Change and Innovation 3.0

For a Sustainable Future

FY2019-FY2021

Corporate Business Plan

March 12, 2019

SUMITOMO CHEMICAL

Masakazu Tokura
President

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I

FY2016-FY2018

Progress Review for Current Corporate Business Plan

Current Corporate Business Plan: Basic Policy

Change and Innovation

Create New Value

Promote globally integrated management

Ensure full and strict compliance

Establish and maintain safe and stable operations

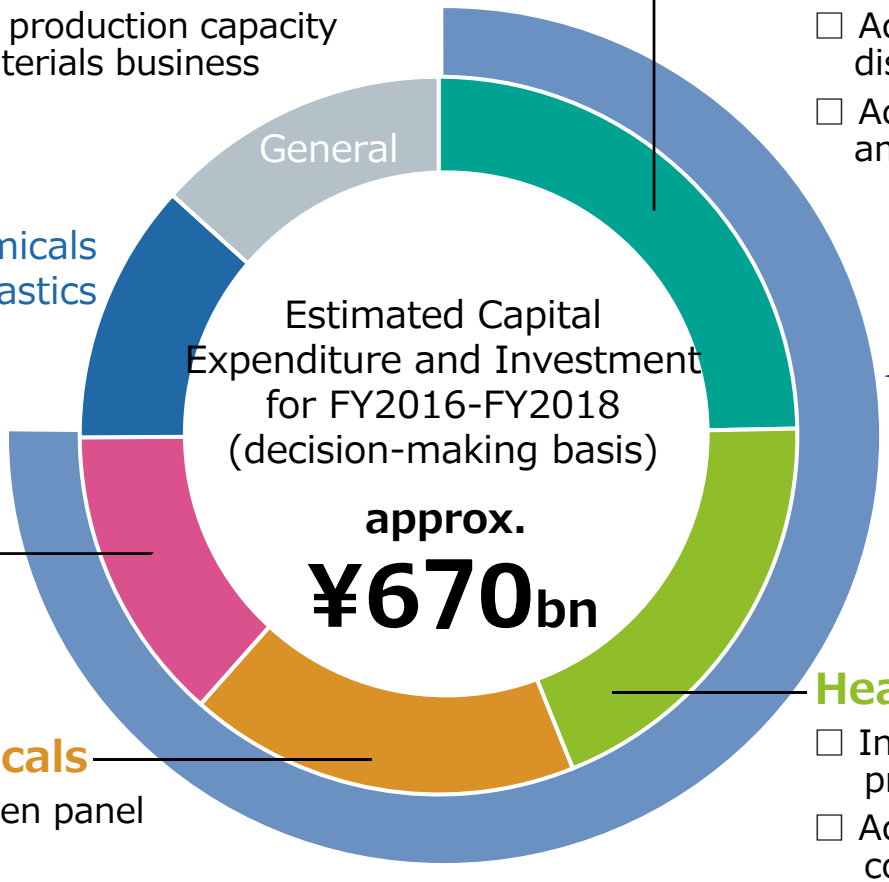
Current Corporate Business Plan:
Capital Expenditure and Investment Plan for FY2016-FY2018
(decision-making basis)

Energy & Functional Materials

- ☐ Expanded separator production capacity
- ☐ Entered cathode materials business

Pharmaceuticals

- ☐ Acquired Parkinson's disease treatment
- ☐ Acquired a leukemia treatment, among others



Specialty chemicals account for: 75%

IT-related Chemicals

- ☐ Expanded touchscreen panel production capacity
- ☐ Built and expanded semiconductor materials production capacity
- ☐ Flexible display materials

Health & Crop Sciences

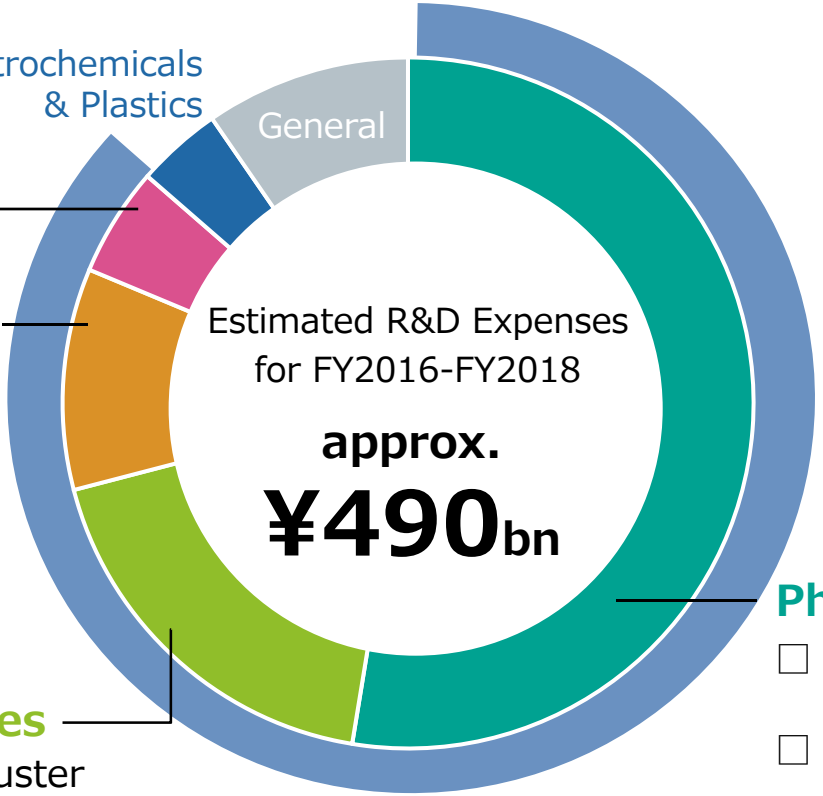
- ☐ Increased methionine production capacity
- ☐ Acquired Indian agrochemicals company, Excel Crop Care Ltd.
- ☐ Acquired insecticidal compounds manufacturer Botanical Resource Australia Group
- ☐ Expanded R&D

Current Corporate Business Plan:
Research and Development Expenses Plan for FY2016-FY2018

Energy & Functional Materials
- ☐ Battery materials

IT-related Chemicals
- ☐ Flexible display materials
- ☐ Compound semiconductors

Health & Crop Sciences
- ☐ Next-generation blockbuster crop protection chemicals
- ☐ New rice varieties
- ☐ Active ingredients for nucleic acid medicines



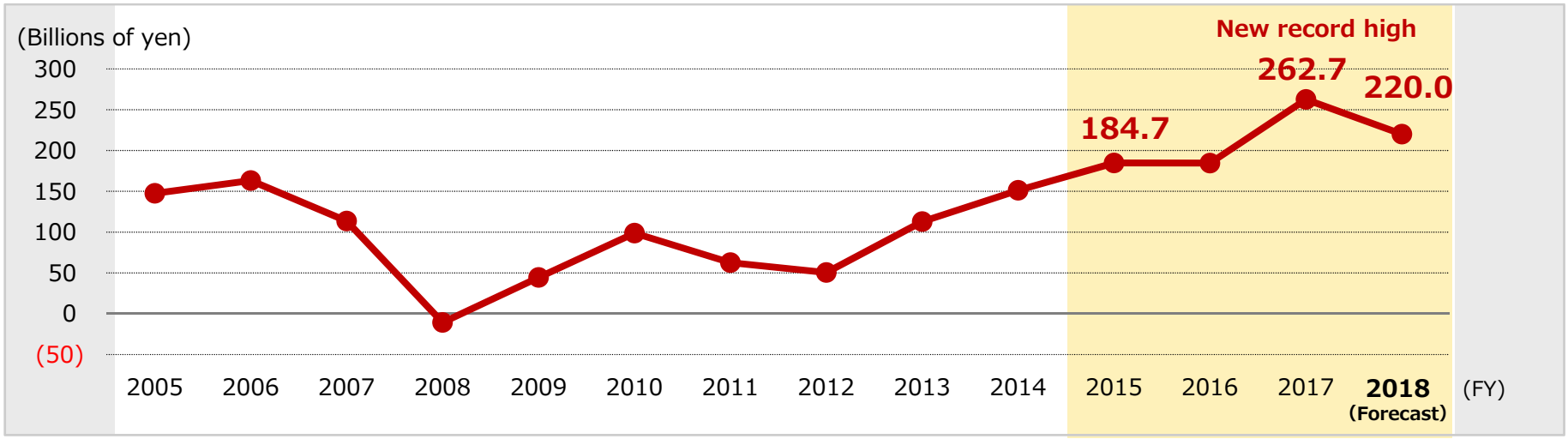
Specialty chemicals account for: 90%

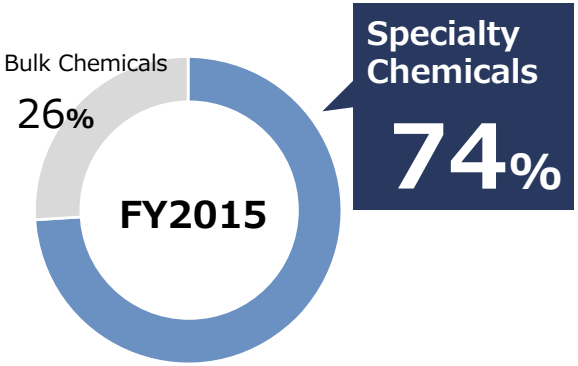
Pharmaceuticals
- ☐ Napabucasin / Amcasertib
  (Cancer stemness inhibitor)
- ☐ Dasotraline
  (Treatment for attention-deficit hyperactivity disorder (ADHD)/ binge eating disorder (BED))
- ☐ LONHALA® MAGNAIR®
  (Treatment for chronic obstructive pulmonary disease (COPD))

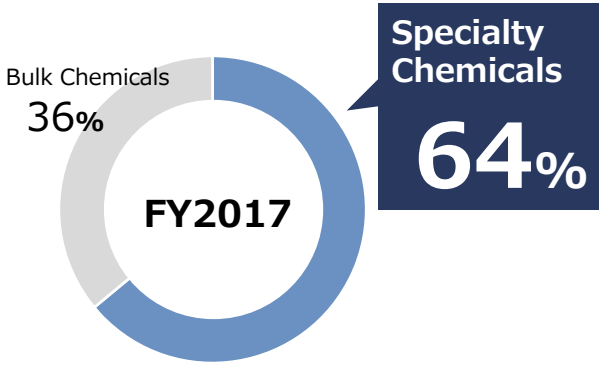
Current Corporate Business Plan:
Change in Business Portfolio

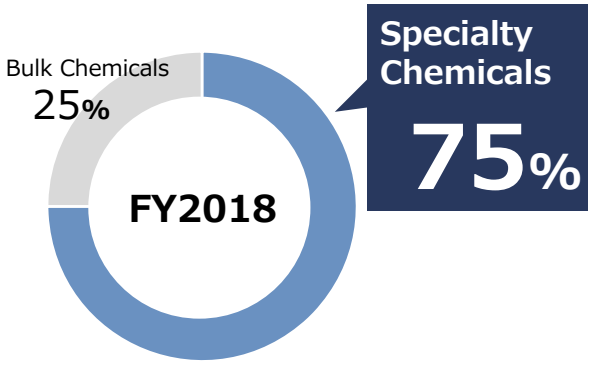
Change in core operating income and its composition

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









Steady increase in profitability of specialty chemicals business

Current Corporate Business Plan: FY2018 Target vs. Forecast

(Billions of yen)

	FY2018 Forecast	FY2018 Target	Change
Sales Revenue	2,410.0	2,540.0	-130.0
Core Operating Income	220.0	240.0	-20.0
Operating Income (IFRS)	190.0	190.0	±0
Net Income attributable to owners of the parent	120.0	110.0	+10.0

Naphtha Price	¥49,900/kl	¥45,000/kl
Exchange Rate	¥110.86/$	¥120.00/$

* Forecast and target both based on IFRS

Current Corporate Business Plan:
Core Operating Income by Sector

(Billions of yen)

	FY2018 Forecast	FY2018 Target	Change	Reason for Change
Specialty Chemicals	171.0	206.0	-35.0	
Energy & Functional Materials	22.0	18.0	+4.0	
IT-related Chemicals	26.0	34.0	-8.0	Yen appreciation
Health & Crop Sciences	42.0	89.0	-47.0	Lower methionine price and yen appreciation
Pharmaceuticals	81.0	65.0	+16.0	Increase in LATUDA sales
Bulk Chemicals	57.0	39.0	+18.0	
Petrochemicals & Plastics	57.0	39.0	+18.0	Improved margins of petrochemicals
Others	-8.0	-5.0	-3.0	
Total	220.0	240.0	-20.0	

Change in Cash Flows and Interest-Bearing Debt

(Billions of yen)

