		
CO ₂ emissions in fiscal year 2020		552,123		

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/%)" on page 85.

Breakdown of Total Reduction in Global CO₂ Emissions Attributable to the Use of Renewable Energy in Fiscal Year 2020 (49,319 Tonnes)



Reduction in Global CO₂ Emissions Attributable to the Use of Renewable Energy (Tonnes/%)

	2013	2014	2015	2016	2017	2018	2019	2020
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
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
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
Total reduction attributable to the use of renewable energy (%)	4.4%	5.8%	5.4%	4.0%	5.7%	7.0%	6.6%	8.2%
Total global CO ₂ emissions	722,955	657,456	658,811	659,378	634,741	617,964	577,057	552,123

	2018	2019	2020	Change from previous fiscal year
Reduction attributable to the use of heat generated using biomass	33,286	27,833	35,578	27.8%
Reduction attributable to the use of electric power generated using biomass	7,936	7,847	7,739	-1.4%
Reduction attributable to the use of solar power	1,984	2,956	3,574	20.9%
Reduction attributable to the use of wind power	2,690	1,765	2,025	14.7%
Reduction attributable to the use of small hydroelectric power	270	209	403	92.4%
Total reduction attributable to the use of renewable energy	46,166	40,611	49,319	21.4%

The use of renewable energy in fiscal year 2020 accounted for an 8.2% reduction in CO₂ emissions by the global 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 49,319 tonnes / (552,123 tonnes + 49,319 tonnes).

2 Energy Consumption and CO₂ Emissions by the DIC Group in Japan

Energy consumption by the DIC Group in Japan—the 54 sites in Japan operated by DIC and domestic DIC Group companies—in fiscal year 2020 was down 8.5% from fiscal year 2019 and 13.0% from the fiscal year 2013 base year. Energy consumption per unit of production totaled 3.733 GJ, an increase of 0.8% from fiscal year 2019 but a decline of 10.5% from the base year. CO₂ emissions by the Group in Japan amounted to 194,364 tonnes, a decrease of 12.0% from fiscal year 2019 and 20.5% from fiscal year 2013, while CO₂ emissions per unit of production amounted to 189.6 kg/tonne, down 3.1% from fiscal year 2019 and 18.2% from the base year.

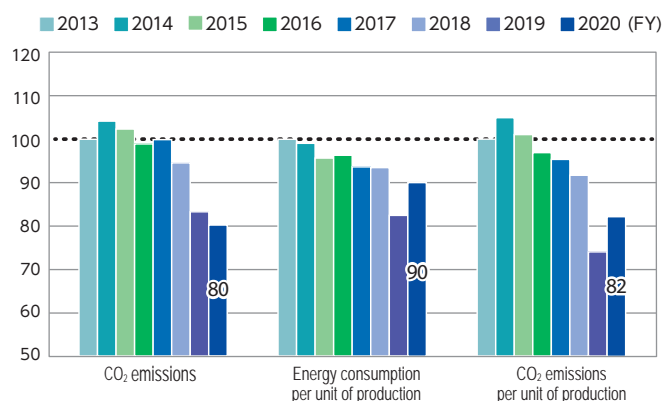
Principal factors behind lower CO₂ emissions by the Group in Japan included a decline in production volume attributable to the COVID-19 pandemic, as well as the implementation of 468 energy-saving initiatives at sites and start of operations of solar power facilities at six sites, including the Sakai Plant, with a combined annual generating capacity of 1,277 kW. As of December 31, 2020, the total generating capacity of solar power facilities at DIC Group sites in Japan was 4,341 kW.

Other contributing factors included a decrease in the incineration of waste oil and waste plastic using a rotary kiln at the Chiba Plant and by Group company DIC Decor, Inc., which resulted in a decline in CO₂ emissions attributable to the incineration of waste equivalent to 2.7% of total emissions attributable to the Group in Japan in fiscal year 2019.

Factors Contributing to Change in CO₂ Emissions in Japan

Factors	Impact on CO ₂ emissions (tonnes)	Impact on CO ₂ emissions (%)
Decline in production volume	-10,852	-4.9%
Decrease in incineration of waste oil and waste plastic (particularly at the Chiba Plant and DIC Decor)	-5,218	-2.4%
Implementation of 468 energy-saving initiatives at sites, including the expansion of solar power facilities (1,277 kW)	-4,489	-2.0%
Decrease attributable to other efforts to increase efficiency	-20,745	-9.4%
Impact of change in electrical power supplier	12,746	5.8%
Stoppage of cogeneration system at the Gunma Plant	2,145	1.0%
Change in CO ₂ emissions (tonnes)	-26,412	
Decline in CO ₂ emissions (%)	12.0%	
CO ₂ emissions in fiscal year 2019	220,776	
CO ₂ emissions in fiscal year 2020	194,364	

Changes in CO₂ Emissions, Energy Consumption per Unit of Production and CO₂ Emissions per Unit of Production in Japan Since Fiscal Year 2013



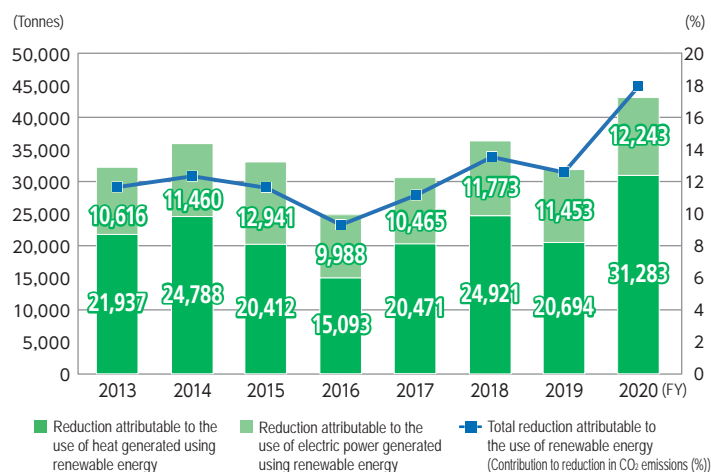
Renewable Energy as a Percentage of Total Energy Used in Japan: 15.2%

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 2020, DIC Group companies in Japan used 687,000,000 GJ of renewable energy (equivalent to 17,725 kl of crude oil), up 32.4% from fiscal year 2019 and representing 15.2% 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 electric power generated by the Kashima Plant's wind power system (two 2,300 kW-capacity wind turbines) fell sharply in fiscal year 2019 as a result of repairs, which required close to three months to complete, and an increase in the positive impact of biomass boiler performance.

In fiscal year 2020, DIC completed the installation of new solar power facilities at six sites in Japan (the Sakai and Komaki plants, the Central Research Laboratories and Group company DIC Kyushu Polymer Co., Ltd., and Group company DIC Kitanihon Polymer Co., Ltd.'s Hokkaido and Tohoku plants) with a combined annual generating capacity of 1,277 kW. As a consequence, the total generating capacity of solar power facilities at DIC Group sites in Japan as of December 31, 2020, was 4,341 kW, while solar power generated by the DIC Group in Japan during the period rose 42.0%, to 4,341 kWh, from 3,064 kWh in fiscal year 2019.

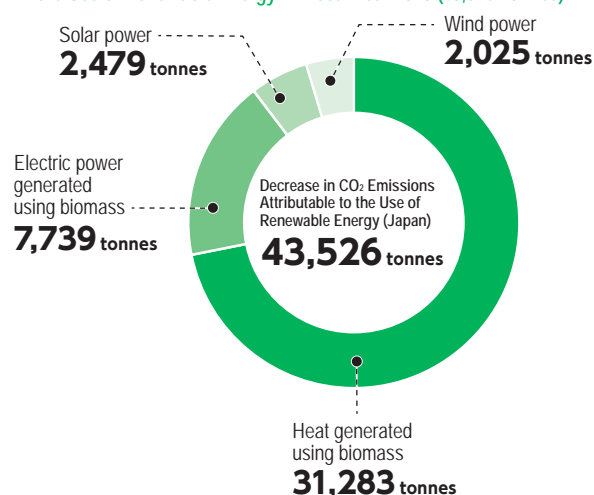
The use of renewable energy by DIC Group companies in Japan in fiscal year 2020 accounted for reduction in CO₂ emissions of 43,526 tonnes, or 18.3%, from the previous fiscal year. Going forward, DIC will continue to take decisive steps to advance its use of renewable energy with the aim of achieving its long-term target for reducing CO₂ emissions from DIC Group sites by 30.0% from the fiscal year 2013 level by fiscal year 2030.

Reduction in CO₂ Emissions in Japan Attributable to the Use of Renewable Energy



Note: For more information on these figures, please see "Reduction in CO₂ Emissions in Japan Attributable to the Use of Renewable Energy (Tonnes/%)" below.

Breakdown of Reduction in CO₂ Emissions in Japan Attributable to the Use of Renewable Energy in Fiscal Year 2020 (43,526 Tonnes)



Reduction in CO₂ Emissions in Japan Attributable to the Use of Renewable Energy (Tonnes/%)

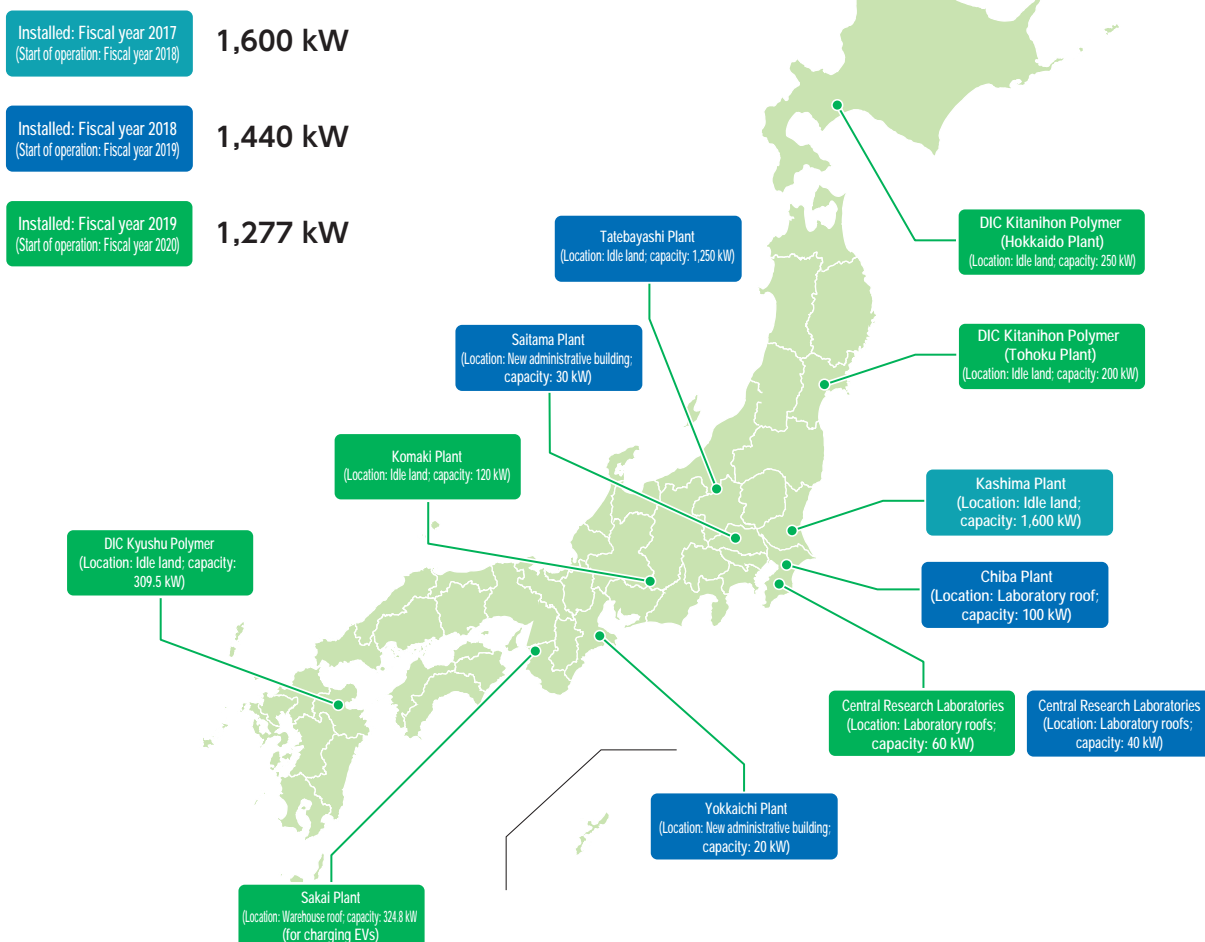
	2013	2014	2015	2016	2017	2018	2019	2020
Reduction attributable to the use of heat generated using renewable energy	21,937	24,788	20,412	15,093	20,471	24,921	20,694	31,283
Reduction attributable to the use of electric power generated using renewable energy	10,616	11,460	12,941	9,988	10,465	11,773	11,453	12,243
Total reduction attributable to the use of renewable energy	32,552	36,248	33,353	25,081	30,936	36,693	32,146	43,526
Total reduction attributable to the use of renewable energy (%)	11.8%	12.4%	11.7%	9.4%	11.2%	13.7%	12.7%	18.3%
Total CO ₂ emissions by the DIC Group in Japan	244,377	255,114	250,720	242,194	244,395	231,820	220,776	194,364

	2018	2019	2020	Change from previous fiscal year
Reduction attributable to the use of heat generated using biomass	24,921	20,694	31,283	51.2%
Reduction attributable to the use of electric power generated using biomass	7,936	7,847	7,739	-1.4%
Reduction attributable to the use of solar power	1,147	1,840	2,479	34.7%
Reduction attributable to the use of wind power	2,690	1,765	2,025	14.7%
Reduction attributable to the use of small hydroelectric power	0	0	0	-
Total reduction attributable to the use of renewable energy	36,693	32,146	43,526	35.4%

The use of renewable energy in fiscal year 2020 accounted for an 18.3% reduction in CO₂ emissions by the DIC Group in Japan. This is calculated by dividing the total reduction in CO₂ emissions attributable to the use of renewable energy by the aggregate of CO₂ emissions in Japan plus the total reduction in CO₂ emissions attributable to the use of renewable energy, or 43,526 tonnes / (194,364 tonnes + 43,526 tonnes).

	Up to and including fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020
Biomass boiler (wood chip-fired) <ul style="list-style-type: none"> Heat generated in fiscal year 2020: 451,000 GJ (generated using heat: 75%; generated using electric power: 25%) Electric power generating capacity in fiscal year 2020: Approx. 4,000 kW (electric power generated: 15,478,000 kWh) 	Kashima Plant <ul style="list-style-type: none"> Steam produced: Maximum of 30 tonnes/hour Approximately 70% of steam generated used in production processes Remainder of steam produced used to power turbine generating electric power for internal consumption Generating capacity: 4,000 kW 	Hokuriku Plant <ul style="list-style-type: none"> Steam produced: Maximum of 2.5 tonnes/hour All steam produced used in production processes No electric power generating function Commenced operation in January 2018 	—	—
Wind power Electric power generating capacity in fiscal year 2020: Approx. 4,600 kW (electric power generated: 4,050,000 kWh)	Kashima Plant <ul style="list-style-type: none"> Generating capacity: 4,600 kW Facility: Two 2,300 kW-capacity wind turbines 	—	—	—
Solar power Electric power generating capacity in fiscal year 2020: Approx. 4,341 kW (electric power generated: 4,619,000 kWh)	Kashima Plant <ul style="list-style-type: none"> Generating capacity: 100 kW DIC Decor <ul style="list-style-type: none"> Generating capacity: 20 kW 	Kashima Plant <ul style="list-style-type: none"> Generating capacity: 1,600 kW Number of panels: 5,588 (each 278 W) Commenced operation in January 2018 	Tatebayashi Plant <ul style="list-style-type: none"> Generating capacity: 1,250 kW Chiba Plant <ul style="list-style-type: none"> Generating capacity: 100 kW Central Research Laboratories <ul style="list-style-type: none"> Generating capacity: 40 kW Saitama Plant <ul style="list-style-type: none"> Generating capacity: 30 kW Yokkaichi Plant <ul style="list-style-type: none"> Generating capacity: 20 kW Total: 1,440 kW <small>Note: All facilities commenced operation in January 2019.</small>	Sakai Plant <ul style="list-style-type: none"> Generating capacity: 324.8 kW DIC Kyushu Polymer <ul style="list-style-type: none"> Generating capacity: 310 kW DIC Kitanihon Polymer (Hokkaido Plant) <ul style="list-style-type: none"> Generating capacity: 250 kW DIC Kitanihon Polymer (Tohoku Plant) <ul style="list-style-type: none"> Generating capacity: 200 kW Komaki Plant <ul style="list-style-type: none"> Generating capacity: 132 kW Central Research Laboratories <ul style="list-style-type: none"> Generating capacity: 60 kW Total: 1,277 kW <small>Note: All facilities commenced operation in January 2020.</small>

Installation of Solar Power Facilities in Japan (Fiscal Years 2018–2020)



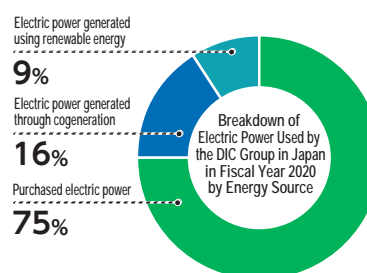
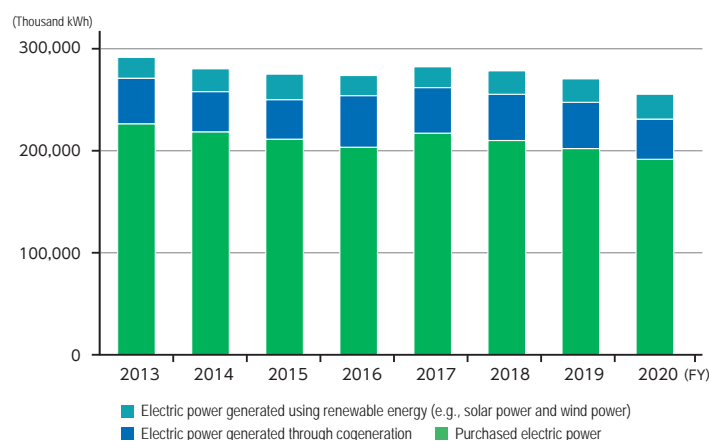
Solar Power Facilities Installed in Japan in Fiscal Year 2020



3 Independent Electric Power Generation in Japan

In fiscal year 2020, electric power consumption by the DIC Group in Japan declined 5.6%, to 255,860,000 kWh, approximately 25.0% of which was generated independently, with that generated using renewable energy accounting for 9.4% and that generated using cogeneration systems representing 15.6%. Despite an increase in independently generated solar power, total independently generated power edged down 0.2%, owing to the temporary stoppage of the Gunma Plant's cogeneration system.

Electric Power Used by the DIC Group in Japan by Energy Source



DIC Wins New Energy Foundation Chairman's Award in the Adoption and Application Category of the 2018 New Energy Awards

In December 2018, DIC won a New Energy Foundation Chairman's Award in the Adoption and Application Category of the 2018 New Energy Awards in recognition of the expanded use of renewable energy at the Kashima Plant. The awards program, which was presented by the New Energy Foundation, was established with the aim of encouraging the introduction of new energy and promoting awareness by commending particularly excellent initiatives.

The Kashima Plant has installed multiple renewable energy-powered generating facilities, including biomass and methane gas boilers, as well as wind power and solar power systems. As a consequence, 50% of electric power and 80% of heat consumed annually by the site is generated by using renewable energy. These facilities also contributed to a reduction in annual CO₂ emissions in fiscal year 2018 of more than 36,000 tonnes. Looking ahead, the department responsible for the plant's energy supply will continue working to enhance the combustion efficiency of generating facilities, including biomass and methane gas boilers, by upgrading maintenance and management technologies and accumulating know-how.

The Chairman's Award recognizes the positive results of these steadfast efforts. DIC will deploy know-how accumulated by the Kashima Plant at sites both in Japan and overseas with the aim of increasing its use of renewable energy and reducing its emissions of greenhouse gases around the world.

Reductions in Annual CO₂ Emissions Attributable to the Use of Renewable Energy at the Kashima Plant



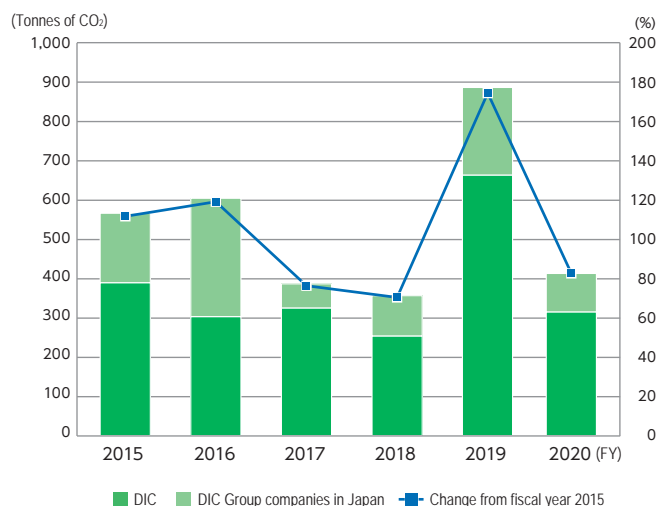
4 Protecting the Ozone Layer

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 October 3, 2020, had been ratified by 105 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 2020, leaked fluorocarbons from DIC 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 Act on Rational Use and Proper Management of Fluorocarbons entered into force and has managed to keep leaks below the level requiring reporting. Leaked fluorocarbons in fiscal year 2020 were lower than in an average year as a consequence of the replacement of fewer chillers. (Leaked fluorocarbons are calculated as the difference between amount filled into new equipment and amount recovered when equipment is dismantled.) The DIC Group will continue to select air conditioning and other equipment using nonfluorocarbon and other refrigerants that do not negatively impact the environment with the aim of reducing the amount of leaked fluorocarbons for which it is responsible.

Leaked Fluorocarbons by the DIC Group in Japan (CO₂ Equivalent)

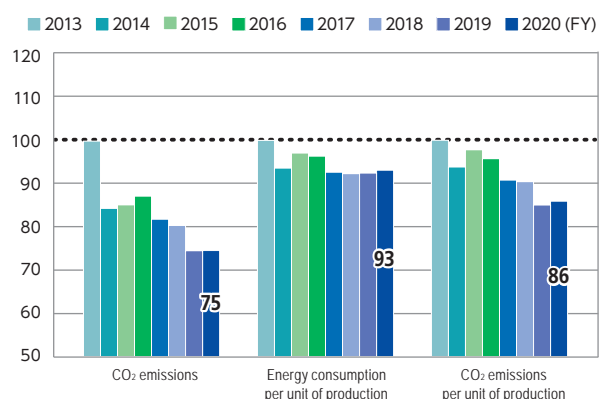


5 Energy Consumption and CO₂ Emissions by the DIC Group Overseas

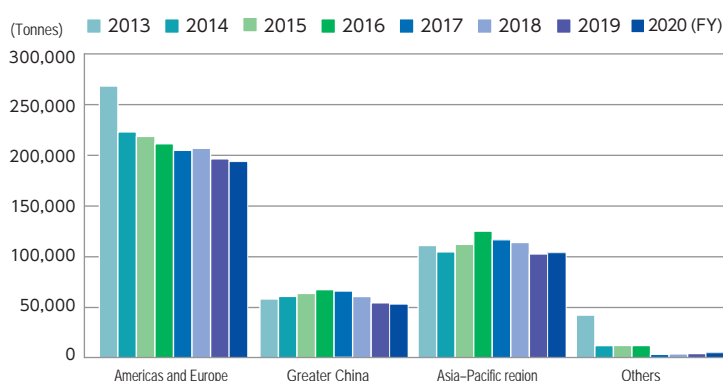
Notwithstanding a 0.2% dip in production volume by the DIC Group overseas in fiscal year 2020, CO₂ emissions edged up 0.4%, despite being down 25.2% from the fiscal year 2013 base year, while CO₂ emissions per unit of production rose 0.6%, but were down 14.2% from fiscal year 2013. Energy consumption edged up 0.3%, but declined 19.0% from the base year.

Factors contributing to the increase in CO₂ emissions included the fact that efforts by individual DIC Group companies to break down the Group's emissions reduction targets and promote decarbonization initiatives were countered by the inclusion beginning in fiscal year 2020 of production facilities operated by affiliates in the PRC and Taiwan.

Changes in CO₂ Emissions, Energy Consumption per Unit of Production and CO₂ Emissions per Unit of Production Overseas Since Fiscal Year 2013



CO₂ Emissions by Region



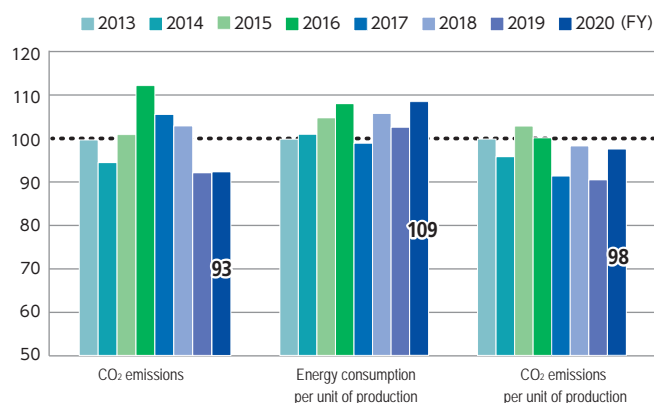
Laws and regulations, as well as infrastructure, differ between countries and regions. The DIC Group strives to promote energy savings and efficient operations wherever it is active and in so doing sets precedents for the global chemicals industry. DIC Group companies overseas continue to implement a broad range of energy-saving initiatives, including improving production efficiency, reducing base load energy consumption, choosing high-efficiency models when replacing equipment and switching to LED lighting.

Asia-Pacific Region

The 22 DIC Group sites in the Asia-Pacific region account for roughly 19% of the Group's total global CO₂ emissions. With production volume in fiscal year 2020 down 5.7% from fiscal year 2019 and 5.2% from the fiscal year 2013 base year, energy consumption by Group companies across the region decreased 1.0% from the previous fiscal year, despite being up 3.4% from fiscal year 2013, while CO₂ emissions edged up 0.7% from fiscal year 2019, but were down 7.1% from the base year. Indonesia is home to the Group's mother plant for pigments, production of which is comparatively energy intensive. The pigments business accounts for more than 50% of the Group's energy consumption and CO₂ emissions in this region, underscoring its influence on results for the region as a whole. Accordingly, the Group continues to promote a variety of initiatives at this site—including replacing a portion of the coal used to fire boilers with palm kernel shells (PKS), a biomass fuel, an effort that began in fiscal year 2016, and earning certification under ISO 50001, the International Organization for Standardization's benchmark for energy management systems—with the aim of reducing its regional CO₂ emissions.

As part of its effort to ensure achievement of the CO₂ emissions target set for the global DIC Group, corporate headquarters assists regional Group companies by formulating and implementing energy-saving plans; promoting ongoing energy-saving analyses to support the identification of energy-saving themes and the implementation of remedial measures; deploying a practical energy management manual and best practice case study materials to establish management practices and promote horizontal deployment; and launching and providing support for energy-saving and carbon-reduction projects at suitable sites.

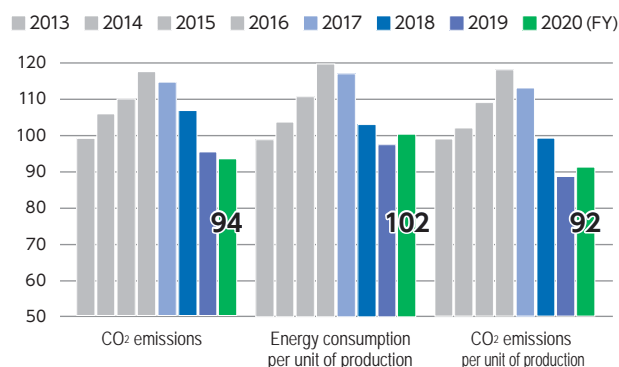
Changes in CO₂ Emissions, Energy Consumption per Unit of Production and CO₂ Emissions per Unit of Production in the Asia-Pacific Region Since Fiscal Year 2013



Greater China

The DIC Group's 18 sites in Greater China account for approximately 10% of the Group's total global CO₂ emissions. Production volume in fiscal year 2020 was down 4.0% from fiscal year 2019, but up 2.4% from the fiscal year 2013 base year. Energy consumption by Group companies across the region decreased 1.9% from the previous fiscal year, although it was 3.9% higher than in fiscal year 2013, while CO₂ emissions declined 2.0% from fiscal year 2019 and 5.8% from the base year. Significant improvements were seen in energy consumption per unit of production at manufacturers DIC Graphics (Guangzhou) (printing inks), Changzhou Huari New Material (synthetic resins) and DIC Synthetic Resins (Zhongshan) Co., Ltd. (synthetic resins and metal carboxylates).

Changes in CO₂ Emissions, Energy Consumption per Unit of Production and CO₂ Emissions per Unit of Production in Greater China Since Fiscal Year 2013



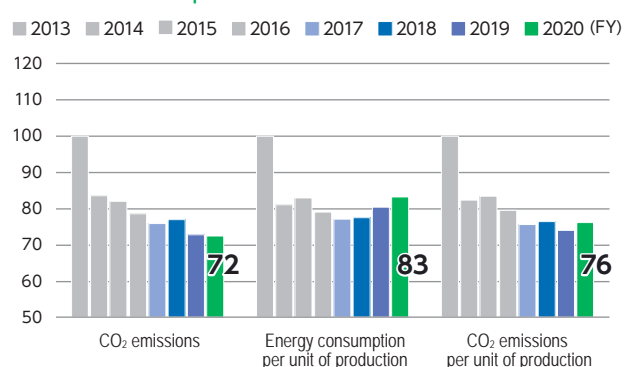
Americas and Europe

The DIC Group has 122 sites in the Americas and Europe (this category also includes sites in Africa), which account for roughly 35% of the Group's CO₂ emissions. In fiscal year 2020, production volume was down 3.3% from the previous fiscal year and 4.9% from the fiscal year 2013 base year. Energy consumption by DIC Group companies across the region edged up 0.2% from the previous fiscal year, but was down 20.9% from fiscal year 2013, while CO₂ emissions declined 0.3% from fiscal year 2019 and 27.6% from the base year.

DIC Group companies in the Americas and Europe promote a variety of measures with the aim of lowering CO₂ emissions. These include making use of biomass energy (landfill biogas), solar and small hydroelectric power, employing outsourcing to contract energy-efficiency consultants to advance the reduction of energy consumption, and promoting the integration of production facilities alongside measures to boost production efficiency. These initiatives have yielded consistently positive results since fiscal year 2014.

In fiscal year 2019, the Group's regional headquarters, Sun Chemical, installed solar power facilities with an annual generating capacity of approximately 800 kW with the goal of expanding its use of renewable energy. Going forward, companies in the Americas and Europe will continue to implement ambitious initiatives that contribute to the reduction of its global CO₂ emissions.

Changes in CO₂ Emissions, Energy Consumption per Unit of Production and CO₂ Emissions per Unit of Production in the Americas and Europe Since Fiscal Year 2013



Sun Chemical's Approach to Sustainability

Sun Chemical promotes innovation with the aim of improving the sustainability of its manufacturing processes and products, maintaining a constant awareness of environmental impact. The company strives to use manufacturing processes that demonstrate environmental excellence through reduced waste generation, lower energy and water use, and a strong safety performance as measured using key metrics such as greenhouse gas emissions, energy and water consumption, carbon footprint and safety record. Sun Chemical is also committed to meeting local regulatory requirements in the countries and territories in which it operates and to working proactively with government, industry organizations and business partners in its value chain to better define, measure and promote sustainability.

Product stewardship and risk management are important components of Sun Chemical's sustainability policy. The company continues to take a responsible, analytically based approach to fulfilling its role as a steadfast leader in this area. Through such ongoing efforts, the company increases environmental efficiency by helping its customers enhance the sustainability of their manufacturing processes and products. Sun Chemical's long-standing reputation for quality, service and innovation and its dedication to improving sustainability influences both its daily operations and its global strategic direction.

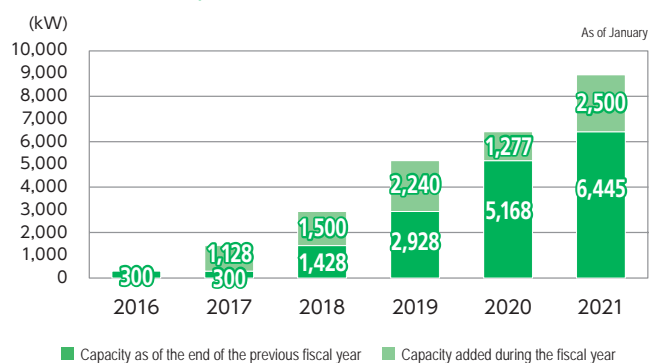
Along with DIC, Sun Chemical has committed to a long-term strategic target for CO₂ emissions, which is to achieve a reduction of at least 30% by fiscal year 2030, with fiscal year 2013 as the base year, following the Paris Agreement, which succeeded the Kyoto Protocol (1990–2012) as the global framework for addressing the challenge of dealing with greenhouse gas emissions. This level, if implemented across all industries, would limit the increase in global average temperature due to climate change to below 2.0°C above pre-industrial levels. To achieve this target, Sun Chemical will focus on investments in sustainable energy, as well as on measures to improve the efficiency of its manufacturing processes.

Adoption of Renewable Energy by DIC Group Companies Overseas

Against a global trend toward decarbonization, DIC Group companies overseas are working to popularize the use of renewable energy. 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 2020, new solar power facilities with a combined annual generating capacity of 1,277 kW commenced operation. As of January 2021, the Group's global solar power generating capacity (for internal consumption) was 6,445 kW, comprising 4,341 kW in Japan and 2,104 kW overseas. The DIC Group will continue to promote efforts to expand its solar power generating facilities worldwide. In fiscal year 2021, the Group plans to install new solar power generating facilities with a total generating capacity of 2.5 MW worldwide.

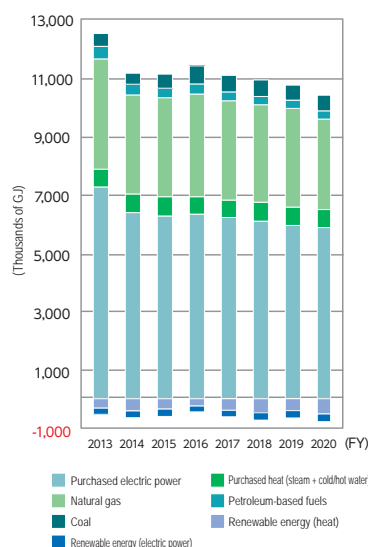
In fiscal year 2020, the global DIC Group used a total of 781,542 GJ of renewable energy, an increase of 20.1% from 650,996 GJ in fiscal year 2019. The use of renewable energy accounted for a reduction in the Group's global CO₂ emissions of 49,319 tonnes.

The DIC Group's Global Solar Power Generating Capacity in Fiscal Year 2020 (For Internal Consumption)

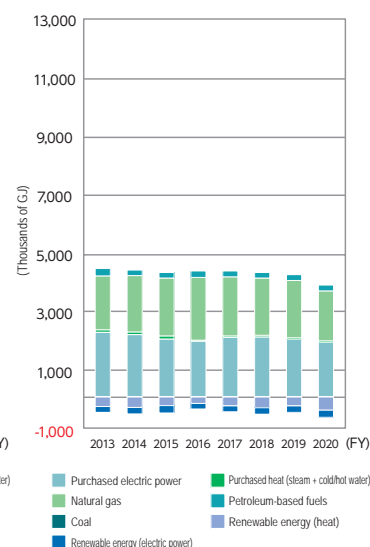


Energy Mix

DIC Group Overseas



DIC Group in Japan



Initiatives in Areas Other than Production (Offices and Research Facilities)

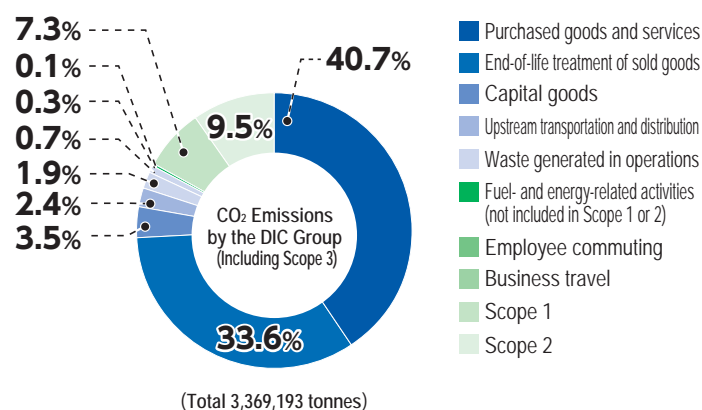
In fiscal year 2020, energy consumed by the DIC Group's 22 production and research sites in Japan (excluding the Central Research Laboratories) declined 0.3%. Of particular note, DIC's headquarters, the most energy intensive of the 22 domestic sites, achieved a decrease of 11.4%. Principal energy-saving 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 promoting efforts in line with Japan's Cool Biz and Warm Biz campaigns.

Grasping CO₂ Emissions Across the Supply Chain

Regarding CO₂ emissions across its supply chain (Scope 3* emissions), in fiscal year 2017 DIC participated in a lecture on the Science Based Targets (SBT) initiative organized by Japan's Ministry of the Environment. As a consequence, DIC now reports global data for all categories of Scope 3. The Company also obtains third-party verification for its data for waste generated in operations.

* Scope 3 emissions are indirect emissions from production, transport, business travel, commuting and other activities in the supply chain.

CO₂ Emissions (Including Scope 3) in Fiscal Year 2020



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	Goal for fiscal year 2020	Achievement in fiscal year 2020	Evaluation	Goal for fiscal year 2021
Reduce VOC emissions into the air.	DIC Group (Japan): 345 tonnes (essentially level with fiscal year 2019)	DIC Group (Japan): 327 tonnes	★★	DIC Group (Japan): 345 tonnes (essentially level with fiscal year 2020)

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 strives to ensure a grasp of the environmental impact of its operations and promotes systematic efforts to prevent environmental pollution. DIC has worked since fiscal year 2000 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 under a voluntary scheme created by the JCIA.* Other DIC Group companies in Japan have done the same since fiscal year 2005.

* 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 chemical industry with other chemical-industrial organizations around the world.

Framework for Promotion

The chair of the Sustainability Committee (president and CEO), oversees the planning and promotion of environmental conservation initiatives by the Responsible Care Department and production and R&D site Safety and Environment groups. To ensure compliance with pertinent laws and regulations, 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 2020

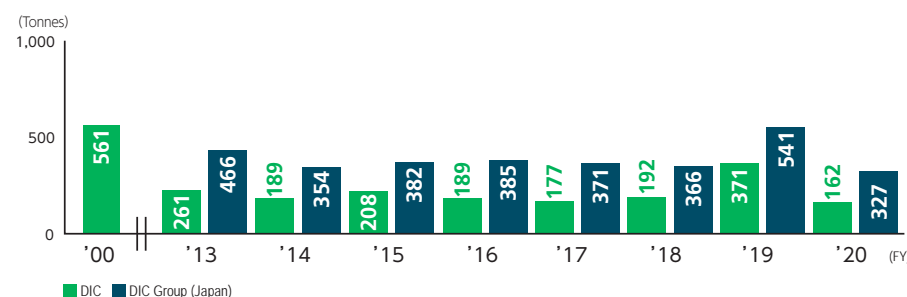
1 Reducing Emissions of VOCs

Having succeeded in achieving a voluntary target—set in fiscal year 2007—for reducing emissions of VOCs into the air of 30% from the fiscal year 2000 level by fiscal year 2010, DIC Group companies in Japan continue to pursue steady annual reduction through facility improvements and emissions management.

