MorganStanley MUFG

Chemical & New Materials Conference

December 11, 2018

SUMITOMO CHEMICAL

Masakazu Tokura
President

Contents

Create New Value

Performance Trends

FY2018 1H vs. FY2017 1H

(Billions of yen)

	FY2017 1H	FY2018 1H	Change
Sales Revenue	1,040.3	1,122.1	+81.8
Core Operating Income	127.0	102.1	−24.9
Operating Income (IFRS)	136.1	91.9	−44.2
Net Income Attributable to Owners of the Parent	77.1	61.5	−15.6
Naphtha Price	¥37,600/kl	¥51,100/kl	
Exchange Rate	¥111.04/$	¥110.26/$	

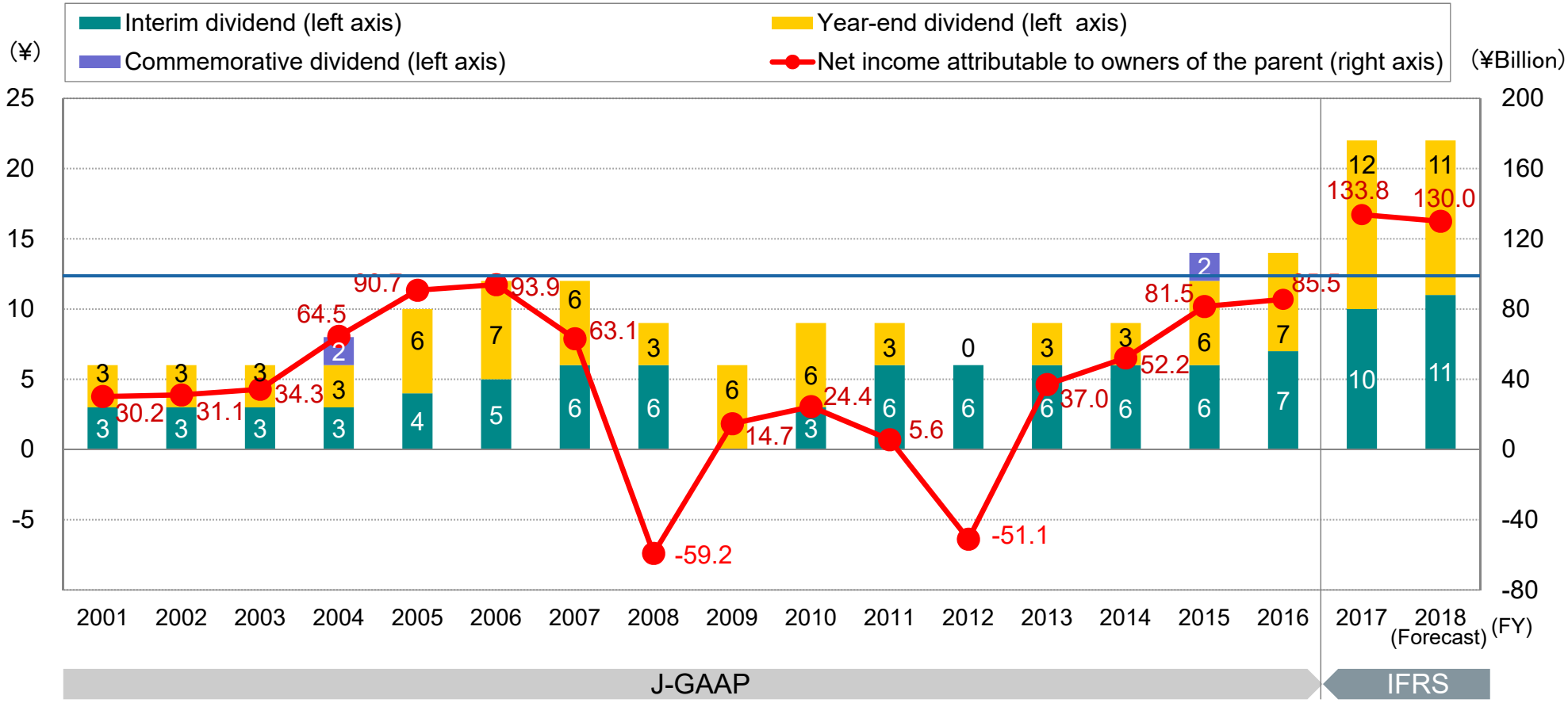
FY2018 1H Core Operating Income by Sector vs. FY2017 1H

(Billions of yen)

	FY2017 1H	FY2018 1H	Change	Reasons for Change
Specialty Chemicals	85.9	69.4	-16.5	
Energy & Functional Materials	10.3	12.8	+2.5	Sales increase of separators
IT-related Chemicals	9.0	14.8	+5.8	Sales increase of polarizing films
Health & Crop Sciences	8.4	2.5	-5.9	Loss on equity method in Nufarm
Pharmaceuticals	58.1	39.3	-18.9	Temporary gains on the transfer of business in FY2017
Bulk Chemicals	41.9	35.4	-6.5	
Petrochemicals & Plastics	41.9	35.4	-6.5	Implementation of periodical maintenance shutdowns in FY2018
Others	-0.7	-2.7	-2.0	
Core Operating Income	127.0	102.1	-24.9	

Dividend Policy

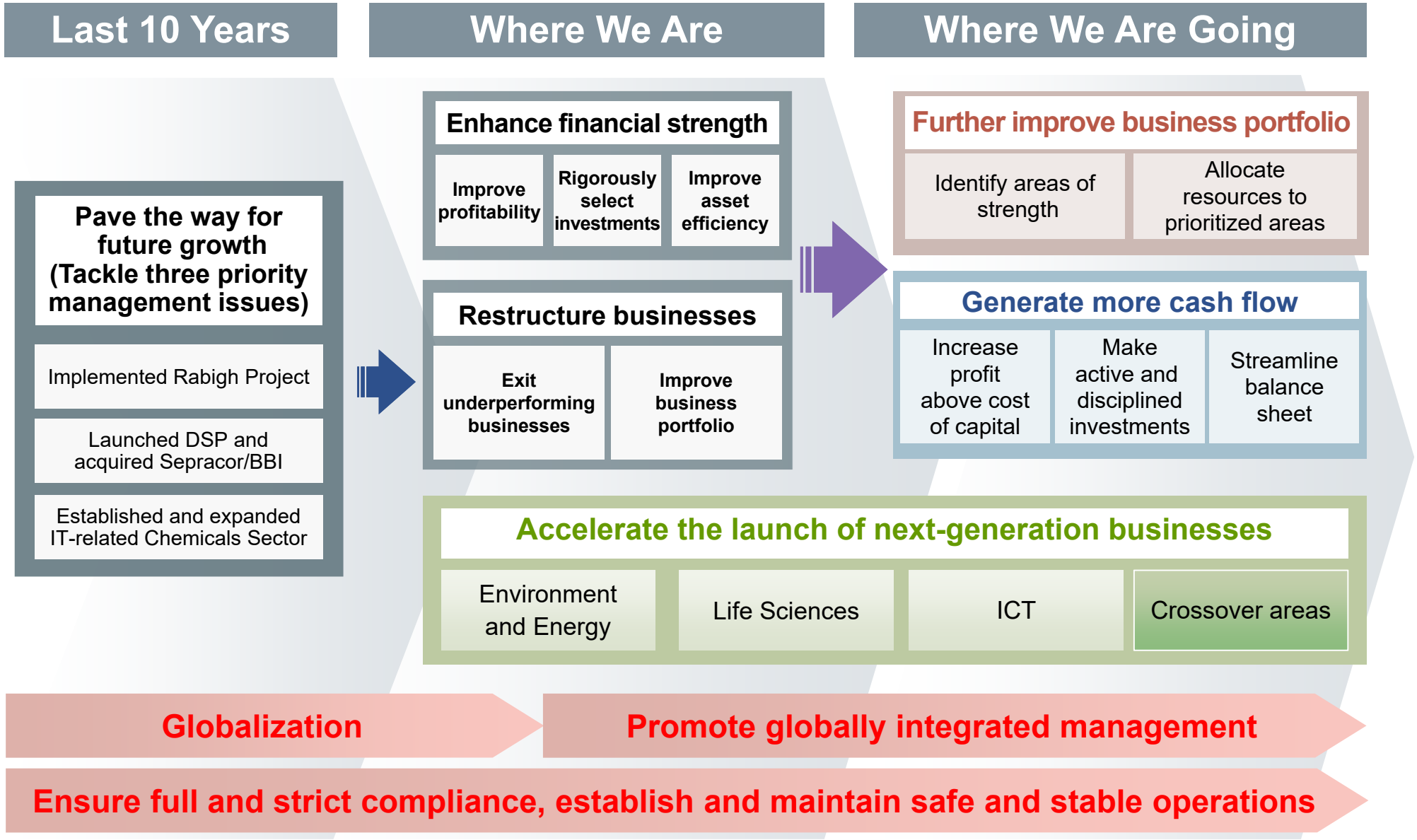
We consider shareholder return as one of our priority management issues and have made it a policy to maintain stable dividend payment, giving due consideration to our business performance and a dividend payout ratio for each fiscal period, the level of retained earnings necessary for future growth, and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



* J-GAAP used through FY2016, IFRS adopted from FY2017.

Progress on Corporate Business Plan (Overall)

Corporate Business Plan: Basic Policy



FY2018 Forecast vs. FY2018 Target

(Billions of yen)

	FY2018 Forecast	FY2018 Target	Change
Sales Revenue	2,490.0	2,540.0	-50.0
Core Operating Income	240.0	240.0	±0
Operating Income (IFRS)	205.0	190.0	+15.0
Net Income attributable to owners of the parent	130.0	110.0	+20.0

Naphtha Price	¥47,000/kl	¥45,000/kl
Exchange Rate	¥110.00/$	¥120.00/$

* Forecast and target both based on IFRS

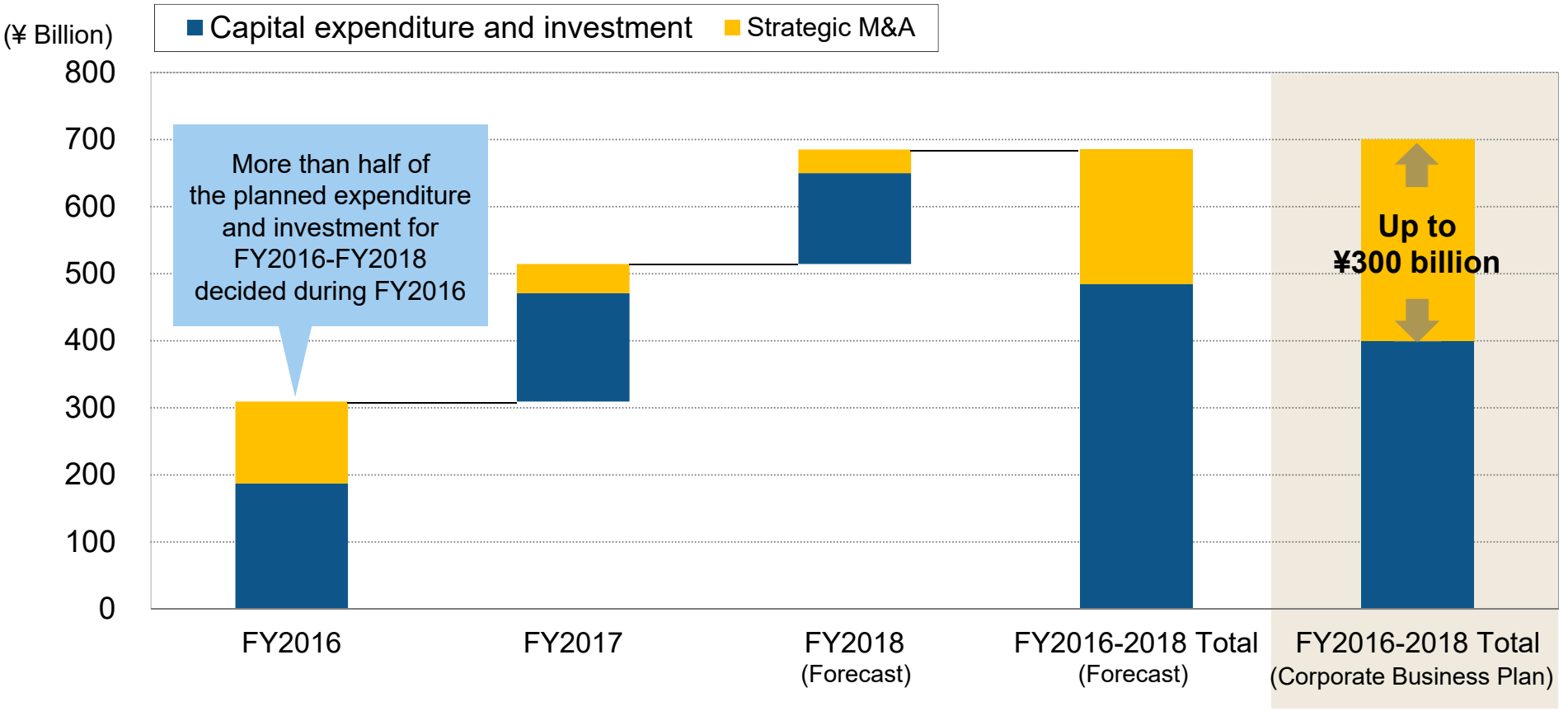
Corporate Business Plan:

Medium- to Long-term vs. FY2018 Performance Targets

	FY2018 Forecast	FY2018 Corporate Business Plan	Medium- to Long-term Targets Consistently achieve the following targets:
ROE	13.4%	12%	over 10%
ROI	7.4%	7%	over 7%
D/E Ratio	approx. 0.7 times	0.6-0.7 times*	approx. 0.7 times
Dividend Payout Ratio	28%	–	approx. 30%
Profit Growth	–	–	over 7% per year

* Including the effects of strategic M&A investments

Capital Expenditure and Investment Forecast for FY2016-FY2018 (decision-making basis)



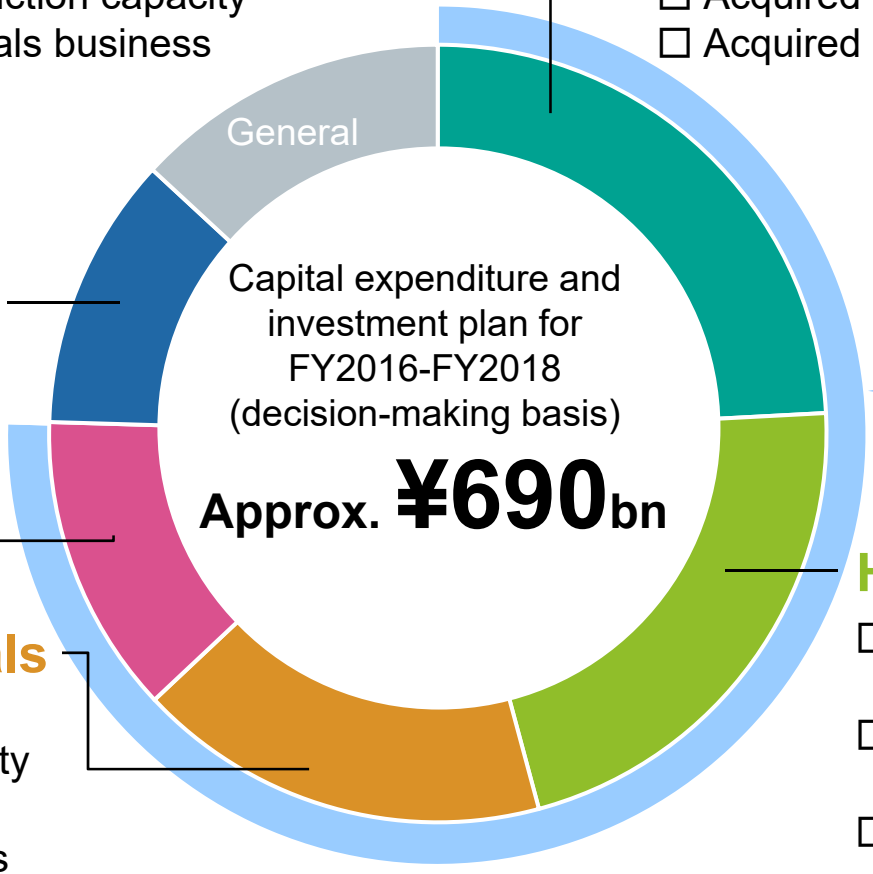
Capital Expenditure and Investment Plan for FY2016-FY2018 (decision-making basis)