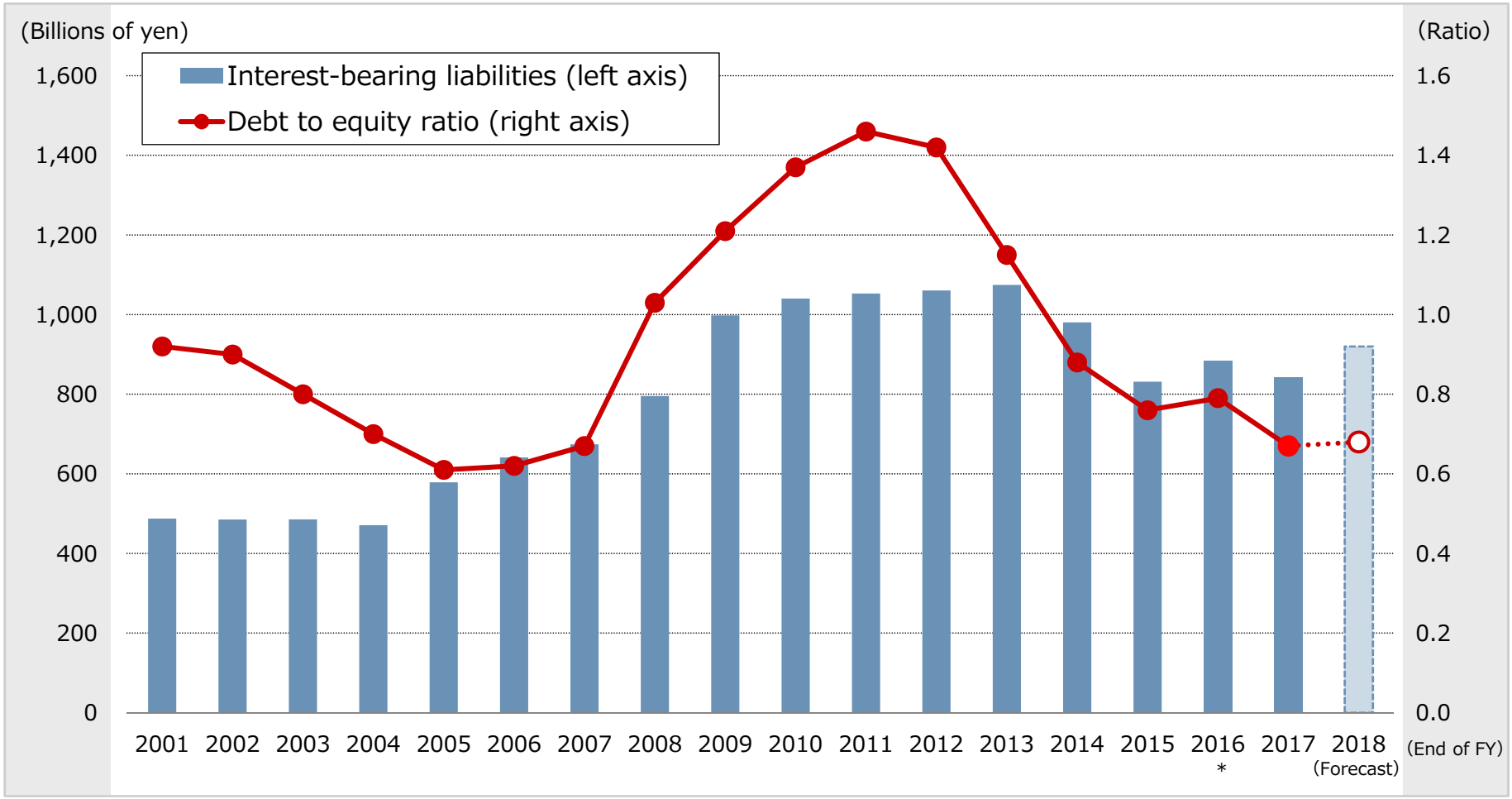
	FY2013-2015	FY2016-2018 (Target)	FY2016-2018 (Forecast)
Cash flows from operating activities	716.4	680.0	670.0
Cash flows from investing activities	-245.5	* -800.0	-550.0
Free cash flows	470.9	-120.0	120.0

* Including investment in Rabigh Phase Ⅱ project

(Billions of yen)

	End of FY2015	End of FY2018 (Target)	End of FY2018 (Forecast)
Interest-bearing liabilities	831.5	1,000.0	920.0

Interest-Bearing Liabilities and D/E Ratio



* J-GAAP used through FY2016, IFRS adopted from FY2017.
Information for FY2016 restated in accordance with IFRS.

Ⅱ

FY2019-FY2021

New Corporate Business Plan

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

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)

1. Business Environment

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

2. Basic Policy

Slogan of the next medium-term management 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

1 Accelerating the development of next-generation businesses

2 Improve productivity through digital innovation

3 Further improve business portfolio

4 Build a more robust financial structure

5 Employ, develop and leverage human resources for sustainable growth

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

2. Basic Policy

Change & Innovation

For the next hundredth anniversary　Create New Value　For a Sustainable Future

Phase 1

- Developed next-generation businesses
- Improved business portfolio
- **Enhanced financial strength**

Phase 2

- Accelerate the launch of next-generation businesses
- **Further improve business portfolio**
- Generate more cash flow

Phase 3

- **Accelerate the development of next-generation businesses**
- **Improve productivity through digital innovation**
- Further improve business portfolio
- Build a more robust financial structure

FY2013　FY2016　FY2019　FY2021

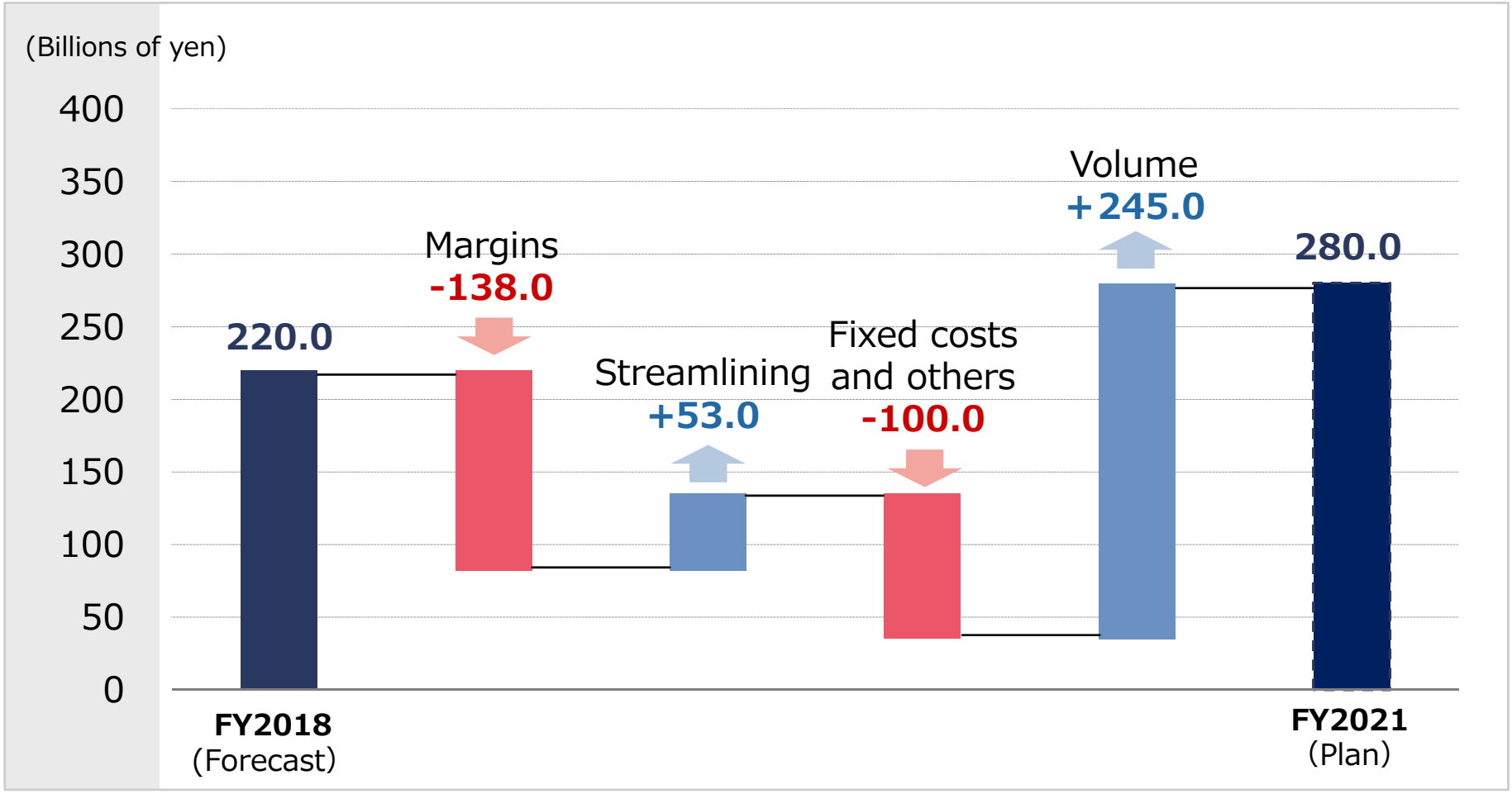
3. Performance Targets

(Billions of yen)

	FY2018 Forecast	FY2021 Target	Change
Sales Revenue	2,410.0	2,950.0	+540.0
Core Operating Income	220.0	280.0	+60.0
Operating Income (IFRS)	190.0	260.0	+70.0
Net Income attributable to owners of the parent	120.0	150.0	+30.0

Naphtha Price	¥49,900/kl	¥51,000/kl
Exchange Rate	¥110.86/$	¥110.00/$

3. Performance Targets:
Change In Core Operating Income (FY2018 VS FY2021)



3. Performance Targets : Sales Revenue by Sector

(Billions of yen)

	FY2018 Forecast	FY2021 Plan	Change	Reason for Change
Specialty Chemicals	1,585.0	1,980.0	+395.0	
Energy & Functional Materials	285.0	390.0	+105.0	Increase in battery materials sales volume
IT-related Chemicals	405.0	520.0	+115.0	Increase in OLED materials sales volume
Health & Crop Sciences	380.0	480.0	+100.0	Increase in sales volume of crop protection products and methionine
Pharmaceuticals	515.0	590.0	+75.0	Increase in sales volume of pharmaceuticals in North America
Bulk Chemicals	770.0	910.0	+140.0	
Petrochemicals & Plastics	770.0	910.0	+140.0	Increase in sales volume of products of PRC phase Ⅱ
Others	55.0	60.0	+5.0	
Total	2,410.0	2,950.0	+540.0	

3. Performance Targets: Core Operating Income by Sector

(Billions of yen)

	FY2018 Forecast	FY2021 Plan	Change	Reason for Change
Specialty Chemicals	171.0	235.0	+64.0	
Energy & Functional Materials	22.0	31.0	+9.0	Increase in battery materials sales volume
IT-related Chemicals	26.0	35.0	+9.0	Increase in OLED materials sales volume
Health & Crop Sciences	42.0	75.0	+33.0	Increase in sales volume of crop protection products and methionine
Pharmaceuticals	81.0	94.0	+13.0	Increase in sales volume of pharmaceuticals in North America
Bulk Chemicals	57.0	49.0	-8.0	
Petrochemicals & Plastics	57.0	49.0	-8.0	Lower margins for MMA
Others	-8.0	-4.0	+4.0	
Total	220.0	280.0	+60.0	

3. Performance Targets: Financial Metrics

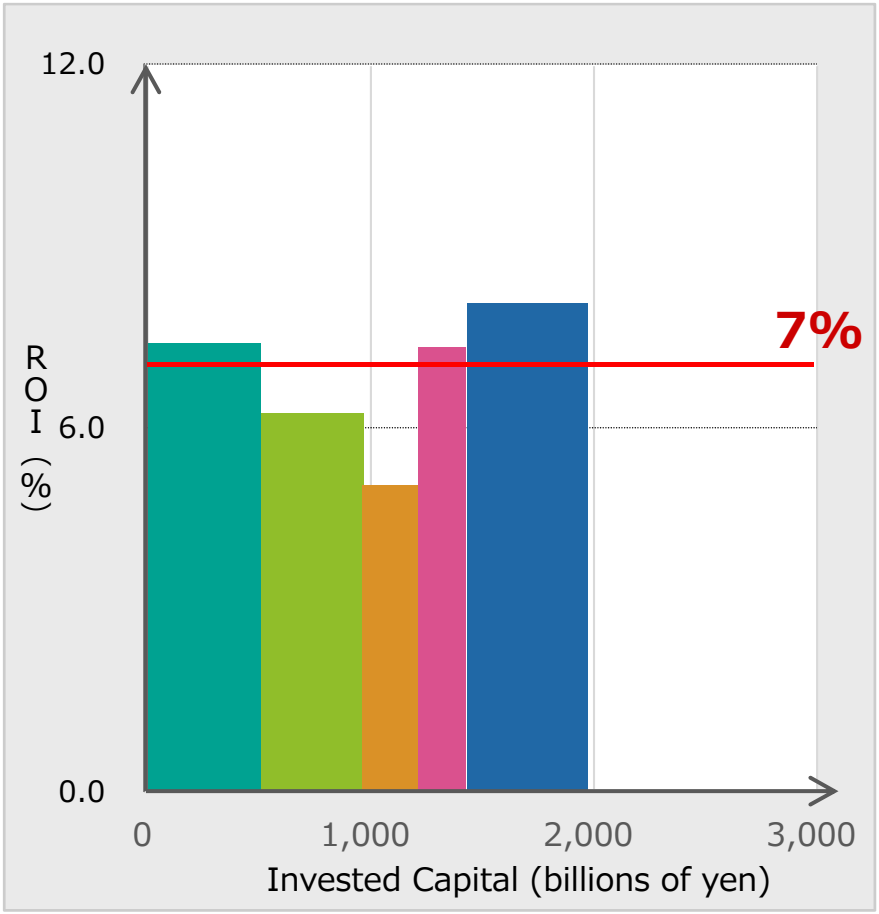
	FY2015	FY2018 Forecast	2021 Target	Medium- to Long-term Targets Consistently achieve the following targets:
ROE	9.6%	12.4%	12.5%	**Over 10%**
ROI	5.6%	7.1%	7.1%	**Over 7%**
D/E ratio	0.8	0.7	0.7	**approx. 0.7**
Dividend payout ratio	31%	30%	–	**approx. 30%**
Profit growth*	–	–	13%	**over 7% per year**

* Compounded annual growth rate of Net Income attributable to owners of the parent from FY2015

