

Change and Innovation 3.0

For a Sustainable Future

# FY2019-FY2021 Corporate Business Plan

**Updated May 15, 2019** 



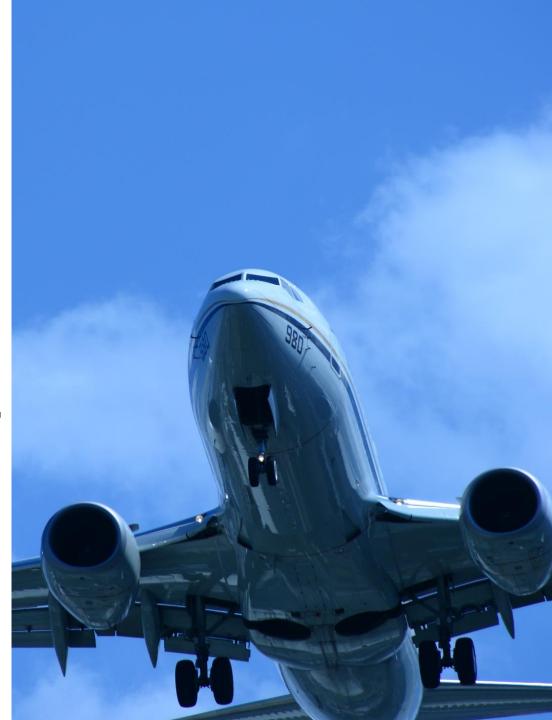
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FY2016-FY2018

Progress Review for Previous Corporate Business Plan



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## Change and Innovation Create New Value





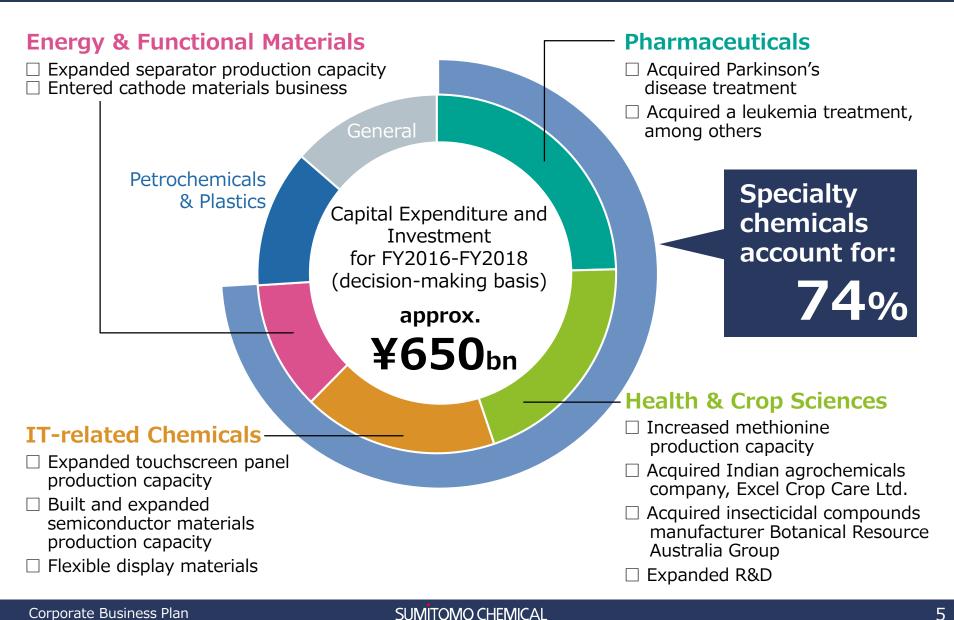


Promote globally integrated management

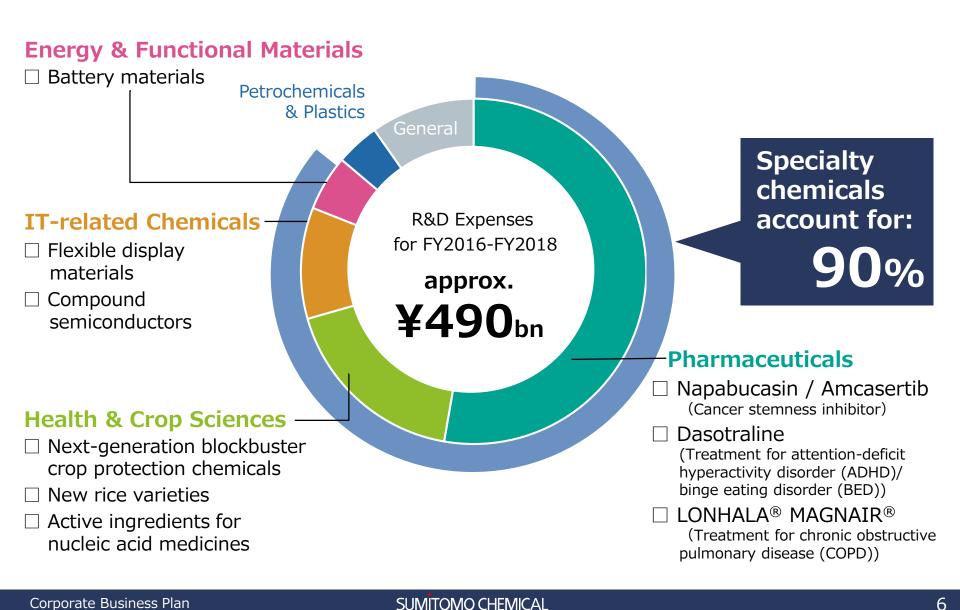
Ensure full and strict compliance
Establish and maintain safe and stable operations

### Capital Expenditure and Investment for FY2016-FY2018

(decision-making basis)



### Research and Development Expenses for FY2016-FY2018



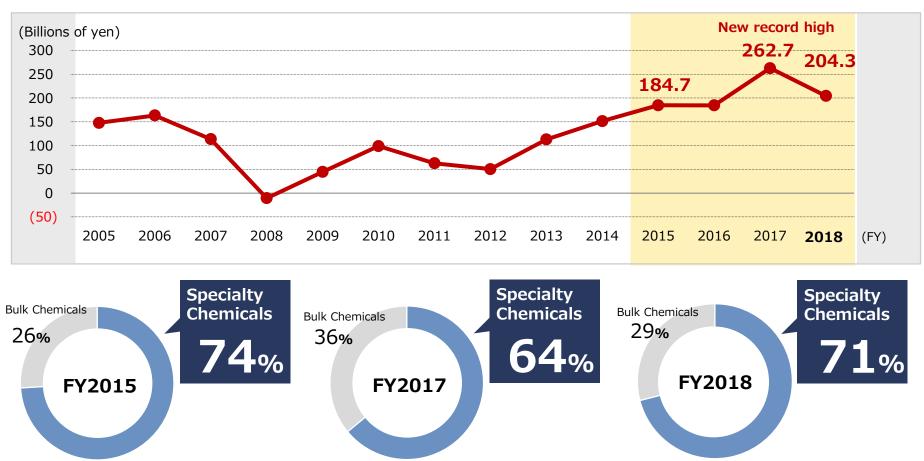


### **Change in Business Portfolio**

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### Change in core operating income and its composition

\* Through FY2015: sum of operating income and equity in earnings of affiliates under J-GAAP.



Steady increase in profitability of specialty chemicals business

(Billions of yen)

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	FY2018	FY2018 Target	Change
Sales Revenue	2,318.6	2,540.0	-221.4
Core Operating Income	204.3	240.0	-35.7
Operating Income (IFRS)	183.0	190.0	-7.0
Net Income attributable to owners of the parent	118.0	110.0	+8.0
Naphtha Price	¥49,500/kl	¥45,000/kl	
Exchange Rate	¥110.92/\$	¥120.00/\$	

<sup>\*</sup> FY2018 and FY2018 target both based on IFRS



### **Core Operating Income by Sector**

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(Billions of yen)

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	FY2018	FY2018 Target	Change	Reason for Change
<b>Specialty Chemicals</b>	149.7	206.0	-56.3	
Energy & Functional Materials	23.0	18.0	+5.0	
IT-related Chemicals	26.2	34.0	-7.8	
Health & Crop Sciences	19.7	89.0	-69.3	Lower methionine price and decrease in crop protection chemicals sales
Pharmaceuticals	80.8	65.0	+15.8	Increase in LATUDA sales
<b>Bulk Chemicals</b>	61.6	39.0	+22.6	
Petrochemicals & Plastics	61.6	39.0	+22.6	Improved margins of petrochemicals
Others	-7.0	-5.0	-2.0	
Total	204.3	240.0	-35.7	

### **Generate More Cash Flow**

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### **Change in Cash Flows and Interest-Bearing Debt**

(Billions of yen)

	FY2013-2015	FY2016-2018 (Target)	FY2016-2018
Cash flows from operating activities	716.4	680.0	687.2
Cash flows from investing activities	-245.5	* -800.0	-541.1
Free cash flows	470.9	-120.0	146.1