Energy & Functional Materials

- ☐ Expand 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

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

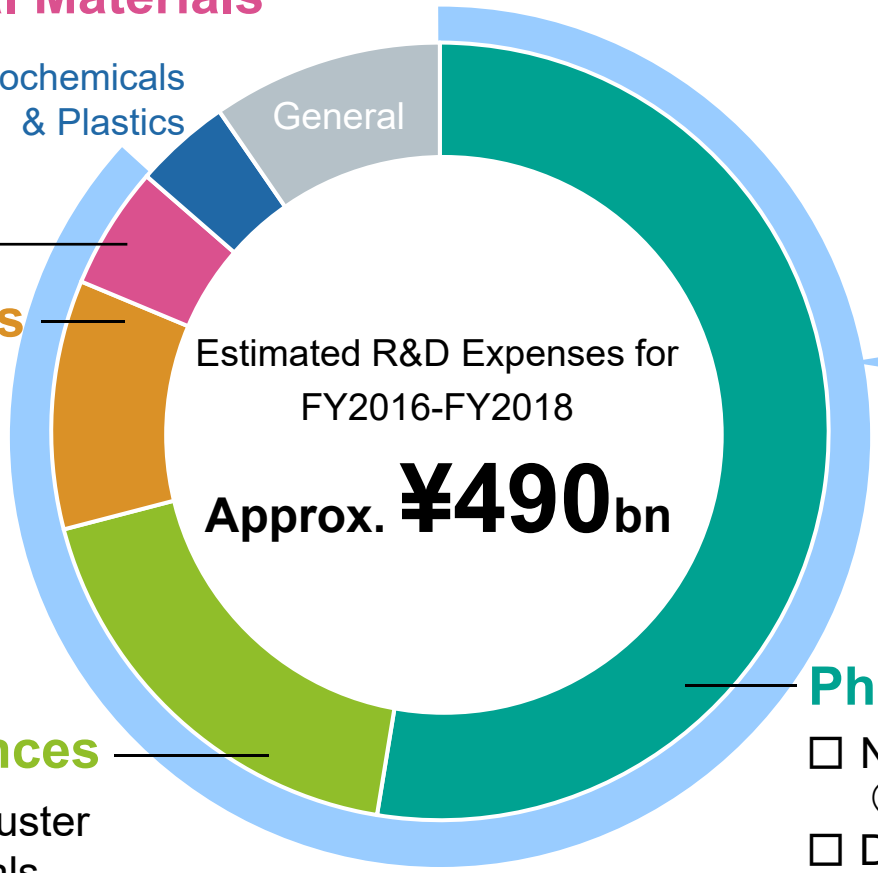
Research and Development Expenses Plan for FY2016-FY2018

Energy & Functional Materials

- ☐ Battery materials

IT-related Chemicals

- ☐ Flexible display materials
- ☐ Compound semiconductors



Specialty chemicals account for: 90%

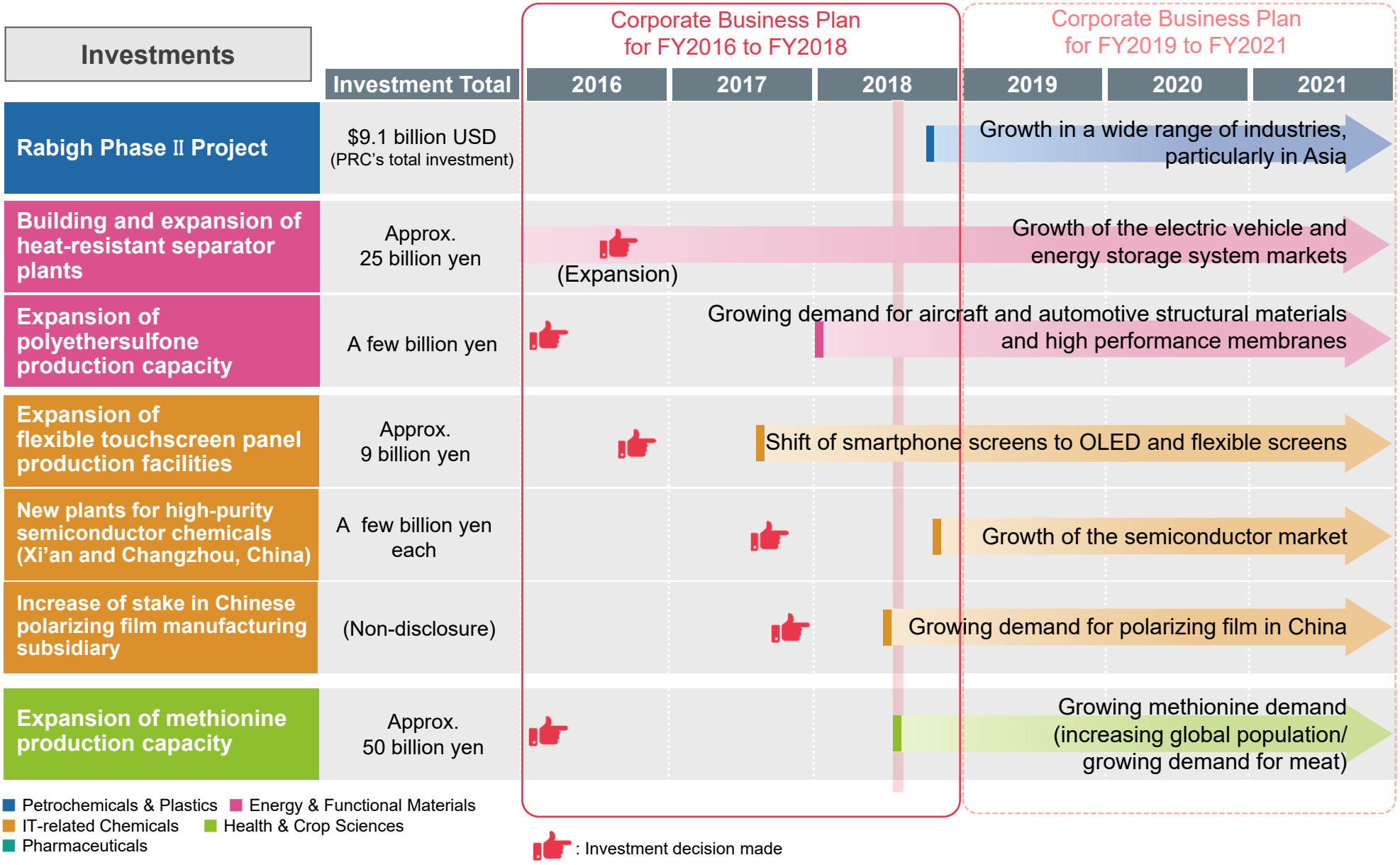
Health & Crop Sciences

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

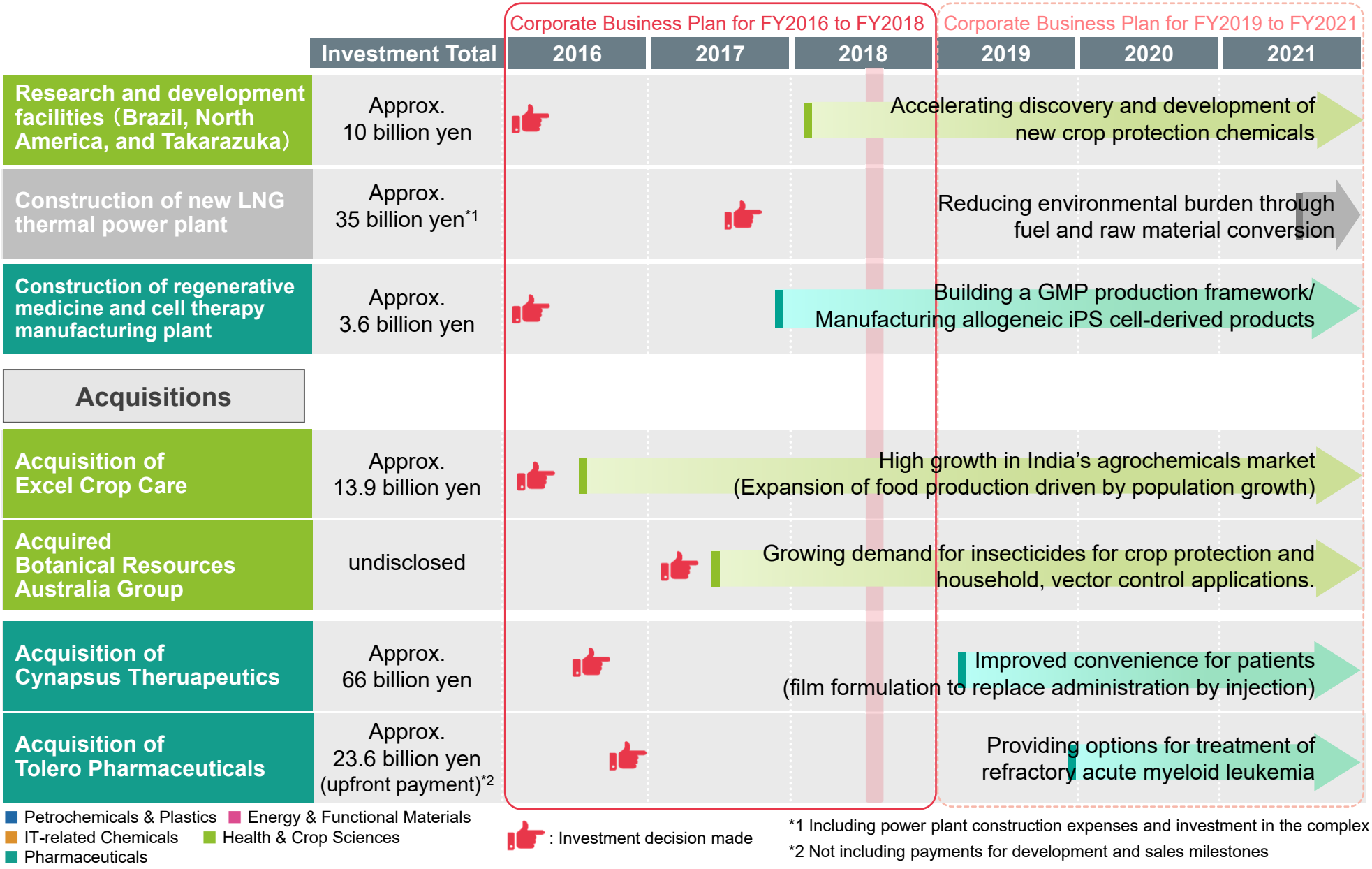
Pharmaceuticals

- ☐ 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)）

Major Investments and Commercialization Schedule (Overall)



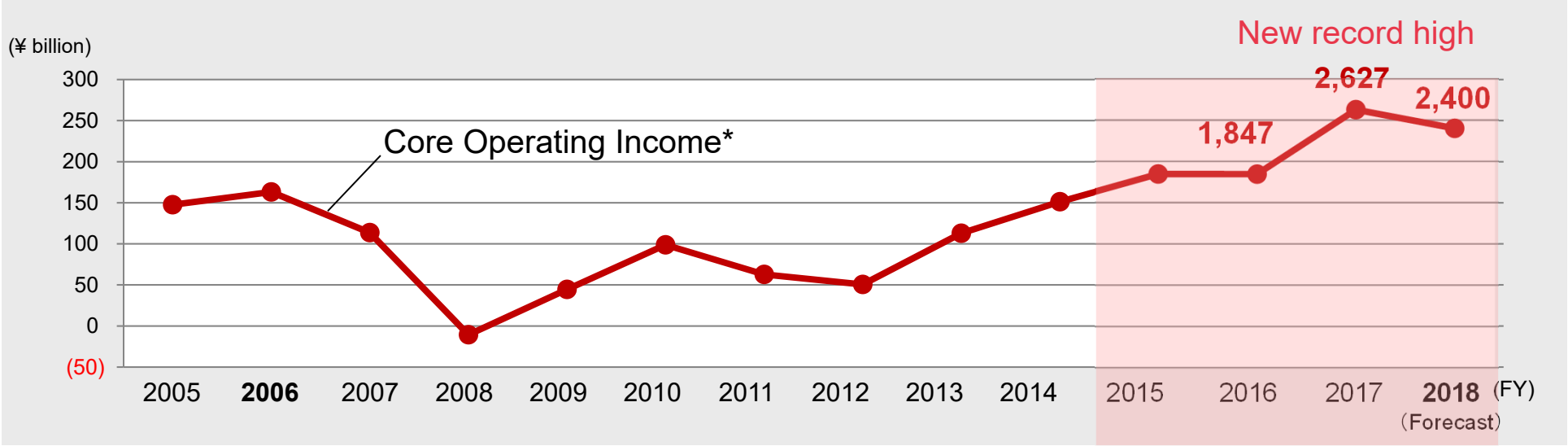
Major Investments and Commercialization Schedule (Overall)

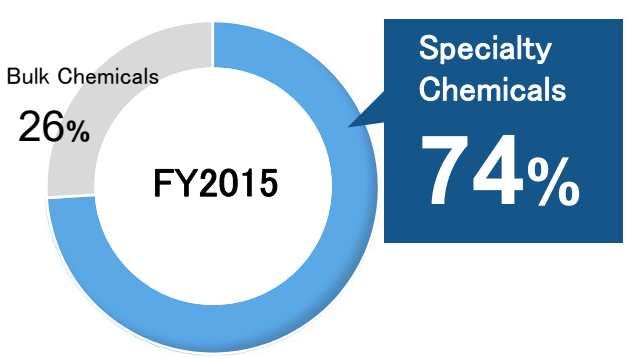


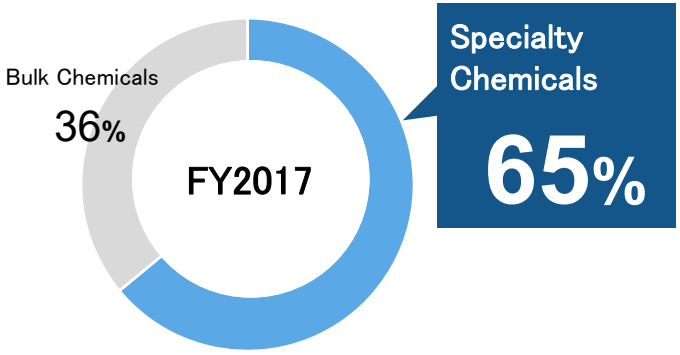
Change in Business Portfolio

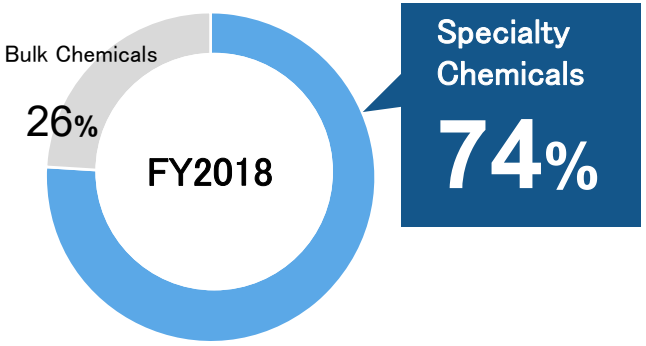
Change in core operating income and its composition

