

FY18-1

CEO Explanation

Creating New Customer Value through Innovations



淡輪 敏

Tsutomu Tannowa

Mitsui Chemicals Inc.
President & CEO

May 30, 2018

Contents

- ▶ **Business Performance**
- ▶ Topics of Targeted Business Domains
- ▶ Topics of Sustainability
- ▶ Financial Overview
- ▶ Management Target for Sustainable Growth

Profits expect to reach a **record high in FY18** for the **third consecutive year**

(JPY bn)

△ Denotes a minus

Items	FY2015	FY2016	FY2017	FY2018	Increase (Decrease)
	Results	Results	Results	Outlook	FY17→FY18
Sales	1,344	1,212	1,329	1,480	151.5
Operating income	70.9	102.1	103.5	106.0	2.5
Non-operating income	△ 7.7	△ 4.9	6.7	6.0	△ 0.7
Ordinary income	63.2	97.2	110.2	112.0	1.8
Extraordinary gains/losses	△ 21.9	△ 11.4	△ 16.0	△ 5.0	11.0
Net income*	23.0	64.8	71.6	80.0	8.4

Exchange rate(JPY/US\$)	120	108	111	105	△ 6
Domestic standard naphtha price(JPY/KL)	42,800	34,700	41,900	49,000	7,100

*Net income always refers to Profit attributable to owners of parent

(JPY bn)

△ Denotes a minus

Segment	FY2015	FY2016	FY2017	FY2018	Increase (Decrease)
	Results	Results	Results	Outlook	FY17→FY18
Mobility	44.9	40.7	42.3	45.0	2.7
Health Care	11.6	10.1	10.8	13.0	2.2
Food&Packaging	20.3	20.6	19.9	23.0	3.1
Basic Materials	1.0	38.5	38.9	33.0	△5.9
Others	△6.9	△7.8	△8.4	△8.0	0.4
Total	70.9	102.1	103.5	106.0	2.5

Exchange rate(JPY/US\$)

120

108

111

105

△ 6

Domestic standard

naphtha price (JPY/KL)

42,800

34,700

41,900

49,000

7,100

- ✓ Sales growth continues in 3 targeted business domains
- ✓ Continue operating income in Basic Materials more than 30 billion yen

FY18 Outlook

Operating Income

106 billion yen

Sales

1,480 billion yen

ROS

7.2%

ROE

14.7%

Net D/E

0.70

Dividends*

Interim **50** yen/share, Year-end **50** yen/share

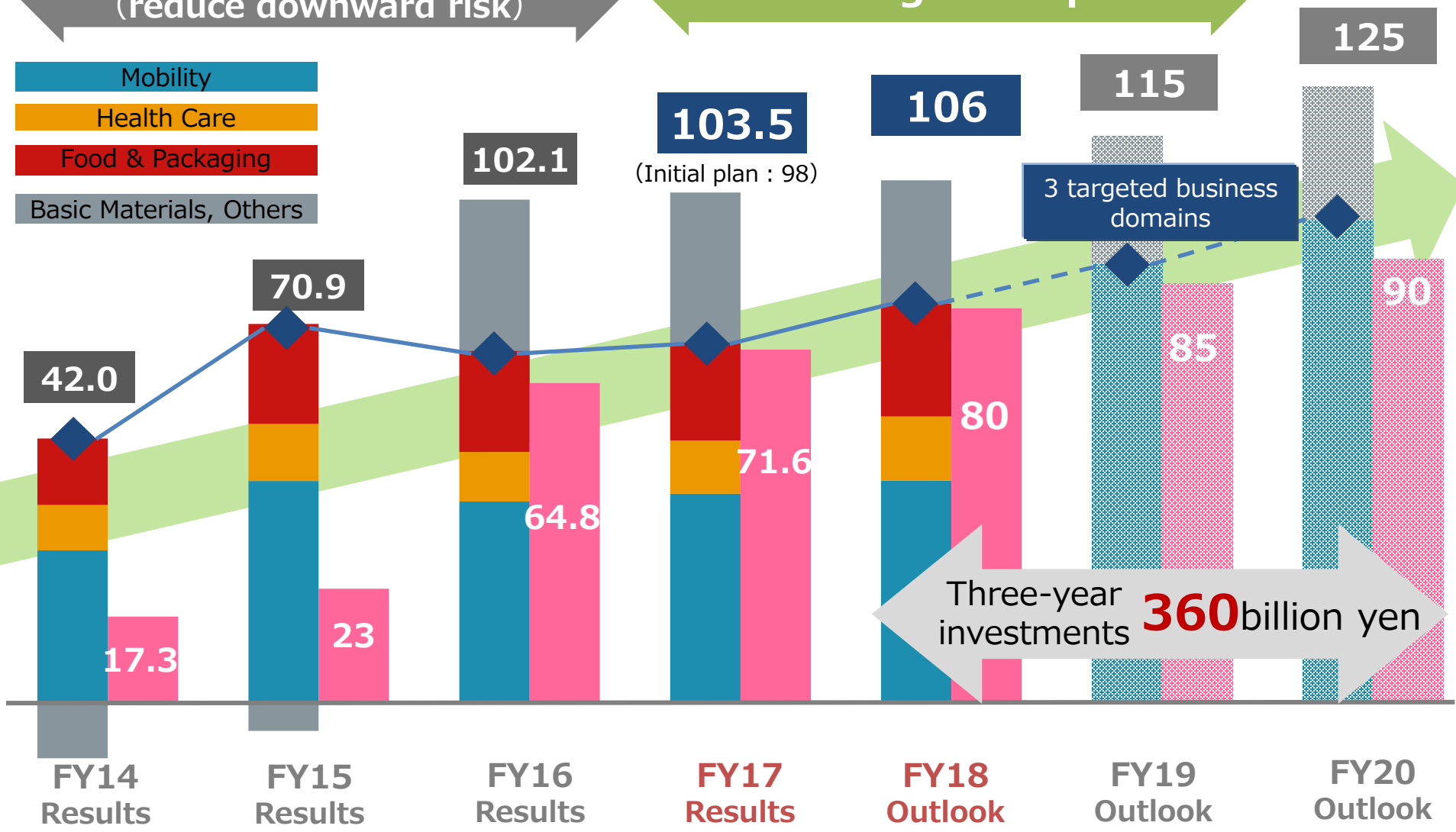
*On October 1, Mitsui Chemicals conducted the 5-to-1 share consolidation.

Exceeding the planned targets in the first FY of the LTBP

Secure stable profit
(reduce downward risk)

Ensure growth path

(JPY bn)



7 ISSUES in FY18

Business
Strategy

- ① **Expansion and growth in 3 targeted business domains**
 - Increase of investment themes
 - Business expansion including peripheral business area
 - Secure production capacity corresponding to demands
- ② **Accelerate development of new next generation businesses and creation of new products**
- ③ **Further strengthen competitiveness of Basic Materials**

Manufacturing

- ④ **Enhance manufacturing bases by utilizing advanced technologies**
- ⑤ **Improve safety technologies and enhance manufacturing site capabilities**

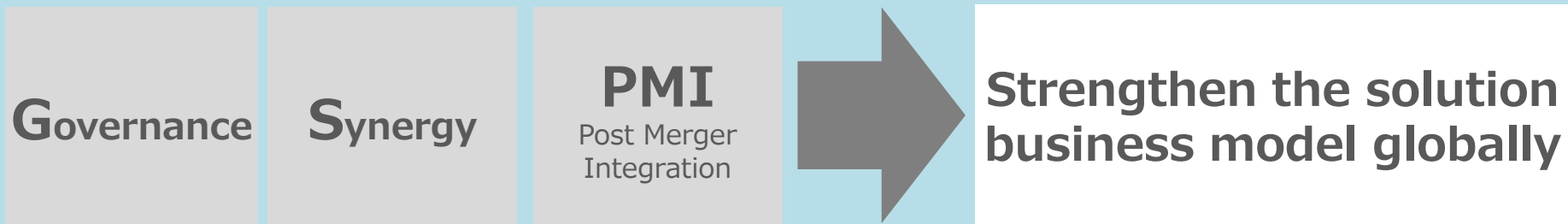
Management

- ⑥ **Enhance group-global management**
- ⑦ **Promote ESG management**



1. Solution Business Planning & Administration Div.

- Promote **integration management** along with ARRK
- Expand a **solution business model with customer-driven strategies** in the Mobility Business domain