<sup>\*</sup> Including investment in Rabigh Phase II project

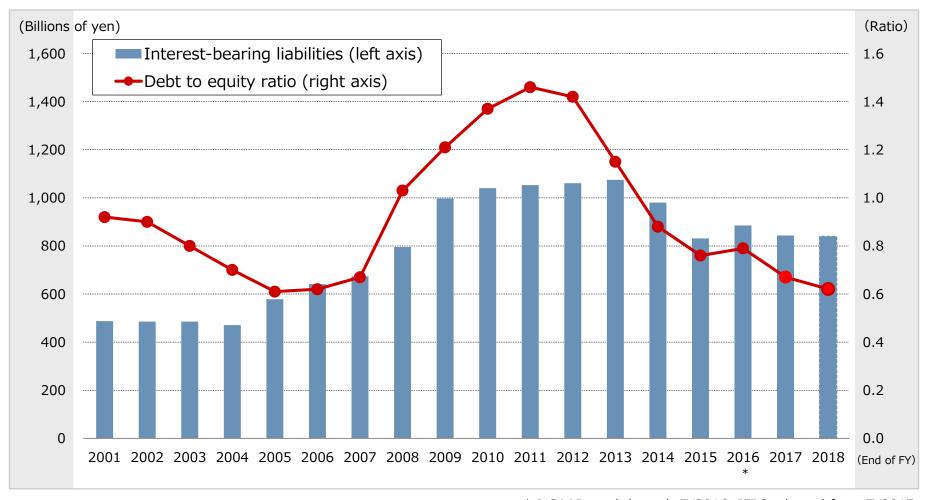
(Billions of yen)

	End of FY2015	End of FY2018 (Target)	End of FY2018
Interest-bearing liabilities	831.5	1,000.0	839.5

### **Generate More Cash Flow**

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### **Interest-Bearing Liabilities and D/E Ratio**



<sup>\*</sup> J-GAAP used through FY2016, IFRS adopted from FY2017. Information for FY2016 restated in accordance with IFRS.

### Ι

FY2019-FY2021

### New Corporate Business Plan

- 1. Business Environment
- 2. Basic Policy
- 3. Performance Targets
- 4. Major Action Plan



П	Ne	eW	Corporate Business Plan	12
	1		<b>Business Environment</b>	14
	2		Basic Policy	17
	3		Performance Targets	21
	4		Major Action Plan	30

### 1. Business Environment

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### Global economy and risk factors

Growth continues at an annual rate of approx. 3%

Increased volatility and uncertainty

Increased financial risk in emerging countries

Trade slowdown due to the rise of protectionism

Impact of US-China competition for hegemony on the global economic system

Realization of potential geopolitical risks

Increasing national debt, low birthrate and aging society (Japan)

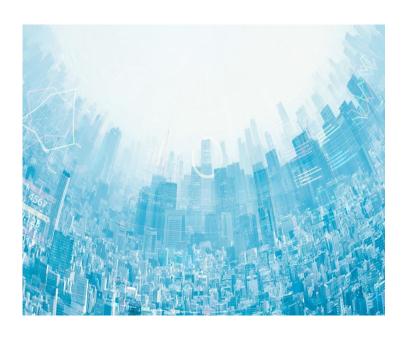
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### 1. Business Environment



- ☐ Create new value through digital innovation
- Solve issues facing society and contribute to sustainability through innovation





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#### Slogan of new corporate business plan

### Change & Innovation 3.0 For a Sustainable Future

In view of the advent of Society 5.0 (super-smart society)

- Accelerate innovation
- Promote digital innovation to improve productivity significantly
- Contribute to building a sustainable society



### 2. Basic Policy



### **Change & Innovation**

For the next hundredth anniversary

**Create New Value** 

For a Sustainable Future

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Phase 3 Phase 4 Phase Accelerate the development of next-Accelerate the launch generation businesses **Developed** of next-generation businesses next-generation Improve productivity businesses through digital innovation **Further improve Improved** business portfolio **Further improve** business portfolio business portfolio **Enhanced** Generate more **Build a more robust** financial strength cash flow financial structure **FY2016** FY2013 FY2019 FY2021

### **New Corporate Business Plan**

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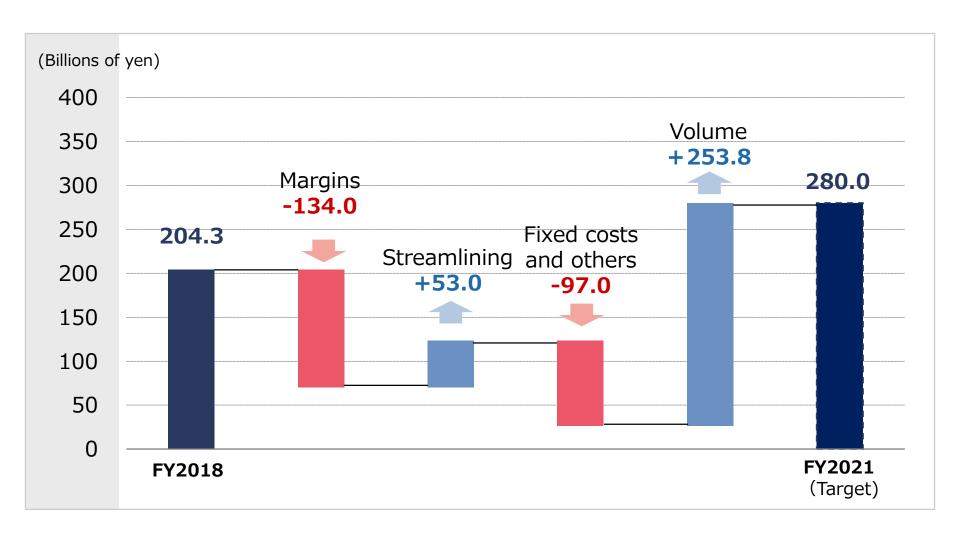
**Change & Innovation 3.0 For a Sustainable Future** 

(Billions of yen)

	FY2018	FY2021 Target	Change
Sales Revenue	2,318.6	2,950.0	+631.4
Core Operating Income	204.3	280.0	+75.7
Operating Income (IFRS)	183.0	260.0	+77.0
Net Income attributable to owners of the parent	118.0	150.0	+32.0
Naphtha Price	¥49,500/kl	¥51,000/kl	
Exchange Rate	¥110.92/\$	¥110.00/\$	



### Change In Core Operating Income (FY2018 VS FY2021)





### **Sales Revenue by Sector**

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(Billions of yen)

	FY2018	FY2021 Target	Change	Reason for Change
<b>Specialty Chemicals</b>	1,509.9	1,980.0	+470.1	
Energy & Functional Materials	282.9	390.0	+107.2	Increase in battery materials sales volume
IT-related Chemicals	396.8	520.0	+123.2	Increase in OLED materials sales volume
Health & Crop Sciences	338.1	480.0	+141.9	Increase in sales volume of crop protection products and methionine
Pharmaceuticals	492.1	590.0	+97.9	Increase in sales volume of pharmaceuticals in North America
<b>Bulk Chemicals</b>	757.5	910.0	+152.5	
Petrochemicals & Plastics	757.5	910.0	+152.5	Increase in sales volume of products of PRC phase II
Others	51.1	60.0	+8.9	
Total	2,318.6	2,950.0	+631.4	



### **Core Operating Income by Sector**

**Change & Innovation 3.0 For a Sustainable Future** 

(Billions of yen)

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	FY2018	FY2021 Target	Change	Reason for Change
Specialty Chemicals	149.7	235.0	+85.3	
Energy & Functional Materials	23.0	31.0	+8.0	Increase in battery materials sales volume
IT-related Chemicals	26.2	35.0	+8.8	Increase in OLED materials sales volume
Health & Crop Sciences	19.7	75.0	+55.3	Increase in sales volume of crop protection products and methionine
Pharmaceuticals	80.8	94.0	+13.2	Increase in sales volume of pharmaceuticals in North America
<b>Bulk Chemicals</b>	61.6	49.0	-12.6	
Petrochemicals & Plastics	61.6	49.0	-12.6	Lower margins for MMA
Others	-7.0	-4.0	+3.0	
Total	204.3	280.0	+75.7	

### 3. Performance Targets: Financial Metrics

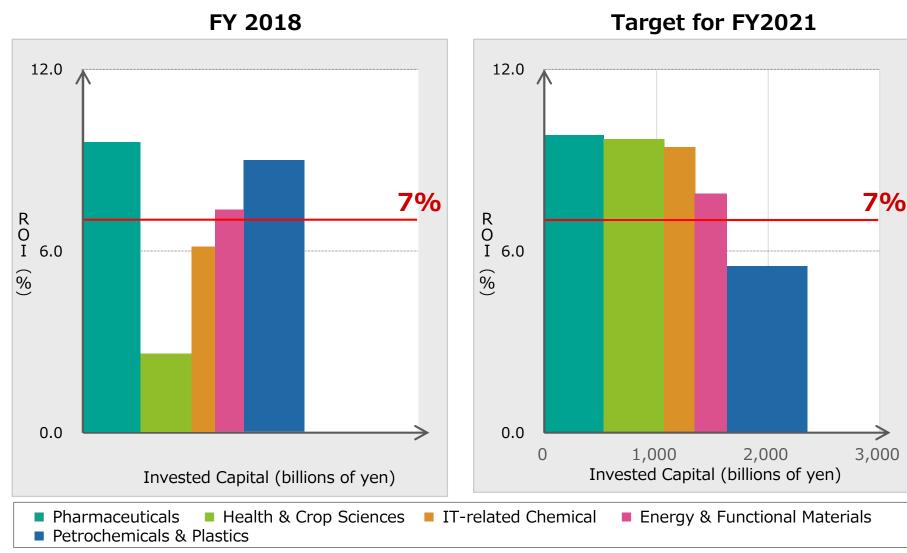
	FY2015	FY2018	FY2021 Target	Medium- to Long-term Targets  Consistently achieve the following targets:
ROE	9.6%	12.3%	12.5%	Over <b>10</b> %
ROI	5.6%	7.3%	7.1%	<b>Over 7</b> %
D/E ratio	0.8	0.6	0.7	approx. <b>0.7</b>
Dividend payout ratio	31%	30%	_	approx. <b>30</b> %
Profit growth*			13%	over <b>7</b> % per year

