



Color & Comfort

# DIC111 2019–2021 Medium-Term Management Plan

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February 14, 2019



Kaoru Ino,  
Representative Director, President and CEO  
**DIC Corporation**

**Color & Comfort**

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These icons which represent the Sustainable Development Goals (SDGs) are used on pages 18, 20, 22 and 25.

## A Message from the President

### ▶ Transforming our business portfolio to position DIC on a new growth trajectory

In fiscal year 2018, DIC Corporation celebrated its 110th anniversary. This milestone renewed my appreciation for our printing inks business, which has been the core of our operations since our establishment. In addition to deserving recognition for its extraordinary resilience, printing inks and key derivative businesses, namely pigments and polymers, continues to account for the greater portion of our income.

At the same time, the global society of today demands that we address key imperatives arising from growing environment, health and safety (ESH)-related issues, including marine plastic and food safety, and from social changes such as the spread of digitization. As demonstrated by our performance in fiscal year 2018, this situation has served to expose a business structure that is vulnerable to macroenvironmental conditions, including those affecting raw materials, and a limit to our growth potential. Accordingly, while maintaining targets for consolidated net sales of ¥1,000 billion, operating income of ¥100 billion and net assets of ¥500 billion, we have formulated a new medium-term management plan, "DIC111," to clarify strategies for transforming our 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.

### ▶ A unique global company that is trusted by society

- Possessing a wide range of global No. 1 businesses that evoke our distinctive "Color & Comfort" brand slogan
- Realizing corporate value through the promotion of diversity, thereby earning respect and admiration from the global community
- Working with employees, customers and shareholders to create value and build an even more attractive DIC brand

This is our image of DIC in the future. This image, which we have communicated both internally and externally, encapsulates my hopes as CEO for the entire DIC Group in the years ahead.

### ▶ The value that DIC provides to society

To achieve this image, while formulating DIC111 we promoted extensive debate and discussion internally aimed at better defining the value that DIC provides to society, identifying the challenges we must address and determining how best we can continue to further sustainability through our operations. In addition to enabling us to illuminate the relationship between the social value and economic value we provide with a view to realizing our management vision, this process led us to announce the creation of new business groups underpinned by the following key messages:

"Packaging materials that bring safety and peace of mind"

"Color and display materials that make life colorful"

"Functional products that add comfort"

### ▶ A loved and respected company

The efforts in recent years have reconfirmed my belief in the fact that terms such as "corporate governance," "environment, safety and governance (ESG)" and "sustainability" denote concepts that demand management direction with a longer timeline that extends into the future, and that the idea of "doing the right thing and doing it right" is the true way forward. We pledge to continue working to ensure that DIC remains a company that is loved and respected worldwide.



Kaoru Ino, Representative Director, President and CEO 猪野 薫 TOP MESSAGE

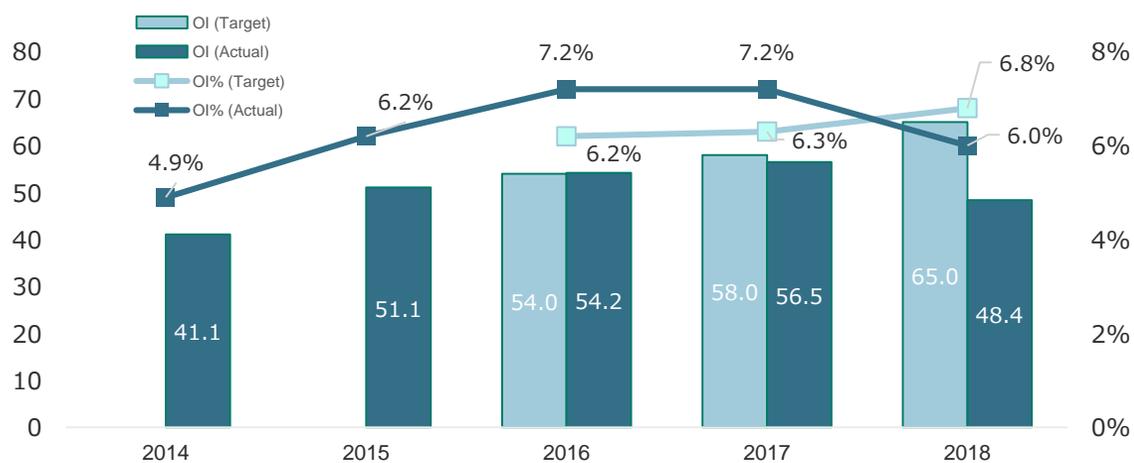
## Operating result trends

(Billions of yen)

	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2018 Original Target
Net sales	820.0	751.4	789.4	805.5	960.0
Operating income	51.1	54.2	56.5	48.4	65.0
Net income* <sup>1</sup>	37.4	34.8	38.6	32.0	40.0
ROE	15%	13%	13%	10%	12%
Ordinary investment (Total for 3 years)	—	94.8			120.0
Strategic investment (Total for 3 years)	—	50.2			150.0
D/C ratio* <sup>2</sup>	47%	44%	44%	45%	Around 50%
Dividend payout ratio	21%	27%	29%	37%	Around 30%
USD/JPY	120.85	109.96	112.33	110.46	120.00

## Trends of operating income and operating margin

(Billions of yen)



## Overview

- Consolidated operating income reached record highs in two consecutive years (2016 and 2017), but was significantly below the original target in 2018, owing to rising raw materials prices.

## Achievements

- Reorganized production system in line with demand trends in mature markets (publication inks and polymers)
- Growth in functional pigments business exceeded target
- Strengthened foundation of electronics businesses through capital and business alliance with Taiyo Holdings Co., Ltd.
- Realized continuous growth in net sales and record-high income (2017)
- Dividend payout ratio exceeded target, thanks to efforts to maintain/improve financial balance

## Challenges

- Reform business structure to offset further demand declines in mature markets (publication inks and general processed products)
- Establish robust business foundation that is impervious to fluctuations in raw materials prices, taking into account the decline in profitability in 2018, a consequence of rising raw material prices
- Create new mainstay businesses to compensate for shrinking demand for publication inks to reposition DIC on a growth trajectory
- Steadily implement strategic investments

\*1 Net income attributable to owners of the parent

\*2 Debt-to-capital (D/C) ratio: Interest-bearing debt / (Interest-bearing debt + Net assets)

## Operating result trends by segment

(Billions of yen)

Row: Upper: Net sales Middle: Operating income Lower: Operating margin	2016 Actual	2017 Actual	2018 Actual	2018 Original Target
<b>Printing Inks</b>	365.2 18.4 5.0%	373.7 17.4 4.7%	380.6 13.8 3.6%	460.9 27.6 6.0%
<b>Fine Chemicals</b>	128.2 14.4 11.2%	135.4 17.4 12.8%	132.3 16.4 12.4%	178.4 20.0 11.2%
<b>Polymers</b>	180.9 19.6 10.9%	197.9 19.6 9.9%	205.8 17.5 8.5%	214.1 18.0 8.4%
<b>Compounds</b>	61.1 5.0 8.1%	64.7 5.0 7.7%	65.2 3.3 4.9%	87.0 8.6 9.9%
<b>Application Materials</b>	55.7 1.9 3.4%	56.1 2.6 4.6%	58.5 3.2 5.5%	64.3 4.5 7.0%
<b>USD/JPY*</b>	109.96	112.33	110.46	120.00
<b>WTI Crude oil (USD/bbl)*</b>	43	51	65	50