2. Corporate Sustainability Div.

- Adopt ESG elements to the business strategy**
- Promote **disclosure to stakeholders**



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Mobility

Elastomers, Performance polymers,
Performance compounds,
Engineering plastics

01

3 Targeted
Business Domains



Health Care

Ophthalmic lens material,
Nonwovens, Dental materials,
Personal care materials

02

3 Targeted
Business Domains

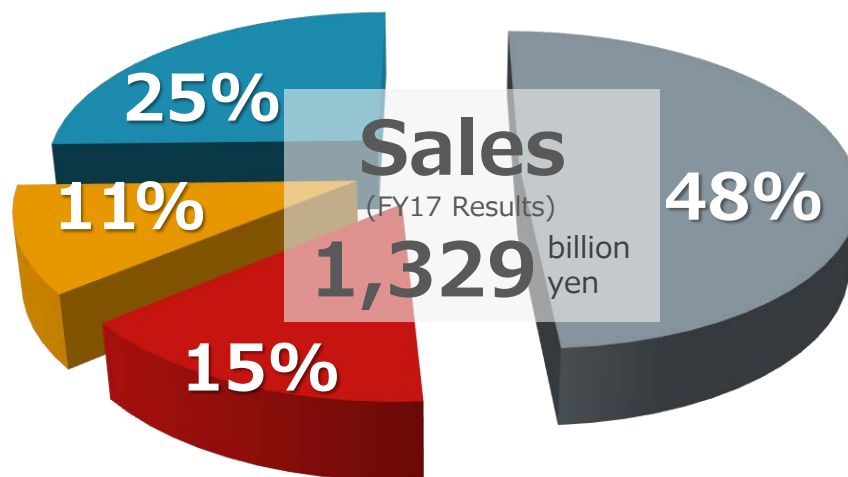
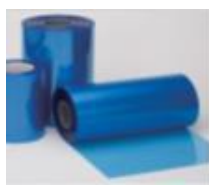


Food&Packaging

Packaging material, Coatings
Agrochemicals, Seeds

03

3 Targeted
Business Domains



Next Generation

Energy, Medical, Agri-system, and
IoT Solution

04

Creation &
Development



Basic Materials

Phenol, PTA/PET
Polyolefin, Polyurethane, and others

05

Strengthen
Competitiveness





» Mobility

Provide solutions making full use of comprehensive strengths



Acquired ARRK, a global development assistance services (Jan. 2018 ; 30 billion yen)

Outline of **ARRK**

● Bases of ARRK

- ✓ The largest Japanese company, providing **development assistance services mainly for automobiles**
- ✓ **Total support for customer's product development** ranging from design to engineering, analysis and prototyping
- ✓ **60%** sales in EU, not only supports prototyping of European OEMs but also **analysis service**

Sales

44.7 bn yen

Operating income

1.7 bn yen

Overseas bases

20 bases

Employees

3,710

USA/Mexico

Development assistance services mainly to Japanese OEMs

Europe

Solution business to European OEMs

Asia

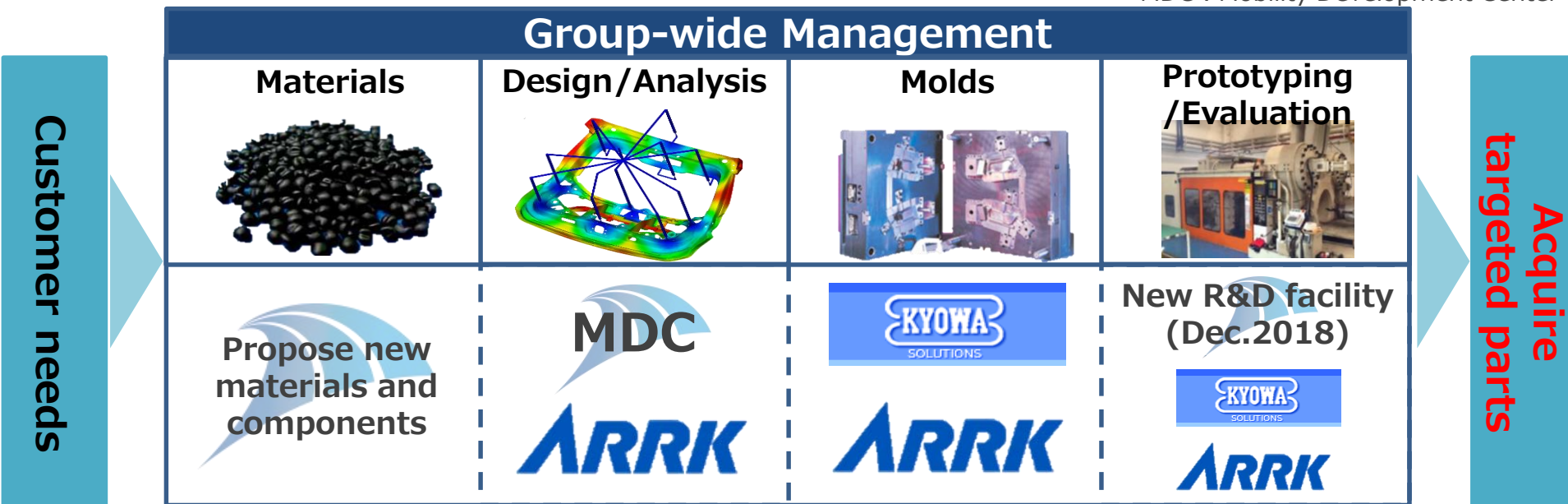
Development assistance services mainly to Japanese OEMs

Enhance global expansion of materials by making use of ARRK's partnership with OEMs



Total solutions for materials, design, molds and prototyping in global

*MDC : Mobility Development Center



All phases are ready to implement solution strategies



- ✓ Expand materials business through promotion of polymeric parts by total solution
- ✓ Provide high-value added development assistance services including materials
- ✓ Utilize mutual customer networks and global bases
- ✓ Expand mold and prototyping businesses by utilizing bases mutually

Synergy effects; 3~5 billion yen (FY25)



PP Compounds

New base in EU (Approx. 5 billion yen)

Mitsui Prime Advanced Composites Europe
(Chemelot Industrial Park, Limburg, the Netherlands)



① Strengthen supply system

- ✓ First own production base
- ✓ Complete establishment of production, sales and R&D functions

② Strengthen initiatives with OEMs

- ✓ Approved materials in major OEMs
- ✓ Respond to lightweight needs for stricter environmental regulations
- ✓ Obtain solution capabilities with ARRK

Long glass fiber reinforced PP

Global deployment of Mostron™-L

New bases in Japan, US and China
(Under F/S; total **10KTA** or more)



Applied to
metal-substitute rear doors

- ① **30% lighter** than metal
- ② **Unpainted** by its good appearance
- ③ **Reduced** the number of **parts**
- ④ Contribute to **design freedom** in global SUV trends



Styrene thermoplastic elastomer
Obtain TPS business

Acquired from Asahi Kasei

(Dec. 2017)

Milastomer™

New

Vulcanized

TPV

Interior (Sheet skin)
Weather strip
Steering boots

TPS

Interior
(Injection molding skin)
Door grip

Olefin

Styrene

TPO

Airbag cover

N-V TPS

Non-automobile application
(Golf grips, etc.)