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





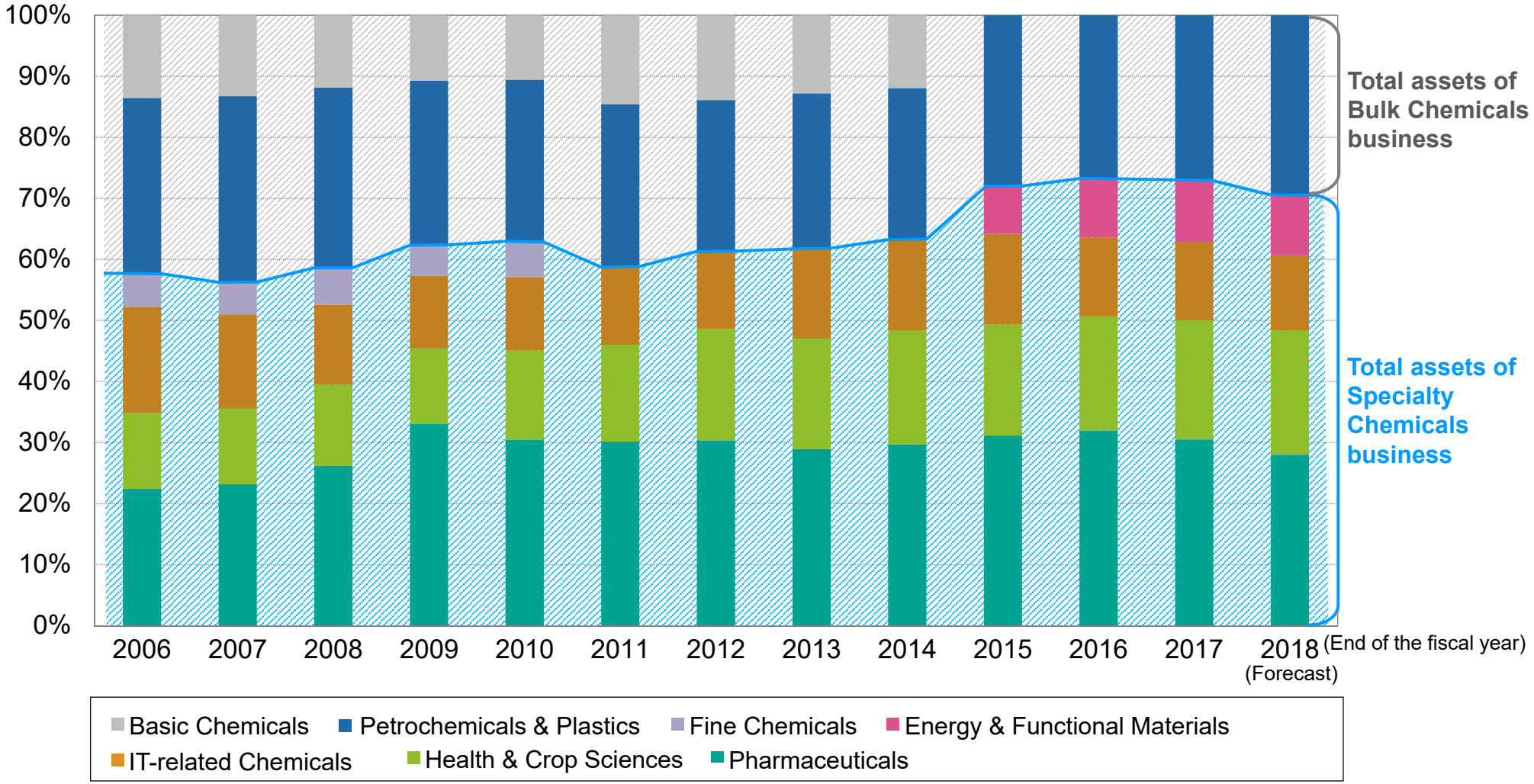




Steady increase in profitability of specialty chemicals business

Changes in Our Business Portfolio

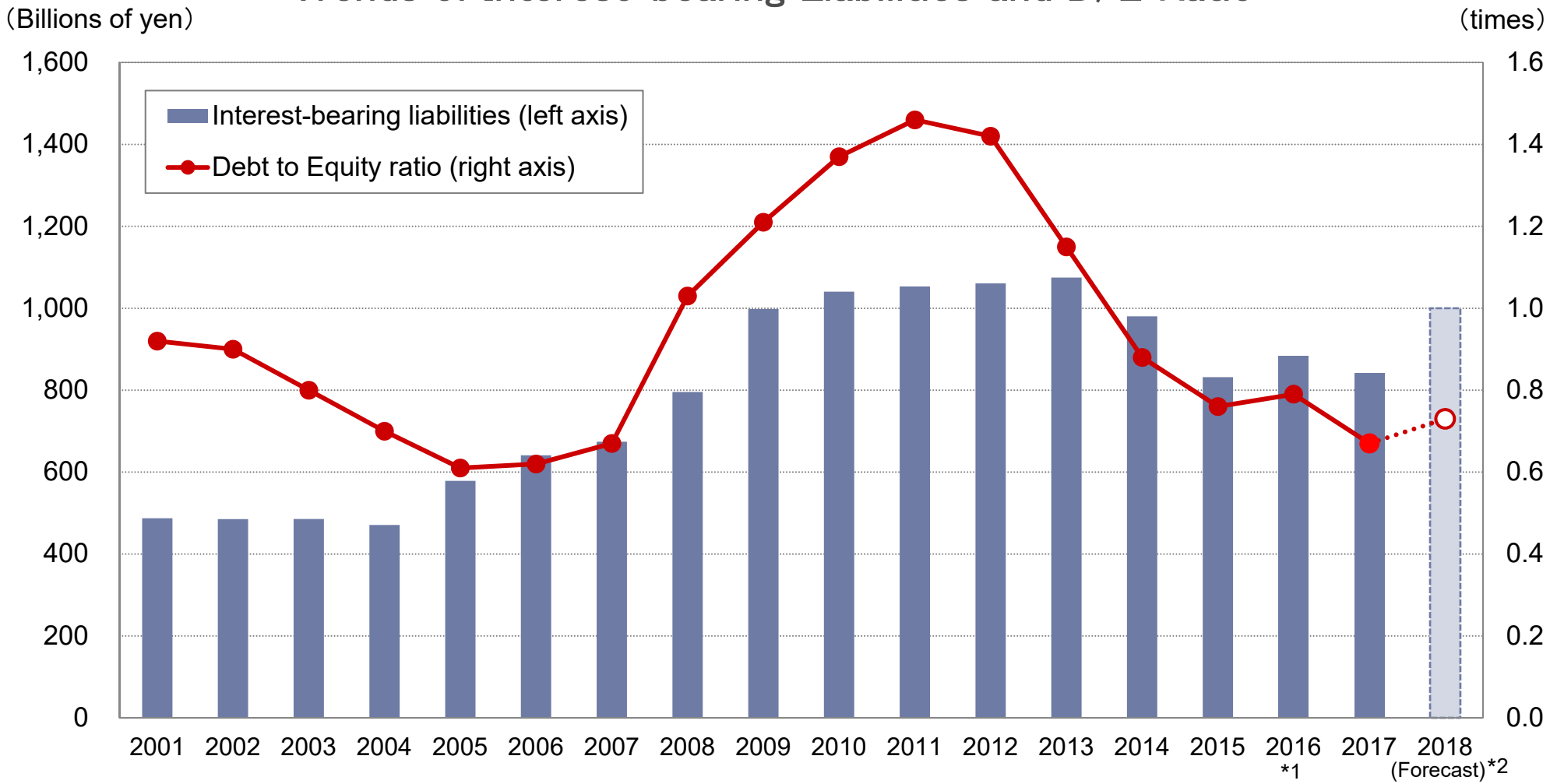
Changes in Asset Structure*



* Excluding Others and Eliminations

Management of Cash Flow

Trends of Interest-bearing Liabilities and D/E Ratio



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

*2 Including investment in Rabigh Phase II Project

Business Strategy and Topics (by Sector)

Petrochemicals & Plastics: Challenges and Business Strategy and Progress Status

Challenges

- ☐ **Maintain a high operating rate at Petro Rabigh**
- ☐ **Enhance high value-added business in Singapore**

Business Strategy	Progress Status
 **Rabigh Phase I Project: Stable operation**	☐ Maintaining high and stable operation (since Q2 2017)
 **Rabigh Phase II Project: Construction and start of operation**	☐ Shipment started for all products
 **Enhance high value-added business**	☐ Modified polypropylene lines (from automotive use to food packaging use) ☐ Launched polypropylene for separators (TPC) ☐ Enhanced polypropylene compounding capacity (capacity expansion in the US and China, new facilities constructed in India)
 **Restructure businesses**	☐ Restructuring of caprolactam business (under consideration)

Petrochemicals & Plastics: Expanding the Technology Licensing Business

Line-up of technologies available for licensing

PO-only Process (Cumene PO-only Process)

- No byproducts
- Higher yields impact, lower environmental

Hydrochloric acid oxidation process

- Significantly saves energy
- Recycling by-product into raw materials

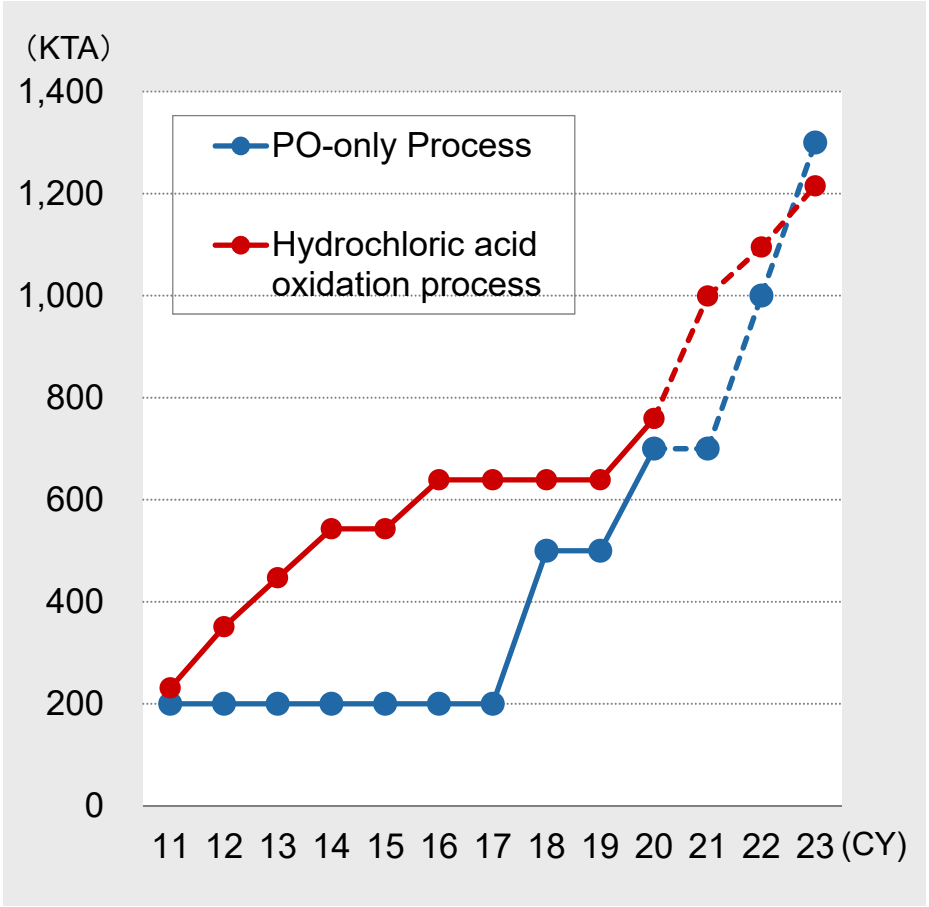
Others Technologies

- LLDPE
- LDPE (EVA)
- PP
- MMA / PMMA
- EPDM
- C4's

Decision to Enhance Catalyst Production Capacity

	PE·PP Catalyst	PO Catalyst
Start of operations	Q1 FY2019	Q3 FY2019

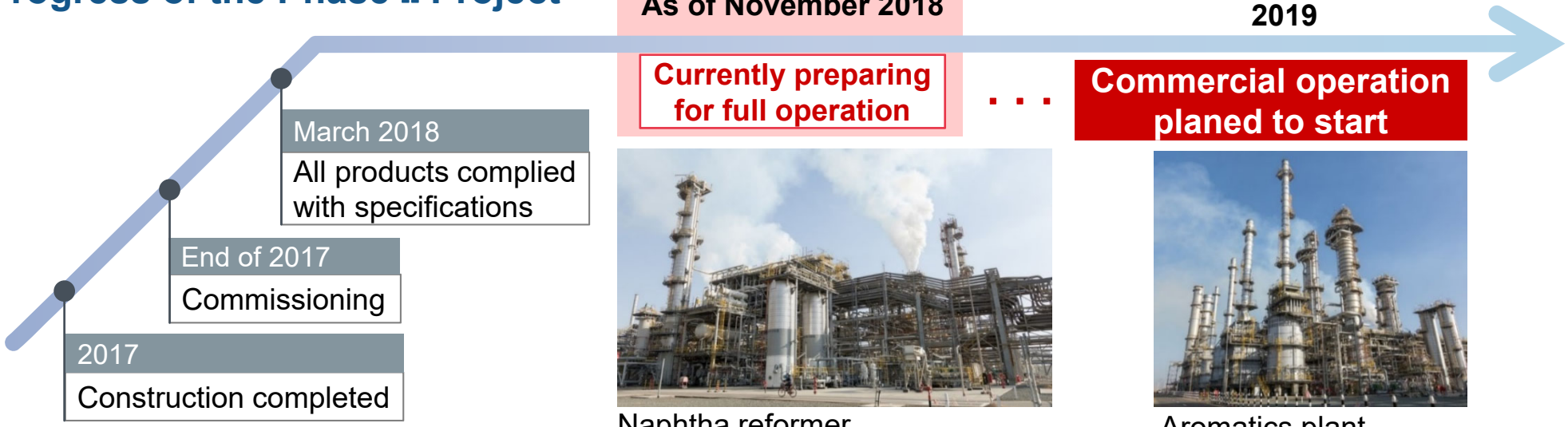
Licensee facilities steadily increasing



Expand technology licensing and catalyst sales business → Achieve stable revenue

Petrochemicals & Plastics: Rabigh Phase II Project

Progress of the Phase II Project

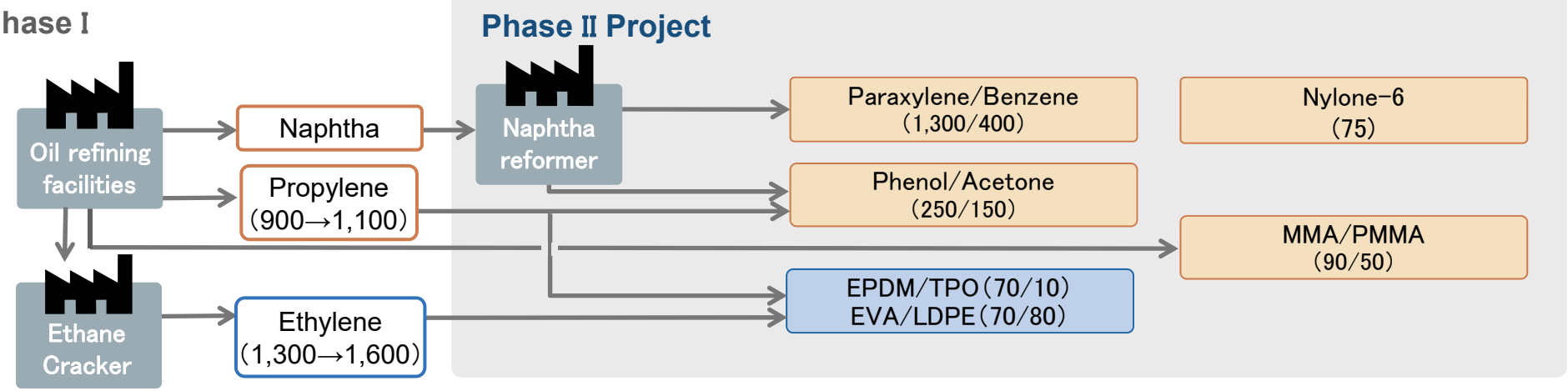


Naphtha reformer

Aromatics plant

Configuration

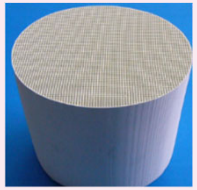
(Capacity 1,000t/year)



Energy & Functional Materials: Challenges and Business Strategy/Progress

Challenges

- **Develop the battery materials business into a core business**
- **Build eco-friendly car components business**

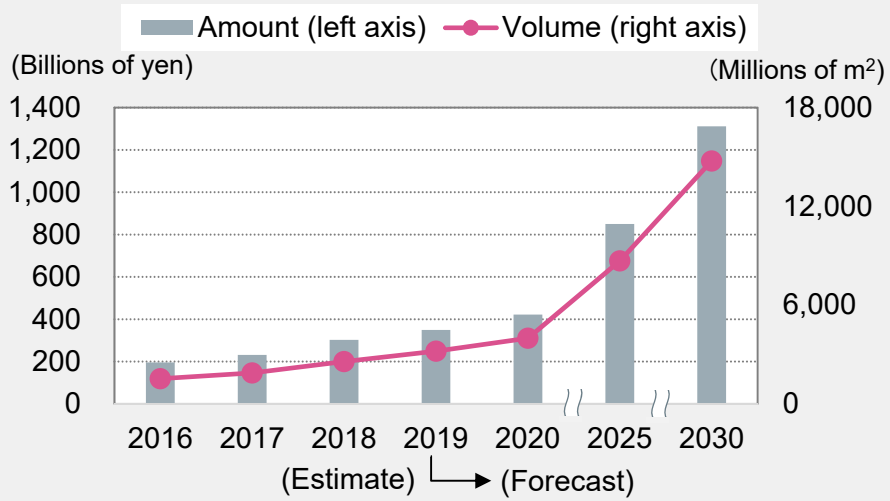
Business Strategy	Progress
 **Enhance the lineup of battery materials and increase production capacity**	■ Entered cathode materials business (Acquired a majority stake in Tanaka Chemical Corp.) ■ Expand separator production capacity (Production capacity: 100 million m^2/year to 400 million m^2/year)
 **Expand the use of our existing products in eco-friendly car components**	■ Expanded PES production capacity (Production capacity: 3,000t/year to 6,000t/year) ■ PES adopted for use in engine control valves
 **Restructure underperforming businesses**	■ Decided to exit the DPF business ■ Restructured S-SBR business (Established ZS Elastomer Co., Ltd.)