\*Annual average

## Factors behind the difference between segment operating income targets and actual results in 2018

### Printing Inks

- Decline in demand for publication inks accelerated, mainly in developed economies
- Income decreased, particularly in emerging economies, as a result of foreign exchange losses due to appreciation of the Japanese yen
- Efforts to offset overall decline by fostering new businesses, including security inks, were inadequate

### Fine Chemicals

- Fell short of plans to substantially increase liquid crystal materials sales due to increasingly competitive environment
- Pigments business significantly exceeded target, led by growth of functional pigments
- Overall result was significantly shy of target

### Polymers

- Achieved robust results for high-value-added products for electronics applications
- Planned sales expansion in Asia was not realized
- Rising raw materials prices prevented achievement of target, despite robust results through 2017

### Compounds

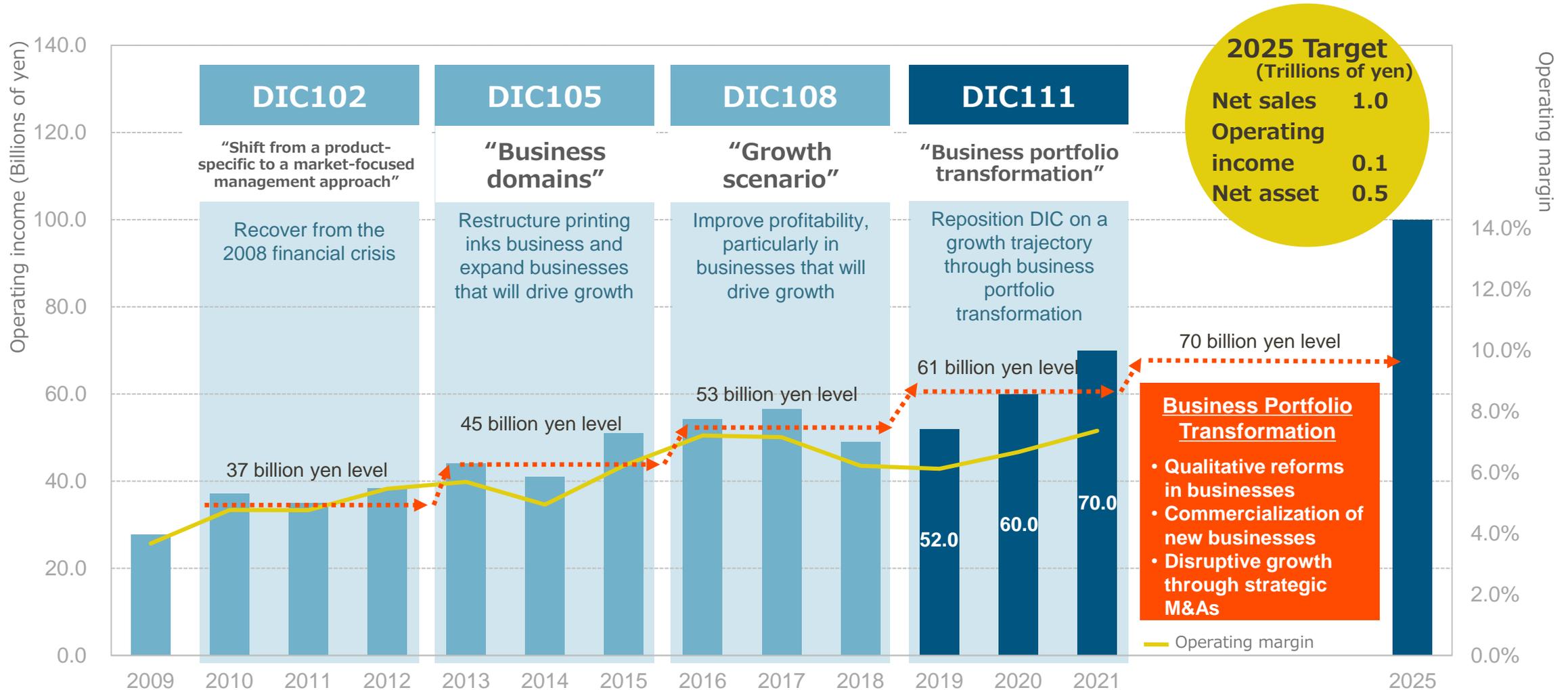
- Failed to reach targets for PPS and jet inks, despite steady growth
- Withdrew from certain commodities businesses that saw greater sales price declines than expected
- Segment fell short of target, owing to the postponement of planned major projects and a delayed shift to high-value-added products

### Application Materials

- Exceeded targets for competitive products in niche areas, including films and membrane modules
- Fell short of targets for products for construction and housing applications
- Failed to achieve target for *Linablue*, despite increased production

# Operating Income Trend and Positioning of DIC111

Reposition DIC on a growth trajectory through “business portfolio transformation”