In fiscal year 2020, DIC reported emissions of VOCs of 162 tonnes, a 56% decrease from fiscal year 2019. Factors behind this result included the absence of an accident involving a warehouse fire at the Saitama Plant, which had caused a sharp increase in emissions in the previous period, and a decrease in production activities owing to COVID-19. As a consequence, total emissions of VOCs by the DIC Group in Japan amounted to 327 tonnes, down 40% from fiscal year 2019. Overseas, Group companies in Greater China and the Asia-Pacific region continued to promote efforts to reduce 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 Targeted Chemical Substances into the Air

(551 Substances, Including those Designated by Japan's PRTR,*¹ and One Substance Group*²)



Emissions of VOCs into the Air in Fiscal Year 2020

DIC

-56%
from fiscal year 2019

DIC Group (Japan)

-40%
from fiscal year 2019

*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 2020, 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 112 and 130 of these substances, respectively, in units exceeding 1.0 tonne.

Number of Targeted Chemical Substances Used and/or Produced in Japan in Amounts Exceeding 1.0 Tonne in Fiscal Year 2020



Environmental Emissions of Targeted Chemical Substances (551 Substances, Including those Designated by Japan's PRTR, and One Substance Group) in Japan in Fiscal Year 2020

	DIC	DIC Group (Japan)
Emissions into the air	162 tonnes	327 tonnes
Emissions into water	25 tonnes	27 tonnes
Emissions into soil	0 tonnes	0 tonnes
Total	187 tonnes	354 tonnes

Targeted Chemical Substances for Which Emissions Exceeded 10.0 Tonnes in Fiscal Year 2020

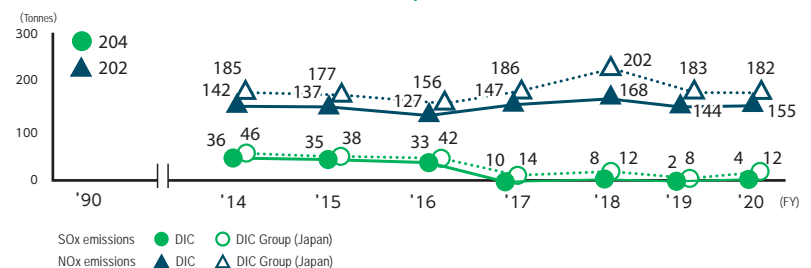
Substance	DIC	DIC Group (Japan)
	Emissions into the environment	Emissions into the environment
Ethyl acetate	57 tonnes	102 tonnes
Toluene	3 tonnes	17 tonnes
Methyl ethyl ketone	122 tonnes	130 tonnes
Acetone	0 tonnes	11 tonnes
Styrene	11 tonnes	11 tonnes
Propyl alcohol	32 tonnes	40 tonnes
N-methylpyrrolidone	7 tonnes	32 tonnes
Butyl acetate	6 tonnes	32 tonnes

2 Reducing SOx, NOx and COD

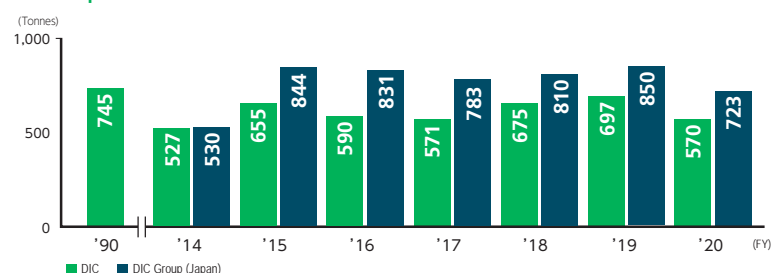
Taking fiscal year 1990 as the base year, DIC Group companies in Japan have worked to reduce sulfur oxide (SOx) and nitrogen oxide (NOx) emissions—key causes of acid rain—from boilers. The Group has also worked to reduce chemical oxygen demand (COD), an indicator of the quality of wastewater. In fiscal year 2020, DIC's emissions of SOx and NOx increased, with the former doubling, to 4 tonnes, and the latter rising 8%, to 155 tonnes. As a consequence, emissions of SOx and NOx by the DIC Group in Japan were 12 tonnes, up 52%, and 182 tonnes, level with fiscal year 2019, respectively. DIC's COD decreased 18%, to 570 tonnes, while that of the DIC Group in Japan fell 15%, to 723 tonnes, as COVID-19 pushed down production volume. The Group will continue taking steps to reduce COD by enhancing water quality management.

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.

SOx and NOx Emissions Volumes in Japan



COD in Japan



3 Complying with Regulations Governing Emissions of Dioxins

In Japan, the DIC Group monitors emissions of dioxins from waste incinerators that produce these byproducts, a group of compounds with varying toxicities. 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 specified in the Act on Special Measures Against Dioxins.

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

Site	Scale of facility (Incinerating capacity)	Waste gas		Wastewater	
		Standard (ng-TEC/Nm ³)	Emissions reported in fiscal year 2020 (ng-TEC/Nm ³)	Standard (pg-TEC/l)	Emissions reported in fiscal year 2020 (pg-TEC/l)
Chiba Plant (DIC)*	1.920 tonnes/hr	10	0.95	10	0.06
Hokuriku Plant (DIC)	0.28 tonnes/hr	5	0.00	10	0.00
DIC Interior Co., Ltd.	Approx. 0.1 tonnes/hr	10	1.40	NA	—
Hokkaido Plant (DIC Kitanihon Polymer Co., Ltd.)	Approx. 0.2 tonnes/hr	10	0.00	NA	—
Tohoku Plant (DIC Kitanihon Polymer Co., Ltd.)	Approx. 0.2 tonnes/hr	10	0.43	NA	—
Harima Plant (SEIKO PMC CORPORATION)	Approx. 0.2 tonnes/hr	10	0.00	NA	—

* For the Chiba Plant, dioxin concentrations in wastewater to date were calculated for wastewater emissions from incinerators only. However, there are wastewater emissions other than from incinerators, the dioxin concentration in which was 6.0 pg-TEC/liter in fiscal year 2020. Dioxin concentrations in wastewater other than that from incinerators have been reported to Chiba Prefecture for prior years, going back to fiscal year 2016. These rates ranged from 3.2 pg-TEC/liter to 7.9 pg-TEC/liter, all below the standard (10 pg-TEC/liter).

4 Ensuring the Appropriate Collection and Storage of PCBs

The DIC Group in Japan 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 PCBs are disposed of in accordance with the practices of the Japan Environmental Storage & Safety Corporation (JESCO).

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).

Building a Circular Economy

In recent years, waste plastic and marine plastics, a result of the improper disposal of end-of-life plastic containers and other products, have become issues of major concern worldwide. In Japan, the DIC Group works to prevent pollution of the environment, particularly through measures to preclude leaks of raw materials from production facilities and the recycling of plastic waste generated in production processes. In fiscal year 2020, 46% of waste plastic generated by the Group was recycled. Approximately 92% of this was reused, including in the recovery of energy from fuel utilization.

The building of a circular economy is not something that can be achieved by any one company. Accordingly, key initiatives are being promoted by industrial and public-private partnerships around the world. In Japan, DIC is a member of the Japan Initiative for Marine Environment (JaIME), formed by five chemicals industry organizations, and the Japan Clean Ocean Material Alliance (CLOMA), a Ministry of Economy, Trade and Industry-led alliance of companies in the plastic products supply chain. Overseas, Sun Chemical participates in A Circular Economy for Flexible Packaging (CEFLEX), a consortium working to make flexible packaging in Europe circular, ensuring its ability to access and share the most up-to-date information across the DIC Group. The Company has also organized projects involving various departments concerned with the circular economy to promote the collection of plastics, as well as the shift to alternative and/or biodegradable materials. (For more information on one of these projects, please see the special feature beginning on page 26.)



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	Goals for fiscal year 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
<ul style="list-style-type: none"> Reduce industrial waste disposed of as landfill ("zero emissions"). Reduce industrial waste generated by production facilities. 	<ul style="list-style-type: none"> Reduce industrial waste disposed of as landfill. DIC Group (Japan): 206 tonnes (-5% from fiscal year 2019) Reduce industrial waste generated by production facilities. DIC Group (Japan): 33,894 tonnes (-2% from fiscal year 2019) 	<ul style="list-style-type: none"> Industrial waste disposed of as landfill DIC Group (Japan): 167 tonnes Industrial waste generated by production facilities DIC Group (Japan): 32,564 tonnes 	★★	<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)
Promote recycling.	Maintain and later increase the resource recycling rate* at DIC Group companies in Japan. Target: 90%.	Resource recycling rate at DIC Group companies in Japan: 90%	★★	Maintain and later increase the resource recycling rate at DIC Group companies in Japan. Target: 90%.

* Resource recycling rate: (Volume of industrial waste recycled (material recycling) + waste heat recovered) / volume of industrial waste generated

Policies and Framework for Implementation

Basic Approach

In addition to recycling and reuse of materials, the DIC Group works to minimize the impact of its industrial waste disposal practices.

The DIC Group aims to minimize industrial waste and promote the recycling and reuse of materials. Since fiscal year 2001, DIC has promoted zero emissions initiatives, the goal of which is to reduce the volume of waste disposed of as landfill by 95% from the fiscal year 2000 level. In fiscal year 2008, the Company expanded the scope of these initiatives to include Group companies in Japan. With the aim of expanding efforts across the global DIC Group, in fiscal year 2013 DIC introduced MBO at overseas Group companies. DIC subcontracts the treatment of industrial waste to be disposed of as landfill and ensures that waste is properly treated by promoting strict compliance and on-site confirmation by designated departments at each of its production sites.

Principal Initiatives in Fiscal Year 2020

The DIC Group works to fully grasp and manage industrial waste from generation at production facility through to discharge, intermediate treatment and final disposal as landfill. The Group works actively to reduce its disposal of industrial waste as landfill by recycling cinders, dust and sludge, among others, into roadbed materials and raw materials for cement, using thermal recycling to recover waste heat and minimizing production losses by increasing throughput yields.

Initiatives by the DIC Group in Japan

In fiscal year 2020, the total volume of industrial waste generated decrease by DIC Group production facilities in Japan amounted to 32,564 tonnes, down 37% from fiscal year 2019. The principal factors behind this decline were the absence of a spike in emissions in fiscal year 2019 caused by an accident at the Saitama Plant involving a warehouse and a decrease in production volume as a result of COVID-19. Industrial waste disposed of as landfill by Group companies in Japan fell 23%, to 167 tonnes, reflecting improved resource recycling rates at production facilities. Going forward, the DIC Group will continue working to reduce industrial waste disposed of as landfill by individual production facilities in line with its goal of achieving zero emissions.

DIC Group companies in Japan also continued working to ensure the appropriate disposal of PCBs. In addition, these companies promoted the rigorous management of unprocessed waste, including transformer, capacitors and stabilizers, through proper collection and storage in warehouses.

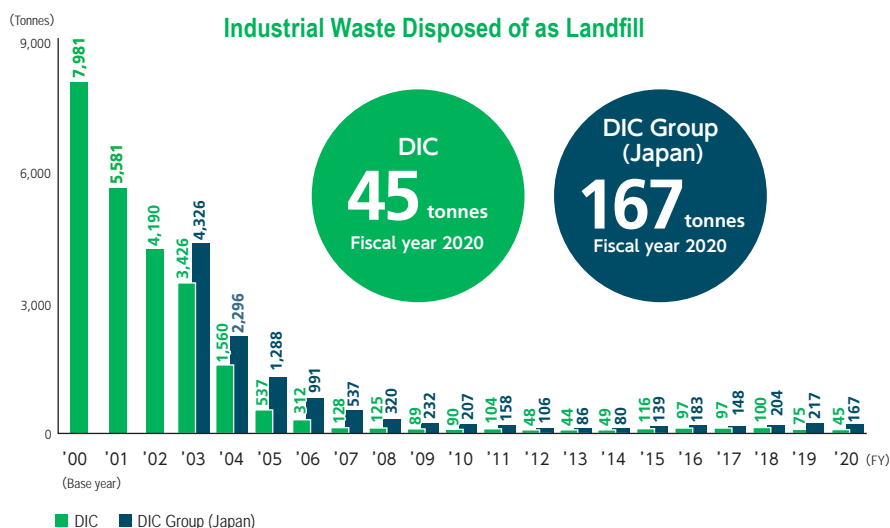
Industrial Waste Generated by Production Facilities in Fiscal Year 2020

DIC Group (Japan)

-37%

from fiscal year 2019

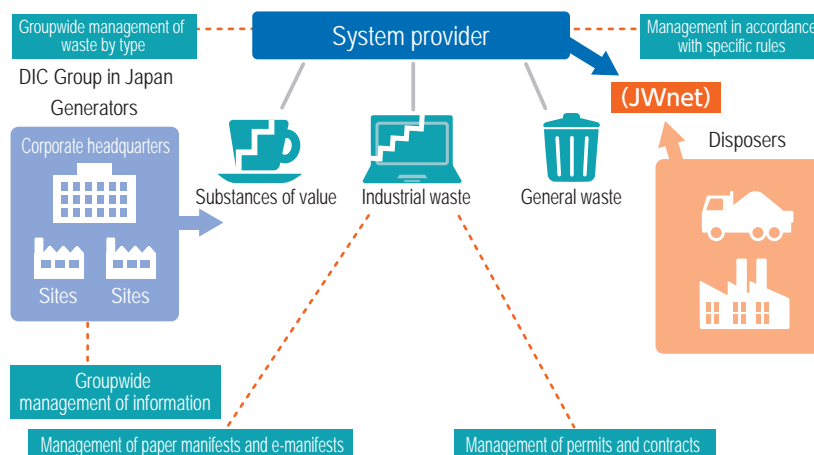
Industrial Waste Disposed of as Landfill



Deployment of a Comprehensive Industrial Waste Management System

In fiscal year 2016, the DIC Group in Japan resolved to introduce GENESYS ECO, a comprehensive industrial waste management system for use with the country's Electronic Manifest (e-Manifest) system. 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 generation to final disposal. Unlike paper manifests, the e-Manifest system offers easy data input and eliminates the need for administrative reporting and storage by generators. In fiscal year 2019, deployment of GENESYS ECO was completed at all 36 of the Group's manufacturing sites in Japan, an achievement that has helped to both save labor and ensure legal compliance.

Comprehensive Industrial Waste Management System



Initiatives by the DIC Group Overseas

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

In fiscal year 2020, industrial waste generated by DIC Group production sites overseas dipped 5.0%, to 59,792 tonnes, while industrial waste disposed of as landfill by these companies decreased 6.0%, to 19,058 tonnes. Looking ahead, the Group's overseas regional headquarters will focus on further reinforcing compliance with local laws and regulations, while at the same time cooperating with the Responsible Care and production management departments to further curb the generation of industrial waste and the disposal of such waste as landfill by the DIC Group overseas.

Industrial Waste Generated by the Global DIC Group in Fiscal Year 2020

The definition of “industrial waste”—including whether it encompasses both toxic and nontoxic substances, and both hazardous and nonhazardous substances—vary in different countries and regions, as does 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 accordance with the laws of the countries and regions in which its sites are located. The Group also grasps and manages processes for managing industrial waste on a global basis, from generation to discharge by production facilities, intermediate treatment and final disposal as landfill.

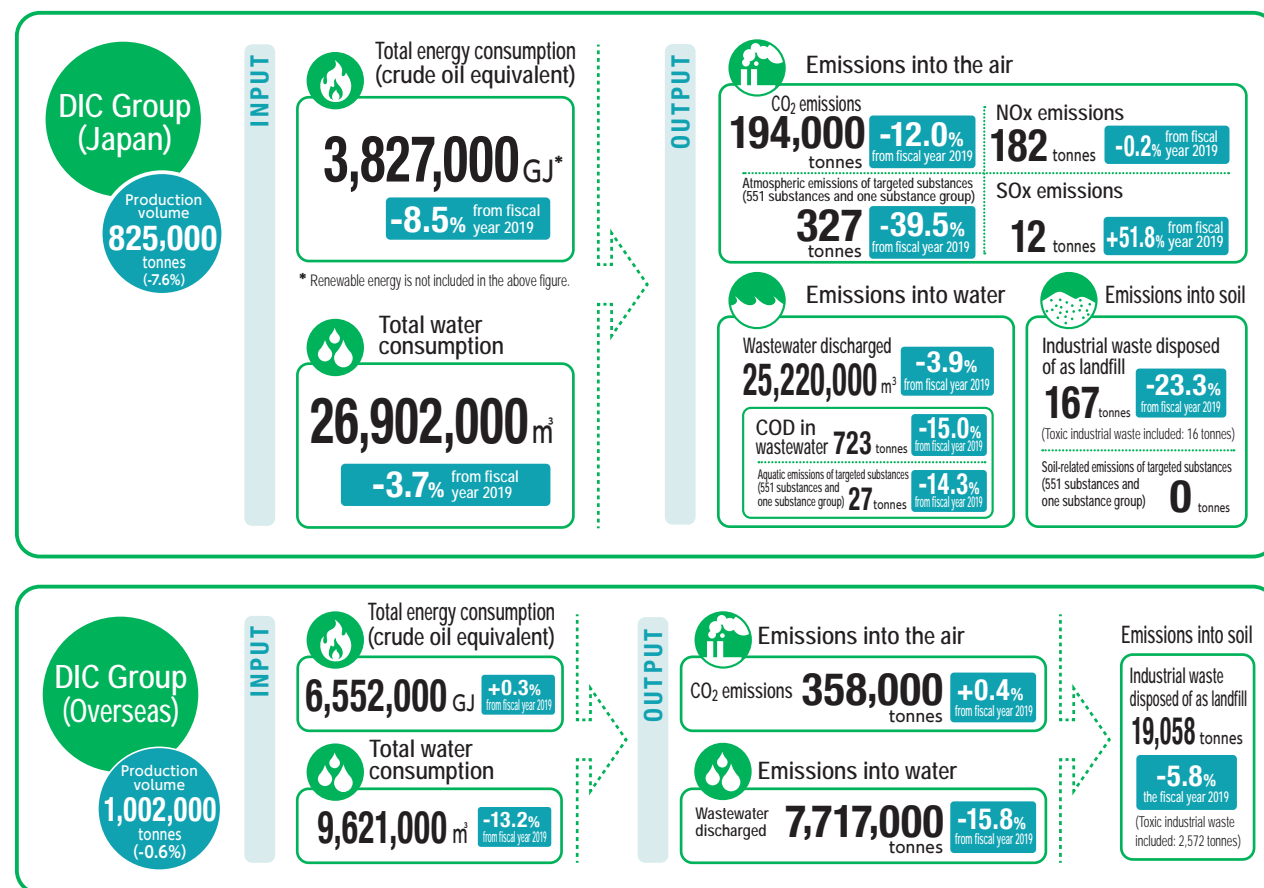
The table below provides detailed data on industrial waste generated by the DIC Group in Japan and overseas in fiscal year 2020. The Group collects data for volume generated, volume discharged by production facilities, volume recycled (material recycling), waste heat recovered (including that from incineration boilers), waste heat not recovered (including that from simple incineration) and volume disposed of as landfill for industrial waste, which it categorizes as “toxic” or “nontoxic.”

		Volume generated (Tonnes)	Volume discharged by production facilities (Tonnes)	Volume recycled (Tonnes)	Waste heat recovered (Tonnes)	Waste heat not recovered (Tonnes)	Volume disposed of as landfill (Tonnes)
Nontoxic	Japan	36,730	26,981	16,412	16,308	3,866	144
	Overseas	31,014	30,972	10,180	1,943	2,023	17,012
Toxic	Japan	7,170	5,583	2,623	4,291	234	22
	Overseas	33,832	28,820	14,415	11,515	5,878	2,046
Aggregate	Japan	43,900	32,564	19,034	20,598	4,100	167
	Overseas	64,846	59,792	24,595	13,458	7,901	19,058
Total		108,745	92,355	43,630	34,057	12,001	19,224

Environmental Impact of Groupwide Environmental Initiatives

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 2020. 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 air (551 chemical substances—including those designated under Japan's PRTR*¹—and one substance group*²) (Japan only), emissions of NO_x, emissions of SO_x and COD in wastewater.



*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.

Closed System Installed at the Central Research Laboratories

At DIC's Central Research Laboratories, groundwater is used to supply the approximately 60 m³ of water consumed by the site daily, of which 2/3 is for "domestic" (general) use and 1/3 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 other, 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.



Fresh Water Withdrawn and Wastewater Discharged by the DIC Group in Fiscal Year 2020

In fiscal year 2020, the DIC Group in Japan withdrew 26,902,000 m³ of fresh water, a decline of 4% from fiscal year 2019, and discharged 25,220,000 m³ of wastewater, also down 4%. In contrast, the DIC Group overseas withdrew 9,621,000 m³ of fresh water and discharged 7,717,000 m³ of wastewater, representing decreases of 13% and 16%, respectively. As a consequence, fresh water withdrawn by the global DIC Group in fiscal year 2020 amounted to 36,524,000 m³, down 6%, while wastewater discharged by the global DIC Group totaled 32,937,000 m³, a decline of 7%.

Fresh water withdrawn in fiscal year 2020 (1,000 m ³)			
	DIC Group in Japan	DIC Group Overseas	Global DIC Group
Surface water	9,168	5,195	14,364
Groundwater	6,585	1,799	8,383
Rainwater	0	129	129
Wastewater generated by other organizations	0	0	0
Tap water/ industrial water	11,134	2,427	13,562
Others	15	70	85
Total	26,902	9,621	36,524
Total in fiscal year 2019	27,925	10,087	39,012
Change from previous fiscal year	-3.7%	-14.6%	-6.4%

Wastewater discharged in fiscal year 2020 (1,000 m ³)			
	DIC Group in Japan	DIC Group Overseas	Global DIC Group
Rivers	15,371	2,013	17,384
Oceans	6,763	0	6,763
Wastewater treatment plants	3,084	832	3,915
Below ground	2	6	8
Third parties	0	0	0
Others	0	4,867	4,867
Total	25,220	7,717	32,937
Total in fiscal year 2019	26,235	9,166	35,401
Change from previous fiscal year	-3.9%	-15.8%	-7.0%

Soil and Groundwater Pollution

Japan's Water Pollution Control Act was revised in 2012 to tighten structural standards governing equipment installed to prevent groundwater contamination by toxic substances. In addition to complying strictly with this Act and with the Soil Contamination Countermeasures Act, the DIC Group in Japan implements soil and groundwater surveys and countermeasures as necessary and assesses related environmental and safety risks.

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

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 is always alive with seasonal flowers and foliage.

TOPIC

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 were recently planted in a corner originally occupied by a cedar forest. This effort was 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 fiscal year 2020, the museum planted 100 seedlings, 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	Goal for fiscal year 2020	Achievements in fiscal year 2020	Evaluation	Goal for fiscal year 2021
Reduce CO ₂ emissions attributable to logistics.	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 level. 2. CO ₂ emissions attributable to logistics declined 3%.	★★ ★★	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

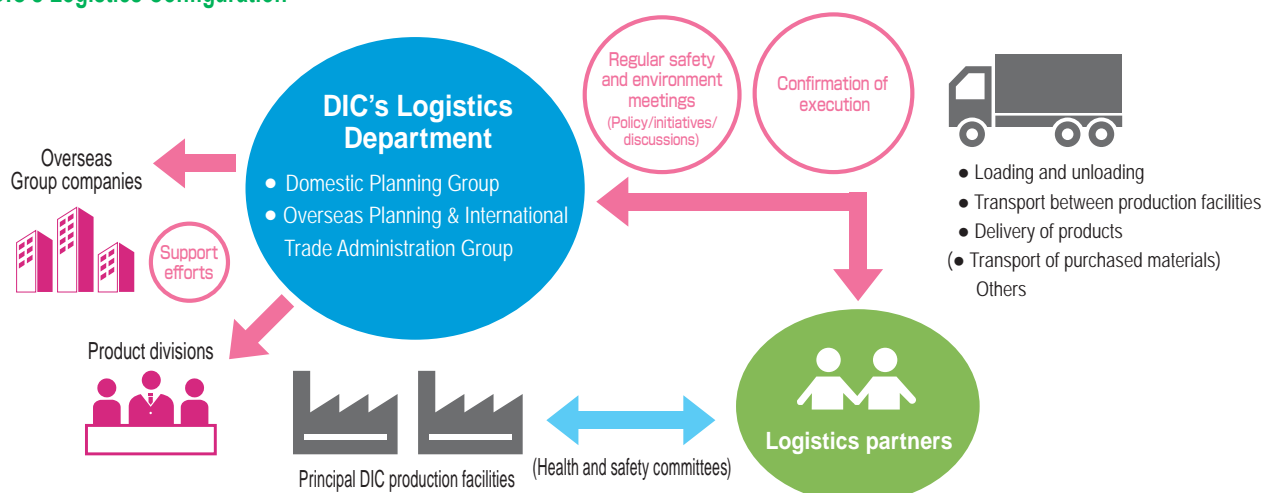
Having positioned the reduction of CO₂ emissions attributable to the transport of its products as a key aspect of its commitment to promoting Responsible Care, DIC sets annual targets and promotes related initiatives on an ongoing basis. DIC's logistics configuration—components of which include transport 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. In a bid to rationalize and increase the efficiency of logistics, in 2011 DIC transferred ownership of the subsidiary to a partner firm and began to outsource its logistics. Since then, the Company has worked closely with this and other partner firms to improve the safety of, and 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 the logistics components of its various departments to create an 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)^{*1} 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 measures to optimize logistics across Asia, promoting Groupwide efforts to capitalize on free trade agreements (FTAs)^{*2} and implementing proposals for reducing 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



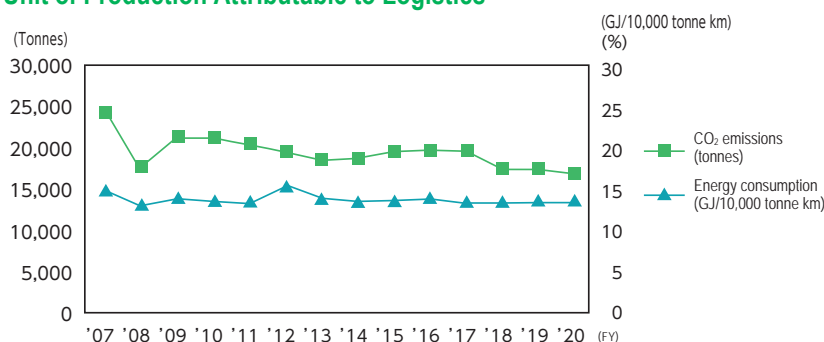
I Reducing Environmental Impact and Supporting White Logistics

In Japan, the DIC Group promotes the transport of products using modes of transport qualifying as “modal shift” with the aim of reducing the impact of its logistics activities on the environment. In fiscal year 2020, the volume of products transported in Japan by the Group declined. This and other factors underscored a 3% decline in both energy consumption and CO₂ emissions attributable to logistics.

Until recently, Japan's logistics industry had struggled to address a critical shortage of qualified drivers. In fiscal year 2020, an initial decrease in shipment volume with the arrival of COVID-19 prompted fears of a surplus of drivers, reversing what had been a persistent, critical shortage. This turned out to be only a temporary phenomenon. Concerns soon shifted to the aging of the current population of drivers, an ongoing issue that had not yet been adequately addressed, and the high turnover rate among drivers as a result of COVID-19, which had made it even more difficult to recruit new human resources. In fact, demand for logistics services from certain industries has soared, owing to growth in the popularity of online shopping and flea market sites, a trend that has accelerated as a result of COVID-19.

Against this backdrop of uncertainty, the Company 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 the work environment 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. Overseas, DIC emphasizes support for efforts to further rationalize and enhance the efficiency of logistics in the Asia-Pacific region and Greater China through the remote sharing of information. This includes preparing Group regulations, manuals and systems in advance of the Regional Comprehensive Economic Partnership (RCEP), which is scheduled to go into effect in the near future.

CO₂ Emissions and Energy Consumption per Unit of Production Attributable to Logistics



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) as well as provides SDSs 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. In fiscal year 2020, the incident rate was 29 ppm, a 17% improvement from fiscal year 2019. This was attributable to a variety of steady efforts, including the ongoing provision of training for individuals handling liquid containers and promoting the implementation of measures aimed at preventing accidents. In addition, members of plant health and safety committees attend each other's meetings, as well as meetings of logistics partners' accident prevention committees, to exchange information and encourage on-site safety improvement initiatives.

The Logistics Department also inspects the offices of logistics partners located on-site at its 19 main domestic production facilities. In fiscal year 2020, inspections were conducted at five of these offices, during which issues were pointed out and improvements confirmed. In addition, DIC endeavors to maintain and enhance safety by requiring transport personnel to carry Yellow Cards.*

* Yellow Cards are part of activities recommended by the 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.



Regular meetings with logistics partners



Yellow Card carried by transport personnel

TOPIC

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

During fiscal year 2020, the COVID-19 pandemic made it necessary for DIC to take environment, safety and quality meetings with 3PLs located on-site at its 19 main 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 incident rate for the period, as indicated on page 103.



Online environment, safety and quality meeting

VOICE Even COVID-19 cannot stop the transport of products.

Everything in 2020 was colored by COVID-19. Initially, calls for companies to shift to telework assumed that the Tokyo 2020 Olympics and Paralympics were going ahead, but with the declaration of a state of emergency across much of Japan remote working took on a different level of importance. Preventing the further spread of the pandemic added another layer of difficulty to efforts by DIC, as consignor, and by 3PLs and other logistics firms, to maintain normal operations. In the autumn, we also began to feel the impact of insufficient container space and a shortage of dock workers, a challenge we continue to deal with today.

The Logistics Department is keenly aware of the need to work closely with logistics firms and shipping companies and to ensure that shipments of our products are not delayed, even given the current global situation. I am grateful to the cooperation and efforts of our partner companies to respond to our expectations.



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	Goals for fiscal year 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
<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"> Continue working to create a new comprehensive global system for managing chemical substance information. Deploy the Weracs at DIC Group companies in the Philippines. 	<ul style="list-style-type: none"> Work proceeded toward the advance launch in Japan in 2021. A team was established at a Group company in the PRC to promote deployment in the PRC. Preparations for deployment in the Philippines proceeded, but was not completed because of COVID-19. 	★★★ ★	<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"> Review efforts to comply with regulations in Japan. Comply with regulations overseas. 	<ul style="list-style-type: none"> Commence review of business flow across sites. Maintain status of chemical substances to which advance K-REACH registration applies and prepare to reregister existing chemical substances. Promote compliance with Taiwan's TSCCCA. 	<ul style="list-style-type: none"> The review process was completed and a new business flow was drafted. A process was established for maintaining advance K-REACH registration status and a policy was set regarding the consecutive reregistration of existing chemical substances. Attention was focused on steps taken by local authorities. 	★★★ ★★★ ★★★	<ul style="list-style-type: none"> Verify new business flow and make necessary amendments. Address revisions to China REACH. Promote compliance with Taiwan's TSCCCA.

Policies and Organization

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 Greater China 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

1 Changing Trends in Chemical Substance Management

In 2003, the UN Economic Commission for Europe (UNECE) issued the first edition of the GHS.*¹ 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 efforts 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 act in 2006, the Company began providing GHS-compliant SDSs.*² In 2009, DIC 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.—thereby facilitating swift responses to customers' requests for information.

In 2013, DIC began using the Weracs, a global SDS and label creation system that facilitates the translation of data into 46 languages, for products destined for overseas markets. In 2015, the Company also began deploying the Weracs at overseas Group companies. At present, the system is in use at 23 companies in 11 countries and territories. The Sun

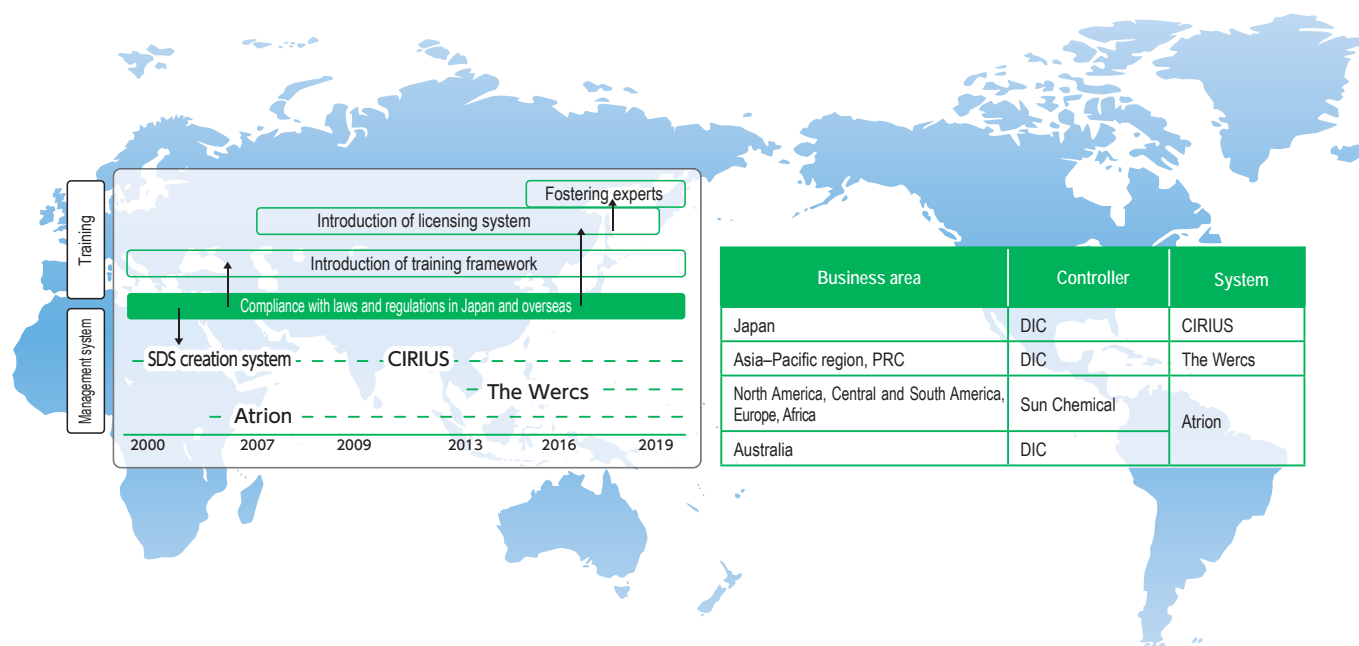
Chemical Group has used Atrion International Inc.'s chemical substance information management system since 2006, enabling it to provide highly accurate information to its customers worldwide.

Recognizing the importance of specialized expertise in the area of chemical substance management, DIC has trained employees in the manufacture, import and handling of chemical substances in accordance with applicable laws and regulations since 2000. In 2007, the Company introduced a proprietary licensing system designed to maintain and enhance the skills of its in-house chemical substance management experts.

*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.

The DIC Group's Comprehensive Global Chemical Substance Information Management Systems



2 Principal Initiatives in Fiscal Year 2020

Laws and regulations governing chemical substances are updated every year. In fiscal year 2020, the DIC Group took steps to address revisions to the PRC's Measures for Environmental Administration of New Chemical Substances (China REACH), applied for inclusion in Vietnam's updated National Chemical Inventory (NCI) and completed advance registration under Turkey's KKDIK Regulation (KKDIK is an acronym consisting of the first letter of each word in "registration, evaluation, authorization and restriction" in Turkish), otherwise known as Turkish REACH. At the same time, the Group collaborated with pertinent departments in Japan and overseas to gather information and formulate measures in a timely manner in response to developments surrounding the United Kingdom's withdrawal from the European Union, the Republic of Korea (ROK)'s Occupational Safety and Health Act and Taiwan's Toxic and Chemical Substances of Concern Control Act (TSCCA).

In the area of systems for managing chemical substance information, the Group continued to promote the Global Chemical Information Project (GCIP), the objective of which is to build a new global system for managing chemical substance information. This new system will integrate CIRIUS and the Weracs, facilitating the swift provision of consistent, accurate information to customers across the DIC Group and improving the ability of Group companies in the PRC and the Asia-Pacific region to ensure legal and regulatory compliance. The Group's aim is to begin deploying this system globally in fiscal year 2024.

3 Efforts Going Forward

Promoting the Creation of a New Comprehensive Global System for Managing Chemical Substance Information

Guided by its DIC111 medium-term management plan, one theme of which is to reengineer business processes, DIC will continue to advance the creation of a new global chemical substance information management system that integrates CIRIUS and the Weracs with the goal of beginning to use the new system—dubbed Chemicals Information Global Network Access System (CIGNAS)—in fiscal year 2024. The Company is also pushing ahead with the creation of an information management framework to ensure the effective management of information using the new system.

Given the recent tightening of laws and regulations governing chemical substances, the scope of related information that must be managed has expanded and the demands on individuals responsible have become significantly greater and more complex. Requests from customers to conduct research on chemical substances are also expanding, underscoring the importance of ensuring an appropriate global response to changing circumstances. Having conducted a preliminary study in recent years, the Responsible Care Department reached the conclusion that the optimal approach was to strengthen existing systems to create a new global chemical substance information management system and to establish a new information management framework, prompting it to embark on this process. DIC plans to launch CIGNAS first in Japan in fiscal year 2021 before gradually expanding deployment to Group companies overseas.

VOICE We are working to improve customer confidence by promoting legal and regulatory compliance initiatives.

I am in charge of the GCIP at DIC (China). In fiscal year 2020, we explained the GCIP's plan for deploying CIGNAS and the Weracs in 2022 to local Group companies (16 production facilities) on an individual basis. We are currently analyzing the documentation of each of these companies with the objective of creating an operations manual for chemical substance information management going forward.

As a legal and regulatory officer responsible for helping ensure compliance with laws and regulations governing chemical substances overseas, I gather information on laws and regulations in countries other than Japan and formulate Groupwide policies to guide the development and implementation of responses by individual companies. I try to explain complex laws and regulations, as well as to suggest appropriate responses, as simply and clearly as possible to help deepen employees' understanding. We believe that this approach is important to gaining the confidence and trust of customers and society at large. We will continue to promote a variety of related initiatives that contribute to increased trust in the DIC Group.



Corporate ESH Department, DIC (China) Co., Ltd. **Meijing Chen**

I Creating the CIGNAS Global Chemical Substance Information Management System

Starting Up a New Project

In July 2019, DIC inaugurated a project to oversee the creation a new global chemical substance information management system and established a project team consisting of representatives from departments well versed in chemical substance management who were invited to play a role in creating the new system. In addition to system design and development, the project team reviewed and standardized procedures to be used globally for gathering information to ensure smooth operations. From October through December 2019, team members visited 11 overseas Group companies in three countries to learn about their procedures for managing chemical substances, and reflected findings in the items to be considered as part of the project. In addition, these inquiries underscored the team's understanding that Group companies were also anxious for a chemical substance information management system.

In fiscal year 2021, DIC will launch CIGNAS in Japan, as well as commence full-scale preparations for deployment in the PRC in 2022. The Company will also look at alternative approaches to giving presentations at DIC Group companies in Taiwan and the Asia-Pacific region, which had originally been scheduled for 2020 but were canceled as a consequence of COVID-19.

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 Weracs 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 easily extract and use essential information. 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 Information Management 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. One of the ways the DIC Group is addressing this challenge is through the creation of a new global system. 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 base, 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 to 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 has implemented diverse measures, from collecting and analyzing information to formulating guidelines, promoting awareness among Group companies and customers and integrating management using CIRIUS.

The Food Sanitation Act, which was amended in fiscal year 2018, stipulates the adoption of a Positive List (PL) 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 2020.

Outlook for Principal Initiatives in Fiscal Year 2021

The PRTR Law is scheduled for revision in fiscal year 2021. This will result in emphasis being placed on efforts to minimize risks associated with the handling of chemical substances over the entire life cycle of products, with standards for assessing the amount of substances present in the environment shifting from manufacturing and import volume to release amount. Substances in the register are also expected to be revised. DIC will take active steps to comply with the revised PRTR Law, as well as to provide basic PRTR information to customers. The Company will also promote the creation and distribution of SDSs that comply with JIS Z 7253, the Japanese Industrial Standards (JIS) standard for hazard communication for GHS-compliant labeling and SDSs. DIC will also take decisive steps to address the WSSD goal that supersedes the goal for 2020, which was expected to be discussed at the International Conference on Chemicals Management (ICCM) but was delayed due to the pandemic, 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 K-REACH legislation 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.

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 2020.

Outlook for Principal Initiatives in Fiscal Year 2021

The revised China REACH, which will come into effect in fiscal year 2021, is expected to compel a major overhaul of the DIC Group's system for managing chemical substances subsequent to registration. Accordingly, the Group will respond swiftly as necessary. The Group will also press ahead with preparations to reregister existing chemical substances as required by K-REACH and Taiwan's TSCCA legislation, which began in fiscal year 2020.

