

DIC REPORT 2020

The DIC Group Integrated Report

O

Color & Comfort





The DIC WAY

Mission

Through constant innovation, the DIC Group strives to create enhanced value and to contribute to sustainable development for its customers and society.

Vision

Color & Comfort by Chemistry

Spirit

Drive, Integrity, Dedication, Collaboration, Harmony



Color & Comfort

Making it Colorful

DIC helps make life colorful





Innovation through Compounding

DIC brings innovation to society through its core compounding technologies

Specialty Solutions

DIC draws on its expertise and comprehensive strengths to offer solutions



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 website.

Printed/PDF-Form Publications

Reports on activities

DIC Report (summary version)





Summary integrated Complete report report (published annually) (printed publication) (PDF-form publicatio

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

DIC Report

Financial Section

DIC Global Website

Real-time information

WED 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)

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 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 website.

WEE https://www.dic-global.com/pdf/csr/environment/dic_report_scope_en_2020.pdf

Reporting Period

Fiscal year 2019 (January 1–December 31, 2019)

Date of Publication June 2020 (The next report is scheduled for publication in June 2021.)

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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DIC Group Milestones



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.

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The DIC Group: A Global Powerhouse

Corporate Data

Registered name: Corporate headquarters:

Date of foundation:

Paid-in capital:

and affiliates:

DIC Corporation

DIC Building, 7-20, Nihonbashi 3-chome, Chuo-ku, Tokyo 103-8233, Japan February 15, 1908 Date of incorporation: March 15, 1937 ¥96.6 billion Number of employees: 20,513 (Nonconsolidated: 3,321) Number of subsidiaries

(Domestic: 32 Overseas: 142) 174



Corporate headquarters (Tokyo)







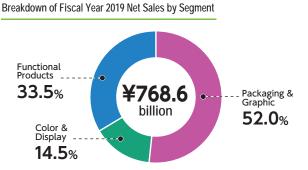
Note: Corporate data is as of December 31, 2019. Net sales and operating income are for fiscal year 2019.

DIC has 174 companies in 64 countries and territories around the world.





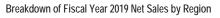
(United States)



Breakdown of Fiscal Year 2019 Operating Income by Segment

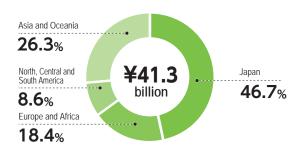


Note: Fiscal year 2019 net sales and operating income as used here include intersegment transactions. For this reason, and because of the existence of transactions classified as "others," which are not attributable to reportable segments, these figures differ from reported net sales and operating income.

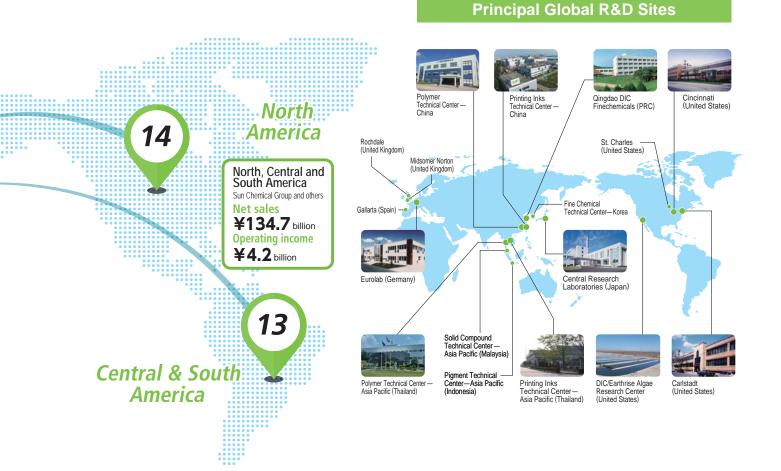




Breakdown of Fiscal Year 2019 Operating Income by Region



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

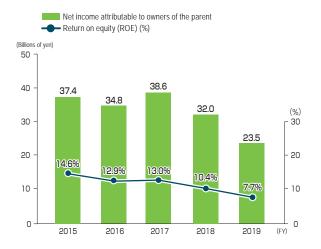


Financial Information

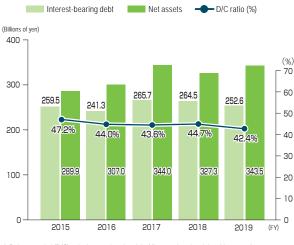


Net Sales, Operating Income and Operating Margin

Net Income Attributable to Owners of the Parent and ROE

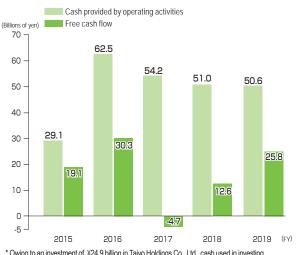


Net Assets, Interest-Bearing Debt and D/C Ratio*

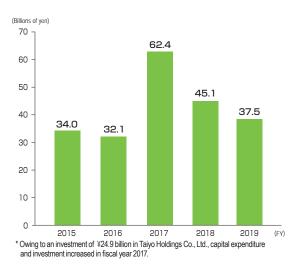


* Debt-to-capital (D/C) ratio: Interest-bearing debt / (Interest-bearing debt + Net assets)

Cash Provided by Operating Activities and Free Cash Flow



* Owing to an investment of ¥24.9 billion in Taiyo Holdings Co., Ltd., cash used in investing activities increased in fiscal year 2017.



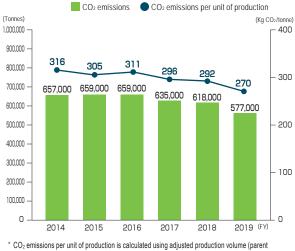
Capital Expenditure and Investment

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



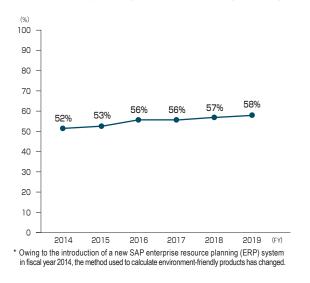
* Figures have been adjusted to reflect the impact of the consolidation of shares (In fiscal year 2015, DIC purchased and retired treasury shares.)

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

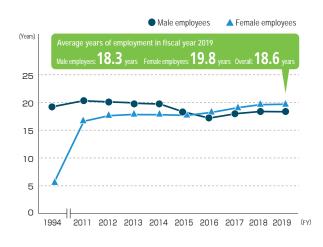


* CO₂ emissions per unit of production is calculated using adjusted production volume (parent company in Japan only). (Notification submitted to Japan's Ministry of Economy, Trade and Industry) * Owing to the revision of production volumes of certain overseas DIC Group companies, the per unit of production figure for fiscal year 2018 has been amended.

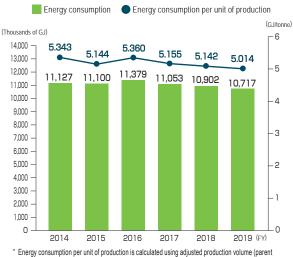
Environment-Friendly Products as a Percentage of Overall Product Portfolio (DIC Corporation and DIC Graphics Corporation)



Average Years of Employment (DIC Corporation)

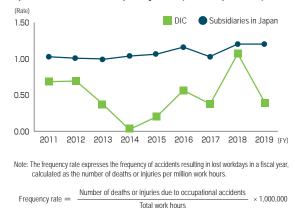


Global Energy Consumption and Energy Consumption per Unit of Production (DIC Group)

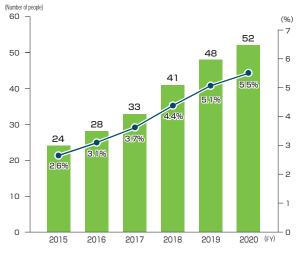


 Energy consumption per unit of production is calculated using adjusted production volume (parent company in Japan only). (Notification submitted to Japan's Ministry of Economy, Trade and Industry)
 Owing to the revision of production volumes of certain overseas DIC Group companies, the per unit of production figure for fiscal year 2018 has been amended.

Occupational Accident Frequency Rate (DIC Corporation)



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



Female Employees in Management Positions (DIC Corporation)

A Message from the President

We seek to become a unique and trusted global company generating value in safety and serenity, color and comfort.

Representative Director President and CEO DIC Corporation



In February 2020, we celebrated DIC's 112th anniversary. One of the world's leading diversified chemicals companies, DIC is also the core of the DIC Group, a multinational organization comprising 174 companies in 64 countries and territories. In addition to commanding the top share of the global market for printing inks, a core business since our establishment, the DIC Group has succeeded in growing pigments and polymers—both derived from printing inks—into prosperous components of our business portfolio. Amid rising environmental concerns, including climate change and marine plastics, falling birthrates, longer lifespans, and the evolution of social structures with the rapid spread of digital technologies, the DIC Group continues to marshal its capabilities to address increasingly urgent social imperatives toward a sustainable society.

1. DIC111 Progress Report and a Review of Fiscal Year 2019

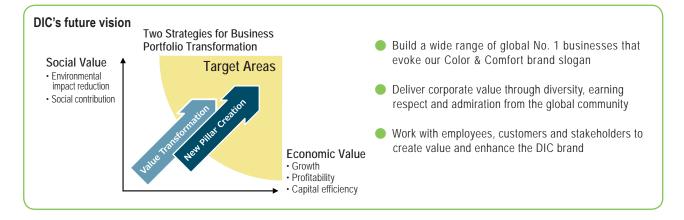
In fiscal year 2019, we kicked off our DIC111 Medium-Term Management Plan—with the two basic strategies of Value Transformation and New Pillar Creation—toward a business structure less vulnerable to macroeconomic factors. Unfortunately, shipments of epoxy resins, polyphenylene sulfide (PPS) compounds and other highly profitable products expected to show high growth were hampered by reduced demand in the semiconductor, electrical and electronics equipment, and automobile sectors, due to slower global economic growth amid trade friction between the United States and the People's Republic of China (PRC). Consequently, consolidated net sales slipped 4.6%, to ¥768.6 billion, and operating income declined 14.6%, to ¥41.3 billion.

While we acknowledge that our efforts to maximize the benefits of Value Transformation fell short, we made significant headway in eliminating the gap between costs and sales prices—a temporary difference resulting from delays in revising sales prices to reflect fluctuations in raw materials prices—which had hampered our performance in fiscal year 2018. We also benefited from cost reductions achieved through rationalization, one result of which was the Southeast Asia operating income recovery to fiscal 2018 year levels.

2. Promoting Businesses Focused on Social Imperatives and Business Portfolio Transformation

We have traditionally recognized the impact of macroeconomic conditions, including factors affecting raw materials prices and supplies, and exchange rates, on DIC Group operating results as a major structural issue. Guided by the two basic DIC111 strategies, we are thus working to create a more robust operating foundation by transforming our business portfolio—specifically by building a sophisticated portfolio focused on environment, safety and health (ESH)-related issues and social change by advancing qualitative reforms in existing core businesses, and creating new businesses with the potential to become mainstays.

We define Value Transformation as clarifying competitive advantages and shifting to products capable of withstanding the impact of changes wrought by macroeconomic and other external factors. For example, given the changes in demand resulting from digitalization, for the past several years we have sought to modify our business portfolio, reducing the weighting of publication inks and increasing that of inks and other materials for packaging. Grouping various businesses together under Packaging will bring together common issues such as food safety and food loss, positioning us to develop comprehensive proposals for packaging materials, including by forming partnerships across the value chain and revamping business models. Simultaneously, we will promote the establishment of standards for withdrawal to review and perhaps replace certain businesses dealing with commoditized products.



We seek to become a unique and trusted global company generating value in safety and serenity, color and comfort.

To facilitate New Pillar Creation, we established the New Business Development Headquarters to oversee efforts to create new growth-driving businesses and develop them into mainstays in four priority areas in which social imperatives and DIC competitive strengths overlap. We will accelerate this process by making extensive use of corporate venture capital (CVC) and by seeking advantageous mergers and acquisitions (M&As).

The four priority areas outlined in DIC111 as the focus of portfolio transformation are areas that offer potential for enhancing both social value and economic value. To underpin this transformation, we recently established the DIC Sustainability Index, a proprietary index that will allow us to measure the social value of our products. This index will be used in all DIC Group businesses to assess the environmental impact of products from raw materials procurement through disposal and social contribution, and when customers use our products, from shipment until the end of their useful lives. This index will be incorporated into future product development, procurement, sales and distribution. We will also use the Sustainability Index to communicate these efforts to stakeholders in an easy-to-understand manner, thereby allowing us to identify activities we should pursue.

For example, our ability to successfully grow our packaging businesses depends on us effectively confronting such challenges as the need to reduce plastics and eliminate marine plastics. So, how do we go about doing this? The key to how much our packaging business contributes to society will be our ability to provide packaging solutions that help increase social value by advancing the reduction, reuse, and recycling of materials. In the past, improving convenience was our principal concern, but our focus now must be on balancing convenience and environmental impact. Chemical companies have always been expected to provide convenience, but today our sales and our survival hinge on our ability to deliver both convenience and lower environmental impact.

Use of the DIC Sustainability Index commenced in fiscal year 2020. Going forward, we will continue to capitalize on this index to ensure we maintain a healthy awareness of the social value created by addressing social imperatives and in so doing reinforce our long-term management direction.

3. BASF SE's Colors & Effects Business Acquisition and Outlook

Even before launching of our Value Transformation strategy, we had begun looking to reinforce our functional pigments business, a key strategic product area. We have long manufactured highly profitable ultraviolet (UV)-curable functional pigments, earning recognition in the market for high-value-added specialty pigments, including those for cosmetics, optical equipment, and color filters—all small in terms of production volume but delivering exceptionally high value. In our search for ways to expand operations, we became aware of a BASF plan to divest from its Colors & Effects business. After carefully assessing its regional strengths and product portfolio, we determined that integrating Colors & Effects functional pigments could yield significant synergies. Although closing is not expected until late 2020, we anticipate the total cost of this acquisition will be approximately ¥120 billion, well within the ¥250 billion earmarked for strategic investments under DIC111, making it a highly attractive proposition. To date, stakeholder evaluations of this acquisition are generally positive, thanks to the complementary nature of our geographic business sites and product portfolios, as well as the rationality of the acquisition from a monetary perspective.

Given the PRC's 2019 economic slowdown and the global COVID-19 health crisis, we must assume global economic growth will weaken to a certain degree in fiscal year 2020. Although it is difficult to predict the full impact of this pandemic, ensuring the health and safety of our worldwide members remains our priority. I call on all DIC Group members to join forces to promote measures within and across regions to help us overcome this challenge.

Looking at materials for electrical and electronics equipment, for example, we largely cleared intermediate material inventories and saw improved shipments of high-performance resins in January and February. However, as COVID-19 has disrupted global automobile industry supply chains, there is no way to accurately project what will happen. While the negative impact of the current situation is impossible to accurately gauge, we know what we must do. The task immediately ahead of us is to accelerate the implementation of our Value Transformation and New Pillar Creation strategies.

Looking at the challenges we faced between the Great East Japan Earthquake and the COVID-19 pandemic, it is absolutely essential for us to ensure the effective management of DIC Group supply chains. Accordingly, we have established a Supply Chain Management Unit. Until now supply chain management was the responsibility of individual product divisions. Moving forward, we see this new unit functioning groupwide, linked to the new global management configuration to be put in place once we complete the acquisition of BASF Colors & Effects.

In terms of business continuity planning (BCP), the Great East Japan Earthquake exposed risks associated with highly fragmented supply chains. A solid grasp of supply chain–related issues and the ability to swiftly enact post-pandemic or major disaster BCPs are both critical. Recognizing that both also depend on a company's competence, we will continue working to formulate effective BCPs tailored to our supply chains.

4. Building a Stronger Management Infrastructure and Addressing ESG-Related Issues

1 Digital Transformation

Conscious of the many implications of digitalization, we recently established the DX Promotion Department, a dedicated department charged with advancing digital transformation (DX). I see the importance of digital transformation as a process for modifying a company's corporate structure and a business model, rather than simply advancing systems capabilities through digitalization—a way to fundamentally transform a business or company. Of course, we also understand the importance of digital marketing and materials informatics—the use of material properties databases and artificial intelligence (AI) in the selection and deployment of materials—and we will continue to promote efforts to apply both to various processes.

However, in this era of social change, the most important thing for us is to determine what corporate reforms are necessary to ensure we achieve our vision for the DIC Group. We are combining two approaches to this challenge. The first uses backcasting-working back from our vision to determine actions to be taken to achieve that goal-and the second uses forecasting-analyzing and extrapolating trends to determine appropriate actions-and leveraging digitalization to facilitate efficient implementation. In the area of production, for example, we have identified two key themes: Ensuring operating safety and increasing productivity. Rather than simply treating these themes as an extension of existing efforts, we are looking at what reforms we need to implement to realize unattended and smart production facilities and clarifying what can be done at present. Digital transformation will allow us to translate such ideas into execution.



2 Human Resources Management

Under DIC111, we are promoting a human resources management strategy centered on four core themes called WING. As a global entity, we will continue to leverage the fact that approximately 60% of our labor force is overseas as a key competitive advantage. To facilitate more strategic human resources management in fiscal year 2019, we established the Human Resources Strategy Department. To date, we have taken active steps to empower women in the workplace and reform workstyles by introducing telework, flextime, and systems to support members striving to balance career with, for example, treatment for an illness. At present, we are working to take such initiatives a step beyond structural changes by emphasizing efforts to foster a new corporate culture.

The challenge of shifting from a workstyle predicated on lifetime employment, fixed retirement age, and seniority-based promotion to new workstyles is not the sole responsibility of human resource departments. Changes to systems are simply a means to an end. It's important to secure increasingly talented human resources. When anticipating future social changes, it is also important to consider what sort of key reforms are necessary. For example, while our telework infrastructure is now in place, we still have many jobs that cannot be done remotely. There is still ample scope for ingenuity to make operations more conducive to telework by integrating procedures. If such efforts are successful, telework will truly become something that helps resolve the issue of overwork by eliminating commuting time.

Through efforts to "reform work styles to capitalize on diversified individuality"—a core WING theme—we shall strive to create an environment that accepts varied perspectives and encourages active discussion. In so doing, we will endeavor to marshal the diverse individuals who make up our labor force, drive organizational dynamism and create new value by bringing together people with diverse views and ideals.

Safety

DIC Group management and members approach their responsibilities recognizing operational safety as the cornerstone of our business activities as a manufacturer of fine chemicals. Nonetheless, in August 2019, we experienced a serious fire at our Saitama Plant that regretfully caused considerable inconvenience and concern to residents in the vicinity of the plant and other sites. Reflecting on the shortcomings that led to this sad incident, and reminding ourselves that our ability to locate sites and manufacture products depends on the understanding of local residents, we have renewed our pledge to act as a responsible corporate citizen, take part in the community, and, in the event an issue arises, immediately take steps to provide reassurance. In addition to independent efforts aimed at fulfilling our obligation to ensure operational safety and improve the effectiveness of safety audits, it is important for all departments involved in manufacturing to work together to increase awareness, and, through full member participation, to promote production under a meticulous configuration in a manner that reflects a commitment to ensuring safety while maintaining pride in our capabilities as a manufacturer.