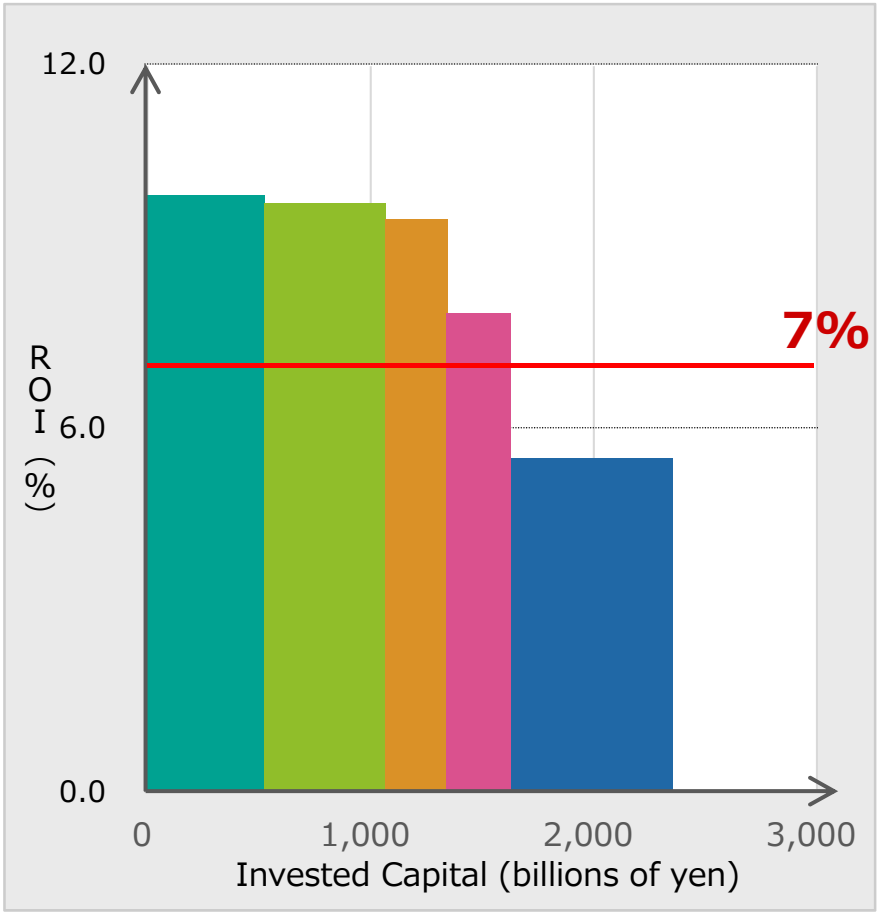
3. Performance Targets: ROI by Sector

Invested Capital and ROI by Sector

Forecast for FY 2018



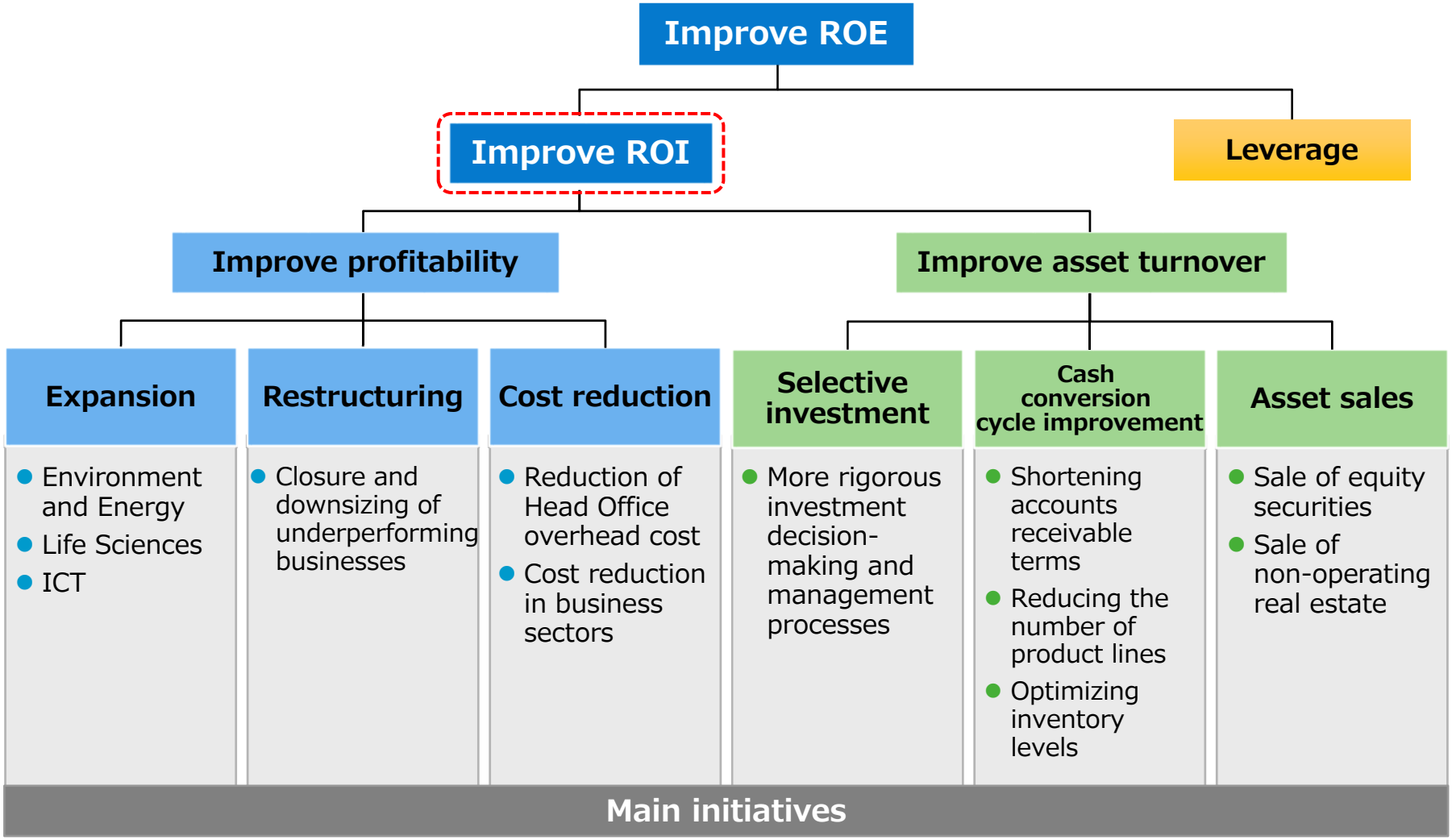
Forecast for FY2021



■ Pharmaceuticals ■ Health & Crop Sciences ■ IT-related Chemical ■ Energy & Functional Materials
■ Petrochemicals & Plastics

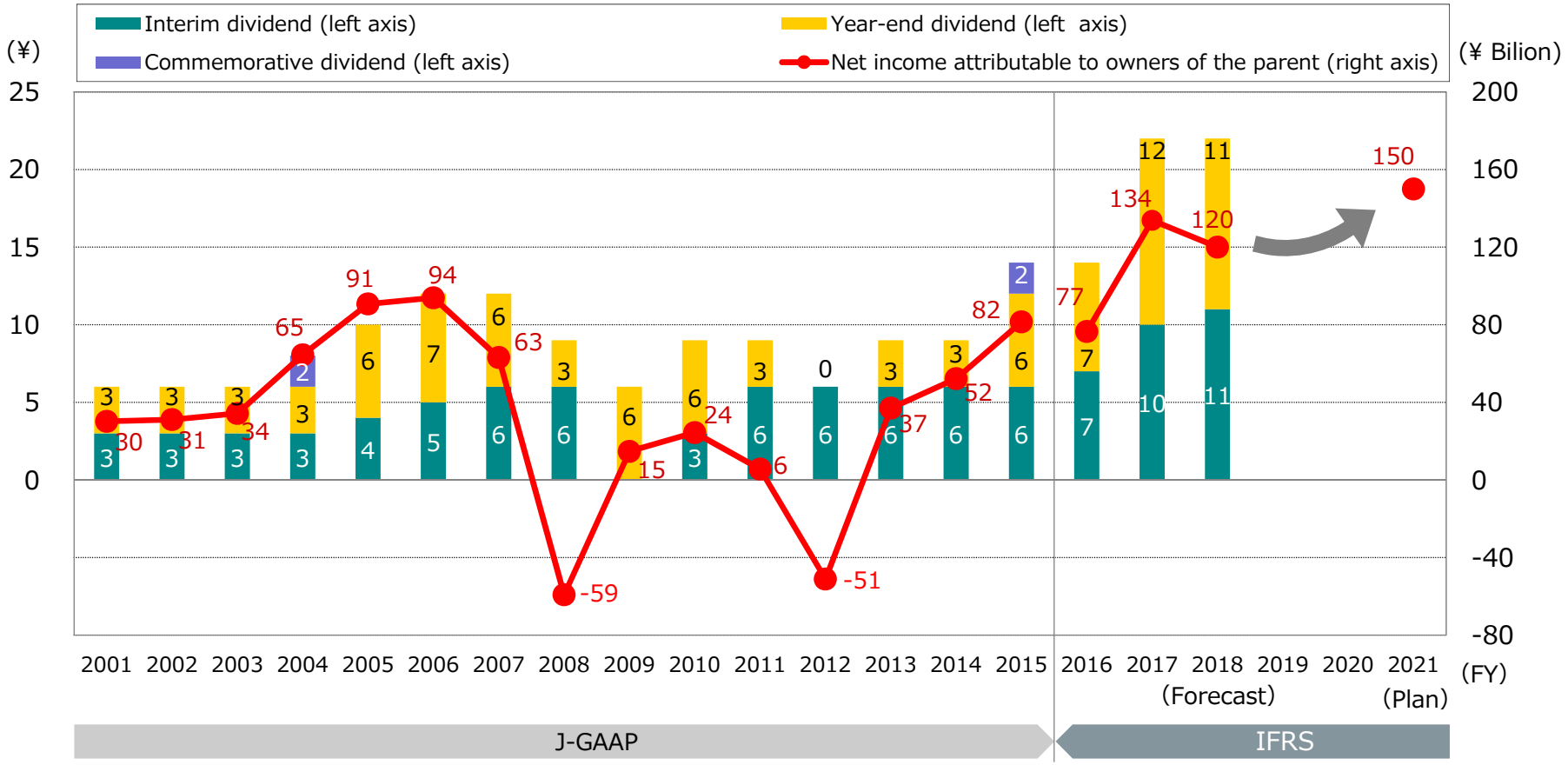
3. Performance Targets: ROI Tree Diagram

Initiatives for improving ROI and ROE



3. Performance Targets: Dividend Policy

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.



Accelerate the Development of Next-Generation Businesses

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

for a sustainable society

Healthcare

Reducing Environmental Impact

Food

ICT

Medium- to long-term priority areas

Build innovation ecosystem

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

Health care

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

Food

Focus domains	Major projects
Precision agriculture	Precision agriculture, including data collection, analysis, and prediction
Food sensing	On-site food inspection
Breeding	Breeding using genome editing technology

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

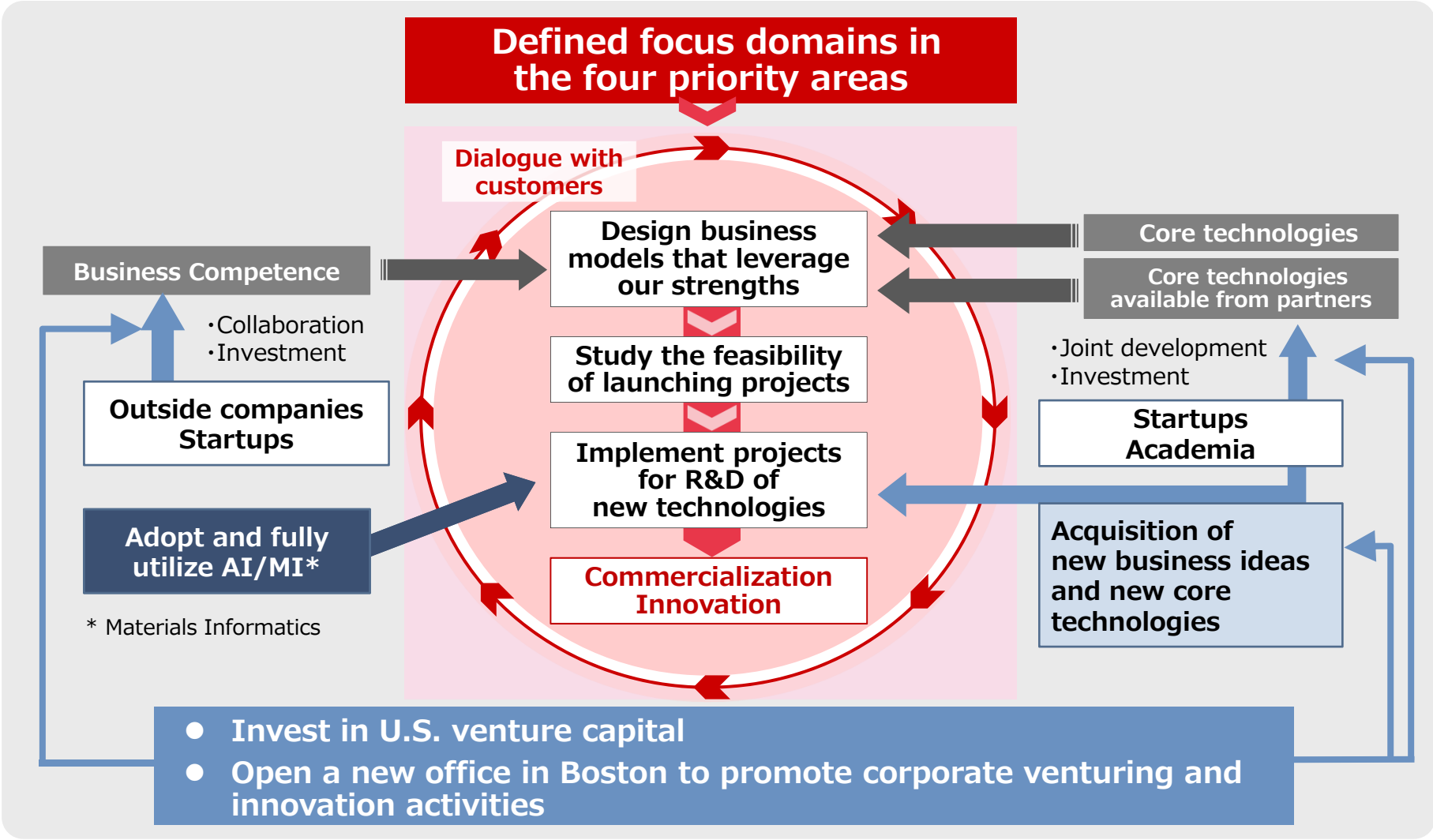
Reducing Environmental Impact

Focus domains	Major Projects
Energy storage	Next-generation battery storage materials
Energy saving	Separation membrane
	Waste water processing
Carbon cycle	Development of low environmental impact bioprocesses based on Synthetic Biology
	Carbon Capture and Utilization (CCU)-related business