Non-vulcanized

✓ **Ultra-high flow, abrasion-resistance and leather like texture**

✓ **Enhance proposal capabilities for automobile interior based on the elastomer lineup**
(Unpainted, Improved production efficiency)



New base in USA
(1.5 billion yen)

Ohio, USA

Capacity
6KTA
(Oct. 2019)



(Advanced Composites, Ohio USA)

Enhance global supply capacity
(**51**KTA)

- ✓ The lightest resin in elastomers
- ✓ Meet needs of luxury interiors

Production capacity
to 60KTA in FY20



① Electrolyte

Japan(Nagoya)

5 KTA (Apr.2017)

China(Ningbo)

5 KTA (Completed capacity increase in Nov.2017)

- ✓ Additive technology that achieves long cruising distance and electric power performance
- ✓ Applied to Japanese and Chinese LIB manufacturers

Feasibility study for further capacity increase

② Material for separator films

Ultra-high molecular weight polyethylene

「Hi-zex million™」

Capacity increase

+15%(FY18)
(to 8.5KTA)

③ Inhibitor of thermal runaway

- ✓ STOBA™ technology contribute to reliability of LIBs



④ Packaging material for LIB

- ✓ Multi-material parts using Polymetac™
- ✓ Prime Polypro™
- ✓ Adhesive materials(Admer™, Unistole™)



Health Care

Provide products & services
contributing to Quality of Life
through chemical innovations

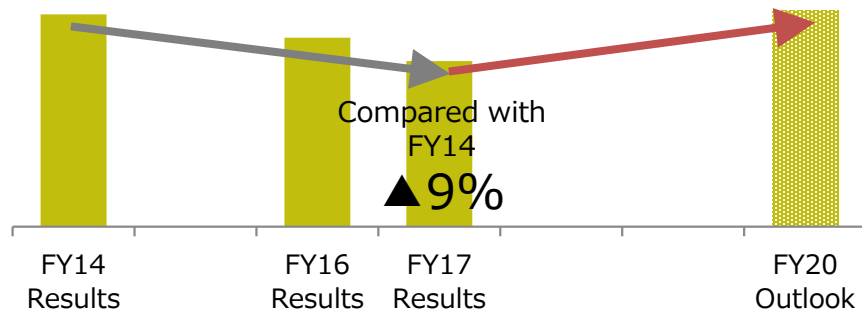


- Impairment loss of Kulzer ; 14.3 billion yen (intangible fixed assets such as goodwill)
- Effects on MCI's net income ▲9.5 billion yen

Reduced analog products sales

- ① **Delay of authorization for Kulzer brand** in Eastern Europe and Russia
- ② **Changes in the EU market**

(Sales of analog products in Germany)



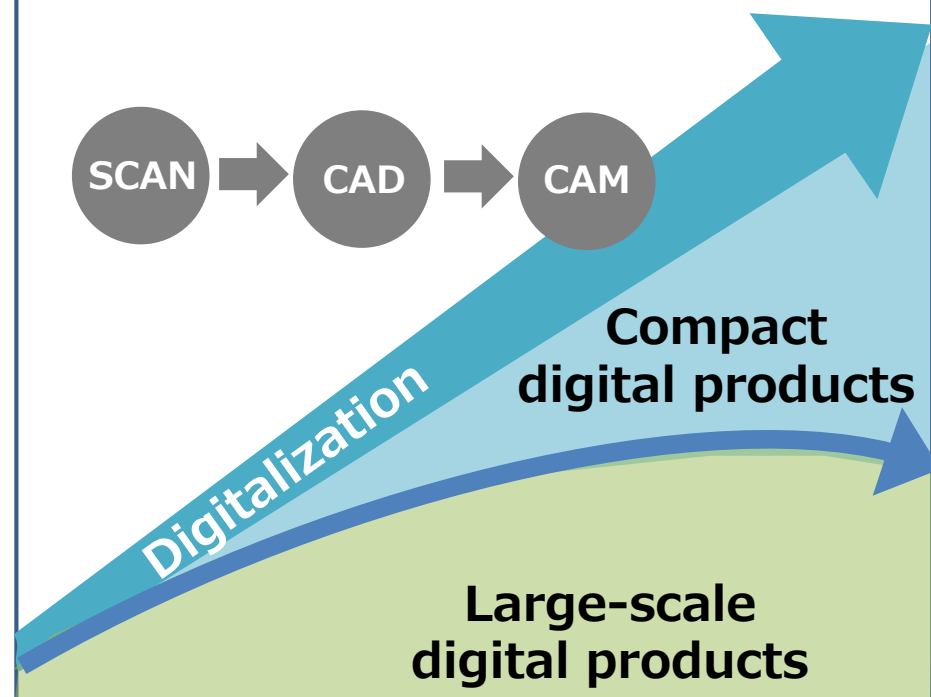
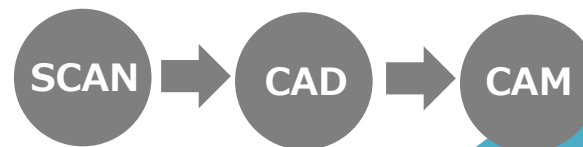
- ① Sales expansion of analog products
 - ✓ Strengthen sales system in Germany
 - ✓ Expand sales of dental disease therapeutic medicines
- ② Respond to sales via internet
- ③ Launch new analog products into the market
 - ✓ Five new products are planned in FY18



Early recovery of sales

Delayed launch of compact digital products

- ✓ Rapid progress of compact digitalization
- ✓ Delay of digital workflow lineup



Strengthen Digital Workflow for Dental Materials

Scanning

3D Scanner

Design

CAD Software

Manufacturing

Digital Manufacturing(CAM)

3D Scanner

**Scannable
Impression**

Software

3D Printer

Resin Ink


Develop new CAD software with AI in corporation with 9DW

Invest on B9Creations (US)
 (30.74%, Apr.2018)

Introduce resin inks developed by own technologies

- ✓ **1 million data** points
- ✓ AI design assistant for crown and bridge

- ✓ **Co-developed 3D printer**
 (Launched in Jul. 2017)
- ✓ **Fastest & finest printer in the dental industry**

- ✓ Over **1,000 recipes**

- Possess materials, equipment development technologies and knowledge in the dental industry
- Accelerate total solution using digital workflow lineup



Start new operations of nonwovens (Jun. 2018)

- **New base** in Nagoya (**15KTA**)
- **Good flexibility & elasticity nonwovens** (Yokkaichi, **+6KTA**)

Global production capacity

+20%
(115KTA)

Global deployment of AIRYFA™, a high value-added nonwovens

Highly evaluated functions of light-weight, flexibility and strength

Japan : Launched in May 2017

Thailand : Applied in Apr.2018

China : Planned in FY19

Mass-production in 3 bases

TouchFocus™ debuted (Feb. 2018)

- ✓ E-focus glasses, which can 指先から、世界を変える。 instantaneously change focus from distance to close with just a touch
- ✓ Wide area of vision with minimized swim and distortion were highly evaluated

7 stores
(Feb.2018)

Increase the number of stores

Target
100 stores
(Mar.2019)

Sales Target (FY22)

50,000 glasses/year



Food &

Packaging

Provide solutions for world food
problems and seizes new business
opportunities


Fungicide
 "Tolprocarb"

Sales for rice paddy started in Japan (FY15)

Herbicide
 "Cyclopyrimorate"

Registration submission for rice paddy completed

Insecticide
 "Broflanilide"

Long-term commercialization contract with BASF


- ✓ New mode of action is highly valued
- ✓ Promote global expansion by utilizing strengths of both companies
- ✓ Registrations are currently in progress in target countries

Fungicide
 "Quinofumelin"

Global licensing contract with BAYER


- ✓ New mode of action is highly valued
- ✓ Promote collaborative development and global expansion

Animal Health

Product development for companion animal use is progressing

Strengthen Business in Indonesia
Business alliance with agriculture construction


- ✓ Acquired 30% shares of subsidiary of AGCI
- ✓ Aiming for sales expansion and accelerated development in growing Indonesia



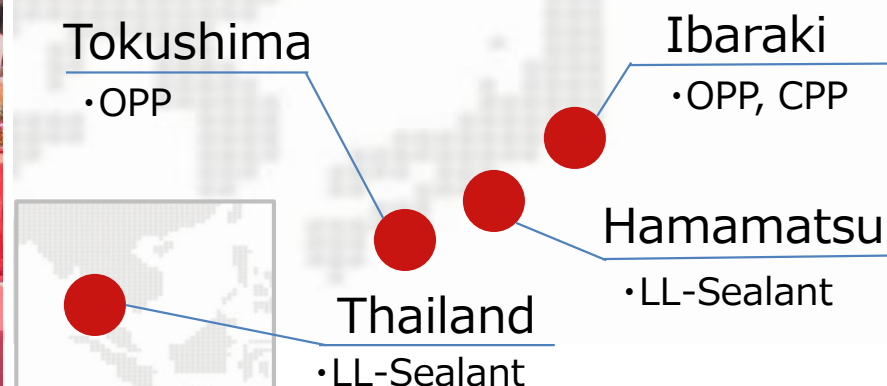
ICROS™ Tape for semiconductor manufacturing process



Commercial operation in Sep. 2019

Packaging film Product optimization

Execute production efficiency measures



① Stable supply

- Increase CPP capacity(+10%)
- Improve OPP production efficiency
- Optimize LL-sealant biz in Asia

② High value-added films

- Sales increase of ECONEIGE™, etc.