<sup>\*</sup> Compounded annual growth rate of Net Income attributable to owners of the parent from FY2015

### 3. Performance Targets: **ROI by Sector**

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### **Invested Capital and ROI by Sector**



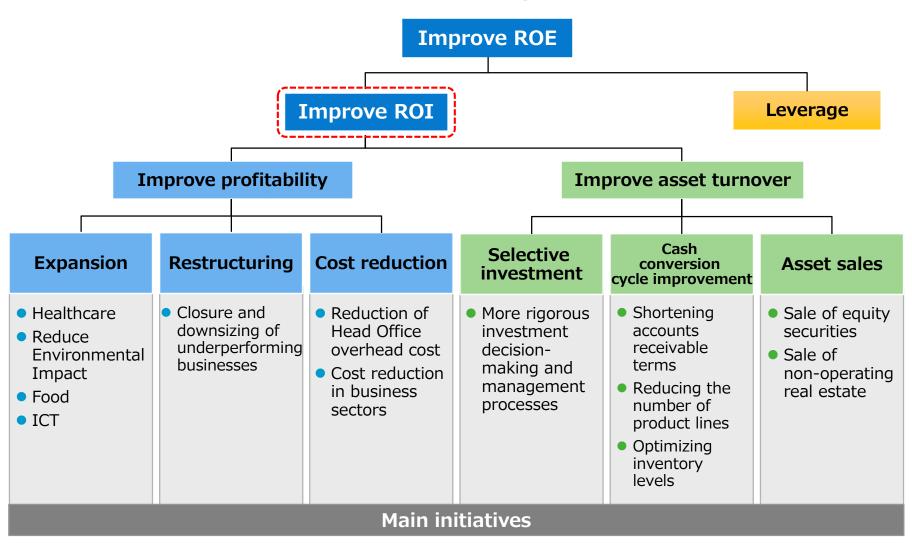


### **ROI Tree Diagram**

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### **Initiatives for improving ROI and ROE**

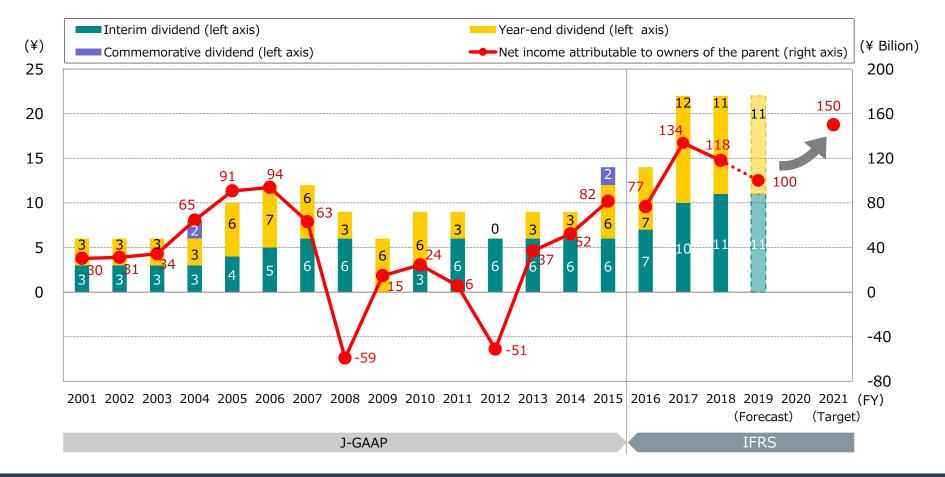




### 3. Performance Targets: **Dividend Policy**

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We consider shareholder return as one of our priority management issues and have made it a policy to maintain stable dividend payment, giving due consideration to our business performance and a dividend payout ratio for each fiscal period, the level of retained earnings necessary for future growth, and other relevant factors. We aim to maintain a dividend payout ratio of around 30% over the medium to long term.



### **New Corporate Business Plan**

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1 Business Environment				
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		2	Improve Productivity through Digital Innovation	36
		3	Further Improve Business Portfolio	41
		4	Build a More Robust Financial Structure	45



### **Accelerate the Development of Next-Generation Businesses**

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# Accelerate the development of next-generation technologies and create new businesses

for a sustainable society







#### **Accelerate the Development of Next-Generation Businesses:**

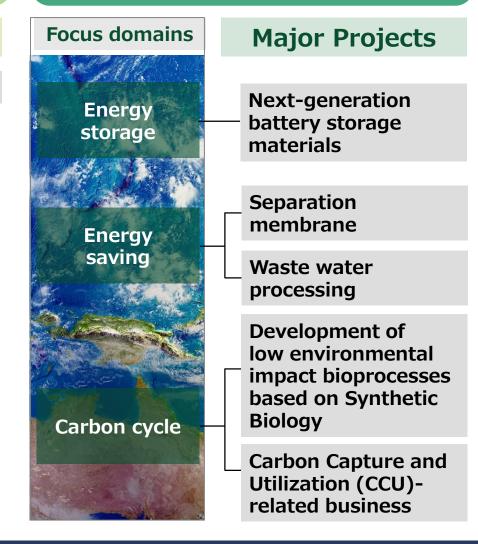
### **Focus Domains in the Four Priority Areas**

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### Health care

### **Focus domains Major projects Nucleic Acid Medicine Cell Therapy Advanced** medical care **Theranostics Frontier businesses** (Healthcare solutions not limited to pharmaceuticals) **Preventive** care solutions **Nutraceuticals** (functional food) **Early diagnosis Physical condition** and health visualization sensor examination

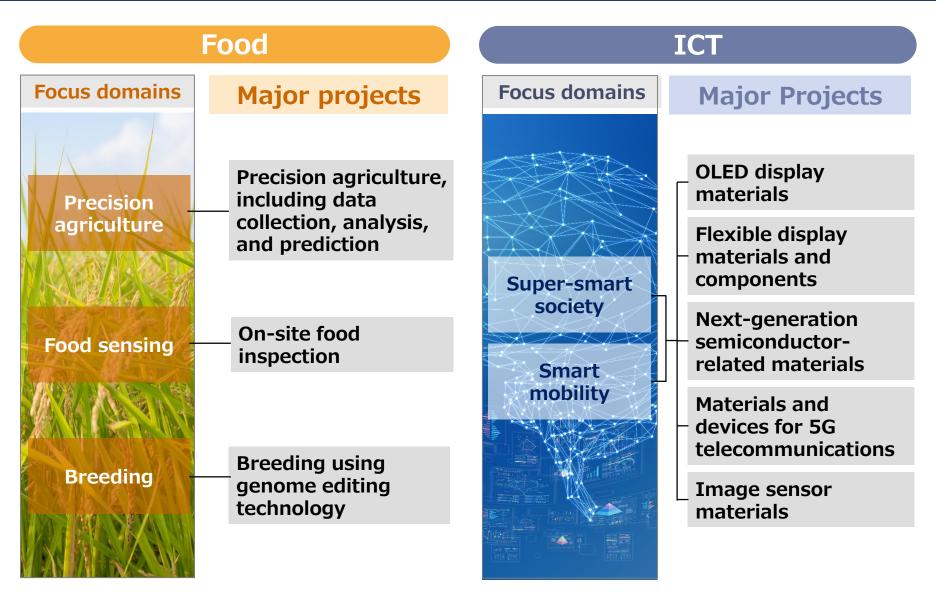
### Reducing Environmental Impact





### Accelerate the Development of Next-Generation Businesses: Focus Domains in the Four Priority Areas

### **Focus Domains in the Four Priority Areas**



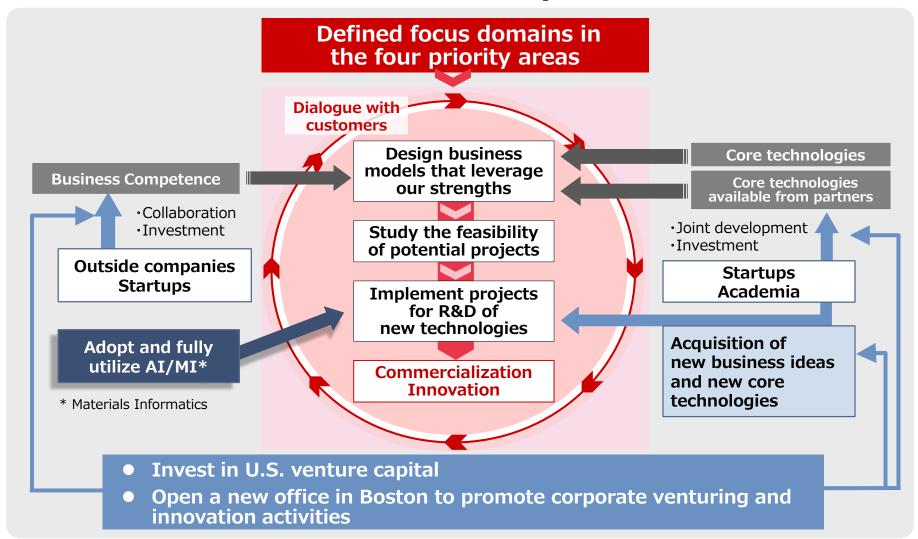


### Accelerate the Development of Next-Generation Businesses:

### **Construction of Our Innovation Ecosystem**

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### **Innovation Ecosystem**