The DIC Group will 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 the JCIA.

VOICE We gather information on laws and regulations governing chemical substances overseas with the aim of increasing public trust in the DIC Group.

In recent years, countries and territories around the world have taken steps to establish new or strengthen existing chemicals-related laws and regulations. Companies' responses have necessarily expanded and become increasingly complex. The DIC Group, which continues to broaden its global presence, deals with a bewildering range of laws and regulations. Ensuring unfailing compliance wherever it has operations is essential for the Group to fulfill its responsibilities as a corporate citizen.

As a legal and regulatory officer responsible for helping ensure compliance with laws and regulations governing chemical substances overseas, I gather information on laws and regulations in countries other than Japan and formulate Groupwide policies to guide the development and implementation of responses by individual companies. I try to explain complex laws and regulations, as well as to suggest appropriate responses, as simply and clearly as possible to help deepen employees' understanding. We believe that this approach is important to gaining the confidence and trust of customers and society at large. We will continue to promote a variety of related initiatives that contribute to increased trust in the DIC Group.



Manager, Chemical Management Group, Responsible Care Department, DIC Corporation **Masato Inoue**

I Training and Systems

In line with the principles of product stewardship, DIC recognizes the importance of greater employee awareness and knowledge to ongoing efforts to improve the safety of chemicals and manufactured products. The Company places considerable importance 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.

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. By providing in-depth training annually to a limited number of individuals, DIC has succeeded in raising awareness of compliance across its entire labor force. A cumulative total of 204 individuals have taken part in this training to date.

Beginning in fiscal year 2021, DIC will switch 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. The Company is also currently working to redesign courses and prepare study materials to facilitate the creation of a practical program focused on various chemicals-related laws and regulations and a high-level 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.

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. Licenses are valid for two or three years, depending on the particular business. 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 Health and Safety 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 2020, training was not provided because of COVID-19. Accordingly, the number of employees holding licenses was unchanged from fiscal year 2019.

Beginning in fiscal year 2021, DIC will continue to deepen the hierarchy of export licenses, and review the content of its training. In particular, the Company will establish a special qualification for individuals involved in the preparation of certificates of non-applicability, an important part of export control. The Company is also currently creating a licensing system for employees who prepare certificates of origin, which have come to play a more important role in international free trade agreements in recent years with, among others, the signing of the Regional Comprehensive Economic Partnership (RCEP) and the coming into force of the UK-Japan Comprehensive Economic Partnership Agreement.

Export Licenses

Class A licenses
1,527

Class B licenses
183

Advanced licenses

84



Import Licenses

318



Training at Overseas Group Companies

The PRC has taken decisive steps to reinforce chemical substance management in that country, underscoring its increasing importance to business continuity. In fiscal year 2020, DIC (China)'s ESH Department provided training related to revised laws and regulations governing chemical substance management, which focused on laws and regulations scheduled for revision, notably China REACH, a set of nine compulsory national standards for VOCs, and the country's Export Control Law. In that a single breach of any of these has the potential to negatively affect the entire DIC Group, the Group has promoted due diligence for all three since the public comment stage. Looking ahead, the Group will strive to improve chemical substance management through training focused on, among others, trends in related laws and regulations, using e-learning and other formats.



Presentation by Wendy Zhang of DIC (China)'s Corporate ESH Department on the pertinent Guobiao (GB) national standards



Explanation of changes to PRC laws and regulations for technical staff by Makoto Kosono (Changzhou Huari New Material)

VOICE I will continue to provide training aimed at ensuring legal compliance.

In recent years, with awareness of issues related to health and the environment, the drive to tighten chemicals-related legislation is gathering speed worldwide. This has led to the amendment of laws and regulations. For the DIC Group, which has operations worldwide, it is crucial that we ensure access to the latest legal and regulatory information and the ability to respond promptly and decisively. To this end, it is necessary that each employee has a proper grasp of laws and regulations and that pertinent information is shared among related departments.

In my capacity as a legal and regulatory officer, I will continue to promote training aimed at ensuring employees understand the relationship between DIC Group products and laws and regulations governing chemical substances that help ensure effective compliance.



Manager, Chemical Management Group, Responsible Care Department, DIC Corporation **Chisato Kuriyama**

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, sales, 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 promoting the creation of a new comprehensive global chemical substance information management system (for more information, please see page 106) and has formulated the DIC Sustainability Index (see page 54), 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.

In developing new products, the DIC Group also promotes effective management by making use of the aforementioned two platforms, as well as evaluation sheets for environment-friendly products (see page 138), to assess hazard and toxicity risks, with the objective of providing ever-safer new products.

I Socially Responsible 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 Health and Safety 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.

* 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 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.

I 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 103.)

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 2020, 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)

TOPIC

DIC Plastic Contributes Helmets to Town in Saitama Prefecture

As part of its effort to contribute to the local community, Group company DIC Plastics donated 380 helmets to the town of Ina, in Saitama Prefecture, of which 280 were presented to the town hall and 100 to the local fire department. DIC Plastic decorated the donated helmets with the town's official emblem, which features stylized hiragana characters for the name "Ina" linked together around a circle like the petals of a flower, symbolizing residents unified to create a beautiful community. A video of the presentation was uploaded to the town's official website.



DIC Plastics director Takashi Kanno with mayor of Ina Kiyoshi Oshima

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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Secure product quality.	Prevent major quality problems from arising by strengthening the quality assurance framework.	The management status of calibration equipment was audited and steps were taken to maintain/improve the reliability of testing parameters.	★★★	Reinforce the quality management process to prevent improprieties, as well as major quality defects and criticisms.
	Provide products and services that deliver a level of quality that matches both customer expectations and market requirements.	Design reviews and inspections of the management of changes were conducted and improvements were made in administration of the Group's QMS. (ISO 9001 certification was temporarily suspended for two production facilities where past improprieties were discovered.)	★★	Provide products and services that deliver a level of quality that matches both customer expectations and market 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

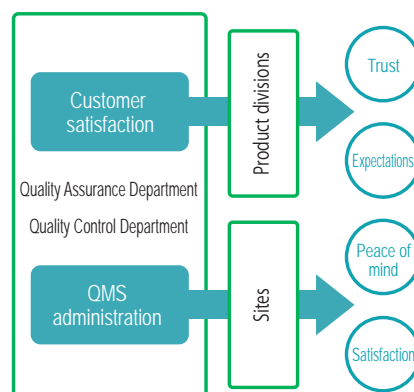
Contribute to the prosperity of customers and society by consistently providing reliable products (Updated in May 2015)

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. The Company recently conducted a review of the Production Management Unit's Quality Assurance Department and individual product divisions' quality assurance groups and in fiscal year 2021 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, which had formerly been 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. The committee formulates DIC Group quality policies and important quality management measures. At committee meetings, the product division general managers are responsible for reporting on the status and progress of quality management measures and summarizing related activities.



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 while ensuring that favorable relations are maintained with other related departments, thereby ensuring that an awareness of the need to place customers first remains firmly rooted across the DIC Group.

Owing to the spread of COVID-19, in fiscal year 2020 the Quality Assurance Department checked the implementation status of inspection equipment calibration and of design reviews while also combining information from prior confirmations implemented using check sheets and online audits, as well as audited design reviews. In calibrating inspection equipment, efforts focused on ensuring the accuracy of inspection values reported to customers. Managers from the product division quality assurance groups, and from the production and sales groups, participated in design reviews developed by technical groups with the aim of instilling an awareness that all are crucial to quality assurance.

In the area of systems development, in March 2020 the Quality Assurance Department began using a new system for verifying standards. Under the new system, quality assurance personnel conduct product inspections as stipulated in delivery specifications and reporting results faithfully to customers. The department will step up use of this system going forward.

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 is necessitated by the expansion of facilities to accommodate production expansion, the replacement of aged equipment or the transition to new, more cost-competitive products. For this reason, it is necessary to prevent the discharge of nonconforming products, a key concern, and to fortify efforts to respond to complaints and criticisms.

The DIC Group currently uses statistical process control (SPC), a quality monitoring and control methodology. Looking ahead, the Group will promote DX to improve the stability of product quality by further enhancing its ability to utilize raw materials information and manufacturing process data, and to monitor quality trends on a daily basis.

To uncover the causes of nonconformance when complaints and criticisms are received, the DIC Group uses "why-why analysis" (*"naze-naze bunseki"*) to examine issues from multiple perspectives, which not only uncovers direct causes but also illuminates underlying issues, making it possible to take corrective actions to prevent recurrence. The results of such analysis are shared across related groups. This approach continues to be successful in averting related issues. The Group will work 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, by advancing 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. Owing to the discovery of improprieties pertaining to the quality of a foam fire extinguishing agent, the Company recognized the need to review the nature of quality management training. In fiscal year 2020, the Group created a program to prevent such improprieties for managers involved in quality assurance, who participated from their respective workplaces. The program, which also employed case studies, focused on raising awareness of compliance. Through such efforts, the Group will continue working to improve awareness of improprieties and prevent the discharge of nonconforming products.

A program dubbed ISO 9001 Top Management Training was also implemented for organizational leaders, including site general managers, the presidents of DIC Group companies in Japan and product managers from individual product divisions. Participants in this program reaffirmed the importance of their own leadership in ensuring the effective functioning of the Group's QMS.

Additionally, an e-learning program on quality compliance was conducted for domestic DIC Group employees, with 100% of eligible employees taking part. 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 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. Both the Quality Assurance Department and the Quality Control Department participate in these conferences and respond swiftly and appropriately to issues as required. In the event of a more serious problem, measures are implemented in line with the headquarters task force manual for addressing major improprieties, and quality defects and criticisms.

I Improprieties in Type Testing of a Foam Fire Extinguishing Agent

On September 30, 2020, Japan's Fire and Disaster Management Agency announced that improprieties in type testing of DIC foam fire extinguishing agent *MEGAFOAM* IH-101-5 had been discovered and, as a consequence, approval of the product had been rescinded. Two months later, on November 19, DIC published a notice of measures to be taken to determine the cause of this incident and prevent recurrence on its global website. Through the steady implementation of various measures, the Company is currently taking all possible steps to ensure such an episode is never repeated. DIC is currently in the process of replacing this product with a new type-approved alternative to avoid causing undue inconvenience to customers and other related parties.

In connection with this incident, a special audit of DIC's Chiba and Hokuriku plants was conducted by Lloyd's Register Quality Assurance Ltd. (LRQA). Based on the results of this audit, LRQA notified DIC of the temporary suspension of ISO 9001:2015 and JIS Q 9001:2015 certification for these two plants effective March 18, 2021.

DIC takes these audit results seriously and is taking corrective actions to improve its QMS, as well as to prevent recurrence, to ensure the reinstatement of certification at the earliest possible opportunity, 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.

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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Foster and endorse the advancement of local staff overseas with the aim of advancing global management.	<ul style="list-style-type: none"> Promote awareness of global trends in human rights. Conduct human rights due diligence and take steps to reduce the risks that human rights-related issues pose. Ensure a grasp of disparities in the status of efforts to protect human rights at Group companies in different countries. 	<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 in two countries where there was a potential risk of human rights violations (three companies in Indonesia), which confirmed that there were no violations. 	★★	<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 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"> Continue promoting talent management with the aim of discovering future management candidates. Consider the creation of a global human resources database for the entire DIC Group, including Sun Chemical. 	<ul style="list-style-type: none"> The DIC Group continued to promote talent management and reviewed criteria for discovering human resources and plans for providing training. Consideration was given to the creation of a global human resources database for the entire DIC Group, including Sun Chemical. 	★	Consider building a framework for optimizing the allocation of executives with a view to shifting to a global management system.
	<ul style="list-style-type: none"> Continue offering the GCD Program. Continue providing practical training aimed at fostering global human resources at multiple levels. 	<ul style="list-style-type: none"> Two individuals participated in the GCD Program. Practical training aimed at fostering global human resources at multiple levels was provided remotely. 	★★	Increase the number of individuals participating in the GCD Program and practical training aimed at fostering global human resources at multiple levels to 10.
Encourage women in the workplace with the aim of securing a diverse labor force and supporting diverse work styles.	<ul style="list-style-type: none"> Use roundtable discussions for directors to ensure a grasp of the status of efforts to promote diversity in each department and consider measures. Promote work style reforms. 	<ul style="list-style-type: none"> Roundtable discussions for directors were conducted. Steps were taken to advance use of telework arrangements, including increasing workplaces and individuals qualifying for flextime. A system was introduced to help employees balance medical treatment and work, and related guidelines were published. 	★★	<ul style="list-style-type: none"> Explore and implement measures to advance understanding of diversity. Develop new personnel systems that lead to higher productivity by facilitating work style reforms. Redesign measures to foster human resources with the aim of improving job satisfaction.
Promote the hiring of individuals with disabilities with the aim of securing a diverse labor force and supporting diverse work styles.	<ul style="list-style-type: none"> Further strengthen cooperation with special needs schools to expand internships. Promote the exchange of information with other companies hiring individuals with disabilities. Maintain the percentage of DIC's total labor force accounted for by individuals with disabilities at 2.6%. 	<ul style="list-style-type: none"> The decision was made to recruit new employees from special needs schools. As of December 31, 2020, individuals with disabilities accounted for 2.65% of DIC's total labor force. 	★★★	<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%.
Enhance labor productivity by promoting various measures to provide support for the physical and mental health of employees and the creation of comfortable workplaces.	<ul style="list-style-type: none"> Prevent mental health disorders by taking steps to ensure the prompt identification of issues. Implement measures aimed at improving health literacy. 	<ul style="list-style-type: none"> Stress checks were conducted and follow-up online training was offered. An occupational psychologist used the DIC Group portal site to provide guidance on dealing with stress arising from work style changes necessitated by COVID-19. A training session on health management was offered for female employees. 	★★	<ul style="list-style-type: none"> Prevent mental health disorders and take steps to ensure the prompt identification of issues. Implement measures aimed at improving 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.

Strategies for a Stronger Management Infrastructure

In line with The DIC Way, which represents its fundamental management policy, the DIC Group has established a global human resources management framework under which Group companies in Japan, the PRC and the Asia-Pacific region are overseen by DIC, while those in North America, Europe, Central and South America, and Africa are overseen by Sun Chemical of the United States. The DIC111 medium-term management plan, which was introduced in February 2019, sets forth a strategy dubbed WING that is designed to rally the Group's diverse human resources, a source of its competitiveness as a global organization. WING centers on four core themes, summarized as "work style revolution," "HR infrastructure reform," "next management selection" and "global talent development."

WING: DIC111 Strategies for Human Resources Management

Work Style Revolution	HR Infrastructure Reform	Next Management Selection	Global Talent Development
Reform work styles to capitalize on diversified individuality ■ Reform jobs with digital tools. ■ Reform working conditions by introducing telework and flexible working hours. ■ Shift focus of evaluation from quantity to quality. ■ Support employees who have childcare or nursing care responsibilities or suffer illness, etc.	Adopt a global human resources system and unify Group system ■ Consolidate employee qualification systems globally. ■ Unify qualification standards and assessment formats for management-level employees. ■ Develop IT system for global human resources platform.	Establish system to appoint the next management team ■ Clarify requirements for employees in key positions. ■ Establish selection and monitoring processes for high-potential employees. ■ Use talent review to optimize combination of positions and employees.	Develop global human resources ■ Define level of and set requirements for global human resources. ■ Systematize global human resources development programs (English-language ability, competency, work experience, etc.).

Progress in Fiscal Year 2020

- Work style revolution**
Introduced leave for employees to accompany spouses overseas and short-term paid leave programs and implemented initiatives to promote telework system and awareness of flexible working options
- HR infrastructure reform**
 - Built human resources database for management-level and higher employees in Japan, the PRC and the Asia-Pacific region
 - Created global unified assessment system for employees in key positions
- Next management selection**
Reinforced approach to selecting new management candidates by enhancing training for such candidates and expanded scope of human resources assessments
- Global talent development**
Augmented existing development programs for global human resources by considering a method of assessing language ability, including conversational prowess

Inauguration of the WSR 2020 Project

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. In fiscal year 2020, DIC launched Work Style Revolution (WSR) 2020, a project targeting the development of new work styles with the aim of enhancing productivity and job satisfaction. Specific initiatives included creating the Job Satisfaction and Personnel System Design, Smart Work, Office Reform and Smart Process Development working groups, which are leading efforts to review individual work styles, and to promote reforms to internal systems and modify employee conduct.

Outline of the Project

- Workplaces that inspire job satisfaction/revising human resources systems**
 - Creation of workplaces that encourage enthusiasm about taking on various challenges, where performance is evaluated fairly and personal value is recognized
 - Establishment of systems that ensure employee achievements are reflected appropriately in treatment and creation of environments in which organizational growth is linked to employee growth
- Smart employees**
 - Formulation of rules for new work styles and improvement of employee digital literacy
- Smart offices**
 - Creation of environments in which individuals and groups can exercise their abilities anytime and anywhere
- Smart processes**
 - Review of existing business processes to boost efficiency and realization of new business processes through the promotion of digitalization

Basic Personnel Statistics (DIC)

		Fiscal year 2018	Fiscal year 2019	Fiscal year 2020			Fiscal year 2018	Fiscal year 2019	Fiscal year 2020
Number of employees	Male	2,628	2,640	2,669	Retention rate (after three years)	Male	(Fiscal year 2015 hires) 87.8%	(Fiscal year 2016 hires) 97.2%	(Fiscal year 2017 hires) 92.3%
	Female	662	681	691		Female	81.0%	76.9%	100%
	Overall	3,290	3,321	3,360		Overall	86.3%	91.8%	94.0%
Average age	Male	42.5	42.6	42.7	Mid-career hires (percentage of total new hires)	Male	62	71	52
	Female	41.9	42.1	42.5		Female	5	10	3
	Overall	42.4	42.5	42.7		Overall	51.9%	44.9%	41.4%
Average years of employment	Male	18.4	18.3	18.3	Separations (voluntary) (number of individuals)	Male	55	45	33
	Female	19.7	19.8	20.1		Female	15	16	16
	Overall	18.6	18.6	18.6		Overall	70	61	49
New graduates hired	Male	43	44	56	Separation rate (voluntary)	Male	2.1%	1.7%	1.2%
	Female	19	22	22		Female	2.3%	2.3%	2.3%
	Overall	62	66	78		Overall	2.1%	1.8%	1.5%

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.

Initiatives in Fiscal Year 2020

A total of 58 DIC Group companies in Japan and overseas implement voluntary human rights and labor practices inspections. In fiscal year 2020, initiatives focused on promoting awareness of the DIC Group Human Rights Policy across the Group. As in fiscal year 2019, inspections in fiscal year 2020 used a questionnaire that had been revised based on the results of inspections carried out in the previous period. Having analyzed and verified the results of inspections, the Group implements follow-up inquiries and uses its findings to promote efforts to raise awareness. In fiscal year 2020, the Group conducted human rights due diligence at three Group companies in Indonesia. 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.

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

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 due 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.

(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

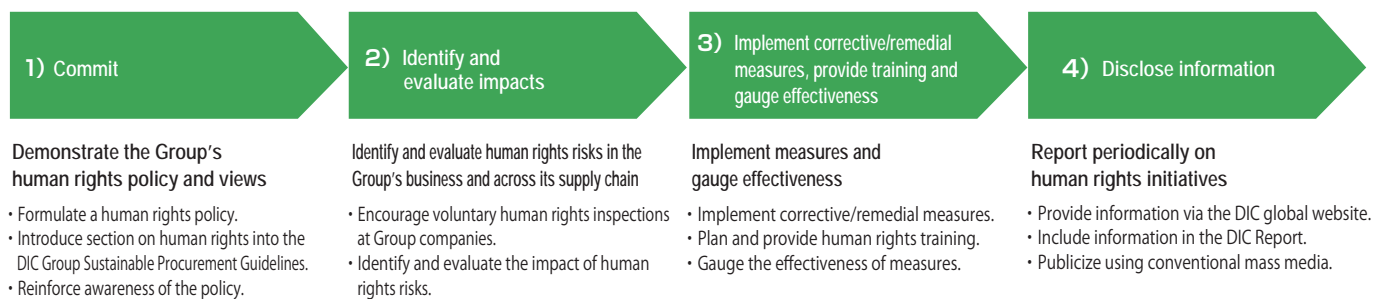
The DIC Group respects basic labor rights, including freedom of association and employees' rights to organize and to engage in collective bargaining.

(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.

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.



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—which clarifies issues it expects suppliers to address, in 2009. Using the policy and guidelines, the Company promotes sustainable procurement by ensuring that all suppliers implement improvements and initiatives necessary to ensure 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 has a broad range of industrial applications, including coatings, cosmetics, electronics materials and cutting fluids and 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 operations 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.

3. Establishment of whistle-blowing hotlines and corrective measures by the compliance team

The Company's compliance team has created a channel for Group employees to report to whistle-blowing hotlines. In fiscal year 2020, the Company received 17 reports of power harassment, discrimination and other issues through this system. However, internal investigations revealed no serious violations. Appropriate corrective measures were implemented in the receipt of reports.

4. Contact procedures and responses to comments and complaints

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 or complaints are received. No complaints pertaining to human rights issues were received in fiscal year 2020.

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 72.0% of parent company employees belong to the DIC Employees' Union (99.3% of eligible employees).

Diversity Promotion and Work Style Revolution

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, thereby creating workplaces that enhance job satisfaction for employees. The Group's president and CEO has said, "It is important to recognize that marshaling the diversity of the individuals that make up our labor force will enable us to respond to social imperatives or even to change DIC itself." To this end, DIC has identified introducing alternative working arrangements that leverage digital tools, including telework and flextime; shifting the focus of evaluations from quantity to quality; and providing support for employees who have childcare or nursing care responsibilities or suffer illness as the key themes of the human rights strategy set forth in its DIC111 medium-term management plan. DIC is also promoting ESG management to strengthen its management infrastructure, with initiatives in Japan emphasizing increasing the percentage of the Company's management positions occupied by female employees, the percentage of its overall labor force accounted for by foreign nationals, and the number of female employees and foreign nationals on its management team.



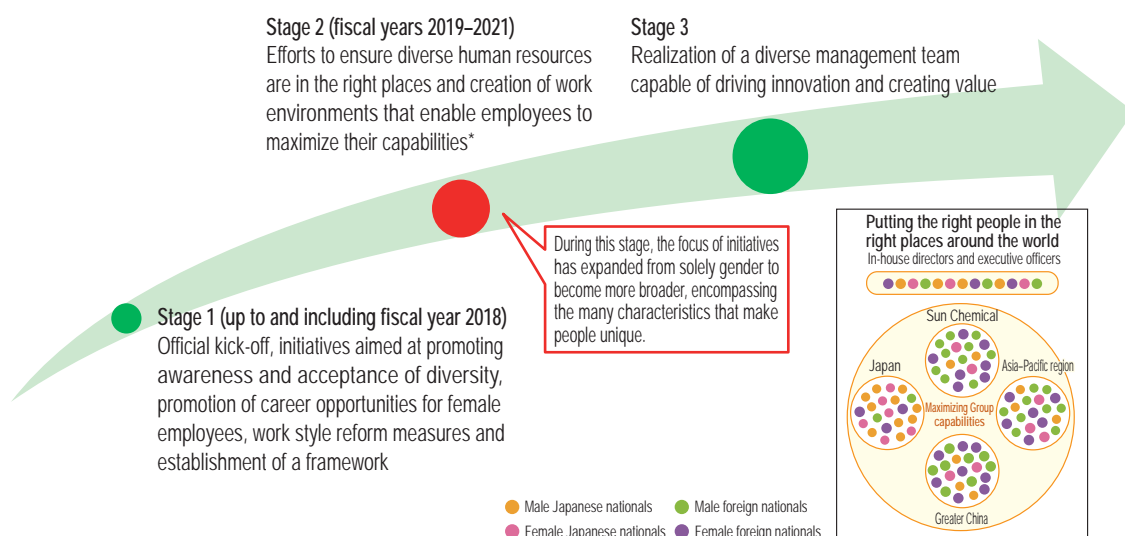
Targets: Percentage of female employees in management positions in Japan: **5.1%** (FY2019) ⇒ **5.9%** (FY2021 January achievements) ⇒ **20.0%** (FY2025)
 Percentage of foreign employees in Japan: **1.0%** (FY2019) ⇒ **1.1%** (FY2021 January achievements) ⇒ **10.0%** (FY2025)

Percentage of executives who are female and/or foreign nationals: **15.0%** (FY2018) ⇒ **15.0%** (FY2021 January achievements) ⇒ **30.0%** (FY2025)

Diversity Road Map

DIC's future vision, set forth in DIC111: Become a unique global company that is trusted by society

- DIC seeks to be a company that realizes corporate value through the promotion of diversity, thereby earning respect and admiration from the global community. By advancing diversity, DIC is thus advancing value creation and increasing corporate value, bringing it closer toward achieving the future vision it is working toward under DIC111.



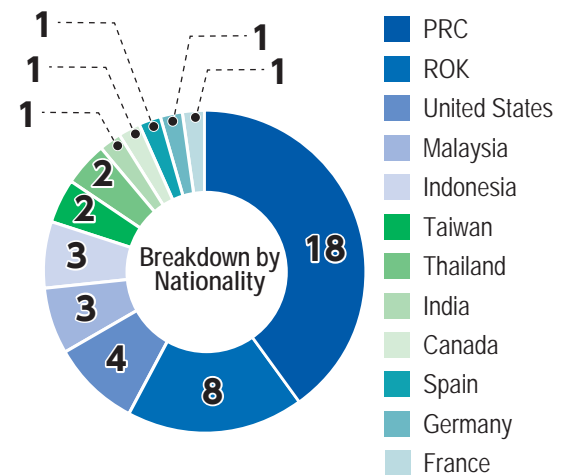
1 Hiring Diverse Human Resources

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; Japanese and foreign nationals completing undergraduate studies at overseas universities; and experienced mid-career candidates with extensive experience and expertise. At present, approximately 45 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 has also begun providing support related to personnel systems, treatment and improved workplace environments, and has sought to encourage understanding through training and other efforts.

Number of Foreign Nationals Currently Employed by DIC

Sales positions	Technical positions	Department/division administration	Posted overseas	Production	Total
2	28	1	8	6	45

Nationalities of Foreign Employees



As someone helping to drive further diversity at DIC, I look forward to contributing to the evolution of both the Company and society.

I began looking for a job in Japan while I was working to complete my doctorate here, but not many companies were actively hiring students whose Japanese-language skills were not particularly good. DIC was one of the few keenly promoting the recruitment of students from overseas. This is truly an outstanding company, with a wide range of businesses, facilities and affiliated companies around the world. Since joining, I have been involved in the development of different products at three sites, allowing me to learn from experts with a variety of backgrounds and grow in my role. I also think DIC is one of the best companies in terms of creating work environments conducive to continuous service for female employees. I believe DIC's diversity is what has enabled it to respond flexibly to the dramatic changes sweeping the world. For example, in addition to swiftly reinforcing measures in the workplace to prevent the spread of COVID-19, DIC also quickly embarked on the development of a variety of products with antiviral functions. As someone helping to drive further diversity at DIC, I look forward to contributing to the evolution of both the Company and society.



Color Materials Technical Division, Central Research Laboratories **Thimthong Narumon**

TOPIC

Networking Conference for Non-Japanese Employees

In December 2020, DIC held a networking conference to foster ties among non-Japanese employees. The Company will continue to organize these conferences on a periodic basis with the idea that it may be constructive for people who feel alienated or lonely to know they have colleagues with the same concerns.

On the day of the conference, presentations were given on Japan's public and private pension systems, as well as on frequently asked questions about DIC's personnel system, after which the floor was opened for a free discussion. Feedback was largely positive, with participants commenting that the event had given them an understanding of pension systems and enabled them to build networks, and that they looked forward to learning about the career plans of other non-Japanese colleagues.



2 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.

Creating a Framework for Initiatives

In fiscal year 2017, DIC established the position of diversity officer in each of its business units to create a framework for initiatives in each business unit that reflects the actual situation on the ground. The individual in charge of diversity for the Group and the business unit diversity officers meet periodically to exchange information, among others, with the aim of raising the standard of initiatives implemented Companywide.

Transforming Employee Mindsets and the DIC Corporate Culture

In October 2016, DIC held the Women in DIC Forum, which addressed the issue of career opportunities for female employees and welcomed female executives from multiple DIC Group companies, at its corporate headquarters in Tokyo. Approximately 800 employees—split evenly between female employees and male management-level employees—participated in the forum. In the first session, four female executives from overseas Group companies gave presentations, while in the second session three female employees in senior positions in Japan joined the four speakers in a panel discussion on pursuing a rewarding career as a way to enrich one's life. The discussion was broadcast to 14 Group sites across Japan.

As part of its efforts to change the mindsets of management-level employees, in May 2017 DIC held a conference for approximately 300 line supervisors on the meaning of diversity. The following month, the Company held a roundtable discussion that included an outside director who is board chair of an NPO and as such is well versed in diversity management.

In May 2018, DIC staged a diversity-related event for executives and managers overseeing female employees at its corporate headquarters in Tokyo. The event, which was attended by approximately 300 individuals from 16 sites across Japan, was divided into two parts. The first was a lecture titled "Diversity Is a Strategy," which was given by Yosuke Yagi, CEO of People First, Ltd., whose career includes stints as a human resources manager for General Electric Japan Ltd. and executive officer and executive vice president of LIXIL Group Corporation. Mr. Yagi's lecture touched on a variety of points, including tips for bringing out the best from people and organizations that he actually put into practice at LIXIL and about unconscious biases that impede the careers of female employees. The second part of the event was a discussion between Mr. Yagi and DIC president and CEO Kaoru Ino titled "Diversity at DIC: The Next Challenge," which was moderated by Yukio Ishizuka of Nikkei Inc. In addition to an exchange of views on the results of DIC's diversity awareness survey, the participants looked at the direction of efforts to promote diversity at DIC by examining employees' understanding and gaps in awareness between female and male employees, and introducing case studies from other companies.

In September 2019, an executive roundtable was held during which reports on developments and achievements from 2016 through 2019 were given and future diversity promotion activities were discussed. Department-specific activities reported on included a networking meeting held for female employees and an interview with newly appointed female managers in the Production Planning Department, which has a lower percentage of female employees than other departments.



Women in DIC Forum



Diversity lecture (2018)



People First CEO Yosuke Yagi

The Expanding Scope of Positions for 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 30 female employees—including five performing shift jobs—on 14 production lines at seven sites.

Female Employees in Production and Utility Control Groups at DIC Sites

(As of April 2021)

Site	Production Group	Utility Control Group
Chiba Plant	9	2
Saitama Plant	8	0
Sakai Plant	3	0
Komaki Plant	3	0
Kashima Plant	1	1
Hokuriku Plant	0	2
Yokkaichi Plant	1	0
Total	25	5

2008 4 at 1 site ► 2015 12 at 2 sites ► 2018 8 at 2 sites ► 2020 24 at 6 sites ► 2021 30 at 7 sites

Female employees on the corporate ladder at production sites: Management level: 2, assistant manager: 4, team leader: 6 (As of April 1, 2021; parent company only)

Initiatives Aimed at Expanding Career Opportunities for Women

2007 2017	Transform corporate culture and the mindset of management-level employees	<ul style="list-style-type: none"> ● Message from the president ● Seminars to promote awareness ● Identical uniforms for male and female employees ● Training for employees in administrative positions
	Encourage the drive and determination of female employees	<ul style="list-style-type: none"> ● Seminars to promote awareness among female employees ● Introduction of role models
	Expand opportunities for female employees	<ul style="list-style-type: none"> ● Assignment of female employees to production and sales positions ● Inclusion of female employees in regular system of transfers, reassignments and job rotations ● Increase in number of women hired
	Establish systems to support a healthy work-life balance for female employees and encourage the use thereof	<ul style="list-style-type: none"> ● 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 leave ● Introduction of system allowing management-level employees to limit the locations to which they will accept transfers
2018 and beyond	Further expand support to measures and promote awareness	<ul style="list-style-type: none"> ● Women in DIC Forum ● Diversity seminar for directors and line supervisors ● Executive-led lunch seminars for female employees ● Roundtable discussion for directors ● Awareness seminars for female employees ● Career support seminars for female employees ● Woman Leader Development Program (W-LDP) ● Launch of telework system ● Joint leadership development program with companies in other sectors ● Expansion of eligibility for flextime system

DIC Recognized as Nadeshiko Brand for Fiscal Year 2020, Earning Selection for the Third Consecutive Year

In recognition of its superb achievement in expanding career opportunities for women, DIC was selected as a Nadeshiko Brand for fiscal year 2020, the third 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 3,600 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 2020, 45 companies were selected as Nadeshiko brands, including four from the chemicals sector.

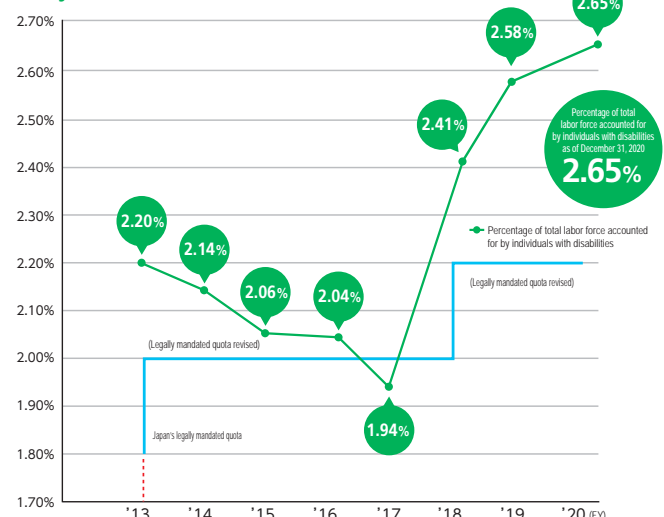


3 Advancing the Employment of Individuals with Disabilities

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 2020, both regular hiring in April as well as needs-based hiring at individual sites met with success. As of December 31, 2020, individuals with disabilities accounted for 2.65% of DIC's total labor force, noticeably above Japan's legally mandated quota of 2.2%.

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 sharing the basic principles of safe workplace conduct that I have learned with new employees and interns.

I joined DIC Estate in April 2020 and was assigned to the Business Support Department. However, as COVID-19 spread, normal operations in the mailroom became increasingly challenging. Nonetheless, despite feeling somewhat uneasy about the future each time an increase in infections was reported, we have continued to collect and deliver mail, as well as to coordinate courier services. In this environment, I have tried to keep two things in mind. The first is to be sure to always greet colleagues with a smile and a cheerful greeting. The words of gratitude from colleagues in response are a great encouragement. The second is to employ "pointing and calling," that is, gesturing and verbalizing important indicators, which is a key principle of workplace conduct for avoiding mistakes that helps ensure the accurate sorting and delivering of internal and regular mail. This means carefully checking the name and department or company of the sender and receiver, and the address for each piece of mail, taking responsibility for preventing erroneous or delayed deliveries.

My goal going forward is to properly convey to new employees and trainees what I have learned over the past year about basic principles of safe workplace conduct. I will also continue observing these principles in my own work.



Business Support Department, DIC Estate Co., Ltd. **Ryosuke Maruyama**

TOPIC

Tokyo Business Service Reports on the DIC Group

In 2020, DIC and DIC Estate were profiled by Tokyo Business Service Co., Ltd. on its corporate website. The company is a civic-sector entity in which the Tokyo metropolitan government has a 49% stake. In addition to featuring the DIC Group's active efforts to hire individuals with disabilities, the website report took a look at the mail collection and floor-by-floor delivery, courier service coordination and tea dispenser maintenance services at DIC's corporate headquarters in Tokyo provided by DIC Estate employees. Filming and interviews were conducted on-site to show employees with disabilities on the job.



Tea dispenser maintenance

4 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 2016	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020
Number of retirees (A)	108	69	89	96	92
Individuals seeking reemployment	92	55	74	81	80
Number of individuals reemployed (B)	91	55	70	77	79
Reemployment rate (B) / (A)	84.3%	79.7%	78.7%	80.2%	85.9%

Work Style Revolution Initiatives that Support a Healthy 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 and lengthening life spans, the Japanese government has launched a drive to promote work style revolution, in line with its belief that positive workplaces lead to higher productivity, with the aim of helping individuals balance the demands of a career and childcare or nursing care and improving productivity. Since well before this, DIC has promoted initiatives aimed at enabling all employees to realize both a satisfying work life and a fulfilling life outside work.

* 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 fiscal year 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.

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.



Major Expansion of 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.

Promoting Telework

In fiscal year 2016, DIC began exploring the potential of telework, a flexible work arrangement that enables employees to work from home or another remote location using information and communications technologies (ICT), thus eliminating the time and location constraints of traditional work arrangements. The following year, employees and management conducted extensive talks to iron out details. After analyzing and evaluating the results of a trial involving 57 employees, in January 2018 the Company launched the DIC Telework System, which is available to all employees regardless of position or workplace.

In response to the emergence of COVID-19 in January 2020, the DIC Telework System's limit of two days per week was abolished and telework implemented in principle for the entire DIC Group in Japan to help prevent the further spread of the virus. When Japan's first state of emergency was declared in April, more than 90% of Group office workers, centering on those in sales and management-related departments, were able to continue performing their jobs without commuting to their normal place of work. This was maintained even after the state of emergency was lifted, in recognition of the reality of COVID-19 as a permanent part of life.

Looking ahead, DIC will continue to create systems that make it possible for employees to choose a work style that suits the type of work they do, as well as their own personal needs, with the aim of helping encourage a healthy work–life balance. The Company will also further promote the independent execution of duties to reinforce self-management capabilities, thereby accelerating efforts to galvanize employees and encouraging them to give full play to their creativity.

Establishment of 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.

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.
Leave to Assist with Parenting Program	Male employees can take five days of paid leave during the eight weeks following their child's birth to assist with parenting.
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 without restriction.
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.
Hourly annual paid leave system	Employees may 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 nursing care for a family member, care for a sick child and fertility treatment

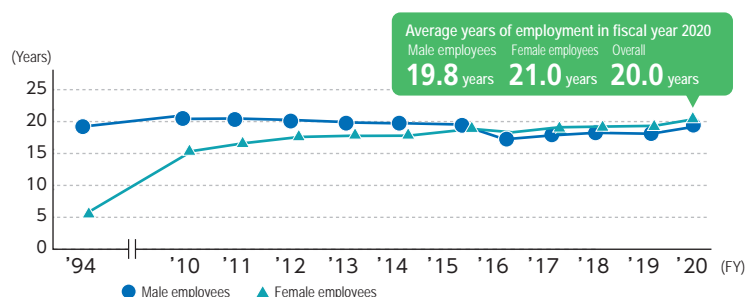
Use of the Childcare Leave and Leave to Assist with Parenting Programs

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.

	Fiscal year 2015	Fiscal year 2016	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020
Number of employees using the Childcare Leave Program	29	35	35	21	28	22
Number of employees using the Leave to Assist with Parenting Program	64	62	77	81	86	84

Average Years of Employment (Including Individuals Seconded to Group Companies)



2 Reducing Extreme Overwork and Encouraging Employees to Take Annual Paid Leave

DIC has deployed an electronic system to manage on-site hours, working hours and approved overtime hours. As a measure to prevent extreme overwork, if an employee appears likely to exceed the agreed-upon overtime limit (70 hours/month), 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 also shared with the DIC Employees' Union, a process designed to curb and reduce excessively long working hours.

In addition, the Company has instituted a mandatory Groupwide "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 change these days as appropriate.) Employees are also encouraged to take annual paid leave, with sites recommending appropriate timing for leave and having employees plan dates for such leave.

Average Monthly Overtime Hours Worked and Annual Paid Leave Taken

	Fiscal year 2015	Fiscal year 2016	Fiscal year 2017	Fiscal year 2018	Fiscal year 2019	Fiscal year 2020
Average monthly overtime hours worked per employee	12.1 hours	12.3 hours	12.2 hours	12.0 hours	10.8 hours	10.1 hours
Average annual paid leave granted	18.8 days	19.1 days	18.8 days	18.6 days	18.7 days	18.7 days
Average annual paid leave used	11.2 days	12.0 days	12.0 days	12.5 days	13.3 days	11.8 days
Usage rate for annual paid leave	59.6%	62.8%	63.8%	67.2%	70.9%	63.1%

Measures to Prevent the Spread of COVID-19

Between February 17 and December 31, 2020, a total of 20 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.