Energy & Functional Materials:

Expand the Lithium-ion Secondary Battery Separators Business

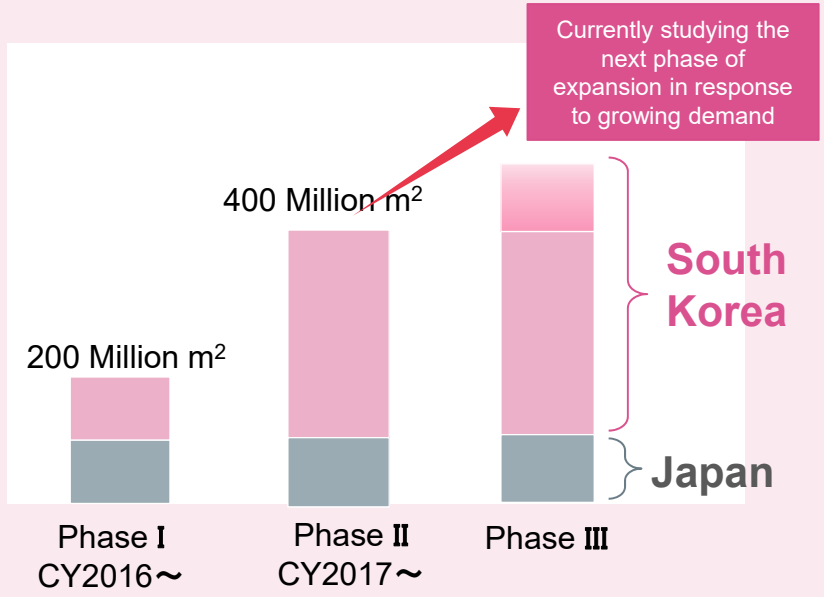
Studying possible production capacity expansion in South Korea (Daegu)

Separator Market Trend



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

Separator Production Capacity



Initiatives to Expand Business

- Responding to existing customers' increasing demand
- Adopted by new customers in Japan
- Currently working with prospective customers outside Japan, primarily in China and Europe

SSLM Co., Ltd.

Quickly responding to increasing demand of new and existing customers

Energy & Functional Materials:

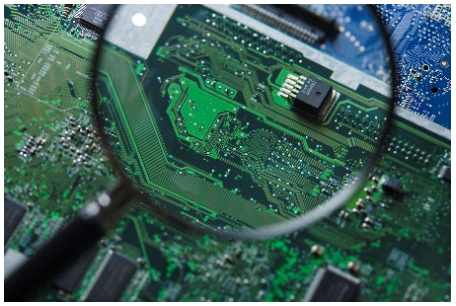
Expansion of Liquid Crystal Polymer (LCP) business

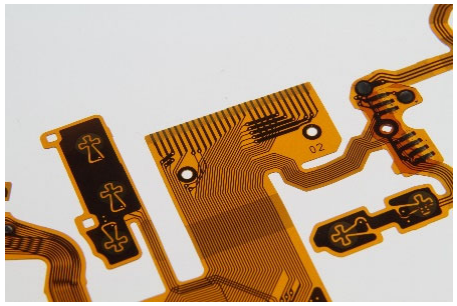
LCP for Supporting Next-Generation Mobile Telecommunications (5G) Society

Characteristics of High-Frequency Materials Required by 5G

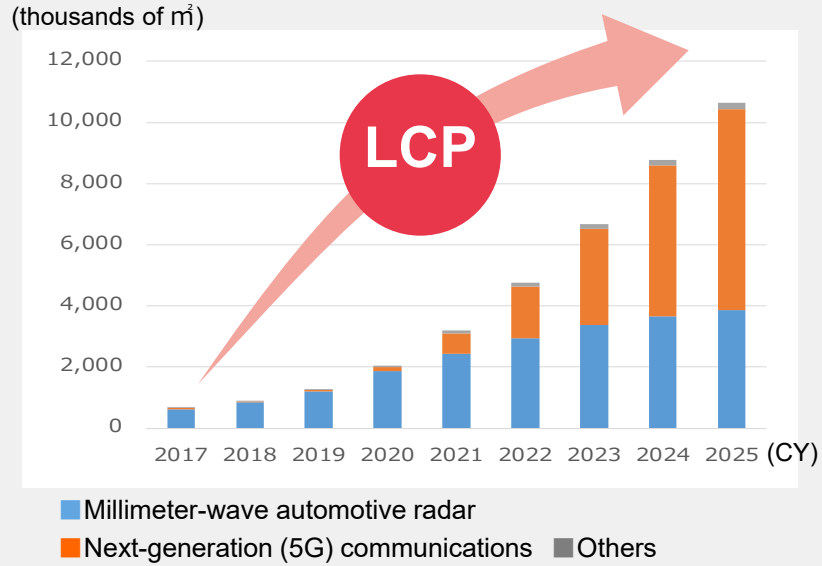
- Low permittivity/low dielectric loss tangent
- Low water absorption
  (under high temperature and high humidity)

The characteristics of LCP well match these requirements.





Trends in high-frequency substrate materials market



Our product lineup

Melt type with excellent processability

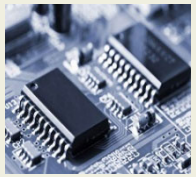
Solution type most suitable for thin film

Firmly seize business opportunities in next-generation high-speed communications

IT-related Chemicals: Challenges and Business Strategy/Progress on Strategic Initiatives

Challenges

- **Develop and launch new materials supporting the advance of display technology**
- **Strengthen the foundations of Sumitomo Chemical's semiconductor materials business, which is expected to grow on the back of digital transformation**

Business Strategy	Progress
 **Expand OLED materials and components business**	☐ Expanded sales of circularly polarizing film ☐ Launched and expanded applications for liquid crystal coated-type polarizing film ☐ Enhanced production capacity for touchscreen panels (Glass, Film) ☐ Full-scale launch of polymer OLED materials business (acquired new shares in JOLED)
 **Accelerate the development of flexible display materials and components**	☐ Studied mass production of window film ☐ Development of multi-functional materials and components in progress
 **Optimize production capabilities** (for photoresists, high-purity chemicals and other high-performance materials)	☐ Expanded production capacity for photoresists (Osaka Works, Dongwoo Fine-Chem) ☐ Expand and strengthen production capacities for high-performance chemicals in China (Xi'an, Changzhou)

IT-related Chemicals: Business Development for Medium-size Displays Applications

Full-scale Launch of Polymer OLED Materials Business

資金調達

JOLED

Capital raise by share placement

Subscriber	Billions of yen
DENSO	30
Toyota Tsusho	10
Sumitomo Chemical	5
Screen Finetech Solutions	2
Total	47

JOLED's Nomi Site

Start operation in 2020

Construction of printed OLED display commercial production line

To supply our polymer OLED materials

Target

Medium-size displays
(10 to 32 Inch)

High-end monitors

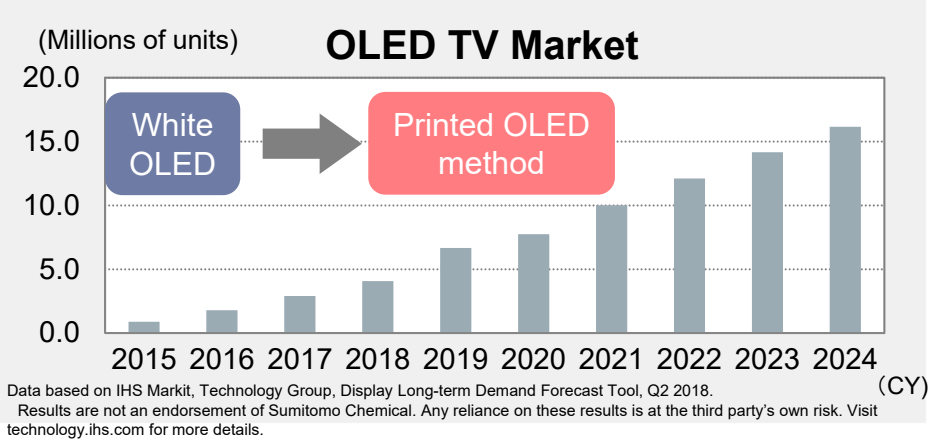
Anticipating printed OLED displays will be used in a wider range of applications such as automotive use

IT-related Chemicals: Commercialization of Polymer OLED Materials

LG Display's Plan for OLED Investment

Guangzhou Works, China	Paju Works, South Korea
Substrate size: Gen. 8.5	Substrate size: Gen. 10.5
Total investment: 2.6 trillion won*	Total investment: 2.8 trillion won*
* LG Display invested 70% of the total investment.	* For TFT substrate production equipment only
Expansion of White-OLED	Expansion of OLED (W-OLED, Printed OLED*)

* Started evaluation of devices equipped with printed OLED

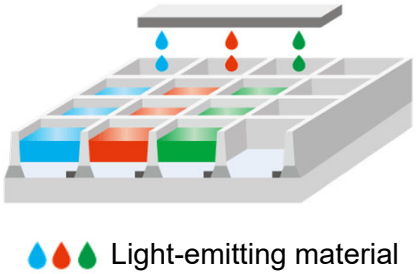


Data based on IHS Markit, Technology Group, Display Long-term Demand Forecast Tool, Q2 2018.
Results are not an endorsement of Sumitomo Chemical. Any reliance on these results is at the third party's own risk. Visit technology.ihs.com for more details.

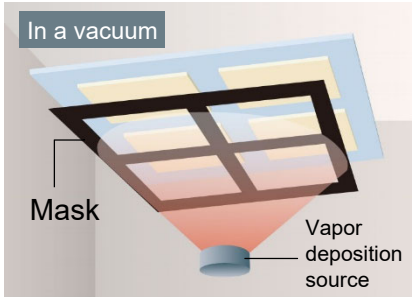
Advantages of the Printing Method for Polymer OLEDs

Manufacturing process

RGB Printing Method



White Vapor-Deposition Method



Advantages

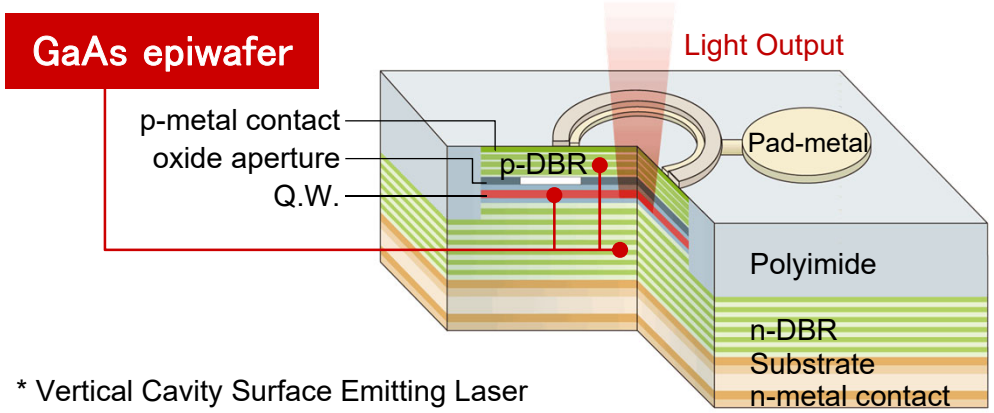
- No expensive masking required
- High material-use efficiency
- Excellent resolution (8K)

Commercial production expected to start as early as in FY2019

IT-related Chemicals:

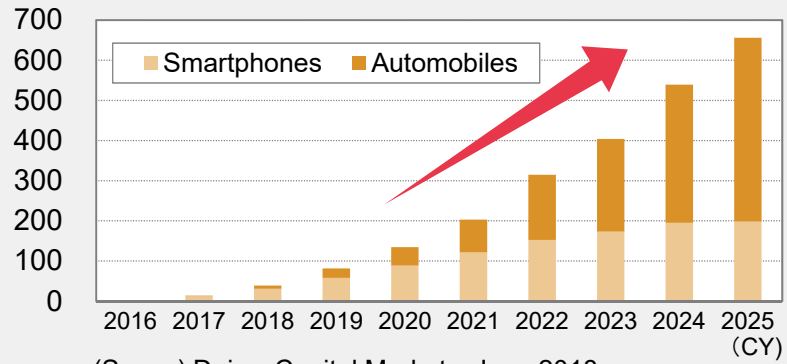
Compound Semiconductor Business Development for Automotive Applications

Growing Demand for GaAs epiwafer for Use in VCSEL* 3D Sensors



* Vertical Cavity Surface Emitting Laser

VCSEL Wafer Market



(Souce) Daiwa Capital Markets, June 2018

VCSEL applications

Present Smartphone, 3D imaging (face authentication) and others

Future Automotive applications

Driver monitoring

Driving support

Autonomous driving

GaAs epiwafer market expected to expand driving by demand growth in automotive applications

Major Products in the Mobility Sector *Including projects under development

Products of Petrochemicals & Plastics Sector

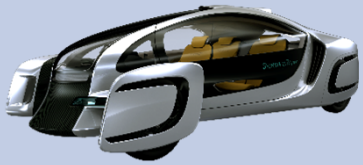
Products of Energy & Functional Materials Sector

Products of IT-related Chemicals Sector

Front Window, 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



Resins

- PP
- PP compounds
- TPE
- PMMA
- ABS
- EPDM

- Aluminum
- Electrodeposition Paint

Super Engineering Plastics

- PES
- LCP

Lithium-ion Battery Materials

- Separators
- Cathode materials
- High purity alumina

Display materials

- Polarizing films
- Polymer OLED materials

Tire-related products

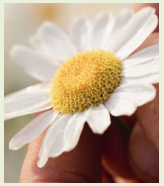
- Resorcinol
- S-SBR

- GaAs epiwafers (for VCSEL)

Health & Crop Sciences:

Challenges and Business Strategy/Progress on Strategic Initiatives

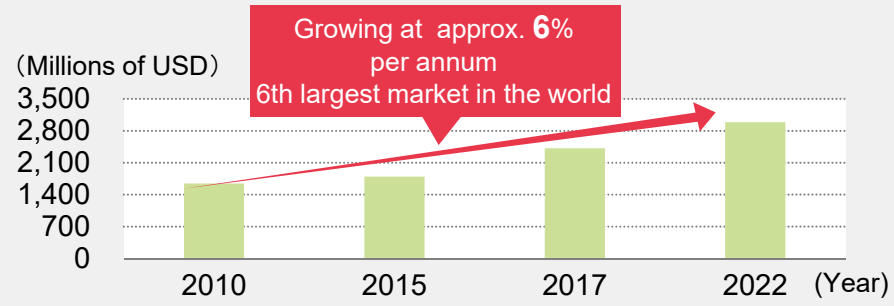
Challenges	**Build a global business foundation as a solutions provider in crop protection and environmental health businesses**