4 Climate Change

In fiscal year 2019, we declared our support for the Task Force on Climate-related Financial Disclosures (TCFD), acknowledging that responding to climate change and disclosing climate-related information is critical to advancing our business strategies. We are committed to fulfilling our responsibility to analyze and provide investors with reliable nonfinancial reporting and to clarify impacts on financial information. The DIC Group is a global entity with operations in 64 countries and territories. As such, we understand the importance of all Group companies responding to climate change issues in an integrated manner, aggregating pertinent data and converting it into financial data to ascertain the impact (risks and opportunities) of climate change on our operations. In fiscal year 2019, we attempted scenario analysis, which the TCFD encourages. We shall continue to expand this effort to prove the resilience of Group strategies for responding to risks and maximizing opportunities related to climate change.

5. An Integrated Global Management Team



Meeting with regional headquarters' top executives

As overseas markets provide 60% of DIC Group consolidated net sales, we are highly conscious of the importance of effective global communication, and not just as it pertains to the TCFD. Thanks to steady efforts to enhance communication capabilities in recent years, when I issue statements as president and CEO they are instantly transmitted to core Group companies in 64 countries and territories and posted the next day, together with my image, for Group members in all these countries and territories to see.

Since our 1986 acquisition of the Sun Chemical Group—mainly based in the United States and Europe—DIC has worked steadily to build an integrated global management team. Today, Group members across the globe use the term "global one entity" extensively. Looking ahead, the integration of the Colors & Effects business acquired from BASF will amplify our expectations of members in terms of their ability to function on a global stage. For example, we need to rethink our official language of business and advance a more forward-thinking concept of global operations, including businesses and human resource management. While defining what constitutes global operations may present its own difficulties, I believe it is accurate to say that operations are global when governed by a unified global strategy. There are many ways to view global management: Do you treat Group operations management and product-specific management as independent responsibilities or as parts of a greater whole? Is the current format of corporate (Japan) and regional headquarters best or should we create a global corporate headquarters configuration? We must consider all of these issues over the next two to three years.

The integration of Colors & Effects in late December 2020 should further expand the DIC Group's global presence. Although uncertainty persists worldwide due to COVID-19, we will continue seeking ways to apply chemistry to resolve challenges and working to become a unique and trusted global company generating value in safety and serenity, color and comfort. In these and all our endeavors, I look forward to ongoing stakeholder support.

12-Year Summary

Key Financial Data

Period	111	112	113	114	115	116	117	118	119	120	121	122
Fiscal year	2008	2009	2010	2011	2012	2013 ^{*3}	2014	2015	2016	2017	2018	2019
Income												
Net sales (Billions of yen)	932.3	757.8	779.0	734.3	703.8	784.0	830.1	820.0	751.4	789.4	805.5	768.6
Operating income (Billions of yen)	25.4	27.8	37.2	35.0	38.5	44.1	41.1	51.1	54.2	56.5	48.4	41.3
Operating margin (%)	2.7	3.7	4.8	4.8	5.5	5.6	4.9	6.2	7.2	7.2	6.0	5.4
R&D and technology-related expenses ⁻¹ (Billions of yen)	32.2	27.1	26.3	23.7	23.0	19.8	25.3	26.8	26.2	27.4	28.4	27.9
Of which, R&D expenses (Billions of yen)	17.4	12.4	11.0	9.1	8.8	8.8	10.9	12.2	11.2	12.4	12.9	12.5
Ordinary income (Billions of yen)	15.2	19.1	31.7	30.8	35.1	40.9	39.9	49.0	55.8	57.0	48.7	41.3
Net income attributable to owners of the parent (Billions of yen)	2.6	2.5	15.8	18.2	19.1	28.8	25.2	37.4	34.8	38.6	32.0	23.5
EBITDA (Billions of yen)	55.2	48.8	63.7	61.5	65.2	69.1	77.0	94.0	82.6	86.1	81.4	67.4
EBITDA margin (%)	5.9	6.4	8.2	8.4	9.3	9.8	9.3	11.5	11.0	10.9	10.1	8.8
Financial Position												
Total assets (Billions of yen)	738.5	749.9	703.8	675.1	693.0	761.7	803.7	778.9	764.8	831.8	801.3	803.1
Net assets (Billions of yen)	108.9	122.8	130.4	124.5	160.7	218.9	276.7	289.9	307.0	344.0	327.3	343.5
Equity ratio (%)	12.9	13.5	15.3	15.1	19.8	25.6	31.1	33.7	36.4	37.9	37.3	38.9
Interest-bearing debt (Billions of yen)	387.1	377.7	337.6	328.5	315.6	299.1	274.2	259.5	241.3	265.7	264.5	252.0
D/C ratio (%)	78.0	75.5	72.1	72.5	66.3	57.7	49.8	47.2	44.0	43.6	44.7	42.4
Cash Flows												
Net cash provided by operating activities (Billions of yen)	37.0	39.5	30.9	31.2	41.4	33.9	46.4	29.1	62.5	54.2	51.0	50.6
Net cash used in investing activities (Billions of yen)	(35.7)	(12.5)	(12.3)	(17.6)	(23.7)	(9.8)	(27.4)	(10.0)	(32.2)	(58.9)	(38.4)	(24.9
Free cash flow (Billions of yen)	1.4	27.0	18.6	13.7	17.7	24.0	19.0	19.1	30.3	(4.7)	12.6	25.8
Net cash provided by (used in) financing activities (Billions of yen)	6.5	(16.0)	(26.3)	(7.1)	(26.6)	(32.8)	(26.1)	(24.8)	(26.9)	11.4	(11.8)	(26.8
Cash and cash equivalents (Billions of yen)	20.1	29.5	22.9	29.6	22.5	15.0	16.4	15.1	16.7	17.7	18.6	16.7
Per Share Information ^{*2}												
Earnings per share (Yen)	33.47	32.11	175.96	197.90	207.98	292.26	267.81	389.40	366.72	407.56	338.40	248.29
Price earnings ratio (PER) (Times)	43.0	62.9	11.0	8.4	9.5	10.9	10.9	8.5	9.7	10.5	10.0	12.2
Dividends per share (Yen)	60	40	40	40	60	60	60	80	100	120	125	100
Payout ratio (%)	179.3	124.6	22.7	20.2	28.8	20.5	22.4	20.5	27.3	29.4	36.9	40.3
Other Indicators												
Return on equity (ROE) (%)	1.6	2.6	15.1	17.3	16.0	16.1	11.3	14.6	12.9	13.0	10.4	7.7
Capital expenditure (Billions of yen)	44.0	23.6	20.8	27.0	26.6	27.1	33.6	32.1	31.3	33.6	32.1	35.0
Depreciation and amortization (Billions of yen)	40.6	35.4	33.0	29.7	27.4	25.9	33.8	32.9	32.4	31.5	32.8	33.1
Overseas sales ratio (%)	62.6	58.2	57.3	58.2	56.7	66.6	63.4	65.1	62.4	63.4	63.6	63.5
Average exchange rate (¥/US\$)	103.68	93.51	87.69	79.77	79.93	97.06	106.32	120.85	109.96	112.33	110.46	109.1
Average exchange rate (¥/EUR)	153.45	130.91	116.63	110.88	103.11	129.25	141.41	134.14	122.06	127.03	130.46	122.13

*1 Technology-related expenses are for DIC and DIC Graphics Corporation *2 Per share information is adjusted for stock splits. *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 seeks to ensure an appropriate balance of financial health, strategic investments and returns to shareholders and is expediting business portfolio transformation to maximize cash flow.

Head of Finance and Accounting Unit CFO Shuji Furuta

Our approach to financial management centers on ensuring a balance among three key priorities: maintaining sound financial health, promoting strategic investments 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, dividend payout ratio to measure returns to shareholders and, recently, earnings before interest, taxes, depreciation and amortization (EBITDA)² to judge our ability to generate cash and maximize shareholder value.

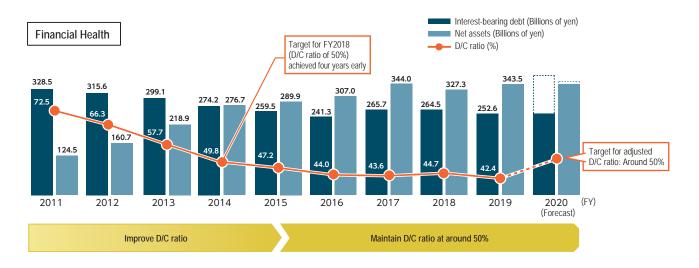


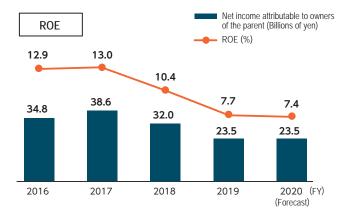
Sound Financial Health

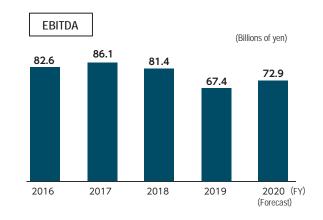
Our goal for our D/C ratio, the indicator we have adopted for financial soundness, is to maintain it at or below roughly 50%. As of December 31, 2019, our D/C ratio—which had deteriorated to 73% as of the end of fiscal year 2011—was 42%. This improvement reflected global efforts to enhance cash efficiency, as well as robust cash provided by operating activities and accumulated earnings. Owing to the acquisition of BASF's Colors & Effects business in fiscal year 2020, interest-bearing debt as of December 31, 2020, is likely to be higher than a year earlier. However, thanks to the procurement of ¥60 billion through a subordinated term loan—a type of hybrid financing that while officially debt has characteristics similar to equity—and by divesting assets and reinforcing efforts to manage working capital, we expect to maintain our D/C ratio in the area of 50%, in line with our chosen indicator.

Having also chosen ROE as an indicator for capital efficiency, we are advancing the transformation of our business portfolio by reorienting our focus to highly profitable businesses. To this end, in addition to promoting strategic investments to generate new cash flows we have established Groupwide criteria for withdrawing from businesses with low growth potential and profitability.

Under DIC111, we have added EBITDA to our existing conventional profitability-centered performance indicators, underscoring our commitment to conducting management with a greater awareness of cash flow and the need to increase shareholder value.







Strategic Investments to Accelerate Growth

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 ESH-related issues and social changes.

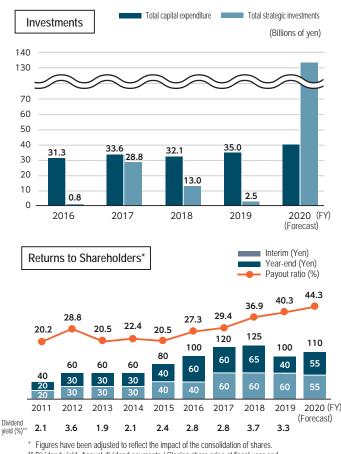
Previous investments that contributed to Value Transformation include the capital and business alliance we concluded with Taiyo Holdings Co., Ltd., in 2017, which was implemented under DIC111's predecessor, DIC108, and positioned us well to develop and offer products for the electronics sector. More 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.

DIC111 budgets ¥250 billion for strategic investments aimed at accelerating growth. This is in addition to ¥120 billion for ordinary investments. 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 ¥116.2 billion)³, our largest-ever acquisition, a move undertaken with the aim of driving our growth as a leading global manufacturer of high-growth, high-value-added specialty pigments.

Under the New Pillar Creation banner, we have established the New Business Development Headquarters and continue to advance investment via CVC and other efforts designed to expedite new business creation and gain access to advanced technologies to facilitate open innovation.

Stable Returns to Shareholders

DIC will continue to pay dividends that are in keeping with profit growth, in line with its commitment to ensuring stable returns to shareholders. DIC111 sets a target for our dividend payout ratio of 30%, which will serve as a guideline for dividends over the medium term. We are proposing to pay a year-end dividend for fiscal year 2019 of ¥40.00 per share. As a consequence, dividend for the full term, which includes a ¥60.00 per share interim dividend, will be ¥100.00, a decrease of ¥25.00 from fiscal year 2018. In fiscal year 2020, we anticipate an increase in annual dividend of ¥10.00 per share.



** Dividend yield: Annual dividend payments / Closing share price at fiscal year-end In fiscal year 2015, DIC purchased ¥5.0 billion worth of its own stock. If this is factored in the

In fiscal year 2015, DIC purchased ¥5.0 billion worth of its own stock. If this is factored in, the actual dividend yield and dividend payout ratio would have been 4.0% and 34.1%, respectively.

Notes:

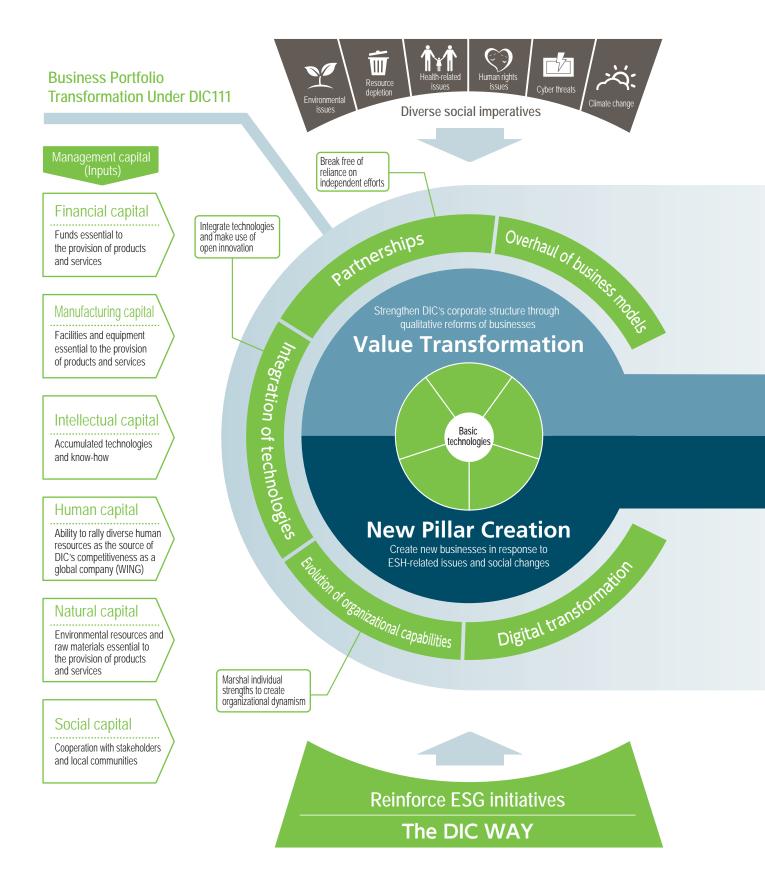
^{1.} D/C ratio: Interest-bearing debt / (Interest-bearing debt + Net assets)

^{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 DIC Group's Approach to Value Creation

Delivering Color & Comfort



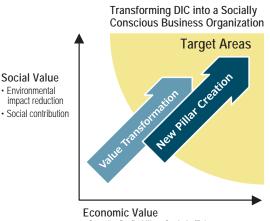
With the aim of ensuring a sustainable society, the DIC Group strives to provide products and solutions that respond to the needs of markets and its customers and add color and comfort to life.

Segment	Outputs	Outcomes	SDGs
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	2 ZERO HUNGER 3 GOOD HEALTH
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	6 CLEAN WATER AND SANITATIK TO AFFORMABLE A CLEAN ENERGY
Functional Products	Sustainable polymers, environment-friendly PPS compounds for automotive components, high-performance industrial adhesive tapes, others	Functional products that add comfort	9 NUUSTRY, INNOV ANDIRFRASTRUCE
Business area	Outputs	Outcomes	11 SUSTAINABLE C AND COMMUNIT
Business area	Outputs Technologies and functional materials that support the spread of digitization	Outcomes Provide functional materials that contribute to a digital society	11 SUSTAINABLE C AND COMMUNICATION 12 CONSUMPTION AND PRODUCT
	Technologies and functional materials that support the spread	Provide functional materials that	11 SUSTAINABLE C ALCOMMUNICATION 12 RESPONSIBLE AND PRODUCT
Electronics	Technologies and functional materials that support the spread of digitization Technologies and functional materials that underpin efforts to transform	Provide functional materials that contribute to a digital society Provide composite materials that	12 RESPONSIBLE CONSUMPTION AND PRODUCT

Promoting Business Portfolio Transformation: Balancing Social Value and Economic Value

The basic concept of DIC111 is to transform the DIC Group's business portfolio by focusing on businesses that deliver both social value and economic value, an approach it sees as central to realizing its future vision, which is to become a unique global company that is trusted by society by providing value (safety and peace of mind, color and comfort). With social imperatives related to concerns such as climate change and marine plastics becoming increasingly urgent, the Group is reinforcing efforts to develop distinctive solutions that contribute to social value and to the realization of a sustainable society.

Through DIC111's two basic strategies, Value Transformation and New Pillar Creation, the DIC Group will continue to accelerate efforts to transform its business portfolio in a manner that ensures its ability to balance social value and economic value.



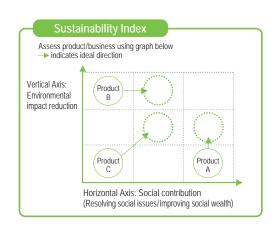
Growth Profitability Capital efficiency

Formulating the DIC Sustainability Index to Express Social Value

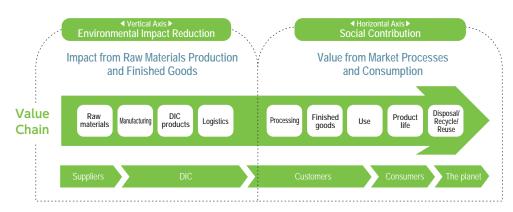
To accelerate its transformation, the DIC Group formulated a proprietary sustainability index with the aim of clarifying the social value that the Group provides. To draft the index, DIC established the cross-business Sustainability Strategy Working Group, which held discussions with departments in charge of the manufacturing and sales of Group products.

Expressing Social Value on Two Axes: Environmental Impact **Reduction and Social Contribution**

The procurement of essential raw materials and the manufacture of products inevitably has an effect on the environment. The DIC Sustainability Index's vertical axis (environmental impact reduction) expresses evaluation of the impact of a business or product on the environment and the benefits of efforts to devise effective countermeasures. The horizontal axis (social contribution) expresses evaluation of a business' or product's contribution to the resolution of key challenges, as well as to the realization of a sustainable society. The Group will continue to use this index to clarify the environmental impact and contribution to markets of its businesses and products, enhancing its ability to deliver social value.