ICT

Focus domains	Major Projects
Super-smart society	OLED display materials
	Flexible display materials and components
Smart mobility	Next-generation semiconductor-related materials
	Materials and devices for 5G telecommunications
	Image sensor materials

Innovation Ecosystem



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

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

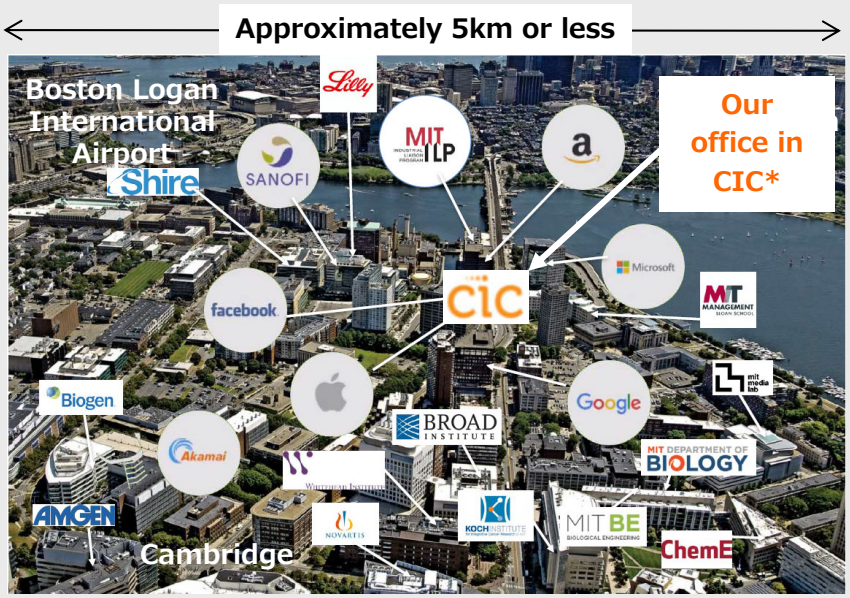
CVI
(Corporate Venturing & Innovation Office)

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



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

Improve Productivity through Digital Innovation

Significant improvement in efficiency and quality

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

	Previous Initiatives	Next Steps
Digital Plant	Partial introduction of AI and IoT	Higher-performance production by leveraging AI and IoT
Digital R&D	Partial introduction of Materials Informatics (MI)	More efficient, higher-performance R&D by leveraging AI
Digital SCM (Including marketing)	Partial introduction of S/4HANA	Full-scale introduction of S/4HANA Job standardization and work style reform
Digital Office	Partial introduction of RPA Introduction of Office365	Full use of robotics More active communication Paperless

IT-related investment during the next corporate business plan period : ¥60bn

Improve Productivity through Digital Innovation: Digital Plant

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

Urgently requires the development of plant operation systems that help achieve high labor productivity

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.

II

Improve Productivity through Digital Innovation: Digital R&D

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

II

Improve Productivity through Digital Innovation:
Establish a Digital Innovation Department

Established a Digital Innovation Department

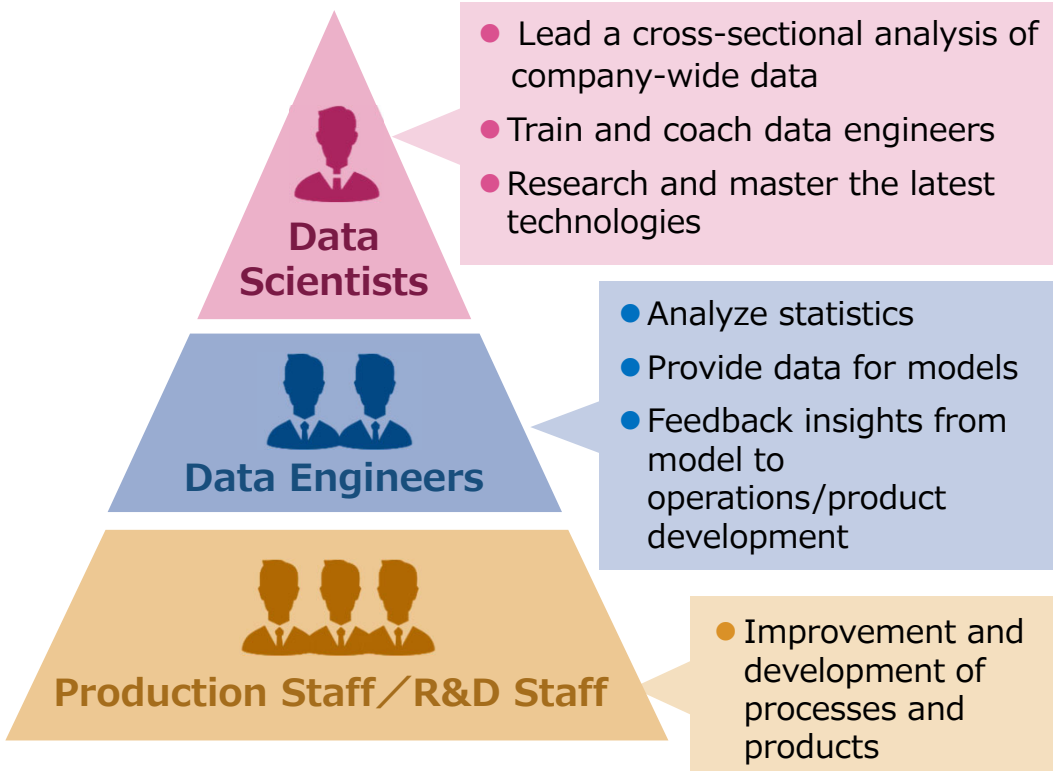
Target

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

Mission

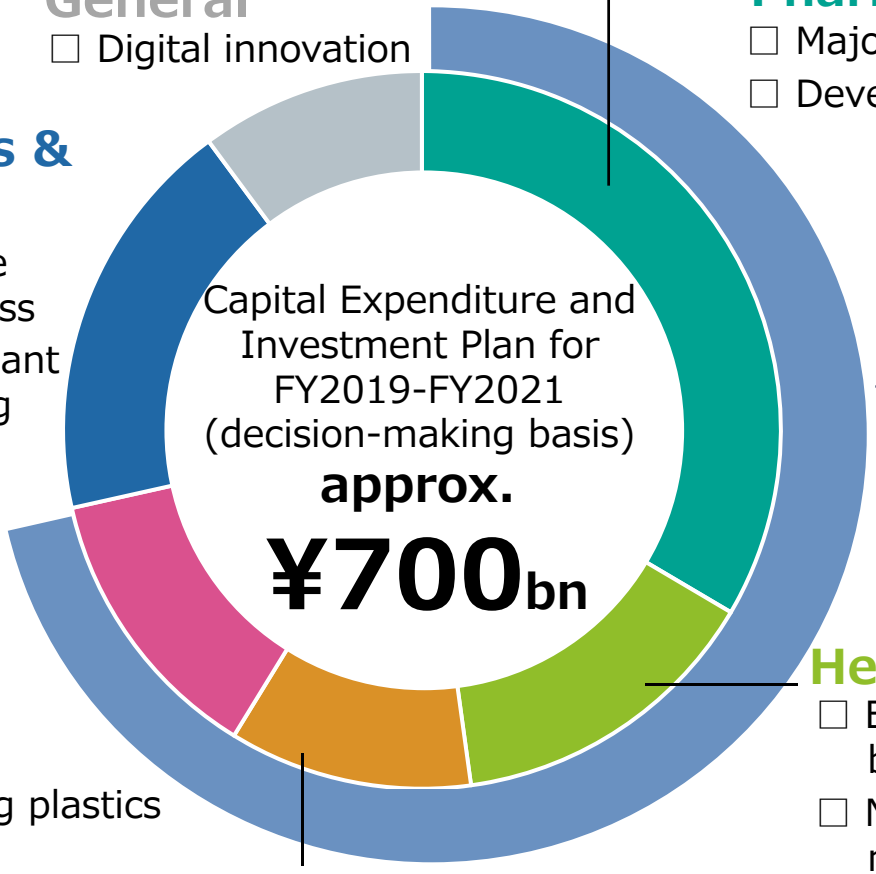
- Recruit and train **data scientists and data engineers**
- **Develop advanced analytical technologies** for production and R&D data
- Promote advanced **use of large-scale data** through database development

Role of digital human resources



Further digital innovation through full-scale adoption of IT technology

Further Improve Business Portfolio:
Capital Expenditure and Investment Plan for FY2019-FY2021
(decision-making basis)



General
- ☐ Digital innovation

Pharmaceuticals
- ☐ Major M&As
- ☐ Development milestone payment

Petrochemicals & Plastics
- ☐ Strengthening the Singapore business
- ☐ Construction of plant for manufacturing catalysts for sale

Specialty chemicals account for: 70%

Energy & Functional Materials
- ☐ Separators
- ☐ Super-engineering plastics

Health & Crop Sciences
- ☐ Enhancing the biorational business
- ☐ New production facilities for newly developed products

IT-related Chemicals
- ☐ Flexible display materials and components
- ☐ Semiconductor chemicals
- ☐ Compound semiconductor
- ☐ Resists

II Further Improve Business Portfolio: Research and Development Expenses Plan for FY2019-FY2021

Energy & Functional Materials

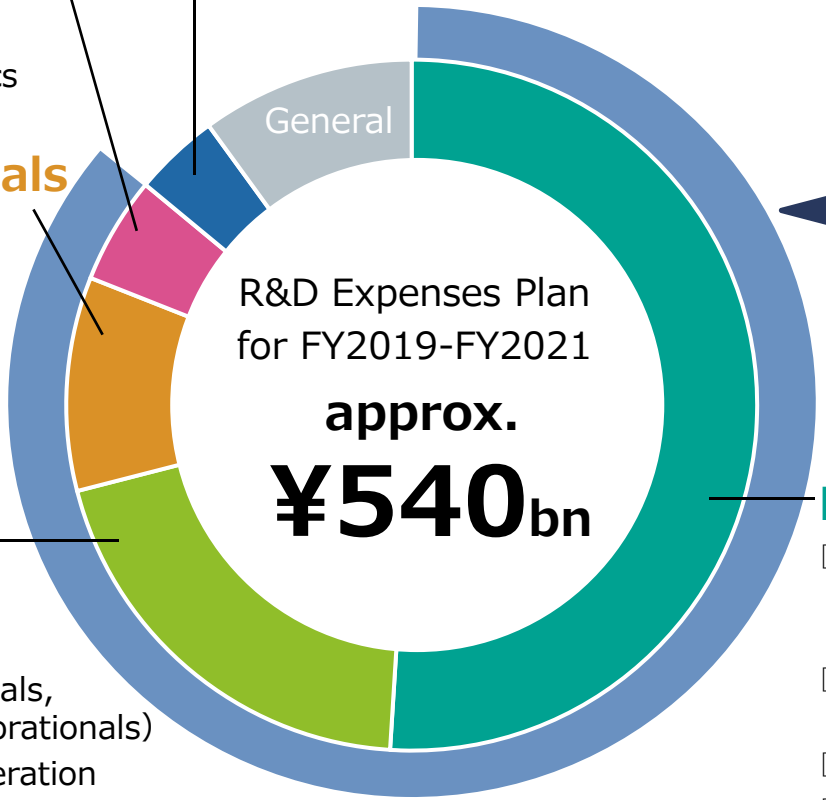
- ☐ Separators
- ☐ Cathode materials
- ☐ Super-engineering plastics

Petrochemicals & Plastics

- ☐ Carbon cycle chemistry including carbon capture and utilization (CCU)

IT-related Chemicals

- ☐ Flexible display materials and components
- ☐ Next-generation semiconductor materials
- ☐ New touchscreen panels