Business Strategy	Progress
 **Enhance our global footprint**	☐ Acquired Excel Crop Care Ltd., an Indian agrochemicals company, which will merge with Sumitomo Chemical India
 **Accelerate development of new products (B2020, A2020)**	☐ Development of B2020 in progress (Registration applications filed for a product) ☐ Alliances with major agrochemical companies ☐ Expanding R&D facilities and test fields
 **Expand our differentiated businesses (biorational and rice businesses)**	☐ Acquired a plant growth regulator business from Kyowa Hakko Bio. ☐ Acquired Botanical Resources Australia Group ☐ Entered into the rice business
 **Expand methionine business**	☐ Commercial production begun at our new plant ☐ Expand sales through collaboration with ITOCHU

Health & Crop Sciences: Strengthening Crop Protection Business India

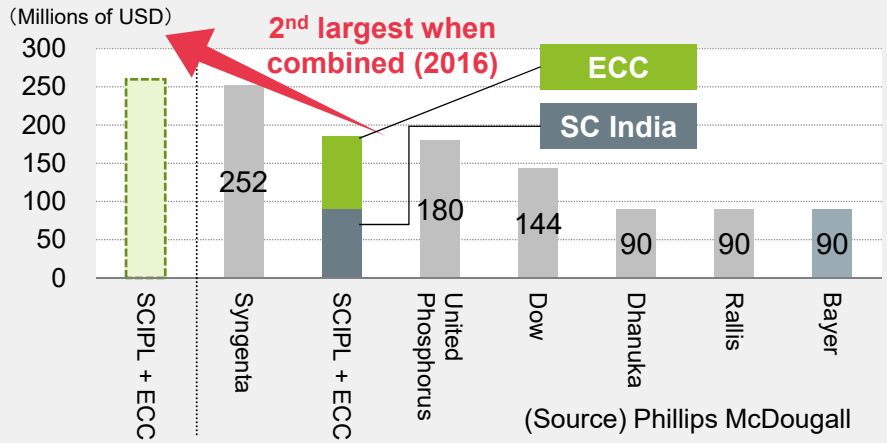
Merger of Excel Crop Care Ltd. and Sumitomo Chemical India

Growth of India's crop protection market



Crop protection market by Company in India

Aiming to become the market leader in India by 2020



(Source) Phillips McDougall

ECC

- Strong sales channel in northwest India
- Sales channels to over 4,700 wholesalers
- Three production bases
- Broad product portfolio

SC India

- Strong sales channel in southeast India
- Sales channels to over 9,000 wholesalers
- Two production bases
- Strong sales in the specialty area

Profile of the new company

The surviving company: Sumitomo Chemical India
Sumitomo Chemical's shareholding ratio: 75% after listing
To be merged in 2019

Major synergies

- Sales expansion by leveraging the respective companies' sales channels and product portfolios
- Launch and promotion of mixture products
- Establish a global production network

Contribute significantly to increasing our presence in the fast growing crop protection market in India

Health & Crop Sciences: Progress in Pipeline Development

B2020

Compound	Use	Evaluation	Full-scale development	Registration
INDIFLIN™ (inpyrfluxam)	Agricultural fungicide e.g. Soybean rust		✓ Completed	✓ Submitted in 2017
PAVECTO™ (methyltetraprole)	Agricultural fungicide e.g. Septoria		✓ Completed	✓ Submitted in 2018
ALLES™ (oxazosulfyl)	Agricultural insecticide e.g. Major rice pests etc.		✓ Completed	✓ Plan to submit in Q1 2019
Product Name Undecided (pyridaclomethyl)	Agricultural fungicide e.g. Field crop and vegetable diseases		✓ Completed	

A2020

Pipeline A	Next generation herbicide effective against weeds having resistance issue		Full-scale development started	
Pipeline B	Agricultural plant growth regulator			Full-scale development in progress
Pipeline C	Botanical insecticide for agriculture and household hygiene			Full-scale development in progress
Pipeline D	Agricultural insecticide to control insecticide-resistant pests		Evaluation in progress	

Business Potential: approx. ¥150-200 billion

Health & Crop Sciences: Expansion of Our Biorational Business

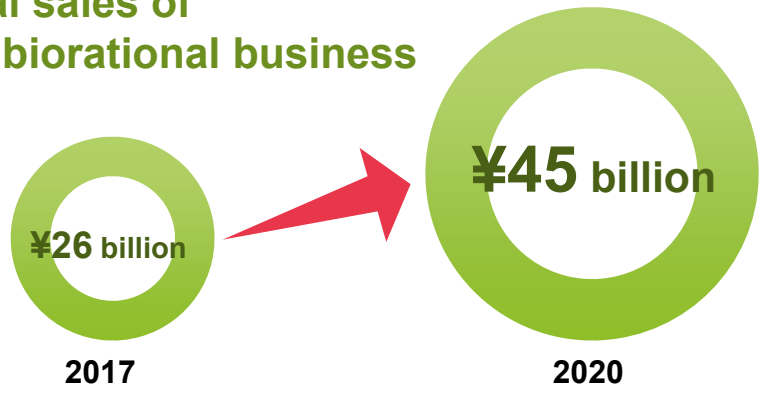
Expansion of our Biorational Business

Year	Topics
2000	Purchased microbial pesticides business from Abbott laboratories → Established Valent Biosciences (VBC)
2014	Built Valent Biosciences LLC, Osage Plant (Iowa)
2015	Purchased Mycorrhizal Applications
2016	Signed two agreements on licensing, development and commercialization cooperation with Lidochem and with Rizobacter
2017	Purchased biorational business from Kyowa Hakko Bio
2018	Built Biorational Research Center

Biorationals Market

	Market size	Annual growing rate
Microbial pesticides	For agricultural use: ¥50 billion For household and public hygiene: ¥11.7 billion	9-11%
Plant growth regulators	¥33 billion	3-5%
Biorational rhizosphere	¥28 billion	10-12%

Total sales of our biorational business



Pharmaceuticals: Progress on Strategic Initiatives

Challenges

- ☐ **Sustained growth after the LATUDA business transition period**
- ☐ **Manage the effect of public policy measures to promote the use of generic drugs**

Business Strategy	Progress
 **In-license and acquire third-party products under development**	☐ Launched COPD treatments (Peak revenue: Approx. 50 billion yen) ☐ NDA field for Parkinson's treatment (Peak revenue: Approx. 50 billion yen)
 **Accelerate the development of products in late-stage development**	☐ Acquired Cynapsus Therapeutics (Parkinson's treatment) ☐ Acquired Tolero Pharmaceuticals (hematologic cancer treatment) ☐ Acquired the license for diabetes treatment Imeglimin
 **Accelerate the development of regenerative and cellular medicine**	☐ Began operation of the regenerative medicine and cell therapy manufacturing plant ☐ Began physician-initiated clinical trials for Parkinson's disease treatment
 **Reform the structure of our pharma business in Japan**	☐ Implemented an early retirement program in Japan (Sumitomo Dainippon Pharma) ☐ Established the Japan Business Unit as a cross-functional virtual organization for strengthening domestic business

Pharmaceuticals: 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*1
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

Aim to launch in FY2022*2

*1 Planning to conduct Phase 3 study, but aiming to apply for accelerated approval, depending on Phase 2b study results.

*2 Launch schedule is based on our plan and not agreed on by partners.

World's First Commercial Manufacturing Facility for Allogenic iPS Cell-derived Medicines"SMaRT"

- GMP Compliant
- Closed production lines* for all processes
- Independent HVAC systems for each production zone

* Raw materials and products are not exposed to the outside environment (non-sterile environment)

1st Stage (early 2020s)
- Advance development of five projects in Japan and the U.S.
- Build a GMP production framework
- Continue striving for next-generation technologies

2nd Stage (late 2020s)
- Launch a product in Japan and the U.S.
- Enhance and expand next-generation pipeline

3rd Stage (around 2030)
- Commence full-fledged commercialization of multiple products in Japan and the U.S.
- Roll out new businesses

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

Status of LATUDA® ANDA litigations (U.S. Patent No.9,815,827 / 9,907,794)

Litigations filed in February 2018

Focused efforts concerning '827 patent, while reserving the right to dispute the court's construction of claim and assert infringement regarding '794 patent in an appeal

- ✓ Claim construction ruling (Markman Ruling) issued by the court on October 5, 2018
- ✓ Preparing for the trial, expected to be an intensive one for a week in late November to early December 2018

In parallel with the preparation for the trial, the court has required that, under its direction, DSP/Sunovion participate in separate settlement negotiation with each defendant

- ✓ Number of defendants has been reduced from the original 16 defendants to 10 defendants (as of October 29, EST), thanks to settlement efforts made so far

Litigations newly filed after May 2018

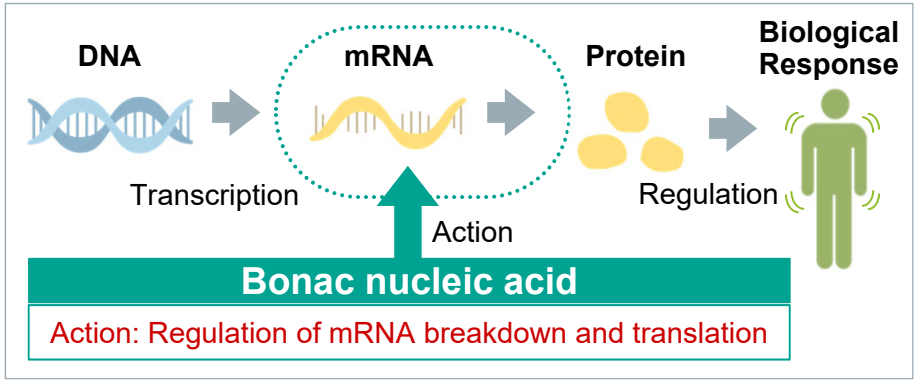
- ✓ Subsequent to May 2018, we filed, similarly to the above February litigation, three additional lawsuits to assert '827 and '794 patents (one filing each in August, September and October) against three generic manufacturers who newly filed ANDA
- ✓ The trial schedule of the February litigations not affected by these new litigations, as these litigations proceed independently of the above February litigations

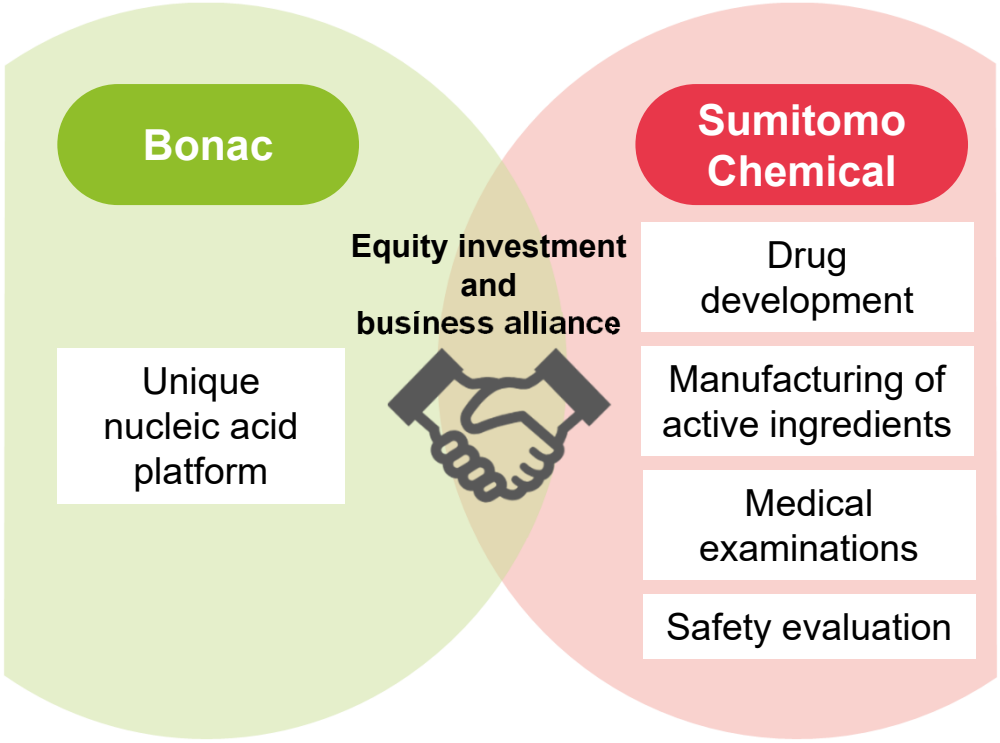
(Source) Dainippon Sumitomo Pharma Investors Meeting Presentation for Q2 FY2018 presented on October 30, 2018

Pharmaceuticals: Initiatives in Nucleic Acid Medicine

Nucleic Acid Medicine

Next-generation treatment following small molecule pharmaceuticals and biopharmaceuticals, such as antibody drugs





News

Phase I clinical trials have begun for nucleic acid medicine TRK-250 (idiopathic pulmonary fibrosis treatment), jointly developed by Bonac and Toray Industries.

SC is to supply the active ingredient

- Compliant with GMP
- High yield
- Scalable

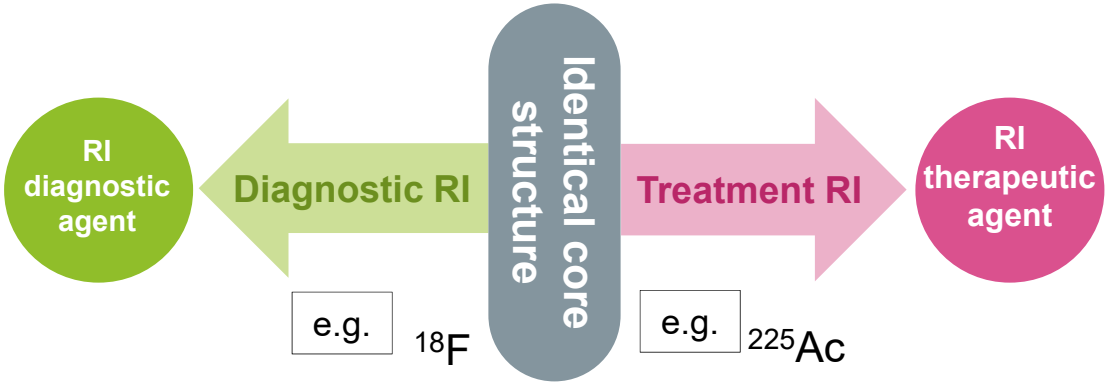
Seek to enhance synergies of the alliance, including application of the long-chain nucleic acid synthesis technology to gene therapy

Pharmaceuticals: Nihon Medi-Physics Expansion of Healthcare Businesses

Theranostics

Theranostics = Therapeutics + Diagnostics

Basic Concept of Theranostics



Utilize an identical core structure (including molecules and antibodies)

Selectively deliver both diagnostic agent and therapeutic agent to the affected area

Adopted in CiCLE*1 of AMED*2

Construction of CRADLE*3 Building (planned for completion Sep 2019)

Research and development of radioactive diagnostic agents, and manufacturing and shipment of radioactive therapeutic agents