### Accelerate the Development of Next-Generation Businesses: Relocation of Our U.S. Innovation Office

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### Relocate our corporate venturing and innovation office in U.S. to the Boston/Cambridge area

#### CVI

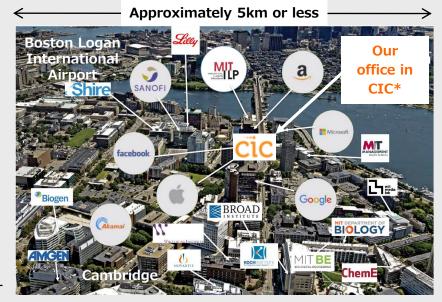
(Corporate Venturing & Innovation Office)

Accelerate collaboration with startups and academia and exploration of new business opportunities

#### Advantages of Boston/Cambridge area

- One of the World's largest innovation hubs
- Highest level of concentration of top universities and startups
- Focus on innovative technologies that require long-term commitment, such as drug discovery, biotechnology, materials, and robotics

\*CIC: Cambridge Innovation Center



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Building truly valuable partnership through strengthening access to the U.S. innovation ecosystem

### **New Corporate Business Plan**

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### **Improve Productivity through Digital Innovation**

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## Significant improvement in efficiency and quality

in production, R&D, supply chain management and administration

-	
Previous	<b>Initiatives</b>
	THURLINGS

**Digital Plant** 

Partial introduction of AI and IoT

Digital R&D

Partial introduction of Materials Informatics (MI)

Digital SCM (Including marketing)

Partial introduction of S/4HANA

**Digital Office** 

Partial introduction of RPA Introduction of Office365

#### **Next Steps**

Higher-performance production by leveraging AI and IoT

More efficient, higher-performance R&D by leveraging AI/MI

Full-scale introduction of S/4HANA Job standardization and work style reform

Full use of robotics More active communication Paperless

IT-related investment during the new corporate business plan period : \$60bn



### Improve Productivity through Digital Innovation: Digital Plant

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By 2065, Japan's labor force will decrease to approximately 60% of 2016\*



### **Necessary elements**

#### **Human Resources**

- Data scientists
- Data engineers

#### Software and AI

- Technology for detecting signs of malfunction
- Software sensing technology

#### **IoT Technology**

- Development of data platforms
- Workflow optimization

### Output

- Support decision making
- Streamline work flows
- Monitor the operation of equipment for signs of malfunction
- Stabilize and automate operations
- Optimize production operations

### **Vision**

Significant improvement in labor productivity

\* (Source) Mizuho Research Institute Ltd.



# Improve Productivity through Digital Innovation: **Digital R&D**

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Significant changes in the social environment provide opportunities to create new businesses

In order not to miss out on these opportunities

# Essential to improve the efficiency and effectiveness of R&D activity

### **Necessary elements**

#### **Human Resource**

- Data scientists
- Data engineers

#### Database (using big data)

- Development of data platforms
- Use of electronic laboratory notebooks

### Data Analysis (using AI)

- Development of predictive technology
- Development of Materials informatics platform

### **Output**

- Drastically shorten the time used for searching and designing materials
- New discoveries that cannot be achieved through experimental development

### **Vision**

Improved productivity in R&D (accelerate innovation)

Materials
Informatics for all researchers



### **Improve Productivity through Digital Innovation:**

### **Establish a Digital and Data Science Innovation Department**

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# Established a Digital and Data Science Innovation Department

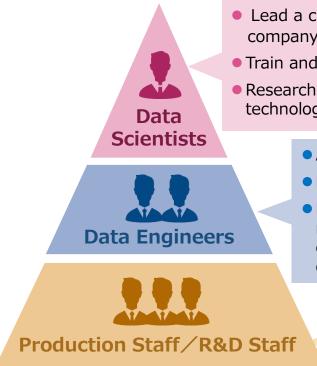
#### **Target**

Promote advanced use of large-scale data to improve the effectiveness of production, R&D, sales and other activities

### Mission

- Recruit and train data scientists and data engineers
- Develop advanced analytical technologies for production and R&D data
- Promote advanced use of large-scale data through database development

# Role of digital human resources



- Lead a cross-sectional analysis of company-wide data
- Train and coach data engineers
- Research and master the latest technologies
  - Analyze statistics
  - Provide data for models
  - Feedback insights from model to operations/product development
    - Improvement and development of processes and products

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Further digital innovation through full-scale adoption of IT technology

### **New Corporate Business Plan**

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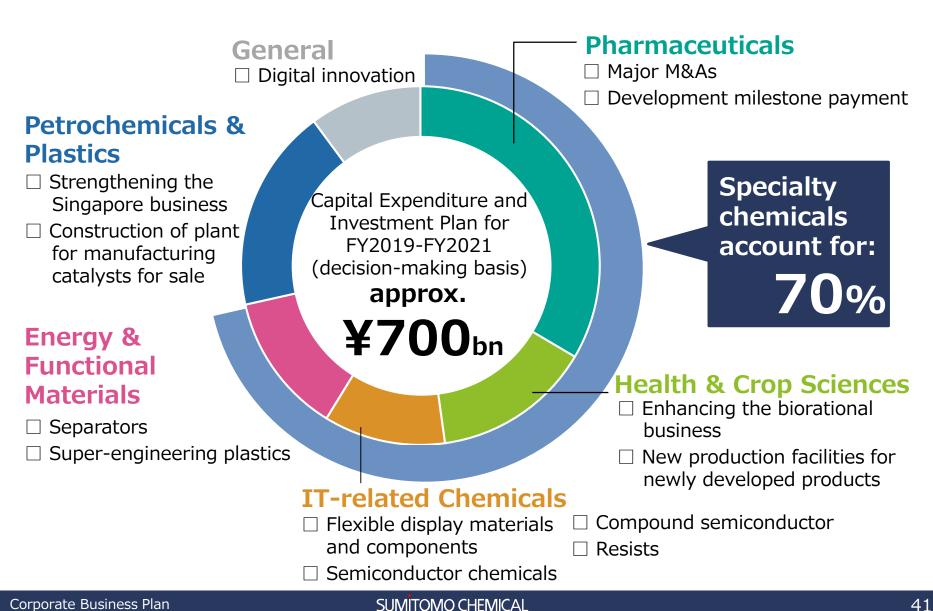
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Corporate Business Plan SUMITOMO CHEMICAL 40

### **Further Improve Business Portfolio:**

# Capital Expenditure and Investment Plan for FY2019-FY2021 (decision-making basis)

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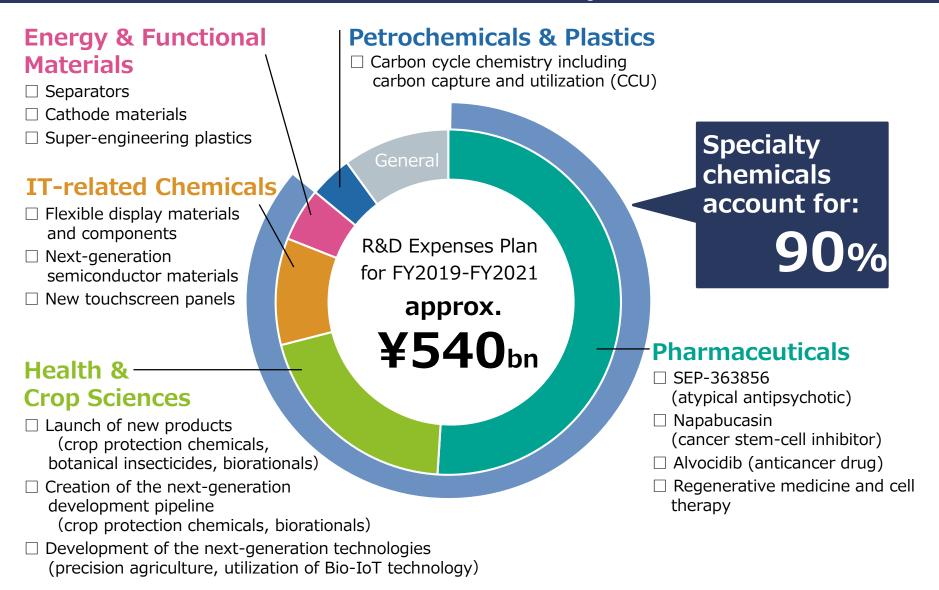