Human Resources Infrastructure Reform

With the rapid expansion of its global operations, DIC recognizes that securing and fostering human resources around the world and creating an environment that encourages cross-border career advancement and mobility is essential to increasing corporate value. To these ends, since fiscal year 2015 the Company has sought to develop harmonized promotion, personnel evaluation and remuneration systems, the cornerstone of the global human resources management framework for overseas DIC Group companies under its jurisdiction. In January 2018, DIC and DIC Graphics unified qualification standards for its 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.

The Group has also integrated its evaluation systems for Group company presidents and other executives in Japan and overseas with the goal of encouraging management approaches that are optimal for the Group as a whole from both a medium- and a long-term perspective. In addition, the Group has integrated its global personnel policies to ensure that remuneration is in keeping with local market levels and individual job responsibilities.

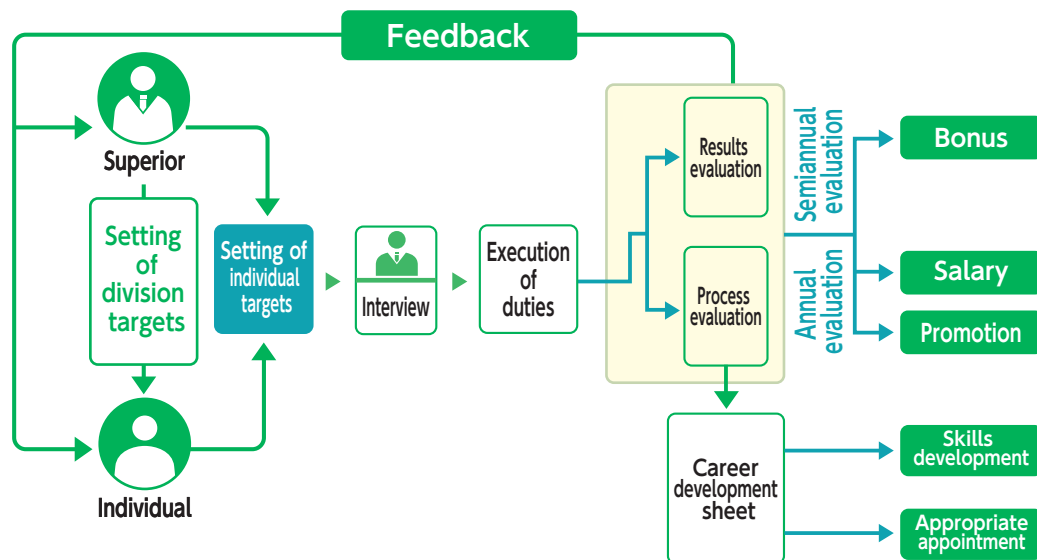
Under DIC111, in fiscal year 2019 the Group began advancing efforts to consolidate employee qualification systems worldwide, unify assessment standards and formats for management-level employees, and develop an IT system to facilitate the construction of a global human resources platform. Through such efforts, the Company will strive to realize consistent Groupwide global human resources and personnel management systems.

Securing and Fostering Human Resources

1 Ensuring Fair and Consistent Treatment

To ensure that the efforts and achievements of all employees are reflected appropriately in their treatment, DIC has consolidated its numerous employee qualification systems irrespective of job classification and educational credentials. The selection of employees to recommend for qualification is done through screening based on objective standards, thereby guaranteeing equal opportunities for promotion to all motivated, capable employees.

Remuneration and personnel evaluation systems designed to enhance job satisfaction and ensure that individual employees' abilities and achievements are assessed appropriately and reflected in a timely manner. Of note, the Company has introduced MBO—a goal-setting management tool that promotes both corporate growth and employee development—into its personnel evaluation system. Results of individual evaluations are fed back in full to employees, including reasoning behind determination, in a transparent process that ensures employees are largely satisfied with evaluation results.



2 Establishment of the Next Management Selection Process

In line with a strategy outlined in DIC111 to establish a process for selecting the next management team, in fiscal year 2018 the Company embarked on a trial aimed at realizing the mechanism for such a system. The Human Resources Strategy Department, created in January 2019, works to clarify qualifications for key positions, as well as to explore processes for selecting and monitoring promising human resources and for the Talent Management Committee to match candidates to positions.

3 New Human Resources Development Policies and a Dramatic Overhaul of the Human Resources Development Programs

Having resolved to dramatically revamp its overall personnel configuration, looking 10 or even 20 years into the future, in fiscal year 2020 DIC discontinued its human resources development programs, with the exception of new employee training, global talent development and new manager training. The Company then commenced a process of verifying the effectiveness of its existing approach to human resources development, formulating new basic policies and creating new programs.

1 New Human Resources Development Policies

DIC recognizes that a critical prerequisite for sustainable growth going forward is having employees—the source of its competitiveness—who demonstrate strong leadership and continuously create new value while responding proactively to changes in the operating environment. Accordingly, the Company has formulated four new basic policies for human resources development, around which it structured its new human resources development programs.

The first policy is to 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. The second is to 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 specific 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. The third policy is to support individual career realization, whereby DIC will work with employees to help them visualize their own careers and provide crucial related support, including by ensuring the right people are in the right places. The fourth is to cultivate self-sufficient employees who are capable of acting on their own and driving change, which the Company aims to do by nurturing individuals in various positions who understand what is expected of them and are able to routinize responsibilities, and by empowering them to make changes.

New Human Resources Development Programs

New human resources development programs were created to give form to the four basic policies outlined above, with each program focusing on one specific policy.

Program name	Outline	Courses
DIC Leadership Program	Comprehensive program for selected leadership candidates who are critical to ensuring sustainable growth for DIC in the future; seeks to cultivate advanced management and global business skills through training and projects	<ul style="list-style-type: none"> • Management training • Prospective leader training
DIC Skills Improvement Program	Program that clarifies diverse skills required to perform various jobs; make use of online learning platform to support the acquisition of advanced skills by motivated individuals	<ul style="list-style-type: none"> • Global skills training • Job skills training • Business skills training • DIC knowledge training
DIC Career Development Program	Enables individual employees to independently build their careers, helping them improve skills and capabilities while providing access to support from mentors both within and outside the Company	<ul style="list-style-type: none"> • "Self-career dock" training
DIC Action Learning Set	Cultivate self-sufficient employees who are capable of acting on their own and driving change, and who understand what is expected of them and are able to routinize responsibilities	<ul style="list-style-type: none"> • Rank-specific training • Action learning set for domestic Group company presidents • Action learning set for employees assigned to overseas posts

| Accelerating Efforts to Reconfigure Training Programs to Prevent the Spread of COVID-19

Beginning in February 2020, all training for new employees, as well as training to foster global human resources, were moved online to prevent the spread of COVID-19. While there were challenges in doing this for training usually conducted face-to-face, and programs such as hands-on safety training had to be canceled for the year, many programs were reconfigured to enhance their suitability for a remote format and conducted successfully.

A survey of participants revealed that remote training offers a number of benefits, including elimination of the need to travel to the training venue; accessibility from a variety of locations accommodates different work styles; each participant gets a front-row seat and can clearly see the faces of other trainees and the instructor; it is easier to focus on lectures; and use of the chat function makes it easy to ask questions. Drawbacks cited included that voices and images are easily affected by network environments; the reactions and conduct of other trainees is difficult to ascertain; visual fatigue makes concentration difficult; the energy and actions of instructors do not translate well; and it is difficult to network with other trainees.

Despite difficulties associated with hands-on safety training and other similar programs, DIC will continue working to maximize the benefits of the remote format by, for example, offering pre-training preparation, dividing multi-hour remote training into one-hour blocks, and interspersing remote training sessions with in-person practical and group sessions, recognizing that such “blended” formats will be the favored approach in the future.

| Global Talent Development

DIC has positioned the fostering of global human resources as a key theme of DIC111. Accordingly, the Company is taking steps to, among others, define the level of and set requirements for global human resources, as well as to systematize training (English-language ability, competency and work experience) programs.

The Overseas Trainee and GCD Programs

DIC has established the Overseas Trainee Program to foster global human resources. Owing to COVID-19, the Company had no choice but to cancel this program in fiscal year 2020. Two individuals were dispatched overseas between January and March, but were forced to return to Japan shortly thereafter. Under the GCD Program, employees from overseas DIC Group companies are sent to work at Group companies in Japan. Two individuals traveled to Japan for this program in fiscal year 2020, but new applications are not currently being accepted. DIC intends to restart both of these programs as soon as possible once the pandemic situation has improved.

Redesigned Remote-Format Global Human Resources Training

Since fiscal year 2017, DIC has offered the Next Global Human Resources Development Program for the DIC Group’s future business leaders that ranges from global standard English-language training to business model creation and design thinking. The third edition of the program, which lasts approximately one year, was originally scheduled to run from May 2019 through April 2020, but owing to COVID-19 March and April 2020 training was postponed until May and June. Training during the final two months shifted to a remote format. Final team presentations were also given online, rather than before a live audience in a large conference room. Virtual presentations require different skills than those given in person, including the ability to speak to a camera and the use of effective body language. Team members also found having to present from different remote locations challenging, but program participants agreed that the 2020 final presentations brought an extra layer of passion.

| Health Management

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.

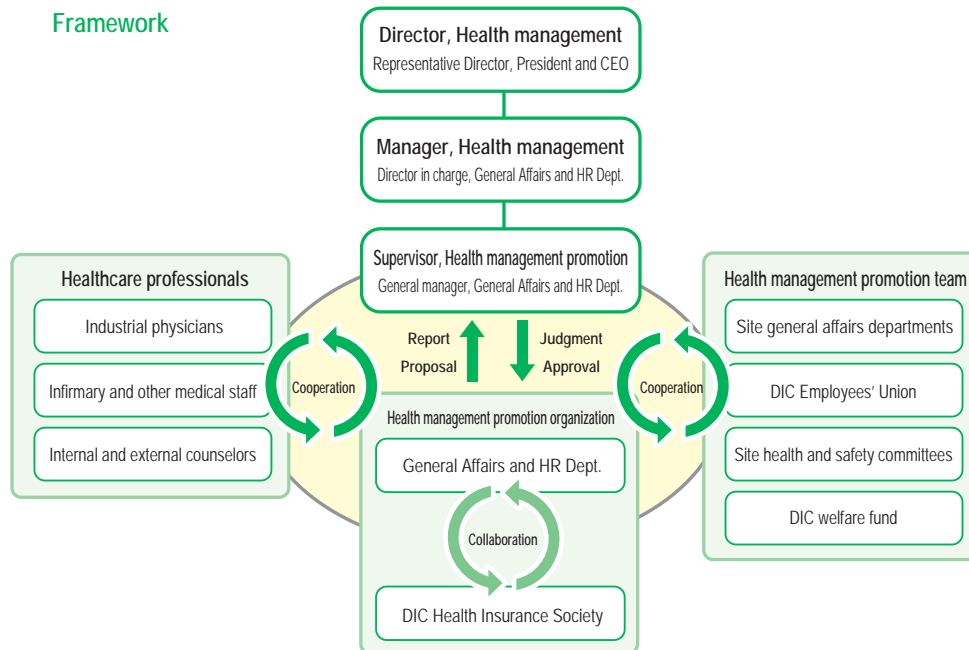
The DIC Group declares that it will work as one to maintain or improve the health of its employees, as well as to create a work environment conducive to job satisfaction.

Representative Director, President and CEO
DIC Corporation
Kaoru Ino

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.

Framework



Key Health Management Initiatives

No.	Initiative	Details
1	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.
2	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.
3	Dissemination of health-related information through health-focused newsletters	Nursing staff from DIC's Healthcare Office and infirmary issue health-focused newsletters and work to disseminate health management information that reflects the unique characteristics of each site.
4	Education aimed at the prevention and early detection of mental health issues	Industrial physicians actively conduct rank-specific training and self-care training aimed at preventing and swiftly detecting mental health issues.
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	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.
7	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.
8	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.
9	Promotion of use of annual paid leave	Efforts are ongoing to create an environment that makes it easy for employees to take annual paid leave, and include recommending appropriate timing for leave and having employees plan leave dates.
10	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 aim of curbing overtime and encouraging a physical and mental reset.
11	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.
12	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.
13	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.
14	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.

Promoting Mental Health Care

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 and promotes active, systematic efforts with the goal of preventing mental health disorders in accordance with related legislation passed in Japan in fiscal year 2016. DIC also conducts seminars led by an in-house physician at sites that have scored above a certain level in stress checks and offers counseling aimed at helping employees improve communications with supervisors, colleagues and family members. In December 2020, online self-care training was provided by specialists to help employees deal with anxiety and uncertainty caused by restraints on social lives and changes in work styles arising from the protracted COVID-19 pandemic, as well as to strengthen the prevention and early detection of mental health disorders. DIC will pursue the continued systematic promotion of these initiatives going forward.

Mental Health Initiatives

- Guidance from an in-house occupational psychologist (engaged as an occupational physician since fiscal year 2012)
- 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

DIC earned certification in the large enterprise category of the 2021 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.* This is the fourth 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 three criteria, namely, 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,** and promotion of efforts to help ensure the physical and mental health of employees.

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.



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, as well as to devise innovative ways of presentation, including producing distinctive signage that encourages recognition and devising names that clearly communicate the health benefits of menu selections, such as reduced calories or low cholesterol. DIC Irodori Care+ also 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.

The corporate headquarters' employee cafeteria also uses Spirulina—a noted superfood* manufactured by a DIC Group company—as a core cooking ingredient.

DIC will continue implementing measures designed to help ensure the physical and mental health of its employees as part of its commitment to creating work environments in which all employees can fully exercise their abilities.

* The term "superfood" is used to describe standard foods with an excellent balance of nutrients that provide health benefits and foods containing specific nutrients and/or ingredients good for human health.



DIC Irodori Care+



A healthy cafeteria menu selection

COVID-19 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 congestion due to 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

TOPIC

DIC Gives Presentation at Conference of Specific Meal Service Facilities

With the aim of improving the nutritional management capabilities of specific meal service facilities (defined as cafeterias or restaurants with a maximum seating capacity of 250 people), the Tokyo metropolitan government stages a conference introducing case studies of such facilities. DIC, which received a fiscal year 2019 Tokyo Metropolitan Governor's Award for Nutritional Improvement at Specific Meal Service Facilities, gave a presentation on its initiatives at the February 2020 conference, held at Tomin Hall in Shinjuku, representing the 10 fiscal year 2019 award winners. DIC's presentation, titled "Helping Improve the Health of Employees," focused on the DIC Irodori Care+ menu introduced at the corporate headquarters' employee cafeteria and the development of innovative healthy menu items such as "Supplement Bowl."



Comment

The corporate headquarters' employee cafeteria has taken a variety of steps during the COVID-19 pandemic to improve operations and prevent the spread of infection.

Our company has operated the employee cafeteria at DIC's corporate headquarters since the opening of the new DIC Building in 2015. So far, our menu has been well received and as of February 2020 we welcomed approximately 900 guests a day and offered seven daily menu selections, including one "healthy set" option. However, with the emergence of COVID-19 and society's general shift to teleworking, the number of guests at the end of March was half that of the previous month. When the first state of emergency was declared in Tokyo, the number dropped to roughly 50 a day.

Given these massive changes, we had no choice but to also cut cafeteria staff by about half. This of course was a difficult decision, but insofar as we have been given the responsibility of running this place, we did not have a choice. But when I see our remaining staff going about their work with a smile, I am encouraged.

Despite the harsh environment, after multiple meetings with the people responsible on the DIC side, the decision was made to keep the cafeteria open—a nod to its importance to the health and energy of DIC employees. We were also able to agree on a reduced menu of four choices, which changed daily. In addition, we implemented a number of decisive measures to prevent the spread of the pandemic.



- Temporarily closed the deli corner, where employees serve themselves using a single set of tongs (the deli corner is popular, but given the potential risks we moved early to shut this down)
- Eliminated some seating to help patrons maintain a proper social distance
- Installed plastic sheeting to prevent droplet infection on the meal service line
- Installed social distancing floor markings where patrons line up to collect meals
- Switched to individually packaged condiments
- Actively put up proprietary posters highlighting infection prevention and hygiene practices to foster greater awareness of the importance of safety and security
- Prepared an operating manual that complies with DIC rules for dealing with infections among Aim Services' employees or co-resident family members

Accurately predicting the number of meals that will be needed every day has become difficult using conventional metrics, but we are working to adjust flexibly on a daily basis by asking the Company to let us know each morning how many employees are on-site that day. This has helped us reduce food loss and unnecessary processes as much as possible.

Thanks to the understanding and cooperation of many people, we succeeded in adjusting the format of the corporate headquarters' employee cafeteria. We will continue to increase measures taken to prevent the spread of COVID-19 to ensure employees are able to dine safely and with peace of mind. We will also continue exploring new offerings that will ensure a delicious and enjoyable dining experience even with the current limited menu.

Manager, Aim Services Co., Ltd. **Emi Ota**

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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Promote sustainable procurement.	Reduce procurement-related risks by closely inspecting the sustainability efforts—including responses to environmental regulations—of suppliers of key materials for which the DIC Group is heavily dependent on the PRC and India.	In the PRC, risks to business continuity of inspections of the need for major suppliers to acquire environmental emissions permits ^{*1} and information on the consolidation of chemical industrial parks were assessed. Inspections in India were postponed to fiscal year 2021 because of COVID-19.	★★	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.
	Continue to seek out new suppliers and conduct on-site inquiries using the revised <i>DIC Group Sustainable Procurement Guidebook</i> .	The revised <i>DIC Group Sustainable Procurement Guidebook</i> was published in February 2020 in Japanese, English and Chinese. On-site inquiries based on the revised version were conducted for major suppliers.	★★	Use the revised <i>DIC Group Sustainable Procurement Guidebook</i> (DIC) and the EcoVadis ^{*2} tool (Sun Chemical) to conduct on-site inquiries and ensure a grasp of suppliers' overall ESG initiatives.

^{*1} These permits are nationwide standard authorizations that all companies were required to achieve by the end of fiscal year 2020.

^{*2} EcoVadis maintains an information platform providing ESG ratings and a performance improvement tool for global supply chains.

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 [W3B https://www.dic-global.com/en/csr/stakeholder/partner.html](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 and to promote awareness among suppliers worldwide. 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 Health and Safety 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 Survey, DIC conducts comprehensive advance assessments of major new suppliers, including from a CSR perspective.

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

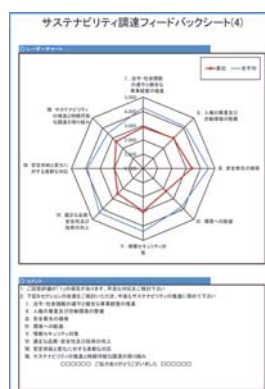
Between June 2020 and February 2021, the DIC Group used version 3 of the *DIC Group Sustainable Procurement Guidebook*, which was published in February 2020, to conduct assessments for 198 suppliers, accounting for more than 81% of its procurement spending. In addition to analyzing and assessing questionnaire 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, accounting for 90%-plus of procurement spending.

Cumulative Number of Suppliers Assessed
(June 2020–February 2021)

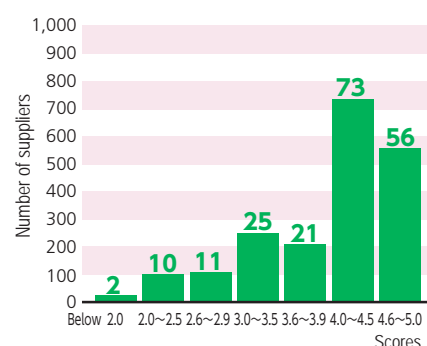
198

Equivalent to more than 81% of procurement spending



Feedback sheet

Assessment Distribution Chart (198 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 Group ESG initiatives to assist the efforts of suppliers to achieve sustainability. In fiscal year 2020, on-site inquiries were not conducted due to COVID-19.

Global Procurement Initiatives

In fiscal year 2020, the DIC Group continued working to fortify understanding among certain Group companies using version 3 of the *DIC Group Sustainable Procurement Guidebook* and conduct on-site inquiries for certain key suppliers. Sun Chemical began to survey suppliers using the EcoVadis tool. Going forward, DIC and Sun Chemical will continue to exchange views on future sustainable procurement issues at meetings of the Sustainability Committee.

Group company Siam Chemical Industry once again achieved a silver medal in the EcoVadis assessment for the second consecutive year.

Ensuring the Sustainable Procurement and Use of Raw Materials

The DIC Group promotes the sustainable 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, and continuing to search for bioderived and recycled raw materials. Looking ahead, the Group will expand the global application of its sustainable raw materials 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 throughout 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 Group uses the Responsible Minerals Initiative (RMI)’s Conflict Minerals Reporting Template (CMRT) to survey suppliers of tin, tantalum, tungsten and gold, and the Cobalt Reporting Template (CRT) to survey suppliers of cobalt, across its entire supply chain. Going forward, the Group will take additional steps, including further expanding the scope of surveys, in response to evolving social imperatives. As of December 2020, responses had been received for more than 90% of the items currently procured by the Group in Japan. This initiative is ongoing.

Promoting Awareness In-House

The DIC Group provides regular training for in-house purchasing personnel, including point of hire, when transferred and prior to meeting with customers. In February 2020, the Group posted the revised version of the *DIC Group Sustainable Procurement Guidebook* on the DIC intranet to promote awareness and held related presentations at overseas Group companies.

VOICE We are working to build partnerships with suppliers through sustainable procurement.

In addition to manufacturing and selling inks, DIC Graphics provides solutions that encompass the proposal and sale of products sourced from other manufacturers. My department is in charge of procuring such products, which are diverse in nature and include solvents used in inks, printing plates and chemical cleaning agents used on printing floors, as well as equipment that helps customers reduce labor requirements. We currently work with approximately 300 suppliers. Sustainable procurement initiatives are essential to building effective partnerships with these companies. Supplier inquiries have traditionally focused on considerations such as quality, price and stable supply capabilities, but we recognize the increasing importance of sustainable procurement, which incorporates ESG perspectives, to our efforts to finding and building partnerships with promising suppliers.



Manager, Raw Materials Management, Supply Chain Management Group, DIC Graphics Corporation **Kazunori Karasawa**

Business Models that Respond to Social Imperatives

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

Objective of initiatives	Goals for fiscal year 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
Propose solutions-oriented businesses that respond to social imperatives.	Contribute to the realization of a sustainable society by fostering next-generation businesses that anticipate technological changes.	Through participation in a national project seeking to advance the recycling of plastics with the aim of achieving a decarbonized, circular economy, the DIC Group formulated a vision for a next-generation packaging business.	★★★	Capitalize on core competencies to increase the probability of success for next-generation businesses from the perspective of both social value and economic value. Contribute to the creation of a new social ecosystem with the goal of realizing a circular economy.
	Participate in trade shows for key customer industries in Japan and overseas to strengthen the DIC brand and promote digitization to improve efficiency.	The DIC Group participated in major trade shows that were held virtually, as well as held online seminars, making use of digital technologies to create opportunities to strengthen communications with customers despite COVID-19.	★★★	Participate in trade shows for key customer industries in Japan and overseas and make use of digital technologies to identify potential issues and propose solutions-oriented business ideas.

New Pillar Creation: Promoting New Businesses that Respond Accurately to the Changing Needs of Society

The DIC Group sees one of its key missions as being to achieve sustainable growth both for itself and society by helping to address social imperatives related to climate change, the digitization of society, urbanization and longevity by identifying key business domains and providing products that respond to such imperatives.

With the goal of swiftly realizing this mission, DIC has outlined two basic business development strategies in its medium-term management plan, DIC111: Value Transformation and New Pillar Creation. In line with the strategy of Value Transformation, the Group will advance qualitative reforms in existing core businesses by shifting to businesses with differentiated high-value-added products and with more of a focus on social value. New Pillar Creation emphasizes creating new businesses by identifying areas where ESH-related issues and social changes intersect with the DIC Group's competencies.

Designing a Framework for New Pillar Creation

The DIC Group's success in providing new products and services that benefit society and creating new businesses will depend on how well it understands the sources of its competitiveness and whether it can swiftly and accurately identify social imperatives and needs. The ability to take responsibility for seeing the development process through to commercialization is particularly crucial. Accordingly, rather than depending on a conventional marketing-led approach to development, the Group has designed a framework centered on a deployment team that is charged with facilitating the design of new businesses by overseeing everything from planning and development through to production and sales, thereby ensuring that efforts to create new businesses optimize overall capabilities and are strategically effective.

Having established the New Business Development Headquarters to serve as the deployment team and identified four priority business areas, the DIC Group will leverage its ingenuity to advance the creation of new products that are useful to society and next-generation businesses with the potential to become mainstays.

The DIC Group will also bring together people from technical and sales backgrounds with detailed understanding of these business areas and people with experience in related industries with the aim of enhancing expertise and communications capabilities, as well as make active use of open innovation—including through participation in initiatives involving collaboration between industrial concerns and academia and by capitalizing on external resources—to promote the timely development and commercialization of products that benefit society.

Priority Areas of the New Business Development Headquarters

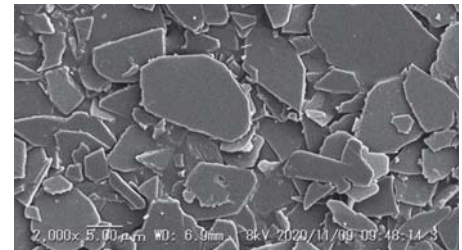
- ① Electronics
- ② Automotive
- ③ Next-generation packaging
- ④ Healthcare

I Examples of New Pillar Creation

1 Flake Alumina Filler that Imparts Outstanding Strength and Heat Dissipating Properties and Is Expected to Contribute to the Proliferation of CASE Vehicles and 5G-Enabled Devices

The growing importance of the CASE (Connected, Autonomous, Shared and Electric)* concept and the deployment of the 5G cellular telecommunications standard continue to drive the trend toward ever-smaller components with more sophisticated performance features in both the automobile and electronics industries. As a consequence, the dissipation of heat generated inside equipment is an increasingly important consideration. Alumina fillers, which offer superb thermal stability, are used to impart heat dissipating properties to automotive and electronics equipment components. DIC recently developed a distinctive alumina filler, synthesized using an original process, that unlike conventional alumina fillers—which comprise spherical or irregular particles—boasts excellent crystallinity and high aspect ratio flake-shaped particles. Accordingly, greater strength can be achieved with the addition of a smaller amount, thereby helping reduce weight. As a result, use of this filler not only improves the performance of components but also reduces energy use and CO₂ emissions arising from their production.

* The words from which the acronym CASE is formed describe four key areas—vehicle connectivity, autonomous driving, shared mobility and electrification—in which next-generation technologies and services are defining the future of the automobile industry.



CeramNext™ AP10 flake-shaped alumina filler

2 Development of Thermoplastic Composites with Antiviral and Antibacterial Properties for Use with 3D Printers

Owing to technological innovations in modelling, together with the increasing diversification and sophistication of materials, 3D printer technologies, applications for which have expanded from prototypes to finished products, have been attracting considerable attention in recent years. With the spread of COVID-19 driving consumer concern for proper sanitization, calls have increased for the use of antiviral and antibacterial products in all locations, not only in hospitals and public facilities. The DIC Group recently succeeded in developing thermoplastic composites with antiviral and antibacterial properties for use with 3D printers. These materials—the effectiveness of which has been proven in tests conducted in accordance with the ISO's standard for antiviral and antibacterial activity—suppress the growth of certain viruses and bacteria on the surface of products in which they are used. Moreover, these composites are made with polyurethane resin, which boasts outstanding flexibility and abrasion resistance, and thus offer promise for use in protective gear for medical, nursing care and public hygiene-related applications, including face shields and plastic masks. In addition, these composites are expected to be used in molded products that require antiviral treatment and that must be customized to the needs of individual customers. Looking ahead, DIC will continue working to contribute to the realization of a safe, secure and comfortable society by expanding its marketing focus to include such diverse industries as electronics and electrical appliances, sports equipment, household goods, housing and building materials, and automobiles.

3 R&D Aimed at Developing Advanced Plastic Materials Recycling Technologies and Helping Realize a Circular Economy

The DIC Group has identified a number of social imperatives related to waste plastic and marine plastics—issues of major concern worldwide—as challenges that it has a responsibility to address under its sustainability strategy and is stepping up pertinent initiatives. Recently, DIC commenced demonstration testing as part of the New Energy and Industrial Technology Development Organization (NEDO) to develop materials recycling processes as part of NEDO's Innovative Plastic Resource Circulation Process Technology Development Project for fiscal year 2020. The Company is participating in the development of materials regeneration processes and conducting basic research on the impact of packaging materials such as inks and adhesives on the properties of recycled plastic. DIC will also use the results of such research to promote the development of low-environmental impact inks, adhesives and other products. Participation in NEDO's project will enable the Company to contribute simultaneously to resolving the issue of plastic waste and achieving the practical implementation of advanced plastic resource recycling.

TOPIC

Leveraging CVC to Work to Build a Sustainable Future

In 2016, DIC established a corporate venture capital (CVC) unit that is charged with searching the globe for start-ups boasting unique technologies, compelling business models or disruptive innovations that may contribute to society and to the longevity of the DIC Group. Of particular note, the unit looks for start-ups positioned to thrive in the age of sustainable business. One such example is Checkerspot, Inc., in which DIC invested in 2018, which uses microalgae as a direct replacement for petroleum-based resources to create materials that facilitate the production of more sustainable high-performance products. From its approach to product design, which incorporates considerations for end-of-life disposal, to its use of social media to gauge consumers' affinity for ecology, the environment and sustainability, as well as to track their reactions, Checkerspot has created a business model that is revolutionary on many fronts. In line with its New Pillar Creation strategy, DIC will continue to actively leverage CVC as a route to open innovation with the aim of building partnerships with companies to create new businesses that help address key social imperatives.



Skis made from algae-derived polyol produced by Checkerspot

New Technology Development and Value Creation

Proposing Solutions that Leverage Core Technologies

SDGs Goals 9 and 12



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 2020	Achievements in fiscal year 2020	Evaluation	Goals for fiscal year 2021
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 and to promote collaboration 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.
Promote the development of environment-friendly products and services.	Accelerate efforts to develop products that contribute to sustainability.	<ul style="list-style-type: none"> Efforts led to the development of flexible packaging materials made from recovered PET bottles, as well as of biomass inks and quick-acting cobalt-free driers for coatings and printing inks. Environment-friendly products accounted for 59% of overall product sales. 	★★	Accelerate efforts to develop products that contribute to sustainability.

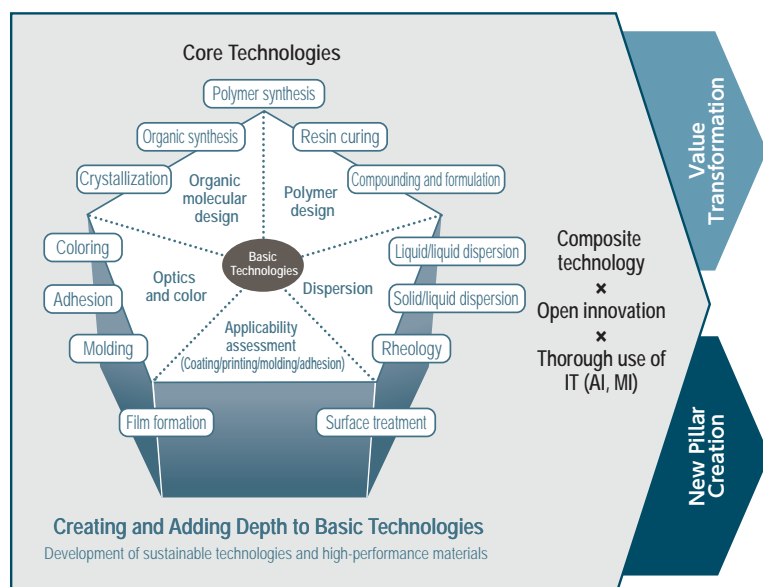
Achieving Sustainable Growth

With the aim of achieving its Color & Comfort by Chemistry management vision, the DIC Group is leveraging its basic technologies, including those in the areas of optics and color, organic molecular design, polymer design and dispersion, as well as 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, to drive sustainable growth.

Specific Initiatives and Achievements

The DIC Group is promoting the development and use of clean technologies. The Group is shifting toward biomass and other materials with reduced environmental impact—notably energy-saving, water-based and solvent-free materials, as well as materials for the electronics, packaging and graphics, and other customer industries—that improve the environmental performance of the products in which they are used, which it has positioned as environment-friendly products. In Japan, the Group devotes approximately 50% of its technological resources to the development of such products.

Development of New Technologies, Products and Solutions to Support Business Portfolio Transformation



Segment	Target
Packaging & Graphic	Next-generation packaging inks and coatings, functional packaging adhesives, industrial-use jet inks, others
Color & Display	Pigments for color filters, pigments for cosmetics, effect pigments, natural colorants, LC materials, next-generation display materials, others
Functional Products	Sustainable polymers, environment-friendly PPS compounds for automotive components, high-performance industrial adhesive tapes, others

Business area	Target
Electronics	Technologies and functional materials that support the spread of digitization
Automotive	Technologies and functional materials that underpin efforts to transform the automotive industry
Next-Generation Packaging	Packaging materials that help reduce food loss and support sustainability
Healthcare	Microorganism and cell culture technologies with applications extending from food safety to advanced medical care

Products for Use in Electronics Equipment

In the area of displays, the DIC Group has recently developed a variety of new products, including green and blue pigments for color filters used in high-definition next-generation OLEDs and highly reliable PSA LCs that boast outstanding response time for 8K televisions. Achievements to advance applications for LC technologies include the development of smart windows and LC antennas. Newly developed synthetic resins include a highly heat-resistant novolac resin for use in resists that are compatible with development using mildly alkaline solutions. In industrial tapes, the Group recently developed an ultrathin tape for smartphones that offers excellent adhesiveness and easy removability.

Products for Packaging and Graphics Applications

Recent achievements in the area of packaging materials include a series of dry laminating adhesives for flexible packaging made using raw materials derived from chemically recycled post-consumer PET bottles and a series of visually appealing *Nashiji* (pear-skin textured) matte films with a surface reminiscent of traditional Japanese paper that are made with biomass plastic. The Group also pressed forward with marketing efforts for easy-peel sealant film lid materials for containers used to hold salads sold at convenience stores that helps reduce food loss. In the area of gravure inks, the Group obtained certification under Japan's Biomass Mark program for reverse printing on general-purpose films and printing on shrink film and paper, as well as promoted the expansion of its lineup of environment-friendly products. In the area of ultraviolet (UV)-curable inks, DIC developed several new series that comply with the Japan Printing Ink Makers Association's Negative List (NL) (voluntary standards for inks used on food packaging). Overseas, the Sun Chemical Group expanded into such areas as compostable adhesives, food-contact inks, deinking agents and products with a high biomass content.

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 to house its highly trained data scientists and AI engineers. This new facility will strengthen training for human resources in the areas of AI and ML, collaborate with specialized third-party AI firms, and accelerate efforts to improve the efficiency of R&D.

Promoting Environment-Friendly Products

The DIC Group is committed to effective stewardship of the products it provides. (For more information, please see page 51.) Conscious always of the importance of ensuring its products are friendly to the environment, DIC promotes the development of products and new technologies that are useful to society and works to increase the weighting of environment-friendly products in its portfolio, by reducing the volume of hazardous substances it uses, focusing on products that are less hazardous and products that facilitate recycling, and realizing safer production processes that generate less waste and use less energy. The Group has established internal rules for designating products "environment-friendly" and works to increase the weighting of products that have earned this designation in its portfolio. In fiscal year 2020, environment-friendly products accounted for 59% of all products put out by DIC and subsidiary DIC Graphics. The Group also strives to maintain a solid grasp of laws and regulations in different countries and territories, and of trends in environmental measures—thereby ensuring its ability to design products that comply with diverse regulations governing the use of chemical substances in different markets—and conducts environmental assessments on a continuous basis.

For printing inks, adhesives and other products used in food packaging, which the Group supplies to customers around the world, the DIC Group has established a global product stewardship team. The team shares information on regulations and relevant topics from different markets, as well as promotes awareness thereof and provides education. Knowledge thus gained is incorporated into product design and used to produce compliance certificates across the supply chain, which are essential for customers worldwide.

Evaluation Sheet for Environment-Friendly Products

Department:		Prepared by:		Prepared on:	
Product to be Evaluated:					
Evaluation Item	Certifying Standards	Description	Average of f	Coefficient α	Subtotal $\alpha \cdot f$
Energy Consumption	Reduction of energy in production, transportation, etc.				
Materials to be Used	Reduction of use of non-renewable materials, non-recyclable materials, etc.				
Hazards	Product with lower toxicity, etc.				
Amount of Waste Generated	Reduction of environmentally concerned substances, etc.				
Remarks:					
			Evaluator		

Since 2003, DIC has used a proprietary system for designating environment-friendly products and uses a proprietary sheet to evaluate products based on energy consumption, materials to be used, hazards and waste generated, as well as to conduct life cycle assessments.

Introducing the DIC Sustainability Index

To ensure that stakeholders understand the true worth of DIC Group products and solutions that address social imperatives, in addition to being environment friendly, the Group introduced a proprietary sustainability index. The Group will begin using the DIC Sustainability Index in fiscal year 2022.

Products that Contribute to the Realization of Clean Technologies

The DIC Group develops materials that contribute to the realization of clean technologies designed to help resolve critical global environmental issues. Product divisions promote the development of clean technology-related products for individual target markets that leverage distinctive DIC capabilities. Overall annual sales of such products currently amount to approximately ¥146.0 billion.

The DIC Group is conscious of the need to promote the “3Rs” (“Reduce, Reuse, Recycle”) for resources. The Group is working to help reduce materials used by its customers in such areas as film for bread packaging and making products thinner while maintaining strength. To enhance the recyclability of plastic packaging, the Group is developing and launching deinking agents and other innovative products. 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.

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. Recent achievements include an antimicrobial glass fiber-reinforced PPS compound and an antiviral masterbatch for PET fibers and thermoplastic resins. The Group will continue to harness its distinctive compounding capabilities to transform its diverse technologies into competitive advantages with the aim of driving innovation.

Protecting Intellectual Property

Recognizing the effective use of intellectual property as indispensable to new technology development and value creation, a key management challenge, business groups and technical and intellectual property teams are working as one to advance intellectual property strategies. Capitalizing on this approach, the DIC Group is actively employing an open and closed strategy to build a robust patent portfolio. The Group is also focusing efforts on the use of patent search and analysis and the gathering of highly precise information with the aim of capitalizing on patent landscapes and other intellectual property information as key management assets.

DIC's efforts to reinforce protection of its intellectual property are also attracting notice outside the Company. In fiscal year 2020, DIC was sixth in a ranking of companies in the chemicals industry in Japan in terms of patent assets owned conducted by an independent firm.* DIC registers an average of 320 new patents annually. While this is small compared to leading chemicals firms, the Company received a high score for the overall scale of its patent assets, reflecting the quality and high profile of the patents it holds.

DIC 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 protect its intellectual property portfolio with the aim of ensuring sustainable growth in the years ahead.

* Patent Result Co., Ltd.

VOICE We developed an adhesive for packaging materials made from recovered PET bottles.

With companies' growing awareness of the need to contribute to the achievement of the SDGs, the importance of actively promoting environmental protection and reducing the waste they generate have taken on greater importance. In line with the sustainability policy outlined in DIC111, we recently developed the environment-friendly *DICDRYLX-RP* series of adhesives, which are made from recovered post-consumer PET bottles. This new series follows the development of biomass-based adhesives in fiscal year 2019. In addition to polymer design, which was a process of trial and error, we worked to improve product value from a customer perspective through meticulous inspections of PET bottle recycling processes, safety and recycling facilities. Looking forward, we will apply technologies developed in this effort to further expand our product lineup.



Packaging Materials Technical Group 1, Packaging Materials Technical Division, DIC Corporation **Tsukiko Takashima**

Harmony with the Community and Social Contributions

Adding Color & Comfort to Lifestyle

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

Publication of the *Guidebook for the Color Universal Design-Recommended Color Set*

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 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 fiscal year 2018, two new color options (a warm orangey yellow and a cool yellowish green) were introduced for the new paving. Also in fiscal year 2018, DIC 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.

Used extensively in signage and infrastructure, CUD is playing an increasingly important role in everyday life. Its broader application is also expected to enhance safety and convenience.