To be completed in FY20

Robust domestic business and further sales in overseas



Next Generation Business

Create solution & system businesses
at the boundary or peripheral areas



Energy Solution



Power generation business Diagnosis business of PV Plant

- ✓ **Diagnosis accounts over 2GW**
- ✓ Requests from overseas investors rapidly increasing

Medical Solution



Rapid diagnosis system for bacterial identification

- ✓ **Started to provide reagent for research**
- ✓ Overseas deployment

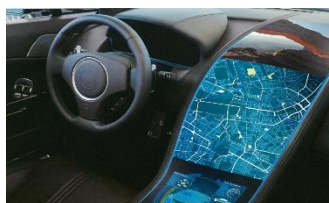
Agri Solution



Advanced cultivation system (iCAST™)

- ✓ Good fields results in US and Australia
- ✓ Evaluation stage at large farms

IoT Solution



Piezo-electric material for sensor Next generation display material

- ✓ Increase sensor needs
- ✓ Full-scale demand for OLED

Corporate Venturing



Open innovation Corporate Venture Capital

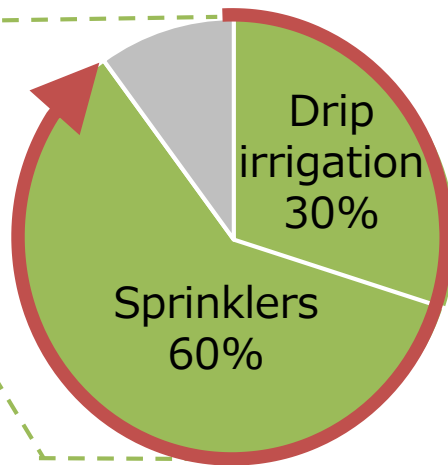


Irrigated agriculture

(cultivated acreage)

Irrigation agri
0.3billion ha

Rain-fed agri
1.24 billion ha



Social Issue

- Food shortage
- Water shortage
- Excessive nitrogen in soil

2

ZERO HUNGER



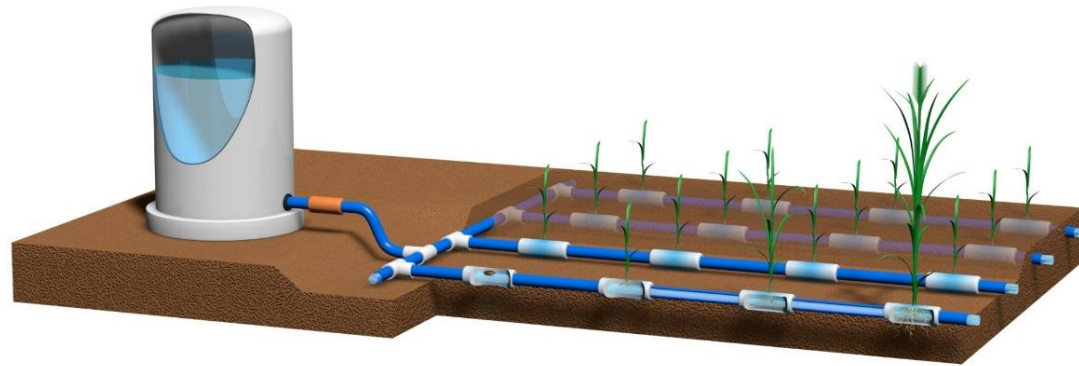
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LIFE ON LAND



iCAST™

New cultivation system that allows plants to absorb as much water, nutrition and air that is required to grow



(Comparative test with drip irrigation)

Water

Reduced 30~50%

Yield amount and quality

Improved x1.3~1.5

USA

Australia

Needs for new resilient agri system

Moved to large-scale evaluation stage from Apr. 2018 (US/AUR)

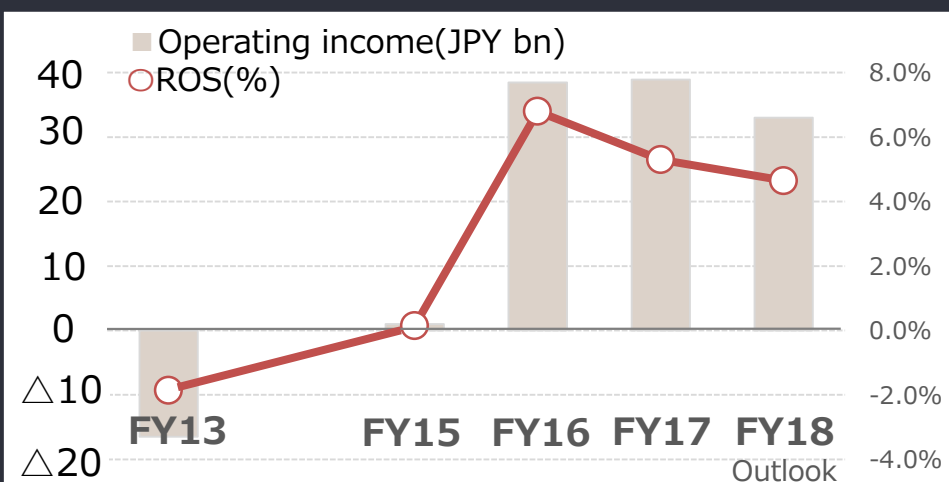


Basic Materials

Provide materials for
the basis of society and industry



Establish stable business structure



Further competitiveness

1 New gas turbine (Osaka, FY20)

Introduction of new gas turbine utilizing exhaust gas achieved an effective in-house power generation system



Reduce 70kt-CO₂/y



2 Expand high-purity C3 refining capacity (Ichihara, FY20)

Respond to C3 derivatives enhancement strategies (B&S for PP, elastomer)

3 Nghi Son refinery started operation in Vietnam

Secure competitive raw materials (BZ, PX)

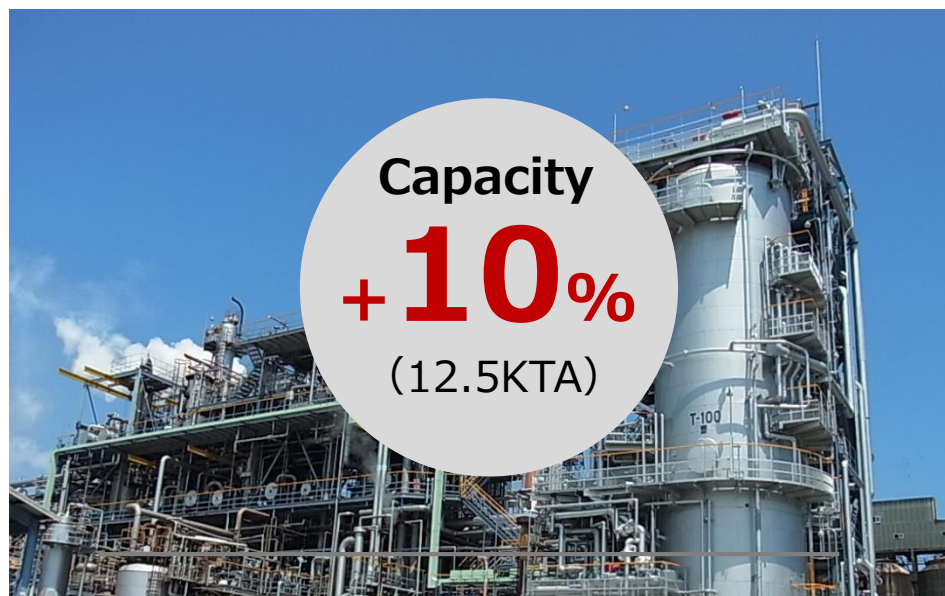
- ✓ **Profitability restored in all 3 restructuring businesses**
(Phenol, PTA/PET, Polyurethanes)
- ✓ **Large-scale businesses in overseas contribute to profits**
(Evolve Singapore, Nghi Son project)
- ✓ **Capacity increase of MDI in Korea**
(250KTA→350KTA; Mar. 2018)
- ✓ **Strengthen high value-added products**