### **Further Improve Business Portfolio:**

### Research and Development Expenses Plan for FY2019-FY2021

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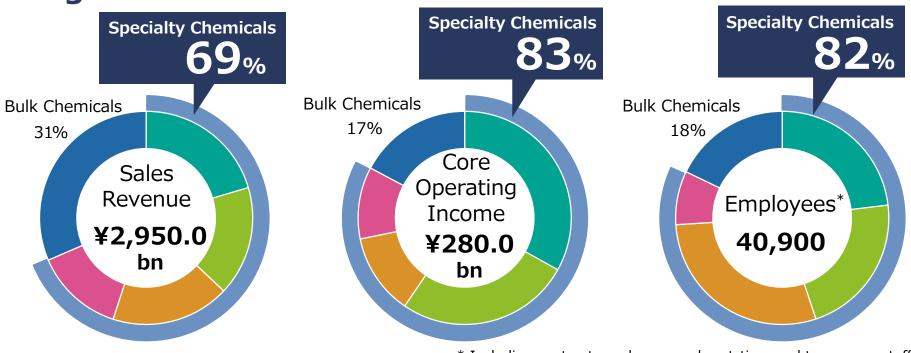


### **Further Improve Business Portfolio:**

### Sales Revenue, Core Operating Income, and Employees

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### **Target for FY2021**



\* Including contract employees and part-time and temporary staff

### **Specialty Chemicals**

**Pharmaceuticals** 



Health & Crop Sciences



IT-related Chemicals



Energy & Functional Materials



**Bulk Chemicals** 

Petrochemicals & Plastics



### **New Corporate Business Plan**

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Corporate Business Plan SUMITOMO CHEMICAL

### **Policy**

- Generate cash flow from the implemented capital expenditures and investments as planned
- Manage costs and assets through disciplined financial operations

Improve cash flow

Rationalization, shorten cash conversion cycle Reorganize and exit under-performing businesses

### **Financial Discipline**

Indicators	Targets
Debt to equity ratio	approx. 0.7
Interest-bearing liabilities	Less than 1.1 trillion yen

### Major initiatives

- Total investment over the three years:
   less than 700 billion yen
- Timely review of capital expenditures and investment plans
- Thoroughly utilize cash surplus of the group companies



#### **Build a More Robust Financial Structure:**

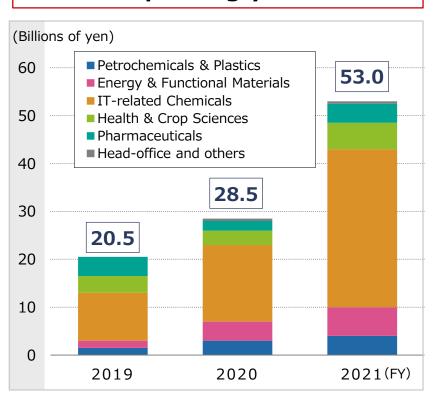
### Rationalization & Improvement of Cash Conversion Cycle

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### **Rationalization**

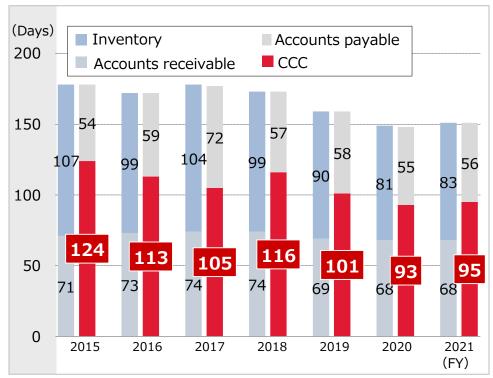
### ¥53 billion in FY2021

through initiatives such as reducing purchasing costs and improving yields



### Improve Cash Conversion Cycle (CCC)

Improve CCC by 23% in FY2021 compared with FY2015 by continuing and strengthening our initiatives



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### **Build a More Robust Financial Structure:**

### **Cash Flow Targets**

**Change & Innovation 3.0 For a Sustainable Future** 

(Billions of yen)

	FY2013-FY2015	FY2016-FY2018	FY2019-FY2021 (Target)
Cash flows from operating activities	716.4	687.2	740.0
Cash flows from investing activities	-245.5	-541.1	*-815.0
Free cash flows	470.9	146.1	-75.0

 $<sup>^{*}</sup>$  Including investment in Rabigh Phase  ${\, {
m I} \hspace{-1pt} I}$  project

(Billions of yen)

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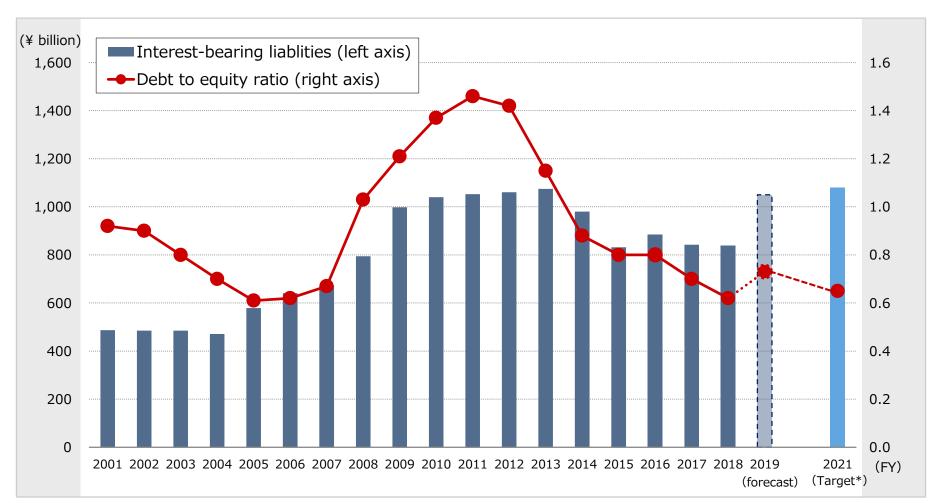
	End of FY2015	End of FY2018	End of FY2021 (Target)
Interest-bearing liabilities	831.5	839.5	1,080.0



#### **Build a More Robust Financial Structure:**

### **Interest-Bearing Liabilities and Debt to Equity Ratio**

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<sup>\*</sup> Including investment in Rabigh Phase II project



# **Business Strategy by Sector**





### **Business Strategy – Petrochemicals & Plastics**

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# Long-term goal

# Provide customers with new solutions based on high value-added products

### **Strengths**

- Global operation by leveraging the competitive advantages of the three bases in Japan, Singapore and Saudi Arabia
- Strong relations with prominent customers in the Asian market
- Access to low-cost ethane feedstock
- Capabilities to develop high value-added products

### **Opportunities**

- Large and deep markets
- Steady growth in demand

### Weaknesses

- Relatively small business size compared to the global majors
- Dependence on naphtha, a more expensive feedstock than ethane/shale gas

Status of the major businesses

### **Threats**

- Establishment of more cost-competitive new plants
- Cyclical business environment
- Country risks

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### **Business Strategy – Petrochemicals & Plastics**

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### **Action plan**

- Strengthen domestic business
- Expand capacity and enhance profitability of Singapore business
- Maintain stable operations at PRC phase I and make PRC phase II into a business that constantly contributes to the sector's performance
- Strengthen technology licensing business

### Major issues

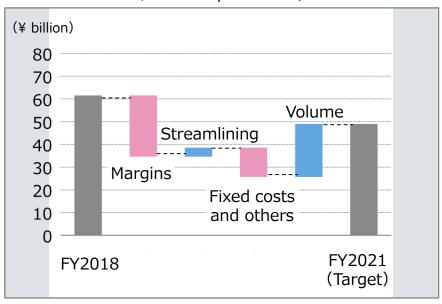
- Restructuring of underperforming businesses
- R&D into carbon cycle chemistry, including carbon capture and utilization technologies, to create a sustainable society

### FY2021 Target

Sales Revenue ¥910.0 billion

Core
Operating Income ¥49.0billion

### Core operating income variance analysis (FY2018 v/s FY2021)





### **Petrochemicals & Plastics Topics:**

### **Development of Technologies for Environmentally Friendly Products**

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### **R&D** focus

R&D of plastics products that contribute to 3R's (reduce, reuse, recycle)



**Lighter packaging** 

Longer product life

**Promotion of reusable products** 



Refill pouches

·Returnable boxes

Sheeting for

·Insect-resistant agriculture cereal bags



	Bottle (HDPE)	Large Refill Pouch (EPPE+LLDPE)
Weight of packaging materials(g) per 100g of contents	19	1.8
Transportation efficiency	Δ	0
Bag drop strength	$\triangle$	0



	Cardboard paper box	Returnable box (Expanded PP sheet)
Consumption of packaging materials (kg/year)	24.9	1.4
Reusability	×	0
Number of usable times (per year)	1	50
Water resistance Load bearing Cleanness	×	0

**Environmental aptitude** 

Utility value

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Further enhance environmental friendliness and utilization value of plastics products contributing to 3R's