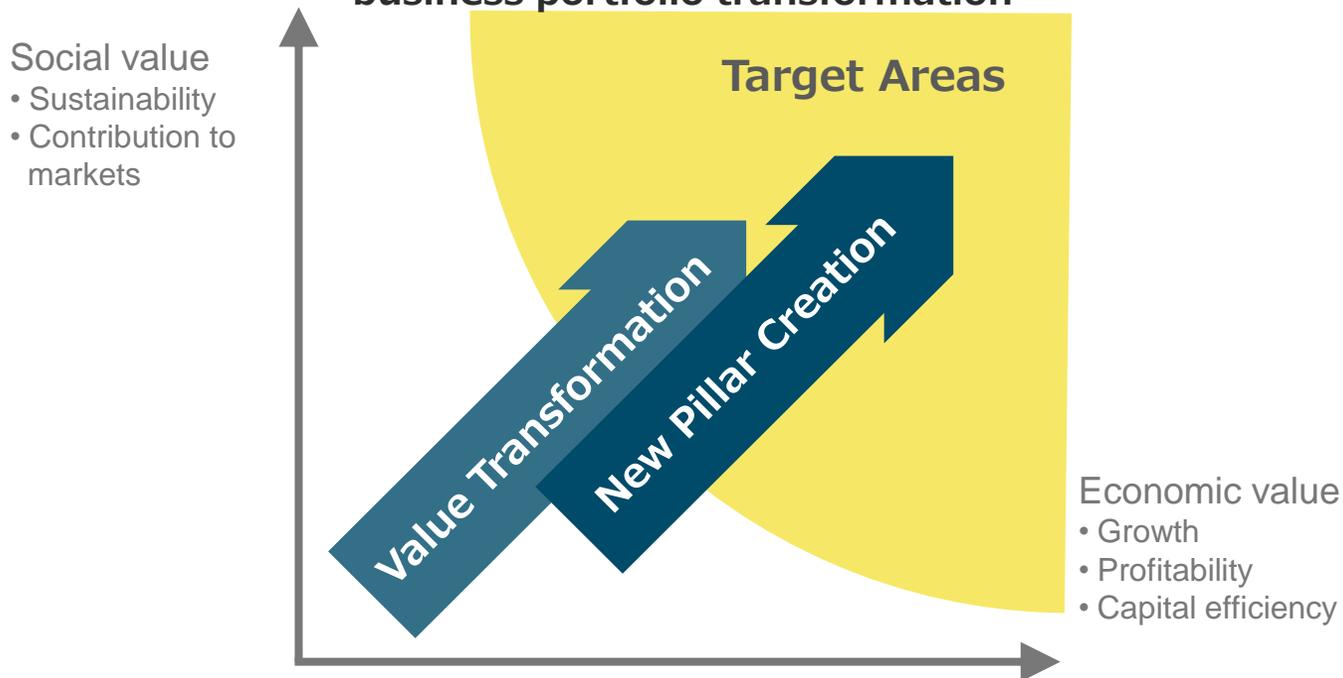
# DIC111 Basic Concept

## DIC's future vision

- Establish a vision based on proactive efforts to address key imperatives arising from social changes such as the spread of digitalization and ESH-related issues, including those affecting the global environment and food supplies

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

### Two strategies for business portfolio transformation



## Basic strategies to realize future vision

### Value Transformation

**Strengthen corporate structure through qualitative reforms of businesses**

- Add value to products
- Improve value provided
- Contribute to sustainability

### New Pillar Creation

**Create new businesses in response to ESH-related issues and social changes**

- Electronics
- Next-generation packaging
- Automotive
- Health care

### Improvement of management infrastructure to support basic strategies

**Digital transformation**  
**Human resources management**  
**Promotion of ESG management**

# Framework for Realizing Basic Concept

New segments for implementing basic strategies and framework for creating new businesses

## “Value Transformation” - Reorganize segments, shifting focus from products to value provided

### Packaging & Graphic

<b>Value provided</b>	Packaging materials that bring safety and peace of mind	
<b>Market</b>	Packaging, digital printing, security printing	<b>Product group</b> Packaging inks, packaging materials, jet inks, publication inks

### Color & Display

<b>Value provided</b>	Color and display materials that make life colorful	
<b>Market</b>	Display materials, cosmetics	<b>Product group</b> Functional pigments, liquid crystal materials, natural colorants, general purpose pigments

### Functional Products

<b>Value provided</b>	Functional products that add comfort	
<b>Market</b>	Automotive, electronics, coatings, semiconductors	<b>Product group</b> Polymers, compounds, industrial adhesive tapes, hollow-fiber membrane modules

## “New Pillar Creation” - Establish business units that will facilitate the creation of new businesses

### Electronics

<b>Value provided</b>	Functional materials that contribute to a digital society
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### Automotive

<b>Value provided</b>	Composite materials that contribute to a mobility society
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### Next-generation packaging

<b>Value provided</b>	Packaging solutions that contribute to environmental sustainability
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### Health care

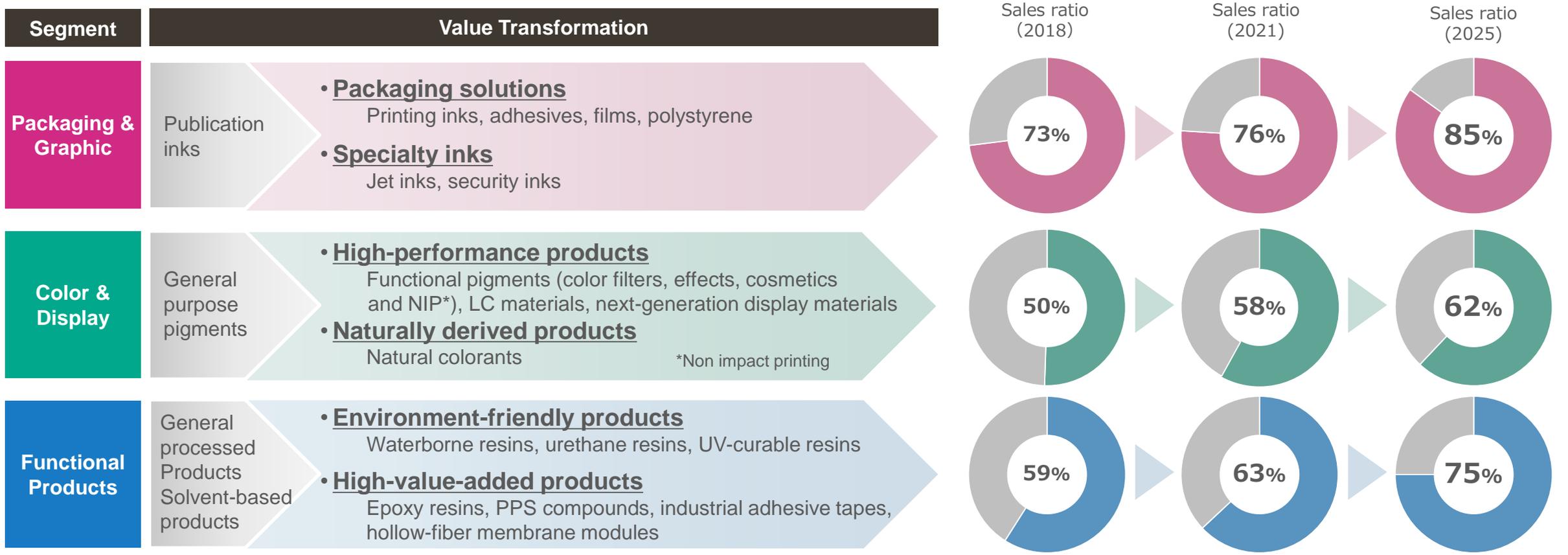
<b>Value provided</b>	Fine chemicals produced by biotechnological processes that contribute to health and longevity
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# Basic Strategies: Business Portfolio Transformation to Achieve Growth

## 1. Value Transformation

Generate sustainable cash inflow by making qualitative reforms to businesses

- Bolster competitiveness by transforming our business structure  
Shift from businesses vulnerable to macro-environmental changes to those with differentiated high-value-added products
- Make businesses more conscious of social value  
Shift to businesses with more of a focus on value provided to customers and markets and on sustainability throughout product life cycles