Approach through the Value Chain



The DIC Sustainability Index's vertical axis (environmental impact) expresses evaluation of the impact of a product on the environment over its entire life cycle (life cycle assessment¹). This means assessing not only energy used in and waste generated during production but also environmental impacts in the production of raw materials (crude oil production, mining, cultivation). The index also evaluates hazardous substances and substances designated under Japan's Pollutant Release and Transfer Register (PRTR), thereby clarifying the DIC Group's responsibility in supplying products, as well as its duty to formulate and implement countermeasures. The horizontal axis (social contribution) expresses evaluation of a product's contribution to the resolution of key challenges during processing by customers, use by consumers and end-of-life disposal. The index also assesses risks associated with the raw materials procured and products supplied by the DIC Group, as well as opportunities (contributions to society) that leverage its unique capabilities.



WOICE The DIC Sustainability Index will help us identify risks and opportunities across the entire value chain.

From the perspective of realizing a sustainable society, it is essential to look at the entire value chain. The DIC Sustainability Index will enable us to clarify product- and business-specific risks and opportunities. This will make it possible to investigate risks in terms of whether they can be resolved and/or transformed into opportunities. Of course, we will also continue to reassess opportunities in light of global trends to ensure there is no chance of them turning into risks. Use of this index to identify product- and business-specific risks and opportunities and implement effective countermeasures will be crucial to achieving our future vision of becoming a unique global company that is trusted by society.



Manager, Sustainability Department, DIC Corporation Nobuo Kobayashi

Fiscal Year 2019 DIC Group Topics

DIC Reaches Agreement to Acquire the Shares and Assets of the Colors & Effects Business of Germany's BASF and Transform the Business into a Subsidiary

In fiscal year 2019, DIC resolved to acquire the shares and assets of BASF Colors & Effects GmbH, the Colors & Effects business of Germany's BASF SE, Europe's largest chemicals manufacturer. The Company expects to execute this acquisition, which is subject to regulatory approval by pertinent U.S., European and other authorities, in 2020. Costing an estimated €985 million (approximately ¥116.2 billion), this is the Company's largest acquisition to date.



Management representatives from DIC, Sun Chemical and BASF Colors & Effects

Background

In fiscal year 2019, DIC kicked off its DIC111 medium-term management plan to guide its aspirations to become a unique global company that is trusted by society by providing value (safety and peace of mind, color and comfort) through the promotion of initiatives in line with two key strategies. The first of these, Value Transformation, focuses on strengthening the Company's corporate structure through qualitative reforms in existing businesses, while the second, New Pillar Creation, emphasizes the creation of new businesses in response to ESH-related issues and social changes. DIC has budgeted for strategic investments in line with these strategies and is striving to accelerate growth by seeking advantageous M&As.

Define target areas in line with the strategic direction of each segment Expand lineup of high-value-added products and accelerate growth	Packaging & Graphic	Expand specialty inks businesses (jet inks and security inks)		
	Color & Display	Expand functional pigments business		
	Functional Products	Expand environment-friendly products globally		

DIC's Market Position

To hasten the qualitative transformation of its Color & Display business, DIC is working to expand its functional pigments business with the aim of driving its growth as a leading global manufacturer of high-growth, high-value-added specialty pigments, including those for displays, cosmetics and automobiles. The annual global pigments market is estimated at approximately ¥2.3 trillion. DIC is a leading manufacturer of organic pigments and a valued manufacturer of effect pigments (including aluminum pigments).

About BASF's Colors & Effects Business

BASF's Colors & Effects business, which is based in Europe and has sites around the world, has established itself as a prominent global manufacturer of high-performance organic pigments, effect pigments (including pearlescent pigments) and specialty inorganic pigments. The product portfolios, geographic presence and applications of the Colors & Effects business and DIC are highly complementary, with little overlap.



Benefits of Acquisition

Through this acquisition, DIC will add the functional pigments product portfolio of a company that enjoys a high global market share. 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.

Note: 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 actual cost may vary depending on actual net cash and debt, as well as differences in working capital, among others, at closing. Advisory and other fees will depend on fees related to procedures to determine compliance with the antitrust laws of the United States and Europe, as well as of other relevant countries and territories. Accordingly, such expenses are not indicated.

Packaging & Graphic

Packaging Materials that Bring Safety and Peace of Mind



SDGs Goals 12, 13 and 14



President, Packaging & Graphic Business Group Masamichi Sota



Main Products

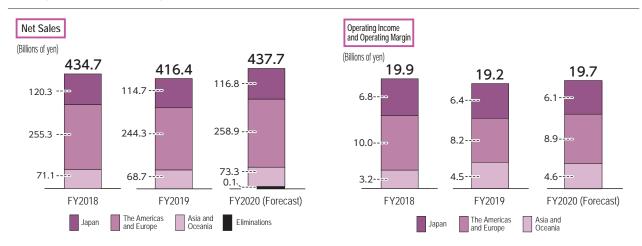
[Printing Materials]

Gravure inks, flexo inks, offset inks, news inks, jet inks, can coatings, security inks, printing plates, printing supplies

[Packaging Materials]

Polystyrene, coextruded multilayer films, packaging adhesives

This segment includes not only printing inks but also adhesives, materials and other products and solutions for packaging applications, the markets for which continue to see robust growth in emerging economies in Asia and elsewhere.



Segment Operating Results

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 Printing Inks, Adhesives and Films with a Reduced Environmental Impact

In the area of packaging inks, the DIC Group's biomass-based products have earned official certification in Japan and overseas. In Japan, the Group saw increased sales of new products in which the production, use and disposal of emits less CO₂ than existing products. In addition to promoting efforts to develop ever-thinner films, the Group continued to see expanded sales of products that extend products' shelf life, thereby reducing food loss. These include environment-friendly films for bread bags that combine strength and suitability for this application with a reduced environmental impact and easy-peel sealant film lid materials for containers used for salads sold at convenience stores.

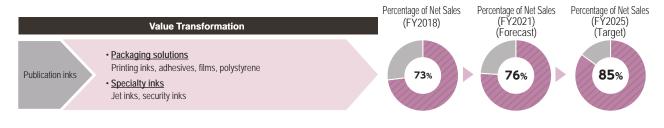


Salad container with easy-peel sealant film lid

Note: For more information, please see the section titled "New Technology Development and Value Creation" in the complete version of DIC Report 2020.

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 2019 Highlights

1. Luminescence Sun Chemical Security Participates in Currency Conference in Dubai

Luminescence Sun Chemical Security, the security inks division of Sun Chemical, took advantage of the opportunity provided by its participation in the April 2019 Dubai Currency Conference to launch *ASPECT*, a new range of machine-readable security inks for banknotes. Suitable for any country's cash-cycle infrastructure, *ASPECT* security inks have distinctive infrared signatures that permit broadband verification across a wide range of the light spectrum, yet can also be read and verified using current authentication technologies, from low-cost devices with limited automation to faster and bigger mid-market desktop solutions and high-speed sorters used at commercial and central banks.



Sun Chemical Security also won the conference's Experience Award

2. Sun Chemical Joins Europe's CEFLEX Consortium

In fiscal year 2019, Sun Chemical joined CEFLEX, a collaborative European consortium of companies and associations in the packaging industry, the name of which is an acronym for Circular Economy for Flexible Packaging. Representing the entire European packaging value chain, from materials producers to converters and printers, brand owners, retailers and specialized recycling companies, members of CEFLEX currently number more than 100. Sun Chemical is fully committed to supporting the CEFLEX vision of establishing a comprehensive sustainability and circular economy road map for flexible packaging by 2020. The road map will include widely recognized design guidelines and a robust approach to measuring, demonstrating and communicating the significant value flexible packaging adds to the circular economy. CEFLEX also supports the development of a collection, sorting and reprocessing infrastructure for flexible packaging across Europe by 2025.



Color & Display

Color and Display Materials that Make Life Colorful





President, Color & Display Business Group Masami Hatao



Main Products

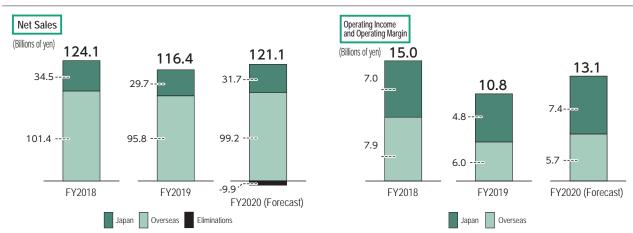
[Color Materials]

Effect pigments, pigments for color filters, pigments for cosmetics, pigments for printing inks, pigments for coatings and plastics, 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

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 Group Natural Colorants Earn Certification Under COSMOS

The DIC Group's Spirulina-derived natural blue colorant earned certification under the COSMOS (COSmetic Organic Standard) program, a unified European standard for organic and natural cosmetics. Overseas, the Group introduced a number of innovative products, including pigments for turf colorants and balloon printing and natural wax dispersions for cosmetics. In the area of LC materials, the Group continued to ship samples of polymer sustained alignment (PSA) LCs, which boast outstanding transparency, response time and sensitivity, for 8K displays.

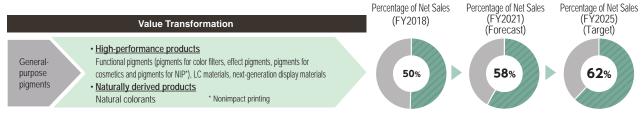


Cosmetic products employing natural blue colorant

Note: For more information, please see the section titled "New Technology Development and Value Creation" in the complete version of DIC Report 2020.

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 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 2019 Highlights

1. DIC Collaborates with Warehouse TERRADA's PIGMENT TOKYO in the Pigments Business

In November 2019, DIC partnered with PIGMENT TOKYO, an art materials lab operated by storage company Warehouse TERRADA, to provide DIC pigments for cosmetics, traditionally marketed to cosmetics manufacturers, to individual consumers with a view to expanding the focus of marketing to include art applications.

PIGMENT TOKYO is a comprehensive facility for creativity, functioning simultaneously as an art materials lab for exploring "expression in color and *matière*"*1, as well as an art academy, museum and store. Staffed by highly accomplished researchers in the areas of art materials and pigments, artists and producers skilled at bringing together art and business, PIGMENT

TOKYO functions as an atelier that extends technical support and project planning consultation to companies in Japan as well as overseas.

The collaboration between DIC and PIGMENT TOKYO centers on the safe and gentle *INTENZA* line of hybrid pigments—which combines U.S. Food and Drug Administration (FDA)*²-certified organic colorants with pearlescent effect pigments—and *Linablue*[®], a COSMOS approved natural blue colorant derived from DIC Spinuling.

a COSMOS-approved natural blue colorant derived from DIC Spirulina.

*1 The French word *matière* is used in Japanese in the context of art to mean the "qualities of materials."
*2 The FDA is a federal agency of the U.S. Department of Health & Human Services, which serves essentially the same role as Japan's Ministry of Health, Labour and Welfare. FDA approval is required to sell food products, pharmaceuticals, cosmetics and a variety of other products in the United States.

2. DIC Resolves to Acquire BASF's Colors & Effects Business

In August 2019, DIC resolved to acquire the shares and assets of the Colors & Effects business of Germany's BASF, Europe's largest chemicals manufacturer. (For more information, please see page 19.)





Functional Products

Functional Products that Add Comfort



SDGs Goals 6, 12 and 13



President, Functional Products Business Group Kazuo Hatakenaka



Main Products

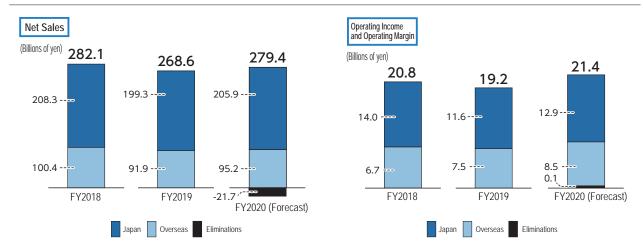
[Performance Materials]

Synthetic resins for inks and coatings, electronics products, molded plastic products and adhesives (polyester resins, epoxy resins, polyurethane resins, acrylic resins, plasticizers), fluorochemicals, papermaking chemicals, metal carboxylates, alkylphenols, sulphur chemicals (lubricant additives)

[Composite Materials]

Polyphenylene sulfide (PPS) compounds, plastic colorants, interior housing products, plastic pallets, containers, industrial adhesive tapes, hollow-fiber membrane modules, sheet molding compounds (SMCs), 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

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 100% Biomass-Derived Polyester Plasticizer

In fiscal year 2019, DIC announced that it has developed a new polyester plasticizer derived entirely from biomass resources that has earned the "Biomass 100%" Biomass Mark, certifying that it is made entirely with biomass, becoming the first plasticizer to be granted this certification. The DIC Group realized commercial production of innovative synthetic resins for electrical and electronics materials within only one year of developing these resins using AI, as well as launched epoxy resin–curing agents with superior dielectric properties for use as smartphone base stations, thin adhesive tapes with superior adhesiveness and bondability for smartphones, and various types of colorants for engineering plastics for use in automobiles that leverage carbon black ultrahigh dispersion technologies to deliver outstanding surface smoothness and a high level of jetness for molded components.

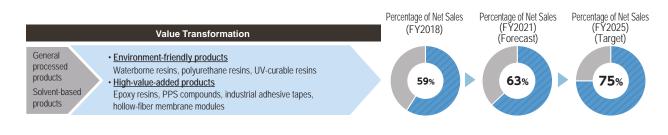


Plastic containers made with 100% biomass-derived polyester plasticizer

Note: For more information, please see the section titled "New Technology Development and Value Creation" in the complete version of DIC Report 2020.

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 membrane modules.



Fiscal Year 2019 Highlights

1. DIC Acquires Mid-Tier Coating Resins Manufacturer in India

In April 2019, DIC acquired mid-tier Indian coating resins manufacturer Ideal Chemi Plast Pvt. Ltd., which produces a variety of synthetic resins for use in, among others, automotive finishings, coils and wood coatings. Having determined that fusing its ability to develop high-end resins with Ideal Chemi Plast's know-how and supply chain in India would swiftly elevate its position in the Indian market, DIC resolved to make this acquisition. DIC sees India as an important area for accelerating the expansion of its global operations and will leverage Ideal Chemi Plast's market position to promote joint efforts with Group companies in neighboring countries to further broaden its regional business scale.



2. DIC Boosts Production Capacity for Large Degassing Modules Used for Water Treatment by 1.5 Times

In fiscal year 2019, DIC reinforced production facilities at DIC Group company DIC Kako, Inc.'s Ichihara Plant to expand its production capacity for large degassing modules—used for water treatment, among others—in the *SEPAREL*[®] series of hollow-fiber membrane modules for controlling fluid degasification and aeration. With the start of operations on a new production line at the plant, DIC's overall production capacity for these modules increased by 1.5 times.

DIC's large degassing modules, which are used for removing dissolved gases, such as nitrogen and oxygen, from water, are 10 inches (25.4 centimeters)

or more in diameter. Passing water through a membrane of bundled hollow fibers removes dissolved impurities, thereby increasing the purity of the water. Principal applications include ultrapure water production systems used in the fabrication of semiconductors, LCDs and electronics components.

DIC also 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 patients with acute respiratory distress syndrome (ARDS) as a result of the COVID-19 pandemic. DIC will continue doing its best to enhance production of its hollow-fiber membranes to help ensure a steady supply of indispensable medical equipment.



Special Feature

Product Development Designed to Create New Value The DIC Group is providing distinctive solutions that respond to evolving needs related to safety, peace of mind and the environment arising from social changes.

SDGs Goal 3

Healthcare

Thermoresponsive Cell Cultureware that Facilitates the Harvest of Cells Without Enzyme Treatment or Damage (*Cepallet*®)



Providing Novel Cell Cultureware that Enhances Cell Detachment Simply by Lowering the Temperature, Thereby Significantly Shortening the Harvest Process

Value Creation

Development of revolutionary cell cultureware that minimizes damage to iPS and ES cells during harvest

Reduced survival rates for cultured cells owing to damage from enzyme treatment and scraping

Research in induced pluripotent stem (iPS) and embryonic stem (ES) cells, which hold promise in such fields as regenerative medicine and drug discovery, continues to gain momentum worldwide. Demand for the culture of high-quality cells for use in research is driving the need for sophisticated iPS and ES cell culture processes.

Conventional cell culturing begins with the attachment of adherent cells to the surface of cultureware that has been coated with an extracellular matrix.

In fiscal year 2018, DIC succeeded in developing the *Cepallet*^{*} series of revolutionary cell cultureware that facilitates harvest without the use of enzymes or a scraper. This greatly simplifies the process, increasing the efficiency of harvest.

The surface of DIC's newly developed cell cultureware is coated with a proprietary thermoresponsive polymer. Replacing the 37°C culture medium with fresh and cold (below room temperature) medium after culturing

A culture medium provides nutrients necessary for cell proliferation. To harvest the cultured cells, it is necessary to use an enzyme treatment to detach the cells and then to employ a scraper to lift them from the cultureware. However, enzyme treatment results in some cells weakened, while scraping causes physical stress, reducing survival rates and impeding efficient harvest. These issues have posed significant challenges to ensuring the quality of cultured cells.

Development of the revolutionary *Cepallet*[®] series of thermoresponsive cell cultureware that enhances cell detachment

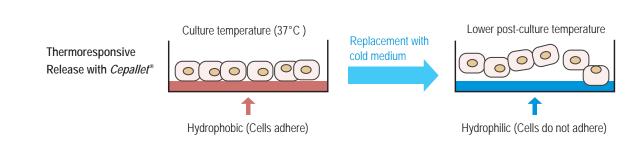
encourages cells to detach gently from the cultreware (thermoresponsive release), thereby minimizing damage during harvest. Because thermoresponsive release eliminates the need for scraping, the *Cepallet*[®] series is suited for automated cell culture systems. Going forward, *Cepallet*[®] cell cultureware is thus expected to contribute to the more efficient culturing of higher-quality cells in the research laboratories of pharmaceutical companies, universities and public research organizations.

The realization of a sustainable society depends on our ability to respond to needs related to safety, peace of mind and the environment. The DIC Group is capitalizing on technologies honed over 112 years to develop distinctive solutions that directly address critical challenges, including the issue of marine plastics and the need to reduce use of substances harmful to the environment.



https://www.dic-global.com/en/csr/special





Capitalizing on proprietary polymer technologies to develop high-performance equipment for culturing cells in laboratories

Leveraging DIC know-how to address needs for improvement of basic laboratory research

DIC embarked on the development of Cepallet® in 2013, the year Japan introduced a new national revitalization plan and a strategic priority of which is to advance regenerative medicine. Recognizing the existence of both market needs and research seeds in this area that would allow DIC to capitalize on its expertise as a chemicals manufacturer, sales and R&D departments worked together to gather information, visiting pharmaceutical companies, universities and research

A Distinctively DIC Response

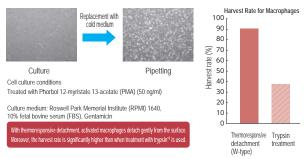
A thermoresponsive polymer coating and the debut of the Cepallet® series

A detailed analysis of cell culture processes prompted the team to focus their efforts on the structural design of the polymer used to coat the surface. What functional features were needed? What did the polymer need to do? Team members sifted through DIC's vast accumulation of basic research data to determine a course of action for designing a new polymer. "In a process of trial and error, we narrowed the focus of our research to thermoresponsive polymers," explains one member of the team. "Damage to cells during harvest from cultureware is caused by the use of enzymes to detach the cells and a scraper to lift them from the surface," he continues. "We realized that if we could develop a polymer the adhesive properties of which would change according to temperature, it would bring us significantly closer to commercialization." Technical and R&D departments thus commenced work toward realizing something that originally seemed impractical.