### **Business Strategy – Energy & Functional Materials Sector**

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# Long-term goal

Contribute to solving environmental and energy issues through research and development with a long-term perspective and the resulting innovative technologies

### **Strengths**

- Superior product performance using differentiated technologies
- Reliability of products proved in use by customers

#### Weaknesses

- Relativelly small business
- Cost competitiveness

# Status of the major businesses

### **Opportunities**

- Sophistication of performance requirements against the backdrop of increasing battery capacity
- Expansion of the environment- and energy-related markets

### **Threats**

- Market decline due to change in EV promotion policies
- Paradigm shift in secondary batteries



### **Business Strategy – Energy & Functional Materials Sector**

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### **Action plan**

- Expand sales of core products (battery materials, super engineering plastics, etc.), accelerate R&D
- Shift to high value-added products
- Improve profitability in underperforming businesses and products

### **Major issues**

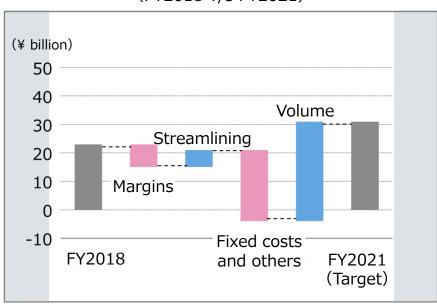
 Create new businesses in the fields of environment and energy and high-performance materials (CO<sub>2</sub> separation membranes, etc.)

### FY2021 Target

Sales Revenue ¥390.0 billion

Core
Operating Income ¥31.0 billion

### Core operating income variance analysis (FY2018 v/s FY2021)





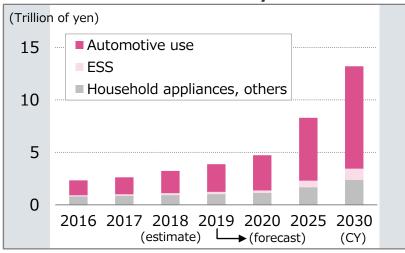
### **Energy & Functional Materials Sector Topics:**

### **Separator Business**

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# Increasing demand for high-capacity batteries

### Market Outlook for Lithium-ion Secondary Batteries



(Source) "Future Outlook of Energy, Large Scale Secondary Battery, and Materials 2018; Energy Devices" by Fuji Keizai



SSLM Co., Ltd.

### Initiatives to expand lithium-ion secondary battery separator business

### 1 Expand production capacity

Timely decision-making for investment in response to growing demand

### 2 Deep cost reduction

Increase coating speed; adopt low-cost materials; reduce coating volume, etc.

### **3** Development of new substrates

Meet the requirements for high-capacity batteries

### **New Corporate Business Plan Targets**

	FY2018	FY2021
Volume	300 million m²	600 million m²
(Ratio of in-house developed substrate)	<25%	>30%



### **Business Strategy – IT-related Chemicals Sector**

Change & Innovation 3.0 For a Sustainable Future

# Long-term goal

Deliver new value that responds to the changes in the ICT industry by leveraging our material development capabilities in collaborative development with customers

### **Strengths**

- Offering a wide range of display materials
- Established market needs-driven supply chains
- Material development capabilities as a diversified chemical company
- Nano-level micro surface analysis technology

### **Opportunities**

- Fast-growing organic LED displays market
- Rising demand for flexible displays
- Expanding Chinese semiconductor market

#### Weaknesses

- Heavy reliance on some specific products
- High sensitivity to exchange rate movements

Status of the major businesses

#### **Threats**

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 Intensifying competition in the maturing LCD market



### **Business Strategy – IT-related Chemicals Sector**

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### **Action plan**

- Structural reform of polarizing film business
- Secure returns from the investment in the semiconductor materials business
- Expand touchscreen panel product portfolio

### **Major issues**

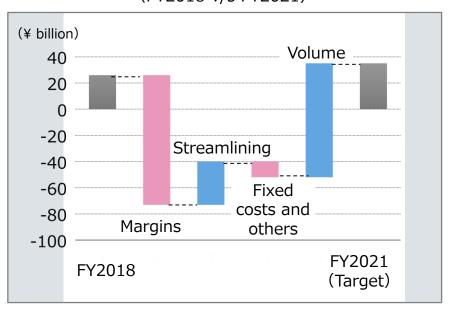
- Develop next-generation businesses
  - Smart mobility
  - Next-generation handsets
  - Sensor material

### FY2021 Target

Sales Revenue ¥520.0 billion

Core
Operating Income ¥35.0 billion

### Core operating income variance analysis (FY2018 v/s FY2021)

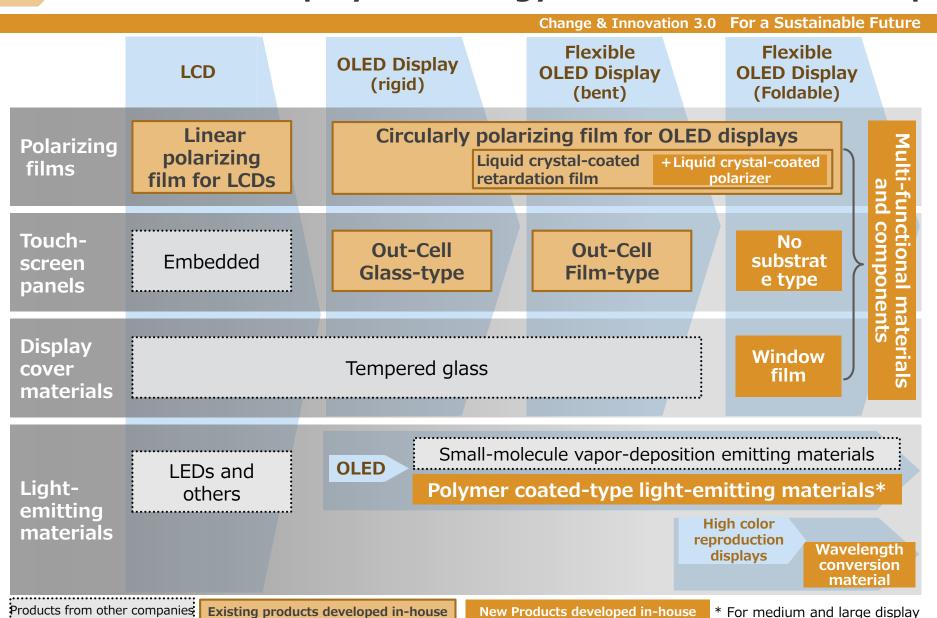


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### **IT-related Chemicals Sector Topics:**

### **Advance in Display Technology and Our Product Lineup**



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### **Initiatives in the Mobility Sector**

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# Focusing on developing components and materials to support the automotive industry's transformation with an eye toward the CASE (connected, autonomous,

Petrochemicals & Plastics Sector

#### Resins

- PMMA
- GFPP\*

Windscreen, roof materials



Developed PMMA-based transparent resin



\* Glass fiber reinforced polypropylene

### shared, electric) era

Functional Materials
Sector

### Super Engineering Plastics

- PES
- LCP

# **Lithium-ion Battery Materials**

- Separators
- Cathode materials
- High purity alumina

IT-related Chemicals
Sector

#### Sensor

Epiwafers for VCSEL

### **Display materials**

- High-durability polarizing films
- High-durability touchscreen panels

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Polymer OLED materials



### **5G-related Materials Lineup**

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### **Characteristics of 5G communications**

High speed, large capacity

Low delay

Multiple simultaneous connections

Not only to bring a significant improvement in mobile phone services, but to open up new business opportunities in areas such as autonomous driving and telemedicine.

### **Our 5G-related materials**

- LCP
   (High frequency substrate materials for 5G communications)
- GaN epiwafers
   (5G communication wireless base station)
- GaAs epiwafers (5G devices)

### Battery and display-related materials

- ·Flexible display materials ·GaAs epiwafers for VCSEL
- ·Separators ·Cathode materials ·Alumina



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### **Business Strategy – Health & Crop Sciences Sector**

Change & Innovation 3.0 For a Sustainable Future

## Long-term goal

Contribute to solving global issues related to food, health, hygiene and the environment by leveraging our excellent research and development capabilities

### **Strengths**

- Excellent R&D capabilities and the robust development pipeline of crop protection chemicals and biorationals
- Differentiated technologies and products in niche areas
- Products with high market share
- Alliances with major overseas agrochemical companies
- Offering total solutions

# Status of the major businesses

### **Opportunities**

- Increasing food demand due to the growing global population
- Growing agriculture-related businesses
- Opportunities in peripheral and downstream segments of the household insecticide business

#### Weaknesses

- Relatively small business size compared to the competing majors
- Need to establish global sales channels

### **Threats**

- Tightening of the regulations on crop protection chemicals
- Increased competition with off-patent crop protection chemicals
- Consolidation in the major agrochemical companies

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### **Business Strategy – Health & Crop Sciences Sector**

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### **Action plan**

- Strengthen and expand biorationals business
- Develop and launch new crop protection chemicals steadily
- Expand methionine sales and strengthen earnings power
- Accelerate the global expansion of the environmental health business
- Develop the nucleic acid medicine business and expand the application of the technology