# Basic Strategies: Business Portfolio Transformation to Achieve Growth

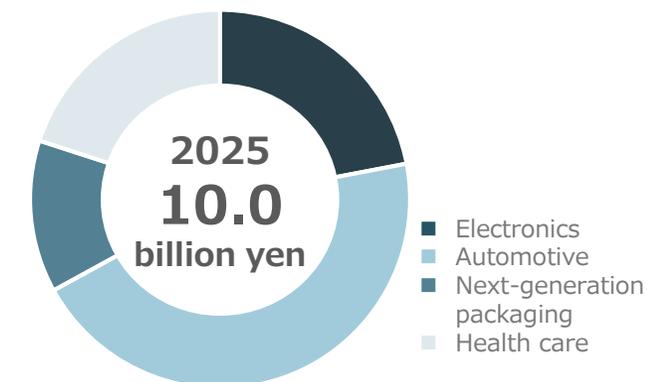
## 2. New Pillar Creation

### Create new pillars by elevating and gaining competences in priority areas

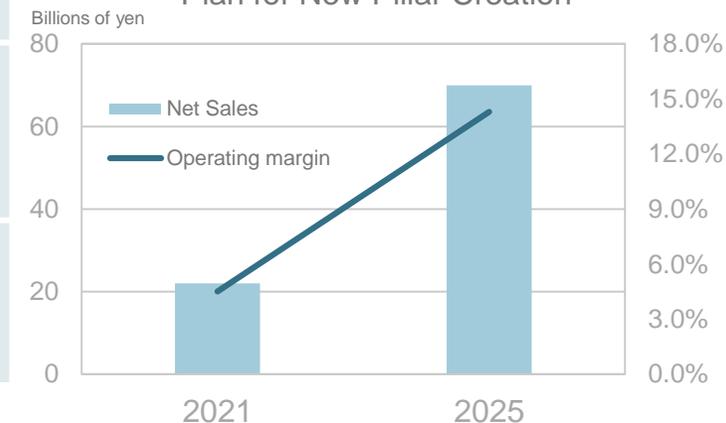
- Create new businesses from the perspective of ESH-related issues and social changes  
Contribute to the resolution of challenges through business activities by identifying areas at the intersection of ESH-related issues/social changes and DIC's core competencies
- Make active use of external resources  
Help establish new social ecosystems through M&As and the use of corporate venture capital (CVC)

Priority areas	ESH-related challenges	DIC's competencies	Targets
<b>Electronics</b>	<ul style="list-style-type: none"> <li>• High-speed communications</li> <li>• Shift to AI, IoT and IoE</li> </ul>	Optical control technology Design technologies for functional materials Dispersion and ink techniques	<ul style="list-style-type: none"> <li>• <b>Next-generation display</b> QD inks, peripheral materials</li> <li>• <b>PCB, Semiconductor, Sensor</b> Insulating and conductive materials, sensors</li> </ul>
<b>Automotive</b>	<ul style="list-style-type: none"> <li>• Connected</li> <li>• Autonomous</li> <li>• Shared</li> <li>• Electric</li> </ul>	Composite technologies	<ul style="list-style-type: none"> <li>• <b>Multi-materialization</b> CFRP, expanded product lineup of engineering plastics</li> <li>• <b>Next-generation battery materials</b> Inorganic active materials for negative electrode and binder resins</li> </ul>
<b>Next-generation packaging</b>	<ul style="list-style-type: none"> <li>• Food issues</li> <li>• Food safety and security</li> <li>• Marine plastic</li> <li>• Distribution revolution</li> </ul>	Global channels Packaging solutions	<ul style="list-style-type: none"> <li>• <b>Approach to safety, security and food loss</b> Barrier materials</li> <li>• <b>Sustainable packaging</b> Mono materials, recyclable and biodegradable materials</li> </ul>
<b>Health care</b>	<ul style="list-style-type: none"> <li>• Health and longevity</li> <li>• Food safety and security</li> </ul>	Algae cultivation technology Color materials	<ul style="list-style-type: none"> <li>• <b>Replacement of artificial colorants</b> Natural colorants for foods and beverages</li> <li>• <b>Nutrition</b> Functional foods, supplements</li> </ul>

Operating income ratio by priority area



Plan for New Pillar Creation



## Quantitative Targets

Set target for operating income of 70.0 billion yen in the final year of DIC111  
 Achieve target by shifting to high-value-added products

(Billions of yen)

	2018 Actual	2019 Target	2020 Target	2021 Target	Change (2021/2018)
<b>Net sales</b>	805.5	850.0	900.0	950.0	+18%
<b>Operating income</b>	48.4	52.0	60.0	70.0	+45%
<b>Operation income ratio</b>	6.0%	6.1%	6.7%	7.4%	—
<b>Net income*1</b>	32.0	35.0	37.0	45.0	+41%
<b>EBITDA*2</b>	81.4	87.0	91.0	102.0	+25%
<b>EBITDA to net sales ratio</b>	10.1%	10.2%	10.1%	10.7%	—
<b>ROE</b>	10.4%	10 – 12%			—

USD/JPY

110.46

110.00

110.00

110.00

\*1 Net income attributable to owners of the parent

\*2 EBITDA = Net income (\*1) + total income tax + Interest expenses – Interest income + Depreciation and amortization

# Strengthening Management Infrastructure

## 1. IT and Human Resources Strategies

### Digital transformation for business process reengineering

- Realize targeted business process reengineering by using backcasting to formulate future predictions that take into account advances in IT, while at the same time using existing technologies to improve efficiency over the three years of DIC111



### Business process reengineering at DIC

- Entry into new markets created through the advancement of technologies
- New business models created by revamping in supply chains
- Dramatic productivity improvement and creation of new work styles

### Human resources management

- Rally diverse human resources as the source of DIC's competitiveness at a global company (WING)

#### Work style reform

##### Reform work styles to capitalize on diversified individuality

- Reform jobs with digital tools
- Reform working conditions by introducing a telecommuting system and flexible working hours
- Reform focuses on evaluation from quantity to performance
- Support childcare, nursing care, illness care etc.

#### Human resources Infrastructure reform

##### Adopt global human resources system and unify Group system

- Consolidate employee qualification systems globally
- Unify qualification standards and assessment format for management-level employees (2020)
- Develop IT system for global human resources platform (2021)

#### Next management selection

##### Establish system to appoint the next management team

- Clarify the requirements for employees in key positions (2019)
- Establish selection and monitoring process for high-potential employees (2020)
- Optimize combination of positions and employees by the Talent Review Committee

#### Global Talent Development

##### Develop global human resources

- Define the level of and set requirements for global human resources (2019)
- Systematize global human resources development program (English-language ability, competency, work experience)

### Set targets in each area of ESG and accelerate implementation of initiatives

#### Environment

- Reduce carbon dioxide emissions attribute to production
- Supply products and solutions that contribute to sustainability

Target: 30% reduction of carbon dioxide emissions (\*1) (2030)

- Install photovoltaic power systems and reduce energy consumption rate
- Introduce proprietary sustainability index based on the reduction of environmental impact and contribution to market
- Utilize recycled materials and adopt biomass-derived materials

#### Social

- Promote diversity and work style reform
- Enforce “safety first” principle

Target: Rate of female employees in management positions in Japan:  
4.4% (2018) → 8% (2021) → 20% (2025)

Rate of foreign employees in Japan:

1.0% (2018) → 5% (2021) → 10% (2025)

- Reform work styles by utilizing IT and change mindset through diversity education
- Implement safety education globally with EHS education and by assigning staff

#### Governance

- Diversify management team
- Reflect cost of capital in decision making

Target: Rate of foreign nationals or women in executive positions:  
15% (2018) → 20% (2021) → 30% (2025)