選定情報等*	色	R G B値 (0-255)	CMYK値 (0-100%)	備考
警戒レベル4 警戒レベル5 緊急情報	赤	12, 0, 12	30, 40, 0, 100	安全な事故と死者を減らす可能性が高いため、必ず目に 色味をつけている。
警戒レベル4 警戒レベル4 緊急情報	青	170, 0, 170	55, 85, 0, 5	危険が迫っている状態を伝えるために、黄やオレンジと区別して いように濃い青色であることを示している。
警戒レベル3 警戒レベル3 緊急情報	赤	255, 40, 0	0, 85, 85, 0	黄や赤との区別をしやすくするため、やや暖色に調整さ れている。
警戒レベル2 警戒レベル2 緊急情報	黄	242, 231, 0	0, 0, 100, 5	白との区別をしやすくするため、やや暖色に調整さ れている。
警戒レベル1 警戒レベル1 緊急情報	白	255, 255, 255	0, 0, 0, 0	背景と区別がつかない。『警戒レベル1』と『警戒レベル2』を区別する必要がある場合は、『警戒レベル1』と『警戒レベル2』の中間色を 255, 255, 255 0, 0, 0, 0と指定する。

Color scheme developed to convey heavy rain warning levels in an easy-to-understand manner
(Source: Cabinet Office Japan website <http://www.bousai.go.jp/index-e.html>)



Color chart for use in verification

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 year 2020, 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 supports education by offering a variety of programs for local high schools that leverage DIC's unique capabilities, including lectures for Seishin Gakuen High School in Ibaraki Prefecture, Chiba Prefectural Sakura High School and Chiba Prefectural Funabashi High School, all of which have earned Super Science High School* designation, as well as fashion design workshops for students from Chiba Prefectural Sakura High School. In fiscal year 2020, this program was paused as a consequence of COVID-19. The Central Research Laboratories also provides assistance to Super Science High School-designated schools through participation by executive-level employees in the steering committees of Chiba Prefectural Sakura High School and Chiba Prefectural Funabashi High School.

In a new initiative in fiscal year 2020, the Central Research Laboratories also extended support for the 14th Annual Meeting on Scientific Research by High School Students, which is sponsored by Chiba University's Section of Collaboration with High Schools. This event, which features research presentations by high school students from across the country, was originally scheduled to be held at Chiba University in September 2020, but to avoid the risk of spreading COVID-19 the decision was made to delay it until December and move it online. Four mid-tier researchers from the Central Research Laboratories participated, listening to presentations, taking part in question and answer sessions, and otherwise providing support for the 674 high school students seeking a career in the sciences who took part and gave presentations.

* "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 2020, three students from the school's industrial chemistry and information science programs participated in lectures on product knowledge, as well as on safety and compliance, and in practical training at the plant, from October through December.

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. In 2020, the museum celebrated its 30th anniversary. 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 several times a year.

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 2020, the museum embarked on a three-year plan to plant 300 broadleaf trees in a corner of the site originally occupied by a cedar forest, seeing the planting and proper maintenance of new thickets to ensure they are comfortable for humans as an effective way to protect biodiversity.

In fiscal year 2020, the museum was forced to close temporarily and postpone special exhibitions planned for its 30th anniversary. Having taken extensive steps to prevent the spread of COVID-19 infection and introduced a web-based reservation-only system, the museum was able to reopen safely in June 2020.

In fiscal year 2021, the museum will be closed until July for repairs to the entrance hall and the replacement of site signage, although the garden remains open to the public. During this period, the museum will prepare to restart guided tours, as well as to reopen the annex gallery and revive educational support initiatives and online events, all of which have been paused due to COVID-19. Through these and other efforts, the museum will work to ensure a beautiful, safe environment that ensures safety and peace of mind for visitors.

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 promote social contribution activities with a view to encouraging communication with the community.



Kawamura Memorial DIC Museum of Art



Museum entrance hall



Outdoor terrace

Social Contribution Initiatives by Overseas Group Companies

DIC Health Packs Preparation Day Events Held Across Southeast Asia

As a component of a CSR project in Southeast Asia, DIC Group companies in the region livestreamed simultaneous events for employees to prepare DIC Health Packs, kits containing a variety of COVID-19 protective items, including DIC Spirulina (a health food), hand sanitizer and masks bearing the DIC logo. This initiative, in which employees acted as one to help combat the pandemic, perfectly embodied the "One DIC" concept, uniting people from across the region and instilling a sense of solidarity in the face of this challenging crisis. The DIC Health Packs were donated to senior care facilities and charitable organizations. DIC looks forward to this experience motivating more employees to engage further in social contribution activities.



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 2020 drive and matching gift program were donated to 19 children's homes and facilities providing support for disabled individuals.



Contributing to Efforts to Address COVID-19

In light of a critical shortage of masks at healthcare facilities in Japan as a result of the rapid spread of COVID-19 in Japan, DIC contributed 10,000 high-performance masks from its stockpile to such facilities, comprising 5,000 N95 masks, which were donated through the Keidanren (Japan Business Federation) to the Ministry of Health, Labour and Welfare, which distributed the masks to prefectures, and 5,000 ostrich antibody masks*, which were donated to healthcare facilities suffering particularly desperate shortages. DIC also provided approximately 7,000 bottles of *Linagreen*® 21 Extract K1, a nutritional drink manufactured by a DIC Group company, to support the health of frontline medical professionals working to prevent the spread of COVID-19 and treat patients with the disease. This easy-to-consume drink is made by combining Spirulina extract, which is derived from the edible blue-green algae using proprietary technology, with propolis, ginseng and echinacea extract, and fortifying the mixture with water-soluble vitamins. To curtail the transmission of COVID-19, DIC leveraged proprietary DIC Group technologies to manufacture face shields, 1,000 of which it supplied to healthcare facilities in Chiba, Saitama, Ibaraki and Osaka prefectures, where it has production facilities. Going forward, DIC will continue to provide support for efforts to contain COVID-19 as well as its regular social contribution initiatives with the goal of ensuring that DIC remains a company that is loved and respected worldwide.

* Ostrich antibody masks are nonwoven masks that use filters that have been impregnated with antibodies from ostriches, which are highly resistant to viral infections. The ostrich antibodies bind to and neutralize viruses that come into contact with the masks, as a result of which they are significantly more effective than ordinary masks in protecting wearers against viruses.



Linagreen® 21 Extract K1



Communication with Stakeholders

Promoting Disclosure and Communication

SDGs Goal 17



Basic Approach to Disclosure and Communication

The DIC Group places a priority on communication with its stakeholders worldwide, as outlined in Article 7 of its Policy on Corporate Governance.

Article 7 (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"> ● General shareholders' meetings ● Results presentations ● IR conferences ● IR meetings ● DIC IR Day ● Individual investor briefings 	<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, and holding workshops for business partners. In fiscal year 2020, the spread of the COVID-19 pandemic encouraged the Group to move its own exhibitions, presentations and other events online, as well as to take part in global exhibitions that shifted to an online format, including CAD RETEC 2020, a global technical conference on plastics, in September and International Plastic Fair (IPF) Japan 2020 in November. Sun Chemical, which oversees Group operations in the Americas and Europe, also participated in online events such as *FlexoTech* magazine's *FlexoTech* Talk in October and held webinars for customers. In Japan, the PRC and the Asia-Pacific region, DIC Group companies made use of their websites to enhance the provision of information to customers and post videos introducing new products.

On another front, DIC continued employing a dedicated system in operation since 2013 to measure the portion of sales accounted for by repeat customers, using this as a measure of customer satisfaction based on sales data for the last three years. The Company thus works unceasingly to bolster its grasp of and improve customer satisfaction.



Sun Chemical webinar

Digital Marketing

The DIC Group actively promotes digital marketing activities. With COVID-19 reducing opportunities to speak directly with customers, the Group significantly expanded use of electronic communications, including email and social media, as well as enhanced websites, including by building landing pages to handle requests and inquiries from potential customers. The DIC Group also continued to expand digital efforts to reach customers, including holding webinars and participating in online exhibitions. In the current fiscal year, the Group is further expanding the scope of its digital marketing activities both in Japan and overseas, adapting its approaches to the advance of the digital age.

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 2020 were restricted by the pandemic, the DIC Group worked to secure opportunities for remote dialogue. Notable steps included increasing the number of financial results presentations held annually for institutional investors and securities analysts from two to four, an achievement made possible by the use of teleconferencing and web conferencing systems. Such measures to promote discourse despite the challenges posed by COVID-19 were successful in enhancing communication with the investment community.

For investors in North America, Europe, the PRC and the Asia-Pacific region, the DIC Group held IR meetings via teleconference to encourage greater familiarity with its business strategies. Active efforts to advance communication with domestic and overseas investors also included 93 one-on-one meetings conducted in person or by telephone. Online seminars for individual investors were also conducted twice during the fiscal year, welcoming a total of approximately 1,800 individuals, aimed at deepening understanding of the Group's business activities and ESG initiatives.

The DIC Group also continued to actively provide information for individual investors with whom direct communication was not possible via its global website and the media, as well as through social media. DIC has published Japanese-language transcripts of its financial results presentations twice annually since fiscal year 2018 and in fiscal year 2020 also began publishing English-language translations of these transcripts. Indicative of the high marks given these efforts, DIC won a grand prize in Daiwa Investor Relations Co., Ltd.'s 2020 Internet IR Awards and was included in Nikko Investor Relations Co., Ltd.'s Ranking of Japanese Listed Companies' Websites.



Online financial results presentation for securities analysts



Logo of the Ranking of Japanese Listed Companies' Websites



2020 Internet IR Awards

Ties with Society

In addition to the business community, the DIC Group strives to communicate effectively with ordinary consumers, including students.

Communication in the Field of Education

Nutrition Education Classes for Children

In March 2020, DIC Lifetec held a 60-minute nutrition education class at the Shibuya Children's Science Center Hachi Lab, a facility in Tokyo providing a variety of extracurricular science, technology and math programs. To protect against COVID-19, participation in the class, which was titled "Exploring the Secrets of the Color of Sweets," was limited to 18 children selected by lottery. A hands-on event focused on Spirulina edible algae—the source of a natural blue food coloring commonly used in health foods and sweets—the class was designed to foster children's curiosity about food. Activities included studying food labels used on the packages for sweets currently on the market, taking part in a colorant extraction experiment and observing Spirulina under a microscope. Feedback from the children was positive, with many indicating that the class had deepened their interest in both food and food labeling, saying that they had enjoyed the experience and wanted to learn more about the food they eat.



Nutrition education class

Tours for Parents and Guardians

In January 2020, DIC Estate invited the parents and guardians of students at Ichikawa Ohno School for Special Needs Education High School to tour its facilities. A total of 19 individuals, including two teachers, took part in the tour, which included a presentation on the company's operations and an explanation of the company's mail room and tea dispenser maintenance section. The president of DIC Estate, which actively promotes the hiring of graduates of special needs schools, gave a short address to participants before the tour. "All people are unique and different from one another. A disability is just one part of what makes a person who they are," he said, explaining that the company works with new employees after they are hired to set and achieve goals on an ongoing basis with the objective of encouraging continued personal growth and ensuring their development as working, contributing adults.

The general manager of the Business Support Department then spoke about some of the areas in which employees recruited from special needs schools work, describing ordinary daily workflows. He also explained that the company promotes a variety of initiatives, including encouraging non-disabled employees to take training in the provision of support for individuals with intellectual or developmental disabilities, and seeks to provide greater career opportunities for such individuals.

DIC Estate conducts such tours throughout the year, as well as offers internships to students from special needs schools. In addition to conveying a true picture of the DIC Group, the company seeks to encourage interest in DIC Estate as a career path based on a full and accurate understanding.



DIC Estate presentation

Kawamura Memorial DIC Museum of Art

In celebration of its 30th anniversary, the Kawamura Memorial DIC Museum of Art staged a commemorative exhibition titled "Overlapping Circles: 5 Artists Collaborate with the Collection." As can be seen from the ceiling light fixture and stained glass in the museum's entrance hall, the museum incorporates "overlapping circles" as a design motif in various places. In addition to representing the friendship between the museum's first director, Katsumi Kawamura, and architect Ichiro Ebihara, this motif also symbolizes interactions between museum visitors and the works of art on display. As suggested by the reference to this motif in its title, the exhibition spotlighted the encounters between five well-known contemporary artists with works from the museum's collection. During the year, a special page was also added to the Japanese version of DIC's global website titled "The Rothko Room: 360° View" that provides a panoramic look of the Kawamura Memorial DIC Museum of Art's beautiful natural setting, as well as a look inside the museum's Rothko Room, which displays seven paintings from Mark Rothko's *Seagram Murals* series.

Calendar

DIC's original calendar for 2021, titled simply "Calendar 2021 The Rothko Room," was honored with a silver award (category 1) in the 72nd All Japan Calendar Competition, sponsored by the Japan Federation of Printing Industries and *Fuji Sankei Business-i*, a well-known Japanese business and finance publication. An annual event, the All Japan Calendar Competition recognizes the best calendars produced by general for-profit organizations, publishers and printing companies, among others, in terms of printing technology, planning, design, functionality and creativity. The Company will continue to plan, design and produce attractive, useful original calendars that appeal to stakeholders.

Corporate Advertising

DIC continued to promote active branding initiatives in line with its "Color & Comfort" brand slogan. The Company produced a fifth installment of its brand advertisement for television featuring actress Riho Yoshioka that focused on the DIC Group's 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

In fiscal year 2020, DIC redesigned and reorganized its global website with the aim of enhancing communication with stakeholders. To further improve convenience for visitors, the Company also introduced a tool for analyzing user behavior when on the website. To enhance awareness of the DIC Group on the part of global stakeholders, Group companies in Japan, the PRC and the Asia-Pacific region unified the designs of their respective websites.



DIC's global website

Communication with Local Communities

While COVID-19 restricted the holding of community-focused events, DIC Group companies around the world promoted a variety of initiatives to assist the efforts of communities in fighting the pandemic. In Japan, the Group donated 10,000 N95 and other high-performance masks from its stockpile, approximately 7,000 bottles of nutritional drink *Linagreen*® 21 Extract K1 and droplet infection-preventing face shields manufactured using proprietary technologies to healthcare facilities. In the Asia-Pacific region, DIC Group employees prepared DIC Health Packs, kits containing a variety of COVID-19 protective items, which were donated to senior care facilities, among others.

Monetary Contributions and Other Expenditures

The DIC Group conducts its operations while maintaining relationships with a broad range of external industry and other organizations.

Monetary Contributions

The DIC Group's monetary contributions in fiscal year 2020 amounted to approximately ¥39 million. In Japan, monetary contributions included a designated donation of roughly ¥10.0 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 also made monetary contributions totaling approximately ¥200,000 to political organizations during this 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, 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 (GCNJ). In fiscal year 2020, expenditures for participation in various such external activities (membership dues) across the entire global DIC Group amounted to approximately ¥167 million.

Ties with Employees

The DIC Group promotes a variety of initiatives to facilitate active communication with its employees around the world.

Site Meetings

To encourage dialogue between management and employees, the Production Management Unit held site meetings at major production facilities in Japan. In February 2021, an online site meeting was held at the Kashima Plant, with the president and vice president of DIC and the general manager of the Production Management Unit participating remotely and 13 employees from production, engineering and management departments in the site's conference room. The meeting provided an opportunity for the frank exchange of opinions on the themes of work styles that inspire job satisfaction and what an ideal production facility would be 10 years in the future. Participants actively exchanged opinions on issues affecting manufacturing in the era of COVID-19, measures to make work more rewarding and their vision for DIC 10 years in the future. Site meetings involving management and employees were subsequently held monthly, hosted by the Chiba Plant, DIC Kyushu Polymer, the Tokyo Plant and the Komaki Plant. This initiative is expected to continue going forward.



Site meeting



Global Communication

With the objective of facilitating active global communication among employees and other stakeholders worldwide, DIC and wholly owned subsidiaries Sun Chemical in the United States, DIC (China) and DIC Asia Pacific revised The DIC Way, which represents the DIC Group's fundamental management philosophy, to enhance understanding among DIC Group employees overseas. These companies also collaborated to produce and distribute videos and handbooks to ensure The DIC Way permeates the entire organization, as well as to encourage a sense of unity. To verify the effectiveness of these efforts, the Group expanded its annual in-house survey of global Group employees, conducted using an online survey, to include questions aimed at gauging awareness of The DIC Way.

Caravan Sustainability and Branding Workshops

Having successfully staged Caravan workshops at core DIC Group facilities in Japan as part of its overall branding program, in fiscal year 2020 DIC expanded the scope of this initiative to include overseas sites. In Greater China, where a local Corporate Communications Department was recently established, a Caravan workshop for local Group employees was staged using an e-learning format to enhance understanding of Group branding initiatives.



Caravan branding workshop

In-House Newsletter

The DIC Group publishes a quarterly internal newsletter, *DIC Plaza*, with the goal of enhancing communication with DIC Group employees around the world and fostering solidarity. *DIC Plaza* has earned high marks for its content, which seeks to advance awareness of management policies and showcase DIC Group technologies, products, businesses, people and corporate culture, as well as for its vibrant design and use of color. The Group's intranet is another way for DIC to share information on the activities of employees worldwide, with more than 100 such items posted annually.



DIC Plaza

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 2020, DIC put out news releases regarding new products, capital investments, operating results and sustainability, among others. The Company also put out information about the Group's initiatives in the fight against COVID-19, underscoring its commitment as a chemicals manufacturer to helping provide safety and peace of mind for people everywhere.

Press conferences held
in fiscal year 2020

77

Interviews with
journalists
in fiscal year 2020

61

External Assessments

In fiscal year 2020, 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 sixth consecutive 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 fourth consecutive year, and the FTSE4Good Index and the FTSE Blossom Japan Index for the third 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.

DIC was thus once again included in the four 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 and S&P/JPX Carbon Efficient Index). DIC's ESG performance also resulted in it being selected for inclusion in the SNAM Sustainability Index in fiscal year 2020, a 300-constituent index that is revised annually and utilized by Sompo Japan Nipponkoa Asset Management Co., Ltd. (SNAM)'s SOMPO Sustainable 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 2020, 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 2020, the third 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 fourth consecutive year, DIC and DIC Graphics earned certification in the large enterprise category of the 2021 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 ("Japan Health Council").

With the aim of driving sustainable growth, the DIC Group participates in a number of United Nations Global Compact (UNGC) working groups (ESG, Creating Shared Value (CSV), GC Internal Promotion, Reporting, Environmental Management and Supply Chain).

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



Sompo Sustainability Index



DIC Report 2021 and the GRI Standards

DIC Report 2021 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 or organization	3 (The DIC Group: A Global Powerhouse)		—
102-2	Activities, brands, products, and services	15–16 (The DIC Group's Approach to Value Creation), 19–20 (Packaging & Graphic), 21–22 (Color & Display), 23–24 (Functional Products), 137–139 (New Technology Development and Value Creation)		—
102-3	Location of headquarters	3 (The DIC Group: A Global Powerhouse)		—
102-4	Location of operations	3–4 (The DIC Group: A Global Powerhouse)		—
102-5	Ownership and legal form	3 (The DIC Group: A Global Powerhouse)		—
102-6	Location of operations	15–16 (The DIC Group's Approach to Value Creation), 19–20 (Packaging & Graphic), 21–22 (Color & Display), 23–24 (Functional Products), 137–139 (New Technology Development and Value Creation)		—
102-7	Scale of the organization	3–4 (The DIC Group: A Global Powerhouse), 2–3 of the Financial Section (Management's Discussion and Analysis)		—
102-8	Information on employees and other workers	116 (Basic Personnel Statistics (DIC))		6.4 6.4.3
102-9	Supply chain	132 (Sustainable Procurement)		—
102-10	Significant changes to the organization and its supply chain	There were no significant changes.		—
102-11	Precautionary principle or approach	69–74 (Information on ESH management system), 56–58 (Support for the TCFD)		6.2
102-12	External initiatives	60 (Ensuring DIC Remains a Globally Trusted Corporate Citizen with a Proud Reputation), 61 (The 2030 Agenda for Sustainable Development), 95 (Building a Circular Economy), 148 (External Assessments)		6.2
102-13	Membership of associations	147 (Participation in Industry Organizations)		6.2
2	Strategy			
102-14	Statement from senior decision-maker	7–11 (A Message from the President)		6.2
102-15	Key impacts, risks, and opportunities	52–53 (A Message from the Head of the ESG Unit), 54–55 (Sustainability Index), 56–58 (Support for the TCFD), 59–61 (Overview of Sustainability)	19–20 (Packaging & Graphic), 21–22 (Color & Display), 23–24 (Functional Products), 25–36 (Special Feature)	6.2
3	Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	1 (The DIC Way), 59 (Basic Sustainability Policy), 62 (The DIC Group Code of Business Conduct)		—
102-17	Mechanisms for advice and concern about ethics	63 (Establishing and Operating a Whistle-Blowing System)		—
4	Governance			
102-18	Governance structure	40–44 (Corporate Governance), 48–49 (Directors, Audit & Supervisory Board Members and Executive Officers), 60 (System for Promoting Sustainability Initiatives)		6.2
102-19	Delegating authority	60 (System for Promoting Sustainability Initiatives)	52–53 (A Message from the Head of the ESG Unit)	—
102-20	Executive-level responsibility for economic, environmental, and social topics	60 (System for Promoting Sustainability Initiatives)	52–53 (A Message from the Head of the ESG Unit)	—
102-21	Consulting stakeholders on economic, environmental, and social topics		145 (Ties with Shareholders and Investors)	6.2
102-22	Composition of the governance body and its committees	40–44 (Corporate Governance), official corporate governance report		6.2
102-23	Chair of the highest governance body	<i>Yuka Shoken Hokokusho</i>	40–44 (Corporate Governance), official corporate governance report	6.2
102-24	Nominating and selecting the highest governance body	40–44 (Corporate Governance), official corporate governance report		6.2
102-25	Conflicts of interest	42 of the <i>Yuka Shoken Hokokusho</i>		6.2
102-26	Role of the highest governance body in setting purpose, values, and strategy	40–44 (Corporate Governance), 60 (System for Promoting Sustainability Initiatives)		—
102-27	Collective knowledge of the highest governing body	40–44 (Corporate Governance), 60 (System for Promoting Sustainability Initiatives)		—
102-28	Evaluating the highest governance body's performance	44 (Evaluation of the Board of Directors' Effectiveness)		6.2
102-29	Identifying and managing economic, environmental, and social impacts	59–61 (Overview of Sustainability), 50–51 (Materiality Analysis), 56–58 (Support for the TCFD)		6.2
102-30	Effectiveness of risk management processes	59–61 (Overview of Sustainability), 50–51 (Materiality Analysis), 56–58 (Support for the TCFD)		—
102-31	Review of economic, environmental, and social topics	40–41 (Corporate Governance)	59–61 (Overview of Sustainability), 50–51 (Materiality Analysis), 56–58 (Support for the TCFD)	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.	59–61 (Overview of Sustainability), 50–51 (Materiality Analysis)	—
102-33	Communicating critical concerns	40–44 (Corporate Governance), 60 (System for Promoting Sustainability Initiatives)		6.2
102-34	Nature and total number of critical concerns	—		—
102-35	Remuneration policies	44 (Remuneration for Executives), 54–57 of the <i>Yuka Shoken Hokokusho</i>		6.2
102-36	Process for determining remuneration	44 (Remuneration for Executives), 54–57 of the <i>Yuka Shoken Hokokusho</i>		—
102-37	Stakeholders' involvement in remuneration	—		6.2
102-38	Annual total compensation ratio	—	11 of the <i>Yuka Shoken Hokokusho</i> ("Employees")	—
102-39	Percentage increase in annual total compensation ratio	—		—

5 Stakeholder engagement				
102-40	List of stakeholder groups	144 (Communication with Stakeholders)		6.2
102-41	Collective bargaining agreements	Japan: 72% of employees belong to a labor union (for eligible employees, the rate is close to 100%). 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	144 (Communication with Stakeholders)		6.2
102-43	Approach to stakeholder engagement	144–149 (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	29 (Stakeholder Perspective), 157 (Third-Party Opinion Regarding DIC Report 2021)	144–149 (Communication with Stakeholders)	6.2
6 Reporting practices				
102-45	Entities included in the consolidated financial statements	3–4 (The DIC Group: A Global Powerhouse)		6.2
102-46	Defining report content and topic boundaries	59–61 (Overview of Sustainability), 50–51 (Materiality Analysis)		—
102-47	List of material topics	50–51 (Materiality Analysis)		—
102-48	Restatements of information	NA		—
102-49	Changes in reporting	50–51 (Materiality Analysis)		—
102-50	Reporting period	2 (About this Report)		—
102-51	Date of most recent report	2 (About this Report)		—
102-52	Reporting cycle	2 (About this Report)		—
102-53	Contact point for questions regarding the report	Back cover (Contact information)		—
102-54	Claims of reporting in accordance with the GRI standards	2 (About this Report)		—
102-55	GRI content index	This table		
102-56	External assurance	70 (ESH (Management System)), 155–156 (Third-Party Verification)		7.5.3
103 Management Approach				
GRI 103: Management Approach 2016				
103-1	Explanation of the material topic and its boundary	50–51 (Materiality Analysis)		—
103-2	The management approach and its components	50–51 (Materiality Analysis (Priority materiality themes)) • Transformation to a sustainable business structure • Product stewardship • Response to climate change • Efforts to strengthen product development capabilities and create new businesses 56–58 (Support for the TCFD), 59–61 (Overview of Sustainability), 62 (Compliance), 64 (BCM and Crisis Management), 67 (Information Security), 69 (ESH), 75 (Occupational Safety and Health/Disaster Prevention), 82 (Climate Change), 93 (Preventing Environmental Pollution), 96 (Managing Industrial Waste), 99 (Managing Water Resources), 102 (Safety in Logistics), 105 (Ensuring the Safety of Chemical Substances), 112 (Quality), 115 (Human Resources Management), 132 (Sustainable Procurement), 135 (Business Models that Respond to Social Imperatives), 137 (New Technology Development and Value Creation)		—
103-3	Evaluation of the management approach	As above, assessment results are indicated on various pages; 60 (System for Promoting Sustainability Initiatives)		
200 Economic Topics				
GRI 201: Economic Performance 2016				
201-1	Direct economic value generated and distributed	3–4 (The DIC Group: A Global Powerhouse), 2–3 of the Financial Section (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	56–58 (Support for the TCFD)		6.5.5
201-3	Defined benefit plan obligations and other retirement plans	97 of the <i>Yuka Shoken Hokokusho</i>		—
201-4	Financial assistance received from government	—		—
GRI 202: Market Presence 2016				
202-1	Ratios of standard entry level wage by gender compared to local minimum wage		11 of the <i>Yuka Shoken Hokokusho</i>	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	140 (Harmony with the Community and Social Contributions)	Global corporate website (Home page > Sustainability > Social Contribution Activities)	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	140 (Harmony with the Community and Social Contributions)	Global corporate website (Home page > Sustainability > Social Contribution Activities)	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 2016				
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		62–63 (Compliance)	6.6 6.6.3
205-2	Communication and training about anti-corruption policies and procedures	62–63 (Compliance)	132 (Sustainable Procurement)	6.6 6.6.3
205-3	Confirmed incidents of corruption and actions taken	63 (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	63 (Compliance), NA		6.6 6.6.5 6.6.7
GRI 207: Taxes 2019				
207-1	Approach to tax	Global corporate website (Home page > Sustainability > The DIC Group's Sustainability Program > Tax)		
207-2	Tax governance, control, and risk management	Global corporate website (Home page > Sustainability > The DIC Group's Sustainability Program > Tax)		
207-3	Stakeholder engagement and management of concerns related to tax	Global corporate website (Home page > Sustainability > The DIC Group's Sustainability Program > Tax)		
207-4	Country-by-country reporting	63 (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		95 (Building 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	83–85 (Energy Consumption and CO ₂ Emissions by the Global DIC Group), 85–87 (Energy Consumption and CO ₂ Emissions by the DIC Group in Japan), 88 (Independent Electric Power Generation in Japan), 89–91 (Energy Consumption and CO ₂ Emissions by the DIC Group Overseas), 98 (Environmental Impact of Groupwide Environmental Initiatives)		6.5.4
302-2	Energy consumption outside the organization	—		6.5.4
302-3	Energy intensity	6 (Nonfinancial Information)		6.5.4
302-4	Reduction of energy consumption	83–85 (Energy Consumption and CO ₂ Emissions by the Global DIC Group), 85–87 (Energy Consumption and CO ₂ Emissions by the DIC Group in Japan), 88 (Independent Electric Power Generation in Japan), 89–91 (Energy Consumption and CO ₂ Emissions by the DIC Group Overseas)		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	99–100 (Managing Water Resources)		6.5.4
303-2	Management of water discharge-related impacts	99–100 (Managing Water Resources)	94 (Reducing SO _x , NO _x and COD)	6.5.4
303-3	Water withdrawal	98 (Environmental Impact of Groupwide Environmental Initiatives), 100 (Fresh Water Withdrawn and Wastewater Discharged by the DIC Group in Fiscal Year 2020)	Water risk was assessed at 186 sites worldwide using a water risk assessment tool. Data confirmed that risk at all sites was either low or—in the event that higher risk existed—being addressed with countermeasures.	6.5.4
303-4	Water discharge	98 (Environmental Impact of Groupwide Environmental Initiatives), 100 (Fresh Water Withdrawn and Wastewater Discharged by the DIC Group in Fiscal Year 2020)		6.5.4
303-5	Water consumption	100 (Fresh Water Withdrawn and Wastewater Discharged by the DIC Group in Fiscal Year 2020)		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 in biodiversity	—	101 (Biodiversity)	6.5.6
304-3	Habitats protected or restored	101 (Biodiversity)		6.5.6
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	—	101 (Biodiversity)	6.5.6
GRI 305: Emissions 2016				
305-1	Direct (Scope 1) GHG emissions	82–92 (Climate Change)		6.5.5
305-2	Indirect (Scope 2) GHG emissions	82–92 (Climate Change)		6.5.5
305-3	Other indirect (Scope 3) GHG emissions	92 (CO ₂ Emissions (Including Scope 3) in Fiscal Year 2020), 102–103 (Safety in Logistics)		6.5.5
305-4	GHG emissions intensity	6 (Nonfinancial Information), 82 (Climate Change)		6.5.5
305-5	Reduction of GHG emissions	82–92 (Climate Change)		6.5.5
305-6	Emissions of ozone-depleting substances (ODS)	89 (Protecting the Ozone Layer)		6.5.3 6.5.5
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	93 (Preventing Environmental Pollution), 94 (Reducing SO _x , NO _x and COD)		6.5.3
GRI 306: Waste 2020				
306-1	Waste generation and significant waste-related impacts	96–98 (Managing Industrial Waste)		6.5.3
306-2	Management of significant waste-related impacts	95 (Building a Circular Economy), 96–98 (Managing Industrial Waste)		6.5.3
306-3	Waste generated	98 (Industrial Waste Generated by the Global DIC Group in Fiscal Year 2020)		6.5.3
306-4	Waste diverted from disposal	98 (Industrial Waste Generated by the Global DIC Group in Fiscal Year 2020)		6.5.3
306-5	Waste directed to disposal	98 (Industrial Waste Generated by the Global DIC Group in Fiscal Year 2020)		6.5.3

GRI 307: Environmental Compliance 2016				
307-1	Non-compliance with environmental laws and regulations	73 (ESH Auditing)		4.6
GRI 308: Supplier Environmental Assessment 2016				
308-1	New suppliers that were screened using environmental criteria	—	132–134 (Sustainable Procurement)	6.3.5 6.6.6 7.3.1
308-2	Negative environmental impacts in the supply chain and actions taken	132–134 (Sustainable Procurement)	The number of suppliers and negative impacts identified cannot be disclosed because of confidentiality concerns.	6.3.5 6.6.6 7.3.1
400 Social Topics				
GRI 401: Employment 2016				
401-1	New employee hires and employee turnover	116 (Basic Personnel Statistics (DIC))	120 (Hiring Diverse Human Resources)	6.4 6.4.3
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		115–131 (Human Resources Management)	6.4 6.4.3 6.4.4
401-3	Parental leave	125 (Use of the Childcare Leave and Leave to Assist with Parenting Programs)		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	69–74 (ESH), 75–81 (Occupational Safety and Health/Disaster Prevention)		6.4 6.4.6
403-2	Hazard identification, risk assessment, and incident investigation	69–74 (ESH), 75–81 (Occupational Safety and Health/Disaster Prevention)		6.4 6.4.6
403-3	Occupational health services	70 (Introduction of the DECS), 77–78 (Basic Initiatives Aimed at Preventing Occupational Accidents), 78–79 (Education and Training), 79–81 (Disaster Prevention)		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	69–74 (ESH), 75–81 (Occupational Safety and Health/Disaster Prevention)		6.4 6.4.6
403-5	Worker training on occupational health and safety	78–79 (Education and Training), 80–81 (Emergency Response Drills, Hands-On Safety Training)		6.4 6.4.6
403-6	Promotion of worker health	128–131 (Health Management)	69–70 (ESH)	6.4 6.4.6
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	69–70 (ESH), 103 (Safety Management in Logistics)		6.4 6.4.6
403-8	Workers covered by an occupational health and safety management system	69–74 (Management System), 75–81 (Occupational Safety and Health) (All employees are covered by an occupational health and safety management system.)		6.4 6.4.6
403-9	Worker-related injuries	76 (Status of Occupational Accidents), 79 (Disaster Prevention)		6.4 6.4.6
403-10	Work-related ill health		130 (Promoting Mental Health Care, Initiatives to Support Employee Health)	6.4 6.4.6
GRI 404: Training and Education 2016				
404-1	Average hours of training per year per employee		127 (New Human Resources Development Programs)	6.4 6.4.7
404-2	Programs for upgrading employee skills and transition assistance programs	69–81 (ESH), 112–114 (Quality), 115–131 (Human Resources Management)		6.4 6.4.7 6.8.5
404-3	Percentage of employees receiving regular performance and career development reviews	126 (Securing and Fostering Human Resources) (All DIC employees, regardless of gender, job or rank, receive performance and career development reviews twice annually.)		6.4 6.4.7
GRI 405: Diversity and Equal Opportunity 2016				
405-1	Diversity of governance bodies and employees	119–121 (Diversity Promotion and Work Style Revolution)	48–49 (Directors, Audit & Supervisory Board Members and Executive Officers), 122 (Advancing the Employment of Individuals with Disabilities), 123 (Reemployment after Retirement and Support for Retirement Planning), 128 (Global Talent Development)	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	—		6.3 6.3.6 6.3.7 6.3.10 6.4.3
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	119 (Building Trust with the DIC Employees' Union)	60 (Ensuring DIC Remains a Globally Trusted Corporate Citizen with a Proud Reputation), 132 (Sustainable Procurement)	6.3 6.3.3 6.3.4 6.3.5 6.3.8 6.3.10 6.4.3 6.4.5
GRI 408: Child Labor 2016				
408-1	Operations and suppliers at significant risk for incidents of child labor	118 (Principal Human Rights Challenges Facing the DIC Group) (Human rights due diligence showed that there are no DIC Group sites at significant risk for incidents of child labor or hazardous labor for young workers.)	60 (Ensuring DIC Remains a Globally Trusted Corporate Citizen with a Proud Reputation), 132–134 (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	118 (Principal Human Rights Challenges Facing the DIC Group) (Human rights due diligence showed that there are no DIC Group sites at significant risk for incidents of forced or compulsory labor.)	60 (Ensuring DIC Remains a Globally Trusted Corporate Citizen with a Proud Reputation), 132–134 (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 2016				
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	115–118 (Human Resources Management) (Voluntary human rights and labor practices inspections have been conducted at all eligible DIC Group sites.)		6.3 6.3.3 6.3.4 6.3.5
412-2	Employee training on human rights policies or procedures		115–118 (Human Resources Management)	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		144–149 (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		132–134 (Sustainable Procurement)	—
414-2	Negative social impacts in the supply chain and actions taken	132–134 (Sustainable Procurement)	The number of suppliers and negative impacts identified cannot be disclosed because of confidentiality concerns.	—
GRI 415: Public Policy 2016				
415-1	Political contributions	147 (Monetary Contributions)		
GRI 416: Customer Health and Safety 2016				
416-1	Assessment of the health and safety impacts of product and service categories		112–114 (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	114 (Improprieties in Type Testing of a Foam Fire Extinguishing Agent)		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	105 (Ensuring the Safety of Chemical Substances), 113–114 (Quality Assurance and Quality Improvement Initiatives)		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	Substantial 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	114 (Improprieties in Type Testing of a Foam Fire Extinguishing Agent)		6.6 6.6.3 6.6.7 6.8.7

Third-Party Verification

Verification Statement



15 April 2021
Statement No : SGS21/007

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: 2006 and the SGS verification protocol) regarding the data prepared by the Organization on the scope of verification (hereinafter referred to as "the assertion"). The objective of this verification is to confirm that the assertion in the Organization's applicable scope has been correctly calculated and reported in the assertion in conformance with the criteria, and to express our views as a third party.

Scope
The scope of verification is Scope 1 and 2 emissions, energy consumption, and Scope3 emissions, amount of water, waste amount, the data of occupational accidents and the data of female managers.
The period subject to report is from 1 January 2020 to 31 December 2020.
Refer to the attached sheet for the detailed scope of verification.

Procedure of Verification
The assertion was verified in accordance with Criteria of Verification, and the following processes were implemented at a limited level of assurance:

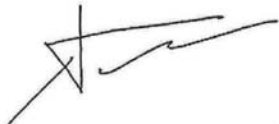
- Verification of the calculation system: Interviews on the measurement, tabulation, calculation and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the assertion: On-site verification and review of vouchers conducted at the Tatebayashi Plant and the KJ Chemicals Corporation Yatsushiro 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. 4.7", "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. 2.6.

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 GHG assertion 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.
Senior Executive & Director
Certification and Business Enhancement

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

15 April 2021
Statement No : SGS21/007

The details of the scope of verification

The scope	The boundary	The GHG assertion
1 The performance data Scope 1 and 2 include energy and non-energy related greenhouse gas emissions (only CO ₂). Energy consumption	The DIC Group *The consolidated subsidiaries in the securities report	Scope1 : 245,603t-CO ₂ Scope2 : 321,174t-CO ₂
2 Scope 3 (Category5)	The DIC Group *The consolidated subsidiaries in the securities report Excluding non-production and non-development sites in domestic consolidated companies	65,269 t-CO ₂
3 Amount of hazardous waste	DIC Corporation and domestic consolidated companies Production and development sites (13 companies, 36 sites)	Generation amount : 7,170 t Emission amount from facilities : 5,583 t Recycled amount : 2,623 t Thermal recycled amount : 4,291 t Incineration amount : 234 t landfill amount : 22 t
4 Amount of non-hazardous waste	DIC Corporation and domestic consolidated companies Production and development sites (13 companies, 36 sites)	Generation amount : 36,730 t Emission amount from facilities : 26,981 t Recycled amount : 16,412 t Thermal recycled amount : 16,308 t Incineration amount : 3,866 t landfill amount : 144 t
5 Amount of water	DIC Corporation and domestic consolidated companies Production and development sites (13 companies, 36 sites)	26,902 km ³
6 The data of occupational accidents	The DIC Group *The consolidated subsidiaries in the securities report Excluding Sun Chemical Corporation and non-production and non-development sites	DIC: Number of workdays lost: 1 Frequency rate: 0.18 TRIR: 1.44 Domestic DIC Group (including DIC): Number of workdays lost: 5 Frequency rate: 0.55 TRIR: 2.51 Over sea DIC Group (Excluding Sun Chemical): Number of workdays lost: 14 Frequency rate: 1.08 TRIR: 1.54
7 The number and rate of female managers	DIC Corporation 1 January 2021	Number: 57 Rate: 5.9%

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Third-Party Opinion Regarding DIC Report 2021



Counselor,
The Japan Research Institute, Limited
Eiichiro Adachi

In his current capacity, Eiichiro Adachi conducts industry research and assesses corporate performance from the perspective of social responsibility. 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. 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, from my perspective as an individual who provides corporate information to financial institutions necessary for ESG investment. 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. Reading the 2021 report, it was clear that despite the many challenges presented by the spread of COVID-19, DIC and its Group companies in Japan and overseas worked actively to advance ongoing efforts and launch new initiatives.