### **Major issues**

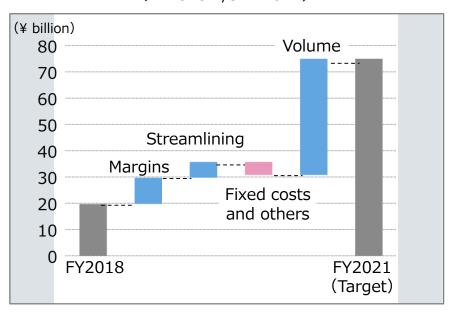
- Establish a global footprint in the crop protection business
- Further strengthen the crop protection business (agriculture-related supplies, precision agriculture)

### FY2021 Target

Sales Revenue ¥480.0 billion

Core
Operating Income ¥75.0 billion

### Core operating income variance analysis (FY2018 v/s FY2021)





### **Health & Crop Sciences Sector Topics:**

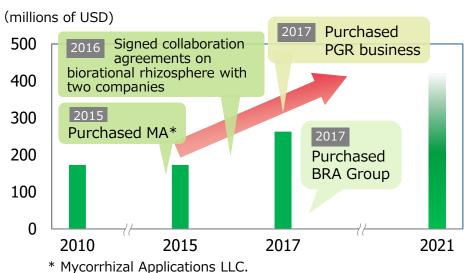
### **Expansion of Our Biorational Business**

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### **Global Sales of Biorational-related Products** (for Agriculture)

	Market size	Annual growth rate
Microbial pesticides	¥50 billion	8-10%
Plant growth regulators (PGR)	¥33 billion	3-5%
Biorational rhizosphere	¥28 billion	10%
Botanicals	¥10 billion	5-7%

### **Our Sales for Biorational Business**



#### **Botanicals** (Plant-derived)

- Growing reputation for organic agriculture and natural products
- Synergies through acquisition of Botanical Resources Australia (Technologies for improving pyrethrum seeds and extracting natural substances)



Expand from household and public hygiene fields to agriculture

Develop new botanical insecticides

### Biorational rhizosphere

(mycorrhizal fungi/ rhizobium/ soil microorganism etc.)

- Sales expansion of mycorrhizal fungal products from MA, and launch of its mixture products
- Launch of other rhizobium products
- Sales expansion of biological nematocide for seed treatment





### **Business Strategy – Pharmaceuticals Sector**

Change & Innovation 3.0 For a Sustainable Future

Long-term goal

Contribute to the improvement of people's quality of life through the development of innovative medical and healthcare solutions

### **Strengths**

- Drug development platform in the areas of psychiatric and neurological disorders and cancer
- Development capabilities and manufacturing know-how for cellular medicine derived from allogeneic iPS cells
- Network with academia and biotech companies
- Pipeline in development for psychiatry & neurology, oncology, and regenerative medicine and cell therapy
- Strong development and manufacturing capabilities for radioactive isotope labeling agents

#### Weaknesses

- Limited capabilities to bear the burden of R&D costs
- Emergence of generic drugs due to the loss of exclusivity for major products

Status of the major businesses

### **Opportunities**

- Innovation in healthcare technology
- Increasing health awareness

#### **Threats**

- Accelerated implementation of medical expense control measures in Japan
- Changes in the health insurance systems overseas
- Consolidation in the pharmaceutical industry

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### **Business Strategy – Pharmaceuticals Sector**

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### **Action plan**

- Strengthen innovation through new drug discovery approaches
- Launch new products in oncology
- Explore frontier fields
- Develop Theranostics business and strengthen the competitiveness of existing radioactive diagnostics business

### **Major issues**

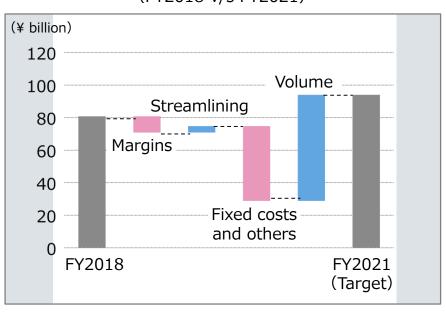
- Enhance drug development capabilities and improve the success rate in R&D
- Maintain earnings power after Latuda's loss of exclusivity

### FY2021 Target

Sales Revenue ¥590.0 billion

Core
Operating Income ¥94.0billion

### Core operating income variance analysis (FY2018 v/s FY2021)





### **Pharmaceutical Sector Topics:**

### Regenerative Medicine and Cell Therapy

**Change & Innovation 3.0 For a Sustainable Future** 

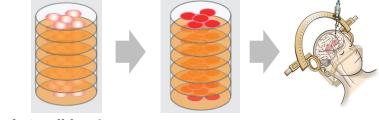
Initiatives in Regenerative Medicine & Cell Therapy Business

Cell Therapy Business				
Proposed indication, etc.	Partnering	Region (planned)	Clinical research/ Clinical study	
Chronic stroke (SB623)	SanBio	North America	Completed Phase 2b study Development strategy and launch target under consideration	
AMD (age-related macular degeneration)	Healios RIKEN	Japan	In progress: clinical research Preparing to start clinical study	
Parkinson's disease (Designated as a "SAKIGAKE")	Kyoto Univ CiRA	Global	In progress: investigator- initiated clinical study (Phase 1 / 2 study) (Japan)	
Retinitis pigmentosa	RIKEN	Global	Preparing to start clinical research	
Spinal cord injury	Keio Univ Osaka National Hospital	Global	In progress: clinical research	

Kyoto University Hospital and CiRA are conducting investigator-initiated trials for treatment of Parkinson's disease using iPS cells.

#### Our cooperation in clinical study

Treatment process with cellular medicine using iPS cells



iPS cell bank
Sumitomo Dainippon
Pharma

Therapeutic cell (CiRA)

Administer to a patient

Contract production of PET reagents\*1

日本メジフィジックス株式会社







Dainippon Sumitomo Pharma will file an application for approval based on the data from the trials, aiming to launch this product in FY2022\*2

Expected to grow into a core business for the Pharmaceuticals sector by 2030

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<sup>\*1</sup> PET Image Source (Neurotherapeutics (2011) 8:549-561) \*2 Launch schedule is based on our plan and not agreed on by partners.



### **Bioscience Research Laboratory**

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Applying our advanced technologies related to the development of pharmaceuticals, crop protection chemicals and other chemicals, microbial engineering, and chemicals safety assessment to a broad range of research activities.



#### **Genome** research

### Molecular technologies

- High-sensitivity and integrated analysis
- Drug discovery screening and evaluation



### **Protein analysis research**

### Molecular technologies

 "Omics" technologies for safety assessment



Development of advanced digital information technologies



### Microbiology research

#### **Cellular technologies**

- Microorganism utilization technology
- Microbiota analysis (analysis of the flora of diverse fungi)

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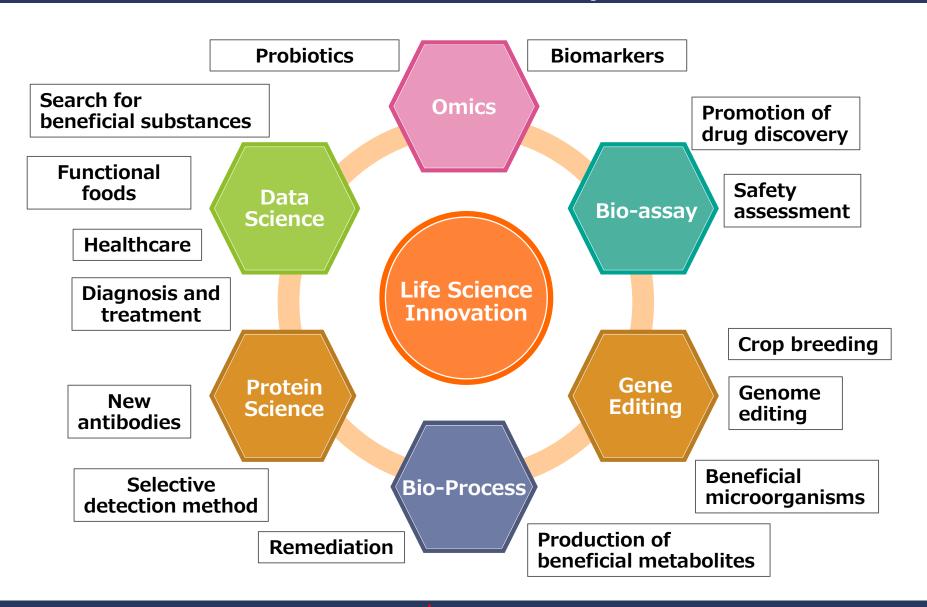