Secure steady profits of more than 30 billion yen through safe and stable operation, full-sales and cost reduction



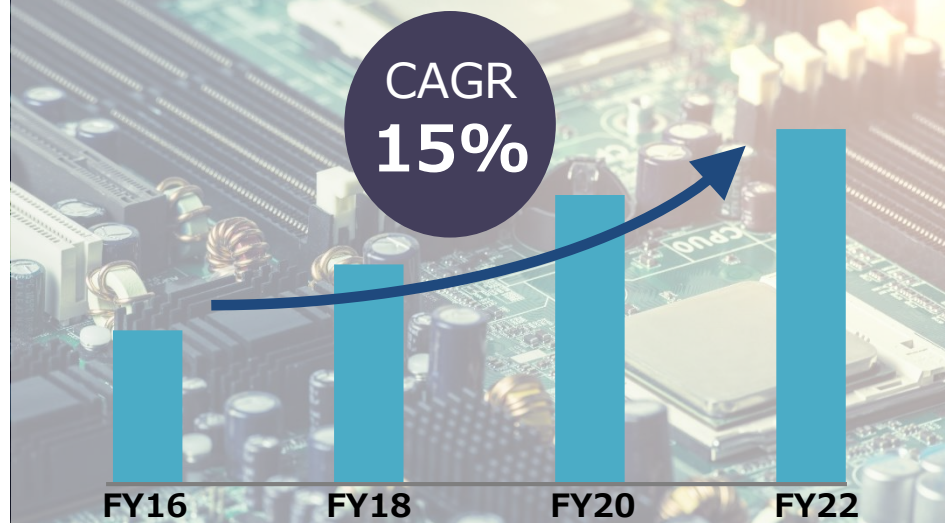
Debottlenecking of hydroquinone (Aug. 2017)

Capacity
+10%
 (12.5KTA)



Disilane gas for semiconductor manufacturing

■ Disilane demand forecast



Strong demand for higher integration of
semiconductors
(DRAM and NAND flash memories)

Low-tem. decomposition of disilane
corresponds semiconductors' process needs

**Maintain high share in global
market and further expansion**

■ Application



Polymerization
inhibitors
(acrylic acid, MMA)



Rubber
additives
for tires



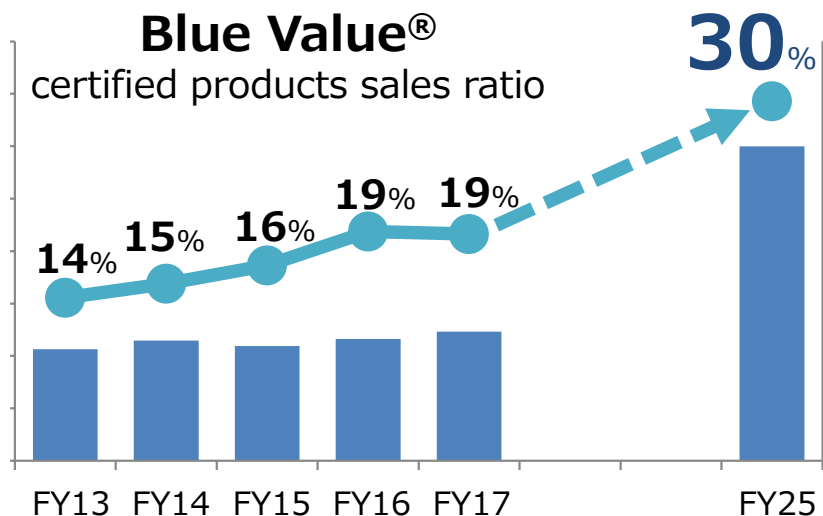
Raw materials
for engineering
plastics (PEEK)

Consider further expansion

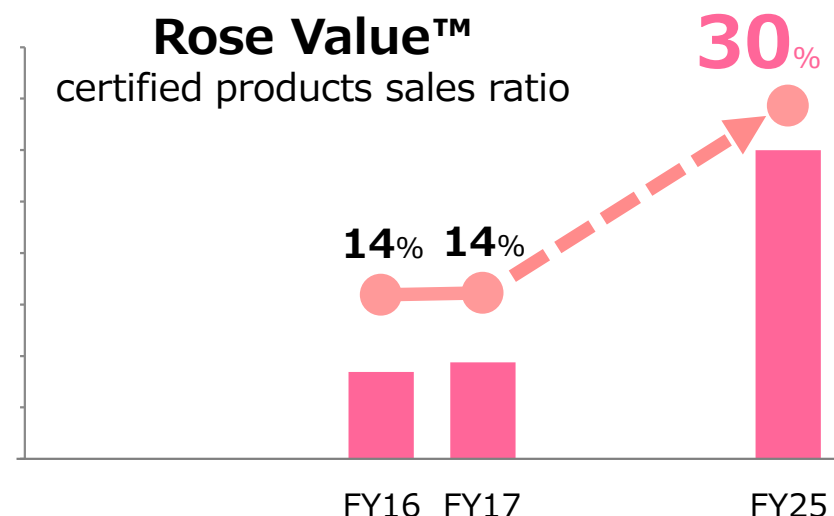
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Environmental contribution Blue Value®

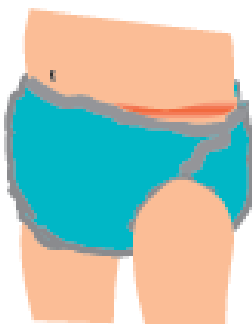


Improve QOL Rose Value™

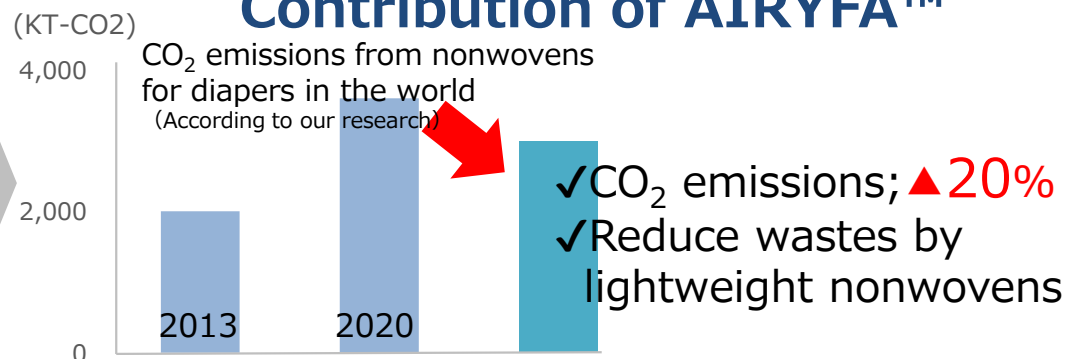


AIRYFA™ Light-weight, high flexibility, and strength nonwovens (Blue Value®, Rose Value™ certified products)

Diapers

- 
- ✓Hygiene
 - ✓Reduce parent's burden
 - ✓Increase CO₂ emissions
 - ✓Increase wastes

Contribution of AIRYFA™



Solve social challenges through "Blue/Rose Value" products



"ZERO by 40"

Eradicate Malaria by the Year 2040



Innovative solutions are urgently required to control mosquitos resistant to existing insecticides

- ✓ **Joint declaration by Agrochem majors**
(BASF, BAYER, Mitsui Chemicals, Sumitomo Chemical, Syngenta)
- ✓ **Supported by Bill & Melinda Gates Foundation and IVCC**

Provide solutions to using innovative agrochemical technologies



Universal Health Coverage

"Do Green" eye examination activity (since FY15, India)



Explore social issues for farmers who provide raw material of our biomass products