Specialty chemicals account for: 90%

Health & Crop Sciences

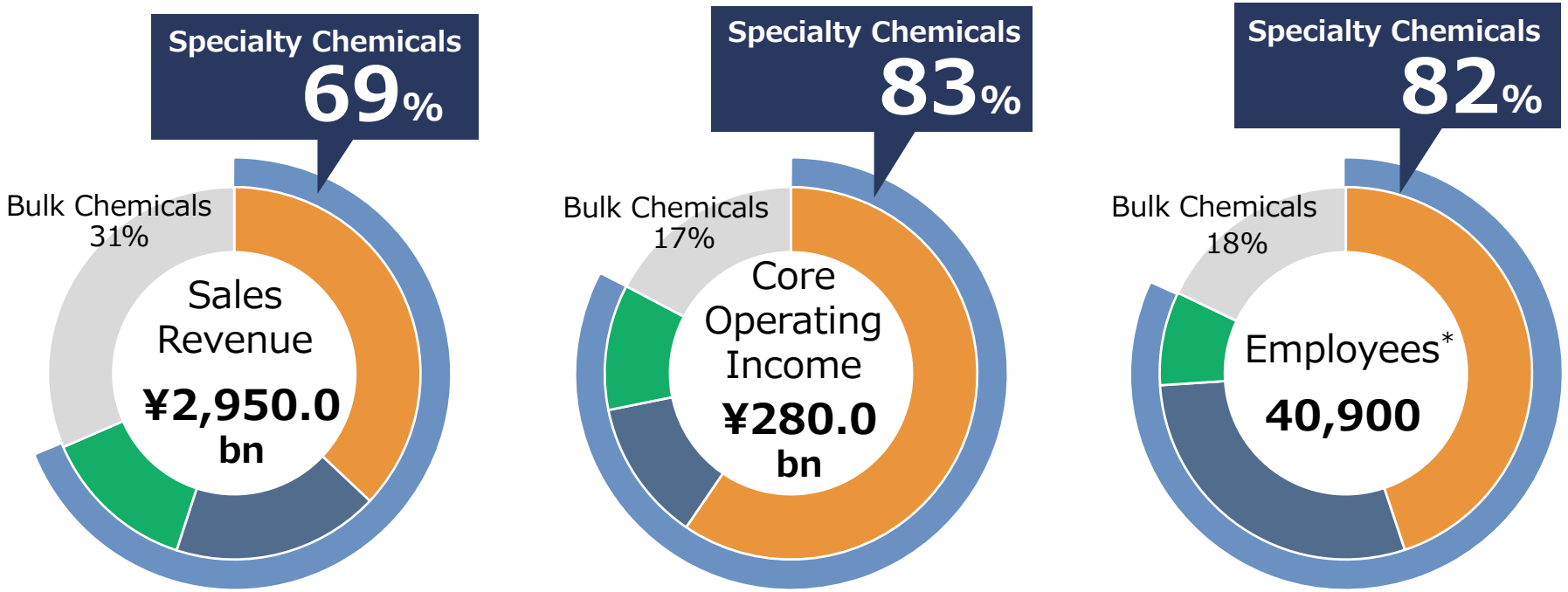
- ☐ Launch of new products (crop protection chemicals, botanical insecticides, biorationals)
- ☐ Creation of the next-generation development pipeline (crop protection chemicals, biorationals)
- ☐ Development of the next-generation technologies (precision agriculture, utilization of Bio-IoT technology)

Pharmaceuticals

- ☐ APL-130277 (treatment for off episodes associated with Parkinson's disease)
- ☐ Napabucasin (cancer stem-cell inhibitor)
- ☐ Alvocidib (anticancer drug)
- ☐ Regenerative medicine and cell therapy

Further Improve Business Portfolio:
Sales Revenue, Core Operating Income, and Employees

Forecast for FY2021



* Including contract employees and part-time and temporary staff

Specialty Chemicals

Life sciences

ICT

Environment and energy

Bulk Chemicals

Build a More Robust Financial Structure: Financial Strategy

Policy

1. **Generate cash flow from the implemented capital expenditures and investments as planned**
2. **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**

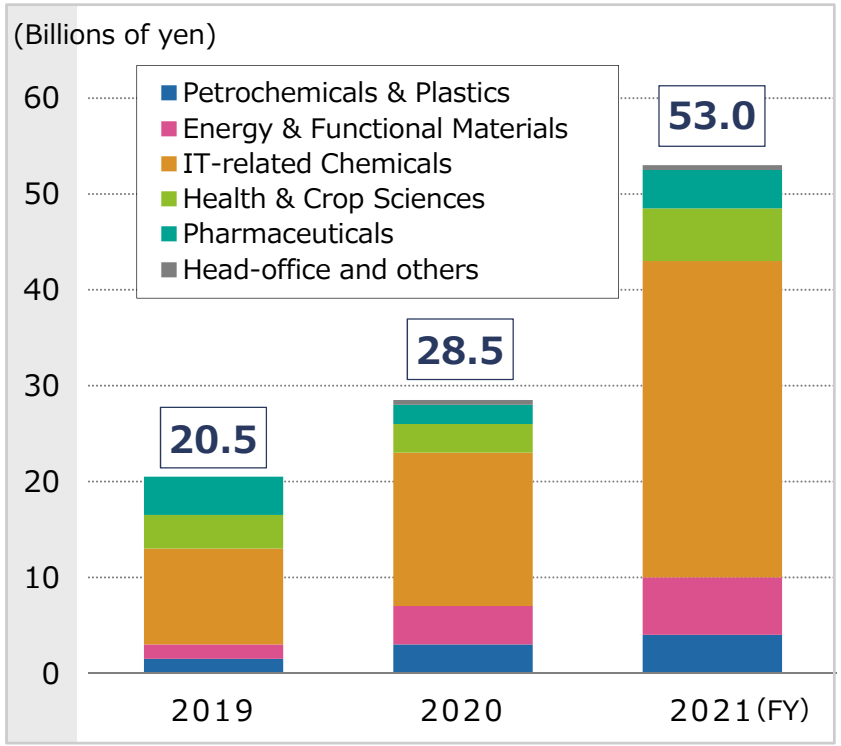
Major initiatives

- 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

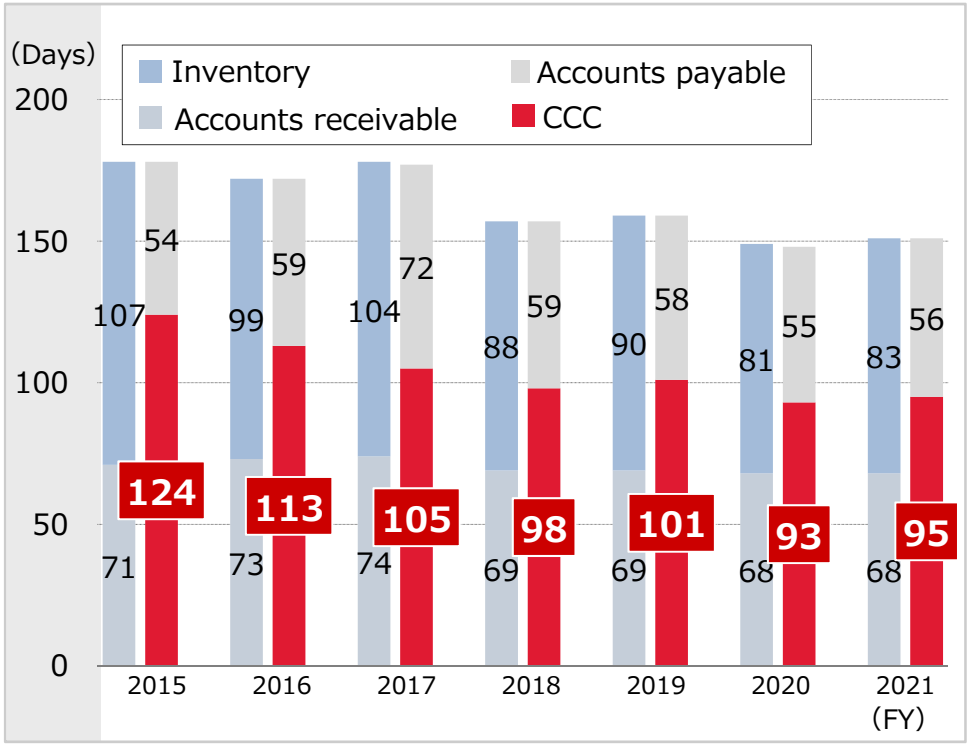
Rationalization

¥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



Build a More Robust Financial Structure:
Cash Flow Targets

(Billions of yen)

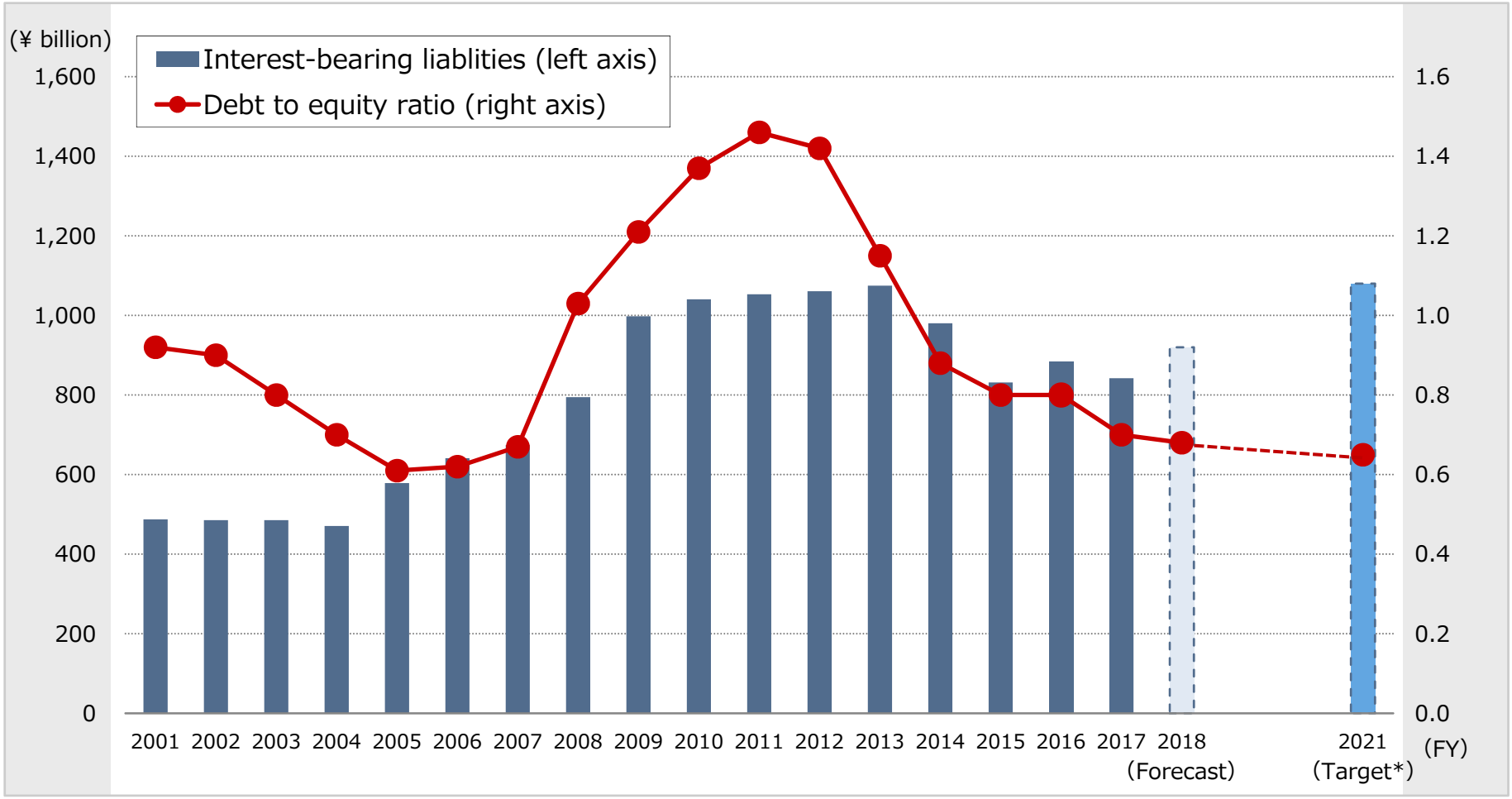
	FY2013-FY2015	FY2016-FY2018 (Forecast)	FY2019-FY2021 (Target)
Cash flows from operating activities	716.4	670.0	740.0
Cash flows from investing activities	-245.5	-550.0	＊-815.0
Free cash flows	470.9	120.0	-75.0

＊ Including investment in Rabigh Phase Ⅱ project

(Billions of yen)

	End of FY2015	End of FY2018 (Forecast)	End of FY2021 (Target)
Interest-bearing liabilities	831.5	920.0	1,080.0

Build a More Robust Financial Structure:
Interest-Bearing Liabilities and Debt to Equity Ratio



* Including investment in Rabigh Phase Ⅱ project

III

Business Strategy by Sector

Business Strategy – Petrochemicals & Plastics

Long-term goal

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

Status of the major businesses

Strengths

S

- 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

Weaknesses

W

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

Opportunities

O

- Large and deep markets
- Steady growth in demand

Threats

T

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

Business Strategy – Petrochemicals & Plastics

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

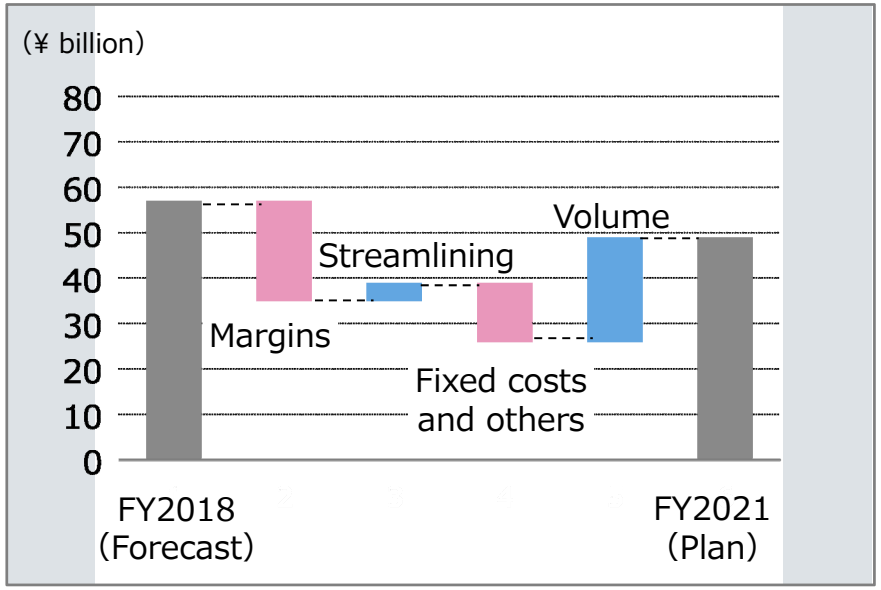
- Restructuring of underperforming businesses
- R&D into carbon cycle chemistry, including carbon capture and utilization technologies, to create a sustainable society

FY2021 Target

Sales Revenue	**¥910.0 billion**
Core Operating Income	**¥49.0 billion**

Core operating income variance analysis

(FY2018 v/s FY2021)



Petrochemicals & Plastics Topics: Development of Technologies for Environmentally Friendly Products