I would first like to mention a few things that caught my attention. One was the special feature on the Food with Functional Claims (FFC) made with phycocyanin, derived from *Spirulina* edible blue-green algae, which was launched in October 2020. Close to half a century has passed since DIC succeeded in the mass cultivation of *Spirulina* in 1977. The existence of algae and its enormous potential are attracting attention now more than ever before. In addition to conventional uses such as food products and livestock feed, algae is expected to find applications in such areas as pharmaceuticals, dietary supplements, biofertilizers, biofuels and biostimulants, as well as in bioremediation, an environmental remediation technique that uses live organisms. The concept of using algae to fix CO₂ in water and in the atmosphere is also drawing considerable interest. I think we can say with certainty that recognition of algae's critical role in the realization of global sustainability will increase in the years ahead. I am confident that the various related technologies and expertise that DIC has accumulated over the years will prove invaluable.

Another aspect of the report I found particularly noteworthy was DIC's efforts to advance decarbonization. To date, the Company has exceeded its targets for the reduction of CO₂ emissions. That said, its decision to introduce ambitious new targets, namely, to achieve carbon neutrality by fiscal year 2050 and, before that, to reduce its emissions by 50% from the fiscal year 2013 level by fiscal year 2030, is laudable. I was also impressed by its launch of internal carbon pricing in January 2021, which I see as evidence of its strong motivation.

I was also impressed by DIC's new undertaking in the area of chemical recycling. I found the special feature on DIC's initiative with FP Corporation (FPCO) extremely interesting. The name "FPCO-method" circular recycling burst into the limelight as a groundbreaking business model when it was launched in the 1990s and has yielded steadily positive results ever since. Even so, from what I've heard the recovery rate for post-consumer FPCO trays is only 30%, while the usage rate for recovered raw materials is less than 50%, if we calculate using the volume of foamed styrene trays shipped and the volume recovered. If DIC and FPCO succeed in developing technologies for depolymerizing polystyrene back into styrene monomer that can be recycled into trays that deliver the same performance as those made with petroleum-derived virgin raw material, it will truly be a landmark achievement. I look forward with excitement to the success of this project.

I also have two requests that I hope will be given consideration in preparing next year's report. The first has to do with disclosure pertaining to the DIC Sustainability Index. In my third-party opinion last year, I praised the Company's move to introduce this index. I was also inspired by the declaration in this year's report that the index will be used to assess all DIC Group products to determine whether they are sustainable or not. This aligns with the idea of a "green taxonomy," that is, a classification and enumeration system that clarifies what economic activities are judged to contribute to sustainability, which is finding application globally. In Japan, I often hear people say that "green" or "not green" is a dualism that does not properly recognize the steady initiatives of companies to improve their performance on this front, but I would like to commend DIC for taking a proactive step that reflects global trends. In future reports, I would like to see information on the criteria DIC uses to assess sustainability, as well as on products and businesses that have been determined to be sustainable, and the progress of efforts to transform its business portfolio.

The second pertains to disclosure regarding biodiversity. In June 2021, we saw the launch of the Taskforce on Nature-related Financial Disclosures (TNFD), a new global initiative that proposes a framework for companies to report on nature-related financial risks and opportunities with the potential to affect their financial condition. For DIC, the risk of chemicals damaging to biodiversity is an issue that must always be given consideration. At the same time, given the potential of algae to contribute to the restoration and regeneration of biodiversity, DIC's operations also involve significant nature-related opportunities. DIC Report 2021 provides only a brief commentary on biodiversity, but it is my hope that reports in the coming years will offer more in-depth analysis, including on its connection with DIC's operations.

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

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.

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

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.

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®

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.



Responsible Care®

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

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.

1973**Enters the market for LCs**

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



Nematic LCs

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**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

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.

2010**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.

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.



DIC Building

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 advertisement.

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.

2019**Launches DIC111 medium-term management plan**

Clarifies strategies for transforming the DIC Group's business portfolio, that is, for building a sophisticated portfolio focused on ESH-related issues and social changes by advancing qualitative reforms in existing core businesses and creating new businesses with the potential to become mainstays.

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 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 2020, has been included in the index for six consecutive years.

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

DIC Report 2021

Financial Section Year ended December 31, 2020

One of the world's leading diversified chemicals companies, DIC Corporation is also the core of the DIC Group, a multinational organization with operations in more than 60 countries and territories worldwide. Established in 1908 as a manufacturer of printing inks, DIC has capitalized on its extensive technologies, know-how and experience in the years since to build a broad business portfolio of materials and finished products, enabling it to provide innovative solutions to customers in diverse industries and transforming it into a global powerhouse in its key fields of endeavor.

Now in its second century in business, DIC is redoubling its efforts to develop and market innovative, high-performance products that respond to the needs of customers in markets around the world, in line with its "Color & Comfort by Chemistry" vision. A responsible corporate citizen, DIC is also committed to helping realize environmental and social sustainability.

The DIC Way

Mission

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

Vision

Color & Comfort by Chemistry

We improve the human condition by safely bringing color and comfort into people's lives.*

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.*

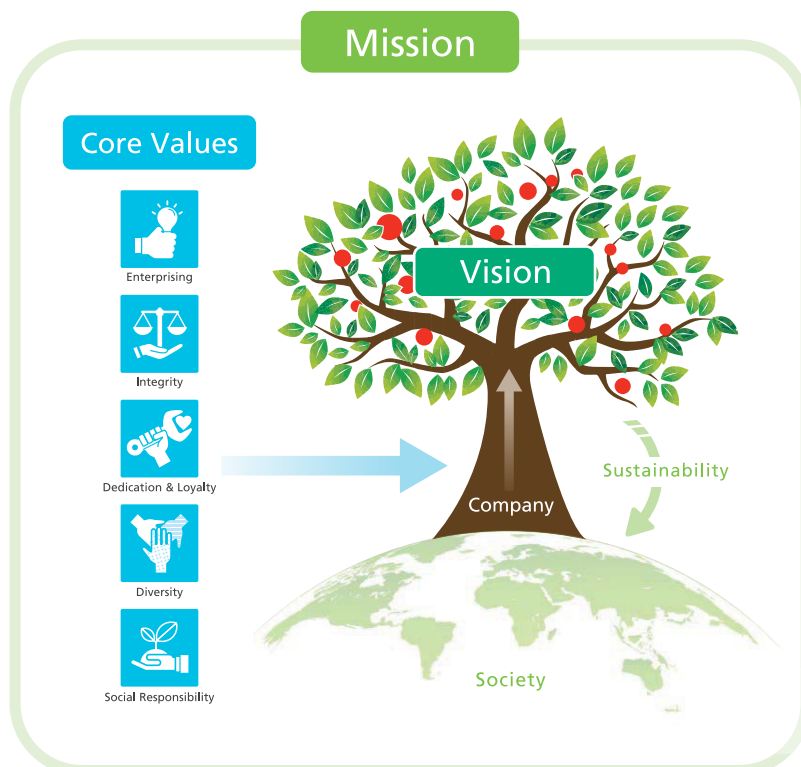
Integrity: Be honest, forthright, and ethical in all dealings with customers, suppliers, and coworkers.*

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



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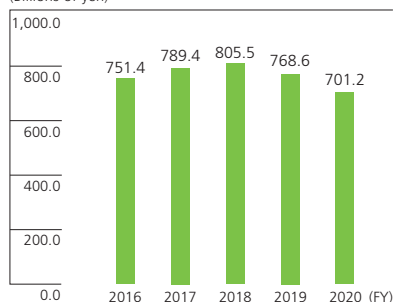
1 Consolidated Five-Year Summary

DIC Corporation and Consolidated Subsidiaries
Years ended December 31, 2020 to 2016

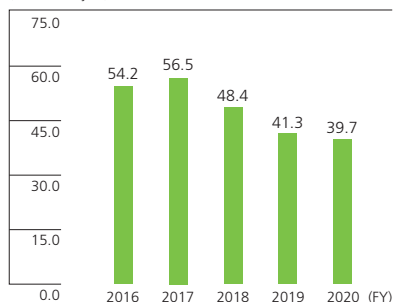
	Millions of yen, except for per share information					Thousands of U.S. dollars, except for per share information (Note 7)
	FY2020	FY2019	FY2018	FY2017	FY2016	FY2020
Net sales	¥701,223	¥768,568	¥805,498	¥789,427	¥751,438	\$6,807,990
Percent increase (decrease)	(8.8)%	(4.6)%	2.0%	5.1%	(8.4)%	(8.8)%
Operating income	39,663	41,332	48,385	56,483	54,182	385,078
Net income attributable to owners of the parent	13,233	23,500	32,028	38,603	34,767	128,476
Equity (Note 3)	318,492	312,740	298,896	315,129	278,535	3,092,155
Total assets	817,950	803,083	801,296	831,756	764,828	7,941,262
Equity per share (Notes 1, 4 and 6)	¥3,364.92	¥3,304.34	¥3,158.05	¥3,329.60	¥2,938.12	\$32.67
Earnings per share (basic) (Notes 2, 4 and 6)	139.81	248.29	338.40	407.56	366.72	1.36
Cash dividends per share applicable to the period (Note 5)	100.00	100.00	125.00	120.00	64.00	0.97
Equity ratio to total assets	38.9%	38.9%	37.3%	37.9%	36.4%	38.9%
ROE (return on equity)	4.2%	7.7%	10.4%	13.0%	12.9%	4.2%
Number of employees	20,242	20,513	20,620	20,628	20,481	20,242

- Notes: 1. The computation of equity per share has been based on the number of shares issued as of the balance sheet date.
2. The computation of earnings per share has been based on the weighted-average number of shares issued during each fiscal year.
3. Equity comprises "Total shareholders' equity" and "Total accumulated other comprehensive income."
4. The Company implemented a consolidation of shares of common stock by a factor of 10 to 1 with July 1, 2016, as the effective date. Earnings per share (basic) and equity per share are calculated respectively based on the assumption that the consolidation had been implemented at the beginning of the fiscal year ended December 31, 2016.
5. The Company implemented a consolidation of shares of common stock by a factor of 10 to 1 with July 1, 2016, as the effective date. Cash dividends per share applicable to the period for the fiscal year ended December 31, 2016, comprises interim dividends of ¥4.00 (before the consolidation) and year-end dividends of ¥60.00 (after the consolidation). If the consolidation had been taken into consideration, cash dividends per share applicable to the period for the fiscal year ended December 31, 2016, would be ¥100.00.
6. From the fiscal year ended December 31, 2017, the Company introduced the Board Benefit Trust (BBT). The shares held by the trust are recorded under net assets as treasury shares. The number of treasury shares excluded from the number of shares issued as of the balance sheet date used for the calculation of equity per share includes the number of shares held by the trust. The number of treasury shares excluded from the weighted-average number of shares issued during the fiscal year used for the calculation of earnings per share includes the number of shares held by the trust.
7. Yen amounts have been translated, for readers' convenience only, at the rate of ¥103 to US\$1, the approximate rate of exchange at December 31, 2020.
8. The Company has applied "Partial Amendments to Accounting Standard for Tax Effect Accounting" (Accounting Standards Board of Japan (ASBJ) Statement No. 28, issued on February 16, 2018), etc., since the beginning of the fiscal year ended December 31, 2019. The figures as of December 31, 2018, are based on retrospective application.

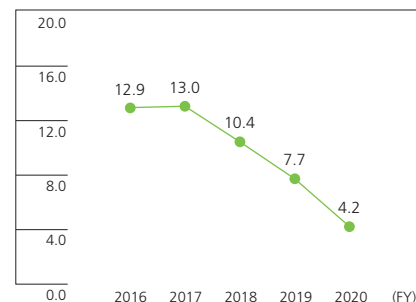
Net Sales
(Billions of yen)



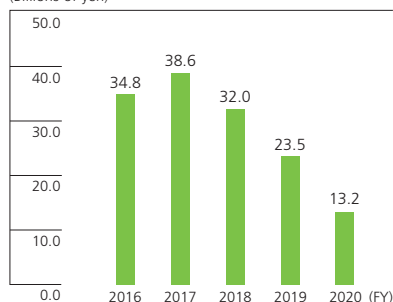
Operating Income
(Billions of yen)



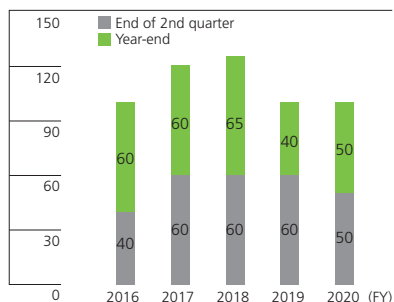
ROE
(%)



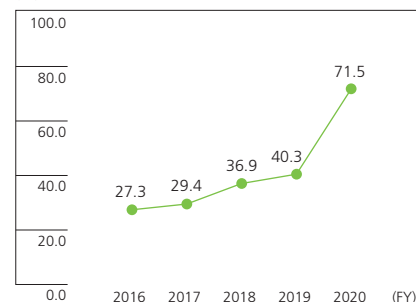
Net Income Attributable to Owners of the Parent
(Billions of yen)



Cash Dividends per Share
(Yen)



Dividend Payout Ratio
(%)



* These figures have been adjusted to account for the impact of a consolidation of shares of common stock by a factor of 10 to 1 with July 1, 2016, as the effective date.

This document presents consolidated results for fiscal year 2020, comprising the accounts for the year ended December 31, 2020, of DIC and its domestic and overseas subsidiaries.

Overview of Operating Results

In fiscal year 2020, consolidated net sales declined 8.8%, to ¥701.2 billion. Despite the protracted COVID-19 pandemic, economic activity recovered in multiple areas in the fourth quarter (October 1–December 31, 2020), as a result of which shipments of many products, notably materials for use in automobiles and publication inks, recovered. Nonetheless, full-term sales shrank in all segments. Net sales were 9.6% higher in the fourth quarter than in the third quarter (July 1–September 30, 2020).

Operating income slipped 4.0%, to ¥39.7 billion. Cost reductions, prompted by falling raw materials prices, reduced activity expenses and rationalization measures, combined with a recovery in shipments in diverse businesses in the fourth quarter to boost operating income 1.5% on a local currency basis. However, operating income was pushed down by a weakening of results overseas after translation, a consequence of the depreciation of emerging economy currencies, among others. Ordinary income, at ¥36.5 billion, was down 11.7%. Net income attributable to owners of the parent fell 43.7%, to ¥13.2 billion. The principal factors behind this result were one-time costs and an extraordinary loss associated with the acquisition of BASF SE's Colors & Effects business, which was announced on August 29, 2019. Earnings before interest, taxes, depreciation and amortization (EBITDA) decreased 17.5%, to ¥55.6 billion.

	Billions of yen		Change (%)	Change calculated in local currency (%)
	FY2020	FY2019		
Net sales	¥701.2	¥768.6	(8.8)%	(6.2)%
Operating income	39.7	41.3	(4.0)	1.5
Ordinary income	36.5	41.3	(11.7)	—
Net income attributable to owners of the parent	13.2	23.5	(43.7)	—
EBITDA*	55.6	67.4	(17.5)	—

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

	Yen	
	FY2020	FY2019
Average exchange rate (¥/US\$)	¥106.37	¥109.11
Average exchange rate (¥/EUR)	121.43	122.13

Segment Results

Packaging & Graphic

Segment sales declined 6.7%, to ¥388.4 billion. In the area of materials for food packaging, sales of packaging inks advanced in Asia, as well as in the Americas and Europe, as firm demand bolstered shipments, but decreased in Japan as COVID-19 led to sluggish sales to convenience stores, among others. Although demand for print advertisements and commercial printing improved from the third quarter forward, full-term sales of publication inks—which center on publishing inks and news inks—dwindled in all regions as shipments, having slumped as a result of the pandemic, failed to recover completely. Sales of jet inks for digital printing were up as demand rebounded after flagging in the third quarter, underpinning firm shipments.

Segment operating income rose 13.5%, to ¥21.8 billion. Factors contributing to this significant increase included higher demand for food packaging, a consequence of the pandemic, which led to firm full-term shipments of packaging inks in Asia, and in the Americas and Europe, and of multilayer films in Japan, as well as to cost-cutting efforts, which focused on rationalization.

	Billions of yen		Change (%)	Change calculated in local currency (%)
	FY2020	FY2019		
Net sales	¥388.4		(6.7)%	(2.9)%
Operating income	21.8		13.5	23.3

Color & Display

Segment sales, at ¥105.8 billion, were down 9.1%. Sales of color materials fell sharply, owing to declining shipments, particularly of pigments for cosmetics, as mask-wearing became an ingrained part of life world-wide, as well as to persistently weak sales of pigments for use in inks. In display materials, full-term sales rose as increased time spent by consumers at home led to robust demand in the market for liquid crystal displays (LCDs), pushing up shipments of pigments for color filters and of thin-film transistor liquid crystals (TFT LCs). Full-term sales of effect pigments also advanced, buttressed by higher demand in Europe for autoclaved aerated concrete for construction-related applications.

Segment operating income dropped 21.7%, to ¥8.4 billion. Despite increased shipments of products for the high-value-added area of displays in the fourth quarter, operating income plunged as production adjustments prompted the cutting of operating rates at certain production facilities in the Americas and Europe amid stagnant shipments of pigments for cosmetics, making it impossible to absorb fixed and other costs.

	Billions of yen FY2020	Change (%)	Change calculated in local currency (%)
Net sales	¥105.8	(9.1)%	(6.7)%
Operating income	8.4	(21.7)	(19.7)

Functional Products

Segment sales decreased 12.1%, to ¥236.0 billion. Shipments of epoxy resins, the principal application for which is semiconductor devices, were brisk as demand for use in onboard equipment rallied in the fourth quarter.

Shipments of industrial-use tapes, used primarily in smartphones, were also up. Although shipments of environment-friendly resins* recovered strongly, thanks to demand for use in automobiles, full-term sales waned.

Shipments of polyphenylene sulfide (PPS) compounds—uses for which continue to expand, underpinned by the trend toward lighter and increasingly electrified vehicles—also rose sharply in the fourth quarter, bolstered by a recovery in the automobile market across all regions, but full-term sales declined.

Segment operating income was down 11.1%, to ¥17.1 billion. This result was despite a recovery in sales of high-value-added epoxy resins and was attributable to the fact that lower raw materials prices and cost reductions were insufficient to offset the decline in full-term shipments of products for diverse industrial applications, including automobiles and building materials.

	Billions of yen FY2020	Change (%)	Change calculated in local currency (%)
Net sales	¥236.0	(12.1)%	(11.6)%
Operating income	17.1	(11.1)	(10.6)

* 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.

Analysis of Cash Flows

Cash and cash equivalents as of December 31, 2020, totaled ¥41.4 billion, an increase of ¥24.7 billion from December 31, 2019.

Operating Activities

Net cash provided by operating activities amounted to ¥54.5 billion, compared with ¥50.6 billion provided by such activities in fiscal year 2019. Income before income taxes and non-controlling interests was ¥25.1 billion, while the adjustment for depreciation and amortization was ¥32.6 billion. Income taxes paid totaled ¥7.4 billion, while working capital increased ¥8.5 billion.

Investing Activities

Net cash used in investing activities came to ¥33.0 billion, up from ¥24.9 billion used in such activities in the previous fiscal year. A net total of ¥2.8 billion was applied to the purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation, while proceeds from sales of property, plant and equipment amounted to ¥5.9 billion.

Financing Activities

Net cash provided by financing activities amounted to ¥6.3 billion, up from ¥26.8 billion used in such activities in fiscal year 2019. A net total of ¥17.9 billion was applied to the proceeds from interest-bearing debt, while cash dividends paid came to ¥8.5 billion.

5 Consolidated Balance Sheet

DIC Corporation and Consolidated Subsidiaries
December 31, 2020

Assets

	Millions of yen	
	2020	2019
Current assets:		
Cash and deposits (Notes 6, 12 and 20)	¥ 44,885	¥ 16,786
Notes and accounts receivable—trade (Notes 12, 20 and 21)	197,595	211,232
Merchandise and finished goods (Note 12)	78,273	91,555
Work in process (Note 12)	9,065	9,566
Raw materials and supplies (Note 12)	55,058	58,610
Other (Note 20)	24,294	21,607
Allowance for doubtful accounts	(9,171)	(9,437)
Total current assets	399,997	399,919
Non-current assets:		
Property, plant and equipment (Notes 9, 11 and 12):		
Buildings and structures	86,885	88,540
Machinery, equipment and vehicles	67,386	70,867
Tools, furniture and fixtures	10,468	11,191
Land	51,362	51,961
Construction in progress	11,977	9,616
Total property, plant and equipment	228,078	232,176
Intangible assets:		
Goodwill	819	762
Software	2,963	2,585
Customer-related assets	2,853	2,674
Other	4,877	5,782
Total intangible assets	11,512	11,804
Investments and other assets:		
Investment securities (Notes 7, 8 and 20)	57,201	59,313
Deferred tax assets (Note 17)	32,407	33,192
Net defined benefit asset (Note 13)	63,784	44,339
Other (Notes 7 and 20)	25,705	23,020
Allowance for doubtful accounts	(734)	(680)
Total investments and other assets	178,363	159,184
Total non-current assets	417,953	403,164
Total assets	¥817,950	¥803,083

See notes to the consolidated financial statements.

**Liabilities and
Net Assets**

	Millions of yen	
	2020	2019
Current liabilities:		
Notes and accounts payable—trade (Notes 20 and 21)	¥ 95,263	¥108,562
Short-term loans payable (Notes 12 and 20)	10,275	20,139
Current portion of long-term loans payable (Notes 12, 20 and 21)	27,096	23,456
Lease obligations (Notes 12 and 20)	1,061	1,244
Income taxes payable (Notes 17 and 20)	4,985	2,556
Provision for bonuses	5,480	5,724
Other (Note 20)	53,022	48,445
Total current liabilities	197,181	210,126
Non-current liabilities:		
Bonds payable (Notes 12 and 20)	100,000	80,000
Long-term loans payable (Notes 12, 20 and 21)	123,766	122,602
Lease obligations (Notes 12 and 20)	4,543	5,191
Deferred tax liabilities (Note 17)	12,525	8,768
Net defined benefit liability (Note 13)	17,071	21,377
Asset retirement obligations	1,691	1,696
Other	9,809	9,826
Total non-current liabilities	269,405	249,459
Total liabilities	466,586	459,585
Net assets:		
Shareholders' equity (Notes 14 and 24):		
Capital stock (Note 15)	96,557	96,557
Capital surplus	94,468	94,456
Retained earnings	219,778	218,209
Treasury shares (Notes 5 and 16)	(1,800)	(1,823)
Total shareholders' equity	409,003	407,398
Accumulated other comprehensive income:		
Valuation difference on available-for-sale securities	2,903	1,676
Deferred gains or losses on hedges	2,468	683
Foreign currency translation adjustment	(82,321)	(72,671)
Remeasurements of defined benefit plans (Note 13)	(13,562)	(24,346)
Total accumulated other comprehensive income	(90,511)	(94,658)
Non-controlling interests	32,873	30,757
Total net assets	351,364	343,497
Total liabilities and net assets	¥817,950	¥803,083

	Millions of yen	
	2020	2019
Net sales	¥701,223	¥768,568
Cost of sales	544,430	603,199
Gross profit	156,793	165,369
Selling, general and administrative expenses (Note 18)	117,130	124,037
Operating income	39,663	41,332
Non-operating income:		
Interest income	1,263	2,420
Dividends income	416	414
Equity in earnings of affiliates	771	2,475
Other	2,066	1,692
Total non-operating income	4,516	7,001
Non-operating expenses:		
Interest expenses	2,225	3,724
Foreign exchange losses	1,384	811
Other	4,117	2,496
Total non-operating expenses	7,726	7,031
Ordinary income	36,452	41,302
Extraordinary income:		
Gain on sales of non-current assets	5,226	1,401
Gain on bargain purchase	1,295	—
Insurance income	531	1,409
Gain on sales of subsidiaries' and affiliates' securities	—	1,624
Total extraordinary income	7,052	4,435
Extraordinary loss:		
Loss on business liquidation (Note 10)	8,762	—
Acquisition-related expenses	4,563	1,914
Loss on disposal of non-current assets	2,903	2,399
Impairment loss (Note 11)	1,251	3,078
Severance costs	924	840
Loss on disaster	—	1,520
Provision of allowance for doubtful accounts	—	551
Amortization of past service costs	—	443
Loss on sales of subsidiaries' and affiliates' securities	—	316
Total extraordinary loss	18,403	11,061
Income before income taxes and non-controlling interests	25,102	34,676
Income taxes (Note 17):		
Income taxes—current	10,336	7,869
Income taxes—deferred	(1,651)	1,461
Total income taxes	8,685	9,330
Net income	16,417	25,346
Net income attributable to non-controlling interests	3,184	1,846
Net income attributable to owners of the parent	¥ 13,233	¥ 23,500
		Yen
Earnings per share (Note 2):		
Basic	¥ 139.81	¥ 248.29
Diluted	—	—
Weighted-average number of shares issued during the period, excluding treasury shares (in thousands)	94,651	94,646
Cash dividends per share applicable to the period (Note 2)	¥ 100.00	¥ 100.00

See notes to the consolidated financial statements.

Consolidated Statement of Comprehensive Income

DIC Corporation and Consolidated Subsidiaries
Year ended December 31, 2020

	Millions of yen	
	2020	2019
Net income	¥16,417	¥25,346
Other comprehensive income:		
Valuation difference on available-for-sale securities	1,175	327
Deferred gains or losses on hedges	1,785	669
Foreign currency translation adjustment	(9,827)	(4,394)
Remeasurements of defined benefit plans, net of tax (Note 13)	10,689	7,269
Share of other comprehensive income of associates accounted for using equity method	158	(744)
Total other comprehensive income (Note 23)	¥ 3,980	¥ 3,127
Comprehensive income	¥20,396	¥28,473
Comprehensive income attributable to:		
Comprehensive income attributable to owners of the parent	¥17,368	¥26,546
Comprehensive income attributable to non-controlling interests	3,028	1,927

See notes to the consolidated financial statements.

Consolidated Statement of Changes in Net Assets

DIC Corporation and Consolidated Subsidiaries
Year ended December 31, 2020

Millions of yen

Shareholders' equity

	Issued number of common stock (thousands)	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at January 1, 2019	95,157	¥96,557	¥94,445	¥207,421	¥(1,823)	¥396,600
Cumulative effects of changes in accounting policies		—	—	(774)	—	(774)
Restated balance		96,557	94,445	206,647	(1,823)	395,826
Dividends from surplus, ¥125.00 per share (Note 14)				(11,849)		(11,849)
Net income attributable to owners of the parent				23,500		23,500
Purchase of treasury shares—2,187 shares					(7)	(7)
Disposal of treasury shares—1,600 shares					6	6
Change in scope of consolidation				(90)		(90)
Change in ownership interest of the parent due to transactions with non-controlling interests			11			11
Net changes of items other than shareholders' equity (Notes 8 and 14)						
Balance at December 31, 2019	95,157	96,557	94,456	218,209	(1,823)	407,398
Dividends from surplus, ¥90.00 per share (Note 14)				(8,531)		(8,531)
Net income attributable to owners of the parent				13,233		13,233
Purchase of treasury shares—1,900 shares					(5)	(5)
Disposal of treasury shares—7,200 shares					28	28
Change in scope of equity method				(3,133)		(3,133)
Change in ownership interest of the parent due to transactions with non-controlling interests			12			12
Net changes of items other than shareholders' equity (Notes 8 and 14)						
Balance at December 31, 2020	95,157	¥96,557	¥94,468	¥219,778	¥(1,800)	¥409,003

Millions of yen

Accumulated other comprehensive income

	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	Non-controlling interests	Total net assets
Balance at January 1, 2019	¥1,407	¥ 14	¥(67,617)	¥(31,508)	¥(97,704)	¥28,438	¥327,334
Cumulative effects of changes in accounting policies	—	—	—	—	—	—	(774)
Restated balance	1,407	14	(67,617)	(31,508)	(97,704)	28,438	326,560
Dividends from surplus, ¥125.00 per share (Note 14)							(11,849)
Net income attributable to owners of the parent							23,500
Purchase of treasury shares—2,187 shares							(7)
Disposal of treasury shares—1,600 shares							6
Change in scope of consolidation							(90)
Change in ownership interest of the parent due to transactions with non-controlling interests							11
Net changes of items other than shareholders' equity (Notes 8 and 14)	269	670	(5,055)	7,161	3,046	2,320	5,365
Balance at December 31, 2019	1,676	683	(72,671)	(24,346)	(94,658)	30,757	343,497
Dividends from surplus, ¥90.00 per share (Note 14)							(8,531)
Net income attributable to owners of the parent							13,233
Purchase of treasury shares—1,900 shares							(5)
Disposal of treasury shares—7,200 shares							28
Change in scope of equity method							(3,133)
Change in ownership interest of the parent due to transactions with non-controlling interests							12
Net changes of items other than shareholders' equity (Notes 8 and 14)	1,227	1,785	(9,650)	10,784	4,147	2,116	6,262
Balance at December 31, 2020	¥2,903	¥2,468	¥(82,321)	¥(13,562)	¥(90,511)	¥32,873	¥351,364

See notes to the consolidated financial statements.

10 Consolidated Statement of Cash Flows

DIC Corporation and Consolidated Subsidiaries
Year ended December 31, 2020

	Millions of yen	
	2020	2019
Net cash provided by (used in) operating activities:		
Income before income taxes and non-controlling interests	¥ 25,102	¥ 34,676
Adjustments for:		
Depreciation and amortization	32,581	33,127
Amortization of goodwill	143	99
Gain on bargain purchase	(1,295)	—
Increase (decrease) in allowance for doubtful accounts	(548)	559
Increase (decrease) in provision for bonuses	(124)	(561)
Interest and dividends income	(1,679)	(2,834)
Equity in (earnings) losses of affiliates	(771)	(2,475)
Interest expenses	2,225	3,724
Loss (gain) on sales and retirement of non-current assets	(2,324)	997
Impairment loss	1,251	3,078
Loss on business liquidation	8,762	—
Loss (gain) on sales of subsidiaries' and affiliates' securities	—	(1,308)
Decrease (increase) in notes and accounts receivable—trade	10,781	(3,054)
Decrease (increase) in inventories	10,158	4,614
Increase (decrease) in notes and accounts payable—trade	(12,453)	(9,802)
Other, net	(10,847)	(3,543)
Subtotal	60,963	57,298
Interest and dividends income received	3,249	4,335
Interest expenses paid	(2,385)	(3,865)
Income taxes paid	(7,366)	(7,132)
Net cash provided by (used in) operating activities	54,462	50,637
Net cash provided by (used in) investing activities:		
Payments into time deposits	(8,024)	(3,685)
Proceeds from withdrawal of time deposits	4,589	4,740
Purchase of property, plant and equipment	(32,719)	(34,042)
Proceeds from sales of property, plant and equipment	5,895	1,613
Purchase of intangible assets	(1,280)	(919)
Purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	(2,817)	(1,558)
Proceeds from purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	—	235
Proceeds from sales of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	890	900
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	9,508
Purchase of investment securities	(51)	(350)
Proceeds from sales and redemption of investment securities	352	134
Payments for transfer of business	(78)	(96)
Other, net	(3)	(1,363)
Net cash provided by (used in) investing activities	(33,037)	(24,884)
Net cash provided by (used in) financing activities:		
Net increase (decrease) in short-term loans payable	(8,866)	(9,383)
Proceeds from long-term loans payable	42,105	40,250
Repayment of long-term loans payable	(35,325)	(63,513)
Proceeds from issuance of bonds	20,000	20,000
Cash dividends paid	(8,531)	(11,849)
Cash dividends paid to non-controlling interests	(782)	(767)
Net decrease (increase) in treasury shares	23	(1)
Purchase of shares and investments in capital of subsidiaries not resulting in change in scope of consolidation	(114)	(186)
Other, net	(2,173)	(1,351)
Net cash provided by (used in) financing activities	6,338	(26,799)
Effect of exchange rate change on cash and cash equivalents	(3,100)	(895)
Net increase (decrease) in cash and cash equivalents	24,663	(1,941)
Cash and cash equivalents at beginning of the period (Note 6)	16,690	18,631
Cash and cash equivalents at end of the period (Note 6)	¥ 41,354	¥ 16,690

See notes to the consolidated financial statements.

11 Notes to the Consolidated Financial Statements

DIC Corporation and Consolidated Subsidiaries
Year ended December 31, 2020

Note 1:

Basis of Presenting Financial Statements

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations, and in accordance with accounting principles generally accepted in Japan ("Japanese GAAP"), which are different in certain respects as to application and disclosure requirements of the International Financial Reporting Standards ("IFRS").

In preparing these consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. The consolidated financial statements are stated in Japanese yen, the currency of the country in which DIC Corporation (the "Company") is incorporated.

Note 2:

Summary of Significant Accounting Policies

Consolidated financial statements

Under the control or influence concept, those companies in which the Company, directly or indirectly, is able to exercise control over operations are fully consolidated and those companies over which the Company has the ability to exercise significant influence are accounted for by the equity method.

The consolidated financial statements include the accounts of the Company and its significant subsidiaries: Sun Chemical Group Coöperatief U.A., DIC (China) Co., Ltd., DIC Asia Pacific Pte Ltd, SEIKO PMC CORPORATION, DIC INVESTMENTS JAPAN, LLC., DIC Graphics Corporation and 146 other companies in the fiscal year ended December 31, 2020 (145 other companies in the fiscal year ended December 31, 2019). All significant intercompany balances and transactions have been eliminated in consolidation. All material unrealized profit included in assets resulting from transactions within the Company and its consolidated subsidiaries (the "Group") is eliminated.

Investments in 20 affiliates in the fiscal year ended December 31, 2020 (22 in the fiscal year ended December 31, 2019), are accounted for by the equity method.

Accounting period of consolidated subsidiaries

The closing date of the consolidated subsidiaries is the same as the consolidated closing date.

Cash and cash equivalents

Cash and cash equivalents consist primarily of cash on hand, certificates of deposit and short-term investments with original maturities of three months or less that are readily convertible to known amounts of cash and have insignificant risk of changes in value.

Investment securities

Investment securities are classified and accounted for, depending on management's intent, into available-for-sale securities. Available-for-sale securities are carried at fair value as of the balance sheet date, with unrealized gain and loss, net of applicable taxes, reported in a separate component of net assets. Available-for-sale securities whose fair values are not readily available are carried at cost and calculated using the moving-average method. The cost of securities sold is calculated by the moving-average method.

Allowance for doubtful accounts

Allowance for doubtful accounts is provided mainly based on historical experience for normal receivables and on an estimate of collectability of receivables from companies in financial difficulty.

Inventories

Inventories are principally stated at cost, cost being determined by the first-in, first-out (FIFO) method, which evaluates the amount of the inventories shown in the balance sheet by writing them down based on their decrease in profitability.

Property, plant and equipment (excluding leased assets)

Property, plant and equipment are carried at cost. Significant renewals and additions are capitalized; maintenance and repairs, and minor renewals and improvements, are charged to income as incurred.

Depreciation of buildings (other than facilities attached to buildings) of the Company and its domestic consolidated subsidiaries is calculated principally by the straight-line method. Besides, depreciation of facilities attached to buildings and structures acquired on or after April 1, 2016, is also calculated by the straight-line method. Other property, plant and equipment are calculated by the declining-balance method.

Depreciation of property, plant and equipment of foreign consolidated subsidiaries is calculated principally by the straight-line method. The range of useful lives is principally from 8 to 50 years for buildings and structures and from 3 to 11 years for machinery, equipment and vehicles.

Intangible assets (excluding leased assets)

Intangible assets are carried at cost less accumulated amortization, and are amortized by the straight-line method. Goodwill is amortized by the straight-line method over a reasonable period not exceeding 20 years.

Leased assets

Leased assets related to finance leases that do not transfer ownership of the leased property to the lessee are depreciated on a straight-line basis, with the lease periods used as their useful lives and no residual value.

Right-of-use assets

Right-of-use assets are depreciated by the straight-line method, with no residual value from the commencement date to the earlier of the end of the lease term or end of the useful life of the right-of-use asset.

Retirement and pension plans

Net defined benefit assets/liabilities are recognized for employees' and executive officers' retirement benefits. Pension assets are deducted from retirement benefit obligations and the net amount is recognized based on the estimated amount of payment as of the balance sheet date. In calculating retirement benefit obligations, the Company applies a method of attributing expected retirement benefits to each period on a benefit formula basis. The Company and its domestic consolidated subsidiaries amortize actuarial gains and losses in the succeeding years primarily by the straight-line method over stated years that do not exceed the average remaining service period of the eligible employees (14 to 16 years). Past service costs are amortized in the accounting periods when they accrue.

Foreign consolidated subsidiaries amortize actuarial gains and losses in the succeeding years primarily by the straight-line method over stated years that do not exceed the average remaining service period of the eligible employees (7 to 25 years). Past service costs are amortized over 22 to 25 years.

Unrecognized actuarial gains and losses and unrecognized past service costs are recorded in "Remeasurements of defined benefit plans" in net assets after adjusting income tax effect.

Asset retirement obligations

The asset retirement obligation is recognized as the sum of the discounted cash flows required for the future asset retirement and is recorded in the period in which the obligation is incurred if a reasonable estimate can be made. If a reasonable estimate of the asset retirement obligation cannot be made in the period in which the asset retirement obligation is incurred, the liability should be recognized when a reasonable estimate of the asset retirement obligation can be made. Upon initial recognition of a liability for an asset retirement obligation, an asset retirement cost is capitalized by increasing the carrying amount of the related fixed asset by the amount of the liability. The asset retirement cost is subsequently allocated to expense through depreciation over the remaining useful life of the asset. Over time, the liability is accreted to its present value each period. Any subsequent revisions to the timing or the amount of the original estimate of undiscounted cash flows are reflected as an increase or a decrease in the carrying amount of the liability and the capitalized amount of the related asset retirement cost.

Income taxes

The provision for income taxes is computed based on the pretax income (loss) included in the consolidated statement of income.

Deferred income taxes are recorded to reflect the impact of temporary differences between assets and liabilities recognized for financial reporting purposes and such amounts recognized for tax purposes. These deferred taxes are measured by applying currently enacted tax laws to the temporary differences.

Consolidated taxation system

The Company and some of its consolidated subsidiaries have adopted the consolidated taxation system, with the Company registered as the consolidated taxation parent company.

Tax effect accounting for the transition from the consolidated taxation system to the Group tax sharing system

Concerning items which transitioned to the Group tax sharing system and those for which the nonconsolidated tax payment system were reviewed in line with the transition to the Group tax sharing system, which

was established under the “Act for Partial Amendment of the Income Tax Act, etc.” (Act No. 8 of 2020), the Company and some of its domestic consolidated subsidiaries have not applied the provisions stipulated in Paragraph 44 of the “Implementation Guidance on Tax Effect Accounting” (ASBJ Guidance No. 28, issued on February 16, 2018) in accordance with the treatment set out Paragraph 3 of the “Practical Solution on the Treatment of Tax Effect Accounting for the Transition from the Consolidated Taxation System to the Group Tax Sharing System” (PITF No. 39, issued on March 31, 2020). Instead, they have applied the provisions of the tax regime before the revision to calculate the amounts of deferred tax assets and deferred tax liabilities.

Research and development costs

Research and development costs are charged to income as incurred.

Basis of translation of financial statements of foreign consolidated subsidiaries

The financial statements of foreign consolidated subsidiaries included in the consolidated financial statements are translated into Japanese yen based on the following procedures:

(1) Assets and liabilities of foreign consolidated subsidiaries are translated into Japanese yen at the exchange rates as of the balance sheet date.

(2) Income and expenses are translated into Japanese yen at the average rate during the year.

The differences of translation are included in foreign currency translation adjustment and non-controlling interests, which are presented as separate components of net assets.

Translation of foreign currency accounts

Receivables and payables denominated in foreign currencies are translated into Japanese yen at the exchange rates as of the balance sheet date and any difference arising from the translation is recognized in the consolidated statement of income if hedge accounting is not applied.

Derivatives and hedging activities

To hedge risks associated with the fluctuations of exchange rates, interest rates and commodity prices, the Group uses foreign currency forward contracts, currency swaps, interest rate swaps and commodity swaps. To hedge a part of the risks associated with the fluctuations of exchange rates for investments in foreign entities, the Company uses loans denominated in foreign currencies. The Group does not enter into derivatives for trading or speculative purposes.