"Setting the temperatures for culture and detachment at, respectively, the temperature at which cells can be cultivated (37°C) and the temperature at which they can be harvested (below room temperature), thereby designing a polymer with adhesive properties that could be controlled within that range to encourage detachment, was the critical challenge we faced," recalls the leader of the project. By capitalizing on accumulated technologies organizations, among others. Seeing a need for industrial quality control for cell culturing in laboratories conducting research related to regenerative medicine and drug discovery, they found potential to leverage DIC's specialized highperformance polymer design technologies and industrial know-how to develop high-value-added products for use in this area. This led to the formation of a project team made up of R&D and technical departments.

and expertise, the team succeeded in commercializing a new thermoresponsive polymer coating. This achievement led to the development of the Cepallet® series of cultureware which feature surface that has been coated with this proprietary polymer using nanolevel coating technology. This eliminates the need for enzyme treatment and scraping, minimizing damage to cultured cells and dramatically improving the harvest process.

Thermoresponsive Detachment of Activated Macrophages*1 (THP-1 cells)



*1 A macrophage is a type of white blood cell of the immune system. *2 Trypsin is an enzyme that breaks down proteins.

KEY PEOPLE from DIC We are entering a new era of personalized healthcare, in which order-made treatments will be mainstream.

Progress in the area of regenerative medicine has ushered in an era of personalized healthcare, in which treatments are order-made, that is, tailored to the individual's unique cellular and genetic traits. A key focus for DIC today is providing breakthrough products in the healthcare field by integrating expertise accumulated in such areas as pharmaceuticals, agrichemicals and health foods with industrial technologies cultivated in the development and production of polymers. Cepallet* is the first such product to reach commercialization. Going forward, we will capitalize on this groundbreaking product to promote a wider understanding of DIC's development capabilities and to deepen collaboration with people in various fields with the aim of adding a new dimension to this exciting market.

(From left) Product Manager, Health Care Foods Product Group, Color Material Products Division, DIC Corporation Taro Ichimoto Project Manager, H-2 Project, Health Care Business Unit, New Business Development Headquarters, DIC Corporation Yoshinobu Sakurai Manager, H-2 Project, Health Care Business Unit, New Business Development Headquarters, DIC Corporation Naoto Sakurai H-2 Project, Health Care Business Unit, New Business Development Headquarters, DIC Corporation Avako Isshiki Manager, Health Care Products Business Development Group, Color Material Products Division, DIC Corporation Satoko Mimura Health Care Products Business Development Group, Color Material Products Division, DIC Corporation Dongkyu Son Manager, Health Care Products Business Development Group, Color Material Products Division, DIC Corporation Hajime Kaneko Group Manager, Health Care Products Business Development Group, Color Material Products Division, DIC Corporation Hiroyasu Asakura



Packaging & Graphic

Fast-Curing Solvent-Free Adhesive **DUALAM**[™]

-M/\$ SDGs Goals 3 9 12 and 13



DUALAM™: Inaugurating a New Era in Solvent-Free Lamination that Will Revolutionize the World of Packaging

Value Creation

Reduced emissions of VOCs and CO2 attributable to lamination

Issues with conventional solvent-free adhesives, which boast a low environmental impact but have limited applications

The fabrication process for multilayer packaging films-which involves laminating two or three layers of film together, printing artwork on the reverse side of the top layer, coating to impart moisture, light, gas and other barrier properties, and sealing-has come into widespread use worldwide. The common approach to lamination is to coat the surface of one layer with an adhesive substance dissolved in solvent and then pressure bond it to another layer after thermally evaporating the adhesive's solvent component. Nonetheless, the use of solvent-based adhesives is not without problems, notably negative environmental impacts such as emissions of pollution-causing volatile organic compounds (VOCs) and CO2, the latter caused by the burning of fossil fuels.

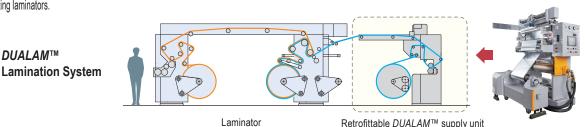
Solvent-free adhesives are also popular, but present issues such as poor designability after lamination and incompatibility with continuous lamination-key to high productivity-due to slow curing speeds, which limits possible packaging applications. DIC recognized that resolving such issues would both facilitate the expansion of applications and help reduce the environmental impact of the packaging industry.

Development of the versatile fast-curing solvent-free adhesive DUALAM™

In 2015, DIC created a project aimed at surmounting the issues associated with solventfree adhesives. Project researchers hit on the idea of coating the main agent and curing agent on the film surface separately, rather than the conventional approach of mixing the two component agents of the adhesive together prior to laminating, and began development of a new adhesive. Through trial and error with various component combinations and coating amounts, in 2019 the project succeeded in developing DUALAM™, an innovative solvent-free adhesive boasting a curing speed several times higher than existing offerings.

Partnering with a leading laminating machine manufacturer, DIC also developed a dedicated supply unit for DUALAM™, which was launched as a lamination system that can be retrofitted onto existing laminators.

DUALAM[™] enjoys a number of key performance advantages. These include facilitating the production of previously impossible two-layer laminates and the continuous processing of laminated structures with three or more layers; rapid curing, which shortens aging time; a longer adhesive pot life (the length of time an adhesive remains processable); and significantly improved designability. Lamination using DUALAM™ and existing machines retrofitted with the new lamination system also substantially reduces emissions of VOCs and CO2 compared with lamination using solvent-based adhesives and the same equipment.



DUALAM™

Benefit of retrofitting 400 solvent-based adhesive laminating machines with retrofittable *DUALAM*[™] supply units:

Distinctively

DIC Response

Annual CO₂ emissions reduction after five years: Approx. 800,0000 tonr

Equivalent to annual CO₂ emissions from approximately 50,000 private-use passenger vehicles (Source: Ministry of Land, Infrastructure, Transport and Tourism data for 2017)

CO₂ emissions per unit for solvent-based adhesive laminators (approximately 200 tonnes) × Number of units retrofitted with DUALAM^{MM} supply units (400) (Reference: Approximately 6,000 solvent-based adhesive lamination systems are currently in operation around the world (DIC estimate).)

Providing packaging solutions that contribute to sustainability for the global environment

An innovative solvent-free adhesive that contributes to reduced air pollution and improved work environments

Calculation

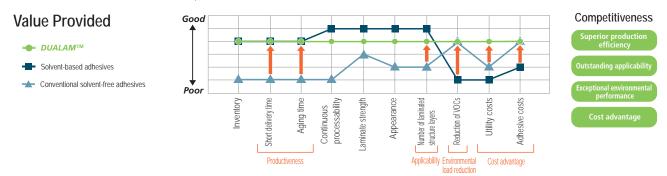
In 2015, a DIC adhesives marketing manager in the PRC noted a slowdown in sales of solvent-free adhesives for film lamination, the adoption of which had risen sharply against a backdrop of tighter environmental regulations. Examining contributing factors, he determined that the principal causes were that designability after processing was inferior to film laminated with solvent-based adhesives and curing was too slow to support continuous lamination. This, together with rising pressure to reduce environmental impact, convinced him that if performance could be improved then demand for environment-friendly solvent-free adhesives would increase and so he proposed the creation of a dedicated project.

Refusing to be constrained by the conventional notion of premixing the adhesive's components, the project's technical team experimented with various approaches, arriving at the idea of coating the two components of the adhesive separately onto each film layer to be bonded and initiating curing only after the layers come together. However, a number of obstacles to the realization of a viable product were still ahead.

The quest to control curing speed and find the optimum combination of adhesive components

Features demanded of new adhesives include a softness that makes coating easy, curability that does not impair designability and a curing speed compatible with continuous lamination. Moreover, these features must be demonstrated in a thin film weighing only a few grams per square meter. The technical team marshaled accumulated expertise, testing a wide range of new materials in a bid to find the optimal combination of adhesive components. It proved particularly difficult to control curing speed and adjusting the delicate composition was tricky, but these efforts eventually yielded *DUALAM*TM, a solvent-free adhesive that cures several times faster than comparable conventional adhesives.

The challenge did not end there. Developing a supply unit that made it possible to use *DUALAM*TM with existing laminating machines was crucial. DIC partnered with a leading laminating machine manufacturer to perfect a unit that thinly and evenly coats the new adhesive onto film surfaces. With this achievement, the Company was finally ready to launch *DUALAM*TM, thereby fulfilling its pledge of providing packaging solutions that contribute to sustainability for the global environment.



KEY PEOPLE from DIC

This is worthwhile for DIC precisely because it's something no other company is doing.

When I was working in the PRC, I recognized that there were issues with solvent-free adhesives for film lamination and proposed that we develop a new adhesive. In particular, the lamination of structures with three or more layers was extremely inefficient, but there were no companies looking to fix this problem. Precisely for this reason, I thought it was a worthwhile challenge for DIC to take on. Solvent-free adhesives are essential to reduce the environmental impact of packaging film production, so we were confident that demand would increase if applications could be expanded. Many breakthroughs were needed to realize a viable product, but thanks to the assistance of many people we succeeded in bringing *DUALAM*[™] into being. It was definitely a proud moment!

(From left)
Manager, Packaging & Graphic Business Development Group, Packaging & Graphic Business Group, DIC Corporation Chouichi Takada
Manager, Adhesives Technical Group 1, Adhesives Technical Division, DIC Corporation Koji Akita
Project Manager, P2 Project, Next-Generation Packaging Business Unit, New Business Development Headquarters, DIC Corporation Susumu Nishimura



Sun Chemical's Activities

Sun Chemical, which oversees the DIC Group's operations in Europe and the Americas, is one of the world's leading manufacturers of printing inks. The company develops and supplies a broad range of products that address diverse social imperatives.

Social Imperative

As the world shifts to become more environmentally conscientious, consumer packaged goods companies and their converter partners are constantly working to meet consumer demands. Studies show that consumers prefer sustainable packaging is not as a friendly.

over packaging that is not eco-friendly.

Meanwhile, some countries and world organizations are taking it upon themselves to make the world more sustainable. The United Nations (UN), for instance, introduced its initiative, *Transforming our World: the 2030 Agenda for Sustainable Development*, a plan that highlights 17 UN goals for decreasing the carbon footprint.

Recognizing these marketplace and regulatory trends, many brands have explored ways to integrate more sustainable solutions into their packaging. One option has been the development of biorenewable inks based on renewable natural resources. These biorenewable inks can be derived from plant materials, including gums, resins, waxes, solvents, oils and other polymer building blocks, according to the National Association of Printing Ink Manufacturers (NAPIM).

Sun Chemical's Response

Sun Chemical has aligned several of its sustainability goals with those of the UN's agenda for sustainable development to drive sustainability in the packaging industry. Furthermore, Sun Chemical is supporting the goal of lowering CO₂ emissions by developing biorenewable inks that will help to reduce the carbon footprint of the printing industry.

By partnering with HAVI, a global company that innovates, optimizes, sources and manages the packaging and supply chains of leading foodservice brands, Sun Chemical has introduced *SunVisto®* AquaGreen to the market. The line of water-based inks, formulated with significantly higher levels of biorenewable resin content compared to other previous market offerings, offers a natural, cleaner, green option for food packaging.

Sun Chemical's *SunVisto[®] AquaGreen* biorenewable inks have been certified and specified by HAVI to be a recommended natural-based ink solution, ensuring that foodservice brands and manufacturers receive truly renewable packaging ink.

HAVI's extensive global network and relationships with package developers on all continents means that Sun Chemical's natural-based inks could be used by any of HAVI's global partners anywhere in the world.

SunVisto® AquaGreen inks can be blended with varnishes and standard water-based pigment dispersions, and do not compromise end-use or on-press performance. They also offer outstanding print fidelity and ink resolubility on press, quick setting for in-line converting and high levels of resistance properties to rub, abrasion, water and grease.

The aim of Sun Chemical's sustainability initiatives relating to raw materials used and its manufacturing processes is to increase the plant-based biorenewable content (BRC) and/or recycled content in Sun Chemical products. Sun Chemical is moving on from using fossil-based raw materials, which are limited resources, to utilizing sustainable plant-based raw materials.

Striving to foster a circular economy, McDonald's teams up with partners like Sun Chemical and HAVI to transition all of its packaging to be 100% renewable, recycled or certified by 2025. Updates include packaging to popular menu items like hamburger clam shells, and commonly used bagging such as the small McDonald's bag.

Sun Chemical's *SunVisto® AquaGreen* water-based flexo inks are an example of a biorenewable ink being used on McDonald's packaging as displayed on various samples that will be shown at Interpack 2020 in Düsseldorf, Germany.

In addition to *SunVisto[®] AquaGreen*, both Sun Chemical and DIC will exhibit a full range of sustainable products with the goal of showing converters and brand owners the Power of Sustainable Packaging. This theme will show the market the commitment of Sun Chemical and DIC to sustainable product development across all packaging markets and applications.



SunVisto® AquaGreen is being used to create more sustainable fast food packaging.

WOICE We are building a comprehensive support system to achieve sustainable goals for customers.

Sun Chemical understands that today's environment requires more than just change—it demands transformation. At Sun Chemical, we are passionate about sustainability within the industry and will continue to develop our products and market approach to drive transformation. We're teaming up with like-minded, environmentally friendly brands to develop many other solutions designed to reduce global CO₂ emissions and increase the use of biorenewable and recyclable raw materials throughout the entire supply chain.



Vice President, Global Marketing, Inks & Global Communications, Sun Chemical Corporation Penny Holland

DIC Asia Pacific's Activities

The Asia–Pacific region is known for its rich cultural diversity, varying business complexity, young tech savvy workforce and the abundance of fast-growing business opportunities. This is our business domain. As we have seen in COVID-19, the use of digital tools is eminent as we see the emergence of a "new normal." Businesses that adapt fast to the new digitalization movement will be successful as aspiring companies reposition themselves to leverage these business opportunities. Change is the only constant in this dynamic millennium economy.

The Drive Toward the "3Ss'

Fortunately, DIC Asia Pacific embraced digital transformation early on. Using innovative digital tools while leveraging activities across all fronts, the region was able to drive a total solutions-based approach supporting our customers (as a group) in the Value Transformation pillar.

In line with DIC111, the Asia–Pacific region will accelerate its drive to focus on the concept of the "**3Ss**," i.e., **Support**, **Specialization** and **Sustainability**. This entails the drive toward **Support** and strengthening of the functional and specialist organization. We will introduce more structured e-learning initiatives to further build competencies, while enhancing and effectively growing DIC's human capital base. To complement organic growth potential, the region will establish a professional and quick response team to support the **merger and acquisition** activities in the region.

Through **Specialization**, and working effectively, DIC Asia Pacific envelopes the "One DIC" concept by creating a functional network spanning the region to resolve issues and fostering a border–transcendent collaborative mindset. This approach drives Value Transformation and New Pillar Creation initiatives as explained in DIC111. DIC Asia Pacific is committed to actively supporting customers' value creation.

The product specialist team is accelerating support through the introduction of "Tool Box/Kits." Conversely, on the marketing front, the regional managers are working with the local sales team to drive coordinated and targeted sales campaigns while capitalizing on data analytics for a more focused sales approach.

On the **Sustainability** front, the region is focused on driving these programs targeted at the three major stakeholders, i.e., customers, business partners and our valued employees. DIC Asia Pacific has established a sustainable organization by proactively introducing

sustainable products coupled with a sustainable procurement system through a centralized raw materials purchasing regime. Moreover, DIC Asia Pacific is introducing policies and training programs to improve skills necessary for a sustainable working environment balancing work and life in a new digital economy.

DIC Asia Pacific focuses on critical activities and continues to roll out plans to enhance and drive sustainable development in the Asia–Pacific region. These will be done through strong and active collaboration with Group resources to drive value to all our customers and society under the "One DIC" banner.



DIC Asia Pacific Pte Ltd office



DIC (China)'s Activities

In the PRC, the DIC Group operates some 30 companies employing more than 2,000 employees. These companies are responsibly delivering excellent products and services while also contributing to their communities. In fiscal year 2019, DIC conducted many community activities, a few of which are introduced here.

Ties with Society

1 DIC (Guangzhou) Co., Ltd.

On April 28, 2019, DIC (Guangzhou), which is involved in the sale of DIC products, sponsored a tree-planting event with the aim of contributing to environmental protection.

2 Qingdao DIC Liquid Crystal Co., Ltd.

Qingdao DIC Liquid Crystal, which manufactures base components for LC materials, held an environmental protection event that included cleaning and collecting waste in the area around its plant on May 5, 2019. On July 14, the company held Family Day, an event for the families of employees, which welcomed 126 people (44 employees, 35 adult family members and 47 children).

3 DIC Synthetic Resins (Zhongshan) Co., Ltd.

On August 10, 2019, synthetic resins and metal carboxylates manufacturer DIC Synthetic Resins (Zhongshan) held an environmental education event for children titled "Hand-in-Hand Green Mountaineering." The event earned high marks from participants.

4 DIC Zhangjiagang Chemicals Co., Ltd.

On August 3, 2019, DIC Zhangjiagang, which manufactures functional compounds, fiber and textile colorants, and synthetic resins, held a unique Family Day event designed to demonstrate its management philosophy and express its appreciation to employees and their families, the stated theme of which was to leverage the power of the family to fulfill the company's dreams. On December 8, the company participated in the "Walk for Love, Walk in City" jogging event in an effort to reinforce its reputation as a good corporate citizen.

5 DIC Graphics (Guangzhou) Ltd.

From September through October 2019, DIC Graphics (Guangzhou), a manufacturer of printing inks, sought to fulfill its responsibility as a corporate citizen by conducting a traffic safety program for children under the theme of "protecting children with love and support" in collaboration with a local volunteer organization.

6 Qingdao DIC Finechemicals Co., Ltd.

Each year, Qingdao DIC Finechemicals provides assistance to areas affected by disasters or poverty. In fiscal year 2019, employees used their company trip to visit primary schools for Miao and Yi children in Guoquanyan Township, part of Nayong County, in the city of Bijie, Guizhou Province, to donate winter clothes to children.