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
  ・Insect-resistant cereal bags
- Sheeting for agriculture

Refill Pouch

	Bottle (HDPE)	Large Refill Pouch (EPPE+LLDPE)
Weight of packaging materials(g) per 100g of contents	19	1.8
Transportation efficiency	△	○
Bag drop strength	△	○

Returnable Box

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

Environmental aptitude　Utility value

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

Business Strategy – Energy & Functional Materials Sector

Long-term goal

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

Status of the major businesses

Strengths

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

Weaknesses

- Relatively small business
- Cost competitiveness

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

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

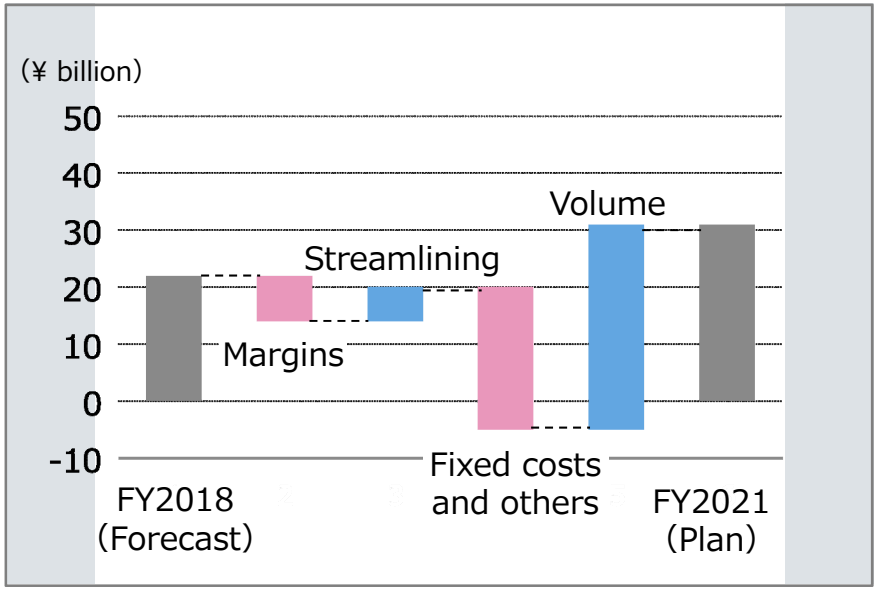
- Create new businesses in the fields of environment and energy and high-performance materials (CO_2 separation membranes, etc.)

FY2021 Target

Sales Revenue	**¥390.0 billion**
Core Operating Income	**¥31.0 billion**

Core operating income variance analysis

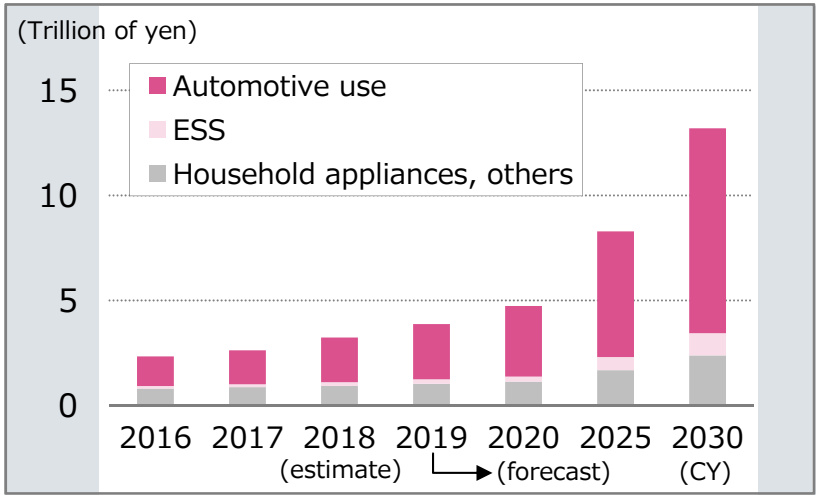
(FY2018 v/s FY2021)



Energy & Functional Materials Sector Topics: Separator Business

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 m^2	600 million m^2
(Ratio of in-house developed substrate)	<25%	>30%

Business Strategy – IT-related Chemicals Sector

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

Status of the major businesses

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

Weaknesses

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

Opportunities

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

Threats

- Intensifying competition in the maturing LCD market

Business Strategy – IT-related Chemicals Sector

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

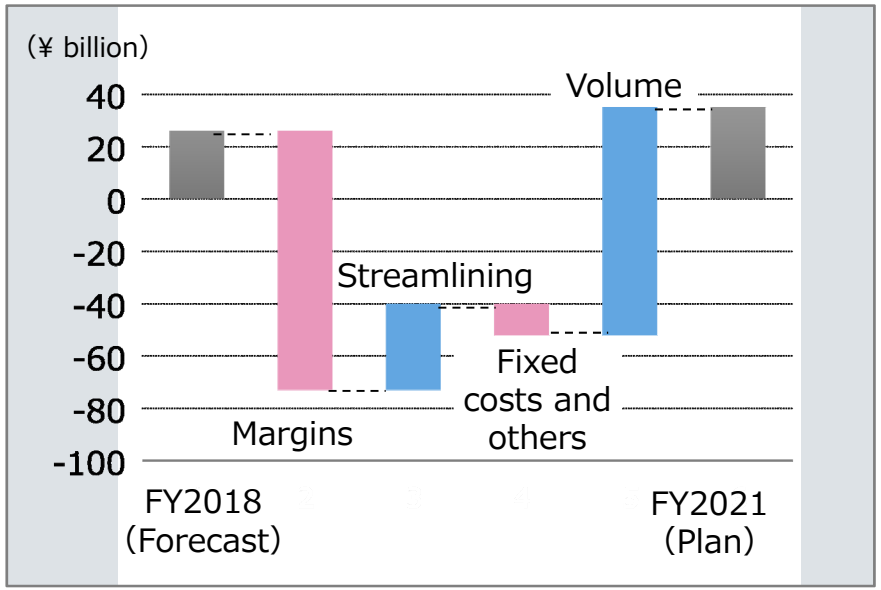
- Develop next-generation businesses
  - Smart mobility
  - Next-generation handsets
  - Sensor material

FY2021 Target

Sales Revenue	**¥520.0 billion**
Core Operating Income	**¥35.0 billion**

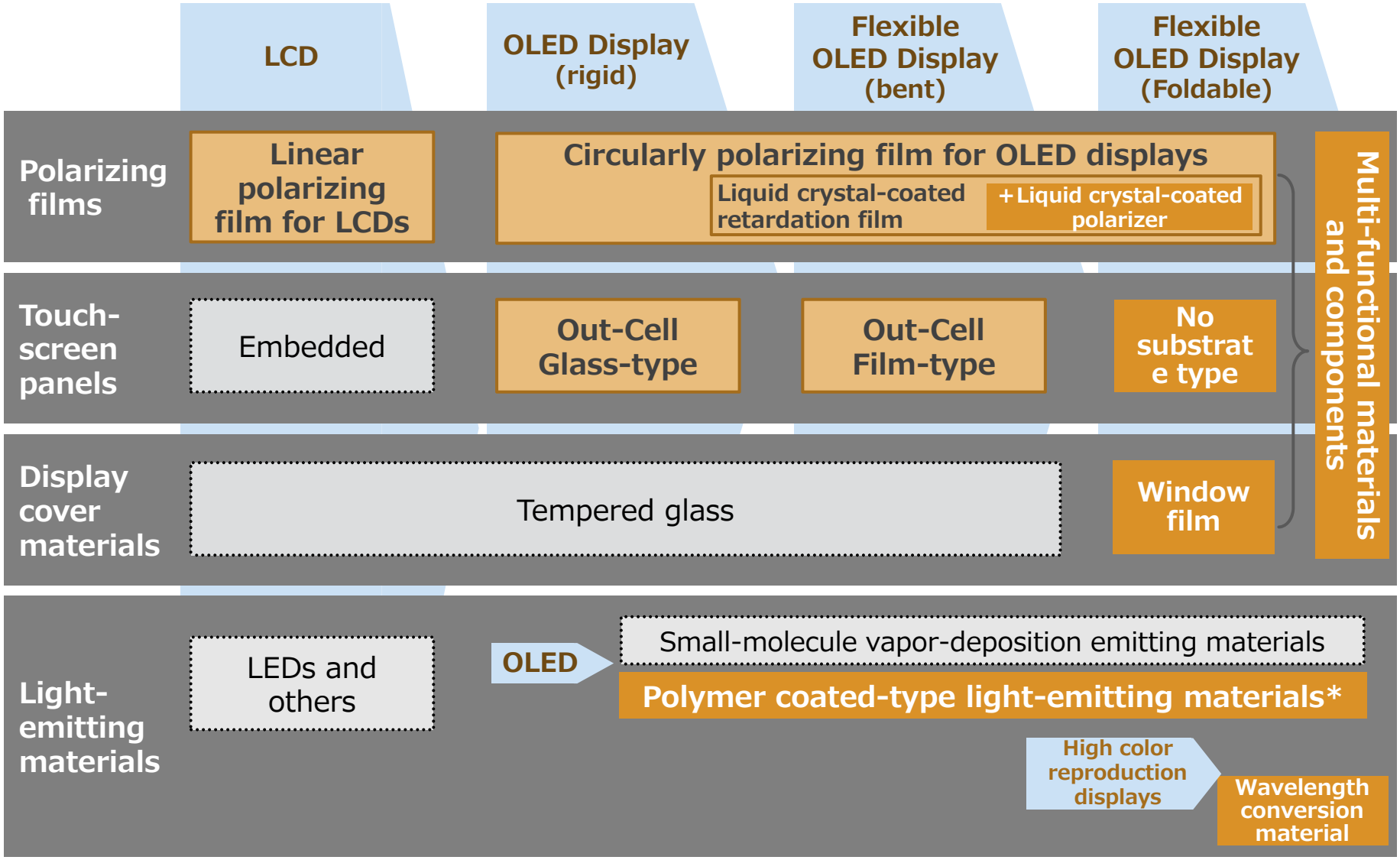
Core operating income variance analysis

(FY2018 v/s FY2021)



III

IT-related Chemicals Sector Topics:
Advance in Display Technology and Our Product Lineup



Initiatives in the Mobility Sector

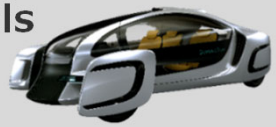
Focusing on developing components and materials to support the automotive industry's transformation with an eye toward the CASE (connected, autonomous, shared, electric) era

Petrochemicals & Plastics Sector

Resins

- PMMA
- GFPP*

Windscreen, roof materials



Developed PMMA-based transparent resin

革新的研究開発推進プログラム ImPACT
Impulsing Paradigm Change through Disruptive Technologies Program

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
- Polymer OLED materials

* Glass fiber reinforced polypropylene

5G-related Materials Lineup

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

・Polarizing films for OLED　・Touchscreen panels
・Flexible display materials　・GaAs epiwafers for VCSEL
・Separators　・Cathode materials　・Alumina

Business Strategy – Health & Crop Sciences Sector

Long-term goal

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

Status of the major businesses

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

Weaknesses

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

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

Threats

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

Business Strategy – Health & Crop Sciences Sector

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

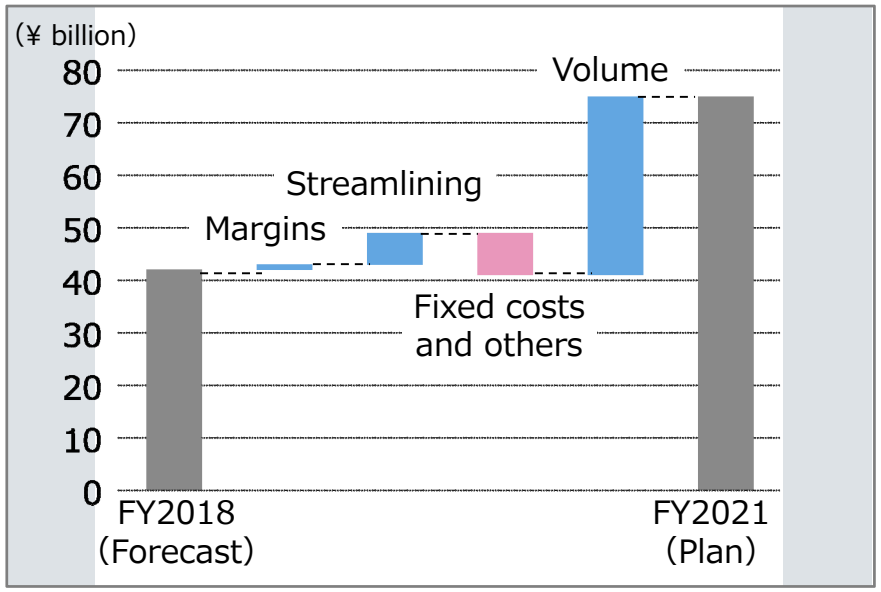
- Establish a global footprint in the crop protection business
- Further strengthen the crop protection business (agriculture-related supplies, precision agriculture)

FY2021 Target

Sales Revenue	**¥480.0 billion**
Core Operating Income	**¥75.0billion**

Core operating income variance analysis

(FY2018 v/s FY2021)

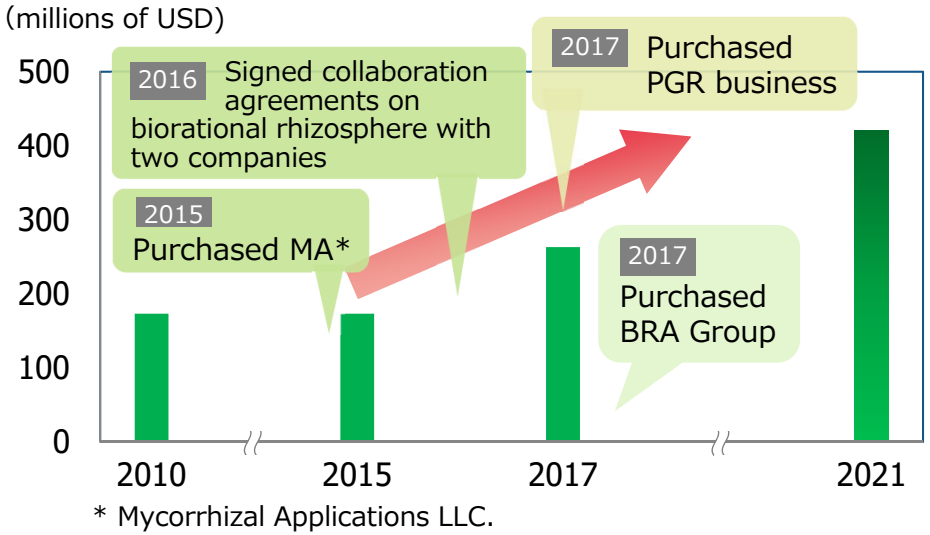


Health & Crop Sciences Sector Topics:
Expansion of Our Biorational Business

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



* Mycorrhizal Applications LLC.