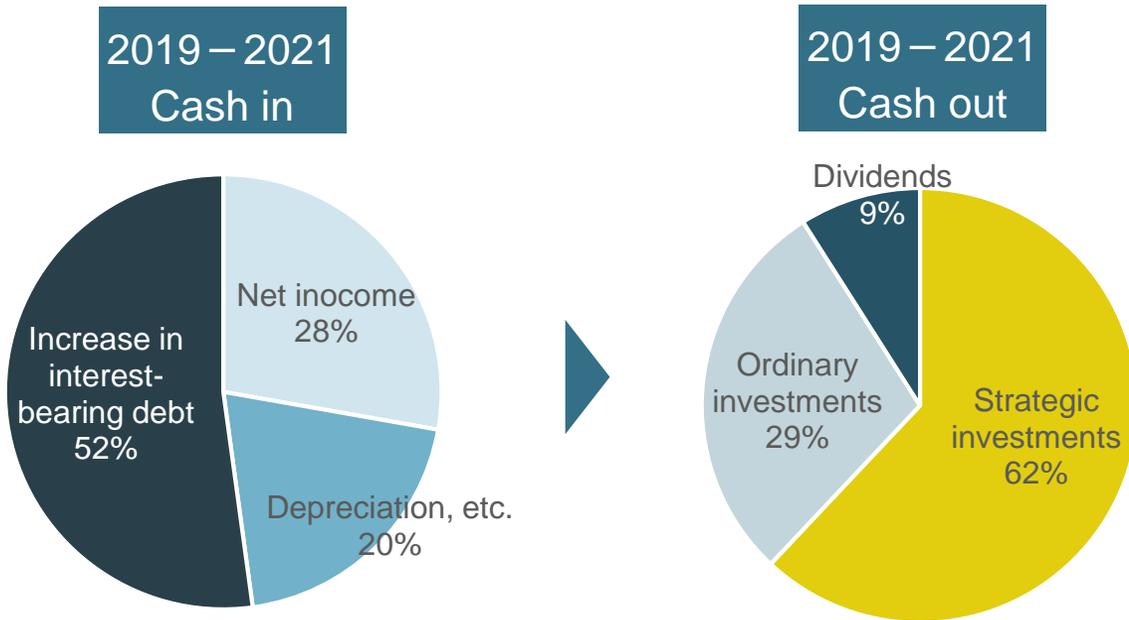
- Promote diversity by actively appointing foreign nationals and women
- Reflect cost of capital appropriately in investment decisions and business portfolio selections
- Establish criteria for withdrawal from businesses

\*1: Compared with 2013

# Cash Flow Management

## Budget 250 billion yen for strategic investments aimed at business portfolio transformation and balance financial health and shareholder returns

- Prioritize efforts to maximize cash flow by promoting business portfolio transformation, guided by DIC111, and budget 250.0 billion yen for strategic investments aimed at accelerating growth, while working continuously to strengthen financial health
- Shareholder returns    Dividend payout ratio: Around 30%  
Pay dividends in line with profit growth maintaining stable dividends
- Financial health    D/C ratio: Around 50%  
Support growth by maintaining financing and risk management capabilities

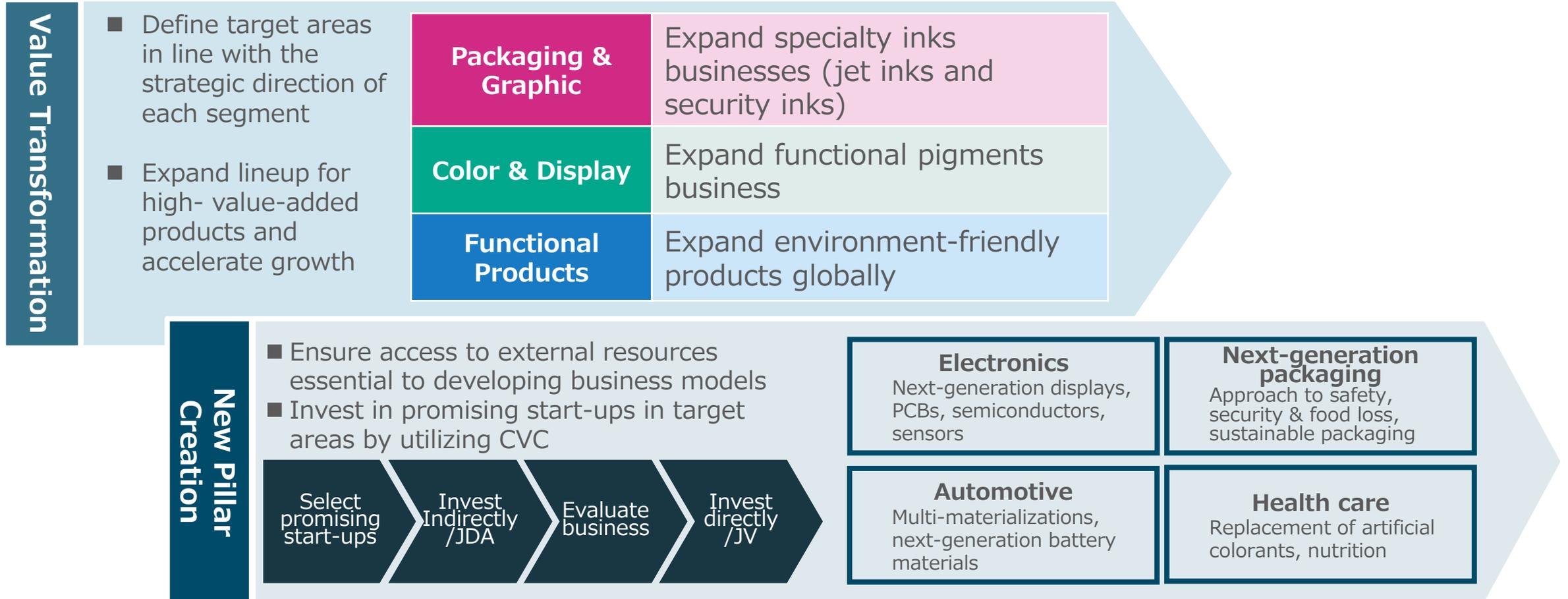


Cash Allocation Plan		
Ordinary investments	120.0 billion yen	To be implemented based on plans for the enhancement, renewal and maintenance of facilities
Strategic investments	250.0 billion yen	Strategic investments aimed at business portfolio transformation
Dividends	35.4 billion yen	Dividends to be linked with income growth maintaining stable returns to shareholders

# Strategic Investments

## Budget 250 billion yen for strategic investments and accelerate business portfolio transformation

Budget 250 billion yen for strategic investments to accelerate business portfolio transformation through the basic strategies of “Value Transformation” and “New Pillar Creation”



# Summary of Plans by Segment

	Business Policy	Quantitative targets (Billions of yen) (Upper row: Net sales, Lower row: Operating income)			
		2018 Actual	2019 Target	2020 Target	2021 Target
<b>Packaging &amp; Graphic</b>	Concentrate resources on high-value-added products (packaging solutions, specialty inks)	434.7	460.0	476.7	494.0
		19.9	20.2	23.3	26.0
<b>Color &amp; Display</b>	Ensure balance between acceleration of growth through shifting of resources to strategic products and maintenance of stability through rationalization of existing products	124.1	129.6	140.0	149.4
		15.0	15.4	16.0	18.2
<b>Functional Products</b>	Achieve social contribution and growth by strengthening lineup of environment-friendly and functional products	282.1	296.9	318.4	343.2
		20.8	24.1	28.4	33.6