Derivative financial instruments and foreign currency transactions are classified and accounted for as follows: 1) all derivatives are recognized as either assets or liabilities and measured at fair value, with gains or losses recognized in the consolidated statement of income and 2) for derivatives used for hedging purposes, if derivatives qualify for hedge accounting because of high correlation and effectiveness between the hedging instruments and the hedged items, gains or losses on derivatives are deferred until maturity of the hedged transactions.

Receivables and payables denominated in foreign currencies are translated at the contracted rates if the forward contracts qualify for hedge accounting. Gains and losses related to qualifying hedges of firm commitments or anticipated transactions are deferred and recognized in income when the hedged transaction occurs. If interest rate swaps qualify for hedge accounting and meet certain specific matching criteria, they will not be measured at market value, rather the differential paid or received under the swaps will be recognized in interest expenses or interest income.

Per share information

Earnings per share (basic) is computed by dividing net income attributable to owners of the parent available to common shareholders by the weighted-average number of shares issued for the period.

Earnings per share (diluted) reflects the potential dilution that could occur if securities were exercised or converted into common stock. Earnings per share (diluted) assumes full conversion of the outstanding convertible notes and bonds at the beginning of the year (or at the time of issuance) with an applicable adjustment for related interest expense, net of tax, and full exercise of outstanding warrants.

Cash dividends per share presented in the accompanying consolidated statement of income are dividends applicable to the respective years, including dividends to be paid after the end of the fiscal year.

From the fiscal year ended December 31, 2017, the Company introduced the Board Benefit Trust (BBT). The shares held by the trust are recorded under net assets as treasury shares. The number of treasury shares excluded from the number of shares issued as of the balance sheet date used for the calculation of equity per share

includes the number of shares held by the trust. The number of treasury shares excluded from the weighted-average number of shares issued during the fiscal year used for the calculation of earnings per share includes the number of shares held by the trust.

The number of treasury shares held by the trust excluded from the calculation of equity per share as of December 31, 2020 and 2019, is 139,000 shares and 146,200 shares, respectively. The number of treasury shares held by the trust excluded from the calculation of earnings per share as of December 31, 2020 and 2019, is 140,038 shares and 146,323 shares, respectively.

Note 3:

Accounting Changes

Adoption of the Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries, etc. for Consolidated Financial Statements and other standards

The "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries, etc. for Consolidated Financial Statements" (Practical Issues Task Force (PITF) No. 18, issued on June 28, 2019) and "Practical Solution on Unification of Accounting Policies Applied to Associates Accounted for Using the Equity Method" (PITF No. 24, issued on September 14, 2018) have been applied from the beginning of the fiscal year. As a result of this application, in the event that foreign subsidiaries that adopt IFRS 9 "Financial Instruments" have elected to present subsequent changes in fair value of equity instruments in other comprehensive income, the amounts of gain or loss on sale or impairment losses of such equity instruments will be adjusted as a gain or loss for the period for consolidated accounting.

As a result, the application of PITF No. 18 has no material impact on consolidated financial statements and per share information for the fiscal year.

Note 4:

New Accounting Pronouncements

The Company and its domestic consolidated subsidiaries:

- "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, issued on March 31, 2020)
- "Implementation Guidance on Accounting Standard for Revenue Recognition" (ASBJ Guidance No. 30, issued on March 31, 2020)
- "Implementation Guidance on Disclosures about Fair Value of Financial Instruments" (ASBJ Guidance No. 19, issued on March 31, 2020)

(1) Overview

The International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) jointly developed a comprehensive accounting standard for revenue recognition and issued "Revenue from Contracts with Customers" in May 2014 (IFRS 15 by the IASB, and Accounting Standards Update (ASU) 2014-09 by the FASB).

IFRS 15 was applied for annual reporting periods beginning on or after January 1, 2018, and ASU 2014-09 was also applied from annual reporting periods beginning after December 15, 2017. Based on such a situation, the ASBJ developed the comprehensive accounting standard for revenue recognition and the implementation guidance and issued them together.

The basic objective of the ASBJ in developing the accounting standard for revenue recognition was to enhance comparability between financial statements, which is one of the points of convenience of interfacing with IFRS 15. Accordingly, the accounting standard fundamentally incorporates the basic policies of IFRS 15.

Also, where there are items that should be considered to reflect business practices in Japan, alternative policies will be added to the extent that comparability is not lost.

(2) Date of adoption

The Company and its domestic consolidated subsidiaries will adopt these revised PITFs from the beginning of the fiscal year ending December 31, 2022.

(3) Impact of the adoption of the revised PITFs

The Company is in the process of measuring the effects of applying these revised PITFs in future applicable periods.

- "Accounting Standard for Fair Value Measurement" (ASBJ Statement No. 30, issued on July 4, 2019)
- "Accounting Standard for Measurement of Inventories" (ASBJ Statement No. 9, issued on July 4, 2019)
- "Accounting Standard for Financial Instruments" (ASBJ Statement No. 10, issued on July 4, 2019)

- **“Implementation Guidance on Accounting Standard for Fair Value Measurement” (ASBJ Guidance No. 31, issued on July 4, 2019)**
- **“Implementation Guidance on Disclosures about Fair Value of Financial Instruments” (ASBJ Guidance No. 19, issued on March 31, 2020)**

(1) Overview

The IASB and the FASB have provided detailed guidance of almost the same contents for fair value measurement (IFRS 13 Fair Value Measurement by the IASB, and ASU 2018-13 Fair Value Measurement (Topic 820) by the FASB). Based on such a situation, the ASBJ issued “Accounting Standard for Fair Value Measurement,” as a result of initiatives mainly concerning promoting the consistency between Japanese and international accounting standards regarding guidance for fair value measurement and required disclosures.

The basic objective of the ASBJ in developing the accounting standard for fair value measurement was to enhance comparability between financial statements of domestic and foreign entities, through a unified measuring method. Accordingly, the accounting standard fundamentally incorporates the basic policies of IFRS 13.

Also, where there are items that should be considered to reflect business practices in Japan, exceptional treatments have been established for certain items to the extent that comparability is not lost significantly.

(2) Date of adoption

The Company and its domestic consolidated subsidiaries will adopt these revised PITFs from the beginning of the fiscal year ending December 31, 2022.

(3) Impact of the adoption of the revised PITFs

The Company is in the process of measuring the effects of applying these revised PITFs in future applicable periods.

- **“Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Correction” (ASBJ Statement No. 24, revised on March 31, 2020)**

(1) Overview

The ASBJ has amended certain accounting standards, and issued “Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Correction” to reflect recommendations for enhancing footnote information related to accounting principles and procedures if the related accounting standards are not definitive. In addition, Paragraph 1-2 of annotations on generally accepted accounting principles continue to be effective when enhancing footnote information in notes regarding accounting principles and procedures adopted if the related accounting standards are not definitive, in order not to conflict with current accounting practices where related accounting standards are definitive.

(2) Date of adoption

The Company and its domestic consolidated subsidiaries will adopt the issued accounting standard from the end of the fiscal year ending December 31, 2021.

- **“Accounting Standard for Disclosure of Accounting Estimates” (ASBJ Statement No. 31, issued on March 31, 2020)**

(1) Overview

The IASB issued International Accounting Standard 1, “Presentation of Financial Statements,” in 2003, and Paragraph 125 of this accounting standard requires disclosures of key sources of estimation uncertainty. As such information is required for the convenience of users of financial statements in Japan, the ASBJ issued “Accounting Standard for Disclosure of Accounting Estimates.” The ASBJ presents the principles and the purposes of disclosure of key sources of estimation uncertainty, and the items to be disclosed should be determined by management in a way that helps users of the financial statements understand the judgments applied. The nature and extent of the information to be disclosed will vary according to the nature of the assumptions and the other circumstances. This accounting standard was developed based on Paragraph 125 of “Presentation of Financial Statements.”

(2) Date of adoption

The Company and its domestic consolidated subsidiaries will adopt the issued accounting standard from the end of the fiscal year ending December 31, 2021.

Foreign consolidated subsidiaries:**ASU 2016-02 Leases****ASU 2019-10 Financial Instruments—Credit Losses (Topic 326), Derivatives and Hedging (Topic 815) and Leases (Topic 842): Effective Dates****(1) Overview**

These accounting standards require lessees to recognize a right-of-use asset and a lease liability in the statement of financial position. There are no significant changes for lessors in these accounting standards.

The FASB has issued ASU 2019-10, which amends the effective dates for three major accounting standards. The ASU defers the effective dates for the credit losses, derivatives and hedging, and leases standards for certain companies.

(2) Date of adoption

Foreign consolidated subsidiaries will adopt ASU 2016-02 from the beginning of the fiscal year ending December 31, 2022.

(3) Impact of the adoption of the accounting standards

The Company is in the process of measuring the effects of applying the accounting standards in future applicable periods.

Note 5:**Additional Information****Board Benefit Trust (BBT)**

With regard to compensation for executive officers, as well as directors who concurrently serve as executive officers (the "Target Officers"), the Company introduced a performance-based stock compensation plan called BBT (the "Plan") from the fiscal year ended December 31, 2017. The purpose of the Plan is to further clarify the linkage between the compensation of the Target Officers, and corporate performance and the value of the Company's shares. The intended result is strengthening the Target Officers' awareness of their contributions to the medium- to long-term improvement of corporate performance and value.

Accounting treatment related to the trust agreement is in accordance with "Practical Solution on Transactions of Delivering the Company's Own Stock to Employees etc. through Trusts" (PITF No. 30, issued on March 26, 2015).

(1) Outline of the transactions

The trust established under the Plan acquires the Company's shares by cash contributed by the Company. The trust provides shares of the Company and the cash equivalent to the market price of the shares of the Company (the "Company's Shares and Cash Benefits") to the Target Officers, in accordance with the Rules of Officer Share Benefit established by the Company. The Target Officers shall in principle receive the Company's Shares and Cash Benefits upon their retirement.

(2) The Company's shares remaining in the trust

The shares remaining in the trust are recorded under net assets as treasury shares at the book value in the trust (excluding incidental costs). The book value and number of such treasury shares are ¥549 million and 139 thousand as of December 31, 2020, and ¥577 million and 146 thousand as of December 31, 2019, respectively.

Acquisition of the shares and assets of a pigments business from BASF SE and transformation of the business into a subsidiary

On August 29, 2019, the Company resolved to acquire the shares and assets of the Colors & Effects business of BASF SE, Europe's largest chemicals manufacturer, and entered into the master sale and purchase agreement. This transaction is subject to regulatory approval by pertinent U.S., European and other authorities as well as other customary conditions.

(1) Objectives of the acquisition of shares and assets

To hasten the qualitative transformation of its Color & Display business, the Company is working to expand its functional pigments business with the aim of driving growth as a leading global manufacturer of high-growth, high-value specialty pigments, including those for displays, cosmetics and automobiles. The annual global pigments market is estimated at approximately ¥2.3 trillion. The Company is a leader in organic pigments and a valued manufacturer of aluminum effect pigments. The target business, which is based in Europe and has

sites around the world, has established itself as a prominent global manufacturer of effect pigments (for pearl pigments) and for specialty inorganic pigments. Accordingly, the product portfolios of the Company and the target business are highly complementary, with little product overlap. Through this acquisition, the Company will add a functional pigments product portfolio which is highly regarded by customers. The Company has committed itself to achieving sustainable growth for its color materials business by expanding its functional pigments business, recognizing this as crucial to bolstering its corporate value.

(2) Name of the seller of the target business

BASF SE

(3) Profile of the target business

This acquisition involves obtaining the pigments business—related assets—including technologies, patents and other intellectual property, as well as goodwill not included in the share purchase—and the shares of 18 individual companies.

(4) Schedule of the acquisition of the target business: In the first quarter of 2021

(Notes)

1. This transaction is subject to regulatory approval by pertinent U.S., European and other authorities—including under the antitrust laws of the relevant countries—as well as other customary conditions.
2. Owing to regulatory review timing and other closing conditions, the effective date of the transfer of shares and assets may change.
3. The closing of this transaction is pending approval by the U.S. Federal Trade Commission. As such, there is a possibility that execution will be rescheduled to the first half of 2021 as a consequence of ongoing approval procedures.

(5) Cost of acquisition (Reference): €985 million (¥116.2 billion)

(Notes)

1. The figure above is derived from adjusting cash and debt as of December 31, 2018, from the enterprise value (€1,150 million) of the target business. The actual cost of acquisition may vary depending on actual net cash/debt and differences in working capital, among others, at closing.
2. Advisory and other fees will depend on fees related to procedures to determine compliance with the anti-trust laws of the United States and Europe, as well as of other relevant countries. Accordingly, such expenses are not included.
3. The exchange rate used is ¥118.00/€1.00. This figure has been rounded.

(6) Plans for raising funds

The Company intends to raise funds in a manner that avoids a decline in capital efficiency due to stock dilution and which maintains financial soundness. Thus, the Company decided to finance through a subordinated term loan. DIC has no plans to raise funds using equity financing.

Financing through a subordinated term loan

Procurement of a total of ¥60 billion through a subordinated term loan (“the subordinated loan”) was approved at a meeting of the Company’s Board of Directors held on March 24, 2020.

(1) Purpose and significance of the subordinated loan

The Company had resolved to acquire the shares and assets of the Colors & Effects business of German firm BASF SE on August 29, 2019.

With regard to the method of procuring funds for this acquisition, the Company planned to choose an approach that would avoid a decline in capital efficiency due to stock dilution and enable it to maintain financial soundness. Having since explored hybrid financing, the Company made the decision to use a subordinated loan.

Also, the Company currently has no plans to raise funds through the issue of new shares (equity financing).

(2) Characteristics of the subordinated loan

A subordinated loan is a type of hybrid financing midway between equity and debt. Accordingly, while classified as debt, it has characteristics similar to equity. As a result, the subordinated loan will be eligible for recognition by credit rating agencies as having equity credit attributes to a certain extent, enabling the Company to strengthen its financial base without causing stock dilution. Specifically, the Company expects 50% of the total amount procured to be assessed as having equity credit attributes by Japan Credit Rating Agency, Ltd.

(3) Summary of the subordinated loan

- Total amount procured: ¥60 billion
- Contract date: March 31, 2020
- Drawdown date (*1): Any date up to and including June 30, 2021
- Use of funds procured: Business acquisition
- Due date: 60 years from the drawdown date
- Early repayment (*2): The Company may repay before the due date all or part of the principal on each interest payment date five years from the drawdown date or later, or in certain other specified circumstances.
- Applicable interest rate: From drawdown date up to the 10th year, at base floating interest rate plus the initial spread.
From the 10th year up to the 25th year, at base floating interest rate plus a 0.25% step-up from the initial spread.
From the 25th year on, at base floating interest rate plus a 1.00% step-up from the initial spread.
- Interest deferral clause: The Company may defer payment of interest.
- Subordination clause: The creditors of the subordinated loan shall have a claim subordinated to that of other senior debt creditors in the event of the Company's liquidation, bankruptcy, corporate reorganization or civil rehabilitation proceedings under Japanese law or any equivalent proceedings under any laws other than Japanese law. Any provisions stipulated in the subordinated loan agreement shall not be amended in any manner detrimental to any of the Company's creditors other than the creditors of the subordinated loan.
- Lenders: MUFG Bank, Ltd., Mizuho Bank, Ltd., etc.
- Assessment of equity credit attributes
Japan Credit Rating Agency: Medium / 50%

*1 As described in "Acquisition of the shares and assets of a pigments business from BASF SE and transformation of the business into a subsidiary," there is a possibility that execution will be rescheduled to the first half of 2021. Therefore, there is a possibility that the drawdown date will be rescheduled to any date up to and including June 30, 2021. Accordingly, on March 5, 2021, the Company resolved to reschedule the drawdown date.

*2 In the case of early repayment of the subordinated loan, the Company anticipates procuring funds through the issue of common stock or debt (refinancing securities) approved by rating agencies as having equity credit attributes equivalent to or higher than the subordinated loan. However, if the Company satisfies certain financial requirements when early repayment is made five years after the drawdown date or later, it may defer the procurement of funds through refinancing securities.

Accounting estimates associated with the spread of COVID-19

Owing to the COVID-19 pandemic, global economic growth slowed in the second quarter (April 1–June 30, 2020) and the third quarter (July 1–September 30, 2020), as a result of which shipments fell in multiple areas. However, shipments of many products, notably materials for use in automobiles and publication inks, recovered in the fourth quarter (October 1–December 31, 2020). Although the impact of the spread of COVID-19 varies by region and business, the Company has made accounting estimates such as impairment of non-current assets and recoverability of deferred tax assets based on the assumption that economic conditions will gradually recover in fiscal year 2021 and has assumed that an impact on the estimates would not be significant as of December 31, 2020.

However, due to uncertainties in the application of such assumption to the estimates above, unexpected changes in the recovery time for COVID-19 or its impact on the economic environment may affect the financial position, operating results and cash flows of the Company in the future.

Note 6:**Cash and Cash Equivalents**

Cash and cash equivalents as of December 31, 2020 and 2019, include the following:

	Millions of yen	
	2020	2019
Cash and deposits	¥44,885	¥16,786
Less: time deposits and short-term investments which mature over three months after the date of acquisition	(3,531)	(95)
Cash and cash equivalents	¥ 41,354	¥16,690

Note 7:**Investments in Unconsolidated Subsidiaries and Affiliates**

Investments in unconsolidated subsidiaries and affiliates as of December 31, 2020 and 2019, include the following:

	Millions of yen	
	2020	2019
Investments in stock of unconsolidated subsidiaries and affiliates	¥40,756	¥44,505
Investments in equity of unconsolidated subsidiaries and affiliates	678	653
Total	¥41,434	¥45,158

Note 8:**Investment Securities**

The carrying amounts and aggregate fair values of available-for-sale securities as of December 31, 2020 and 2019, are as follows:

	Millions of yen			
	2020			
	Cost	Unrealized gains	Unrealized losses	Fair value
Available-for-sale securities:				
Stocks	¥8,508	¥5,379	¥(1,028)	¥12,859
Total	¥8,508	¥5,379	¥(1,028)	¥12,859

	Millions of yen			
	2019			
	Cost	Unrealized gains	Unrealized losses	Fair value
Available-for-sale securities:				
Stocks	¥8,330	¥3,147	¥(501)	¥10,976
Total	¥8,330	¥3,147	¥(501)	¥10,976

Note 9:**Property, Plant and Equipment**

Accumulated depreciation on property, plant and equipment as of December 31, 2020 and 2019, is ¥567,341 million and ¥563,939 million, respectively.

Note 10:**Loss on Business Liquidation**

In relation to the divestiture of a high-performance pigments business based in the United States, the Company recognized a loss on business liquidation, which it expects to incur on the disposal of assets. The Company has entered into an agreement with the German company BASF to acquire the shares and assets of the latter's Colors & Effects business, and is currently working with BASF to close this transaction in the first quarter of 2021. The divestiture is being undertaken to ensure compliance with relevant antitrust laws.

Note 11:**Impairment
of Long-Lived
Assets**

Impairment losses on long-lived assets for the fiscal year ended December 31, 2020, for each asset group are as follows:

Millions of yen			
2020			
Used status	Category of assets	Location	Allocated impairment loss
Factory assets in use	Machinery, equipment and vehicles, and Other	Australia	¥ 478
Idle assets	Buildings and structures, Machinery, equipment and vehicles, and Other	Ina, Japan	383
Factory assets in use	Machinery, equipment and vehicles	Singapore	379
Idle assets	Buildings and structures, Machinery, equipment and vehicles, and Other	Others	12
Total			¥1,251

In reviewing the impairment of long-lived assets, the Group categorizes its operating assets mainly by each consolidated company or product group.

The carrying amount of factory assets in use was reduced to its recoverable amount because the recoverable amount is less than the carrying amount.

The carrying amount of idle assets was reduced to its recoverable amount because of production stop and others.

For foreign consolidated subsidiaries, the recoverable amount was measured as value in use. Value in use of relevant assets was calculated by discounting future cash flows at a rate from 10.0% to 10.5%. For idle assets, the recoverable amount was measured as value in use and was evaluated as zero because an estimate of future cash flows is zero.

Impairment losses on long-lived assets for the fiscal year ended December 31, 2019, for each asset group are as follows:

Millions of yen			
2019			
Used status	Category of assets	Location	Allocated impairment loss
Factory assets in use	Buildings and structures, and Land	Hirakata, Japan	¥1,463
Factory assets in use	Buildings and structures, Machinery, equipment and vehicles, Land, and Other	Kawaguchi, Japan	925
Factory assets in use	Buildings and structures, Machinery, equipment and vehicles, Land, and Other	China	690
Total			¥3,078

In reviewing the impairment of long-lived assets, the Group categorizes its operating assets mainly by each consolidated company or product group.

The carrying amount of factory assets in use was reduced to its recoverable amount because the recoverable amount is less than the carrying amount.

For domestic consolidated subsidiaries, the recoverable amount was measured as value in use. Value in use of relevant assets was calculated by discounting future cash flows at a rate of 6.0%. For foreign consolidated subsidiaries, the recoverable amount was measured as value in use and was evaluated as zero.

Note 12:**Short-Term
Loans Payable
and Long-Term
Loans Payable**

Information with respect to short-term loans payable as of December 31, 2020 and 2019, is as follows:

The average interest rate for the fiscal years ended December 31, 2020 and 2019, is 0.99% and 2.26%, respectively, for short-term loans payable, and -0.00% and -0.01%, respectively, for commercial papers.

Bonds payable, long-term loans payable and lease obligations as of December 31, 2020 and 2019, comprise the following:

	Millions of yen	
	2020	2019
0.53% Japanese yen notes due 2022	¥ 10,000	¥ 10,000
1.00% Japanese yen notes due 2025	10,000	10,000
0.95% Japanese yen notes due 2036	5,000	5,000
0.36% Japanese yen notes due 2026	5,000	5,000
0.42% Japanese yen notes due 2027	10,000	10,000
0.15% Japanese yen notes due 2022	10,000	10,000
0.15% Japanese yen notes due 2023	10,000	10,000
0.19% Japanese yen notes due 2024	10,000	10,000
0.28% Japanese yen notes due 2029	10,000	10,000
0.05% Japanese yen notes due 2023	20,000	—
Loans due 2020–2031, with an average interest rate of 1.30%	150,862	146,058
Lease obligations	5,604	6,435
Subtotal	256,466	232,493
Less: current portion of long-term loans payable	(27,096)	(23,456)
Less: current portion of bonds	—	—
Less: lease obligations—current	(1,061)	(1,244)
Total	¥228,309	¥207,793

The annual maturities of bonds payable, long-term loans payable and lease obligations for the fiscal years subsequent to December 31, 2020, are as follows:

	Millions of yen	
	¥	—
2021		
2022	20,000	
2023	30,000	
2024	10,000	
2025	10,000	
Thereafter	30,000	
Total	¥100,000	

The amounts of assets pledged as collateral and secured borrowings and loans as of December 31, 2020, comprise the following:

	Millions of yen
Assets pledged as collateral:	
Cash and deposits	¥ 14
Notes and accounts receivable—trade	2,597
Inventories	1,447
Property, plant and equipment	907
Land	2,200
Total	¥7,166
Secured borrowings and loans:	
Short-term loans payable	¥ —
Current portion of long-term loans payable	75
Long-term loans payable	620
Total	¥ 695

Note 13:

Retirement and Pension Plans

(1) Overview of adopted retirement and pension plans

The Company and a number of domestic consolidated subsidiaries have defined benefit pension plans such as a cash balance-style pension plan and retirement plans, and defined contribution pension plans. Some foreign consolidated subsidiaries maintain defined benefit pension plans and defined contribution pension plans. The Company contributes certain available-for-sale securities to the employee retirement benefit trust.

(2) Defined benefit pension plans (including multi-employer plan)

Changes in defined benefit obligations

	Millions of yen	
	Domestic plans	Foreign plans
As of January 1, 2020	¥89,699	¥150,981
Service cost	2,132	589
Interest cost	708	3,106
Actuarial gains and losses	2,342	11,947
Benefits paid	(4,594)	(6,217)
Past service cost	—	27
Exchange translation differences	—	(4,523)
Other	(50)	295
As of December 31, 2020	¥90,237	¥156,205

Note: Some of the domestic consolidated subsidiaries have adopted a simplified method for the calculation of retirement benefits.

	Millions of yen	
	Domestic plans	Foreign plans
As of January 1, 2019	¥91,678	¥135,066
Service cost	2,184	549
Interest cost	729	4,082
Actuarial gains and losses	(405)	16,658
Benefits paid	(4,691)	(6,805)
Past service cost	306	153
Exchange translation differences	—	549
Other	(102)	729
As of December 31, 2019	¥89,699	¥150,981

Note: Some of the domestic consolidated subsidiaries have adopted a simplified method for the calculation of retirement benefits.

Changes in plan assets

	Millions of yen	
	Domestic plans	Foreign plans
As of January 1, 2020	¥129,969	¥133,673
Expected return on plan assets	3,286	5,965
Actuarial gains and losses	15,459	12,009
Contributions by the employer	3,519	4,242
Benefits paid	(4,446)	(6,053)
Exchange translation differences	—	(4,450)
Other	—	(18)
As of December 31, 2020	¥147,788	¥145,368

	Millions of yen	
	Domestic plans	Foreign plans
As of January 1, 2019	¥114,309	¥117,005
Expected return on plan assets	3,086	5,800
Actuarial gains and losses	12,834	12,995
Contributions by the employer	4,333	3,719
Benefits paid	(4,593)	(6,782)
Exchange translation differences	—	951
Other	—	(15)
As of December 31, 2019	¥129,969	¥133,673

Reconciliation of defined benefit obligations and plan assets on retirement benefits recognized in the consolidated balance sheet

	Millions of yen	
	2020	
	Domestic plans	Foreign plans
Funded defined benefit obligations	¥ 89,173	¥ 154,740
Plan assets	(147,788)	(145,368)
Subtotal	(58,614)	9,372
Unfunded defined benefit obligations	1,064	1,465
Net amount of liabilities and assets recognized in consolidated balance sheet	¥ (57,550)	¥ 10,837
Liabilities (net defined benefit liability)	¥ 1,112	¥ 15,959
Assets (net defined benefit asset)	(58,662)	(5,122)
Net amount of liabilities and assets recognized in consolidated balance sheet	¥ (57,550)	¥ 10,837

	Millions of yen	
	2019	
	Domestic plans	Foreign plans
Funded defined benefit obligations	¥ 88,562	¥ 149,637
Plan assets	(129,969)	(133,673)
Subtotal	(41,407)	15,964
Unfunded defined benefit obligations	1,137	1,344
Net amount of liabilities and assets recognized in consolidated balance sheet	¥ (40,270)	¥ 17,308
Liabilities (net defined benefit liability)	¥ 1,193	¥ 20,184
Assets (net defined benefit asset)	(41,463)	(2,876)
Net amount of liabilities and assets recognized in consolidated balance sheet	¥ (40,270)	¥ 17,308

Retirement benefit expenses and its breakdowns

	Millions of yen	
	2020	
	Domestic plans	Foreign plans
Service cost	¥ 2,132	¥ 589
Interest cost	708	3,106
Expected return on plan assets	(3,286)	(5,965)
Recognition of actuarial gains and losses	464	1,514
Amortization of past service cost	—	27
Total	¥ 18	¥ (729)

Notes: 1. Other than these retirement benefit expenses, severance costs in the consolidated statement of income include retiree premium benefit.
 2. Other than these retirement benefit expenses, ¥65 million of losses on termination of the retirement benefit plans has been recognized in non-operating expenses as a result of the termination of the retirement benefit plans of a consolidated subsidiary during the fiscal year ended December 31, 2020.

	Millions of yen	
	2019	
	Domestic plans	Foreign plans
Service cost	¥ 2,184	¥ 549
Interest cost	729	4,082
Expected return on plan assets	(3,086)	(5,800)
Recognition of actuarial gains and losses	431	1,408
Amortization of past service cost	306	153
Total	¥ 563	¥ 392

Notes: 1. Other than these retirement benefit expenses, severance costs in the consolidated statement of income include retiree premium benefit.
 2. ¥443 million of losses from amortization of past service cost has been recognized in extraordinary loss as a result of the amendment to the retirement benefit plans of the Company and a number of consolidated subsidiaries during the fiscal year ended December 31, 2019.

Past service cost and actuarial gains and losses

The past service cost and actuarial gains and losses recognized in accumulated other comprehensive income as remeasurements of defined benefit plans (amount before income tax effect) for the fiscal years ended December 31, 2020 and 2019, are as follows:

	Millions of yen	
	2020	
	Domestic plans	Foreign plans
Past service cost	¥ —	¥ 45
Actuarial gains and losses	13,582	1,883
Total	¥13,582	¥1,928

	Millions of yen	
	2019	
	Domestic plans	Foreign plans
Past service cost	¥ —	¥ 10
Actuarial gains and losses	13,669	(2,919)
Total	¥13,669	¥(2,909)

Unrecognized past service cost and unrecognized actuarial gains and losses

The unrecognized past service cost and unrecognized actuarial gains and losses recognized in accumulated other comprehensive income as remeasurements of defined benefit plans (amount before income tax effect) for the fiscal years ended December 31, 2020 and 2019, are as follows:

	Millions of yen	
	2020	
	Domestic plans	Foreign plans
Unrecognized past service cost	¥ —	¥ (692)
Unrecognized actuarial gains and losses	25,456	(45,863)
Total	¥25,456	¥(46,555)

	Millions of yen	
	2019	
	Domestic plans	Foreign plans
Unrecognized past service cost	¥ —	¥ (737)
Unrecognized actuarial gains and losses	11,874	(47,746)
Total	¥11,874	¥(48,483)

Major breakdown of plan assets

	2020	
	Domestic plans	Foreign plans
Equity securities	54.8%	27.4%
Debt securities	20.4%	59.2%
Other	24.8%	13.4%
Total	100.0%	100.0%

Note: 36.6% of the assets of the domestic plans is available-for-sale securities contributed to the employee retirement benefit trust.

	2019	
	Domestic plans	Foreign plans
Equity securities	55.9%	21.2%
Debt securities	22.5%	63.0%
Other	21.6%	15.8%
Total	100.0%	100.0%

Note: 29.7% of the assets of the domestic plans is available-for-sale securities contributed to the employee retirement benefit trust.

Actuarial assumptions

	2020	
	Domestic plans	Foreign plans
Discount rate	0.8%	0.3%–2.5%
Expected return rate on plan assets	3.0%	4.6%–5.0%
Expected rate of increase in salary	3.1%	2.0%–3.5%

Note: Expected return rate on plan assets is determined by considering the current and anticipated future portfolio of plan assets and current and anticipated future long-term performance of individual asset classes that comprise the funds' asset mix.

	2019	
	Domestic plans	Foreign plans
Discount rate	0.8%	0.4%–3.2%
Expected return rate on plan assets	3.0%	4.6%–5.5%
Expected rate of increase in salary	3.1%	1.7%–3.5%

Note: Expected return rate on plan assets is determined by considering the current and anticipated future portfolio of plan assets and current and anticipated future long-term performance of individual asset classes that comprise the funds' asset mix.

(3) Defined contribution pension plans

The required contributions borne by the Company and a number of consolidated subsidiaries in relation to the defined contribution pension plans for the fiscal years ended December 31, 2020 and 2019, are ¥1,916 million and ¥2,001 million, respectively.

Note 14:**Net Assets**

Japanese companies are subject to the Companies Act of Japan (the "Companies Act"). The significant provisions in the Companies Act that affect financial and accounting matters are summarized below:

(1) Dividends

Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon resolution at the shareholders' meeting. For companies that meet certain criteria such as: (a) having a board of directors, (b) having independent auditors, (c) having a board of corporate auditors and (d) the term of service of the directors being prescribed as one year rather than the two years of a normal term by its articles of incorporation, the board of directors may declare dividends (except for dividends in kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation. The Company meets all the above criteria.

The Companies Act permits companies to distribute dividends in kind (non-cash assets) to shareholders subject to a certain limitation and additional requirements.

Semiannual interim dividends may also be paid once a year upon resolution by the board of directors if the articles of incorporation of the company so stipulate. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury shares. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.

(2) Increases/decreases and transfer of common stocks, reserve and surplus

The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus) depending on the equity account charged upon the payment of such dividends until the total of the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts under certain conditions upon resolution of the shareholders.

(3) Treasury shares and treasury stock acquisition rights

The Companies Act also provides for companies to purchase treasury shares and dispose of such treasury shares by resolution of the board of directors. The amount of treasury shares purchased cannot exceed the amount available for distribution to the shareholders which is determined by a specific formula.

Under the Companies Act, stock acquisition rights, which were previously presented as a liability, are now presented as a separate component of equity.

The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury shares. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

Note 15:**Capital Stock**

The total amount of capital stock authorized as of December 31, 2020 and 2019, is 150,000,000 shares.

The total amount of capital stock issued as of December 31, 2020 and 2019, is 95,156,904 shares.

Note 16:**Treasury Shares**

The number of treasury shares as of December 31, 2020 and 2019, is as follows:

	Shares 2020			
	As of January 1, 2020	Increase in FY2020	Decrease in FY2020	As of December 31, 2020
Treasury shares:				
Common stock	511,622	1,900	7,200	506,332
Total	511,622	1,900	7,200	506,332

Notes: 1. The shares held by the BBT (139,000 shares) are included in the number of treasury shares.

2. The increase of treasury shares of common stock (1,900 shares) was due to the purchase of odd-lot shares.

3. The decrease of treasury shares of common stock (7,200 shares) was due to the benefit of the Company's shares by the BBT.

	Shares 2019			
	As of January 1, 2019	Increase in FY2019	Decrease in FY2019	As of December 31, 2019
Treasury shares:				
Common stock	511,035	2,187	1,600	511,622
Total	511,035	2,187	1,600	511,622

Notes: 1. The shares held by the BBT (146,200 shares) are included in the number of treasury shares.

2. The increase of treasury shares of common stock (2,187 shares) was due to the purchase of odd-lot shares.

3. The decrease of treasury shares of common stock (1,600 shares) was due to the benefit of the Company's shares by the BBT.

Note 17:**Income Taxes**

The differences between the normal effective statutory tax rate in Japan and the actual effective tax rate for the fiscal years ended December 31, 2020 and 2019, are as follows:

	2020	2019
Normal effective statutory tax rate in Japan	30.6%	30.6%
Adjustments:		
Valuation allowance change	15.9%	2.5%
Tax rate differences	(6.0)%	(6.4)%
Equity in earnings of affiliates	(1.0)%	(2.1)%
Entertainment and other non-deductible expenses	1.2%	3.0%
Elimination of intercompany dividends income	8.2%	9.7%
Dividends income and other non-taxable income	(6.8)%	(15.2)%
State, provincial, municipal and local taxes	0.6%	0.8%
Tax credit for research and development and others	(3.2)%	(1.3)%
Tax credit for the Special Tax Law for the March 11 Earthquake	(1.5)%	(0.1)%
Other	(3.4)%	5.4%
Actual effective tax rate	34.6%	26.9%

The tax effects of significant temporary differences and loss carryforwards, which resulted in deferred tax assets and liabilities, as of December 31, 2020 and 2019, are as follows:

	Millions of yen	
	2020	2019
Deferred tax assets:		
Inventories	¥ 3,630	¥ 3,381
Property, plant and equipment	4,391	4,777
Intangible assets	5,095	4,863
Research and development costs	4,500	4,693
Allowance for doubtful accounts	1,523	1,685
Provision for bonuses	1,667	1,717
Net defined benefit liability	4,666	5,733
Unrealized gain	758	799
Net operating loss carryforwards (Note 2)	19,252	18,198
Other	13,199	8,481
Subtotal	58,682	54,326
Less: valuation allowance for tax loss carryforwards (Note 2)	(12,699)	(8,315)
Less: valuation allowance for temporary differences	(3,980)	(4,023)
Valuation allowance (Note 1)	(16,679)	(12,338)
Total	42,002	41,989
Deferred tax liabilities:		
Property, plant and equipment	(2,720)	(2,475)
Net defined benefit asset	(9,597)	(6,852)
Contribution of securities to employee retirement benefit trust	(1,255)	(1,277)
Deferred income taxes related to gains from property, plant and equipment	(2,560)	(2,683)
Valuation difference on available-for-sale securities	(1,343)	(812)
Other	(4,645)	(3,466)
Total	(22,120)	(17,565)
Net deferred tax assets	¥ 19,882	¥ 24,424

Notes: 1. The valuation allowance decreased significantly for the fiscal year ended December 31, 2020. A major reason for this is a decrease in valuation allowance for tax loss carryforwards of the Sun Chemical Group.

2. The expiration of tax loss carryforwards, the related valuation allowances and the resulting net deferred tax assets as of December 31, 2020, were as follows:

	2021	2022	2023	2024	2025	Thereafter	Total
Tax loss carryforward (*a)	¥ 689	¥ 1,197	¥ 1,631	¥ 169	¥ 148	¥15,418	¥ 19,252
Valuation allowance	(571)	(1,010)	(1,345)	(151)	(103)	(9,519)	(12,699)
Net deferred tax assets	119	187	286	18	45	5,900	(*b) 6,553

(*a) Tax loss carryforward shown in the above table is after multiplying by the statutory tax rate.

(*b) Deferred tax assets of ¥6,553 million was recognized for tax loss carryforward of ¥19,252 million. No valuation allowance is recognized for tax loss carryforward since the amount was determined to be recoverable based on expected future taxable income.

Note 18:

Research and Development Costs

Research and development costs charged to income for the fiscal years ended December 31, 2020 and 2019, are ¥12,029 million and ¥12,505 million, respectively.

Note 19:**Leases****Operating leases**

Future minimum rental payments under non-cancellable operating leases as of December 31, 2020 and 2019, are as follows:

	Millions of yen	
	2020	2019
Due within one year	¥1,883	¥1,932
Due after one year	6,105	6,379
Total	¥7,988	¥8,311

Note 20:**Financial Instruments****Group policy for financial instruments**

The Group manages funds with safe and secure financial assets. Means of financings include direct financing such as the issuance of bonds and commercial papers and liquidation of receivables, as well as indirect financing such as short- and long-term bank borrowings, the terms of which are determined based on financial market conditions and account balances at the time.

Nature and extent of risks arising from financial instruments

Receivables such as trade notes and accounts receivable are exposed to customer credit risk. In addition, some of such receivables are denominated in foreign currencies and are exposed to the market risk of fluctuation in foreign currency exchange rates. Investment securities, mainly the stocks of customers and suppliers, are exposed to the risk of market price fluctuations.

Payment terms of payables, such as trade notes and accounts payable, are less than one year. In addition, some of such payables are denominated in foreign currencies and are exposed to the market risk of fluctuation in foreign currency exchange rates.

Funds needed for operations are mainly procured as short-term loans payable, whereas funds needed for capital expenditure and investment are mainly procured as long-term loans payable, bonds payable and lease obligations with regard to finance lease transactions. A part of such bank loans, bonds and lease obligations are exposed to market risks from changes in variable interest rates. Trade accounts payable and loans payable of the Company are also exposed to liquidity risk that the Company cannot meet its contractual obligations in full on maturity dates.

Risk management for financial instruments

The Company manages its credit risk from trade notes and accounts receivable on the basis of internal guidelines, which include the monitoring of payment terms and balances of customers by the sales and business administration departments to identify the default risk of customers at an early stage. The consolidated subsidiaries of the Company manage the exposure to credit risk on their own in accordance with their internal guidelines. Investment securities are managed by monitoring market values, the financial position of issuers and considering the relationship with customers and suppliers on a regular basis. The Group also tries to mitigate liquidity risk by arranging lines of credit with financial institutions, along with adequate financial planning.

Fair values of financial instruments

The following tables present the carrying amounts and the fair values of financial instruments as of December 31, 2020 and 2019. Financial instruments whose fair values are not reliably measured are excluded from the tables below.