Ties with Stakeholders

In April 2019, DIC (China) created an official account on WeChat, the PRC's largest multipurpose social media app, which boasts 1.1 billion users. The company will use its new WeChat account to enhance communications with stakeholders. The company invites people to scan the QR code to the right to follow the account and access the latest information on DIC (China).



Directors, Audit & Supervisory Board Members and Executive Officers

(As of May 2020)

Directors



1 Chairman of the Board of Directors Yoshiyuki Nakanishi

3 Representative Director Masayuki Saito

5 Director Toshifumi Tamaki 7 Director* Yoshiaki Tamura

8 Director*

Kuniko Shoji

* Outside

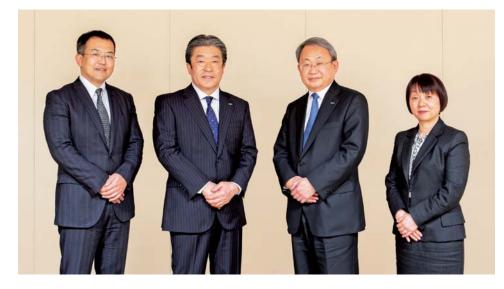
2 Representative Director Kaoru Ino

4 Director

6 Director* Yoshihisa Kawamura Kazuo Tsukahara



Audit & Supervisory Board Members



2 Audit & Supervisory Board Member Akihiro Ikushima

1 Audit & Supervisory Board Member Hiroyuki Ninomiya

3 Audit & Supervisory Board Member* Katsunori Takechi

4 Audit & Supervisory Board Member* Michiko Chiba

* 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

Katsunori Takechi

April 2000 Public Prosecutor, Civil Affairs Bureau, Ministry of Justice October 2003 Joined Anderson Möri & Tomotsune July 2011 Managing Partner, Takechi & Partners

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

Executive Officers



President and CEO Kaoru Ino



Executive Vice President Masayuki Saito Assistant to President and CEO Chairman of the Board, Sun Chemical Corporation Chairman of the Supervisory Board, Sun Chemical Group Cooperatief U.A.



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



Managing Executive Officer Toshifumi Tamaki Head of Corporate Strategy Unit In Charge of Kawamura Memorial DIC Museum of Art



Managing Executive Officer Naoyoshi Furuta General Manager, Production Management Unit



Managing Executive Officer Masaya Nakafuji Head of General Affairs and Legal Unit In Charge of Diversity



Kazuo Hatakenaka President, Functional Products Business Group General Manager, Performance Material Products Div.



Managing Executive Officer Kiyotaka Kawashima General Manager, Technical Management Unit



Executive Officer Rudi Lenz Vice Chairman of the Board, Sun Chemical Corporation



Executive Officer Shinsuke Toshima Chairman, DIC (China) Co., Ltd. Chairman, DIC (Shanghai) Co., Ltd.



Executive Officer Taihei Mukose Head of Purchasing and Logistics Unit Head of ESG Unit General Manager, Purchasing Dept



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



Executive Officer Myron Petruch President and CEO, Sun Chemical Corporation



Executive Officer Takeshi Asai General Manager, Corporate Planning Dept. In Charge of Osaka Branch and Nagoya Branch, Integration Promotion



Executive Officer Koji Asada Head of SCM Unit



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



Executive Officer Yoshinari Akiyama General Manager, Color Material Products Div.



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



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



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



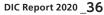
Executive Officer Shuji Furuta Head of Finance and Accounting Unit CFO



Executive Officer Kiyofumi Takano General Manager, New Business Development Headquarters



Executive Officer Takashi Ikeda General Manager, Composite Material Products Div



Basic Approach to Corporate Governance

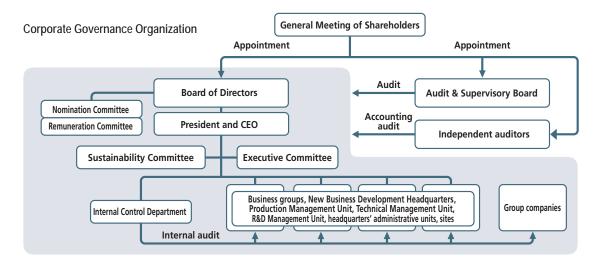
The DIC Group identifies the purpose of corporate governance as being to ensure effective decision making pertaining to its management policy of achieving sustainable corporate growth and expansion through sound and efficient management, while at the same time guaranteeing the appropriate monitoring 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 corporate website. Policy on Corporate Governance web https://www.dic-global.com/pdf/ir/management/governance/governance_en.pdf

Corporate Governance Organization

A company with internal auditors, DIC maintains a Board of Directors and an Audit & Supervisory Board. DIC has also instituted an executive officer system and has established a Nomination Committee, a Remuneration Committee, an Executive Committee and a Sustainability Committee.



Board of Directors

To accelerate decision making and reinforce corporate governance, eight directors have been elected to the Board of Directors. Of the eight, 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 outside, while the position of committee chairman is filled by an outside director.

8 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, while the position of committee chairman is filled by an outside director.

4 Executive Committee

The Executive Committee deliberates and resolves issues related to the execution of business activities. In principle, the committee meets twice monthly. Committee members are directors and executive officers designated by the Board of Directors. Meetings are also attended by one Audit & Supervisory Board member as part of the auditing process. Details of deliberations and resolutions 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. Committee members are directors and executive officers designated by the Board of Directors. As part of audit activities, one Audit & Supervisory Board member also attends Sustainability Committee meetings. The committee reports the matters upon which it deliberates and the results of its deliberations to the Board of Directors.

Audit & Supervisory Board

The Audit & Supervisory Board comprises four members, including two outside Audit & Supervisory Board 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.

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, Oceania, the PRC, the Americas and Europe, internal auditing is the responsibility of local internal auditing teams.

8 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.

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.

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 summary of which is included in the Company's official report on its business activities.

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.

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 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 an attorney specializing in corporate law and the other a certified public accountant—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. 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.

E 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

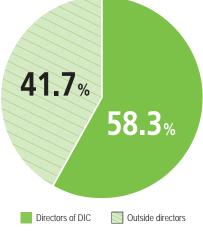
To enable the Board of Directors to resolve major operations-related issues, as well as to facilitate the effective oversight of management, the Board of Directors comprises outside directors, who maintain independence, and other individuals having a thorough knowledge of the businesses of the DIC Group, 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 and the Audit & Supervisory Board

	In-house	Outside	Total	Percentage of outside members
Directors	5	3	8	37.5%
Audit & Supervisory Board members	2	2	4	50.0%
Total	7	5	12	41.7%





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.

Evaluation of the Board of Directors' Effectiveness

DIC conducts an analysis and evaluation of the effectiveness of the Board of Directors annually via a self-evaluation conducted by the directors and Audit & Supervisory Board members. In fiscal year 2019, the Company conducted a survey of all directors and Audit & Supervisory Board members regarding, among others, self-evaluation and Board administration, responses to which were analyzed and evaluated by the Board of Directors. As a result, the effectiveness of the Board of Directors was confirmed.

To further improve the Board's effectiveness, DIC recognizes the further enhancement of discussion regarding corporate strategy, including confirming the status of the medium-term management plan, as a key challenge and will continue working to promote improvements.

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 global 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.



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 environmental, social and governance (ESG)-related issues.

Basic Sustainability Policy (Partially revised in March 2019)

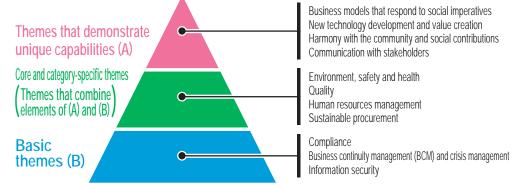
The DIC Group is dedicated to conducting its business while retaining a strong commitment to five key concepts: preserving safety and health, managing risks, ensuring fair business practices and respect for diversity and human rights, maintaining harmony with the environment and advancing its protection, 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 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 measure, in fiscal year 2007 the DIC Group identified 12 key themes as a framework for implementing its corporate social responsibility (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 medium-term (fiscal years 2019-2021) policies and creates annual activity plans for each of these themes. The Group makes use of the plan-do-check-act (PDCA) cycle in promoting initiatives and reports on its achievements annually in the DIC Report. Individual product divisions, business groups, sites, and overseas and domestic DIC Group companies are charged with pursuing effective sustainability programs by formulating their own annual 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 linking sustainability initiatives to business targets.

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: WED https://www.un.org/sustainabledevelopment/sustainable-development-goals/

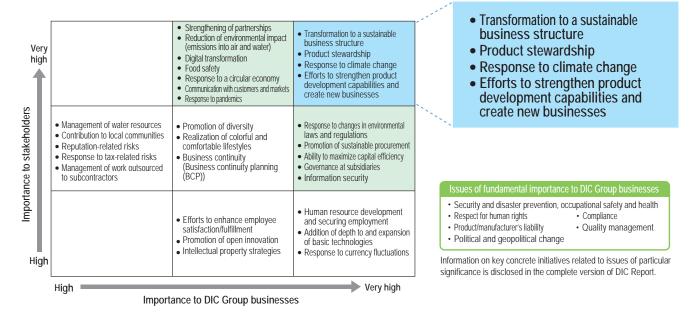


Materiality Analysis

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, which it designates 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
identificationShifting 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/KPIsSet 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 PDCA cycle.StatusMeasures formulated for fiscal year 2019 were implemented. In fiscal year 2020, consideration will be given to the further concentration of resources in
markets expected to see further growth with regard to medium- and long-term market trends.

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 environmental 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	 Implement the Global Chemical Information management Project (GCIP) (For more information, please see page 50.) (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.
Status	 2. Complete and introduce the proprietary sustainability index. (For more information, please see page 17.) (a) Fiscal year 2020: Begin use at DIC on a trial basis. (b) Fiscal year 2021: Promote full-scale deployment at Group companies.
	 Implementation of the GCIP In fiscal year 2019, a project team was created and efforts to review business processes and define conditions for new processes commenced.
	2. Completion and introduction of a proprietary sustainability index

Individual categories for reduction of environmental impact and contribution to markets were determined and parameters were created.

* 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 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 CO₂ emissions attributable to production, promote low-carbon businesses and satisfy TCFD requirements.

Targets/KPIs	1. Reduction in CO ₂ emissions attributable to production: (Scope 1 + Scope 2 reduction)	30% from the fiscal year 2013 level by fiscal year 2030 (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)

Note: Creation of an energy-saving and decarbonization framework

Introduction of internal carbon pricing and strengthening of efforts to address Scope 3 emissions

Status To achieve its target for reducing CO₂ emissions, the DIC Group implements more than 500 initiatives annually at sites, and is investing actively in renewable energy at sites in Japan and overseas. CO₂ emissions are currently declining at a pace that exceeds targets at sites in Japan and overseas, with fiscal year 2019 emissions down approximately 20% from the fiscal year 2013 level. Working groups began conducted scenario analysis in line with the TCFD in fiscal year 2019 and will report their findings in the DIC Report in fiscal year 2020. In fiscal year 2020, the Group began considering the introduction of internal carbon pricing (a system for placing a monetary value on CO₂ emissions, which can then be factored into estimates of economic risk and the benefits of emissions reduction initiatives), making capital investment decisions easier.

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 2019, DIC integrated its own polymer design and other basic technologies with external processing technologies to develop and launch an innovative solvent-free package lamination system that is expected to contribute to the reduction of CO₂ emissions.

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 pledges to disclose related information in line with TCFD recommendations going forward.

Disclosures in Line with TCFD Recommendations

The TCFD recommends disclosing information on governance, strategy, risk management, and metrics and targets as the core elements of organizational management in order for investment institutions to accurately grasp climate-related risks and opportunities and make financial decisions.

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

Scenario Analysis

Scenario analysis is positioned as the most important component of the strategy formulation portion of the TCFD and makes it possible to evaluate social change and its impact on business using multiple future scenarios, assess risks and opportunities and consider countermeasures that improve resilience. (Time frame: 2030; carbon price: ¥8,000/tonne)

Scenario information	2ºC Scenario	4ºC Scenario
Scenario used	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

Results of Scenario Analysis Opportunity

Risk

	Implications for society and the business environment	Risk and opportunity assessment		DIC Group countermeasures
2°C Scenario: Strenathening of policies	Introduction of carbon pricing (direct	Possible direct impact on manufacturing costs: ¥5.03 billion (Annual CO ₂ emissions in fiscal year 2018: 629,000 tonnes)		 Take steps to maintain cost competitiveness, assuming global introduction. Promote enhanced functionality in businesses that can absorb cost increases (e.g., products for automotive, electronics and display applications and pigments for cosmetics).
and regulations	procurement of raw materials)	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)		 Use the DIC Sustainability Index to promote products that help reduce C0₂ emissions (i.e., are sustainable). Capitalize on rising demand for PPS compounds underpinned by expanded automobile production and the shift to EVs.
2°C Scenario: Changes in demand	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.		 Promole core packaging materials as products that can be used on both plastic and alternative packaging materials; differentiate with barrier and other functions. Foster businesses that respond to demand for materials that are biodegradable and/or use bioderived materials.
attributable to circular economy	Increase in production and sales of	While it is unclear what will happen vis-à-vis demand changes, a failure		Step up exploration of chemicals and materials recycling.
	recycled plastics			Advance innovations in materials and formulations technologies that enhance recyclability.
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. Note: Investments will constitute a burden over the short term, but the recovery thereof has been incorporated in calculations for each individual project.	*	 Disclose investment in energy-saving and renewable energy equipment with the aim of achieving 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 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 a risk that this target will be imposed across entire supply chains (including distribution of products by customers).		Consider the setting of a new Science Based Target conducive to keeping the increase in global average temperature to 1.5°C. Consider introducing and using internal carbon pricing. Take steps to secure the trust of customers.
4°C Scenario: Increase in 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, including typhoons, storm surges and floods Suspension of supplies of plant-derived raw materials	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.	*	 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.
4°C Scenario: Increase in risk that operations at production facilities will be interrupted due to an increase in climate-	Suspension of production at own facilities due to frequent climate-related disasters, including typhoons, storm surges and floods Depletion of groundwater resources	 Production sites are scattered across the globe, so impact on overall operations is limited. However, certain products the production of which is concentrated at certain facilities may be affected. Countermeasures are required in areas where there are concerns that water-related risks will increase. 	*	Locate printing inks production facilities around the world to ensure complementary capabilities. Cooperate with other companies to minimize the impact in the event port facilities are damaged. Strengthen measures for sites located in coastal areas. Reinforce the effectiveness of BCPs by providing related training. Implement measures to address water-related risks.
related disasters	Increases in non-life insurance fees	Insurance premiums may increase.		 Bolster profitability by reinforcing and expanding portfolio of sustainable products.

Results of Scenario Analysis Opportunity



	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	 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. 	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 577,056 tonnes, the impact of carbon pricing under this condition would be as much as ¥4.62 billion.

Scenario Analysis: A Message from the Head of the ESG Unit

Having acknowledged responding to climate change as a key challenge, the DIC Group positioned this as a priority materiality issue in its fiscal year 2019 analysis of materiality. For the first time, the Group also conducted a scenario analysis, in line with the recommendations of the TCFD, recognizing the importance of a cautious yet appropriate approach to sustainable growth. In addition to enhancing our understanding of carbon pricing and physical risks, this process underscored our awareness of the importance of ensuring that many of the Group's core packaging materials products are compatible with multiple different media, rather than only with plastic or with paper, is key to the resilience of this business. We will continue to strengthen our business to respond to changes in lifestyles and take appropriate measures to address risks. We will also work to deepen stakeholders' understanding by ensuring effective disclosure.

Executive Officer, Head of ESG Unit, DIC Corporation Taihei Mukose

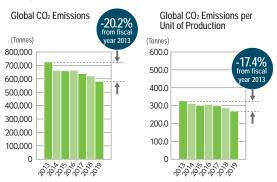
Climate Change

Metrics and Targets

The DIC Group is working to lower greenhouse gas emissions and has set a target for reducing CO₂ emissions across Group sites 30% from the fiscal year 2013 level by fiscal year 2030. To this end, the Group is encouraging sites to actively introduce renewable energy, i.e., energy from renewable sources, including by installing biomass boilers and solar power systems, as well as by purchasing low-carbon electric power.

Energy Consumption and CO₂ Emissions by the Global DIC Group in Fiscal Year 2019

Energy consumption by the global DIC Group in fiscal year 2019 edged down 1.7% from fiscal year 2018 and 14.2% from the fiscal year 2013 base year. The Group's global CO₂ emissions amounted to 577,056 tonnes, down 6.6% from fiscal year 2018 and 20.2% from fiscal year 2013. Global CO₂ emissions per unit of production—expressed in terms of kilograms of CO₂ per tonne—were 270.0 kilograms, down 7.4% from fiscal year 2018 and 17.4% from the base year, significantly exceeding the decline in global production volume. Factors contributing to the decline in CO₂ emissions included efforts by companies worldwide to break down the Group's emissions reduction targets and promote decarbonization initiatives and active efforts to advance the use of renewable energy. Efforts by companies in Japan to minimize CO₂ emissions from the incineration of industrial waste and to purchase low-carbon electric power also had a positive impact.

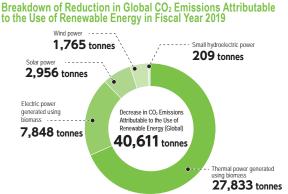


Reducing Fossil Fuel Use by Promoting the Use of Renewable Energy

The DIC Group continued taking decisive steps to advance the use of renewable energy and reduce energy consumption. In Japan, the Group completed the installation of solar power systems at an additional five sites (the Tatebayashi, Chiba, Saitama and Yokkaichi plants and the Central Research Laboratories) to generate power for internal consumption, while in the United States Sun Chemical introduced a solar power system with a generating capacity of approximately 800 kW. The global DIC Group used a total of 650,996 GJ of renewable energy in fiscal year 2019, down from 728,183 GJ in fiscal year 2018. One factor behind this result was a decrease in wind power generated at the Kashima Plant, owing to system repairs. Another factor was a decline in the proportion of the fuel mix used by a pigments production facility in Indonesia that was accounted for by biomass (palm kernel shells) commensurate with a decrease in overall fuel use (the proportion accounted for by mainstay fuel coal remained steady). The use of renewable energy accounted for a reduction in global CO₂ emissions of 40.611 tonnes.







As of December 31 of previous year Newly installed

Compliance Toward Fair and Transparent Corporate Activities

WEB https://www.dic-global.com/en/csr/philosophy/compliance.html



QR 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.

Initiatives to Promote Compliance

The DIC Group promotes compliance through the following initiatives.

- 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, with the aim of promoting awareness of the DIC Group Code of Business Conduct, in fiscal year 2019 e-learning focused on avoiding conflicts of interest was implemented in Japan and at DIC (China) and DIC Asia Pacific. Training on legal issues was also provided in Japan (once for DIC executives and several times as part of preparatory training for employees assigned to overseas posts) and at DIC Group companies in two countries overseas (the PRC and the Republic of Korea (ROK)).
- 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 2019, 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.