# Packaging materials that bring safety and peace of mind



## Packaging inks

- Gravure inks
- Flexo inks
- Packaging adhesives
- Can coatings

Global  
No.1

## Packaging material

- Polystyrene
- Multilayer films

## Jet inks

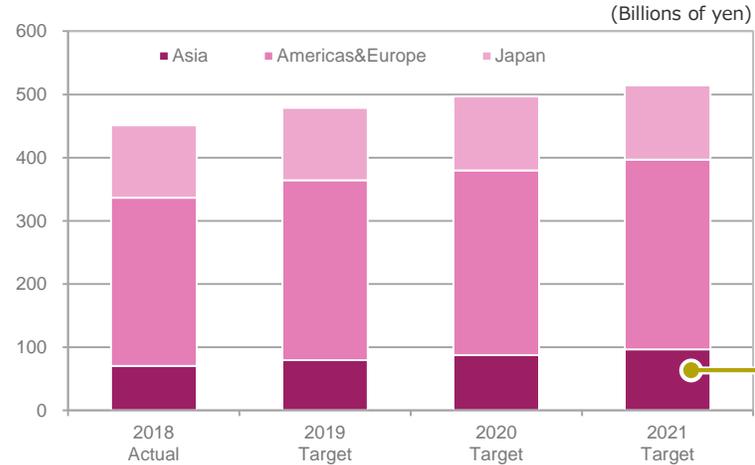
## Security inks

## Publication inks

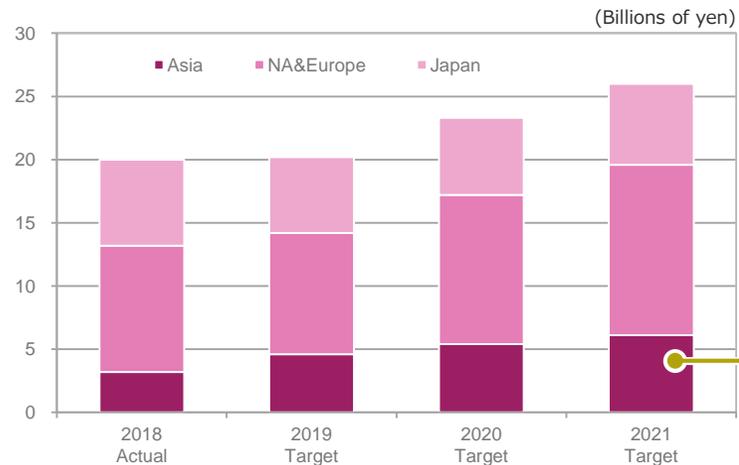
# Segment Strategies: Packaging & Graphic

## Business policy: Concentrate resources on high-value-added products (packaging solutions, specialty products)

### Net sales target



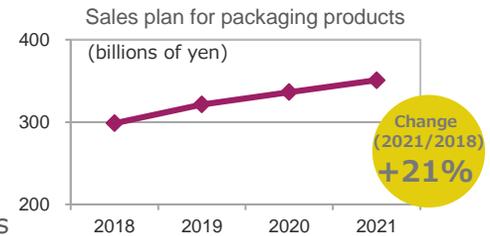
### Operating income target



### Packaging solutions

- Products: Gravure inks, flexo inks, adhesives, films and polystyrene
- Accelerate growth of business in growing packaging market through product portfolio expansion

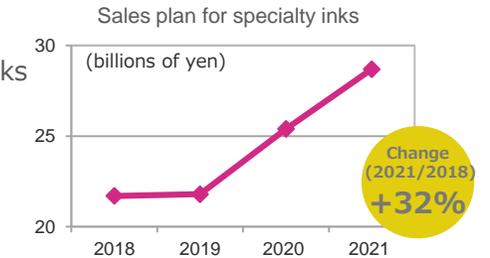
- Develop and improve sustainable products which meet changing market needs in the packaging industry
- Enhance production configurations in India, Vietnam and China and expand sales in Asia (gravure inks, adhesives, etc.)
- Expand business scale through JVs and M&As



### Specialty inks

- Products: Jet inks, security inks
- Achieve high profitability through furthering global management integration and expanding high-value-added products

- Aggressively invest resources into security inks and grow profit by capturing Asian market
- Develop industrial application for jet inks, expand production capacity in China and expand business through M&As



### Publication inks

- Products: Offset inks, news inks
- Implement rightsizing globally based on further demand decline in publication market and achieve rationalization of business
- Optimize production of publication inks and news inks as a group and improve management structure



# Color and display materials that make life colorful



## Functional pigments

Pigments for color filters  
Pigments for cosmetics  
Effect pigments



## Natural colorants



## Liquid crystal materials

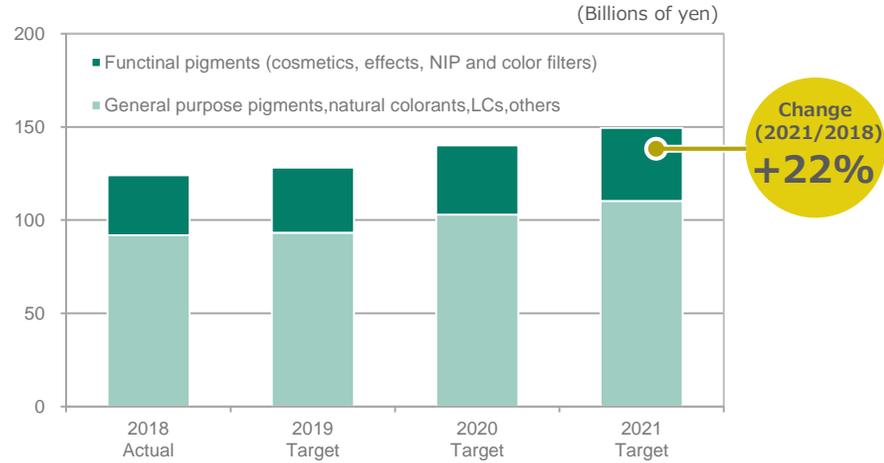
TFT  
STN

## Organic Pigments

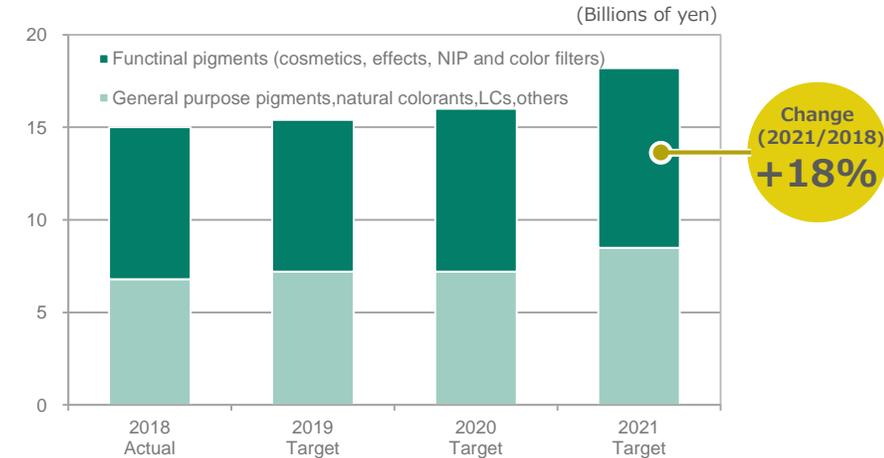
# Segment Strategies: Color & Display

**Business policy** Ensure balance between acceleration of growth through shifting of resources to strategic products and maintenance of stability through rationalization of existing products