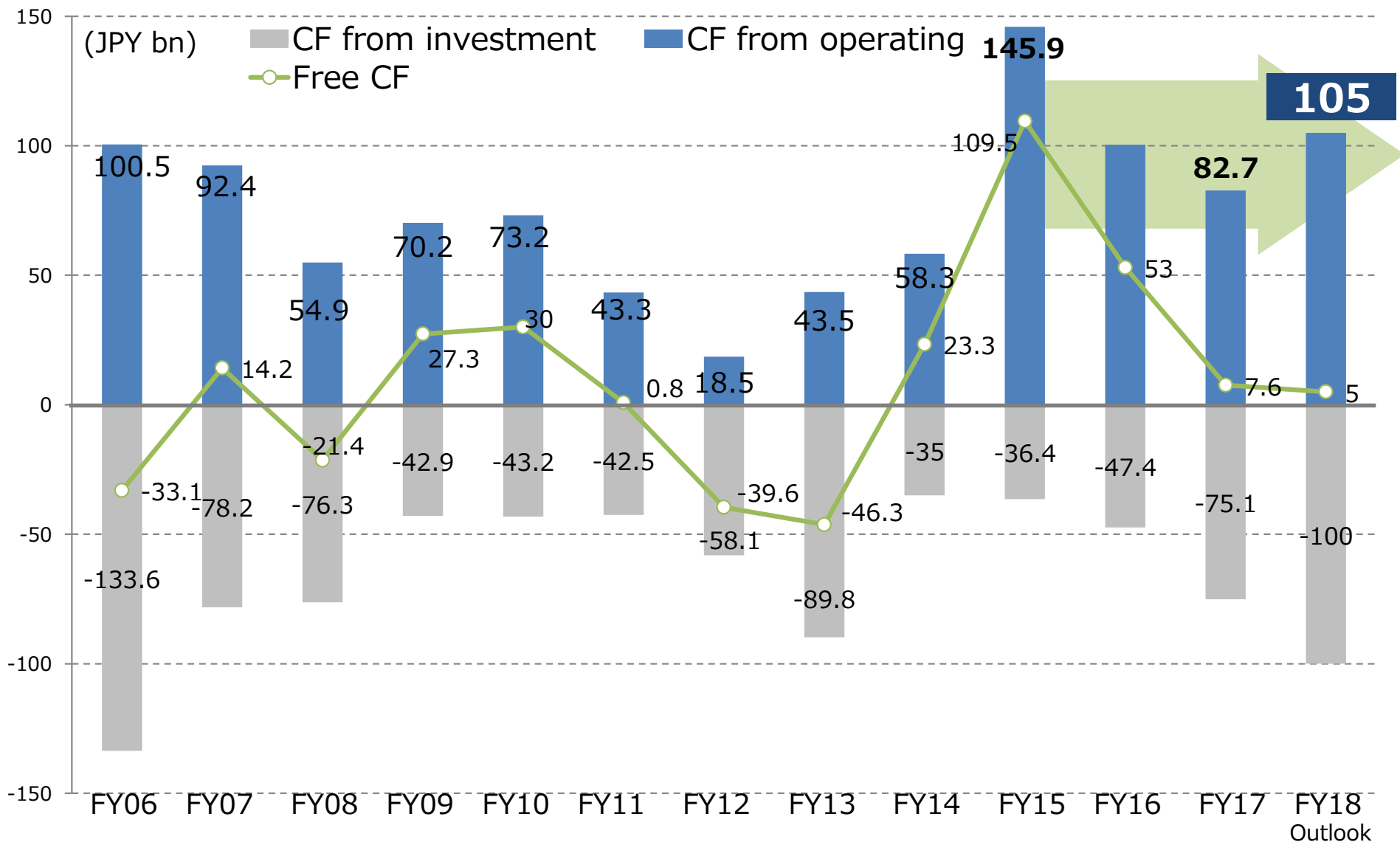
- ✓ Collaboration with Japanese and Indian NPOs, local doctors and customers in product supply chain
- ✓ Survey the relationship between eyesight and school attendance and employment rates, etc.

Provide solutions to social issues under "Quality of View"

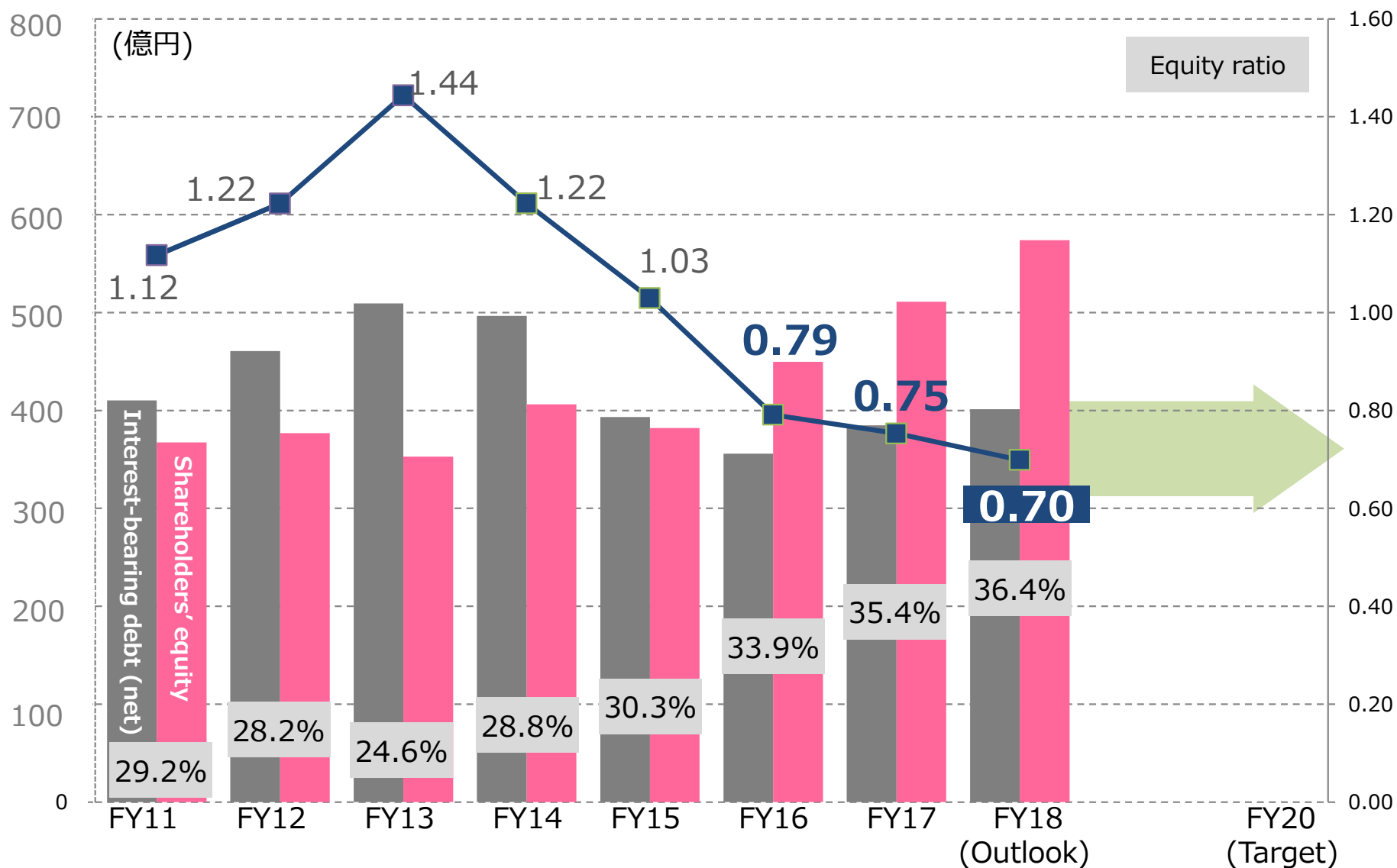
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Cash flow from operating remains high and maintain an active investment phase