**Bioscience Research Laboratory Established** 



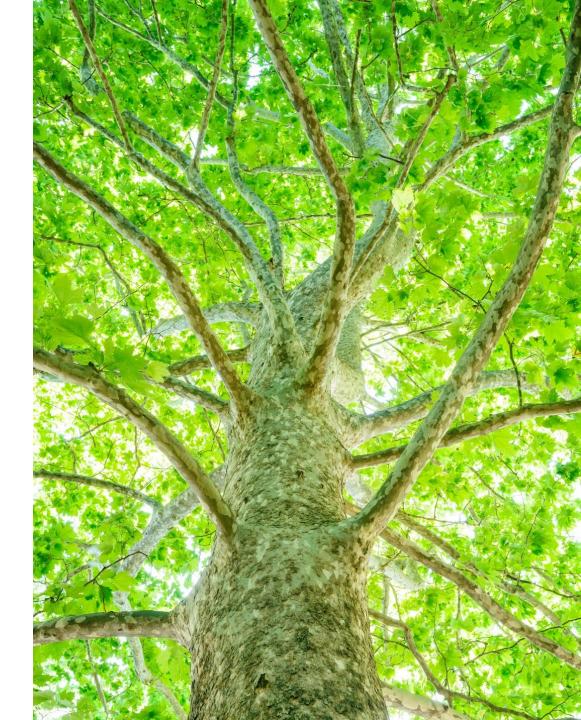
### **Bioscience: New Research Themes**

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# IV

**Initiatives for Sustainability** 





### **Established Basic Principles for Promoting Sustainability**

Change & Innovation 3.0 For a Sustainable Future

### **Basic Principles for Promoting Sustainability**

Principle Creating economic value which helps create social value

**Principle** 2

Contribution to solving globally vital issues

**Principle** 

Active participation in global initiatives

Principle Collaboration with stakeholders

Principle 5

Top management commitment and participation by all

Principle 6

**Enhancing** corporate governance Sumitomo's Business **Principles** 

**Business Philosophy** 

**Basic Principles for Promoting Sustainability** 

**Charter for Business Conduct** 

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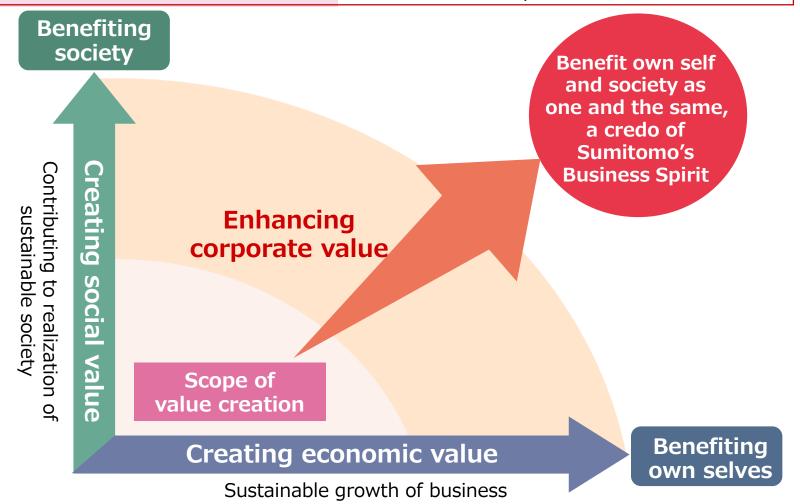
### **Image of Enhancing Corporate Value**

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### **Credo constituting the Sumitomo Spirit**

"Our business must benefit own self and society as one and the same"

Our business must benefit ourselves and at the same time serve the interests of the nation and society.





### **Our Definition of Material Issues**

Change & Innovation 3.0 For a Sustainable Future

### **Our Seven Material Issues**

### Material issues for social value creation

- Contribution to reducing environmental impact
- Mitigation of climate change
- Contribution through products and technologies
- Efficient use of energy and resources
- Contribution to the recycling of plastic resources
- ☐ Contribution to solving food issues
- ☐ Contribution to solving healthcare issues
- □ Contribution to ICT innovation

### Material issues for value creation in the future

- Promotion of technology innovation and research and development
- ☐ Initiatives for digital innovation
- □ Promotion of diversity and inclusion

Achieve sustainable value creation by working on material issues



### **Initiatives for Global Environment Issues**

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### Participation in external initiatives



Since August 2018:

Joined in the "TCFD Study Group," led by the Ministry of

Economy, Trade and Industry for mobilizing green finance through proactive corporate disclosure

December 2018:

**METI Issued TCFD guidance** 

December 2018~:

Joined WBCSD Chemical Sector's project to formulate

TCFD guidance

### **Our Efforts**

### **Risk Management**

#### Certified by SBT



Fuel conversion

October 2018, first certified among diversified chemical companies

**Technology** development

**Expanding Opportunities** (Contributing through own business)

#### Sales of environmentally friendly products

Sumika Sustainable Solutions Expand sales of the products designated as SSS

Reduction of emissions throughout the product life cycle

**Reduction of emissions** from our own operations T

**Contribution through** environmentally friendly products



Selected as Climate Change **A List** 2018

Disclosed information

approx.

7,000 companies

A List

126

(including 20 Japanese companies)

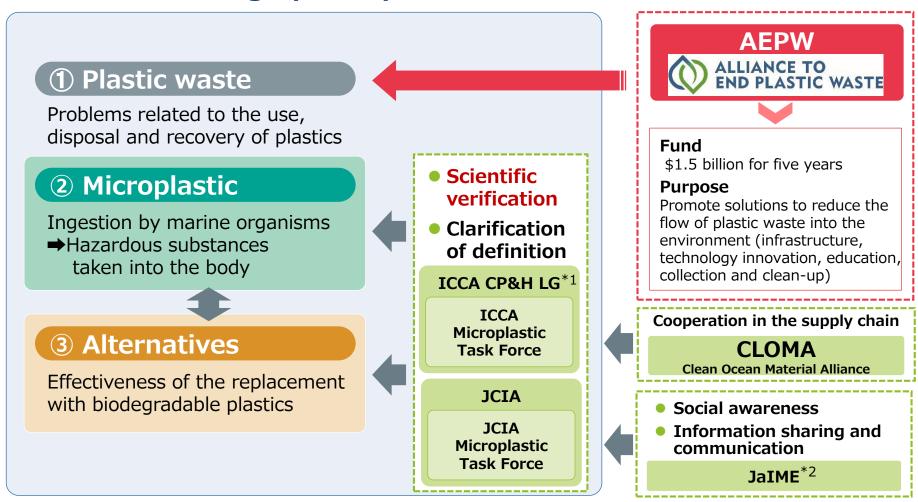
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### The Issue of Plastic Waste

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### Our efforts through participation in external initiatives



- \*1 International Council of Chemical Associations, Chemical Policy & Health Leadership Group
- \*2 Japan Initiative for Marine Environment

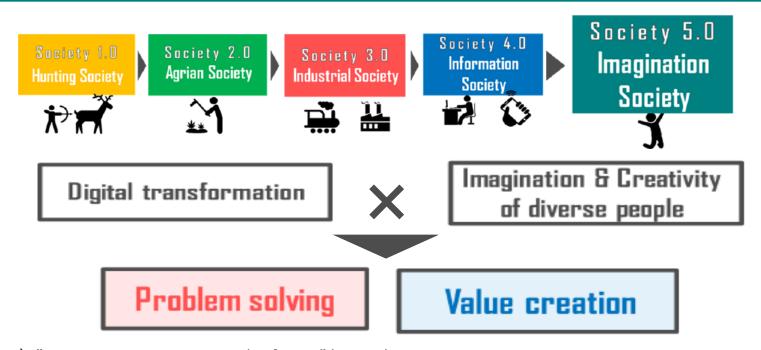


### Society 5.0 "Imagination Society"

Change & Innovation 3.0 For a Sustainable Future

Society 5.0 will be an Imagination Society, where digital transformation combines with the imagination and creativity of diverse people to solve social problems and create value.

# Society 5.0



(Source) "Society 5.0 –Co-creating the future" by Keidanren

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### What Sumitomo Chemical Strives To Be

Change & Innovation 3.0 For a Sustainable Future

**Philosophy** and business principles

Sumitomo's **Business Principles** 

**Business Philosophy** 

**Basic Principles for Promoting Sustainability** 

**Charter for Business Conduct** 

- √ Commit ourselves to creating new value by building on innovation
- ✓ Work to contribute to society through our business activities
- ✓ Develop a vibrant corporate culture and continue to be a company that society can trust

Core Competence

Ability to develop innovative solutions by leveraging its technological expertise in diverse areas

**Ability to** reach global markets

Loyal employees

Challenges & Business **Opportunities** 

Solve issues facing society

☐ Environment ☐ Food ☐ Resources and energy

Improve quality of life and build an affluent and comfortable society

☐ Health promotion ☐ Comfortable life

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Sumitomo Chemical **Strives To Be** 

Achieve sustained growth for Sumitomo Chemical and build a sustainable society by creating both economic and social value

#### **Cautionary Statement**

Statements made in this document with respect to Sumitomo Chemical's current plans, estimates, strategies and beliefs that are not historical facts are forward-looking statements about the future performance of Sumitomo Chemical. These statements are based on management's assumptions and beliefs in light of the information currently available to it, and involve risks and uncertainties.

The important factors that could cause actual results to differ materially from those discussed in the forward-looking statements include, but are not limited to, general economic conditions in Sumitomo Chemical's markets; demand for, and competitive pricing pressure on, Sumitomo Chemical's products in the marketplace; Sumitomo Chemical's ability to continue to win acceptance for its products in these highly competitive markets; and movements of currency exchange rates.