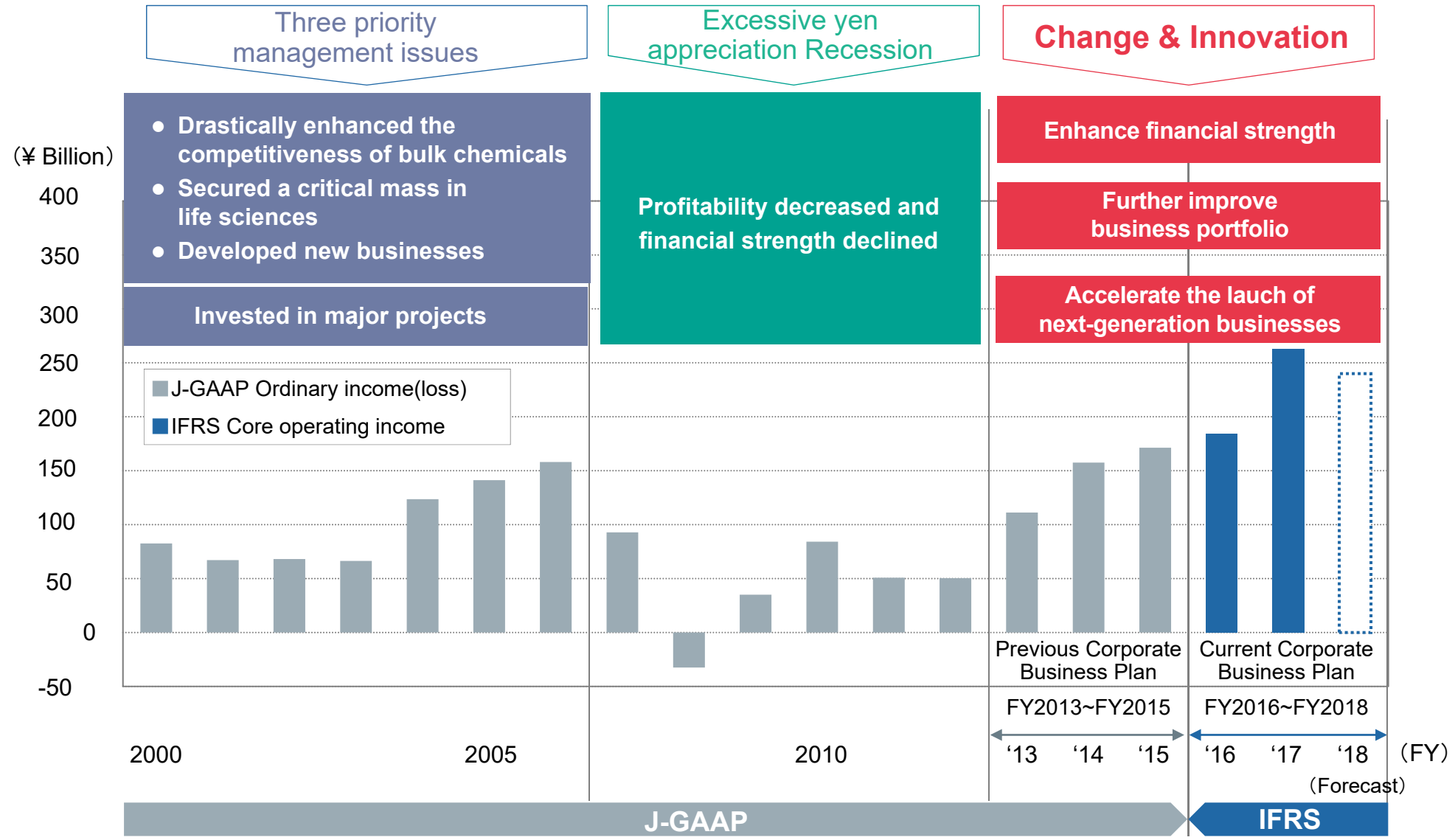
- Collaborate with neighboring Nihon Medi-Physics Chiba Works and Research Center
- Total construction costs: 3.3 billion yen

Develop Theranostics as soon as possible

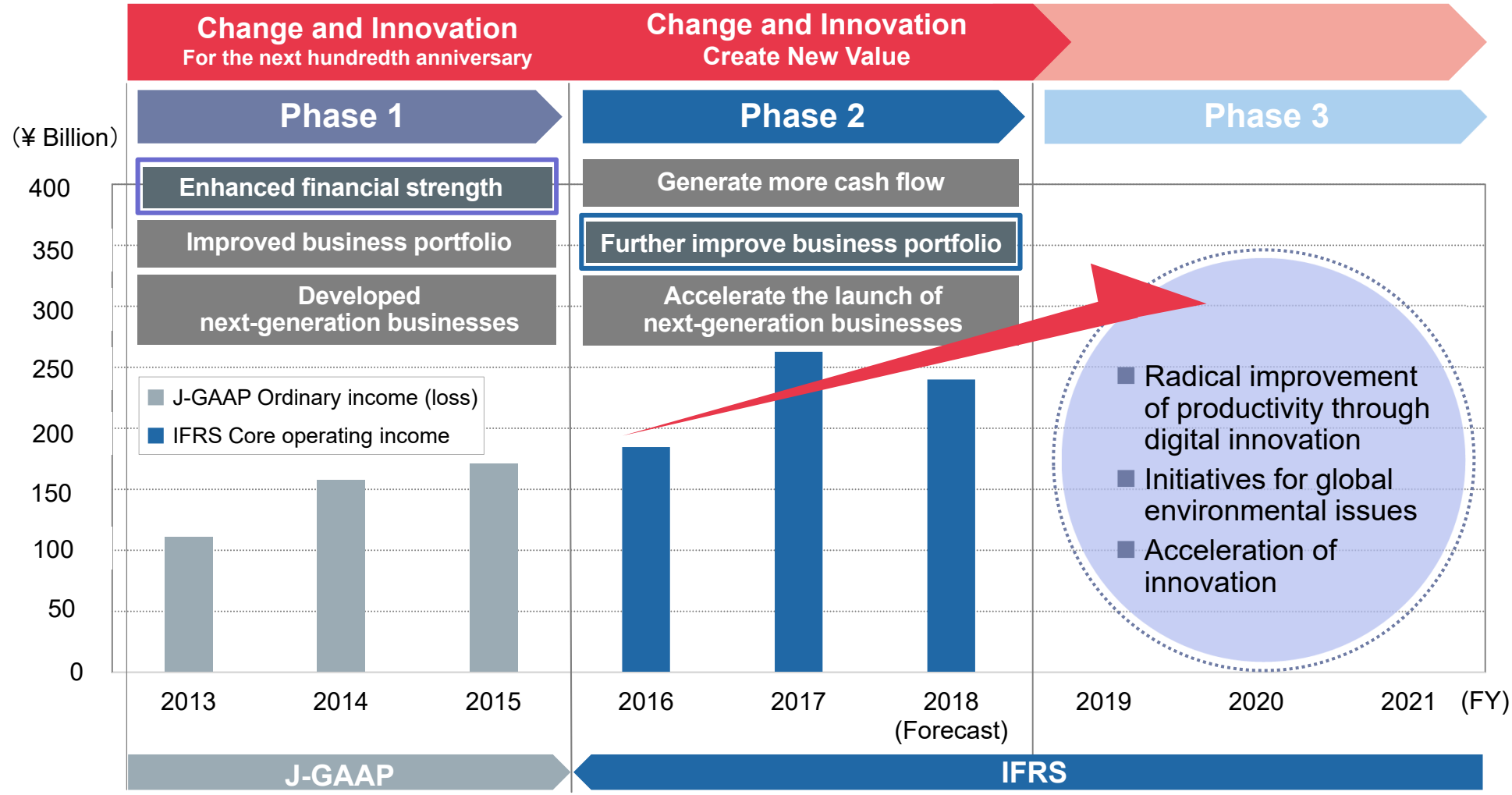
*1 CiCLE: Cyclic Innovation for Clinical Empowerment *2 AMED: Japan Agency for Medical Research and Development *3 CRADLE: Consortium for Radiolabeled Drug Leadership

Direction of Future Business Strategy

Management Strategy and Performance Trends from the early 21st century



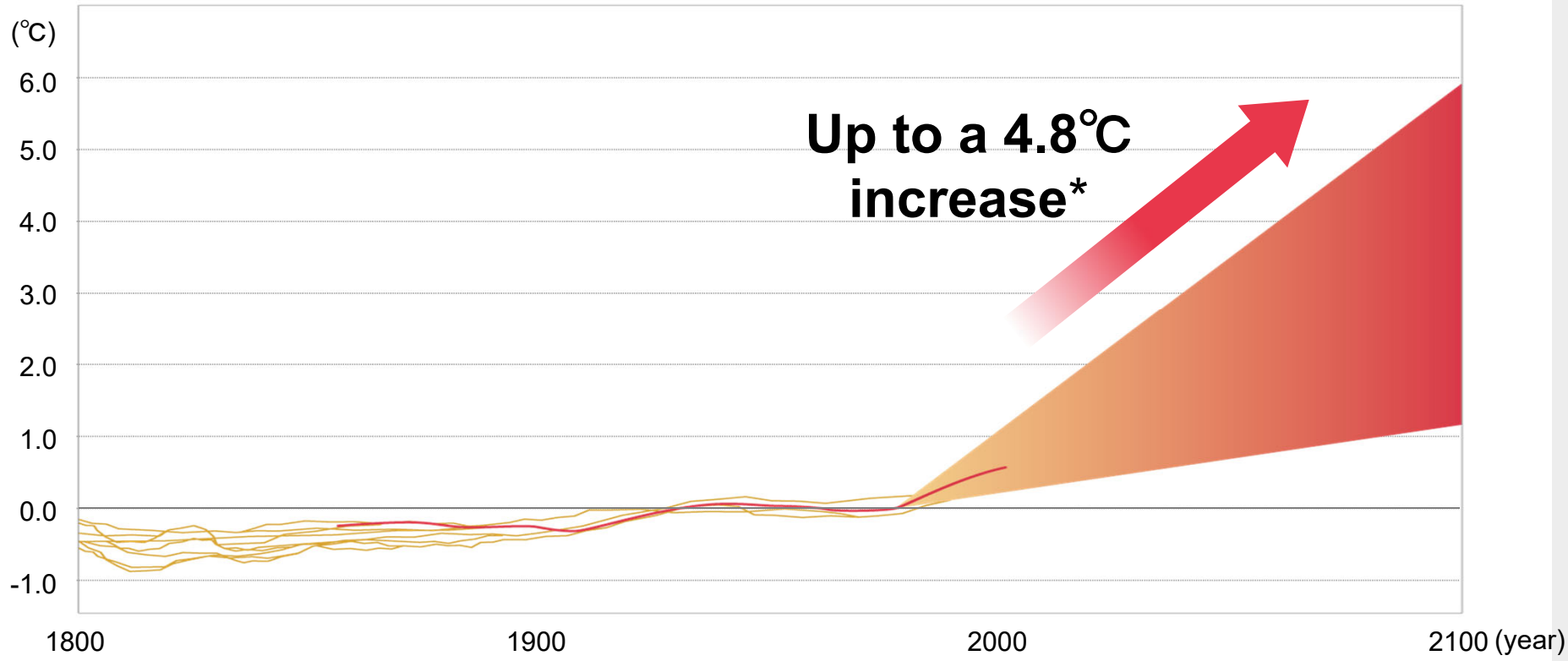
Current Management Strategy and Performance Trends: Management by Phase



Towards achieving continuous value creation

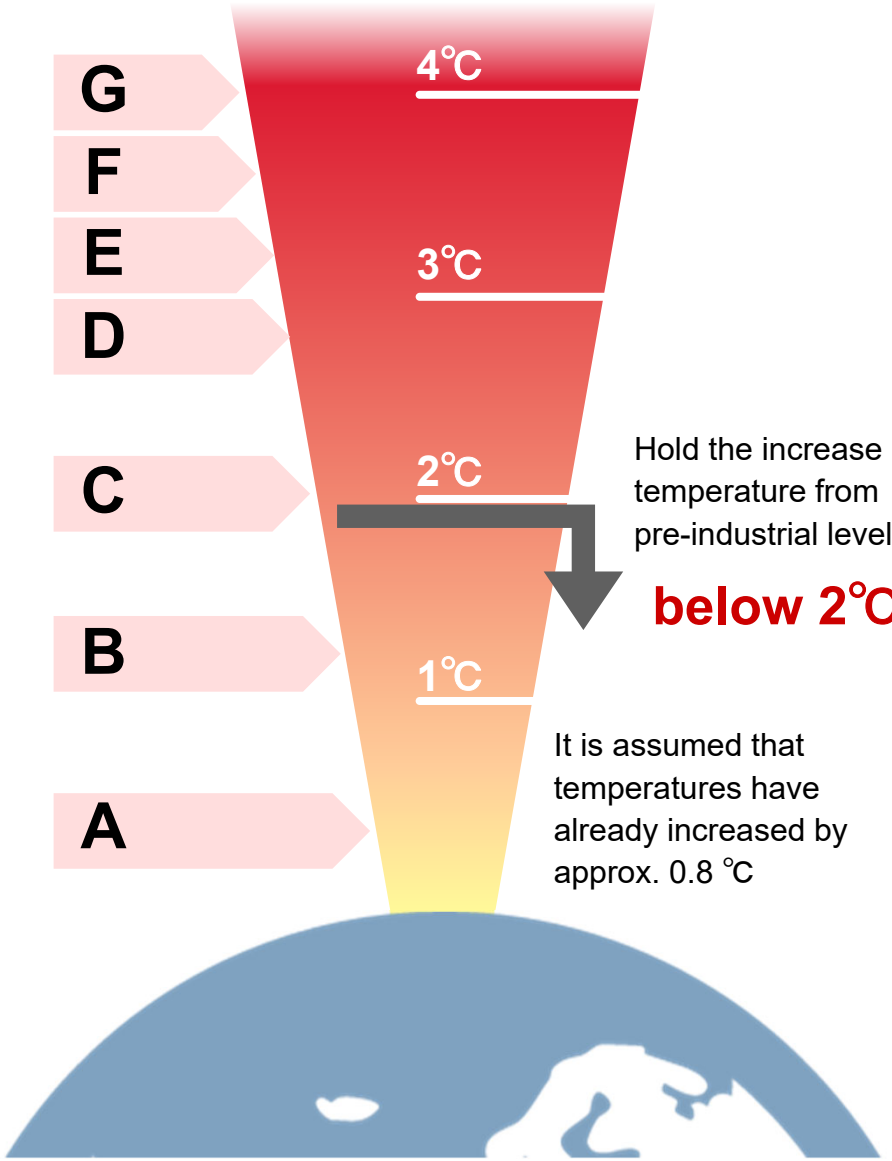
Initiatives for Global Environment Issues

Change in Global Temperatures from 1800A.D. to 2100A.D. (Observed and Forecast)



* The difference between the average temperatures from 1986-2005 and forecasted average temperatures from 2081-2100
(Source) IPCC 5th Assessment Report

Initiatives for Global Environment Issues



G Risk of extinction for many species
Risk of crisis in global food production

F Loss of ice sheet in large scale,
sea level rise

E Loss of biodiversity in many areas

D Loss of usable water

C Regional decrease in crop production yields

B High risk to systems, such as coral reefs or arctic sea ice
Expansion of tropical infectious diseases,
such as malaria

A Increased damage from abnormal weather,
such as heat waves and floods

(Source) Partially modified https://www.wwf.or.jp/activities/2015/08/1279626.html
(based on IPCC AR5 WG2 SPM)

Initiatives for Global Environment Issues

Participation in external initiatives

TCFD: Task Force on Climate-related Financial Disclosures, established by the Financial Stability Board

Since August 2018:
Joined in the “TCFD Study Group,” led by Ministry of Economy Trade and Industry for mobilizing green finance through proactive corporate disclosure

Studying how to improve disclosure so that
Japanese companies’ strengths will be fully valued

Our Efforts

Risk Management

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

Initiatives for Global Environmental Issues

Our greenhouse gas reduction targets have been certified by the SBT Initiative

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Committed Companies: 503

Certified Companies: 156 including 32 Japanese companies
(As of November 21, 2018)

Scope 1+2 *1		Scope 3 *2
By FY 2030	By FY 2050	By FY 2024
Reduce by 30%*3	Reduce by 57%*4	Have major suppliers set reduction targets*5

*1 Scope1 : Direct emissions from factory operations, such as fuel use in manufacturing processes
Scope2: Indirect emissions from purchases of power and heat from outside the factory

*2 Scope3 : Emissions from the manufacturing and transportation of purchased raw materials