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 DIC Group's Approach to Tax web https://www.dic-global.com/en/csr/philosophy/tax.html

BCM and Crisis Management

Reducing Business Risks and Preventing the Recurrence of Incidents

WEB https://www.dic-global.com/en/csr/philosophy/bcm.html

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. 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.

BCM in Fiscal Year 2019

A number of natural disasters struck Japan in fiscal year 2019. In each instance, affected sites assessed the extent of impact, including confirming the safety of employees and their families and ascertaining damage, in line with their BCPs and manuals, and promptly informed corporate headquarters. Fortunately, no casualties resulted from these events and the impact of damage to Group facilities on production and supply activities was negligible.

In the area of education and training, DIC continued to focus on providing training and encouraging awareness for individuals involved in BCP across the DIC Group, as it did in fiscal year 2018. Of note, under the supervision of experts, the Company offered expert-led workshops and map-based simulation exercises developed for senior management to headquarters task force members, as well as conducted joint production division–site exercises.

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 are current and to prevent them from becoming empty formalities. The aforementioned BCP-focused joint production division-site exercises are conducted annually.

In fiscal year 2019, such exercises were conducted for the staff of three product divisions and three related sites in Japan. These exercises 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. DIC will continue to promote joint training, focusing on production sites.

Conducting Emergency Response Exercises and Drills

The DIC Group has developed and maintains a system designed to ensure its ability to minimize damage in the event of a disaster, as well as to ensure the smooth restoration of operations. This system includes a wide range of exercises and drills, including employee safety confirmation drills, emergency radio warning drills involving multiple sites and site-specific comprehensive disaster drills.

Efforts to Reinforce Safety Measures Overseas

Owing to the expansion of its global operations, the DIC Group is establishing new overseas bases and increasing the number of employees being assigned to overseas posts or traveling overseas on business. With the rising frequency of terrorist acts and the dangers posed by uprisings, infectious disease outbreaks and other such incidents in various locations, the Group is reinforcing safety measures designed to help employees evade danger. These include taking steps to advance awareness among related individuals and 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.

Information Security

Initiatives to Ensure Information Security

WEB https://www.dic-global.com/en/csr/philosophy/security.html

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

The DIC Group continues to update its Basic Policy on Information Security, created in 2010, confidential information management regulations, and information management guidelines regularly and as required to ensure its ability to address new security risks in a timely manner. The Group is also implementing new regulations as appropriate in response to the increasing prevalence of digital technologies. 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 and put into operation. In fiscal year 2019, the DIC Group reported no breaches of customer privacy or losses of customer data.

Management Framework

The Information Security Committee meets twice annually to determine policies and procedures for information security in each area of the DIC Group's operations. Information security officers and managers are also appointed in each individual business group and functional unit to ensure the appropriate management and handling of important everyday information. To ensure it is prepared in the unlikely event of an information security–related incident, the Group has created a task force operational manual and periodically conducts training to ensure effective initial responses to incidents when they occur.

Infrastructure

Recognizing the importance of being prepared before and when incidents occur, and of responding promptly and appropriately in the aftermath, the DIC Group takes decisive steps to fortify its information security infrastructure. In fiscal year 2019, these included formulating a new IT infrastructure plan that encompasses cloud access security broker (CASB), mobile application management (MAM), endpoint detection and response (EDR), security information and event management (SIEM) and other new technologies, based on requirements for IT, including the active use of cloud computing, the functional evolution of smart devices, work style reform, as well as the direction of advances in these areas. During the period, the Group also sought to address increasingly diverse internet threats by introducing new cloud-based security solutions and expanding the use of the Windows 10 operating system, as well as updating security systems designed to strengthen the endpoint security of other computers.

Employee Education and Training

Since fiscal year 2017, the DIC Group has offered an annual e-learning information security program to employees in Japan and the Asia–Pacific region. In fiscal year 2019, this program was expanded to include the protection of personal information. The Group has also provided training in dealing with targeted e-mail attacks since fiscal year 2017 on an irregular basis, working continuously to ensure more practical content to increase employees' awareness of the importance of security. In fiscal year 2019, the Group began offering information security training for employees in the Americas and Europe, where it has offered training in dealing with targeted e-mail attacks since fiscal year 2018.

QR code

Environment, Safety and Health (ESH)

Toward the Achievement of a Sustainable Society

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

Management System

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

In fiscal year 2019, the DIC Group promoted a variety of initiatives in line with its annual Responsible Care activity plans. Overseas, 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 PRC. In November 2019, the Group's annual ESH and energy conservation conference for Greater China was held at DIC Zhangjiagang Chemicals Co., Ltd., in the PRC, with participants discussing Responsible Care inspections, challenges and approaches. DIC has also dispatched an ESH manager for the Asia–Pacific region to Singapore and installed ESH country heads (individuals in charge of ESH initiatives) in 10 countries and territories in the region under the supervision of a regional ESH director. An Asia–Pacific region conference is held annually, enabling country heads to discuss ESH policies, targets and challenges. The 2019 conference was held in November in Singapore. 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), annually. 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.

ESH Auditing

In fiscal year 2019, third-party safety audits were conducted at principal DIC and DIC Graphics sites in Japan (the Chiba and Tatebayashi plants) as an objective way to identify issues. In Greater China, third-party audits were conducted at sites belonging to Changzhou Huari New Material Co., Ltd., DIC Zhangjiagang Chemicals Co., Ltd. and Nantong DIC Color Co., Ltd., with steps taken to increase the stringency of checks. The Group reported one violation* of Responsible Care-related regulations in the period under review. Prompt steps were taken to make improvements.

* Violation with a penalty exceeding \$10,000

Outline of ESH Audits Implemented in Fiscal Year 2019







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

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3 GOOD HEALTH

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QR code



Occupational Safety and Health/Disaster Prevention

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.

1 Publication of Monthly Reports and a New ESH Data Collection System

In fiscal year 2015, the DIC Group established a system for aggregating monthly occupational safety and health data for individual Group companies in Greater China and the Asia–Pacific region and 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 rates and other monthly data for these regions, thereby further enhancing Groupwide management and regional performances. In fiscal year 2019, the Group introduced the DIC ESH Data Collection System (DECS), a system for recording and storing this data in the cloud to facilitate centralized management.

2 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 and promotes ongoing efforts to reduce risks associated with chemical substances.

3 Training Skilled Safety Personnel

Reinforcing safety training

To foster skilled safety personnel, the DIC Group provides regular safety education and training on how to handle chemical substances using *Principles of Safe Conduct*, 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 and is updated every 10 years. 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 an educational tool.

KYT

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. **E-learning**

As part of an ongoing effort 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. One way it does this is through an extensive e-learning program.

4 Promoting Hands-On Safety Training

The DIC Group's hands-on safety training program 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 previous examples with the aim of reducing employees' willingness to accept 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.

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. The Group's global TRIR was 3.82, better than its 4.44 target, but domestic TRIR was 2.95, exceeding its 1.80 target for the period. Looking ahead, the Group will continue working to analyze the causes of occupational accidents resulting in workdays lost and reflect its findings in concrete improvements with the goal of preventing such accidents in the future.

Workdays Lost Due to Occupational Accidents (FY2017–2019)

	DIC			DIC Group (Japan)			DIC Group (Global)		
	2017 2018 2019 2017 2018 2019		2017	2018	2019				
Number of workdays lost	2	6	2	3	8	11	70	91	78
Frequency rate	0.360	1.071	0.363	0.331	0.848	1.200	1.752	2.211	1.963
Severity rate	0.054	0.021	0.003	0.028	0.013	0.038	-	-	-
TRIR*	2.16	2.50	1.63	2.65	2.86	2.95	3.98	4.83	3.82

* Total recordable injury rate (TRIR): (Number of occupational accidents resulting in lost workdays + Number of occupational accidents not resulting in lost workdays) / Million work hours

Status of Facility Accidents

On August 3, 2019, DIC reported an accident at the Saitama Plant involving a major fire in which a hazardous materials warehouse burned to the ground. Regrettably, this accident caused a major disruption to the local community. There was also one accident involving a fire at a DIC Group site in Malaysia on September 9. To prevent recurrence, the Group is currently reviewing its disaster prevention equipment and safety management systems.

Environmental Conservation

The DIC Group recognizes that it has a responsibility to help address environmental issues and is taking decisive steps to reduce its negative impact, thereby contributing to sustainability.

Preventing Environmental Pollution

Reducing Emissions of VOCs

In fiscal year 2019, emissions of VOCs into the air by the DIC Group in Japan totaled 541 tonnes, up 48% from fiscal year 2018. This increase was due primarily to an accident involving a major fire at the Saitama Plant that resulted in the incineration of products and the release of VOCs into the air. 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.

Reducing SOx, NOx and COD

DIC Group companies in Japan reported sulfur oxide (SOx) and nitrogen oxide (NOx) emissions of 8 tonnes and 183 tonnes, respectively, in fiscal year 2019, both down from the fiscal year 2018 level. The decrease in SOx emissions reflected a shift to higher-grade fuels for biomass boilers. Overseas, Group companies are switching to biomass boilers at sites with appropriate infrastructure. However, owing to changes to product portfolios, chemical oxygen demand (COD) rose to 850 tonnes in fiscal year 2019. The Group will continue taking steps to reduce COD load rates by enhancing its water quality management.

Preventing Marine Pollution Resulting from Waste Plastic

In recent years, waste plastic and marine plastics have become issues of major concern worldwide. 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 waste plastic generated in production processes. In fiscal year 2019, approximately 55% of waste plastic generated by the Group was recycled. Approximately 95% of this was reused, including through the recovery of energy from fuel utilization.

Managing Industrial Waste

The DIC 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.

Principal Initiatives in Fiscal Year 2019

An accident occurred at the Saitama Plant on August 3, 2019, that involved a major fire that required the use of a significant volume of wastewater and sludge to extinguish. As a consequence, the total volume of industrial waste generated by DIC Group production facilities in Japan climbed 60% from fiscal year 2018, to 51,673 tonnes. In contrast, because the greater portion of waste resulting from the fire was recycled, the total amount of industrial waste disposed of as landfill by Group companies in Japan rose only 6%, to 217 tonnes. Going forward, the Group will accelerate efforts to reduce the volume of industrial waste generated by sites that is disposed of as landfill in line with its goal of achieving zero emissions.



Managing Water Resources

In fiscal year 2019, fresh water withdrawn by the global DIC Group amounted to 39,012,000 m², a decline of 2% from fiscal year 2018. This total comprised withdrawals by the DIC Group in Japan of 27,925,000 m², down 5%, and by Group companies overseas of 11,087,000 m², up 6%. Wastewater discharged by the global DIC Group, including DIC, in the period amounted to 35,401,000 m², down 1.0% from the previous period. Since fiscal year 2017, the Group has analyzed initial water risk at 186 sites worldwide in line with the GRI's guideline for collecting data on water withdrawn* and reviewed the status of water recycling efforts.

* Included in the GRI's G4 Sustainability Reporting Guidelines

Safety in Logistics

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

DIC's commitment to promoting Responsible Care encompasses initiatives aimed at reducing CO₂ emissions attributable to the transport of its products, for which it sets annual targets. 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 aimed at enhancing 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 the 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.

Ensuring the Safety of Chemical Substances

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

As a comprehensive chemicals manufacturer with operations around the world, the DIC Group has created uniform standards for managing chemical substances that exceed legal and regulatory standards. 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. (For more information, please see page 42.) The Group also promotes efforts to develop alternatives that exert less of an impact on the environment by ensuring the effective management of chemical substance information, which is key to sustainable development. To this end, the Group has established bases in Greater China and the Asia–Pacific region, better positioning it to disseminate information to Group companies around the world.

Complying with Global Laws and Regulations

In fiscal year 2019, the DIC Group took steps to address revisions to, among others, Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., and the ROK's Act on the Registration and Evaluation of Chemicals (K-REACH). At the same time, the Group collaborated with related departments in Japan and overseas to gather information and formulate countermeasures in a timely manner in response to developments surrounding the United Kingdom's withdrawal from the European Union, Taiwan's Toxic and Chemical Substances of Concern Control Act (TCSCCA) and the PRC's Measures for Environmental Administration of New Chemical Substances (China REACH). There were no violations of laws requiring the registration or reporting of chemical substances by the Group in Japan or overseas in fiscal year 2019.

Creating a New Global System for Managing Chemical Information

In the area of systems for managing information on chemical substances, the Group established a project team (GCIP)* to oversee efforts to create a new global system, thereby positioning it better to respond effectively to legal and regulatory changes. The new system will integrate CIRIUS and the Wercs, facilitating the swift provision of consistent, accurate information to customers across the DIC Group and improving the ability of Group companies in Greater China and the Asia–Pacific region to ensure legal and regulatory compliance. The Group's goal is to begin deploying this system globally in fiscal year 2024.

* GCIP: Global Chemical Information management Project

Licensing System for Employees Involved in Exporting and Importing

Recognizing legal and regulatory compliance as central to risk management, DIC endeavors to improve employees' awareness and knowledge of chemical substance laws and regulations in Japan and overseas. Efforts in Japan include providing mandatory specialized training for individuals involved in exporting and importing chemical substances and issuing licenses to employees who have completed training and passed in-house examinations.

Quality

Enhancing Product Quality and Customer Satisfaction

WEB https://www.dic-global.com/en/csr/quality/

DIC's Quality Policy

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

Framework for Promotion

In fiscal year 2015, DIC introduced a new matrix-like quality management configuration, establishing the Quality Assurance Department within the Production Administration Division (today's Production Management Unit) and quality assurance groups within individual product divisions. Based on the Group's quality management system (QMS) for product divisions, the quality assurance groups oversee product-specific quality management, while the Quality Assurance Department provides external monitoring of plants, ensuring those certified under ISO 9001 maintain a consistent level of quality management, which it does by conducting regular audits of the status of the product divisions' QMS.

Quality Assurance and Quality Improvement Initiatives

The Quality Assurance Department conducts regular product quality audits of production facilities and Group companies in Japan and extends advice regarding corrective measures. The department also monitors production facilities to ensure that the QMS is functioning effectively and provides backup assistance, thereby helping to improve customer satisfaction.

The Quality Assurance Department is currently working to create a common QMS for Groupwide use. In fiscal year 2019, the department, together with the quality assurance groups and the Information Systems Department, began taking steps to develop a system for verifying standards whereby, based on delivery specifications set forth in contracts with customers, quality assurance personnel will verify testing method and test report specifications and values, as well as test products and report results as contractually required. The Group began using the new system in March 2020.

Initiatives Aimed at Increasing Customer Satisfaction

To provide high-quality products that customers feel secure using, DIC 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. Relevant product division quality assurance groups participate in design reviews from the initial stages of development, conducting rigorous evaluations at each stage, with the goal of delivering the quality that customers seek and making necessary modifications. In fiscal year 2019, DIC also conducted quality audits of seven raw materials suppliers.

Efforts to Enhance Product Quality–Related Educational Initiatives

Committed to providing safe, secure products that satisfy its customers, DIC recognizes the importance of ensuring that employees maintain a high awareness of quality, as well as a constant commitment to achieving further quality improvements and upholding high quality standards. To this end, the Company provides education regarding product quality as part of training for newly hired and newly promoted employees and at production facilities as part of annual training plans. Going forward, DIC will continue to implement initiatives to strengthen the ability not only of quality assurance officers but also of all plant employees to see things from the customer's perspective. The Company will also work to foster a mindset that quality is the foundation of effective management by, among others, encouraging the reading of DIC's Quality Policy during plant morning assemblies and meetings.

QR code

Human Resources Management

Working to Enhance Job Satisfaction

WEB https://www.dic-global.com/en/csr/stakeholder/staff.html



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 as a source of its competitiveness as a global organization. WING centers on four core themes, summarized as "work style reform," "HR infrastructure reform," "next management selection" and "global talent development."

WING: DIC111 Strategies for Human Resources Management

W ork Style Reform	HR Infrastructure Reform
 Reform work styles to capitalize on diversified individuality Reform jobs with digital tools. Reform working conditions by introducing a telework system 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.
Next Management Selection	Global Talent Development

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 2019

1 Work style reform

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

2 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

Establish system to appoint the next management team

Establish selection and monitoring processes for high-potential employees.

Use talent review to optimize combination of positions and employees.

Clarify requirements for employees in key positions.

③ Next management selection

Reinforced approach to selecting new management candidates by enhancing training for such candidates and expanded scope of human resources assessments

- (4) Global talent development
 - Augmented existing development programs for global human resources by considering a method of assessing language ability, including conversational prowess

Basic Personnel Statistics (DIC)

		Fiscal year 2017	Fiscal year 2018	Fiscal year 2019
	Male	2,618	2,628	2,640
Number of employees	Female	655	662	681
	Total	3,273	3,290	3,321
	Male	42.2	42.5	42.6
Average age	Female	41.3	41.9	42.1
	Total	42.0	42.4	42.5
Average	Male	18.2	18.4	18.3
years of employment	Female	19.2	19.7	19.8
empioyment	Total	18.4	18.6	18.6
New	Male	39	43	44
graduates	Female	11	19	22
hired	Total	50	62	66

			Fiscal year 2017	Fiscal year 2018	Fiscal year 2019
			(Fiscal year 2014 hires)	(Fiscal year 2015 hires)	(Fiscal year 2016 hires)
Retention rate		Male	79.2 %	87.8 %	97.2 %
(after three years)		Female	100%	81.0 %	76.9 %
years)		Total	83.5%	86.3%	91.8%
Separations		Male	35	55	45
(voluntary) (number of		Female	11	15	16
individuals)		Total	46	70	61
		Male	1.3%	2.1%	1.7%
Separation rate (voluntary)		Female	1.7%	2.3%	2.3%
(voluntary)		Total	1.4%	2.1%	1.8%

Respect for Human Rights

The DIC Group actively supports global codes governing human rights, in line with which in 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. Domestic and overseas Group companies implement voluntary human rights and labor practices inspections as part of ongoing efforts to prevent issues from arising, assess the results of these inspections and confirm the absence of violations.

In fiscal year 2010, DIC became a signatory to the United Nations Global Compact (UNGC), pledging its support for the Ten Principles of the UNGC, which include 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.

Initiatives in Fiscal Year 2019

A total of 58 DIC Group companies in Japan and overseas implement voluntary human rights and labor practices inspections. For the second consecutive year, in fiscal year 2019 the Group conducted inspections based on a revised questionnaire distributed to companies for this purpose. Having analyzed and verified the results of inspections, the Group implements follow-up inquiries in key areas and uses its findings to promote initiatives aimed at enhancing awareness.

Diversity Promotion and Work Style Reform

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 alternatives 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.