Millions of yen			
2020			
	Carrying amount	Fair value	Difference
Assets:			
Cash and deposits	¥ 44,885	¥ 44,885	¥ —
Notes and accounts receivable—trade	197,595	197,595	—
Investment securities			
Stocks of subsidiaries and affiliates	22,318	34,322	12,004
Other	12,859	12,859	—
Total	¥277,658	¥289,662	¥12,004
Liabilities:			
Notes and accounts payable—trade	¥ 95,263	¥ 95,263	¥ —
Short-term loans payable	10,275	10,275	—
Current portion of long-term loans payable	27,096	27,096	—
Lease obligations (current)	1,061	1,061	—
Income taxes payable	4,985	4,985	—
Bonds payable	100,000	100,314	314
Long-term loans payable	123,766	123,918	152
Lease obligations (non-current)	4,543	4,783	240
Total	¥366,989	¥367,695	¥ 706
Derivative financial instruments: (Note)			
Hedge accounting—not applied	¥ 21	¥ 21	¥ —
Hedge accounting—applied	3,565	3,565	—
Total	¥ 3,586	¥ 3,586	¥ —

Note: Figures are net of debts and credits that arise from derivative financial instruments. Net debt amounts are indicated in parentheses.

	Millions of yen		
	2019		
	Carrying amount	Fair value	Difference
Assets:			
Cash and deposits	¥ 16,786	¥ 16,786	¥ —
Notes and accounts receivable—trade	211,232	211,232	—
Investment securities			
Stocks of subsidiaries and affiliates	26,723	31,574	4,851
Other	10,976	10,976	—
Total	¥265,717	¥270,568	¥4,851
Liabilities:			
Notes and accounts payable—trade	¥108,562	¥108,562	¥ —
Short-term loans payable	20,139	20,139	—
Current portion of long-term loans payable	23,456	23,645	189
Lease obligations (current)	1,244	1,244	—
Income taxes payable	2,556	2,556	—
Bonds payable	80,000	80,640	640
Long-term loans payable	122,602	123,014	412
Lease obligations (non-current)	5,191	5,514	323
Total	¥363,750	¥365,314	¥1,564
Derivative financial instruments: (Note)			
Hedge accounting—not applied	¥ (106)	¥ (106)	¥ —
Hedge accounting—applied	985	985	—
Total	¥ 879	¥ 879	¥ —

Note: Figures are net of debts and credits that arise from derivative financial instruments. Net debt amounts are indicated in parentheses.

The valuation techniques used to estimate the fair values of financial instruments and information on the marketable securities and derivative financial instruments are as follows:

Assets

Cash and deposits and notes and accounts receivable—trade

The fair values of cash and deposits and notes and accounts receivable—trade approximate their carrying amounts as these amounts are settled in a short period of time.

Investment securities

The fair values of investment securities are measured at the quoted market price on the stock exchange.

Liabilities

Notes and accounts payable—trade, short-term loans payable, lease obligations (current) and income taxes payable

The fair values of these accounts approximate their carrying amounts as these amounts are settled in a short period of time.

Current portion of long-term loans payable and long-term loans payable

For long-term loans payable bearing a floating interest rate, the fair values of those subject to special treatment of interest rate swaps are based on present value by totaling the amount of principal and interest, together with related interest rate swaps, discounted by the interest rate that would apply if equivalent long-term loans were newly entered into. The fair values of other long-term loans payable for which a floating interest rate is applied approximate their carrying amounts, due to the fact that the market rate of interest is quickly factored in while credit status of the Company remains unchanged.

On the other hand, the fair values of long-term loans payable for which a fixed interest rate is applied are determined by discounting the cash flows related to the long-term loans payable. The discount rate applied for the calculation above is the interest rate that may be currently available to the Group for loans payable with similar terms and conditions.

Lease obligations (non-current)

The fair values of these accounts are determined by discounting the cash flows related to the lease obligations. The discount rate applied for the calculation above is the interest rate that may be currently available to the Group for lease obligations with similar terms and conditions.

Bonds payable

The fair values are measured at the quoted market prices.

Derivative financial instruments

Please see Note 21 "Derivative Financial Instruments" for more information.

Financial instruments whose fair value is not reliably measured

There are no market prices for non-listed stocks and others (carrying amounts as of December 31, 2020 and 2019, are ¥22,023 million and ¥21,614 million, respectively) whose future cash flows cannot be estimated. The fair values of such non-listed stocks and others are not reliably determinable and thus excluded from investment securities.

Redemption schedule for financial assets and securities

The redemption schedules for financial assets and securities with contractual maturities as of December 31, 2020 and 2019, are summarized as follows:

	Millions of yen			
	2020			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Notes and accounts receivable—trade	¥197,595	¥—	¥—	¥—
Total	¥197,595	¥—	¥—	¥—

	Millions of yen			
	2019			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Notes and accounts receivable—trade	¥211,232	¥—	¥—	¥—
Total	¥211,232	¥—	¥—	¥—

Repayment schedule for bonds payable, long-term loans payable and other interest-bearing debt

The repayment schedules for bonds payable, long-term loans payable and other interest-bearing debt with contractual maturities as of December 31, 2020 and 2019, are summarized as follows:

	Millions of yen			
	2020			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Short-term loans payable	¥10,275	¥ —	¥ —	¥ —
Current portion of long-term loans payable	27,096	—	—	—
Lease obligations (current)	1,061	—	—	—
Bonds payable	—	70,000	25,000	5,000
Long-term loans payable	—	82,415	41,323	28
Lease obligations (non-current)	—	2,387	1,577	578
Total	¥38,432	¥154,802	¥67,900	¥5,606

	Millions of yen			
	2019			
	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Short-term loans payable	¥20,139	¥ —	¥ —	¥ —
Current portion of long-term loans payable	23,456	—	—	—
Lease obligations (current)	1,244	—	—	—
Bonds payable	—	40,000	35,000	5,000
Long-term loans payable	—	90,039	32,495	68
Lease obligations (non-current)	—	2,561	2,062	568
Total	¥44,839	¥132,600	¥69,557	¥5,636

Note 21:

Derivative Financial Instruments

The Group has entered into various foreign currency forward contracts, currency options and swaps, interest rate swaps and commodity swaps.

Foreign currency forward contracts and currency options and swaps are entered into to hedge the effects of exchange rate changes on receivables and payables or anticipated transactions denominated in foreign currencies. Interest rate swaps are entered into to hedge the effects of interest rate changes and to reduce financing cost. Commodity swaps are entered into to hedge the effects of commodity price changes of fuel. Loans denominated in foreign currencies are entered into to hedge a part of risks associated with the fluctuations of exchange rates for investments in foreign entities.

The Group does not use derivative instruments for trading or speculative purposes. Derivative transactions performed by the Group have risks due to fluctuations of exchange rates, interest rates and other factors.

Because these transactions are executed with creditworthy financial institutions, the Group does not anticipate the likelihood of any losses resulting from default by the counterparties to these agreements.

Internal regulation for managing derivative transactions has been established for the purpose of risk control in the Company, and all derivative transactions are performed under this regulation.

The execution of derivative transactions is carried out by the Company's finance department, and the management of risk is monitored by the Company's accounting department. Transactions are periodically reported to the board of directors by the officer in charge of the Finance and Accounting Division.

Consolidated subsidiaries execute transactions in accordance with their regulations for derivative management and periodically report the results of those transactions to the Company.

Derivative transactions to which hedge accounting is not applied as of December 31, 2020 and 2019

(1) Currency related

Millions of yen				
2020				
	Contract/notional amount	Contract/notional amount due after one year	Fair value	Unrealized gain/loss
Currency options: (Note 1)				
Foreign currency forward contracts: (Note 2)				
Selling				
Russian ruble	¥2,546	¥—	¥ 58	¥ 58
Colombian peso	2,269	—	5	5
Canadian \$	1,226	—	1	1
Other	83	—	(0)	(0)
Buying				
U.S.\$	1,865	—	(44)	(44)
Other	129	—	1	1
Total	¥8,119	¥—	¥ 21	¥ 21

Note: The fair values of foreign currency forward contracts are measured using the forward quotation.

Millions of yen				
2019				
	Contract/notional amount	Contract/notional amount due after one year	Fair value	Unrealized gain/loss
Currency options: (Note 1)				
(Payment in Australian \$ and receipt in U.S.\$)	¥ 1,067	¥—	¥ (24)	¥ (24)
Other	315	—	(5)	(5)
Foreign currency forward contracts: (Note 2)				
Selling				
Russian ruble	3,272	—	(21)	(21)
U.S.\$	3,172	—	3	3
Colombian peso	1,512	—	(18)	(18)
Canadian \$	1,322	—	(14)	(14)
Other	550	—	(2)	(2)
Buying				
U.S.\$	1,829	—	(27)	(27)
Other	779	—	1	1
Total	¥13,817	¥—	¥(106)	¥(106)

Notes: 1. The fair values of currency swap contracts are measured using the quoted price obtained from financial institutions.

2. The fair values of foreign currency forward contracts are measured using the forward quotation.

Derivative transactions to which hedge accounting is applied as of December 31, 2020 and 2019

(1) Currency related

				Millions of yen
				2020
	Hedged item	Contract/notional amount	Contract/notional amount due after one year	Fair value
Foreign currency forward contracts: (Note 1)				
Buying				
Euro	Forecast transaction	¥62,891	¥—	¥3,668
Other	and Accounts payable—trade	65	—	(0)
Foreign currency forward contracts: (Notes 1 and 2)				
Selling				
U.S.\$	Accounts receivable—trade	1,328	—	
Total		¥64,284	¥—	¥3,668

Notes: 1. The fair values of foreign currency forward contracts are measured using the quoted price obtained from financial institutions.

2. Exchange contracts appropriated to specific debts and credits are settled together with either accounts receivable—trade or accounts payable—trade subject to hedged transaction. Accordingly, the fair values of such exchange contracts are reflected in accounts receivable—trade or accounts payable—trade.

				Millions of yen
				2019
	Hedged item	Contract/notional amount	Contract/notional amount due after one year	Fair value
Foreign currency forward contracts: (Note 1)				
Selling				
U.S.\$	Forecast transaction	¥ 359	¥—	¥ (1)
Other		168	—	(2)
Buying				
Euro	Forecast transaction	23,553	—	994
Other	and Accounts payable—trade	92	—	0
Foreign currency forward contracts: (Notes 1 and 2)				
Selling				
U.S.\$	Accounts receivable—trade	2,593	—	
Other		275	—	
Currency swaps: (Notes 1 and 3)				
(Payment in Japanese yen and receipt in U.S.\$)	Loans payable	10,871		
Total		¥37,909	¥—	¥991

Notes: 1. The fair values of foreign currency forward contracts are measured using the quoted price obtained from financial institutions.

2. Exchange contracts appropriated to specific debts and credits are settled together with either accounts receivable—trade or accounts payable—trade subject to hedged transaction. Accordingly, the fair values of such exchange contracts are reflected in accounts receivable—trade or accounts payable—trade.

3. Currency swaps appropriated to specific credits are settled together with loans payable subject to hedged transaction. Accordingly, the fair values of such currency swaps are reflected in loans payable.

(2) Interest related

				Millions of yen
				2020
	Hedged item	Contract/notional amount	Contract/notional amount due after one year	Fair value
Interest rate swaps: (Note 1) (Fixed rate payment, floating rate receipt) (Note 2)	Loans payable	¥ 2,579	¥ 2,579	¥(101)
		65,470	65,470	
Total		¥68,049	¥68,049	¥(101)

Notes: 1. The fair values of interest rate swaps are measured using the quoted price obtained from financial institutions.

2. If interest rate swaps qualify for hedge accounting and meet certain specific criteria, they are settled together with loans payable subject to hedged transaction. Accordingly, the fair values of such interest rate swaps are reflected in loans payable.

				Millions of yen
				2019
	Hedged item	Contract/notional amount	Contract/notional amount due after one year	Fair value
Interest rate swaps: (Note) (Fixed rate payment, floating rate receipt)	Loans payable	¥66,306	¥66,306	¥—
Total		¥66,306	¥66,306	¥—

Note: If interest rate swaps qualify for hedge accounting and meet certain specific criteria, they are settled together with loans payable subject to hedged transaction. Accordingly, the fair values of such interest rate swaps are reflected in loans payable.

(3) Commodity related

				Millions of yen
				2020
	Hedged item	Contract/notional amount	Contract/notional amount due after one year	Fair value
Commodity swaps: (Note) (Fixed price payment, floating price receipt)	Fuel	¥89	¥—	¥(2)
Total		¥89	¥—	¥(2)

Note: The fair values of commodity swaps are measured using the quoted price obtained from the exchange.

				Millions of yen
				2019
	Hedged item	Contract/notional amount	Contract/notional amount due after one year	Fair value
Commodity swaps: (Note) (Fixed price payment, floating price receipt)	Fuel	¥42	¥—	¥(6)
Total		¥42	¥—	¥(6)

Note: The fair values of commodity swaps are measured using the quoted price obtained from the exchange.

Note 22:

Commitments and Contingent Liabilities

Contingent liabilities as of December 31, 2020 and 2019, are as follows:

		Millions of yen	
		2020	2019
Liabilities for guarantee and other		¥560	¥583
Total		¥560	¥583

In the opinion of management, the eventual settlement of pending lawsuits in which any of the companies in the Group is the defendant will not have a material effect on the consolidated financial position or consolidated results of operations of the Group.

Note 23:**Other
Comprehensive
Income**

Each component of other comprehensive income and related tax effects (including those on non-controlling interests) for the fiscal years ended December 31, 2020 and 2019, comprises the following:

	Millions of yen	
	2020	2019
Valuation difference on available-for-sale securities:		
Gains (losses) arising during the year	¥ 1,706	¥ 564
Reclassification adjustments to profit (loss)	(0)	(73)
Amount before income tax effect	1,706	491
Income tax effect	(531)	(164)
Total	1,175	327
Deferred gains or losses on hedges:		
Gains (losses) arising during the year	2,566	1,008
Reclassification adjustments to profit (loss)	14	(42)
Amount before income tax effect	2,580	966
Income tax effect	(795)	(297)
Total	1,785	669
Foreign currency translation adjustment:		
Adjustments arising during the year	(9,827)	(4,394)
Reclassification adjustments to profit (loss)	—	—
Amount before income tax effect	(9,827)	(4,394)
Total	(9,827)	(4,394)
Remeasurements of defined benefit plans:		
Adjustments arising during the year	13,504	8,892
Reclassification adjustments to profit (loss)	2,005	1,868
Amount before income tax effect	15,510	10,760
Income tax effect	(4,821)	(3,491)
Total	10,689	7,269
Share of other comprehensive income of associates accounted for using equity method:		
Gains (losses) arising during the year	159	(1,298)
Reclassification adjustments to profit (loss)	(1)	554
Total	158	(744)
Total other comprehensive income	¥ 3,980	¥ 3,127

Note 24:**Subsequent
Events****Dividends**

At the Company's annual general meeting of shareholders held on March 30, 2021, the shareholders approved the following appropriations of retained earnings:

	Millions of yen
Cash dividends, ¥50.00 per share	¥4,739
Total	¥4,739

Note: The total amount of dividends resolved at the annual general meeting of shareholders held on March 30, 2021, includes dividends of ¥7 million for the Company's shares held by the Board Benefit Trust (BBT).

Note 25:**Segment Information****(1) Segment information****Description of reportable segments**

The reportable segments of the Group are components for which discrete financial information is available and whose operating results are regularly reviewed by the board of directors to evaluate their performance and determine the allocation of management resources.

The Group has six product divisions, namely "Printing Materials," "Packaging Materials," "Color Materials," "Display Materials," "Performance Materials" and "Composite Materials," and each product division conducts its business.

The product divisions are aggregated into three reportable segments, namely "Packaging & Graphic," "Color & Display" and "Functional Products," based on the similarity of the products and services.

"Packaging & Graphic" mainly consists of gravure inks, flexo inks, offset inks, news inks, jet inks and polystyrene. "Color & Display" mainly consists of organic pigments, liquid crystal materials and health foods. "Functional Products" mainly consists of synthetic resins, such as acrylic, polyurethane, epoxy resins, PPS compounds and industrial adhesive tapes.

Methods of measurement for the amounts of sales, profit (loss), assets, liabilities and other items for each reportable segment

The accounting policies of each reportable segment are consistent with those disclosed in Note 2 "Summary of Significant Accounting Policies."

Segment profits are based on operating income.

Intersegment sales are mainly based on market price or cost of goods manufactured.

Information about sales, profit (loss), assets, liabilities and other items

	Millions of yen					
	2020					
	Reportable Segments					Total
	Packaging & Graphic	Color & Display	Functional Products	Total	Others	
Sales:						
Sales to customers	¥388,423	¥ 79,404	¥232,979	¥700,806	¥ 417	¥701,223
Intersegment sales		26,398	3,014	29,413	—	29,413
Total sales	388,423	105,803	235,993	730,218	417	730,636
Segment profit	21,766	8,443	17,103	47,312	427	47,739
Segment assets	¥356,273	¥ 87,727	¥331,773	¥775,773	¥35,800	¥811,573
Others:						
Depreciation and amortization	12,430	4,515	14,116	31,060	521	31,581
Amortization of goodwill	33	—	110	143	—	143
Investments in affiliates	5,505	678	35,251	41,434	—	41,434
Increase in property, plant and equipment and intangible assets	14,039	3,229	15,542	32,810	235	33,045

	Millions of yen					
	2019					
	Reportable Segments					Total
	Packaging & Graphic	Color & Display	Functional Products	Total	Others	
Sales:						
Sales to customers	¥416,377	¥ 86,500	¥265,248	¥768,125	¥ 443	¥768,568
Intersegment sales	—	29,912	3,342	33,253	—	33,253
Total sales	416,377	116,411	268,590	801,378	443	801,821
Segment profit	19,178	10,784	19,234	49,196	443	49,629
Segment assets	¥358,108	¥ 93,475	¥320,720	¥772,303	¥31,367	¥803,670
Others:						
Depreciation and amortization	12,910	5,099	13,515	31,524	552	32,076
Amortization of goodwill	21	—	78	99	—	99
Investments in affiliates	5,379	652	35,169	41,200	3,958	45,158
Increase in property, plant and equipment and intangible assets	12,384	5,840	15,345	33,569	413	33,982

Reconciliation between reportable segment total and amounts disclosed in consolidated financial statements

	Millions of yen	
	2020	2019
Sales:		
Reportable segment total	¥730,218	¥801,378
Sales in "Others"	417	443
Elimination of intersegment transactions	(29,413)	(33,253)
Sales in consolidated financial statements	¥701,223	¥768,568

	Millions of yen	
	2020	2019
Profit:		
Reportable segment total	¥47,312	¥49,196
Profit in "Others"	427	433
Corporate expenses	(8,076)	(8,297)
Operating income in consolidated financial statements	¥39,663	¥41,332

Note: Corporate expenses consist substantially of R&D expenses incurred by the DIC Central Research Laboratories to develop new products, which are not included in any reportable segment.

	Millions of yen	
	2020	2019
Assets:		
Reportable segment total	¥775,773	¥772,303
Assets in "Others"	35,800	31,367
Elimination between segments	(48,404)	(45,235)
Corporate assets	54,781	44,648
Assets in consolidated financial statements	¥817,950	¥803,083

Note: Corporate assets consist of deferred tax assets and assets of the DIC Central Research Laboratories and Kawamura Memorial DIC Museum of Art, which are not included in any reportable segment.

Other items are as follows:

	2020				2019			
	Reportable Segments	Others	Adjustments	Consolidated	Reportable Segments	Others	Adjustments	Consolidated
Depreciation and amortization	¥31,060	¥521	¥999	¥32,581	¥31,524	¥ 552	¥1,051	¥33,127
Amortization of goodwill	143	—	—	143	99	—	—	99
Investments in affiliates	41,434	—	—	41,434	41,200	3,958	—	45,158
Increase in property, plant and equipment and intangible assets	32,810	235	954	33,999	33,569	413	980	34,962

Notes: 1. The adjustments for depreciation and amortization are mainly depreciation and amortization related to the DIC Central Research Laboratories that cannot be allocated to any reportable segment.

2. The adjustments for increase in property, plant and equipment and intangible assets are mainly capital investments of the DIC Central Research Laboratories that cannot be allocated to any reportable segment.

(2) Related information

Information about geographical areas

	2020			
	Japan	USA	Others	Total
Net sales (Note)	¥247,062	¥90,996	¥363,164	¥701,223
Property, plant and equipment	124,247	24,940	78,892	228,078

Note: Net sales is based on customer location and is classified by country.

	2019			
	Japan	USA	Others	Total
Net sales (Note)	¥280,147	¥96,654	¥391,767	¥768,568
Property, plant and equipment	125,932	28,685	77,559	232,176

Note: Net sales is based on customer location and is classified by country.

Information about major customers

Not applicable for the fiscal years ended December 31, 2020 and 2019, because there is no single customer which accounts for more than 10% of net sales shown on the consolidated statement of income.

(3) Impairment loss of assets by reportable segment

	2020					
	Packaging & Graphic	Color & Display	Functional Products	Others	Corporate and eliminations	Consolidated
Impairment loss	¥479	¥383	¥389	¥—	¥—	¥1,251

	2019					
	Packaging & Graphic	Color & Display	Functional Products	Others	Corporate and eliminations	Consolidated
Impairment loss	¥2,388	¥690	¥—	¥—	¥—	¥3,078

(4) Amortization and unamortized balances of goodwill by reportable segment

	2020					
	Packaging & Graphic	Color & Display	Functional Products	Others	Corporate and eliminations	Consolidated
Amortization	¥ 33	¥—	¥110	¥—	¥—	¥143
Unamortized balances	229	—	590	—	—	819

						Millions of yen
						2019
	Packaging & Graphic	Color & Display	Functional Products	Others	Corporate and eliminations	Consolidated
Amortization	¥21	¥—	¥ 78	¥—	¥—	¥ 99
Unamortized balances	7	—	755	—	—	762

(5) Gain on bargain purchase by reportable segment

There was no gain on bargain purchase for the fiscal year ended December 31, 2019.

	Millions of yen					
	2020					
	Packaging & Graphic	Color & Display	Functional Products	Others	Corporate and eliminations	Consolidated
Gain on bargain purchase	¥1,295	¥—	¥—	¥—	¥—	¥1,295

Note: Gain on bargain purchase comes from the acquisition of a subsidiary.

Note 26:

Related-Party Transactions

(1) Related-party transactions with the Company

Related-party transactions with directors, corporate auditors, major individual shareholders and others of the Company for the fiscal years ended December 31, 2020 and 2019, are as follows:

	Millions of yen									
	2020									
Type of related party	Name	Location	Capital or investment	Principal business	Ownership of voting rights	Relation with related parties	Contents of transaction	Amount of transaction (Note 1)	Account	Balance at year-end (Note 2)
Companies where directors and their close relatives owned a majority of the voting rights (Note 3)	Nissei Real-Estate Co., Ltd.	Chiyoda-ku, Tokyo	10	Rental of properties and others	—	Rental of buildings and others	Rental of buildings and others (Note 4)	2,217	Security deposit	1,832
	Dainichi Can Co., Ltd.	Chiyoda-ku, Tokyo	10	Manufacture and sale of metallic containers	—	Purchase of metallic containers and others	Purchase of metallic containers and others (Note 5)	413	Electronically recorded obligations, accounts payable-trade, and accounts payable-other	182
							Sales of merchandise and finished goods, and offering of service (Note 6)	43	Trade notes and accounts receivable	15
	Nissin Trading Co., Ltd.	Chiyoda-ku, Tokyo	20	Sale, import and export of petrochemical-related products	—	Purchase of raw materials and others	Purchase of raw materials and others (Note 7)	6,300	Electronically recorded obligations, accounts payable-trade, and accounts payable-other	1,245
							Sales of merchandise and finished goods, and offering of service (Note 6)	3,375	Accounts receivable-trade and accounts receivable-other	1,380

Notes: 1. Excluding consumption taxes.

2. Including consumption taxes.

3. Yoshihisa Kawamura, a director of the Company, and his close relatives substantially own a majority of the voting rights of Nissei Real-Estate Co., Ltd.

Dainichi Can Co., Ltd. and Nissin Trading Co., Ltd. are fully owned by Nissei Real-Estate Co., Ltd.

4. "Rental of buildings and others" are determined based on an arms-length transaction in the neighboring area.

5. "Purchase of metallic containers and others" are determined based on an arms-length transaction.

6. "Sales of merchandise and finished goods, and offering of service" are determined based on an arms-length transaction.

7. "Purchase of raw materials and others" are determined based on an arms-length transaction.

Millions of yen										
2019										
Type of related party	Name	Location	Capital or investment	Principal business	Ownership of voting rights	Relation with related parties	Contents of transaction	Amount of transaction (Note 1)	Account	Balance at year-end (Note 2)
Companies where directors and their close relatives owned a majority of the voting rights (Note 3)	Nissei Real-Estate Co., Ltd.	Chiyoda-ku, Tokyo	10	Rental of properties and others	—	Rental of buildings and others	Rental of buildings and others (Note 4)	2,232	Security deposit	1,832
	Dainichi Can Co., Ltd.	Chiyoda-ku, Tokyo	10	Manufacture and sale of metallic containers	—	Purchase of metallic containers and others	Purchase of metallic containers and others (Note 5)	459	Electronically recorded obligations, accounts payable-trade, and accounts payable-other	192
							Sales of merchandise and finished goods, and offering of service (Note 6)	67	Trade notes and accounts receivable	16
	Nissin Trading Co., Ltd.	Chiyoda-ku, Tokyo	20	Sale, import and export of petrochemical-related products	—	Purchase of raw materials and others	Purchase of raw materials and others (Note 7)	6,936	Electronically recorded obligations, accounts payable-trade, and accounts payable-other	1,720
							Sales of merchandise and finished goods, and offering of service (Note 6)	3,803	Accounts receivable-trade and accounts receivable-other	1,480

Notes: 1. Excluding consumption taxes.

2. Including consumption taxes.

3. Yoshihisa Kawamura, a director of the Company, and his close relatives substantially own a majority of the voting rights of Nissei Real-Estate Co., Ltd.

Dainichi Can Co., Ltd. and Nissin Trading Co., Ltd. are fully owned by Nissei Real-Estate Co., Ltd.

4. "Rental of buildings and others" are determined based on an arms-length transaction in the neighboring area.

5. "Purchase of metallic containers and others" are determined based on an arms-length transaction.

6. "Sales of merchandise and finished goods, and offering of service" are determined based on an arms-length transaction.

7. "Purchase of raw materials and others" are determined based on an arms-length transaction.

(2) Related-party transactions with the consolidated subsidiaries

Related-party transactions with directors, corporate auditors, major individual shareholders and others of the Company for the fiscal years ended December 31, 2020 and 2019, are as follows:

Millions of yen										2020
Type of related party	Name	Location	Capital or investment	Principal business	Ownership of voting rights	Relation with related parties	Contents of transaction	Amount of transaction (Note 1)	Account	Balance at year-end (Note 2)
Companies where directors and their close relatives owned a majority of the voting rights (Note 3)	Nissei Real-Estate Co., Ltd.	Chiyoda-ku, Tokyo	10	Rental of properties and others	—	Rental of buildings and others	Rental of buildings and others (Note 4)	16	Security deposit	7
	Dainichi Can Co., Ltd.	Chiyoda-ku, Tokyo	10	Manufacture and sale of metallic containers	—	Purchase of metallic containers and others	Purchase of metallic containers and others (Note 5)	728	Electronically recorded obligations, accounts payable—trade, and accounts payable—other	290
							Sales of merchandise and finished goods, and offering of service (Note 6)	56	Trade notes and accounts receivable	25
	Nissin Trading Co., Ltd.	Chiyoda-ku, Tokyo	20	Sale, import and export of petrochemical-related products	—	Purchase of raw materials and others	Purchase of raw materials and others (Note 7)	1,168	Electronically recorded obligations, accounts payable—trade, accounts payable—other, and advance payments to suppliers	256
							Sales of merchandise and finished goods, and offering of service (Note 6)	535	Accounts receivable—trade and accounts receivable—other	173
	SHANGHAI NISSIN TRADING CO., LTD.	Shanghai, PRC	US\$200	Sale, import and export of petrochemical-related products	—	Purchase of raw materials	Purchase of raw materials and others (Note 7)	229	Accounts payable—trade	19

Notes: 1. Excluding consumption taxes.

2. Including consumption taxes.

3. Yoshihisa Kawamura, a director of the Company, and his close relatives substantially own a majority of the voting rights of Nissei Real-Estate Co., Ltd.

Dainichi Can Co., Ltd. and Nissin Trading Co., Ltd. are fully owned by Nissei Real-Estate Co., Ltd.

SHANGHAI NISSIN TRADING CO., LTD. is fully owned by Nissin Trading Co., Ltd.

4. "Rental of buildings and others" are determined based on an arms-length transaction in the neighboring area.

5. "Purchase of metallic containers and others" are determined based on an arms-length transaction.

6. "Sales of merchandise and finished goods, and offering of service" are determined based on an arms-length transaction.

7. "Purchase of raw materials and others" are determined based on an arms-length transaction.

Millions of yen										2019
Type of related party	Name	Location	Capital or investment	Principal business	Ownership of voting rights	Relation with related parties	Contents of transaction	Amount of transaction (Note 1)	Account	Balance at year-end (Note 2)
Companies where directors and their close relatives owned a majority of the voting rights (Note 3)	Nissei Real-Estate Co., Ltd.	Chiyoda-ku, Tokyo	10	Rental of properties and others	—	Rental of buildings and others	Rental of buildings and others (Note 4)	15	Security deposit	8
	Dainichi Can Co., Ltd.	Chiyoda-ku, Tokyo	10	Manufacture and sale of metallic containers	—	Purchase of metallic containers and others	Purchase of metallic containers and others (Note 5)	790	Electronically recorded obligations, accounts payable—trade, and accounts payable—other	333
							Sales of merchandise and finished goods, and offering of service (Note 6)	59	Trade notes and accounts receivable	25
	Nissin Trading Co., Ltd.	Chiyoda-ku, Tokyo	20	Sale, import and export of petrochemical-related products	—	Purchase of raw materials and others	Purchase of raw materials and others (Note 7)	1,381	Electronically recorded obligations, accounts payable—trade, and accounts payable—other	238
							Sales of merchandise and finished goods, and offering of service (Note 6)	638	Accounts receivable—trade and accounts receivable—other	223

Notes: 1. Excluding consumption taxes.

2. Including consumption taxes.

3. Yoshihisa Kawamura, a director of the Company, and his close relatives substantially own a majority of the voting rights of Nissei Real-Estate Co., Ltd.

Dainichi Can Co., Ltd. and Nissin Trading Co., Ltd. are fully owned by Nissei Real-Estate Co., Ltd.

4. "Rental of buildings and others" are determined based on an arms-length transaction in the neighboring area.

5. "Purchase of metallic containers and others" are determined based on an arms-length transaction.

6. "Sales of merchandise and finished goods, and offering of service" are determined based on an arms-length transaction.

7. "Purchase of raw materials and others" are determined based on an arms-length transaction.

1. Basic framework for internal control over financial reporting

Kaoru Ino, Representative Director, President and CEO, and Shuji Furuta, Director, Executive Officer, Head of Finance and Accounting Unit and CFO of DIC Corporation (the "Company"), are responsible for designing and operating internal control over the Company's financial reporting and have designed and operated internal control over financial reporting in accordance with the basic framework for internal control set forth in "On the Revision of the Standards and Practice Standards for Management Assessment and Audit concerning Internal Control Over Financial Reporting (Council Opinions)," issued by the Business Accounting Council of the Financial Services Agency of Japan.

Internal control aims to achieve its objectives to a reasonable extent with the organized and integrated function of basic individual elements of internal control as a whole. Accordingly, due to the inherent limitations, there is a possibility that misstatements may not be completely prevented or detected by internal controls over financial reporting.

2. Scope of assessment, the basis date of assessment and assessment procedures

The assessment of internal control over financial reporting for fiscal year 2020 was conducted as of December 31, 2020, which is the end of this fiscal year. The assessment was performed in accordance with relevant assessment standards generally accepted in Japan for internal control over financial reporting.

In conducting this assessment, we began by evaluating internal control which may have a material impact on overall consolidated financial reporting ("company-level controls") and, based on the results of this assessment, business processes to be assessed were selected. We then analyzed these selected business processes to identify key controls therein that may have a material impact on the reliability of the Company's financial reporting, after which we examined the design and operation of these controls. These procedures thus allowed us to accurately evaluate the effectiveness of the Company's internal control.

We determined the required scope of assessment of internal control over financial reporting for the Company and its consolidated subsidiaries and equity-method affiliates from the perspective of materiality or the degree to which it may affect the reliability of financial reporting. Materiality of the impact which may affect the reliability of financial reporting is determined based on potential quantitative and qualitative impact on financial reporting. In light of the results of assessment of company-level controls, we reasonably determined the scope of assessment of process-level controls. Consolidated subsidiaries and equity-method affiliates which were concluded as immaterial taking into account the degree of quantitative and qualitative impact are not included in the scope for assessment of company-level controls.

With regard to the process-level controls, significant locations and business units to be tested were selected based on the changes in the scope of consolidation during the year, as well as on net sales for the previous year, with locations and business units the combined sales volume of which reached approximately two-thirds of consolidated net sales being defined as "significant." The scope of assessment at these locations and business units encompassed business processes relevant to net sales, accounts receivable-trade, accounts payable-trade, inventories and manufacturing facilities included in property, plant and equipment as significant accounts that may have a material impact on the business objectives of the Company. In addition, business processes relating to (i) greater likelihood of material misstatements, and/or (ii) significant accounts involving estimates and management's judgment, were also identified as business processes having greater materiality, taking into account their impact on financial reporting, and were included in the scope.

3. Results of the assessment

Based on the results of the assessment, we concluded that as of the end of the fiscal year ended December 31, 2020, the Company's internal control over financial reporting was effectively maintained.



Kaoru Ino
Representative Director, President and CEO
DIC Corporation



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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of DIC Corporation:

Report on the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of DIC Corporation and its subsidiaries (the "Group"), which comprise the consolidated balance sheet as of December 31, 2020, and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the provisions of the Code of Professional Ethics in Japan, and we have fulfilled our other ethical responsibilities as auditors. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Audit & Supervisory Board Members and the Audit & Supervisory Board for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern in accordance with accounting principles generally accepted in Japan and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Audit & Supervisory Board members and the Audit & Supervisory Board are responsible for overseeing the Directors' execution of duties relating to the design and operating effectiveness of the controls over the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks. The procedures selected depend on the auditor's judgment. In addition, we obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain, when performing risk assessment procedures, an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the overall presentation and disclosures of the consolidated financial statements are in accordance with accounting principles generally accepted in Japan, as well as the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with Audit & Supervisory Board members and the Audit & Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide Audit & Supervisory Board members and the Audit & Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Report on Internal Control

Opinion

We have audited management's report on internal control over financial reporting of the consolidated financial statements of DIC Corporation as of December 31, 2020.

In our opinion, management's report on internal control over financial reporting referred to above, which represents that the internal control over financial reporting of the consolidated financial statements of DIC Corporation as of December 31, 2020, is effectively maintained, presents fairly, in all material respects, the results of the assessment of internal control over financial reporting in accordance with assessment standards for internal control over financial reporting generally accepted in Japan.

Basis for Opinion

We conducted our internal control audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Internal Control Audit section of our report. We are independent of the Group in accordance with the provisions of the Code of Professional Ethics in Japan, and we have fulfilled our other ethical responsibilities as auditors. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibility of Management and Audit & Supervisory Board for Report on Internal Control

Management is responsible for designing and operating effective internal control over financial reporting and for the preparation and fair presentation of its report on internal control in accordance with assessment standards for internal control over financial reporting generally accepted in Japan. Audit & Supervisory Board members and the Audit & Supervisory Board are responsible for overseeing and verifying the design and operating effectiveness of internal control over financial reporting. There is a possibility that misstatements may not be completely prevented or detected by internal control over financial reporting.

Auditor's Responsibilities for the Internal Control Audit

Our objectives are to obtain reasonable assurance about whether management's report on internal control over financial reporting is free from material misstatement and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards for internal control over financial reporting generally accepted in Japan will always detect a material misstatement when it exists.

As part of an audit in accordance with auditing standards for internal control over financial reporting generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Perform audit procedures to obtain audit evidence regarding the results of the assessment of internal control over financial reporting in management's report on internal control. The procedures selected depend on the auditor's judgment, including the significance of effects on reliability of financial reporting.
- Examine representations on the scope, procedures and results of the assessment of internal control over financial reporting made by management, as well as evaluating the overall presentation of management's report on internal control.
- Obtain sufficient appropriate audit evidence regarding the results of the assessment of internal control over financial reporting. We are responsible for the direction, supervision and performance of the internal control audit. We remain solely responsible for our audit opinion.

We communicate with Audit & Supervisory Board members and the Audit & Supervisory Board regarding, among other matters, the planned scope and timing of the internal control audit, result of the internal control audit, including any identified material weakness which should be disclosed and the result of remediation.

We also provide Audit & Supervisory Board members and the Audit & Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Deloitte Touche Tohmatsu LLC

March 30, 2021

50 Investor Information and Corporate Data

(As of December 31, 2020)

Investor Information

Common Stock	DIC common stock is listed and traded on the Tokyo Stock Exchange. There were 41,443 shareholders of record on December 31, 2020. On the Tokyo Stock Exchange, the high and low prices for each quarter of the years 2020 and 2019 were as follows:											
	2020		2019									
	High	Low	High	Low								
Jan.–Mar.	¥3,130	¥1,833	¥3,635	¥3,170								
Apr.–Jun.	2,936	2,170	3,545	2,587								
Jul.–Sept.	2,798	2,456	3,130	2,534								
Oct.–Dec.	2,722	2,520	3,290	2,894								
Total Number of Shares Authorized	150,000,000 shares											
Number of Unit Shares	100 shares											
Paid-in Capital	¥96,557 million (95,156,904 shares)											
Independent Public Accountants	Deloitte Touche Tohmatsu LLC											
Distribution of Shareholders	<table><tr><td>Japanese financial institutions</td><td>Other Japanese corporations</td><td>Foreign corporations</td><td>Japanese individual investors and others</td></tr><tr><td>42.6%</td><td>16.7%</td><td>23.4%</td><td>14.1%</td></tr></table> <p>Financial instruments business operators: 2.8% Treasury stock: 0.4%</p>				Japanese financial institutions	Other Japanese corporations	Foreign corporations	Japanese individual investors and others	42.6%	16.7%	23.4%	14.1%
Japanese financial institutions	Other Japanese corporations	Foreign corporations	Japanese individual investors and others									
42.6%	16.7%	23.4%	14.1%									
Major Shareholders			Number of Shares Owned (Thousands)	Percentage of Total								
	SHOEI INC.		12,694	13.39%								
	The Master Trust Bank of Japan, Ltd. (Trust Account)		8,348	8.81								
	Custody Bank of Japan, Ltd. (Trust Account)		5,799	6.12								
	The Dai-ichi Life Insurance Company, Limited		3,500	3.69								
	JP MORGAN CHASE BANK 385632		3,267	3.45								
	Custody Bank of Japan, Ltd. (Trust Account 4)		2,441	2.58								
	Custody Bank of Japan, Ltd. (Trust Account 7)		2,031	2.14								
	Aioi Nissay Dowa Insurance Co., Ltd.		2,020	2.13								
	NIPPON LIFE INSURANCE COMPANY		1,900	2.00								
	JP MORGAN CHASE BANK 380072		1,705	1.80								
			43,709	46.11%								
Transfer Agent	Mitsubishi UFJ Trust and Banking Corporation 4-5, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8212, Japan											
Meeting of Shareholders	Our annual meeting of shareholders is held in March.											
For Further Information, Contact:	Corporate Communications Dept. DIC Corporation DIC Building, 7-20, Nihonbashi 3-chome, Chuo-ku, Tokyo 103-8233, Japan Tel.: (03) 6733-3033 E-mail: prir@ma.dic.co.jp											

Corporate Data

Registered Address

35-58, Sakashita 3-chome, Itabashi-ku,
Tokyo 174-8520, Japan

Corporate Headquarters

DIC Building, 7-20,
Nihonbashi 3-chome, Chuo-ku,
Tokyo 103-8233, Japan
Tel.: (03) 6733-3000
<https://www.dic-global.com/en/>

Principal Domestic Offices, Plants and Laboratories (Nonconsolidated)

Number of Branch Offices: 2
Number of Plants: 9
Number of Laboratories: 1

Number of Employees

20,242

Date of Foundation

February 15, 1908

Date of Incorporation

March 15, 1937

(Contact)

DIC Corporation

Corporate Communications Dept.
Sustainability Dept.

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Tel: +81-3-6733-3034 Fax: +81-3-6733-3038
<https://www.dic-global.com/en/>

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