**Net sales target**



**Operating income target**

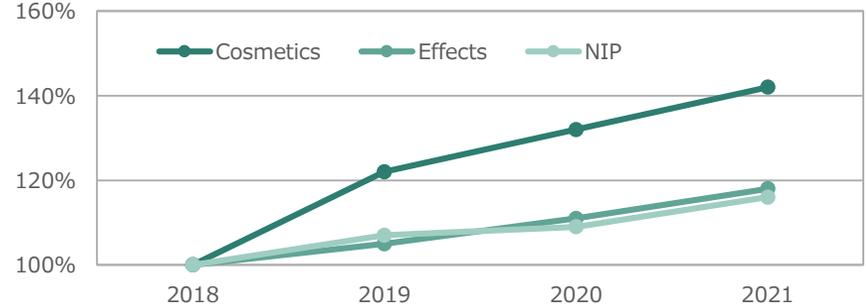


**Color materials**

- Expand functional pigments business (cosmetics, effects and NIP)
  - Expand production and supply capacity for special pigments (cosmetics)
  - Enter into personal care market by expanding processed pigments business (cosmetics)
  - Expand product lineup of designable metallic pigments and pearlescent pigments (effects)
  - Expand product lineup by bringing new products into the digital printing market (NIP)
- Expand natural colorants business (*Linablue*)
- Establish a global leading position through M&As



Sales growth of functional pigments (cosmetics, effects and NIP)



**Display materials**

- Firmly maintain the global leading position by expanding product lineup of functional pigments (for color filters)
- Expand sales of TFT liquid crystal with patent and price strategies and accelerate development of Chinese market
- Enter into the QD inks business



## Functional products that add comfort



### Environment-friendly products

Waterborne, UV-curable resins  
Acrylic, Urethane, Polyester resins

### Electrical / Electronic materials

Epoxy resins  
Phenolic resins

### Resins for printing inks and coatings

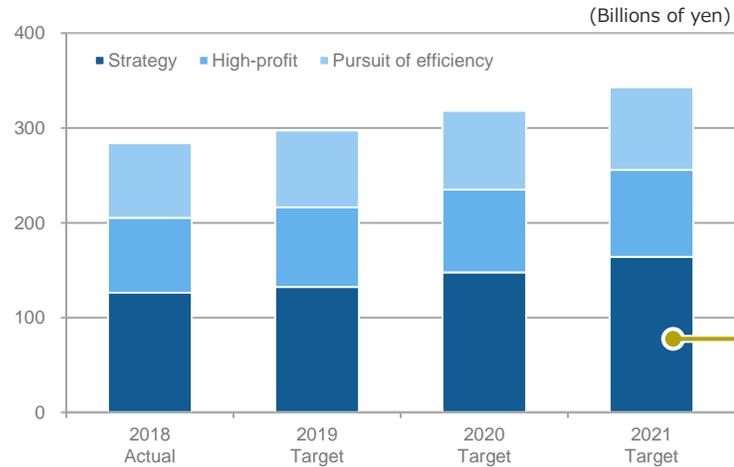
### Compounds and industrial adhesive tapes for automotive application

### Hollow-fiber membrane modules

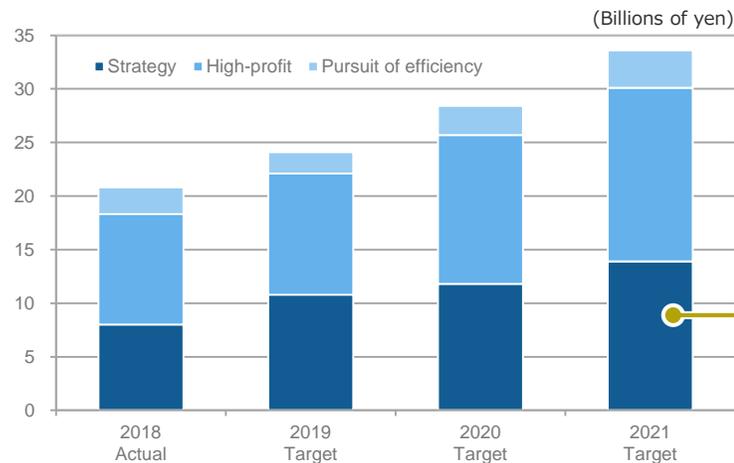
# Segment Strategies: Functional Products

**Business policy** Achieve social contribution and growth by strengthening lineup of environment-friendly and functional products

**Net sales target**



**Operating income target**



## Global strategy for expanding environment-friendly products

- Products : Waterborne resins, UV curable resins, acrylic resins, urethane resins, polyester resins, PPS compounds
- Products that are not only environment-friendly but also have a positive impact on markets and society
  - Expand through aggressive investments and M&A
    - Expand resins production bases in Asia
    - Acquire next-generation engineering plastics
  - Expand sales in key markets (coatings, adhesives, automotive)
  - Design sustainable polymers: Use recyclable and biomass-derived raw materials



## High-profit products with functions that provide comfort

- Products : Epoxy resins, plasticizers, fluorochemicals, phenolic resins, hollow-fiber membranes, industrial adhesive tapes
- Highly profitable products that meet sophisticated needs in niche markets
  - Expand sales in niche market
    - Launch next-generation resin in optical-electronics applications
    - Expand sales of industrial adhesive tapes for mobile and automotive applications
    - Full-fledged entry into large-scale hollow-fiber membranes market and gain share
    - Ensure growth of molding materials for medical application



## Pursuit of efficiency and improvement of profitability

- Products : Unsaturated polyester resins, plastic colorants, high-performance compounds, printed products, laminated products etc.
- Products for which the pursuit of efficiency maximizes contribution to profitability
  - Rightsizing
    - Rationalize low profit business and locations and improve efficiency by integrating production lines



# Plans by Region

(Billions of yen)

	Regional strategy	Quantitative target (Upper row: Net sales, Lower row : Operating income)			
		2018 Actual	2019 Target	2020 Target	2021 Target
<b>Japan*</b>	<ul style="list-style-type: none"> <li>Concentrate resources on high-value-added products</li> <li>Rightsize mature businesses</li> <li>Strengthen technology development contributing to realization of the basic concept</li> </ul>	376.0	390.4	407.9	428.4
		21.4	22.6	26.4	31.7
<b>Asia Pacific</b>	<ul style="list-style-type: none"> <li>Build in growth by expanding production plants in South Asia</li> <li>Optimize regional production</li> </ul>	90.1	99.6	107.6	115.4
		4.2	6.5	7.4	8.5
<b>China</b>	<ul style="list-style-type: none"> <li>Build in growth by expanding locations through M&amp;As</li> <li>Promote the sales of sustainable products such as waterborne resins</li> <li>Cope with tightening environmental regulations</li> </ul>	75.0	84.7	94.4	112.4
		6.1	7.0	7.9	8.7
<b>Americas and Europe</b>	<ul style="list-style-type: none"> <li>Expand packaging solutions and specialty inks to offset declining sales of publication inks</li> <li>Increase production capacity for high-value-added products other than inks</li> </ul>	332.0	347.6	357.1	367.1
		16.7	15.9	18.3	21.1

\*Subsidiary companies not in above regions are included in Japan.