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 or graduate studies at overseas universities; and experienced mid-career candidates with extensive experience and expertise. At present, approximately 50 foreign nationals are employed in various capacities at DIC.

WOICE DIC is a company that evolves constantly to respond to the needs of the times.

DIC is a company that is bold in its pursuit of dreams and innovations and evolves constantly to ensure its ability to respond to the needs of the times. In recent years, we have seen a substantial increase in the number of female managers and employees who are foreign nationals, both of which are the result of practical efforts to promote diversity. Employees with diverse backgrounds, strengths and weaknesses work together to create comprehensive teams that can adapt to whatever challenging business scenarios may arise in the future. I am impressed with DIC's commitment to diversity in all its forms, which is one factor that makes it stand out among companies that have been in business for more than a century. I am proud to be a member of the DIC family.



SC Project, Kashima Plant, DIC Corporation Siong Wan Foo

DIC Recognized as Nadeshiko Brand for Fiscal Year 2019, Earning Selection for the Second Consecutive Year

In recognition of its superb achievements in expanding career opportunities for women, DIC was selected as a Nadeshiko Brand for fiscal year 2019, the second time it was honored under this program, which is sponsored by Japan's Ministry of Economy, Trade and Industry (METI) 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 their disclosure of related information and select Nadeshiko brands in each industry category.

With the goal of being an organization that enables a broad range of individuals to reach their full potential, DIC has positioned expanding opportunities for its female employees as the first step in its drive to promote diversity. Since fiscal year 2015, the Company has actively promoted a variety of initiatives in line with four key themes: Stimulate an appropriate employee mindset and corporate culture, support career-building, promote work style reforms and communicate publicly. Initiatives in fiscal year 2019 fell into three categories: Measures

to enhance management's commitment to career advancement for female employees, notably holding diversity roundtable discussions for executives for the third consecutive year; front-line efforts, namely, appointing department-specific diversity officers, promoting networking efforts for female employees at sites across Japan and conducting web seminars; and the creation of work environments conducive to flexible work styles and continuous service for female employees, including making it possible to take paid vacation time in hourly increments and introducing leave for employees to accompany spouses overseas. These initiatives were cited as reasons for DIC's selection as a Nadeshiko Brand for fiscal year 2019, as were its adoption of flextime and telework systems and mandatory "no overtime days."



Work Style Reform 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 Japan, the government advocates "work style reform" to achieve both work and childcare / nursing care that respond to the declining birthrate and aging population, improve labor productivity, and realize healthy management, and promote its penetration and retention in companies. In line with its belief that positive workplaces lead to higher productivity, the Company is committed to supporting the efforts of employees to enjoy diverse lifestyles and realize both a satisfying work life and a fulfilling life outside work. * Corporate health management is an approach that emphasizes employee health from a corporate management perspective and the implementation of related strategic measures.

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 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.

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 shorten workdays, thereby making it easier for employees to use them.

Major Expansion of the Flextime System

To facilitate flexible working 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 at 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. As of December 2019, approximately 1,000 employees had registered to use the system.

In response to the emergence of COVID-19 in January 2020, DIC implemented telework in principal for the entire DIC Group to help prevent the further spread of the virus. When a state of emergency was declared in Japan in April, more than 90% of 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.

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 ensure 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.

Human Resources Infrastructure Reform

In January 2018, DIC and DIC Graphics unified qualification standards for its 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, Europe, the Asia–Pacific region, the PRC and Japan. In addition, evaluation systems for Group company executives in Japan and overseas have been integrated to reinforce Groupwide management. Under DIC111, DIC will also advance efforts to consolidate employee qualification systems worldwide, unify qualification standards and assessment formats for management-level employees, and construct a global human resources platform.

Ensuring Fair and Consistent Treatment

DIC has consolidated its numerous employee qualification systems irrespective of job classification and educational credentials. Promotions are determined through screening tests based on objective criteria, guaranteeing equal opportunities for promotion to all motivated, capable employees. Remuneration and personnel evaluation systems are designed to ensure that individual employees' abilities and achievements are assessed appropriately and reflected in a timely manner. The Company has also introduced management by objectives (MBO)—a goal-setting management tool that promotes both corporate growth and employee development—into its personnel evaluation system. The results of individual evaluations, including reasoning behind determinations, are fed back in full to employees, in a transparent process that ensures employees are largely satisfied with outcomes.

Sustainable Procurement

Promoting Socially Responsible Procurement Across the Supply Chain

WEB https://www.dic-global.com/en/csr/stakeholder/partner.html

Encouraging Sustainable Procurement

Based on the DIC Group Universal Purchasing Policy, 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, the Group has prepared the *DIC Group Sustainable Procurement Guidebook* (previously titled the *DIC Group Supply-chain CSR Deployment Guidebook*), version 3 of which was published in February 2020.

The Group uses the guidebook to conduct assessments and on-site inquiries and promote awareness among suppliers worldwide. 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 Sustainable Procurement Guidelines

- 1 Compliance with laws/social norms
- Compliance with laws/social norms
 Human rights and work environments
- 3 Safety and health
- Onsideration for the environment
- Information security
- 6 Appropriate quality and safety and technological improvements
- Stable supplies and flexible responses to change
- 8 Promotion of sustainability and sustainable procurement initiatives

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.

DIC Group Sustainable Procurement Guidebook (Version 3, published in February 2020) (English):

Analyzing the Results of Questionnaires

In fiscal year 2019, the DIC Group conducted assessments for 11 new and continuing suppliers using version 2 of the *DIC Group Supply-chain CSR Deployment Guidebook* (as it was then called). This brought the total number of suppliers assessed between November 2013 and December 2019 to 764, accounting for 90%-plus of its procurement spending. In addition to analyzing and assessing questionnaire responses, the Group provided feedback and where necessary requested corrective measures for significant issues through on-site inquiries or written comments. In fiscal year 2020, the Group will begin conducting assessments using version 3 of the guidebook.

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 onsite 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 realize sustainability.

Global Procurement Initiatives

In fiscal year 2019, procurement officers in Japan and Greater China cooperated to conduct on-site inquiries for suppliers in key businesses in the PRC based on suppliers' questionnaire responses. DIC also worked with these suppliers to fortify understanding of environmental issues in the supply chain related to local legal and regulatory compliance, as well as to formulate corrective measures. In addition, DIC and Sun Chemical exchanged views on future sustainable procurement initiatives at a meeting of the Sustainability Committee. In fiscal year 2020, the Group plans to prepare local-language versions of the revised *DIC Group Sustainable Procurement Guidebook* for DIC Group companies in Greater China and the Asia–Pacific region.

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, when using recyclable materials. Looking ahead, the Group will expand the global application of its sustainable raw materials initiatives.



Equivalent to 90%-plus of procurement spending

Cumulative Number of Suppliers Assessed (November 2013–December 2019)





Business Models that Respond to Social Imperatives

Cultivating Next-Generation Businesses

SDGs Goals 8, 9 and 11
8 COMMUNE OF WITH A COMMUNE OF C

WEB https://www.dic-global.com/en/csr/stakeholder/customer.html

I 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 new 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. This strategy continues to guide a number of key initiatives, several of which are described below.

Designing a Framework for New Pillar Creation

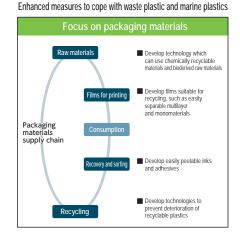
Having established the New Business Development Headquarters to serve as the deployment team and identified four priority business areas (electronics, automotive, next-generation packaging and healthcare), the DIC Group will leverage its ingenuity to advance the creation of new products that are useful 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.

| Examples of New Pillar Creation

1 Developing and Providing Sustainable Products and Solutions in the Packaging Field

In addition to reducing emissions of CO₂, a key cause of global warming, the DIC Group has positioned the issue of marine plastics, which impacts the environment and ecosystems, as a pressing issue and has established a project aimed at reinforcing its efforts to address this challenge that involves multiple departments dealing with packaging materials. The project is promoting the development of materials and technologies in line with the "4Rs" ("Recycle, Reduce, Reuse and Redesign") of packaging with the goal of deploying new bioderived raw materials and circular packaging. Looking ahead, the Group will also seek to address this challenge by broadening its approach to include the entire packaging materials supply chain, advancing the development of products suitable for monomaterials, easily peelable ink solutions and technologies to prevent the deterioration of recyclable plastics, among others, thereby contributing to the realization of more sophisticated recycling.



2 Leveraging Biorefinery Technologies to Help Realize Decarbonization through the Development of a Biodegradable SAP

Biorefinery technologies, which make it possible to use biomass, a renewable resource, rather than petroleum-derived raw materials in the production of chemicals, are attracting increasing attention around the world. Since summer 2019, the DIC Group and Tokyo-based biotech startup Green Earth Institute Co., Ltd. (GEI) have promoted joint research aimed at developing a naturally derived aspartic acid-based biodegradable waterborne superabsorbent polymer (SAP). In this initiative, GEI—which boasts outstanding expertise in the development of green chemicals—is charged with developing naturally derived aspartic acid using an innovative fermentation technology that absorbs CO₂. DIC's role is to create a process for polymerizing the new aspartic acid and to explore ways to scale up the production system.

Principal applications for conventional SAPs include paper diapers, soil modifiers and cosmetics. However, because such SAPs are petroleum-derived, they are a major cause of marine plastics and waste plastic. The SAP under development by the DIC Group and GEI is made with a recyclable material, making it biodegradable, and is thus expected to contribute to both the realization of environment-friendly products that help resolve these issues as well as to decarbonization and the reduction of waste plastic.



Aspartic acid-based biodegradable waterborne SAP

New Technology Development and Value Creation

Proposing Solutions that Leverage Core Technologies

WEB https://www.dic-global.com/en/csr/new_technology/

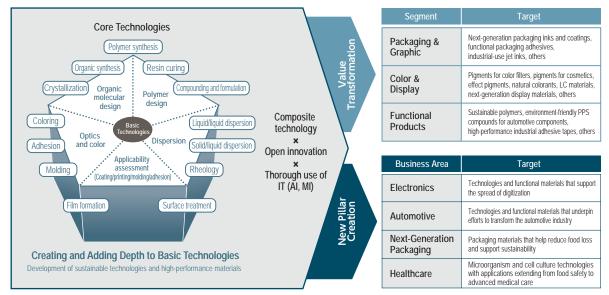
Achieving Sustainable Growth

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 Company is encouraging a shift toward materials with reduced environmental impact notably energy-saving, water-based and solvent-free materials, as well as materials for the electronics, automotive, packaging and other 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.





Promoting Environment-Friendly Products

The DIC Group is committed to effective stewardship of the products it provides. (For more information, please see page 42.) Conscious always of the importance of ensuring its products are environment-friendly, 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 their portfolio.

In fiscal year 2019, environment-friendly products accounted for 58% 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.

VOICE We developed a 100% biomass-derived polyester plasticizer.

Our group has developed an extensive range of polymer modifiers that includes plasticizers, stabilizers and highly functional modifiers. In recent years, we have worked to add value to the DIC Group's modifiers with the aim of contributing to the realization of the SDGs and to sustainability. In fiscal year 2019, we succeeded in developing *Polycizer W-1810-BIO*, a polyester plasticizer that satisfies all the basic performance requirements of polyester plasticizers yet is derived entirely from biomass resources. This product earned Biomass 100% Biomass Mark certification from the Japan Organics Recycling Association (JORA). The reaction to this new product has been extremely positive and it has earned solid marks in a variety of applications.



SDGs Goals 9 and 12

QR code

Assistant Manager, Polymer Technical Group 10, Polymer Technical Division 2, DIC Corporation Takafumi Noguchi

Harmony with the Community and Social Contributions

Adding Color & Comfort to Lifestyle

WEB https://www.dic-global.com/en/csr/society/

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 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 the study of science benefits society, the labs entail 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 year 2019, the DIC Group also conducted a visiting science lab for elementary school students as part of the Tohoku University Graduate School of Engineering's Science Campus project. The lab was well received by both participating children and their parents. The Group pledges to continue offering visiting science labs in the years ahead.

Comment This is an initiative that makes one aware of the satisfaction of being a leader in the advancement of society through chemistry.

Engineers and researchers from various companies serve as instructors for hands-on classes conducted as part of the Tohoku University Graduate School of Engineering's Science Campus program, an initiative that seeks to provide children with an opportunity to gain an understanding of craftsmanship, which plays an important role in everyday life, as well as to actually experience manufacturing and conduct experiments closely linked to the latest scientific and technological advances.

In addition to fueling children's interest in manufacturing, and in science and technology, this initiative seeks to cultivate a new generation of engineering talent by enabling them to interact directly with individuals in related fields, giving them an idea of the career paths available to them in the future. We believe it is important to provide children with stimulation in various forms, and the DIC visiting science lab was particularly valuable in that regard. We also received positive comments from parents. One expressed that the lab had given children a renewed appreciation of the role of chemistry in their everyday lives, while another felt that encouraging children to see chemistry as something familiar would make them like science better. Yet another commented that experiencing the power of chemistry to add color and enrich life would encourage children to see it as something they would like to do professionally in the future.

Associate Professor, Graduate School of Engineering and Vice-Director, Innovation Plaza, School of Engineering, Tohoku University Hajime Nakamura

Initiatives Led by the Kashima Plant

In December 2019, DIC's Kashima Plant, in Ibaraki Prefecture, conducted a visiting science lab at local Super Science High School* Seishin Gakuen's Super Seminar, a social contribution initiative that also involved three other companies with operations in Kashima as well as Juntendo University. The lab featured a presentation titled "Learning About the Colors Around Us," which covered such topics as the properties of color and light, products that leverage these properties, the names given to colors, primary colors and examples of pigment synthesis. The lab also included an experiment in extracting the natural blue pigment from Spirulina. A total of 74 students participated in the lab. The Kashima Plant will continue to take part in initiatives designed to communicate the joy of chemistry to students at schools in its community.

**Super Science High School* is a designation awarded by Japan's Ministry of Education, Culture, Sports, Science and Technology to senior and junior/senior 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.

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 is celebrating its 30th anniversary. As of December 2019, cumulative visitors to the museum had surpassed 2.47 million. DIC views operation of the museum, which assumed its current name in 2011, as a social contribution initiative that the DIC Group is uniquely positioned to undertake as an organization intrinsically involved in color. The museum's extensive collection spans numerous genres, encompassing works by Rembrandt; Impressionists such as Monet and Renoir; modern European artists such as Picasso and Chagali; 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 of more than 1,000 major works, the museum stages special exhibitions several times a year that focus on pertinent literary works and other artifacts that evoke the cultural

atmosphere at the time works were created to help visitors better understand the collection. Another appealing aspect of the museum is its location on a lushly forested 10-hectare site alive with seasonal flowers and foliage that has been open to the public since the museum's establishment.

In a move aimed at promoting relations with the local community and fostering local cultural activities, the Kawamura Memorial DIC Museum of Art has established an annex gallery on the museum site that serves as an exhibition space for local amateur artists and is also made available to elementary and junior and senior high schools in the Sakura area for an exhibition of local students' works.

In the future, the museum will continue to hold exhibitions associated with the collection and promote social contribution activities with an awareness of communication with the local community

Matching Gift Program

DIC has a matching gift program whereby it matches the total amount collected through an annual year-end fundraising drive spearheaded by its employees' union. Funds raised through the 2019 drive and matching gift program were donated to 23 children's homes and facilities providing support for disabled individuals.



Kawamura Memorial DIC Museum of Art





SDGs Goals 3 and 4

Visiting science lab

Communication with Stakeholders

Promoting Disclosure and Communication

WEB https://www.dic-global.com/en/csr/stakeholder/

SDGs Goal 17



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.

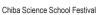
	Ties with customers	Ties with shareholders and investors	Ties with business partners	Ties with society	Ties with employees	Ties with the media
Basic approach	Build trusting relationships. By incorporating the demands of customers, seek to develop products that enhance customer satisfaction.	Ensure appropriate disclosure and build trusting relationships with shareholders and investors, encouraging both to evaluate DIC as an altractive 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 mutual understanding through effective publicity, advertising and other communications efforts.
Communications tools	Websites Product pamphlets Digital marketing Corporate profile DVDs DIC Report Corporate PR film News releases Television advertisements	Websites Press conferences Quarterly results announcements Vika Shoken Hokokusho finerajal disolesure document required disied comparies 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	 DIC Group Sustainable Procurement Guidelines DIC Group Green Procurement Guidelines Supplier sustainable procurement questionnaires Feedback sheets Conflict Minerais Reporting Template DIC Report 	Websites Site reports Corporate profile DVDs OIC Report News releases Television advertisements	 DIC Plaza (in-house newsletter) Intranet DIC Pocket Book (in-house Group data file) DIC Report Corporate PR film News releases Television advertisements Global linkage Branding questionnaire 	 Press conferences Interviews with journalists DIC Report News releases Television advertisements
Opportunities for communication	 Sales activities Participation in exhibitions Lectures on the SDGs for customers 	General shareholders' meetings Results presentations IR conferences IR meetings DIC IR Day Individual investor briefings	 On-site inquiries 	 Production facility tours Participation in projects involving collaboration among industrial concerns, government bodies and academic institutions Participation in community events Environmental monitoring Kawamura Memorial DIC Museum of Art Plant Bon Odori 	Labor-management councils Results presentations for employees Presentations on the DIC Group Code of Business Conduct Sustainability presentations DIC Family Day Plant tous for employee families Caravan workshops	Newspapers Economic publications Industry publications





CHINACOAT 2019





Results presentation for employees







Results presentation (February 2020)



Presentation following the announcement of DIC's acquisition of BASF's Colors & Effects business



(February 2020)





Caravan workshop

DIC Plaza 🗮

DIC Plaza (in-house newsletter)



Analysis of Results of Operations

Overview of Operating Results

				(Billions of yen)
	FY2018	FY2019	Change (%)	Change (%) [Local currency basis]
Net sales	805.5	768.6	-4.6%	-1.3%
Operating income	48.4	41.3	-14.6%	-8.7%
Ordinary income	48.7	41.3	-15.2%	-
Net income attributable to owners of the parent	32.0	23.5	-26.6%	-
EBITDA*	81.4	67.4	-17.2%	-
Average exchange rate (¥/US\$)	110.46	109.11	-1.2%	_
Average exchange rate (¥/EUR)	130.46	122.13	-6.4%	_

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

In fiscal year 2019, consolidated net sales slipped 4.6%, to ¥768.6 billion. On a local currency basis, however, the decrease was only 1.3%. Owing to the impact of slowing global economic growth, shipments sank in a wide range of businesses, centering on materials used in electrical and electronics equipment and in automobiles.

Operating income was down 14.6%, to ¥41.3 billion, or 8.7% on a local currency basis. In addition to falling shipments, particularly of high-value-added products, these results reflected flagging sales prices for some products. A decline in results overseas after translation, a consequence of yen appreciation, also pushed operating income down. Thanks to the impact of raw materials price decreases and of cost reductions achieved through rationalization, the decline narrowed after bottoming out in the first quarter. Of particular note, operating income in the PRC and Southeast Asia turned positive in the second quarter.