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

Long-term goal

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

Status of the major businesses

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

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

Business Strategy – Pharmaceuticals Sector

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

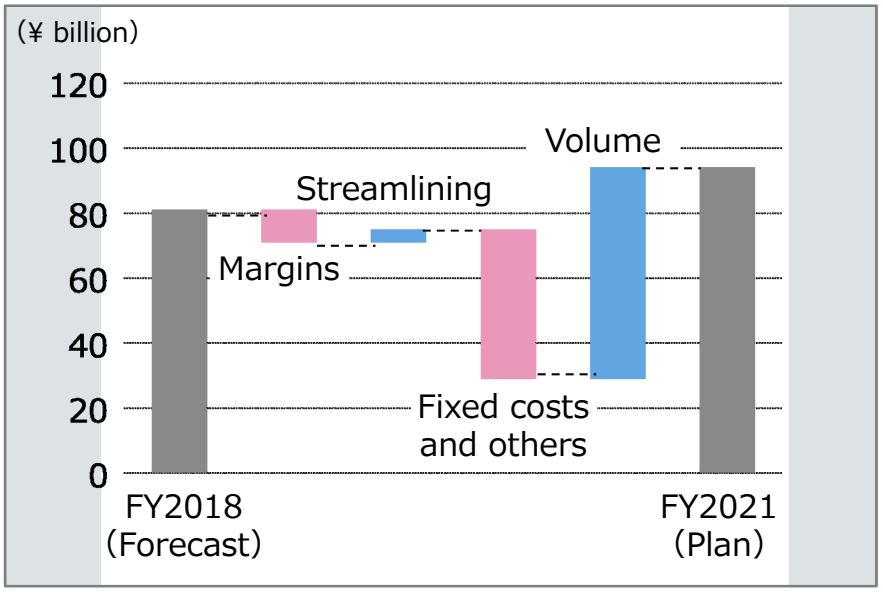
- Enhance drug development capabilities and improve the success rate in R&D
- Maintain earnings power after Latuda's loss of exclusivity

FY2021 Target

Sales Revenue	**¥590.0 billion**
Core Operating Income	**¥94.0 billion**

Core operating income variance analysis

(FY2018 v/s FY2021)



Pharmaceutical Sector Topics:
Regenerative Medicine and Cell Therapy

Initiatives in Regenerative Medicine & Cell Therapy Business

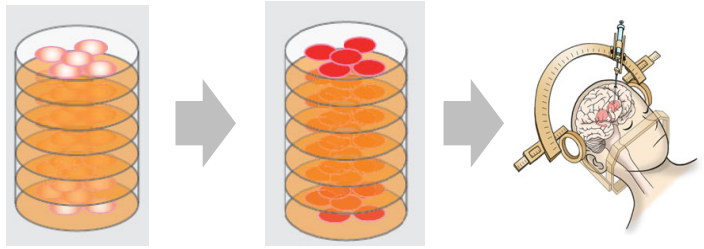
Proposed indication, etc.	Partnering	Region (planned)	Clinical research/ Clinical study
Chronic stroke (SB623)	SanBio	North America	Phase 2b study in progress Primary endpoints not achieved; the results are under close analysis
AMD (age-related macular degeneration)	Healios RIKEN	Japan	Preparing for clinical study
Parkinson's disease (Designated as a "SAKIGAKE")	Kyoto Univ CiRA	Global	Clinical study started August 2018
Retinitis pigmentosa	RIKEN	Global	Preparing for clinical research
Spinal cord injury	Keio Univ Osaka National Hospital	Global	Preparing for clinical research

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

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

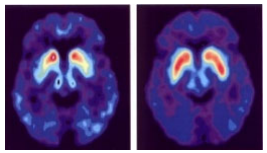
Therapeutic cell (CiRA)

Administer to a patient

Contract production of PET reagents*1

日本メジフィジックス株式会社

nihon medi+physics



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

Ⅲ Bioscience Research Laboratory

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

Development of advanced digital information technologies

Protein analysis research

Molecular technologies

- “Omics” technologies for safety assessment

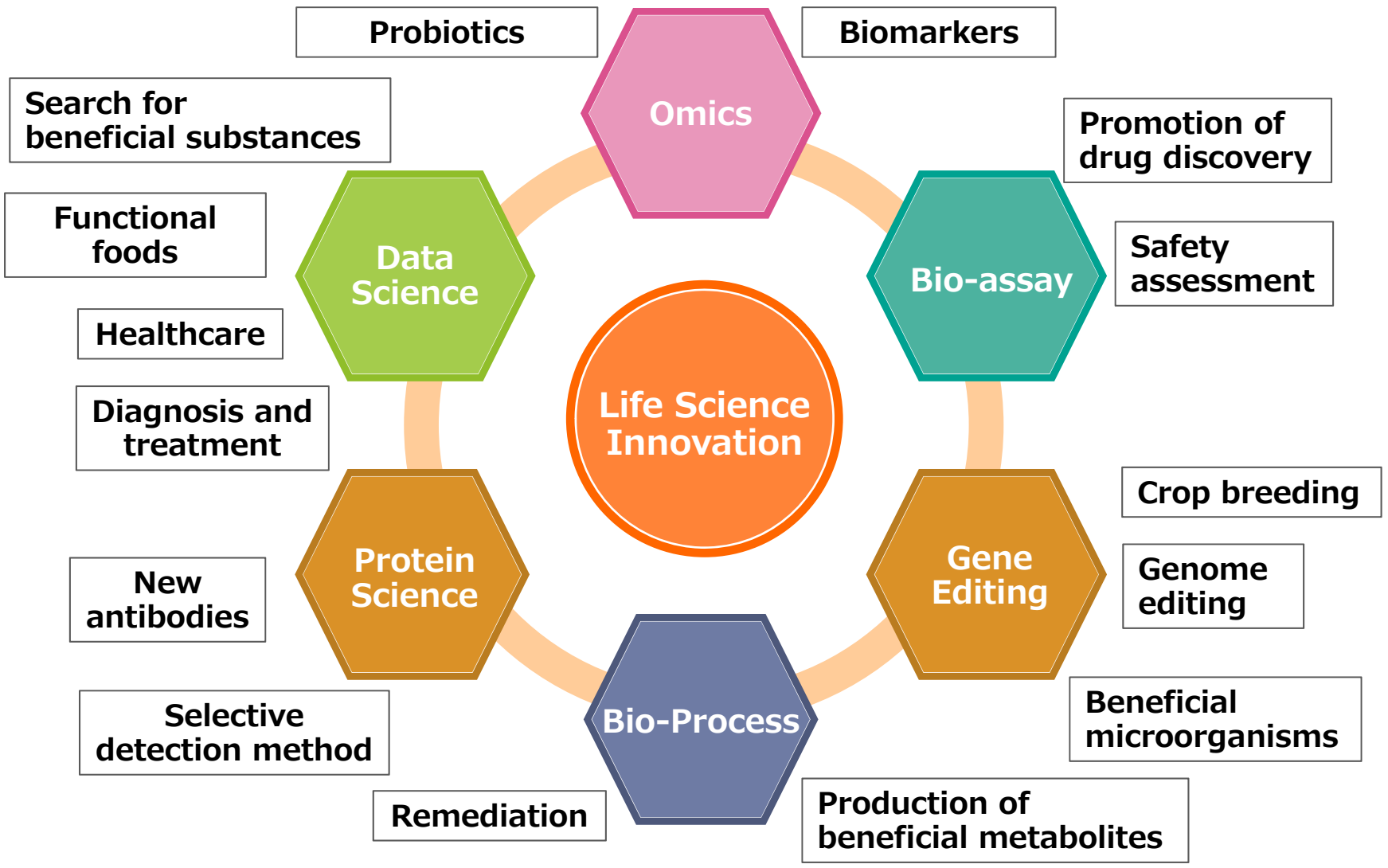
Microbiology research

Cellular technologies

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

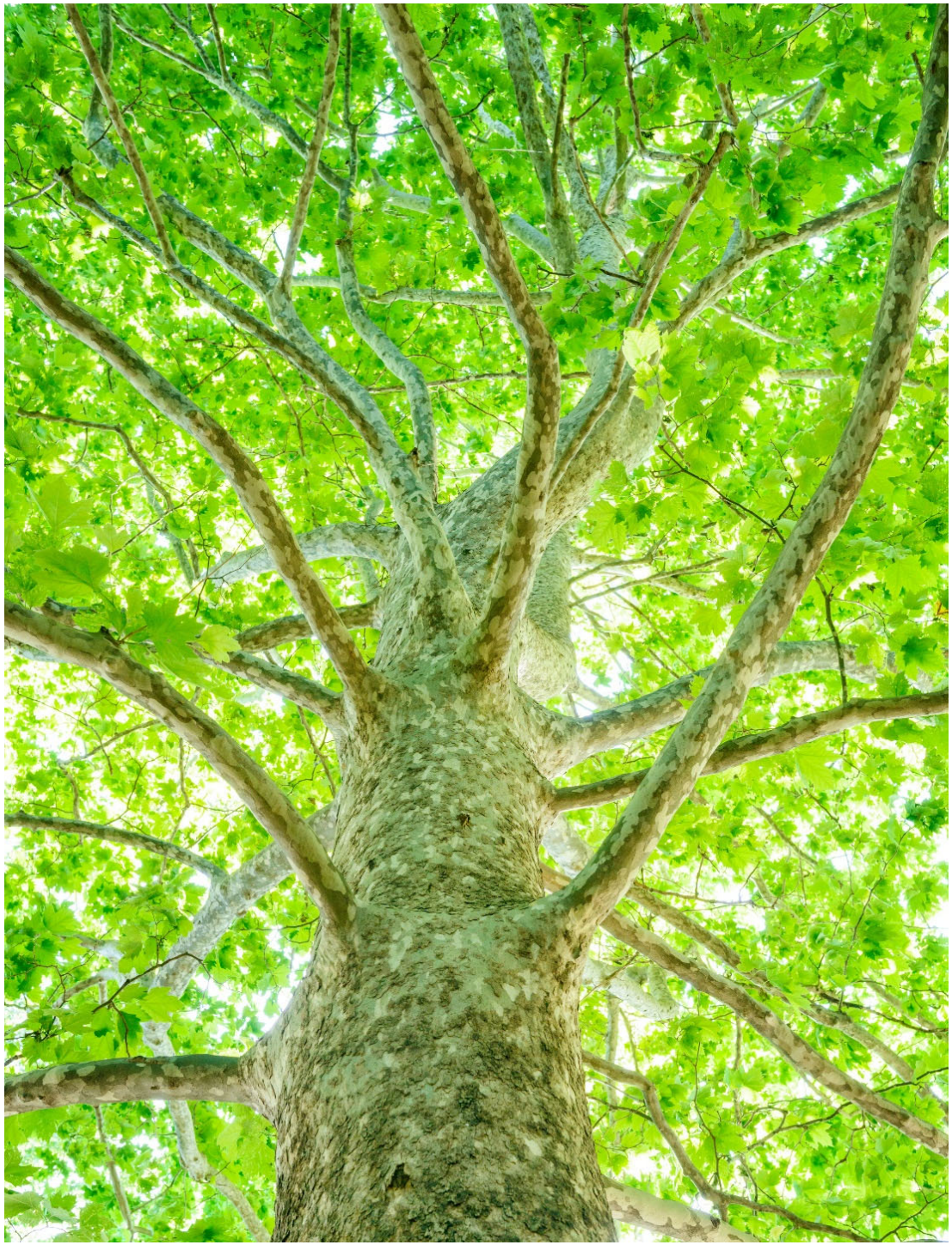
Bioscience Research Laboratory Established