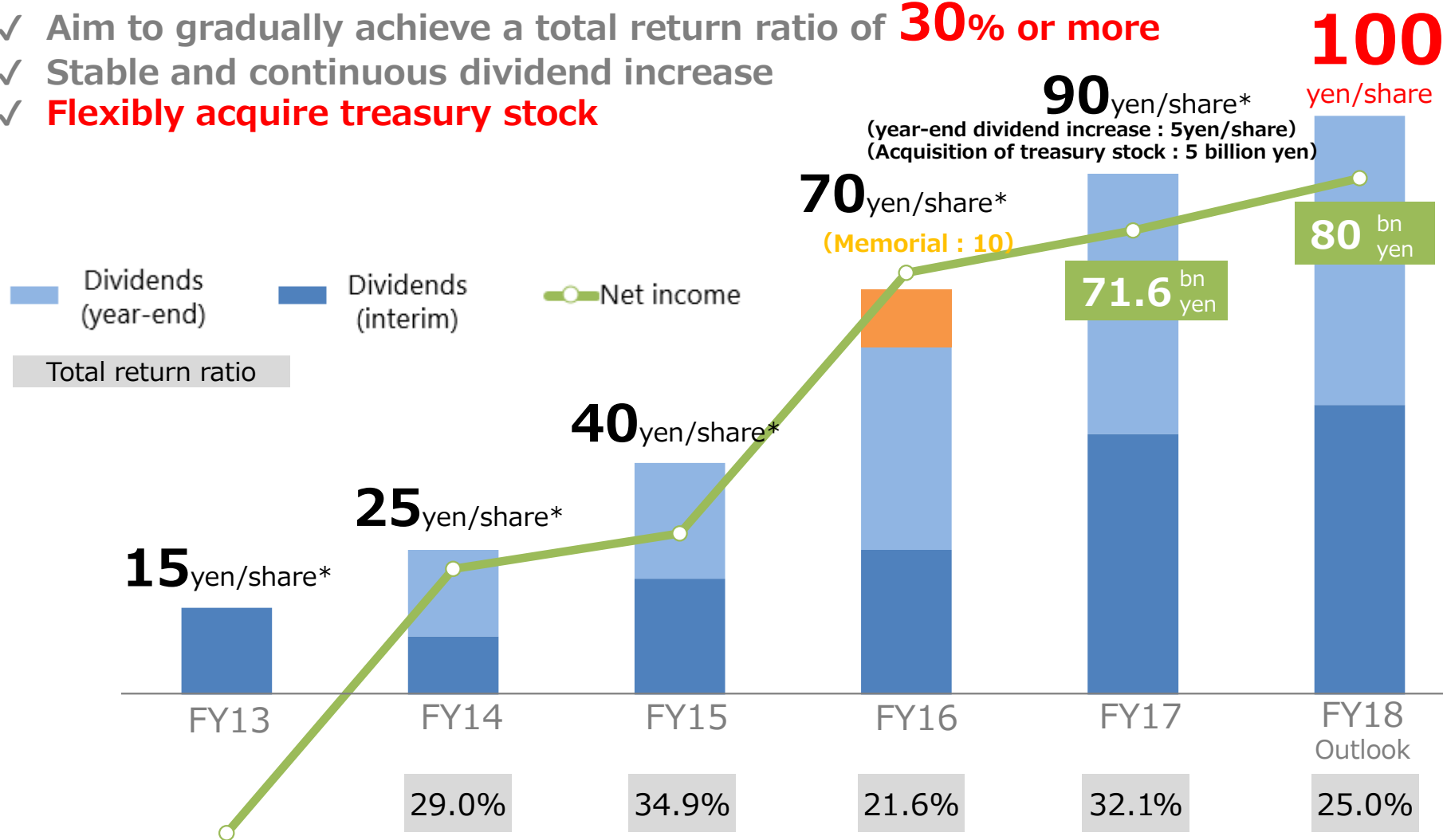


- ✓ Dramatic improvement over initial target of 1.0 (FY18 outlook: 0.7)
- ✓ **Maintain active investments**, aiming at further enhancement of corporate value



Implement total return ratio target, aiming at further increasing returns to shareholders

- ✓ Aim to gradually achieve a total return ratio of **30% or more**
- ✓ Stable and continuous dividend increase
- ✓ **Flexibly acquire treasury stock**



*On October 1, 2017, Mitsui Chemicals conducted the 5-to-1 share consolidation.
 All dividends are re-calculated based on the share consolidation.