# Supplementary Materials 1: New Segments and Product Mix by Products Division

Until Dec. 2018

Segment

Product Division  
Principal products

## Printing Inks

### Printing Inks

- Offset inks
- Gravure inks
- Flexo inks
- Security inks
- Metal decoration inks
- News inks
- Packaging adhesives
- Printing supplies

## Fine Chemicals

### Pigments

- Organic pigments
- Pigments for color filters
- Effect pigments
- Pigments for cosmetics
- Metal carboxylate
- Sulfur chemicals

### Liquid Crystals

- Liquid crystal materials

## Polymers

### Polymers

- Alkyd resins
- Polyester resins
- Unsaturated polyester resins
- Plasticizers
- Waterborne resins
- Acrylic resins
- Methacrylate resins
- Amino resins
- Phenolic resins
- Polystyrene
- Epoxy resins
- UV-curable resins
- Urethane resins
- Fluorochemicals
- Alkylphenols

## Compounds

### Liquid Compounds

- Jet inks
- Colorants
- Coatings

### Solid Compounds

- PPS compounds
- Functional compounds
- Plastic colorants
- High-performance optical materials

## Application Materials

### Application Materials

- Plastic containers
- Industrial adhesive tapes
- Magnetic tapes
- Incombustible decorative boards
- Decorative papers/sheets
- Hollow-fiber membrane modules
- Health foods
- Natural colorants
- Coextruded multilayer films
- Processed SMC products
- Coatings for building materials

From Jan. 2019

Segment

Products Division  
Principal products

## Packaging & Graphic

### Printing Material

- Jet inks
- Gravure inks
- Flexo inks
- Security inks
- Metal decoration inks
- Offset inks
- News inks

### Packaging Material

- Polystyrene
- Packaging adhesives
- Coextruded multilayer films

## Color & Display

### Color Material

- Organic pigments
- Pigments for color filters
- Effect pigments
- Pigments for cosmetics
- Health foods
- Natural colorants

### Display Material

- Liquid crystal materials
- QD inks

## Functional Products

### Performance Material

- Alkyd resins
- Polyester resins
- Unsaturated polyester resins
- Plasticizers
- Waterborne resins
- Acrylic resins
- Methacrylate resins
- Amino resins
- Phenolic resins
- Epoxy resins
- UV-curable resins
- Urethane resins
- Fluorochemicals
- Alkylphenols
- Metal carboxylate
- Sulfur chemicals

### Composite Material

- Colorants
- Coatings
- PPS compounds
- Functional compounds
- Plastic containers
- Industrial adhesive tapes
- Magnetic tapes
- Incombustible decorative boards
- Decorative papers/sheets
- Hollow-fiber membrane modules
- Processed SMC products
- Coatings for building materials

# Appendix2 : Sustainability Strategies

## Set a proprietary sustainability index

- Introduce a sustainability index in 2020 to evaluate the value our products provide from the perspective of environmental impact of production processes and resulting contribution to markets

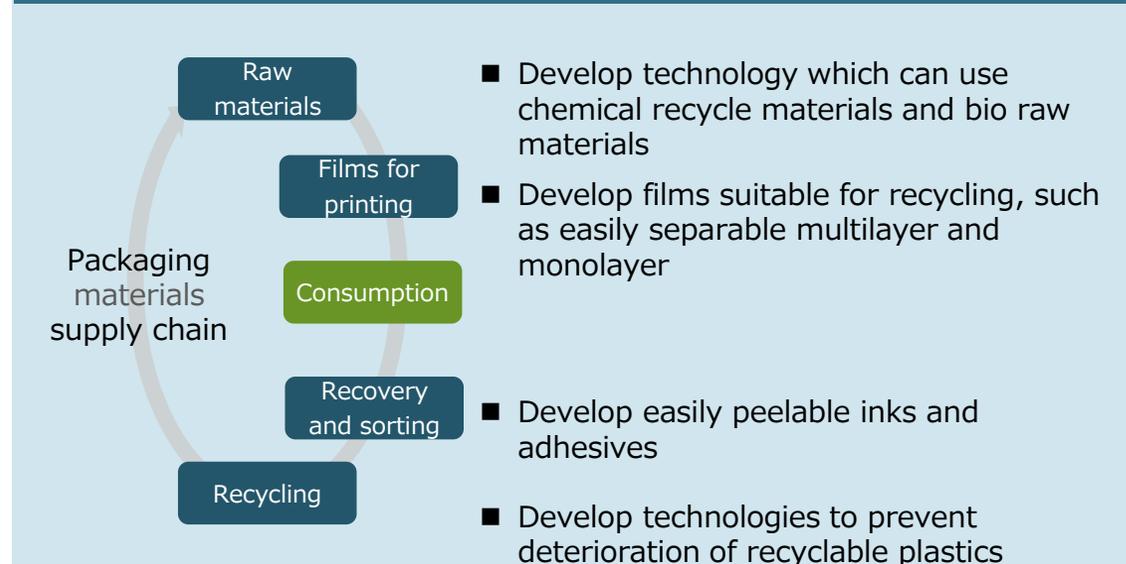
Value provided by products and solutions that contribute to sustainability

Social issues	Primary value of our products
<p>Climate change</p>   <p>Resource conservation</p>  	<ul style="list-style-type: none"> <li>● Contain renewable raw materials</li> <li>● Energy saving and thermal insulation</li> <li>● Reduce weight</li> <li>● Cope with marine plastics</li> </ul>
<p>Sustainable use of natural resources</p>   	<ul style="list-style-type: none"> <li>● Recyclable</li> <li>● Reduce waste</li> <li>● Long life</li> <li>● Reduce volume</li> </ul>
<p>Food, safety, and health</p>  	<ul style="list-style-type: none"> <li>● Health and comfort</li> <li>● Reduce food waste</li> <li>● Low VOCs and safe</li> </ul>

## Enhance measures to cope with waste plastic and marine plastic

- Define areas in which DIC, as a manufacturer of fine chemicals, can help address the issues of waste plastic and marine plastic and actively promote initiatives
- Establish packaging materials as our principle area of focus and tackle challenges using a project configuration that encompasses the Packaging & Graphic Business Group, New Business Development Headquarters and R&D Management Unit
- Promote efforts aimed at recovering used plastics, replacing plastics with alternative materials and switching to biodegradable plastics

### Focus on packaging materials





**Color & Comfort**