Bioscience: New Research Themes



Ⅳ

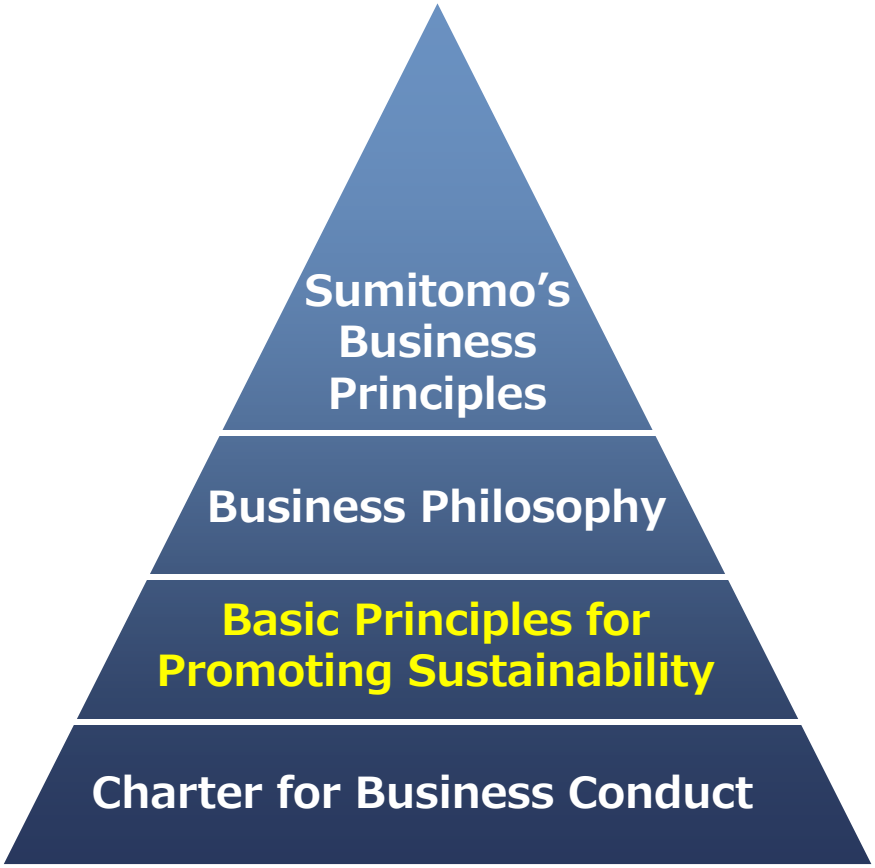
Initiatives for Sustainability



Ⅳ Established Basic Principles for Promoting Sustainability

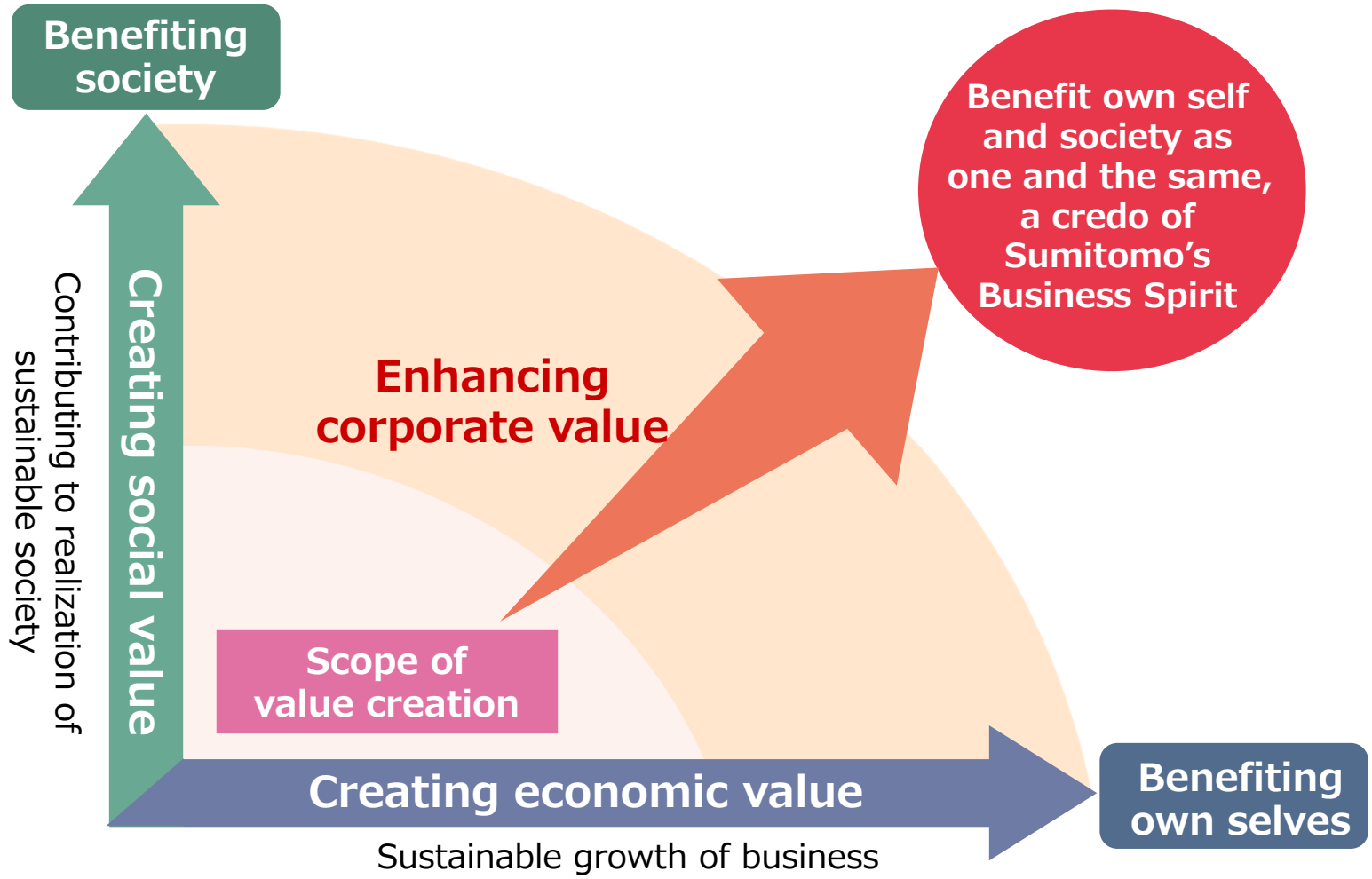
Basic Principles for Promoting Sustainability

Principle 1	Creating economic value which helps create social value
Principle 2	Contribution to solving globally vital issues
Principle 3	Active participation in global initiatives
Principle 4	Collaboration with stakeholders
Principle 5	Top management commitment and participation by all
Principle 6	Enhancing corporate governance



Ⅳ Image of Enhancing Corporate Value

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

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

Achieve sustainable value creation by working on material issues

Initiatives for Global Environment Issues

Participation in external initiatives

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

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

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

October 2018, **first certified among diversified chemical companies**

- Fuel conversion
- 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 + Contribution through environmentally friendly products

CDP DISCLOSURE INSIGHT ACTION A LIST 2018 CLIMATE CHANGE

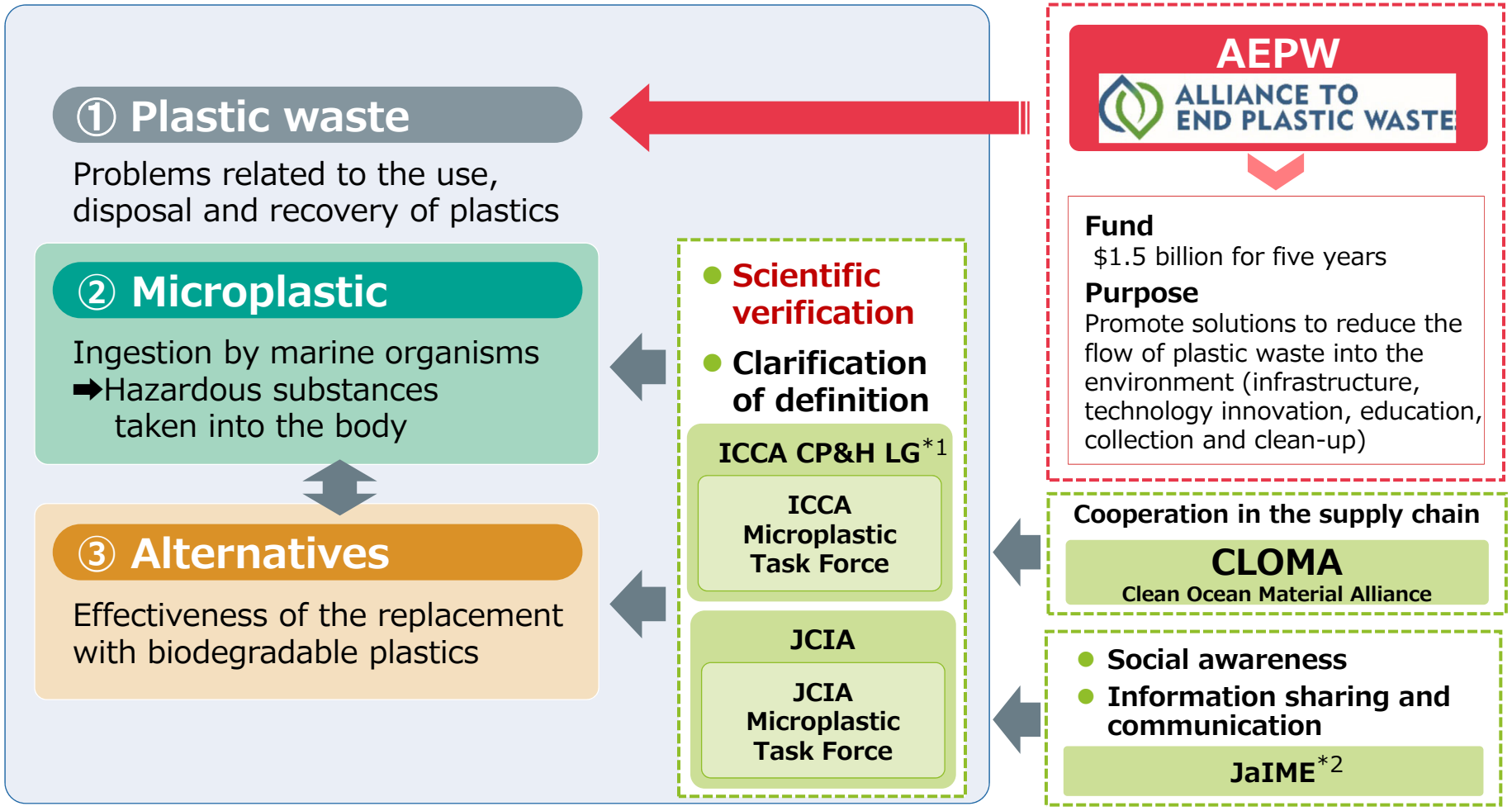
Selected as **Climate Change A List 2018**

Disclosed information
approx. **7,000** companies

A List
126
(including 20 Japanese companies)

The Issue of Plastic Waste

Our efforts through participation in external initiatives

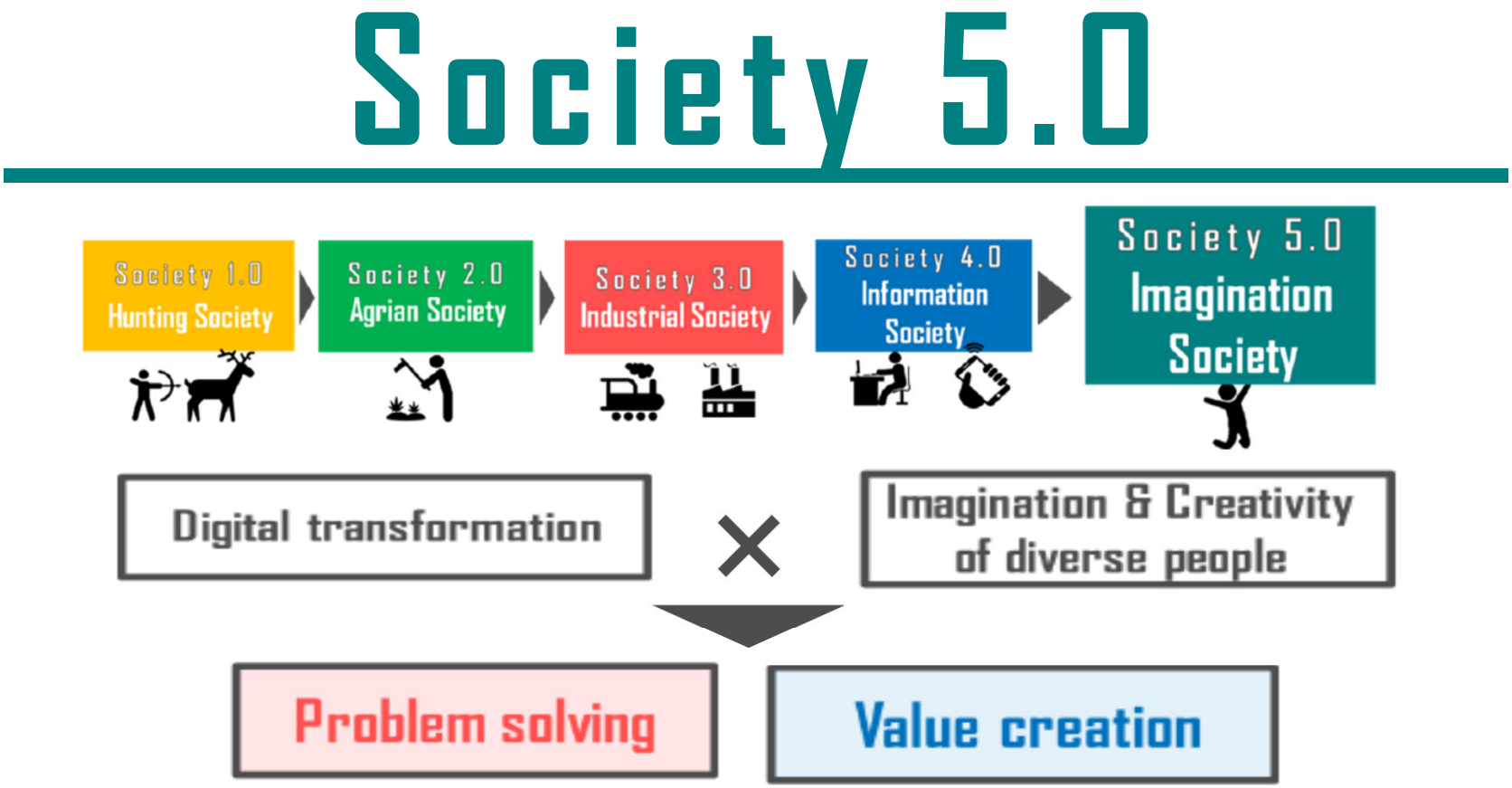


*1　International Council of Chemical Associations, Chemical Policy & Health Leadership Group

*2　Japan Initiative for Marine Environment

Society 5.0 “Imagination Society”

**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.**



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

Ⅳ What Sumitomo Chemical Strives To Be

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

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

What 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.