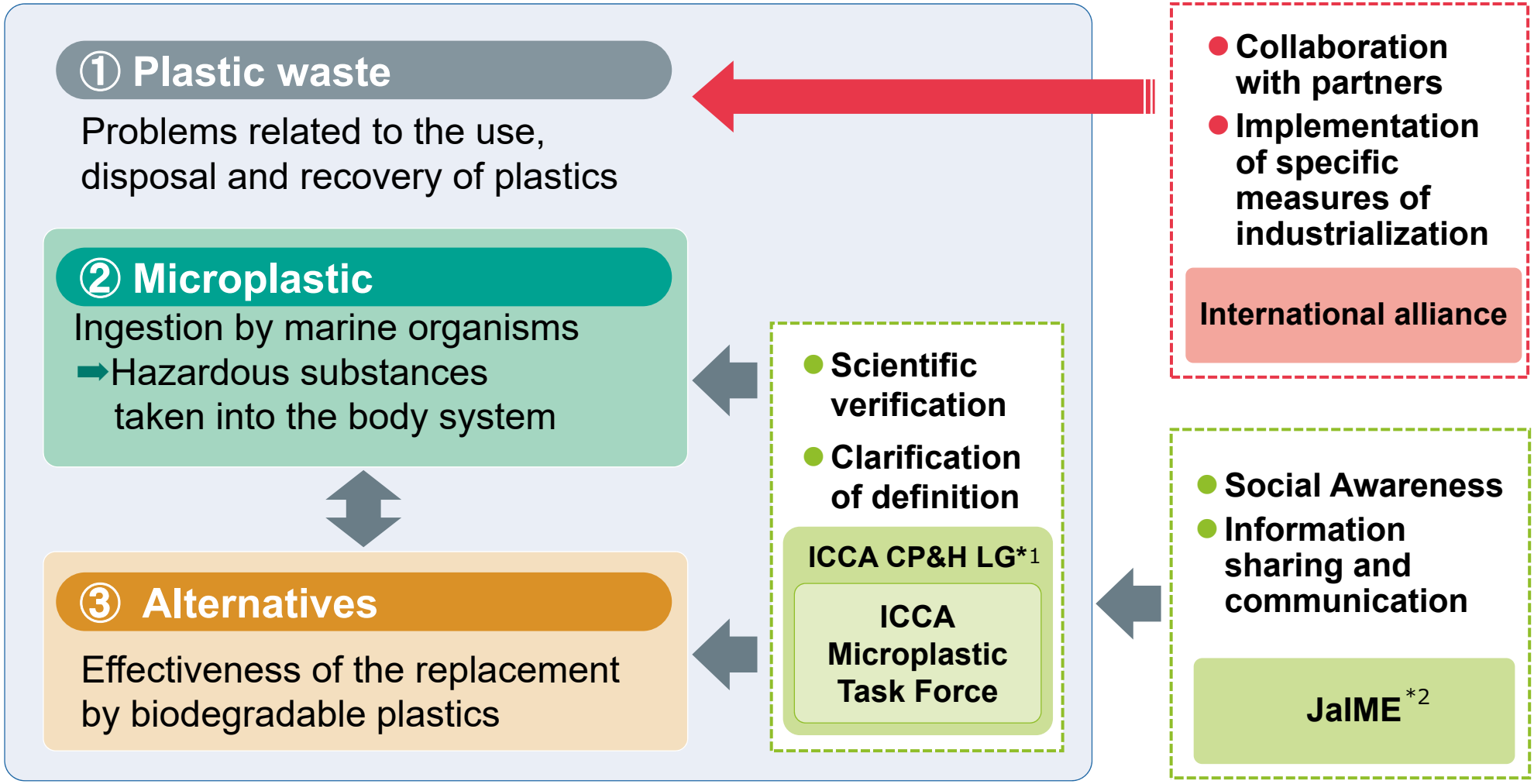
*3 Compared to FY2013

*4 Compared to FY2013. In addition to Scope1 and Scope2 GHG emissions reduction, the company provides solutions to significantly reduce GHG emissions across the value chain.

*5 Engage major suppliers (suppliers who in aggregate account for 90% of purchased raw materials on a weight basis) in the SBT efforts so that they set their own science-based GHG reduction targets.

The Issue of Plastic Waste

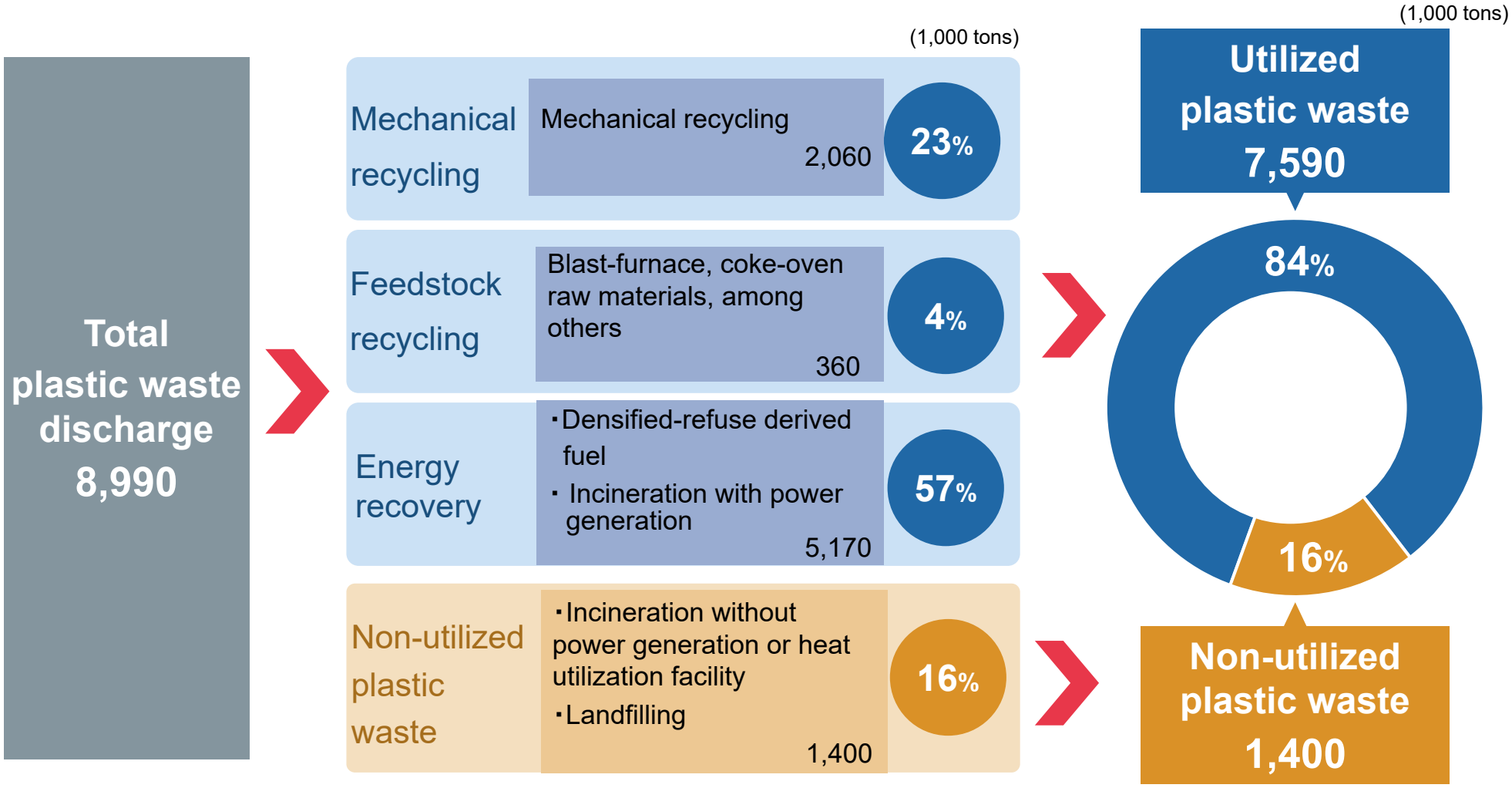
Our commitment through participation in external initiatives



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

The Issue of Plastic Waste

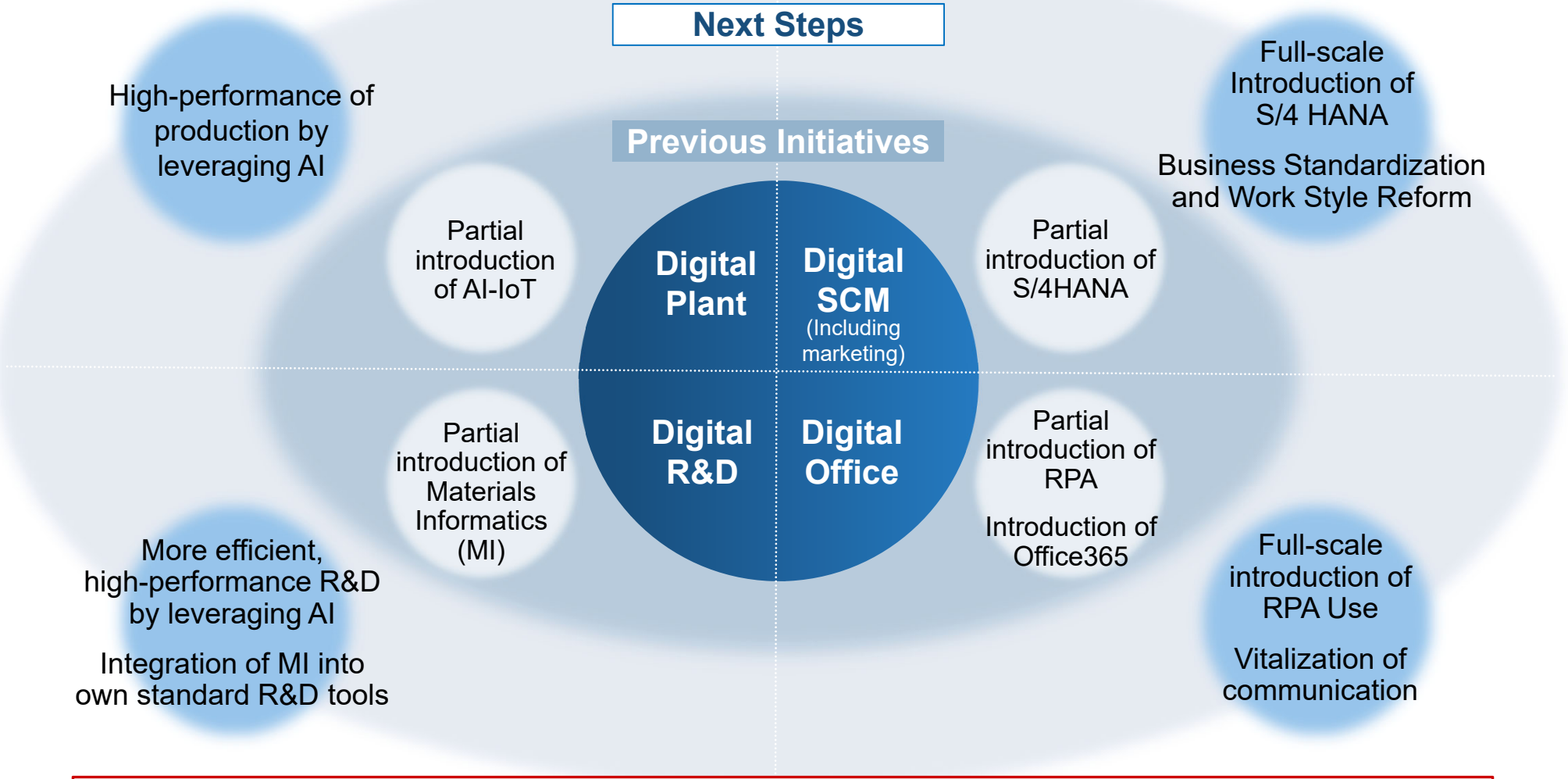
Flowchart of disposal and recovery of domestic plastic waste, 2016



(Source) PWMI (Plastic Waste Management Institute),"An introduction to Plastic Recycling in Japan 2018", partially modified by Sumitomo Chemical

Drastic Improvement of Productivity through Digital Innovation

From Introduction of Prototypes to Full-scale Rollouts



Promote value creation through digital innovation

Digital Innovation in Production and Research

Digital Plant

Decreasing working population

Global commitment to low-carbon society

Efforts to secure international competitiveness

Digital Innovation

Sustainable Production Operations

People

Increase data scientists and data engineers

Safety Quality Productivity

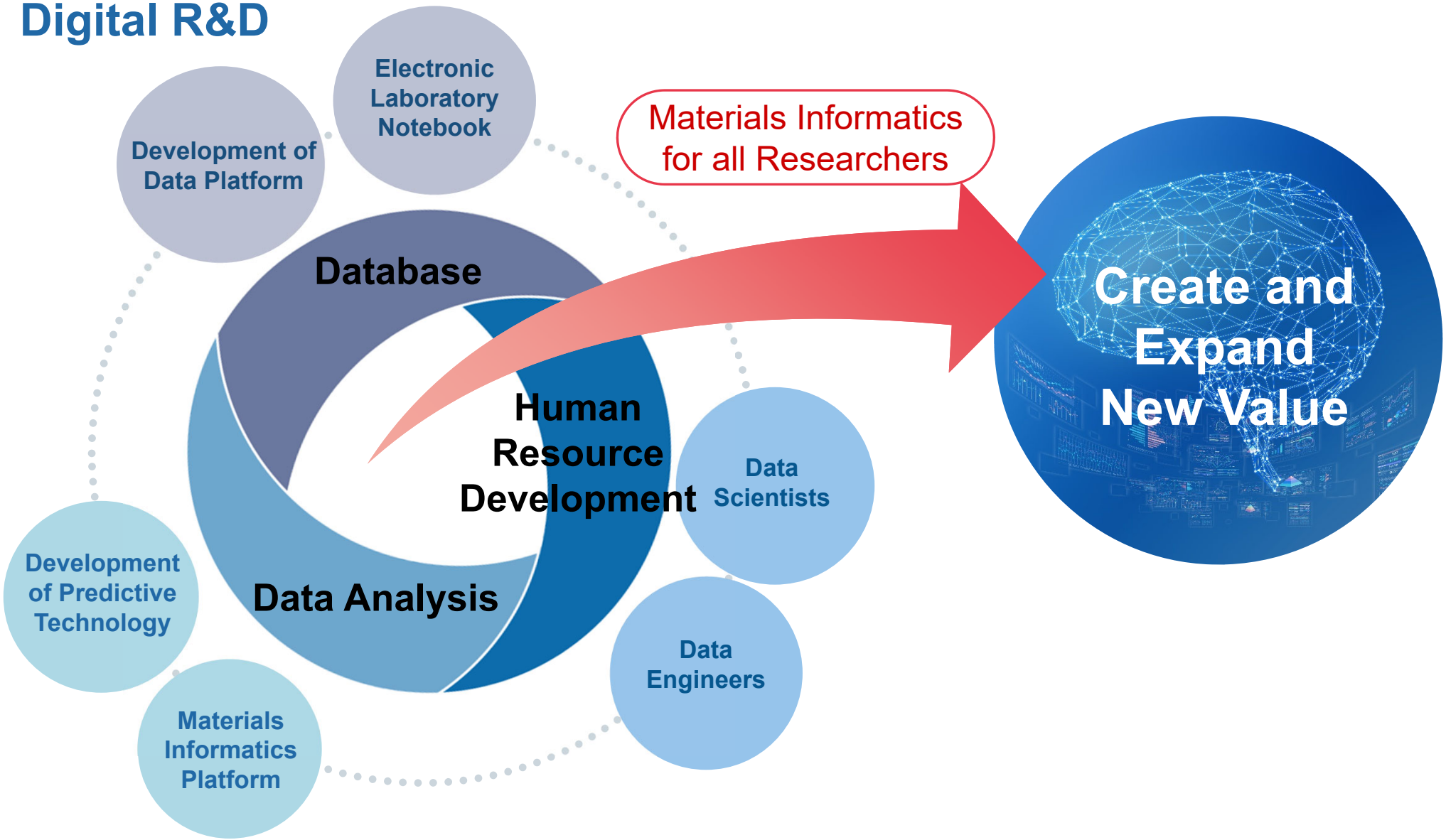
Facilities

Software AI

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

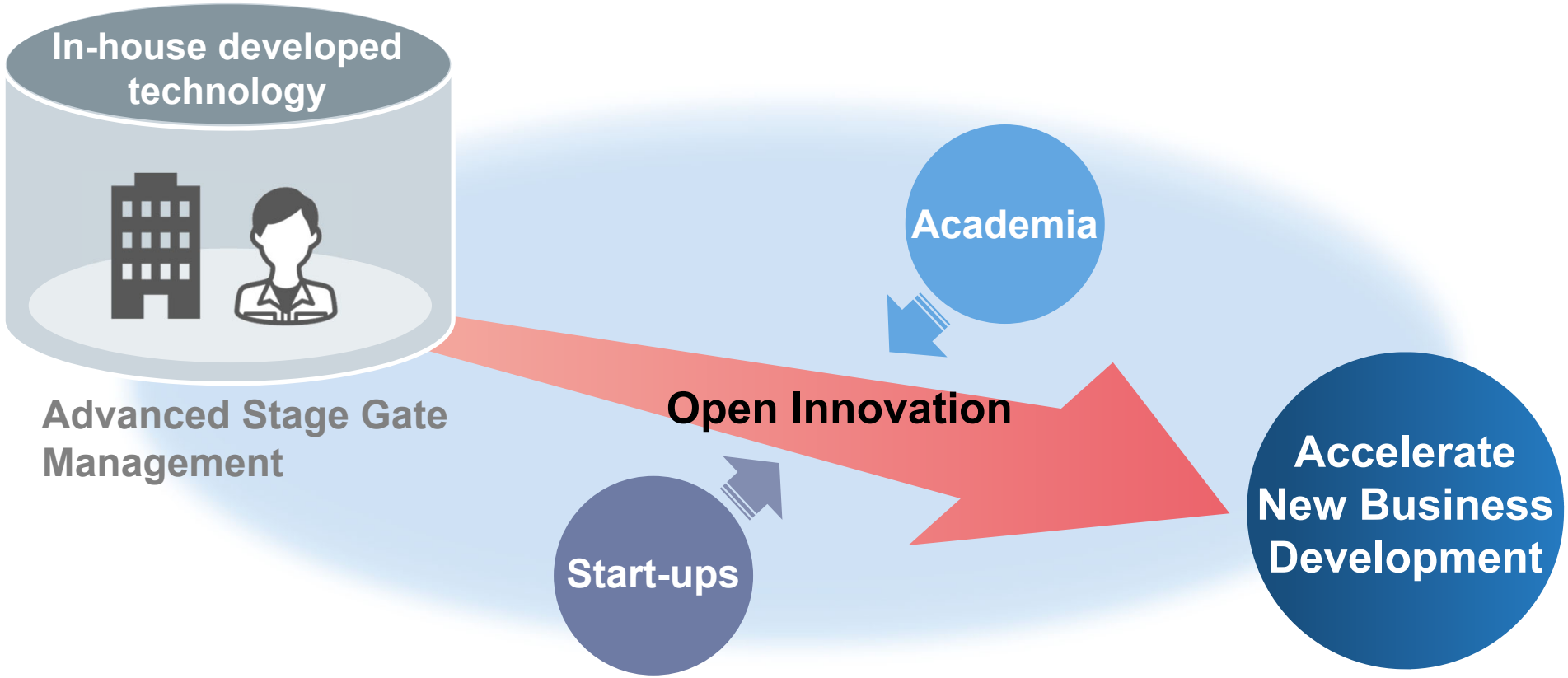
Digital Innovation in Production and Research