Ordinary income was down 15.2%, to ¥41.3 billion. Net income attributable to owners of the parent fell 26.6%, to ¥23.5 billion. This reflected an extraordinary loss arising from efforts to improve business efficiency, as well as one-time disasterand acquisition-related expenses. EBITDA declined 17.2%, to ¥67.4 billion. Factors behind this included the drop in net income attributable to owners of the parent.

Billions of yen)								
		Net sales				Operating income (loss)		
	FY2018	FY2019	Change (%)	Change (%) [Local currency basis]	FY2018	FY2019	Change (%)	Change (%) [Local currency basis]
Packaging & Graphic	434.7	416.4	-4.2%	0.6%	19.9	19.2	-3.6%	8.0%
Color & Display	124.1	116.4	-6.2%	-3.8%	15.0	10.8	-28.0%	-25.4%
Functional Products	282.1	268.6	-4.8%	-3.6%	20.8	19.2	-7.6%	-6.6%
Others, Corporate and eliminations	(35.4)	(32.8)	_	_	(7.3)	(7.9)	_	_
Total	805.5	768.6	-4.6%	-1.3%	48.4	41.3	-14.6%	-8.7%

Segment Results

Note: Effective from January 1, 2019, DIC revised its segmentation to coincide with the launch of its new medium-term management plan, DIC111. Accordingly, figures for fiscal year 2018 have been restated.

For information on DIC111, please visit: https://www.dic-global.com/en/ir/management/plan.html

Packaging & Graphic

	FY2018	FY2019	Change (%)	Change (%) [Local currency basis]
Net sales	¥434.7 billion	¥416.4 billion	-4.2%	0.6%
Operating income	¥19.9 billion	¥19.2 billion	-3.6%	8.0%

Segment sales slipped 4.2%, to ¥416.4 billion. Although sales edged up 0.6% on a local currency basis, the depreciation of the euro and emerging economy currencies led to a decrease after translation into yen. In the area of materials for food packaging, sales of packaging inks rose, particularly in emerging economies in Asia and South America. In contrast, sales of polystyrene languished, despite an increase in shipments, as raw materials price decreases prompted the reduction of sales prices. Sales of publication inks, which center on publishing inks and news inks, were down, owing to an ebb in overall demand. Sales of jet inks for digital printing rose.

Segment operating income slipped 3.6%, to ¥19.2 billion. On a local currency basis, operating income rose 8.0%, benefiting from the positive impact of an improved product mix and rationalization efforts, as well as from a decrease in raw materials prices, particularly in the PRC and Southeast Asia. As with segment sales, however, this translated into a decline on a yen basis.

Color & Display

	FY2018	FY2019	Change (%)	Change (%) [Local currency basis]
Net sales	¥124.1 billion	¥116.4 billion	-6.2%	-3.8%
Operating income	¥15.0 billion	¥10.8 billion	-28.0%	-25.4%

Segment sales, at ¥116.4 billion, were down 6.2%. In the area of color materials, shipments of pigments for cosmetics and general-purpose pigments flagged, hampered by trade friction. In display materials, shipments of pigments for color filters were firm, although sales of TFT LCs sank, hindered by sagging sales prices, a consequence of intensifying competition.

Segment operating income plunged 28.0%, to ¥10.8 billion. Contributing factors included sales price reductions for TFT LCs and waning shipments of general-purpose pigments. Operating income was also constrained by the tightening of environmental regulations in the PRC, as well as by increases in prices for pigments raw materials attributable to trade friction.

Functional Products

	FY2018	FY2019	Change (%)	Change (%) [Local currency basis]
Net sales	¥282.1 billion	¥268.6 billion	-4.8%	-3.6%
Operating income	¥20.8 billion	¥19.2 billion	-7.6%	-6.6%

Segment sales decreased 4.8%, to ¥268.6 billion. While applications for PPS compounds continue to expand thanks to the trend toward lighter and increasingly electrified vehicles, shipments remained low, reflecting a downtrend in automobile production worldwide. Flagging economic conditions pushed down sales of epoxy resins and industrial tapes, the principal applications for which are smartphones and semiconductors. Sales of synthetic resins remained sluggish overall, despite bottoming out in the first quarter.

Segment operating income was down 7.6%, to ¥19.2 billion. Despite this decrease, which stemmed from dwindling shipments overall, the operating margin improved gradually, as shipments of epoxy resins and other high-value-added products picked up after bottoming out in the first quarter and raw materials prices decreased.

Consolidated Financial Statements

	2018	2019
Assets		
Current assets		
	19,782	14 70/
Cash and deposits Notes and accounts receivable-trade		16,786
	209,763	211,232
Merchandise and finished goods	94,611	91,555
Work in process	9,403	9,566
Raw materials and supplies	61,937	58,610
Other	23,878	21,607
Allowance for doubtful accounts	(9,722)	(9,437
Total current assets	409,652	399,919
Non-current assets		
Property, plant and equipment		
Buildings and structures	259,417	262,087
Accumulated depreciation	(170,525)	(173,547
Buildings and structures, net	88,892	88,540
Machinery, equipment and vehicles	403,877	408,064
Accumulated depreciation	(332,926)	(337,197
Machinery, equipment and vehicles, net	70,951	70,867
Tools, furniture and fixtures	63,291	64,386
Accumulated depreciation	(51,896)	(53,195
Tools, furniture and fixtures, net	11,395	11,191
Land	48,985	51,961
Construction in progress	7,928	9,616
Total property, plant and equipment	228,151	232,176
Intangible assets		
Goodwill	34	762
Software	2,887	2,585
Customer-related assets	3,359	2,674
Other	7,502	5,782
Total intangible assets	13,782	11,804
Investments and other assets		
Investment securities	67,523	59,313
Deferred tax assets	33,313	33,192
Net defined benefit asset	25,089	44,339
Other	23,947	23,020
Allowance for doubtful accounts	(161)	(680
Total investments and other assets	149,711	159,184
Total non-current assets	391,644	403,164
Total assets	801,296	803,083

Consolidated Balance Sheet As of December 31, 2018 and 2019

	2018	2019
Liabilities		
Current liabilities		
Notes and accounts payable-trade	118,554	108,56
Short-term loans payable	29,986	20,13
Current portion of long-term loans payable	49,792	23,45
Lease obligations	667	1,24
Income taxes payable	2,843	2,55
Provision for bonuses	6,283	5,72
Other	47,476	48,44
Total current liabilities	255,601	210,12
Non-current liabilities		
Bonds payable	60,000	80,00
Long-term loans payable	119,791	122,60
Lease obligations	4,229	5,19
Deferred tax liabilities	2,807	8,76
Net defined benefit liability	20,519	21,37
Asset retirement obligations	1,482	1,69
Other	9,533	9,82
Total non-current liabilities	218,361	249,45
Total liabilities	473,962	459,58
Net assets		
Shareholders' equity		
Capital stock	96,557	96,55
Capital surplus	94,445	94,45
Retained earnings	207,421	218,20
Treasury shares	(1,823)	(1,82
Total shareholders' equity	396,600	407,39
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	1,407	1,67
Deferred gains or losses on hedges	14	68
Foreign currency translation adjustment	(67,617)	(72,67
Remeasurements of defined benefit plans	(31,508)	(24,34
Total accumulated other comprehensive income	(97,704)	(94,65
Non-controlling interests	28,438	30,75
Total net assets	327,334	343,49
Total liabilities and net assets	801,296	803,08

(Millions of yen)

Consolidated Statement of Income Years ended December 31, 2018 and 2019

(Millions of yen)

	2018	2019
Net sales	805,498	768,56
Cost of sales	629,850	603,19
Gross profit	175,648	165,36
Selling, general and administrative expenses		· · · ·
Freightage and packing expenses	13,230	13,10
Employees' salaries and allowances	42,660	41,74
Provision of allowance for doubtful accounts	669	99
Provision for bonuses	2,423	2,23
Retirement benefit expenses	33	1,04
Research and development costs	12,923	12,50
Other	55,325	52,41
Total selling, general and administrative expenses	127,263	124,03
Operating income	48,385	41,33
Non-operating income		
Interest income	3,781	2,42
Dividends income	425	41
Equity in earnings of affiliates	3,845	2,47
Other	1,631	1,69
Total non-operating income	9,682	7,00
Non-operating expenses		,,00
Interest expenses	5,114	3,72
Foreign exchange losses	828	81
Other	3,423	2,49
Total non-operating expenses	9,365	7,03
Ordinary income	48,702	41,30
Extraordinary income		
Gain on sales of subsidiaries and affiliates securities	679	1,62
Insurance income	237	1,40
Gain on sales of non-current assets	431	1,40
Gain on sales of investment securities	3,270	
Total extraordinary income	4,617	4.43
Extraordinary loss		.,
Impairment loss	_	3,07
Loss on disposal of non-current assets	2,535	2,39
Acquisition-related expenses		1,91
Loss on disaster	409	1,52
Severance costs	1,539	84
Provision of allowance for doubtful accounts	-	55
Amortization of past service costs	_	44
Loss on sales of subsidiaries and affiliates securities	_	31
Total extraordinary loss	4,483	11,06
Income before income taxes and non-controlling interests	48,836	34,67
Income taxes-current	11,015	7,86
Income taxes-deferred	4,019	1,46
Total income taxes	15,034	9,33
Net income	33,802	25,34
Net income attributable to non-controlling interests	1,774	1,84
Net income attributable to owners of the parent	32,028	23,50

Consolidated Statement of Comprehensive Income Years ended December 31, 2018 and 2019

· · · · · · · · · · · · · · · · · · ·		(Millions of yen)
	2018	2019
Net income	33,802	25,346
Other comprehensive income		
Valuation difference on available-for-sale securities	(6,502)	327
Deferred gains or losses on hedges	17	669
Foreign currency translation adjustment	(20,203)	(4,394)
Remeasurements of defined benefit plans, net of tax	(9,413)	7,269
Share of other comprehensive income of associates accounted for using equity method	(1,545)	(744)
Total other comprehensive income	(37,646)	3,127
Comprehensive income	(3,844)	28,473
Comprehensive income attributable to:		
Comprehensive income attributable to owners of the parent	(4,863)	26,546
Comprehensive income attributable to non-controlling interests	1,019	1,927

Consolidated Statement of Changes in Net Assets Years ended December 31, 2018 and 2019

Siscal year ended December 31, 2018 (Millions of yen)							
		Shareholders' equity					
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity		
Balance at January 1, 2018	96,557	94,445	186,768	(1,828)	375,942		
Change in FY2018							
Dividends from surplus			(11,375)		(11,375)		
Net income attributable to owners of the parent			32,028		32,028		
Purchase of treasury shares				(10)	(10)		
Disposal of treasury shares				15	15		
Net changes of items other than shareholders' equity							
Total change in FY2018	-	-	20,653	5	20,658		
Balance at December 31, 2018	96,557	94,445	207,421	(1,823)	396,600		

Non-controlling interests Total net assets Valuation difference on available-for-sale securities Foreign currency translation adjustment Remeasurements of defined benefit plans Total accumulated other comprehensive income Deferred gains or losses on hedges Balance at January 1, 2018 (3) (46,462) (22,222) (60,813) 343,951 7,874 28,822 Change in FY2018 (11,375) Dividends from surplus Net income attributable to owners of the parent 32,028 Purchase of treasury shares (10) Disposal of treasury shares 15 Net changes of items other than shareholders' equity (6,467) 17 (21,155) (9,286) (36,891) (384) (37,275) Total change in FY2018 (6,467) 17 (21,155) (9,286) (36,891) (384) (16,617) Balance at December 31, 2018 1,407 14 (67,617) (31,508) (97,704) 28,438 327,334

Fiscal year ended December 31, 2019					(Millions of yer
			hareholders' equi		
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at January 1, 2019	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
Change in FY2019					
Dividends from surplus			(11,849)		(11,849)
Net income attributable to owners of the parent			23,500		23,500
Purchase of treasury shares				(7)	(7)
Disposal of treasury shares				6	6
Change in scope of consolidation			(90)		(90)
Change in ownership interest of parent due to transactions with non-controlling interests		11			11
Net changes of items other than shareholders' equity					
Total change in FY2019	-	11	11,561	(1)	11,572
Balance at December 31, 2019	96,557	94,456	218,209	(1,823)	407,398

		Accumulated	other comprehe	nsive 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
Change in FY2019							
Dividends from surplus							(11,849)
Net income attributable to owners of the parent							23,500
Purchase of treasury shares							(7)
Disposal of treasury shares							6
Change in scope of consolidation							(90)
Change in ownership interest of parent due to transactions with non-controlling interests							11
Net changes of items other than shareholders' equity	269	670	(5,055)	7,161	3,046	2,320	5,365
Total change in FY2019	269	670	(5,055)	7,161	3,046	2,320	16,937
Balance at December 31, 2019	1,676	683	(72,671)	(24,346)	(94,658)	30,757	343,497

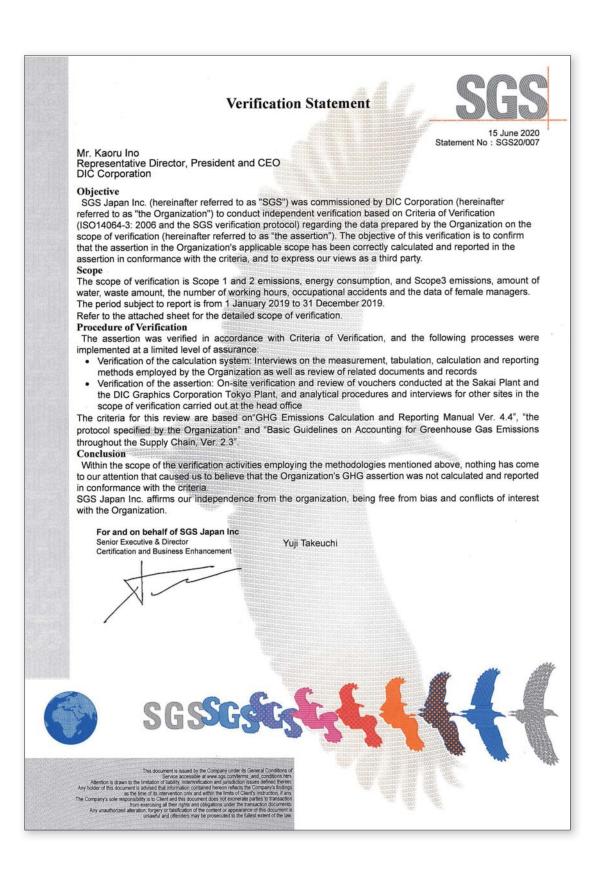
(Millions of yen)

Consolidated Statement of Cash Flows Years ended December 31, 2018 and 2019

(Millions of yen)

	(Millions of y	
	2018	2019
Net cash provided by (used in) operating activities		
Income before income taxes and non-controlling interests	48,836	34,676
Depreciation and amortization	32,825	33,127
Amortization of goodwill	156	99
Increase (decrease) in allowance for doubtful accounts	(263)	559
Increase (decrease) in provision for bonuses	(782)	(561)
Interest and dividends income	(4,206)	(2,834)
Equity in (earnings) losses of affiliates	(3,845)	(2,475)
Interest expenses	5,114	3,724
Loss (gain) on sales and retirement of non-current assets	2,104	997
Impairment loss	_	3,078
Loss (gain) on sales of subsidiaries and affiliates securities	(679)	(1,308)
Loss (gain) on sales of investment securities	(3,270)	
Decrease (increase) in notes and accounts receivable-trade	6,897	(3,054)
Decrease (increase) in inventories	(14,516)	4,614
Increase (decrease) in notes and accounts payable-trade	3,966	(9,802
Other, net	(9,524)	(3,543
Subtotal	62,813	57,298
Interest and dividends income received	6,307	4,335
Interest and undertain former received	(5,050)	(3,865
Income taxes paid	(13,080)	(7,132
Net cash provided by (used in) operating activities	50,990	50,637
Net cash provided by (used in) investing activities	30,770	50,057
Payments into time deposits	(3,832)	(3,685
Proceeds from withdrawal of time deposits	2,893	4,740
Purchase of property, plant and equipment	(31,343)	(34,042
Proceeds from sales of property, plant and equipment	1,336	1,613
Purchase of intangible assets	(741)	(919
Purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	(11,524)	(1,558
Proceeds from purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	(11,324)	235
Proceeds from purchase of shares and investments in capital of subsidiaries resulting in change in scope of consolidation Proceeds from sales of shares and investments in capital of subsidiaries resulting in change in scope of consolidation	679	900
Proceeds non-sales of shares and investments in capital of subsidiaries resulting in charge in scope of consolidation Purchase of subsidiaries and affiliates securities	(157)	900
Proceeds from sales of subsidiaries and affiliates securities	671	9,508
Purchase of investment securities	(509)	
Proceeds from sales and redemption of investment securities	4,150	(350
Payments for transfer of business	(690)	(96
Other, net	679	(1,363
Net cash provided by (used in) investing activities	(38,388)	
Net cash provided by (used in) investing activities	(38,388)	(24,884
	(20,600)	(0.202
Net increase (decrease) in short-term loans payable	(29,689)	(9,383
Proceeds from long-term loans payable	60,627	40,250
Repayment of long-term loans payable	(39,204)	(63,513
Proceeds from issuance of bonds	10,000	20,000
Cash dividends paid	(11,375)	(11,849
Cash dividends paid to non-controlling interests	(1,348)	(767
Net decrease (increase) in treasury shares	5	(1
Purchase of shares and investments in capital of subsidiaries that does not result in change in scope of consolidation	(62)	(186
Other, net	(735)	(1,351
Net cash provided by (used in) financing activities	(11,781)	(26,799
Effect of exchange rate change on cash and cash equivalents	159	(895
Net increase (decrease) in cash and cash equivalents	980	(1,941
Cash and cash equivalents at beginning of the period	17,651	18,631
Cash and cash equivalents at end of the period	18,631	16,69

Third-Party Verification



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).

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.

112 Years of Achievement



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 fu

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

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).



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.



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

Sustainability Initiatives

1973 Establishes the Environment and Safety Response Department

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

1990 Opens Kawamura Memorial Museum of Art

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



1995 Declares intention to uphold the

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



2006

Becomes signatory to the Responsible Care Global Charter

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



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

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.

Takes steps to advance environmental protection and expands global presence

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

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

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 participant in 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."



2015

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

Prepares for a new phase of growth

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 2019, has been included in the index for five consecutive years.

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM (

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(Contact)

DIC Corporation

Corporate Communications Dept. Sustainability Dept.

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Color & Comfort

Making it Colorful Innovation through Compounding Specialty Solutions



Dow Jones Sustainability Indices In Collaboration with RobecoSAM (