Mobility

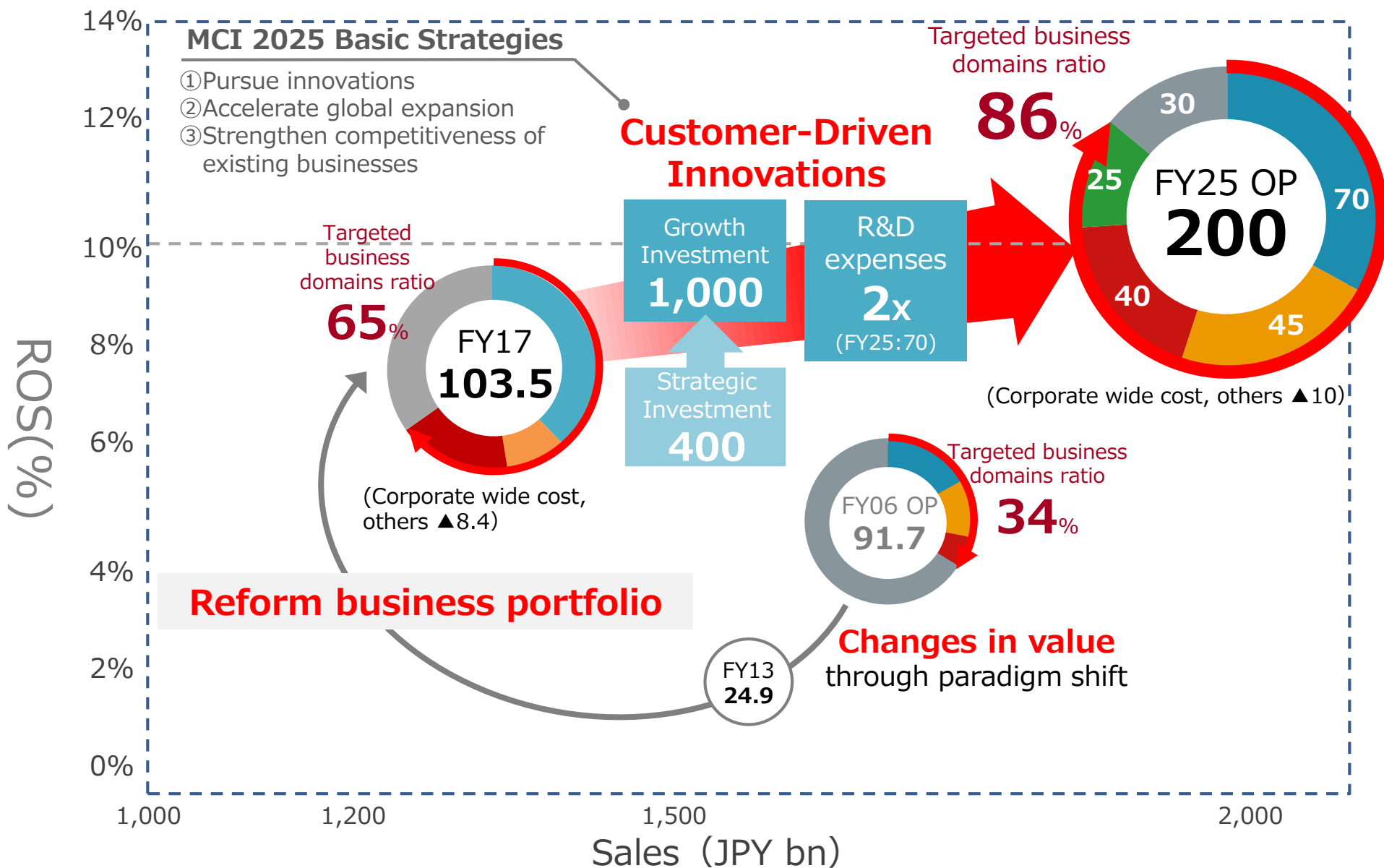
Health Care

F&P

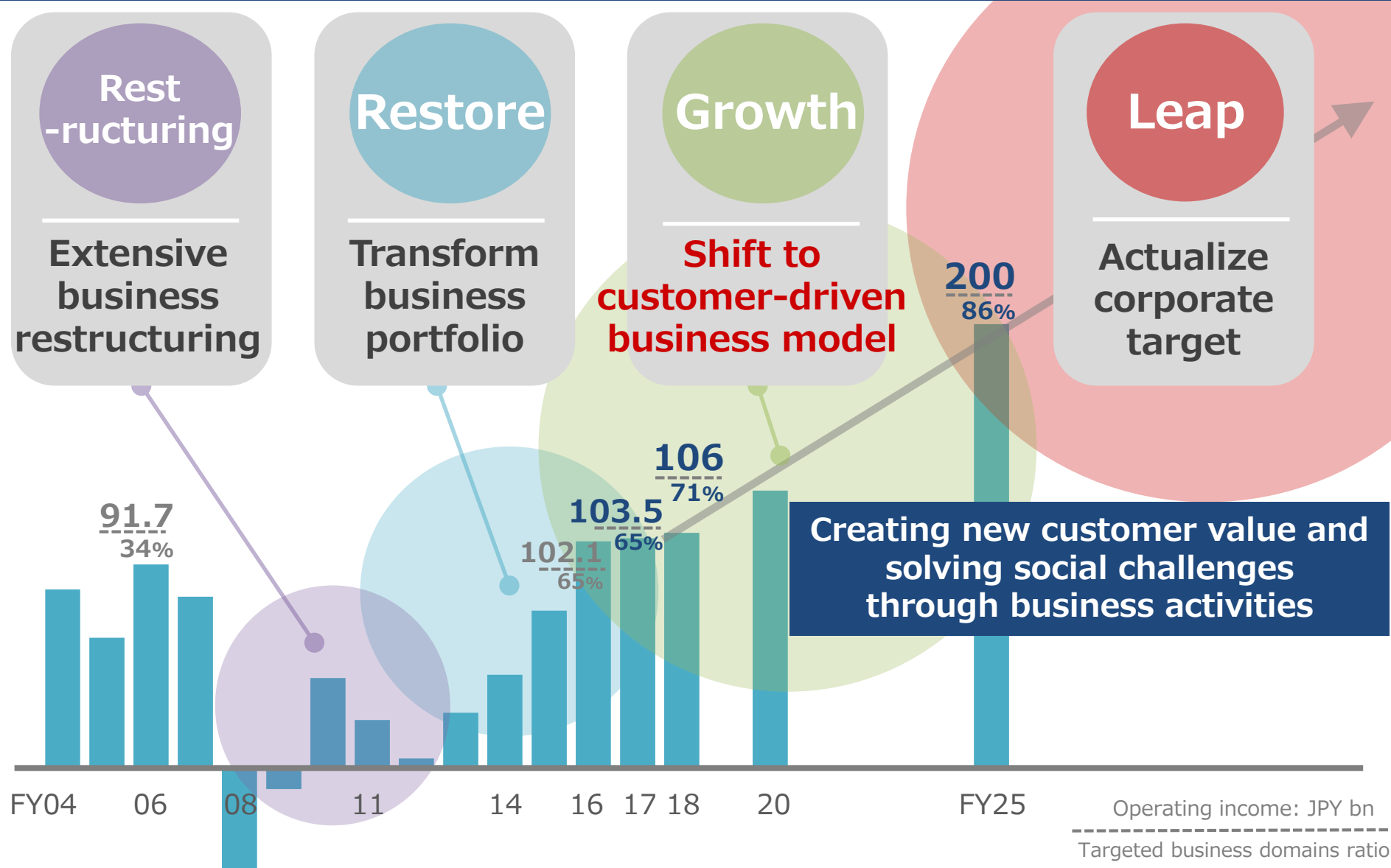
New & Next Generation

Basic Materials

▲ Denotes a minus (JPY bn)



Constantly pursuing innovation and growth to become a chemical group with an undisputed global presence



The background of the slide is a photograph of a bright blue sky filled with fluffy white clouds. A large, solid blue arrow points from the left side towards the right, partially overlapping the sky image. The text is centered within the blue arrow.

**Creating new customer value and
solving social challenges
through business activities**

0→1 MAKE IT HAPPEN



Mitsui Chemicals

Challenge Diversity One Team

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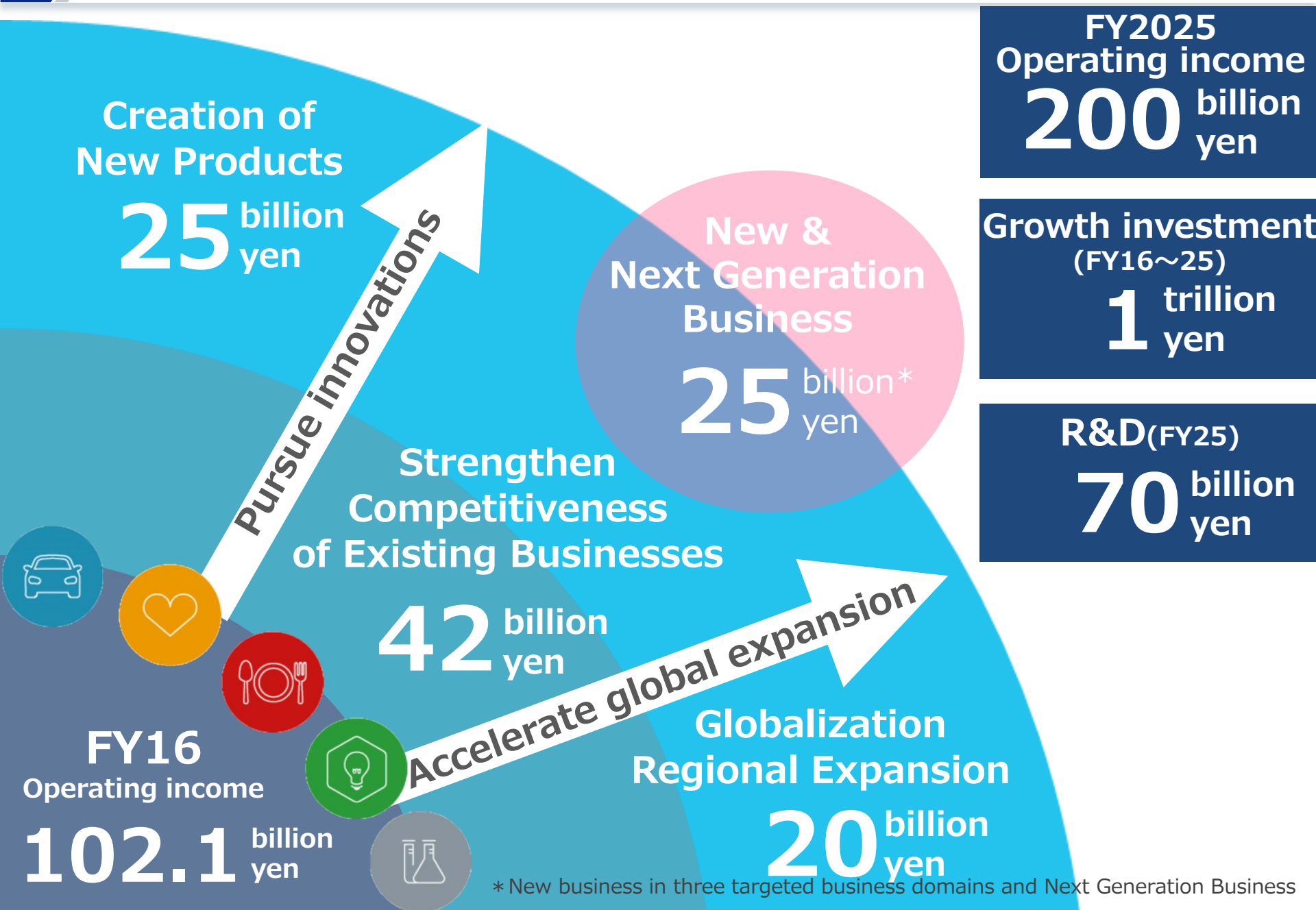
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Direction for Growth in the LTBP



Set **environmental and social targets** for the Long-Term Business Plan

Maximize products and services to achieve a low carbon, recycling-oriented and cohesive society in harmony with the environment

Reduce
CO₂

Protect
resources

Harmony
with
nature

Visualization of provided values

Maximize products and services to increase QOL, and to achieve a smart society

Declining
birthrate
and aging
population

Advancement
of medical and
pharmaceutical
fields

Respond to
the food
problem

Visualization of provided values

Environmental Contribution



"Blue Value™"

Certify products and services that enhance environmental value throughout the life cycle

LCA*

Unique
assessment
criteria
"m-SI"

Assessment
by
application

*Life Cycle Assessment

Improve QOL



"Rose Value™"

Certify products and services that improve everyone's QOL

SDGs

Unique
assessment
criteria

Assessment
by
application

Share contributing values with stakeholders aiming to realize the future society