Digital R&D



Initiatives to Accelerate Innovation

Accelerate new business development by
further strengthening in-house technology development and
more actively promoting external collaboration

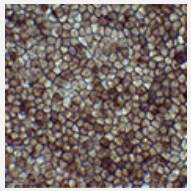


Create autonomous and sustainable innovation

Collaboration with Start-up Companies

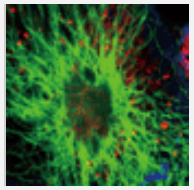
Research Phase

Bonac
(Nucleic Acid Medicine)



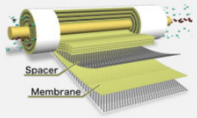
Healios
(Age-related macular degeneration)

Development Phase



SanBio
(Chronic stroke)

Nileworks
(Precision agriculture)



Renaissance Energy Research
(CO_2 separation membrane)

Commercialization Phase

CDT
(Polymer OLED for displays)

CDT
(Polymer OLED for lightings)

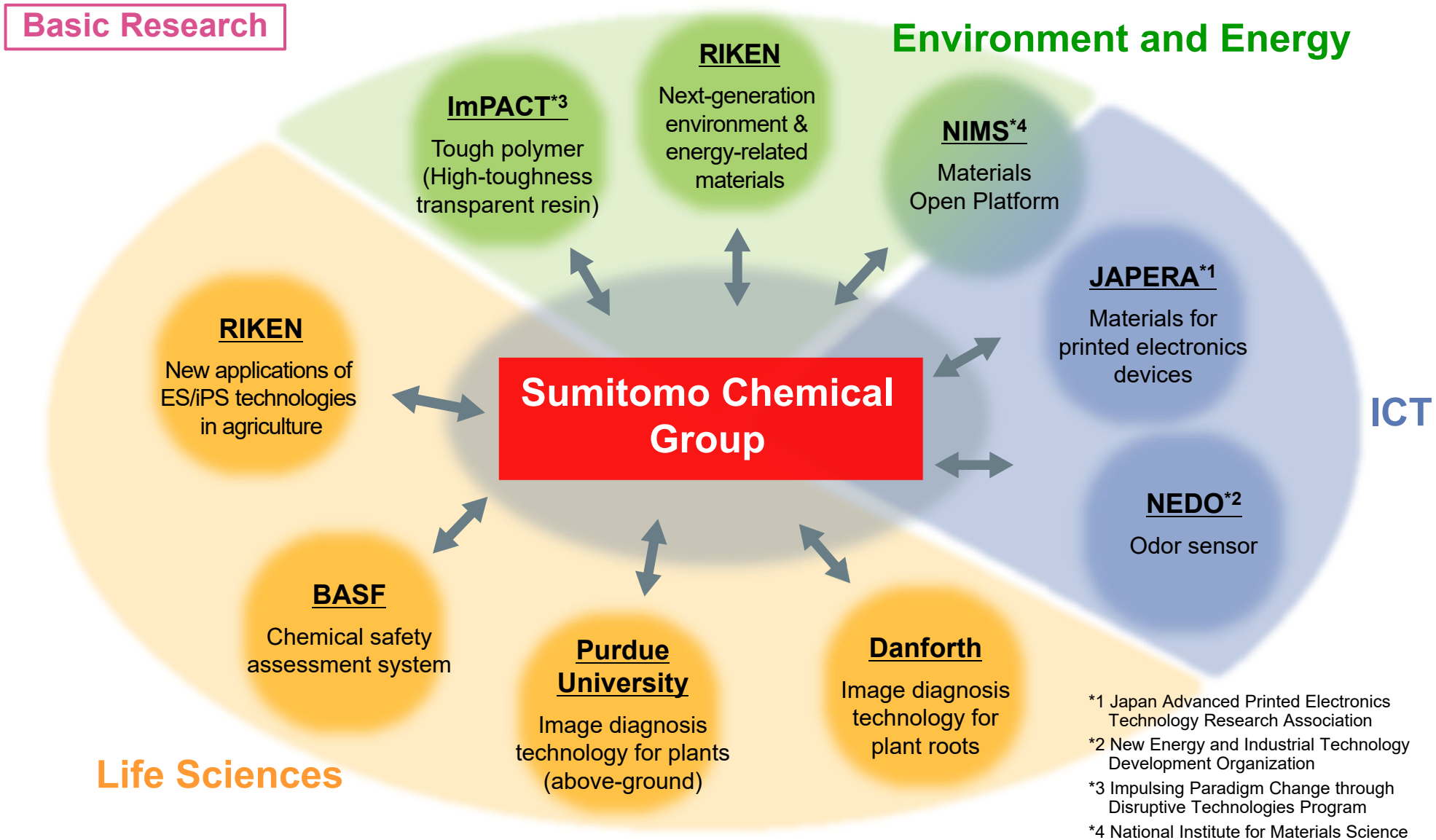
CDT
(Polymer LED for organic photodiodes)

Plant Genome Center *
(Rice seeds)

* Included in Rice Business

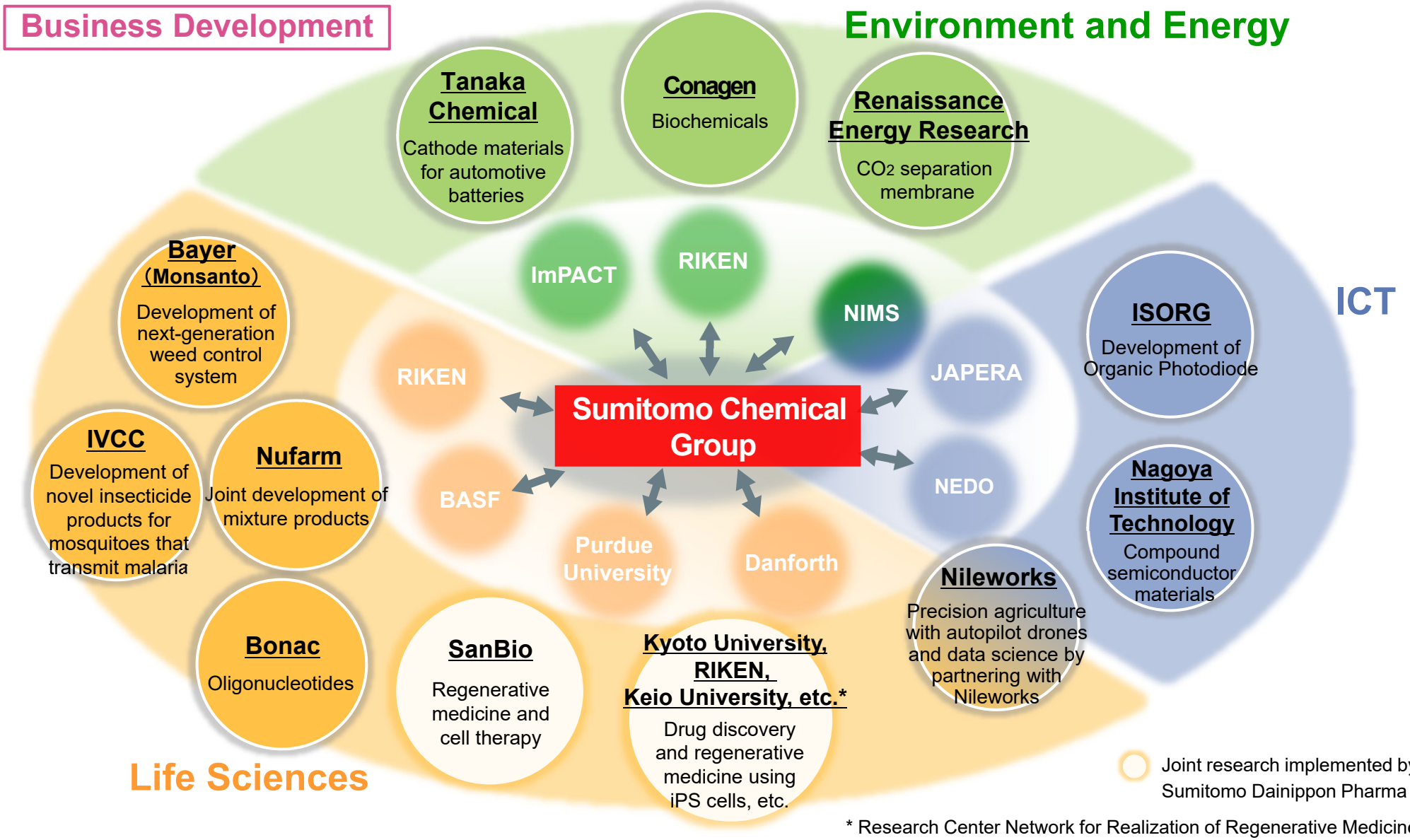
Collaboration with startup companies → Accelerate the development of next-generation businesses

Promote Open Innovation



*1 Japan Advanced Printed Electronics Technology Research Association
*2 New Energy and Industrial Technology Development Organization
*3 Impulsing Paradigm Change through Disruptive Technologies Program
*4 National Institute for Materials Science

Promote Open Innovation



* Research Center Network for Realization of Regenerative Medicine

Initiatives for Sustainability

Top Commitment

SDGs Badge

Through Business

Sumika Sustainable Solutions

- ☐ Olyset™ Net
- ☐ Separators and others

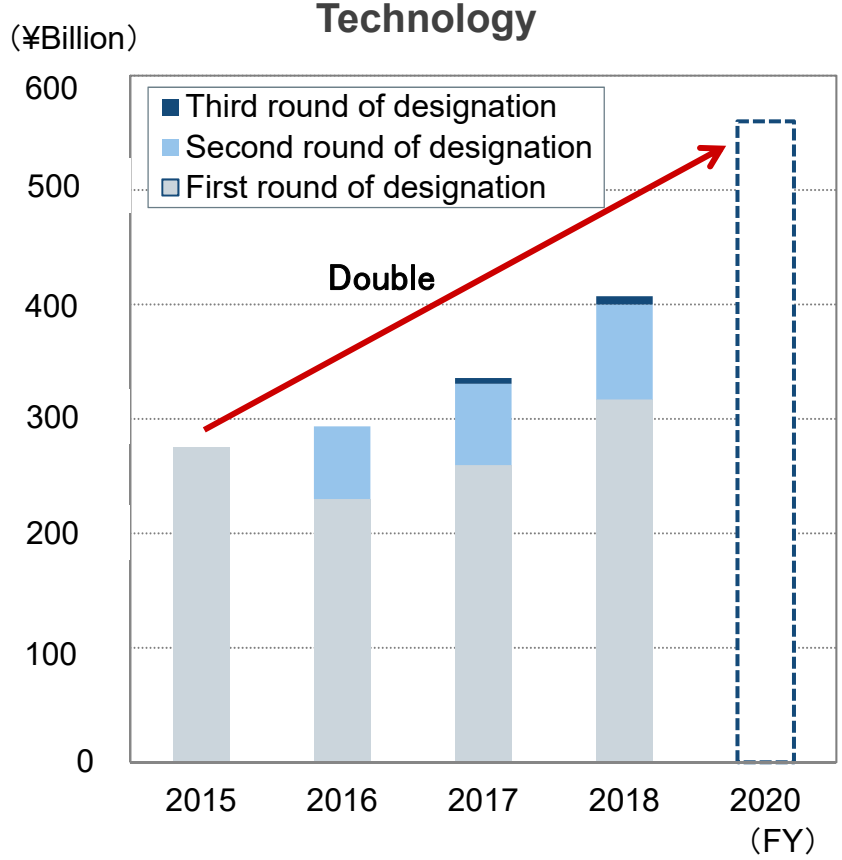
Full Participation

Sustainable Tree

Sumika Sustainable Solutions

Designated 10 additional products and technologies

Sales of SSS-Designated Products and Technology



Held the Second Sustainability Promotion Committee

Sustainability Promotion Committee Organization

Board of Directors

Report / Direction

Sustainability Promotion Committee

Chairman : President

Members : Executive officers responsible for each business sector
: Presidents of regional headquarters

Secretariat
9 Corporate Departments

Business Sectors | Corporate Departments

Report / Advise

SOLUTION

Contribute to the sustained growth of society through our business

INITIATIVE

Participate in international initiatives

ENGAGEMENT

Communicate with stakeholders

Purpose

1. Oversee the Group's overall activities to promote sustainability
2. Perform bird's-eye evaluation of the contributions of the Group's operations to sustainability
3. Accelerate integrated efforts to solve issues in society, such as the SDGs

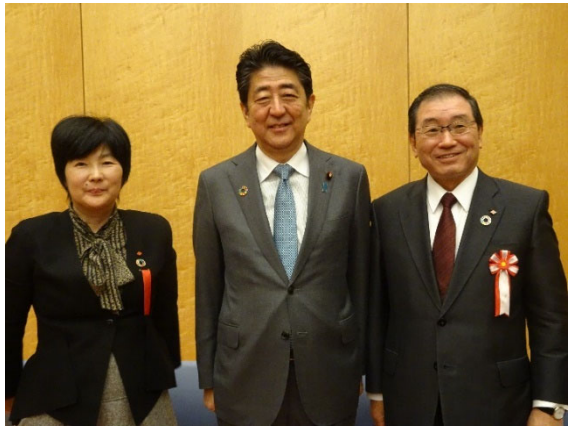
Oversee the Group's overall activities and take an integrated approach

Initiatives for Sustainability (External Evaluation)

Received the Deputy Chief's Award (by Minister for Foreign Affairs) in the Japan SDGs Awards

(Reasons for the award)
Track record in initiatives to achieve the SDGs

- Evaluated: Over 280 companies and organizations applied
- Recipients: 4 companies and 7 organizations



Japan. Committed to SDGs

Sumitomo Chemical's Initiatives covered by the White Paper on the Environment (2017 Ver.)

Sumitomo Chemical was the only private-sector company featured as a "company incorporating the SDGs into corporate strategy."

Recognized as a Lead Participant in the UN Global Compact

34 companies and organizations have been recognized for their contribution to the Global Compact, two of which are Japanese companies.

Global Compact LEAD PARTICIPANT

What Sumitomo Chemical Strives To Be

Business Philosophy

- 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

Achieve sustained growth by creating new value through innovative technologies

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.